

***A Draft Report of the National Bioethics Advisory Commission:***

*Research Involving Subjects  
with Mental Disorders That May Affect  
Decisionmaking Capacity*

July 1, 1998

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## EXECUTIVE SUMMARY

### Mental Disorders and Research Participation

Mental disorders not only cause great suffering but are often associated with the stigmatization of those stricken with them. Until recent decades, little could be done to ameliorate the symptoms of many mental disorders, but in recent years there have been some striking successes and there is now growing optimism within the medical community concerning the promise of new approaches to treatment of these disorders. As a result, biomedical and behavioral research involving persons with mental disorders is an important and growing field of scientific endeavor.

Thus, it is anticipated that persons with mental disorders will often be recruited as subjects of research. Research offers the potential for benefit and harm. Disclosing the risks of harm and potential benefits of research through an informed consent process, and the review of research protocols by Institutional Review Boards (IRBs) have been the principal methods of protecting subjects from harm in research.

The mere presence of a mental disorder should not lead to a presumption that a person is incapable of making a decision regarding participation in research. Yet sometimes these conditions impair the decision making capacity required to give a valid informed consent. Other factors, such as a feeling of dependence on care givers and institutions, as well as limited financial resources and social support, also raise important and complex ethical concerns about the special vulnerability of persons with mental disorders in research. Such concerns may have an impact on their research participation.

## NBAC's Role

While these concerns are not new, previous efforts to extend special additional research protections to persons with mental disorders have not been fully successful. For example, under current regulations in the U.S., this population is not included among those groups given specific protections in research funded or sponsored by federal agencies. NBAC views its role partly as continuing the important work initiated by the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (1974-1978), which proposed regulations for persons "institutionalized as mentally infirm" that were never adopted. NBAC's primary role, however, is to advise the National Science and Technology Council, which is chaired by the President, and other government entities on the appropriateness of policies, guidelines, and other instruments as they relate to bioethical issues arising from research on human biology and behavior.<sup>1</sup>

NBAC decided to examine the ethical issues at stake in the participation of persons with mental disorders in research following several highly publicized incidents arising from research involving this population. In approaching this topic, NBAC commissioned several contract papers and heard testimony from individuals who represent various perspectives: patients, family members, members of advocacy organizations, scientific investigators, and federal officials.

The Commission notes that important scientific research concerning disorders that affect these populations has continued and expanded during the nearly two decades in which current federal regulations have been in place, and that important opportunities to develop new therapies will continue to emerge. But the Commission takes seriously the important balance that must be

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<sup>1</sup>Executive Order 12975, Sec 4(a)(1)

struck between the development of new knowledge and new therapies which are made possible by continued research, and the necessity to ensure that those who participate in research are not exposed to unexpected, unnecessary, and unwanted harm. The Commission is not an investigatory body and therefore did not try to reach an independent conclusion about the extent to which persons with mental disorders undergo undue risk in research.<sup>2</sup> Nevertheless, it has concluded that the absence of specific, additional protections in the federal regulations for persons with mental disorders in research is a significant lacuna in the regulations, especially in light of the requirements that have long applied to persons from other potentially vulnerable groups.

### Assessing Risks

Informed consent is a necessary but not a sufficient condition for ethical research practices with human subjects. No one should be exposed to risk or even inconvenience if a scientific project is poorly designed, for example, and persons who are seriously ill may be unable to appreciate fully that a protocol is not designed to provide them with direct benefit. Therefore, a crucial element of ethical human subjects research is the prior approval of each protocol by a multidisciplinary group of scientists, clinicians, and lay persons, usually called an Institutional Review Board or IRB.

Under current regulations IRBs already have considerable discretionary authority to place various requirements (including additional protections) on research projects, although they rarely exercise this authority. This may limit the extent to which the special needs of persons with mental

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<sup>2</sup>The Commission is still in the process of fully familiarizing itself with certain types of research protocols. It will only issue its final report after this process is complete.

disorders are independently assessed as they go through the research process. Additional minimal protections appear to be needed in order to ensure that the rights and welfare of persons with mental disorders who may participate in research are respected.

One important factor in assessing research risks with this population is the extent to which a mental disorder itself may expose the individual to a greater likelihood of harm than would be the case for others in a similar study. This could be the case, for example, if a person had waxing and waning ability to understand why they were being subjected to certain procedures. Further, some research designs are intended to provoke the symptoms of the individual's disorder, however briefly. This is a population that may be especially vulnerable to the impact of this type of study. Both investigators and IRBs need to do more to ensure that the subject's participation remains voluntary throughout the research process, and that the risks continue to be reasonable in light of the potential direct benefits to the subject.

### The Recommendations

The Commission recommends a number of measures to help ensure that research involving persons with mental disorders meets the ethical standards that the American people should expect of scientific investigations. These recommendations address several areas including: new federal regulations, guidance for Institutional Review Boards and the organizations that support them, State Legislation, education of health care professionals, research to expand knowledge, and new mechanisms to enhance the Common Rule protections while providing for promising research to go forward.

Among these recommendations is inclusion in the membership on IRB's of persons familiar



with the issues that may arise in research that includes this population, in particular, those who have particular knowledge of the population being studied. We also think it is critical for investigators to explain in their proposed protocols why they have chosen the design their study will use, why involving persons with mental disorders is necessary, how each subject's capacity to consent to research will be assessed, and how the investigators have assessed the risks to subjects in the study. We also recommend that any apparent dissent to research participation by a subject should be respected, no matter what their decisionmaking capacity, and if they are found incapable of deciding whether to participate in a study, they should be informed of that fact.

In research that offers the potential of direct subject benefit to the subject and that presents greater than minimal risk to the subject, persons with mental disorders capable of giving informed consent may participate, but plans should be made for a decision making procedure in the event they lose capacity during the study. If they are not capable of giving informed consent, then a legally authorized representative may give permission, providing the subject does not appear to dissent when informed.

In research that is not potentially beneficial to the subject and that presents greater than minimal risk to the subject, persons with mental disorders may participate, but only with their informed consent, including consent given as part of an advance planning process. In addition, we are recommending that this type of research is permissible only when a legally authorized representative is identified who can make decisions about continuing or stopping a subject's participation in research, and when an independent health care advisor is available. The role of the independent health care advisor is to counsel the potential subject and/or the legally authorized representative about the appropriateness of a person entering a study, as well as

whether continued participation is appropriate.

Family members should be eligible to serve as legally authorized representatives as contemplated by these recommendations, and the Commission urges the states to consider legislation to this effect. The Commission also urges research institutions to introduce internal audit and disclosure mechanisms for their IRBs, in order to open the process and results of IRB deliberations to public scrutiny and to provide the institutions themselves with sufficient information to modify their policies and procedures to be in compliance with federal regulations. We further recommend that external audit and disclosure mechanisms be utilized by the Federal Government. Finally, the National Institutes of Health is urged to support studies to find the best ways to assess capacity to participate in research, and to ensure that participation in research by persons with mental disorders is informed and voluntary.

1 Chapter One: RESEARCH INVOLVING SUBJECTS WITH MENTAL DISORDERS

2 THAT MAY AFFECT DECISIONMAKING CAPACITY

3  
4 The Purpose of this Report

5 A wide variety of important research studies employing human subjects have long played  
6 an essential role in advancing biomedical and behavioral science and thus enhancing our ability to  
7 more successfully treat illness and understand human behavior. In recent decades, however,  
8 researchers and commentators alike have been increasingly sensitive to the ethical issues  
9 associated with such research studies especially as they concern the welfare of the subjects  
10 themselves. As a result, new governmental regulations, enhanced professional guidelines, and  
11 various institutional-based mechanisms have been established in countries around the world to  
12 help ensure that such studies meet appropriate ethical standards designed to protect human  
13 subjects and clarify under what circumstances human subjects (which may include the clinical  
14 investigator's patients) may be placed at risk in research aimed at understanding and alleviating  
15 disease.<sup>3</sup> The two most basic functions of these governmental regulations, enhanced professional  
16 guidelines, and various institutional-based mechanisms are: (a) expert review of protocols to  
17 ensure their scientific validity and ethical acceptability, and (b) the informed consent of human  
18 subjects.

19 Although special protections have been provided for certain populations that are regarded

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<sup>3</sup>In this report the Commission refers to persons on whom research interventions are performed (including participants who serve as members of a "control group" in clinical studies) as "subjects," consistent with the language in current federal regulations.

1 as particularly vulnerable and unable to give meaningful informed consent to their participation in  
2 research protocols,<sup>4</sup> persons with psychiatric or neurologic disorders who may, as a consequence  
3 of their disease, have impaired capacity to make decisions, have not been provided any additional  
4 protections.<sup>5</sup> Such disorders - which can be heartbreakingly burdensome for victims and their  
5 families and frustrating for the professionals who try to treat them - have in recent years been the  
6 object of research studies that have produced not only important and clinically relevant scientific  
7 findings but also a certain amount of public controversy, governmental sanctions, and even  
8 lawsuits. Indeed, no other field of human subjects research raises more issues, for no other group  
9 of illnesses is in greater need of scientific advance while also affecting persons who are in  
10 consequence of their illness at greater risk for abuse and neglect. Yet, ironically, as noted above,  
11 the federal rules designed to ensure the ethical treatment of human research subjects provide no  
12 special guidance for studies involving this group of patients.

13 The purpose of this report is to consider ways in which ethically acceptable research can  
14 be conducted using human subjects who suffer from mental disorders that may affect their  
15 decisionmaking capacity, whether additional protections are needed, and, if so, what they should  
16 be and how they should be implemented. In addition, this report provides an opportunity for  
17 investigators, IRB members, persons with mental disorders and their families, and the general

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<sup>4</sup> 45 C.F.R. 46, Subparts B, C, and D (June 18, 1991.)

<sup>5</sup> Subparts B, C, and D of the Common Rule (45 C.F.R. 46) provide special protections pertaining to research involving the following vulnerable populations: Fetuses, Pregnant Women, Prisoners and Children. Other potentially vulnerable subjects, whose decisionmaking capacity may be compromised by such factors as trauma (e.g., head injury) or physical illness (e.g., cancer or sepsis), will not be considered in this report. As a general rule, consent for research into their disease (e.g., cancer or sepsis) cannot be obtained from persons who lack the capacity for such autonomous consent.

1 public, to reflect upon the goals of research and appropriate protections for human subjects in this  
2 important area.

#### 3 4 Research Involving Persons with Mental Disorders that May Affect Decisionmaking Capacity

5       Persons with mental disorders are not, of course, unique in being at risk for loss of  
6 decisionmaking capacity. Accident and trauma victims, highly medicated patients, and perhaps  
7 anyone who is ill may be significantly less capable of making decisions than would be the case in  
8 other circumstances. But the persons with whom this report is especially concerned are those  
9 who may be candidates for participation in a research protocol because they have a mental  
10 disorder that is being studied.

11       A point worthy of special emphasis is that the mere diagnosis of a mental disorder does  
12 not imply a lack of decisionmaking capacity, or even that the ability to make a particular decision  
13 is impaired. To accept such an inference would be to quite inappropriately stigmatize this  
14 population. Many persons who suffer from mental disorders are able to make decisions for  
15 themselves, including whether or not to participate in a research study. Rather, a diagnosed  
16 mental disorder is only one among many factors that may trigger an assessment of decisionmaking  
17 capacity, leading to the conclusion that a particular person with such a disorder lacks the capacity  
18 to make an informed decision about participating in research.

19       Clearly, special difficulties arise in designing ethically acceptable research protocols that  
20 employ human subjects with mental disorders whose decisionmaking capacity and, therefore, their  
21 ability to give informed consent, may be impaired. These medical conditions can complicate  
22 efforts to respect the rights of human subjects involved in a research project, especially when the

1 research is not intended to provide the subjects themselves with direct benefits.<sup>6</sup> Problems in  
2 determining the presence or absence of appropriate decisionmaking capacity, however, are only  
3 one sort of difficulty in conducting ethically acceptable research involving persons with mental  
4 disorders.

5 Many of the conditions underlying impaired decisionmaking are the sort of psychiatric or  
6 neurologic conditions that manifest themselves in behaviors that make prospective subjects hard  
7 to understand and indeed, often cause discomfort in others. As a result, persons with these  
8 diseases have often been stigmatized, and efforts to improve their medical treatment frequently  
9 have been marginalized. Moreover, those who are hospitalized in psychiatric units are vulnerable  
10 by virtue of the special dynamics of that environment. As is the case for other potential research  
11 participants, confusion about the goals of an intervention can easily be created when the physician  
12 caring for the patient is also a researcher who may wish to enlist him or her into a research  
13 protocol. Finally, because mechanisms for funding appropriate treatment of these diseases are  
14 often seriously wanting, this population may be especially vulnerable as they often do not have  
15 adequate access, for financial and other reasons, to health care outside the research context.<sup>7</sup>  
16 Despite all this, many of the diseases from which this population suffers require study, since  
17 currently there are often few satisfactory treatments.

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<sup>6</sup>For example, some drug research is intended only to determine at what dosage the medication under study will cause a person to become ill, or how rapidly the drug is excreted from the body.

<sup>7</sup> The barriers to access to appropriate care can be financial or a variety of other factors (e.g. lack of knowledge, denial, lack of qualified providers, etc.). These barriers may be particularly acute if the initial onset of the disorder occurs before an individual is attached to some social support mechanism.

1 Medical science has recently made great strides in understanding the underlying biological  
2 and chemical processes that are associated with mental disorders that affect millions of  
3 Americans. As a result, issues regarding the appropriate design of research protocols involving  
4 persons with disorders that may affect decisionmaking capacity are likely to become both more  
5 prevalent and more important in the near future. The great needs of this population represent a  
6 significant opportunity for the pharmaceutical industry to develop effective new medications and a  
7 valuable opportunity for medical research centers and all those dedicated to helping those with  
8 these disorders to expand their understanding of the origins of these disorders, and their capacity  
9 to develop better treatments. In the United States, the increasingly important interactions  
10 between private industry, government, academia and other research institutions, present a  
11 favorable atmosphere for scientific development, but they also present a challenge for a regulatory  
12 framework intended to protect individuals while also permitting appropriate research and product  
13 development to flourish in a wide variety of venues.

14 The combination of these and other factors creates a new imperative that calls for special  
15 attention from the professions and those institutions that engage in research involving persons  
16 who may have decisional impairments. For historical reasons that will be described in this report,  
17 previous efforts to establish specific human subjects protections for persons with uncertain  
18 decisionmaking capacity have largely failed, although some researchers and some institutions have  
19 taken important and responsible individual initiatives in this area. Recently the DHHS Office of  
20 Inspector General issued a report describing such innovative practices.<sup>8</sup> Overall, however, efforts

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<sup>8</sup> Department of Health and Human Services, Office of the Inspector General, “Institutional Review Boards: Promising Approaches” (Washington, DC: DHHS, 1998).

1 have been hampered by longstanding antagonistic social attitudes toward persons with uncertain  
2 decisionmaking capacity and a lack of consensus regarding how the appropriate protections  
3 should be applied to those with psychiatric and neurologic diseases. Our society has a moral  
4 obligation to address these issues for the sake of those who are directly affected by them and for  
5 those who care about them, so that important research can be continued and treatment improved.

### 6 7 The Recent Debate about Research Involving Persons with Mental Disorders

8 Several tensions are inherent in the current discourse on these issues. On the one hand,  
9 those who suffer from these diseases, and those who care about them, desperately want medical  
10 science to find ways to improve their conditions. On the other hand, there is disagreement about  
11 how this can be done without exploiting those with mental disorders who participate in research  
12 protocols and thus causing them still greater suffering.<sup>9</sup> As this chapter elaborates, several factors  
13 combine to make persons with mental disorders especially vulnerable: they may have impaired  
14 capacity to consent due to the condition being studied, they are often dependent for care upon  
15 researchers who may also be their physicians, many mental disorders remain resistant to available  
16 therapies, and persons with mental disorders tend, principally as a result of the disorder itself, to  
17 be more economically disadvantaged than other adults.

18 One way of expressing this tension or dilemma, which is familiar in academic writings on  
19 the ethics of research with human subjects, is as a conflict between the desire for adequate  
20 protection against research risks and the desire to develop additional methods for dealing with a

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<sup>9</sup> Shamo, A.E. (ed.), *Ethics in Neurobiological Research with Human Subjects* (Amsterdam: Gordon and Breach Publishers, 1997).



1 particular disorder. At the same time, calls either for greater protection from research risks or for  
2 greater knowledge about disease that results from research using human subjects are often  
3 generated by concerns for certain underlying problems that may not be related to any research  
4 protocols. One such underlying problem is that many of the situations that give rise to calls for  
5 protection against abusive research are really problems of the clinical setting in which research  
6 may take place, such as insufficient attention to the emotional needs of persons afflicted with  
7 mental disorders. NBAC believes, however, that despite these tensions and special factors, much  
8 can be done to ameliorate the apparent conflict between the impetus to continue promising lines  
9 of research and the equally strong desire to support the dignity and well being of research  
10 subjects.

11 Another complicating factor in efforts to protect human research subjects is the boundary  
12 between research and what is often called “innovative treatment.” The latter category is intended  
13 to convey that the medical intervention is not undertaken as part of a scientific study but an  
14 attempt to treat an individual patient who has not responded to standard therapy. For example, a  
15 patient whose physician recommends an “off-label”<sup>10</sup> trial of a medication approved for other  
16 purposes (as physicians are entitled to do as part of individualized treatment) is not a research  
17 subject unless the physician is engaged in the systematic collection of data about this use of the  
18 drug. In this kind of clinical situation, certain existing regulatory requirements for ethically sound  
19 research, such as prior review of the procedure by an Institutional Review Board (IRB), do not

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<sup>10</sup> Physicians who are licensed to practice medicine are permitted to prescribe medications for therapeutic purposes other than those for which the medication has been tested and approved for manufacture and sale.

1 apply. Nevertheless, the usual requirement that the treating physician obtain informed consent for  
2 any intended treatment does apply, and the patient, or the patient’s legally authorized  
3 representative, should be informed about, and consent to, the innovative nature of the procedure  
4 that is to be attempted.

5 In addition, because access to health care for patients with mental disorders is so limited,  
6 the “benefits” of being a research subject may easily be exaggerated when in fact clinical studies  
7 often are not only uncertain in their potential benefits, but may actually be designed to investigate  
8 issues that do not relate to the subject’s current therapeutic needs. Further, the patient’s  
9 understandable interest in access to promising experimental drugs or devices should not distract  
10 from the need to ensure that physicians are aware of new therapies that have already been  
11 recognized as safe and effective and that should be incorporated into the treatment of their  
12 patients and the need not to expose patients to unwanted risks.

13 Finally, even in recent years, some research protocols that have passed required review  
14 procedures and that have produced published data raise important ethical concerns. For example,  
15 the Advisory Committee on Human Radiation Experiments (ACHRE) reviewed research  
16 proposals involving human subjects and ionizing radiation approved and funded in fiscal years  
17 1990 through 1993 by several federal agencies; in its report to President Clinton, ACHRE found  
18 that almost half of these studies involving greater than minimal risk raised “serious or moderate  
19 concerns.”<sup>11</sup> ACHRE also surveyed hundreds of people who were ill but who retained decisional  
20 capacity and were currently participating in clinical trials, concluding that many of them were not

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<sup>11</sup> Advisory Committee on Human Radiation Experiments, *The Human Radiation Experiments* (New York: Oxford University Press, 1995), p. 456.

1 aware of important and relevant elements of the research.<sup>12</sup> Considering the special complexities  
2 of research involving those whose decisional capacity may be affected by mental disorders, the  
3 ACHRE's concerns must be at least as strongly applied to studies involving the special population  
4 that is the focus of this report.

#### 6 Values that Should Guide Research

7 Surely protection from abusive research and the capacity to pursue beneficial research are  
8 both worthy goals and need not be incompatible. Without succumbing to a facile distinction  
9 between protection and medical progress, an essential mission of any regulatory framework must  
10 be to help ensure that those who are employed as human subjects in biomedical and behavioral  
11 research protocols are treated with respect. This has been the underlying philosophy of more than  
12 three decades of continual improvement in the design of research protocols involving human  
13 subjects, much of which has involved gaining a more refined understanding of the meaning of  
14 respecting human subjects under specific circumstances. In that spirit, this report is partly an  
15 effort to advance public understanding of the meaning of respectful treatment of persons with  
16 mental disorders that may affect decisionmaking capacity and who participate in research  
17 protocols.

18 The purpose of medical research is to improve understanding of the mechanisms of disease  
19 and their means of prevention and treatment, and our society is deeply committed to continuing  
20 this enterprise, from which so many of us have benefited. It must also be acknowledged that in  
21 the expansion of clinically relevant knowledge often there is no reliable substitute for a human

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<sup>12</sup>Id., pp. 459-481.

1 subject, and this is certainly true of the study of diseases that manifest themselves partly by  
2 altering human subjectivity or by impairing cognitive functioning, such as depression or delusional  
3 states.

4 If human beings must be involved as research subjects in order for important questions to  
5 be answered, then they must be treated with respect. Respectful treatment of human beings  
6 participating in research begins with the scientific quality of the research itself. It has long been  
7 recognized that unless the researcher is a competent investigator and the research design is sound,  
8 it is inappropriate to attempt to engage persons as research subjects, regardless of the level of  
9 risk. Soundness in design is a *sine qua non* for ethical research involving human subjects.

10 In reality, however, rarely can all risks be eliminated. The American people need to  
11 understand that, so long as research is conducted involving human beings, there is a possibility  
12 that, despite all best efforts at protection, an individual will be harmed or wronged. Thus, in  
13 addition to any individual motivations, anyone who serves as a subject in a research protocol is  
14 engaged in a form of public service that may involve risk and for which there may be no direct or  
15 tangible personal reward. The unavoidable element of risk has led to the development of a system  
16 of protection for all research subjects, and clearly such protections must never be less stringent for  
17 research subjects whose ability to be fully informed and to freely consent is lacking or in doubt  
18 than it is for others. This proposition is already well recognized in the case of pediatric research.<sup>13</sup>

19 Of course, all persons suffering from an illness are at risk for impaired decision making  
20 due to physiologic and psychologic stress. Health care professionals (including researchers) must  
21 improve their understanding of these factors in illness, and health care institutions must improve

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<sup>13</sup>45 C.F.R. 46, Subpart D, 1991.

1 their methods of dealing with them so that all patients' decisionmaking ability can be respected  
2 and promoted. Indeed, the very fact of having an illness can impair one's decision making.  
3 Studies indicate, for example, that those who are ill are generally less able to view their situation  
4 and alternatives as objectively as those who are well.<sup>14</sup> But this is a different issue from that  
5 presented by those whose diseases or treatments have a direct and primary effect on the  
6 impairment of abilities which are critical for making decisions, such as memory, analytical  
7 capacities, and emotional equilibrium.

8 Finally, because freedom from all risk cannot be guaranteed, and because those who have  
9 specific impairments in their decisionmaking ability do not have the same opportunity to  
10 determine the extent of their research involvement as do the rest of us, care must be taken not to  
11 succumb to any temptations to employ members of this population in research when their  
12 participation is unnecessary. In particular, this population should never shoulder the risks and  
13 burdens of a scientific project when the benefits are expected to flow to other segments of the  
14 population. All ethical research designs must ensure as appropriate an allocation of risks and  
15 benefits as is reasonable. Some of the Commission's recommendations, therefore, are specifically  
16 designed to ensure that persons with mental disorders that may affect decisionmaking capacity are  
17 not exploited.

18 These views about respect for persons, beneficence, and justice are squarely in the  
19 tradition established by the National Commission for the Protection of Human Subjects of  
20 Biomedical and Behavioral Research (1974-1978). The National Commission's framework of  
21 ethical principles for the guidance of research with human subjects is no less valid today than it

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<sup>14</sup>Eric Cassell, unpublished data, May 1998.

1 was nearly twenty years ago. Yet the environment of research, including the way in which it is  
2 conducted, its funding sources, and in many instances the complexity of the research itself, have  
3 changed. And despite the National Commission's excellent work, those with mental disorders  
4 that may affect decisionmaking capacity are not specifically recognized by any set of guidelines in  
5 current federal regulations. It is, therefore, time to elaborate on the foundation laid by the  
6 National Commission and current regulations with regard to research involving persons with  
7 mental disorders.

#### 8 9 The Nature of Mental Disorders that May Affect Decisionmaking Capacity

10 While there are a variety of mental disorders that can affect decisionmaking capacity,  
11 persons with mental disorders are not necessarily decisionally impaired, much less decisionally  
12 incapable. Rather, any behaviors that place a person's decisionmaking ability into question should  
13 trigger a clinical assessment to determine whether or not decisionmaking capacity is impaired.

14 Any disorder that alters mentation may adversely affect decisionmaking ability. When such  
15 a disorder is present in an early or mild phase, the resulting impairment may not rise to the level at  
16 which a potential research subject would be considered unable to consent to research  
17 participation, although extra care in the informed consent process may be required. More  
18 advanced or severe forms of a disorder, however, may render the subject incapable of independent  
19 choice. Thus, identification of a potential subject as suffering from a disorder that may impair  
20 mentation does not obviate the need for an individualized assessment of the person's actual  
21 decisionmaking ability.

22 A relatively small body of research has documented the effects of various disorders on

1 decisionmaking capacity per se, but this is supplemented in many cases by data on cognitive  
2 functioning in general and by a good deal of clinical experience with these populations. The  
3 following list highlights some of the major conditions that affect decisionmaking capacity,  
4 although it is by no means exhaustive.

#### 5 *Dementia*

6 Dementias are characterized by multiple cognitive deficits, most prominently impairment  
7 of memory. The best known of these conditions is dementia of the Alzheimer's type, a  
8 progressive disorder, whose cause is presently unknown, the incidence of which increases with  
9 age, from 2-4% in the population over 65 years old to 20% or more in persons over 85 years  
10 old.<sup>15</sup> Dementias may also be caused by vascular infarcts of the brain, head trauma, HIV  
11 infection, and neurological conditions, such as Parkinson's disease and Huntington's disease.

12 The study of decisionmaking impairment in persons with dementia has focused on  
13 Alzheimer's disease. Even patients with mild Alzheimer's dementia may evidence deficits in  
14 understanding relevant information and reasoning sufficient to call their capacities into question,  
15 although the choices they make about treatment and research may not differ at this point from  
16 non-impaired populations. As dementia progresses from the mild to the moderate stage, however,  
17 the range and magnitude of deficits expand, and persons may fail even the simplest tests of  
18 decisionmaking capacity.<sup>16</sup> The co-occurrence of other disorders, such as delirium or depression,

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<sup>15</sup> American Psychiatric Association, *Diagnostic and Statistical Manual of Mental Disorder* (4th ed.) [DSM-IV] (Washington DC: APA, 1994).

<sup>16</sup> Marson D.C., Ingram K.K., Cody H.A., Harrell L.E., "Assessing the competency of patients with Alzheimer's disease under different legal standards." *Archives of Neurology* 52:949-954 (1995). Stanley B., Guido J., Stanley M., Shortell D., "The elderly patient and informed consent." *Journal of the American Medical Association* 252:1302-1306 (1984).

1 may exacerbate the impact of dementia on the ability to make decisions.

## 2 *Delirium*

3 Like dementia, delirium involves alterations in cognition, but usually evolves over hours or  
4 days. Disturbances of consciousness and attention are prominent. Delirium is often caused by  
5 systemic medical conditions, side-effects of medications, intoxication with or withdrawal from  
6 psychoactive agents or toxins.<sup>17</sup> Studies demonstrating high rates of decisional impairment in  
7 severely ill, hospitalized patients are probably detecting the effects of delirium secondary to the  
8 underlying conditions and, in some cases, to the treatments being administered.<sup>18</sup> In contrast,  
9 other work suggests that serious medical illness that does not directly impair brain function, even  
10 when it results in hospitalization, and is not likely, by itself, to result in limitations on  
11 decisionmaking abilities.<sup>19</sup>

## 12 *Schizophrenia*

13 Schizophrenia is a severe psychiatric disorder marked by delusions, hallucinations,  
14 disorganized speech or behavior, and diminished affect and initiative. A variety of cognitive  
15 dysfunctions, including several related to processing information, have been associated with the  
16 disorder. Its onset typically occurs in early adulthood and, although its course is variable,  
17 symptoms often wax and wane, with the result that functional impairment fluctuates over time.<sup>20</sup>  
18 Many of its manifestations can be reduced with antipsychotic medication, but residual symptoms

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<sup>17</sup> American Psychiatric Association, *DSM-IV*, op. cit.

<sup>18</sup> Cohen L.M., McCue J.D., Green G.M., “Do clinical and formal assessment of the capacity of patients in the intensive care unit to make decisions agree?” *Archives of Internal Medicine* 153:2481-2485 (1993).

<sup>19</sup> Appelbaum P.S., Grisso T., “Capacities of hospitalized, medically ill patients to consent to treatment.” *Psychosomatics* 38:119-125, (1997).

<sup>20</sup> American Psychiatric Association, *DSM-IV*, op. cit.



1 are frequent and relapse is not uncommon.

2 As many as one-half of acutely hospitalized patients with schizophrenia may have  
3 substantially impaired decisionmaking abilities, including understanding, appreciation, and  
4 reasoning.<sup>21</sup> Since many of these impairments appear to be related to active symptoms, the  
5 prevalence of reduced capacity is likely to be lower among outpatient groups.<sup>22</sup> Lack of insight  
6 into the presence of illness and need for treatment is common among persons with  
7 schizophrenia.<sup>23</sup> This may make it especially difficult for them to anticipate the consequences of  
8 their decisions on participation in research as they relate to the risk of future relapse.

9 *Depression*

10 Symptoms of major depression include: depressed mood; feelings of worthlessness;  
11 diminished interest and pleasure in most activities; changes in appetite, sleep patterns, and energy  
12 levels; and difficulties in concentration.<sup>24</sup> Cognitive impairments may exist in information  
13 processing<sup>25</sup> and reasoning,<sup>26</sup> among other functions. Less clear is the extent to which these  
14 consequences of depression impede decision making. It has also been suggested that decreased  
15 motivation to protect their interests may reduce depressed patients' abilities to make decisions,<sup>27</sup>

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<sup>21</sup> Grisso T., Appelbaum P.S. "The MacArthur Treatment Competence Study, III: Abilities of patients to consent to psychiatric and medical treatments." *Law and Human Behavior* 19:149-174 (1995).

<sup>22</sup> Rosenfeld B., Turkheimer E., Gardner W. "Decision making in a schizophrenic population." *Law and Human Behavior* 16:651-662 (1992).

<sup>23</sup> Amador X.F., Strauss D.H., Yale S.A., Gorman J.M. "Awareness of illness in schizophrenia." *Schizophrenia Bulletin* 17:113-132 (1991).

<sup>24</sup> American Psychiatric Association, *DSM-IV*, op. cit.

<sup>25</sup> Hartlarge S., Alloy L.B., Vazquez C., Dykman B. "Automatic and effortful processing in depression." *Psychological Bulletin* 113:247-278 (1993).

<sup>26</sup> Baker J.E., Channon S. "Reasoning in depression: impairment on a concept discrimination learning task." *Cognition and Emotion* 9:579-597 (1995).

<sup>27</sup> Elliott C. "Caring about risks: are severely depressed patients competent to consent to research?" *Archives of General Psychiatry* 54:113-116, (1997).

1 or alter the nature of those decisions.<sup>28</sup> One study suggested that hospitalized depressed patients  
2 may manifest decisionmaking problems roughly half as often as patients with schizophrenia, that  
3 is, in about one-quarter of cases.<sup>29</sup> But it is likely that the degree of impairment relates to the  
4 intensity of depressive symptoms, and thus will vary across populations.

#### 5 *Some Other Disorders*

6 Although less subject to formal study in the context of consent to treatment or research,  
7 there is good reason to believe that other conditions may predispose persons to impaired  
8 decisional functions. *Mental retardation*, affecting as it does a range of cognitive abilities, is  
9 more likely to impair capacities as severity increases. *Bipolar disorder* results in alternating states  
10 of depression and mania, the latter comprising elevated mood, increased impulsivity, and reduced  
11 attention, among other features; manic patients are known to make poor decisions about money  
12 and personal affairs, and it is probable that this deficit extends into research decision making for  
13 some subset of this group. *Other psychotic disorders* involve some of the symptoms seen in  
14 schizophrenia, including delusions and hallucinations, and probably have some of the same  
15 consequences for decision making. *Substance abuse disorders*, for example, including use of  
16 alcohol and illegal drugs, result in states of intoxication and withdrawal that resemble delirium in  
17 their effects on attention, cognition, other mental functions, and consequentially, decision making.

#### 18 19 Informed Consent and Decisional Impairments

20 The ability or capacity to consent in a fully informed manner to being a research subject is

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<sup>28</sup> Lee M.A., Ganzini L. "Depression in the elderly: effect on patient attitudes toward life-sustaining therapy."  
*Journal of the American Geriatric Society* 40:983-988, (1992).

<sup>29</sup> Grisso and Appelbaum, op. cit.

1 a critical consideration in an ethical research protocol. Every effort must be made, therefore, to  
2 engage the prospective subject in the informed consent process as much as his or her ability to  
3 participate in that process permits. Thus the individual who is able to understand the purpose,  
4 risks, and possible benefits of the study must have all the relevant information one would need to  
5 make an informed decision about being a subject. There is also an affirmative obligation to help  
6 those with less ability to be fully informed about the research to understand the relevant  
7 information before they may be enrolled. It is generally agreed, however, that those who lack the  
8 ability to decide in an informed manner about participating in a research protocol may only be  
9 included under certain conditions. Among these conditions are an inability to conduct the  
10 research with subjects whose capacity to make decisions is not impaired, and a reasonable level of  
11 risk in light of potential benefits, especially to the patients involved.

#### 12 *Varieties of Decisionmaking Impairment*

13 An ethically justifiable system of clinical research will need to take into account the wide  
14 variations in the conditions that may affect the decisionmaking capacity of potential human  
15 subjects. It is important not to confuse the fact that decisionmaking ability is limited for many  
16 people with the diverse ways in which it is limited. Appreciating and recognizing this diversity  
17 will help in the design of ethically sensitive recruitment and consent procedures and research  
18 protocols.

19 There are at least four types of limitations in decisionmaking ability that need to be taken  
20 into account in planning and executing research with this population. First, persons with  
21 fluctuating capacity have what is often called waxing and waning ability to make decisions, as in  
22 schizophrenia, manic-depressive disorders, and some dementias. Second, persons whose

1 decisionmaking deficits can be predicted due to the course of their disease or the nature of a  
2 treatment, but who are still capable, have prospective incapacity; those who suffer from early  
3 stages of Alzheimer's disease fall into this category. Third, persons with limited capacity are in  
4 some way able to object or assent, as in the case of more advanced Alzheimer's. Fourth, persons  
5 who have lost the ability to make nearly any decision that involves any significant degree of  
6 reflection are decisionally incapable, as in the later stages of Alzheimer's and profound dementia.

7         These four sorts of decisional limitations -- fluctuating, prospective, limited, and complete  
8 -- provide an initial framework for the different ways the problem of decisionmaking capacity can  
9 manifest itself.<sup>30</sup> Among those whose capacity fluctuates or is limited, one cannot easily "read  
10 off" the precise nature of a decisional disability from these groupings. Some disorders entail  
11 limitations on decisionmaking ability that are subtle and hard to identify, and even individuals who  
12 fit within a particular diagnostic category may exhibit their decision making limitations in different  
13 ways.

14         The situation is further complicated by the fact that two or more of these four categories  
15 often apply to the same individual in the course of a disease. Thus someone in the early stages of  
16 Alzheimer's disease may have prospective incapacity, then experience very subtle decisionmaking  
17 limitations or have fluctuating capacity, and progress to incapacity. It is therefore critical that  
18 researchers who work with persons in this population be familiar with the ways that  
19 decisionmaking impairments manifest themselves, and that appropriate mechanisms be designed to  
20 maximize the subject's ability to participate in the decision to enter or to continue to be part of a

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<sup>30</sup>These categories do not apply to children, whose decisional limitations are developmentally appropriate and which are not a result or symptom of an illness.

1 study, or to choose either not to enroll or to cease participation.

2 Finally, there are circumstantial factors that affect decisionmaking capacity. All of us feel  
3 more “empowered” and in control in some social situations than we do in others. Similarly,  
4 persons with neurological or psychiatric disorders may be more and less capable of making their  
5 own decisions, depending on the circumstances. For example, some individuals may feel more  
6 empowered in dealing with certain health care professionals or family members, and less so in  
7 dealing with others; or they may be more effective in expressing their wishes at home than in an  
8 institution, or the reverse. This insight can be critical in helping the individual achieve as high a  
9 degree of self-determination as possible.

10

### 11 The Possibility of Benefit

12 Many research studies do not offer any reasonably expected and/or direct prospect of  
13 benefit to the human subjects involved. This may be necessary because not enough is known  
14 about the way a drug or device will function in human beings, or because the research is not  
15 designed to study direct benefit to the subjects but rather subjects’ reactions (e.g., modeling the  
16 dynamics of the disease) or how the drug or device will be affected by insertion into a human  
17 host. In these cases it is hoped that the knowledge gained will eventually lead to better  
18 treatments. While an individual may benefit from being closely assessed or monitored by the  
19 study team, that benefit is not produced by the medication or mechanism being studied. Of  
20 course, healthy “normal” persons who volunteer as research subjects may not expect a direct  
21 medical benefit but, like any participant, they may benefit from a limited financial compensation or  
22 an altruistic satisfaction.

1           Many studies do involve interventions that could benefit subjects, but often it is not  
2 possible for researchers to know whether an intervention would be better for the subject than  
3 doing nothing (which often occurs in a placebo study), or whether the subject would benefit most  
4 from the currently available standard treatment. Indeed, if researchers were certain of the  
5 outcome there would be no justification for doing the research in the first place. Nevertheless,  
6 even when there is justifiable uncertainty about which treatment produces better results (when the  
7 relevant scientific community is said to be in “equipoise”<sup>31</sup>), the investigator should have some  
8 reason to believe that the study might benefit some subjects, as indicated by animal experiments or  
9 developing scientific knowledge or both.

10           It may be hard for anyone, let alone someone who has a decisional impairment, to  
11 appreciate the idea of equipoise, especially if he or she is unaccustomed to thinking in ways that  
12 scientists must think. When one is ill, it is all too easy to over-interpret a phrase like “some  
13 reason to believe that the study might do some subjects some good” as a prediction of benefit.  
14 But not only can the scientist in equipoise not predict that a study will do a *particular* person  
15 some good, he or she cannot even predict that it will benefit *any* subject. The only thing that can  
16 be promised is that a research study is designed to advance knowledge and perhaps lead to  
17 benefits for patients.

18           Interest in access to potentially beneficial experimental treatment is not, of course, limited  
19 to persons with conditions that are directly related to decisionmaking impairments. Anyone who  
20 suffers from a disease for which there is no adequate recognized treatment may wish to participate

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<sup>31</sup>Freedman, B. “Equipoise and the Ethics of Clinical Research.” *New England Journal of Medicine* 141:317 (1987).

1 in a clinical trial. There is always the danger, therefore, that the desire for a treatment may  
2 overwhelm the ability to assess the likelihood of benefit, or the balancing of risks and benefits  
3 from the drug or device being studied. The situation is further complicated when the primary  
4 caregiver is also the researcher. This “therapeutic illusion” or “therapeutic misconception”<sup>32</sup> may  
5 be especially intense for those whose decision making is impaired. Because many clinical trials  
6 are not primarily therapeutic opportunities, patient-subjects may feel betrayed or abandoned when  
7 their study participation comes to an end.

#### 8 9 Special Ethical Issues in Research with Persons with Mental Disorders

10 Research involving persons with mental disorders must take into account ethical issues  
11 beyond those having to do with consent and risk and benefit, and it must also deal with issues that  
12 are of special relevance to this population. Currently, illnesses associated with decisional  
13 impairments often involve testing at a more primitive stage of drug development than is usually  
14 the case in pharmaceutical research, because animal models available are often not as informative  
15 for diseases with psychological or cognitive symptoms as for other diseases. The subjective  
16 nature of mental disorders may require researchers to factor more individualized judgments into  
17 their projections of risk and benefit than may be the case for researchers in other fields.

18 Mental health care has a notoriously checkered history characterized by long periods of  
19 patient neglect, abuse, superstition and stigmatization. Sadly, these historic trends can be found  
20 even in our own time and among relatively prosperous societies. The outward symptoms of some

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<sup>32</sup>Appelbaum, P., et al., “False hopes and best data: consent to research and the therapeutic misconception.” *Hastings Center Report* 17(2):20-4 (April 1987).

1 mental disorders, and the fact that many stricken individuals are difficult to treat, still make many  
2 of us uncomfortable. In addition, many primary health care professionals are relatively unfamiliar  
3 with the signs of these illnesses or the best treatment that is available for them, and many people  
4 in these groups are hard to work with in the research setting. For these reasons and others, both  
5 clinical care and research in these diseases often have taken a back seat to disorders perceived as  
6 more “medical” in nature.

7 Another factor that affects research and therapy on illnesses associated with decisional  
8 impairments is that financial arrangements for treating many of these conditions continue to suffer  
9 compared to other diseases. Both public and private insurance mechanisms often fail to provide  
10 adequate support for the kinds of intervention that may be required. This problem is further  
11 aggravated by the disadvantaged economic situation of many persons with mental disorders, since  
12 many may have trouble completing education and training programs or in securing and/or  
13 retaining employment due to their symptoms. As a consequence, there is a significant association  
14 between mental illness and poverty. According to a study published in 1992, 21 percent of adults  
15 with serious mental illness fall below the poverty threshold, as compared with nine percent of the  
16 general adult population.<sup>33</sup> As many as half of homeless Americans are said to be suffering from  
17 schizophrenia.<sup>34</sup> Moreover, the widespread lack of understanding regarding the nature and  
18 implications of these disorders itself serves as a barrier to appropriate care quite independent of  
19 financial issues. In any case, without adequate access to mental health care and lacking in

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<sup>33</sup>Barker, P.R., et al., “Serious Mental Illness and Disability in the Adult Household Population: United States, 1989,” U.S. Department of Health and Human Services (Ronald W. Manderscheid and Mary Anne Sonnenschein, eds.), *Mental Health, United States, 1992* (Washington, D.C.: U.S. Government Printing Office, 1992).

<sup>34</sup>Wyden, P., *Conquering Schizophrenia* (New York: Alfred A. Knopf, 1998).



1 financial resources, these people and their families may feel that research presents a rare  
2 opportunity for treatment. Again, a hope for cure can easily overwhelm an understanding of the  
3 sometimes remote likelihood of direct benefit, even among those who are not decisionally  
4 impaired. The ease of taking advantage of people in such a situation, (i.e., those who might  
5 succumb to the therapeutic misconception about research) must be carefully guarded against.

6 Although the vast majority of biomedical scientists are dedicated primarily to improving  
7 the lives of those suffering from terrible afflictions, it is important to acknowledge that there are  
8 also substantial material as well as psychological rewards associated with a successful research  
9 career, a situation that can create the potential for some conflict. Moreover, the reward system  
10 among scientists for research in general has become more complex in recent years. While at one  
11 time government grants might have been the main source of support among independent  
12 researchers, in some areas private industry has come to occupy a more important role in the  
13 economy of science. Furthermore, the pressures associated with professional advancement  
14 through publication have also not lessened. Overall, these trends encourage the recruitment of  
15 human subjects. Although most clinical investigators are caring and humane and treat their  
16 patient-subjects responsibly, the evolving context of the research environment may require  
17 adjustments in regulatory processes and more particular specifications of ethical responsibilities so  
18 that, so far as possible, ethically appropriate procedures always are followed.

19 It has already been noted that those who struggle with diseases that impair their  
20 decisionmaking abilities are much like the rest of us when we are ill and vulnerable, but that in  
21 other respects they are especially vulnerable. For example, even having enrolled in a study with a  
22 reasonable understanding of the possibility of benefit, those struggling with psychiatric disease can

1 easily feel dependent on the research institution and study personnel, engendering fear that they  
2 will be released from the study and thereby lose all their professional support. As is so often the  
3 case, “voluntariness” is easy to require in regulations and guidelines but much harder to guarantee  
4 in the real lives of the ill.

5 Finally, there is a basic difficulty central to deliberations on research involving the  
6 decisionally impaired: Our society has not decided what degree of impairment counts as a lack of  
7 decisionmaking capacity. Although there are certain clear cases of those who are fully capable  
8 and those who are wholly without capacity, persons with fluctuating and/or limited capacity  
9 present serious problems of assessment. When can those whose capacity is uncertain in these  
10 senses be said to be able to decide about participating in research? In a society that treasures  
11 personal freedom, and where the integrity and value of each individual is central to our political  
12 system, this question goes to the very heart of our political philosophy and must therefore be  
13 treated with utmost caution.

#### 14 15 The Role of Informal Caregivers

16 In the blizzard of legal considerations and moral subtleties that swirl around the  
17 involvement of decisionally impaired persons in research, it is easy to lose sight of the role of  
18 informal caregivers like family and friends. The Commission was moved by the testimony of  
19 those who, though often bearing witness to other matters, also sent a powerful message of  
20 commitment over many years to loved ones struggling with the consequences of debilitating  
21 diseases.

22 The *de facto* role of uncompensated caregivers like family members and close friends has

1 implications that range from the medical to the psychological to the economic. Our system has  
2 familiar inadequacies regarding access to health care, especially in continuity of care, long-term  
3 care, and rehabilitation. These large burdens often settle on the shoulders of informal caregivers,  
4 and they commonly complain that mental health professionals fail to include them as members of  
5 the team caring for the patient. In the words of Commissioner Patricia Backlar, “currently mental  
6 health providers rarely share relevant information with the informal caregiver, nor do they ask  
7 families for information germane to treatment or legal decisions.”<sup>35</sup>

8 To be sure, communication with informal caregivers raises important issues of individual  
9 autonomy and patient confidentiality, but bioethical theory has rarely been sensitive to the  
10 underlying interpersonal support mechanisms of family and close friends that are often so  
11 important to those with long-term illness. On the contrary, much theorizing has worked against  
12 recognizing and involving others in the process of establishing an ethical research process. The  
13 critical role of self-determination in human subjects research should by no means be undermined  
14 or gainsaid. But within the autonomy-based framework of our society’s regulatory philosophy  
15 there must also be a place for the actual roles of those with close emotional attachments to the  
16 potential subject.<sup>36</sup> These individuals not only provide care and compassion for the patient-  
17 subject; they also experience the sequelae of the experimental project, both direct and indirect,  
18 through their long-term involvement with their loved one. These important social support  
19 networks must be integrated into the regulatory framework of research with those who are

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<sup>35</sup>Backlar, P., “Ethics in Community Mental Health Care: Confidentiality and Common Sense,” *Community Mental Health Journal* 32(6):517 (1996).

<sup>36</sup> Howell J.H. and Sale W.F. (eds.), *Life Choices: A Hastings Center Introduction to Bioethics* (Washington DC: Georgetown University Press, 1995).

1 decisionally impaired far more actively and sensitively than has been done before. The  
2 Commission appreciates the importance of this issue in proposing that state legislation recognize  
3 family members and close friends as appropriate candidates for the role of authorized  
4 representative.

#### 6 The Promise of Research with Mental Disorders that May Cause Decisional Impairments

7 Psychiatric, neurological, and other mental disorders that may render persons decisionally  
8 impaired account for an enormous amount of illness and human and economic costs. Of the 10  
9 leading causes of disability in the world, according to a recent World Health Organization report,  
10 five were psychiatric conditions: unipolar depression, alcohol use, bipolar affective disorder,  
11 schizophrenia, and obsessive-compulsive disorder.<sup>37</sup> It has been estimated that direct and indirect  
12 costs of mental illness and substance abuse in the United States totaled more than \$313 billion  
13 dollars in 1990.<sup>38</sup> Alzheimer's disease now afflicts approximately 4 million people in this country  
14 and, with the number of persons over 65 years of age expected to double by the year 2030, the  
15 resulting morbidity can be expected to grow proportionately.

16 Given the scope of these disorders, when treatments can be identified that could mitigate  
17 their impact, the benefits (human and economic) are enormous. Since 1970, the cumulative  
18 savings to the U.S. economy from the introduction of lithium as a treatment for bipolar disorder is  
19 estimated at \$145 billion. Furthermore, no dollar figure can be put on the benefits to patients and

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<sup>37</sup> World Health Organization, *The Global Burden of Disease* ( Cambridge, MA: Harvard University Press, 1997).

<sup>38</sup> American Psychiatric Association, *Opening Windows into the Future: Psychiatric Research in the 21st Century* (Washington, DC: APA, 1997).

1 families spared the anguish of manic and depressive episodes, which often tear apart the fabric of  
2 family life and social relationships. Similarly, the introduction of clozapine for treatment of  
3 schizophrenia has been estimated to have yielded savings of \$1.4 billion per year since 1990.<sup>39</sup>  
4 Thus, every incentive exists to improve our understanding of disorders affecting brain function  
5 and to develop more effective treatments for them.

6 Research on these conditions falls into two broad categories: studies aimed at elucidating  
7 the underlying pathophysiologic bases of the disorders; and studies intended to develop or test  
8 new treatments for them. Among the most powerful approaches to examining basic aspects of  
9 brain function and dysfunction are new techniques that allow imaging of the working brain.  
10 Positron emission tomography (PET), fast magnetic resonance imaging (fMRI), single photon  
11 emission computer tomography (SPECT), and related devices facilitate identification of the  
12 anatomic location of brain areas involved in cognitive and affective functions.<sup>40</sup> Comparisons of  
13 normal and afflicted populations permit localization of regions affected by the disease process.  
14 These techniques also allow monitoring of the effects of treatment regimens at the level of the  
15 brain.<sup>41</sup>

16 Currently, medications are the primary focus of treatment-oriented research. Development

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<sup>39</sup> Testimony of Steven Hyman, Director, National Institute of Mental Health, U.S. Senate Appropriations Subcommittee Hearings, 1997. Meltzer H.Y., Cola P., Way L., Thompson P.A., et al, "Cost effectiveness of clozapine in neuroleptic-resistant schizophrenia." *American Journal of Psychiatry* 150:1630-1638 (1993).

<sup>40</sup> Andreasen N.C., O'Leary D.S., Arndt S. "Neuroimaging and clinical neuroscience: basic issues and principles." Oldham J.M., Riba M.B., Tasman A. (eds.), *American Psychiatric Press Review of Psychiatry*, Vol. 12 (Washington, DC: American Psychiatric Press, 1993).

<sup>41</sup> Baxter L.R., Schwartz J.M., Bergman K.S., et al., "Caudate glucose metabolic rate changes with both drug and behavior therapy for obsessive-compulsive disorder." *Archives of General Psychiatry* 49:681-689 (1992).

1 of new medications is being facilitated, for example, by studies of brain neurotransmitter  
2 receptors, which allow new molecules to be created that have the desired therapeutic effects with  
3 minimal side effects. More innovative approaches that are still in very early and speculative  
4 development include insertion of new genes to correct identified defects underlying brain  
5 disorders (“gene therapy”), and use of immunologic therapies, like the recent successful  
6 inoculation of rats against the psychostimulant effects of cocaine.<sup>42</sup>

7         Some basic research (e.g., on brain receptor mechanisms) can be conducted with animals  
8 rather than with humans. But when disease processes themselves are under study, the absence of  
9 animal models for most psychiatric and neurologic syndromes means that research on both the  
10 underlying mechanisms of disease and on promising treatments must involve human subjects.  
11 Moreover, unless research is to be limited to the mildest forms of the disorders, some persons  
12 whose decisionmaking capacities may be impaired are likely to be involved. From this reality  
13 flows the central dilemma of designing appropriate protections for persons with mental disorders  
14 who participate in such research protocols: Protection of subjects from harm must be balanced  
15 against the potential for benefit that may arise from their participation and, to some extent,  
16 potential benefits for other persons with their disorders.

17

### 18 The Ethics of Study Design

19         There is considerable commentary on the ethical prerequisites for research involving  
20 human subjects, and much of it is represented in the Nuremberg Code and subsequent  
21 professional, national, and international codes and guidelines for research. These considerations

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<sup>42</sup> American Psychiatric Association, *Opening Windows*, op.cit.

1 include whether the importance of the study is great enough to justify the potential harms to  
2 which human subjects are exposed, and whether there is any other reasonably effective way to  
3 obtain information that would reduce the level of risk entailed to the subjects involved. As well,  
4 there is a widely accepted view in the ethics of human subjects research, particularly since World  
5 War II, that some knowledge may have to be forgone if the costs to individual subjects are too  
6 great.

7           Clearly, those who conduct research with human beings have the responsibility of  
8 designing studies which are both scientifically and ethically sound. Nonetheless, in some  
9 contexts, scientific and ethical considerations are not always seen as *jointly* necessary features of  
10 high quality research design. For example, textbooks on research methods and clinical trials  
11 rarely integrate ethical guidance with scientific guidance.<sup>43</sup> At the same time, many granting and  
12 regulatory groups recognize that ethical research must meet the requirements of scientific validity  
13 and importance and that scientific investigations using human subjects must be conducted  
14 according to ethical principles. The short-hand expression, ‘good science is a prerequisite for  
15 good ethics’ is a helpful reminder,<sup>44</sup> but may not capture all of the nuances of what is morally  
16 required of high quality research design. Freedman helpfully captured the essence of this problem  
17 when he argued that scientific validity and scientific value are twin requirements for ethical  
18 research.<sup>45</sup> While all research should be expected to meet these requirements, studies that involve

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<sup>43</sup> Sutherland H.J., Meslin E.M., Till J.E., “What's missing from current clinical trials guidelines? A framework for integrating ethics, science and community context.” *Journal of Clinical Ethics* 5(4): 297-303 (Winter 1994).

<sup>44</sup>Rutstein, D., *Human experimentation, A Guided Step into the Unknown*, W.A. Silverman (ed.) (Oxford: Oxford University Press, 1986).

<sup>45</sup>Freedman B., “Scientific value and validity as ethical requirements for research: a proposed explication.” *IRB: A Review of Human Subjects Research* 9:7-10 (1987).

1 vulnerable persons would seem to require particular attention to these requirements. Deciding  
2 which design will best answer the research question, what procedures will be used, which subjects  
3 will be studied, are all questions that require both scientific and ethical justifications. Philosophers  
4 of science have long pointed out that even the selection of one hypothesis over another has moral  
5 implications, insofar as there are opportunity costs associated with this choice. Further, the  
6 decision to pursue some hypotheses, and the experimental design that accompanies that decision,  
7 can have direct moral consequences. A classic example is that of the World War II Manhattan  
8 Project scientists who hypothesized that the atomic pile would not go critical during a test run,  
9 and, therefore, would not incinerate a substantial portion of Chicago.<sup>46</sup>

10 As has been the case for research with other populations, one of the controversial aspects  
11 of research involving persons with mental disorders concerns the ethical acceptability of the basic  
12 designs of some studies. There are, for example, significant concerns in some quarters regarding  
13 study designs that use drugs to stimulate behavioral or physiological manifestations of the disease  
14 under study. The term “challenge study” refers to a general category of psychologic and  
15 pharmacologic provocations.<sup>47</sup> Miller and Rosenstein list among these provocations injection of  
16 intravenous amphetamine, inhaled carbon dioxide and the presentation of a phobic stimulus. The  
17 principal scientific rationale for conducting psychiatric symptom-provoking studies is “to learn  
18 more about the underlying pathophysiological mechanisms responsible for the symptomatic  
19 expression of psychiatric illnesses”.<sup>48</sup> In these “challenge” or “symptom-provocation” studies, the

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<sup>46</sup> Rudner, R., “The Scientist Qua Scientist Makes Value Judgments,” *Philosophy of Science* (Englewood Cliffs, New Jersey: Prentice Hall, 1966).

<sup>47</sup> Miller and Rosenstein, 1997, p. 403

<sup>48</sup> Miller and Rosenstein, 1997, p. 404



1 goal is to generate these disease manifestations in a controlled setting so that they can be more  
2 fully understood and so that at a future stage appropriate interventions can be designed, attempted  
3 and evaluated.

4 Challenge studies raise several ethical issues, and the Commission has heard testimony on  
5 this subject by members of the public, scientists and others on several occasions. Two concerns  
6 have emerged, both from the literature and from public testimony. The first concern is whether  
7 informed consent to participate in a study designed to provoke symptoms is possible to achieve.  
8 The second concern is whether the relationship between risks and potential benefits can ever  
9 justify enrolling individuals in such studies when the protocols include intentionally inducing what  
10 would otherwise be considered harmful.

11 Another study design that has generated a good deal of concern and debate is that which  
12 entails a period without the medication that a patient has been prescribed for therapeutic  
13 purposes, a so-called “drug holiday.” Sometimes also called “washout” studies, this design often  
14 seeks to return the individual to a medication-free “baseline” state so that behavior can be  
15 assessed or new drugs introduced without the confounding factor of other substances already in  
16 the person’s system. In other protocols a beneficial drug may be withdrawn for purposes of  
17 determining, for example, the appropriate length of the drug therapy. Often the washout and  
18 challenge approaches are combined in a single study.

19 Finally, no study design has led to more discussion than the use of placebo controls.<sup>49</sup>  
20 Usually conducted in a “blinded” fashion so that neither the subject nor the investigator knows

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<sup>49</sup> Addington D. “The use of placebos in clinical trials for acute schizophrenia.” *Canadian Journal of Psychiatry* 40:171-176 (1995). Rothman, K.J., Michels K.B. “The continued unethical use of placebo controls.” *New England Journal of Medicine* 331:394-398 (1994).

1 which agent is active and which is placebo, ethical placebo studies require that subjects  
2 understand that they will not necessarily receive the experimental intervention. As in the other  
3 study designs mentioned, obviously there will be special ethical concerns for persons whose  
4 decision making capacity is fluctuating or absent at the time of study enrollment, as the idea of a  
5 non-treatment arm of a study may not be a familiar one. Moreover, as noted above, the tendency  
6 to construe all “medical” interventions as therapeutic, may especially affect persons whose  
7 cognitive processes are impaired and who are particularly dependent upon physicians and medical  
8 institutions.

9           Given that ethical guidelines and regulations are designed for use by IRBs, it is not  
10 surprising that, when reviewed in detail, their focus tends to be on the requirement that there be  
11 scientific merit in the proposals.<sup>50</sup> As noted previously, however, both scientific and ethical merit  
12 are jointly necessary for conducting human subject research. “Washout” studies, “provocation”  
13 studies, and placebo-controlled studies done with subjects who are the focus of this report require  
14 special attention to appropriate ethical constraints, both from IRB members and from researchers  
15 who work with persons with mental disorders.

16  
17 The Responsibilities of Clinical Investigators

18           The clinical investigator is the key player in our research system with respect to the  
19 protection of human subjects. Many of the central issues in this report -- standards for  
20 decisional capacity, assessment of risks of harms and potential benefits, techniques for improving  
21 informed consent, recognizing the involvement of family members and friends -- turn on the

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<sup>50</sup> Sutherland H.J., Meslin E.M., Till J.E., p. 297.

1 integrity, compassion, ability to conduct high quality science, and professionalism of the research  
2 physician. No matter how many regulations are put in place or guidelines written, and regardless  
3 of the intensity of scrutiny by IRBs or other authorities, *there can be no substitute for the*  
4 *researchers' and the research institution's ongoing commitment to ethically appropriate*  
5 *behavior throughout the research process.* This is true not only as the research project is planned  
6 and protocols are developed, but throughout the trials themselves.

7         It is often noted that there is no right to conduct research with human subjects. It is a  
8 privilege conferred on those individuals who are prepared to undergo rigorous scrutiny of their  
9 proposed studies and ongoing research trials. Nevertheless, it is also commonplace that medical  
10 scientists are under enormous pressure to find treatments for diseases that cause much suffering.  
11 Under these conditions, the privilege of conducting human subjects research can slide too easily  
12 into the illicit notion that there is a social obligation for particular individuals to serve as research  
13 subjects.

14         In the United States, the key role of the clinical investigator is still more heavily burdened  
15 by the inherent conflict of interest that arises from the fact that he or she usually is both a clinician  
16 and a medical researcher; actually playing two roles in relation to a single patient-subject. Role  
17 conflict is a more pervasive and subtle problem in clinical research than financial conflict, for the  
18 goals of caring for the patient and of bringing the research project to a successful conclusion are  
19 not always completely congruent.

20         Does the scientific importance of my work justify asking people to participate as subjects  
21 in my research protocol? Should this patient be recruited into my study? Does this patient have  
22 the capacity to decide about participation in this study? Are the risks and potential benefits of

1 study participation acceptable for this patient? Does this patient understand the nature of the  
2 research? Is his or her agreement to participate wholly informed and voluntary? Is he or she  
3 unusually liable to a therapeutic misconception? All of these are critical questions that the clinical  
4 investigator must consider carefully. The ethically responsible scientist is expected to carry the  
5 dual burden to advance knowledge that can improve the human condition and at the same time to  
6 treat human research subjects with the utmost care and respect.

7 Many of those who oppose additional special protections note that the research  
8 environment is in fact often more beneficial for persons who are ill than the usual clinical setting.  
9 As research subjects, they might not only be receiving “cutting edge” treatment as well as  
10 standard therapy, but their conditions are probably going to be monitored more carefully than is  
11 usually the case. Furthermore, many research participants could not otherwise afford the highly  
12 specialized attention available in many protocols.

13 Involvement in a study should not be presented or perceived simply as a substitute for  
14 health care. Further, using the research system as a supplement to a health care system that may  
15 not be accessible to many cannot be the principle justification for enrolling human subjects in  
16 research protocols. The context of research and health care must not be confused, if for no other  
17 reason than that the primary goal of the former is to expand medical knowledge and improve  
18 future treatment for particular disorders and the primary goal of the latter is to provide immediate  
19 medical assistance. Nor can the good intentions of most clinical investigators substitute for the  
20 responsibility of each participating institution or for society’s responsibility to ensure that  
21 reasonable protections are in place for those who are vulnerable, and should not be solely  
22 contingent on the good will of researchers.

1           Nevertheless, there is much truth to the view that the most important protection for  
2 human research subjects is the personal moral character of the medical scientist in whose hands  
3 are entrusted human lives. But while the clinical researcher's own morality may be a necessary  
4 element of ethically acceptable research practices, it is not sufficient. It would be unfair to expect  
5 that the complex moral problems arising from human subjects research can be resolved solely by  
6 individual clinicians, by requiring them to measure up to standards we have not adequately  
7 articulated and then threatening them with moral blame if they are perceived to have failed. It is  
8 not adequate to focus only on the individual investigator in research communities.

9           The responsibility for ensuring that the rights and welfare of human subjects are protected,  
10 therefore, should also be borne by the investigator's research community, department, or  
11 institution. These responsibilities include, but are not limited to, educating investigators about the  
12 ethics of research and the protection of human subjects, as well as appropriate monitoring of the  
13 behavior of investigators in relation to their human subjects in the ongoing conduct of their  
14 research. This responsibility is not relieved by the approval of the investigator's research protocol  
15 by an IRB or other IRB functions as they are presently constituted.<sup>51</sup>

### 17 The Structure of this Report

18           Four analytical chapters follow this chapter. The next chapter offers an account of the  
19 history of past efforts to regulate research involving persons with mental disorders. It is followed  
20 by chapters on decisional impairment and incapacity; risks and potential benefits in research that

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<sup>51</sup> The Commission intends to undertake a study of issues related to the IRB system more broadly as a future project.

1 includes persons with mental disorders; and advance planning, surrogate decision making, and  
2 informed consent. The final chapter describes special protections recommended by the  
3 Commission for research involving persons with mental disorders that may affect decisionmaking  
4 capacity.

5           In making these recommendations, the Commission is acutely aware of the already  
6 considerable burdens placed upon dedicated clinical scientists and upon research centers. Some  
7 of the recommendations may require a greater investment in arrangements designed to protect  
8 human research subjects, such as IRBs at the local level and at the federal office charged with  
9 ensuring human subjects protections. But if important research that will benefit our society is to  
10 flourish, it may only do so in an environment that adheres in the strictest possible manner to the  
11 values and rights that are so central to our society.

Chapter Two: HISTORICAL AND CONTEMPORARY PERSPECTIVES

Historic Controversies<sup>52</sup>

Debate about the propriety and necessity of research involving persons whose decisionmaking capacity may be affected by a mental disorder is not new. Historically, these discussions have been couched in the context of particular conditions such as sexually transmitted diseases and schizophrenia. More recently, Alzheimer’s disease research has emerged as a focus of concern. For regulatory purposes, research is defined as "a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge."<sup>53</sup> According to this definition, some of the following historic examples may not be considered research. Nevertheless, they may be illustrative of the kinds of problems encountered in psychiatric research. This review of some prominent controversies is not presented as a general indictment of psychiatric or neurological research, or research in any field. It is intended, rather, as historical background that may help to explain how the current debate has come to pass, and how particular cases and concerns have stimulated attempts to regulate and/or reform research practices.

Research involving persons with mental disorders that affect decisionmaking capacity has sparked controversy since at least the turn of the century. In 1892, for example, a Prussian medical school professor had given blood serum from people with syphilis to four children and three young prostitutes. Dr. Albert Neisser was working on a syphilis vaccine, but failed to ask

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<sup>52</sup> Much of the material in this chapter has been adapted from Jonathan D. Moreno, “Regulation of Research on the Decisionally Impaired: History and Gaps in the Current Regulatory System,” which was presented at the conference “Conducting Research on the Decisionally Impaired,” University of Maryland School of Law, May 28, 1997.

<sup>53</sup> 45 C.F.R. 46.102(d).

1 the permission of those he infected, or their legal guardians. When several contracted the disease,  
2 newspapers carried banner headlines about the scandal. In 1900, the Prussian government  
3 directed that medical research must have the human subject's consent.<sup>54</sup>

4 Viennese physician Julius Wagner von Jauregg was awarded the Nobel Prize for  
5 “Medicine or Physiology” in 1927 for his malaria therapy for general paresis, a condition that  
6 occurs during the tertiary phase of syphilis which can cause insanity, paralysis, and death. Von  
7 Jauregg experimented with the induction of fevers as a cure. He injected nine paralyzed patients  
8 with malaria, which was subsequently cured with quinine. The malaria-induced fevers were  
9 claimed to cure 85 percent of the patients.<sup>55</sup> Important as it was, von Jauregg’s work was  
10 clouded by his questionable use of patients as research subjects. Like many whose use of human  
11 subjects may be challenged, von Jauregg had the reputation of a humane and dedicated physician.  
12 He was an ardent campaigner for laws to protect the insane from persecution and discrimination.<sup>56</sup>  
13 Following the Neisser scandal, physicians in that part of the world should have been well aware  
14 of problems in research ethics, but how these considerations might have affected von Jauregg’s  
15 research design is not known.

16 Portuguese physician Egas Moniz, who won the Nobel Prize in 1949, also conducted  
17 research with persons whose decisionmaking capacity may have been affected by their condition.  
18 American physiologists had experimented with monkeys whose prefrontal lobes had been

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<sup>54</sup>Annas G.J. and Grodin M.A. *The Nazi Doctors and the Nuremberg Code* (New York: Oxford University Press, 1992), pp. 127-128, see also Grodin M.A., “Historical Origins of the Nuremberg Code,” George J. Annas and Michael A. Grodin, (eds), *The Nazi Doctors and the Nuremberg Code* (New York: Oxford University Press, 1992), pp. 129-31.

<sup>55</sup>Tyler Wasson (ed.), “Julius Wagner von Jauregg.” *Nobel Prize Winners* (New York: The H.W. Wasson Co., 1987), pp. 1092-1094.

<sup>56</sup>Id. at 1094.



1 surgically removed. The monkeys no longer became upset when they made mistakes carrying out  
2 complex tasks they had learned, they seemed to be immune to anxiety and frustration. Moniz  
3 theorized that the same may be true for severely anxious or aggressive mental patients. The  
4 operation did seem to cure at least some of the first 20 on whom it was tried.<sup>57</sup> Moniz supervised  
5 the performance of more than 100 “leukotomies” (later called lobotomies); he was too impaired  
6 by gout in his hands to perform the procedure himself. The technique was banned by the  
7 Portuguese government after psychiatrists who favored other treatments protested, but others,  
8 especially in the United States, adopted lobotomy and applied it widely.<sup>58</sup>

9 In retrospect, it is possible that physicians experimenting upon subjects afflicted with the  
10 disease being studied did not perceive themselves as bound by the same ethical constraints as  
11 those doing research with healthy “normal” subjects. The theory that there has long been a  
12 different perception of the ethical constraints involved in doing research with the sick than with  
13 the healthy was also developed in another context by the federal Advisory Committee on Human  
14 Radiation Experiments.<sup>59</sup>

15 If this reconstruction of an historical assumption is correct -- even though people may not  
16 have been aware of the dichotomy of values at the time -- it may also help explain why certain  
17 very public experimental uses of persons whose decisionmaking may have been impaired did not  
18 often provoke general outrage. Apparently, they were often considered, by some, as less than

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<sup>57</sup> It is unknown what consent procedures were involved in Moniz’s procedures. A requirement for consent to a surgical intervention, either from a patient or next of kin, was widely recognized in the United States at that time.

<sup>58</sup> Tyler Wasson (ed.) “Egas Moniz.” *Nobel Prize Winners* (New York: The H.W. Wilson Co., 1987), pp. 723-725.

<sup>59</sup>Advisory Committee on Human Radiation Experiments *op. cit.*

1 fully eligible for normal protections, and even experimental procedures conducted by physician-  
2 scientists were commonly assumed to fall within the then-privileged domain of doctor-patient  
3 relationships. Values such as telling patients the truth about their condition and upholding a  
4 patient's right to determine the goals of her or his own treatment were not widely recognized,  
5 even in principle, until quite recently. In such a climate physicians were far less constrained to be  
6 clear about the boundary between recognized and novel treatment than is the case today.

7         Several other innovative somatic therapies were introduced into psychiatry in the 1930s,  
8 including "shock therapy," which could involve electrical impulses, drugs such as insulin to induce  
9 hypoglycemia, and metrazol to induce convulsions. Contemporary psychiatrists were discomfited  
10 by the rush of these new and unproven drastic interventions, but they found themselves in a moral  
11 dilemma. As historian Gerald Grob has put it, they asked themselves whether physicians should  
12 "deploy experimental therapies on patients whose illness often impaired their mental faculties?"  
13 Finally, however, the pressure to find an effective treatment for the large numbers of chronic  
14 mental patients crowding hospitals in this heyday of institutionalization overwhelmed any  
15 concerns regarding informed consent, which at the time seemed somewhat abstract. In Grob's  
16 words, "(I)f there was even a remote chance that an experimental therapy would aid them, should  
17 they be deprived of its use until more conclusive evidence was available?"<sup>60</sup>

18         Unfortunately, not all instances of ethically questionable research practices involving those  
19 who are decisionally impaired were intended to benefit the subjects, nor even intended to yield  
20 knowledge of the sources of the impairment that affected the particular subject population.  
21 Rather, they may have an entirely unrelated purpose, such as determining the effects of an agent

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<sup>60</sup> Grob G., *The Mad Among Us* (Cambridge, MA.: Harvard University Press, 1994).

1 on the human body, or the body's effect on the agent. In these cases, the decisionally impaired  
2 subject was included in research because he or she was readily available (i.e., considered to be less  
3 eligible for protection), especially if the subject was institutionalized. Two prominent illustrations  
4 of this scenario also occurred during the 1950s, although they became generally known only much  
5 later.

6 In 1952 Harold Blauer was 42 years old and employed as a tennis pro at Manhattan's  
7 Hudson River Club. Apparently despondent over a divorce from his wife, with whom he had two  
8 young daughters, Blauer checked himself into Bellevue Hospital. He was diagnosed with clinical  
9 depression and transferred to the Psychiatric Institute, a New York State facility staffed by  
10 Columbia University faculty. Unbeknownst to Blauer, the researcher had a secret contract with  
11 the Army Chemical Corps to conduct research on a mescaline derivative, methyl-di-amphetamine  
12 (MDA). In mid-January 1953, Blauer was given several injections of various forms of mescaline.  
13 Following one of the injections Blauer went into convulsions and died some hours later. The  
14 Army and New York State arranged a cover-up of the actual circumstances of Blauer's death and  
15 split an \$18,000 payment to his widow and two young children. Over two decades later, after  
16 the true story finally came to light, a court awarded Blauer's daughters \$750,000 as compensation  
17 from the federal government.<sup>61</sup>

18 At around the time the Blauer case began, in the early 1950s, the Atomic Energy  
19 Commission (AEC) was helping to support studies that would demonstrate some of the peaceful  
20 uses of nuclear energy. In one such episode that came fully to light only a few years ago, the  
21 AEC co-sponsored with the Quaker Oats company a study by MIT researchers of mineral uptake

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<sup>61</sup>*Barrett v. U.S.*, 660 F. Supp. 1291 (S.D.N.Y. 1987).

1 in the human body, using as a tracer minute amounts of radiation in breakfast cereal. Subjects  
2 included emotionally disturbed adolescent boys in two Massachusetts institutions known as  
3 Fernald and Wrentham. At Fernald, about which more is known than the other site in this study,  
4 parents were asked to consent for their boys to be in a special program called the “Science Club.”  
5 They were not told the true purpose of the club, nor that tiny amounts of radiation would be  
6 ingested. In its 1995 final report to the President, the Advisory Committee on Human Radiation  
7 Experiments found that government officials and biomedical professionals even *at that time*  
8 “should have recognized that when research offers *no prospect* of medical benefit, whether  
9 subjects are healthy or sick, research should not proceed without the person’s consent”<sup>62</sup>  
10 (emphasis in original).

11 Both the Blauer and Fernald-Wrentham cases involved decisionally impaired subjects and  
12 were part of research protocols that were neither intended to benefit the subjects nor designed to  
13 address the conditions that caused their impairments. Interestingly, both were also projects that  
14 were at least partly sponsored by national security agencies, a sector of government that had also  
15 used mental patients in research during the Second World War. Although the vast majority of  
16 wartime subjects were military personnel (mainly in mustard gas studies), conscientious objectors,  
17 prisoners, and psychotic patients were used in a malaria study and retarded subjects in dysentery  
18 vaccine experiments sponsored by the Committee on Medical Research, an arm of the Executive  
19 Office of the President.<sup>63</sup> Although the degree and quality of consent to participation in these  
20 studies greatly varied, many of the wartime subjects were voluntary, even enthusiastic,

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<sup>62</sup> *Supra* note 8 at 504.

<sup>63</sup> Rothman D.H., *Strangers at the Bedside: A History of How Law and Bioethics Transformed Medical Decision Making* (New York: Basic Books, 1991).

1 participants in research.

2           Among the more commonly-cited research ethics scandals, there is one that also falls into  
3 the category of research with the decisionally impaired that is neither intended to benefit them  
4 directly nor to contribute to knowledge about the condition that has caused their decisional  
5 impairment: the Brooklyn Jewish Chronic Disease Hospital case in 1963, in which debilitated  
6 patients were injected with live cancer cells, apparently without their knowledge.<sup>64</sup> The study's  
7 purpose was to gather information on how the systems of patients with non-cancerous chronic  
8 conditions would respond to the presence of these transplanted cells. The investigators claimed  
9 to have obtained verbal consent from the subjects. They also defended the lack of documentation  
10 on the grounds that more dangerous procedures were performed without consent forms, and the  
11 lack of truth-telling because they did not want to frighten the patients. The principal investigator  
12 was censured by the New York State Board of Regents, which at that time was responsible for  
13 physician certification in the state.<sup>65</sup>

#### 14 15 History of Regulatory Efforts

16           Most efforts to regulate the use of vulnerable human subjects have been stimulated by  
17 understandable concerns about the use of children as human subjects in research protocols, and to  
18 a lesser extent, about the use of pregnant women and fetuses, and later, prisoners. Nonetheless,  
19 prior to the 1970s there were some attempts to develop guidelines for the involvement of the

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<sup>64</sup>Faden R.R. and Beauchamp T.L., *A History and Theory of Informed Consent* (New York: Oxford University Press, 1986).

<sup>65</sup> Katz J., *Experimentation with Human Beings* (New York: Russell Sage Foundation, 1972).

1 decisionally impaired in various types of research protocols. One of these attempts occurred in  
2 Weimar Germany. In 1930, a doctor named Julius Moses reported that 75 children had died in  
3 Lubeck as a result of pediatricians' experimenting with a tuberculosis vaccine. The German press  
4 was already highly critical of the powerful chemical manufacturers for using hospitals to test their  
5 new products. The scandal in Lubeck gave support to the accusations that people were being  
6 exploited (i.e., used without their consent) for potential profits.

7           It happened that Moses was also a member of the German Parliament from the Social  
8 Democratic Party, and in 1931 he played a key role in pressuring the Interior Ministry to respond  
9 to the Lubeck scandal. The resulting rules were far more comprehensive and sophisticated than  
10 anything introduced by any government until then, and compare quite favorably with modern  
11 regulations.<sup>66</sup> They included a requirement for consent from informed human subjects, with  
12 special protections for the mentally ill. These regulations were trampled upon by Hitler's regime,  
13 which used tens of thousands of concentration camp inmates in inhumane experiments. After the  
14 war, at the Nuremberg trial of the Nazi doctors in 1947, the prosecution team tried to use the  
15 Interior Ministry guidelines as evidence of prior standards that should have governed the actions  
16 of the Hitler regime in the use of human experimental subjects, but the defense lawyers were able  
17 to call their legal status into question because they were not cited by international organizations  
18 monitoring health law in the 1930s and 1940s.<sup>67</sup>

19           However, the team that investigated the Nazi crimes did take note of the abuse of the

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<sup>66</sup>Sass, H.M., "Reichsrundschreiben 1931: Pre-Nuremberg German Regulations Concerning New Therapy and Human Experimentation" *Journal of Medicine and Philosophy* 8:99-111(1983).

<sup>67</sup>Grodin M.A., *op cite*.

1 mentally ill in the context of the “T-4” or “euthanasia” program that led to the extermination of  
2 many psychiatric patients and was, in effect, a rehearsal for the mass murders in the concentration  
3 camps. The chief medical advisor to the Nuremberg judges, Leo Alexander, unraveled the horrific  
4 story of the camp experiments from the records of SS chief Heinrich Himmler, which made the  
5 Nuremberg prosecutions possible. Near the end of the trial, Alexander wrote a memorandum to  
6 the judges, portions of which were incorporated into their decision. This portion, which posterity  
7 knows as the Nuremberg Code, is the judges’ attempt to set out the rules that should guide  
8 research protocols involving human subjects.

9 In his memorandum, Alexander singled out the mentally ill as a population that should be  
10 given special protections.<sup>68</sup> However, the judges did not include this item in their final draft. A  
11 possible explanation is that the judges did not wish to seem to be interfering in legitimate medical  
12 judgments about innovative treatment, but only to rule out non-beneficial and highly risky  
13 experiments with easily coerced populations of healthy subjects such as prisoners. The Code’s  
14 celebrated first line, “The voluntary consent of the human subject of research is absolutely  
15 essential,” has become the most important reference point in all subsequent discussions of  
16 research with human beings. But in characterizing voluntary consent as “absolutely essential”, the  
17 Code seems to rule out research with children, with emergency patients, as well as with the  
18 decisionally impaired.

19 The next major international research code clarified the situation. The World Medical  
20 Association's Declaration of Helsinki, first issued in 1964, provides for limited research  
21 involvement of incapable human subjects. The most recent version of the Declaration states, “[i]n

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<sup>68</sup> Id. at 135.

1 the case of legal incompetence, informed consent should be obtained from the legal guardian in  
2 accordance with national legislation."<sup>69</sup> The Declaration divides research into two categories:  
3 "therapeutic" and "non-therapeutic." The Declaration appears to rule out the participation of  
4 incapable subjects in research that fails to offer them the possibility of direct benefit. When  
5 research has the advancement of knowledge for the benefit of others as its sole objective, the  
6 Declaration states, "[t]he subjects should be volunteers ...."

7 Two other recent documents also address research involving incapable human subjects.  
8 The International Ethical Guidelines for Biomedical Research, issued in 1993 by the Council for  
9 International Organizations of Medical Sciences (CIOMS), and the World Health Organization  
10 (WHO), allow a "legal guardian or other duly authorized person" to authorize an incapable  
11 individual's research participation.<sup>70</sup> The guidelines permit research involving incapable subjects  
12 only if "the degree of risk attached to interventions that are not intended to benefit the individual  
13 subject is low" and "interventions ... intended to provide therapeutic benefit are likely to be at  
14 least as advantageous to the individual as any alternative." Incapable subjects' objections to  
15 participation must be respected; the sole exception would be the rare case in which "an  
16 investigational intervention is intended to be of therapeutic benefit to a subject, ... there is no  
17 reasonable medical alternative, and local law permits overriding the objection."<sup>71</sup>

18 When the National Commission for the Protection of Human Subjects of Biomedical and  
19 Behavioral Research was created in 1974, the decisionally impaired were among the special

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<sup>69</sup>World Medical Association, *Declaration of Helsinki*, Journal of the American Medical Association 277:927 (1997).

<sup>70</sup> Both the CIOMS and the Helsinki documents are currently undergoing revision.

<sup>71</sup> CIOMS/WHO, *International Ethical Guidelines for Biomedical Research Involving Human Subjects* (Geneva: CIOMS 1993).



1 populations that it intended to consider, partly because of the controversy about lobotomy. The  
2 National Commission's report on those who were carefully described as "institutionalized as  
3 mentally infirm" (IMI) came at the very end of its tenure. In its 1977 "Report and  
4 Recommendations on Research Involving Children,"<sup>72</sup> and its 1978 "Report and  
5 Recommendations on Research Involving Those Institutionalized as Mentally Infirm,"<sup>73</sup> the  
6 National Commission rejected both the Nuremberg Code's complete ban and the Helsinki  
7 Declaration's limitation on the involvement of incapable subjects. The members of the National  
8 Commission believed a less restrictive approach was justified to avoid harm to incapable persons  
9 as a group

10 since some research involving the mentally infirm cannot be  
11 undertaken with any other group, and since this research may  
12 yield significant knowledge about the causes and treatment of  
13 mental disabilities, it is necessary to consider the  
14 consequences of prohibiting such research. Some argue that  
15 prohibiting such research might harm the class of mentally  
16 infirm persons as a whole by depriving them of benefits they  
17 could have received if the research had proceeded.<sup>74</sup>

18 The National Commission concluded that the dual goals of benefiting the class of mentally infirm

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<sup>72</sup> National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, *Report and Recommendations, Research Involving Children* (DHEW, 1977) [hereinafter Report on Children].

<sup>73</sup> National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, *Report and Recommendations, Research Involving Those Institutionalized as Mentally Infirm* (DHEW, 1978) [hereinafter Report on Institutionalized Persons].

<sup>74</sup> *Id.* at 58.

1 persons and protecting individual subjects from undue harm could be met by a third approach:  
2 incapable subjects could be involved in studies offering them potential direct benefit, as well as  
3 studies that did not offer potential direct benefit, as long as the burdens and risks of research  
4 participation did not exceed a certain level.

5           Based on this general approach, the National Commission created a framework for  
6 evaluating research involving incapable subjects. The National Commission's proposals regarding  
7 children and institutionalized persons with mental impairments were similar, though with some  
8 variation. The proposals had several elements in common: a requirement to justify the  
9 involvement of these subject groups rather than alternative less vulnerable subject populations; a  
10 hierarchy of research categories establishing more rigorous substantive and procedural standards  
11 for proposals presenting more than minimal risk to incapable subjects; and a mechanism for  
12 incapable subjects to provide input in the form of "assent" or objection to study participation, that  
13 is, a simple yes or no when questioned about willingness to be in a study.

14           Differences in the recommendations on children and institutionalized persons were based  
15 on the Commissioners' recognition that some adults institutionalized as mentally infirm retain the  
16 ability to give an informed and voluntary decision. Because of concerns about the vulnerability of  
17 institutionalized persons, however, the National Commission recommended that IRBs be given  
18 discretion to appoint "an auditor to observe and assure the adequacy of the consent process for  
19 research" presenting greater than minimal risk. Moreover, the members of the National  
20 Commission believed such auditors should be *required* in projects presenting no prospect of direct  
21 benefit and more than minimal risk to subjects. The National Commission's proposals also gave

1 incapable adults more authority than children to block study participation.<sup>75</sup> Finally, because  
2 incapable adults usually lack the clear legal guardian that most children have, the Commission  
3 noted that, in some cases, a court-appointed guardian would be required to provide adequate  
4 authority for research participation.

5 In response to the National Commission's work, the Department of Health, Education and  
6 Welfare (DHEW) proposed regulations to govern research on the two populations. The  
7 regulations on research involving children were adopted by the Department of Health and Human  
8 Services (DHHS) in June 1983.<sup>76</sup> However, the proposed regulations on persons institutionalized  
9 as mentally disabled were never adopted.<sup>77</sup>

10 The Secretary of DHHS attributed the government's failure to issue final regulations on  
11 research involving institutionalized persons to "a lack of consensus" on the proposed regulatory  
12 provisions and to a judgment that the general regulations governing human subjects participation  
13 sufficiently incorporated the Commission's recommendations.<sup>78</sup> Robert Levine blames the  
14 reported lack of consensus on DHEW's earlier failure to adhere to the Commission's  
15 recommendations.<sup>79</sup> The agency's proposed regulations indicated that consent auditors might be

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<sup>75</sup> The National Commission required explicit court authorization to involve an objecting institutionalized person in research. In contrast, the group recommended that parents be permitted to authorize research over a child's objection if the study presented a prospect of direct benefit to subjects not available outside the research context.

<sup>76</sup> "Protection of Human Subjects, Additional DHHS Protections for Children Involved as Subjects in Research" *Fed. Reg.* 48: 9818 (Mar. 8, 1983).

<sup>77</sup> "Protection of Human Subjects, Proposed Regulations on Research Involving Those Institutionalized as Mentally Disabled," *Fed. Reg.* 43:53950 (Nov. 17, 1978).

<sup>78</sup> President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research, *Implementing Human Research Regulations* 23-29 (1983).

<sup>79</sup> Levine R.J., "Proposed Regulations for Research Involving Those Institutionalized as Mentally Infirm: A Consideration of Their Relevance in 1996," *IRB*, (Sept.-Oct. 1996) at 1. See also Bonnie R., "Research With Cognitively Impaired Subjects," *Arch. Gen. Psych.* 54:105, 107

1 mandatory for all research involving institutionalized mentally disabled persons. Moreover, they  
2 suggested that the authorization of an additional person assigned the role of independent advocate  
3 might be necessary before an incapable person could become a research subject. During the  
4 public comment period, many respondents objected to these additional procedural requirements,  
5 presumably on the belief that they were unnecessary and overly burdensome to research.<sup>80</sup>

6 With the exception of the Institutionalized as Mentally Infirm recommendations, the 1981  
7 DHHS rules largely followed from the National Commission's work. In 1991, these rules were  
8 codified for 17 federal agencies that conduct or sponsor research with human subjects and are  
9 now known as the "Common Rule."<sup>81</sup> The regulations do authorize IRBs to institute additional  
10 safeguards for research involving vulnerable groups, including the mentally disabled.<sup>82</sup> These  
11 safeguards could involve consultation with specialists concerning the risks and benefits of a  
12 procedure for this populations, or special monitoring of consent processes to ensure  
13 voluntariness. But it is not known how frequently IRBs actually implement such additional  
14 conditions.

15 In November 1996, the Council of Europe's Committee of Ministers adopted the  
16 "Convention for the Protection of Human Rights and Dignity of the Human Being With Regard to  
17 the Application of Biology and Medicine." This document allows persons without the capacity to

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(1997) (debate over proposed regulations provoked division between scientists concerned that safeguards, especially consent auditors and subject advocates, would significantly hinder research and advocates for mentally disabled persons, concerned about subjects' vulnerability). Bonnie also refers to opposition to special regulations for persons with mental illness on grounds that such an approach would foster negative stereotypes about such individuals.

<sup>80</sup> Ibid

<sup>81</sup> "Federal Policy for the Protection of Human Subjects; Notices and Rules," *Fed. Reg.* 56:28002-28032 (June 18, 1991).

<sup>82</sup> Ibid.

1 consent to be involved in research if *all* the following conditions are met: "the results of the  
2 research have the potential to produce real and direct benefit to his or her health"; "research of  
3 comparable effectiveness cannot be carried out on individuals capable of giving consent"; and  
4 participation is authorized by the incapable person's "representative or an authority or a person or  
5 body provided by law"; and the incapable person does not object to participation.

6 The document also permits research that fails to offer subjects potential direct health  
7 benefit if the study meets conditions two through four, above, and: (1) is designed to produce  
8 knowledge for the benefit of persons with the same condition; and (2) "entails only minimal risk  
9 and minimal burden for the individual concerned."<sup>83</sup>

#### 11 The Contemporary Debate

12 In the United States at this time, no special regulations govern research involving adults  
13 diagnosed with a condition characterized by mental impairment. Such research is governed by the  
14 Common Rule, the general federal provisions governing human subjects research. A few  
15 Common Rule provisions address research involving persons with mental disabilities. First, the  
16 Rule identifies "mentally disabled persons" as a vulnerable population. Institutional review boards  
17 are directed to include "additional [unspecified] safeguards ... to protect the rights and welfare" of  
18 mentally disabled research subjects; IRBs are also advised to ensure that "subject selection is  
19 equitable," and that mentally disabled persons are not involved in research that could be

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<sup>83</sup> Council of Europe, *Convention on Human Rights and Medicine* (Nov. 1996), Articles 6 and 17. No further explanation is given concerning definitions of the terms minimal risk and minimal burden. The convention is open for signature by member States and those with Observer status. The United States falls under the latter category.

1 conducted on a less vulnerable group.<sup>84</sup> Finally, "[i]f an IRB regularly reviews research that  
2 involves a vulnerable category of subjects, such as ... mentally disabled persons, consideration  
3 should be given to the inclusion of one or more individuals who are knowledgeable about and  
4 experienced in working with these subjects."<sup>85</sup> The Rule allows an incapable individual's "legally  
5 authorized representative" to give valid consent to the individual's research participation,<sup>86</sup> but  
6 provides no definition of incapacity, no guidance on the identity or qualifications of a subject  
7 representative beyond "legally authorized," and no guidance on what ratio of risks to benefits is  
8 acceptable.

9 In the 1980s and 1990s, numerous groups and individuals expressed dissatisfaction with  
10 gaps in the existing regulations. For example, the Advisory Committee on Human Radiation  
11 Experiments reviewed eight studies conducted in the early 1990s involving adult subjects with  
12 uncertain decisionmaking capacity. Four of these studies required subjects to undergo diagnostic  
13 imaging that offered them no prospect of direct benefit, and two appeared to present greater than  
14 minimal risk to the subjects. Yet, as the Committee noted, "there was no discussion in the  
15 documents or consent form of the implications for the subjects of these potentially anxiety-  
16 provoking conditions. Nor was there discussion of the subjects' capacity to consent or evidence  
17 that appropriate surrogate decision makers had given permission for their participation."<sup>87</sup>  
18 Inquiries into studies involving medication withdrawal from persons diagnosed with schizophrenia  
19 also have raised questions about the adequacy of existing federal policy and the ethical

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<sup>84</sup> Sec. \_\_\_\_ .111 (a)(3) & (b).

<sup>85</sup> Sec. \_\_\_\_ .107(a).

<sup>86</sup> Sec. \_\_\_\_ .116

<sup>87</sup> Final Report, *supra*, at 706-07.

1 acceptability of certain existing research protocols.<sup>88</sup>

2           There appears to be strong indirect evidence that IRBs are unlikely to adequately  
3 compensate for the lack of specific regulations for research with persons with cognitive  
4 impairments by aggressive use of their existing discretionary authority. For example, although  
5 IRBs currently have discretionary authority to monitor research in progress, including research  
6 involving persons with mental disorders, it does not appear that such monitoring routinely occurs.  
7 One factor that accounts for the lack of on-site monitoring is a lack of institutional or other  
8 resources. Observers of the review process agree that although the workload of many IRBs at  
9 some of the largest research centers has greatly increased in recent years, the institutional support  
10 for IRB activities has often not kept pace.<sup>89</sup> Although some institutions have responded to the  
11 increasing number of proposals requiring review by establishing more than one board, many IRBs  
12 appear to have focused their efforts elsewhere. As a result, monitoring of a protocol's progress  
13 after approval is practically non-existent, apart from routine filing of annual progress reports by  
14 investigators. After the initial stages, local review has only minimal impact on actual research  
15 practices.<sup>90</sup>

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<sup>88</sup> Office for Protection from Research Risks, "Evaluation of Human Subject Protections in Schizophrenia Research Conducted by the University of California, Los Angeles" (1994). See also Shamoo, A. and Keay, T.J. "Ethical Concerns About Relapse Studies," *Cambridge Quarterly of Healthcare Ethics* 5:373-386 (1996) (in review of 41 U.S. studies involving relapse published between 1966 and 1993, authors found frequent lack of attention to capacity assessment, subject or proxy consent, risk reduction and justification, and monitoring to avoid harm to subjects after studies were initiated).

<sup>89</sup> Department of Health and Human Services, Office of the Inspector General, "Institutional Review Boards: Their Role in Reviewing Approved Research" (Washington, DC: DHHS, 1998).

<sup>90</sup> U.S. General Accounting Office, Report to the Ranking Minority Member, Committee on Governmental Affairs, U.S. Senate, *Scientific Research: Continued Vigilance Critical to Protecting Human Subjects* (Washington, D.C.: U.S.G.A.O., 1996).

1 To increase the openness and accountability of IRBs in this and other areas, it may be  
2 advisable to require periodic audits of IRB records (internal and external), policies, and  
3 procedures, along with mandatory disclosure of the nature of key IRB policies, and publication of  
4 any disciplinary actions taken either by the IRB or against an IRB by a regulatory agency. The  
5 dual tools of audit and disclosure have been underutilized in this area and could substitute for  
6 overly onerous and detailed regulations.

7 The lack of more specific federal guidance on research involving persons with mental  
8 disorders that may affect their decisionmaking capacity has also meant that research not under  
9 federal jurisdiction has gone its own way, or rather at least 50 different ways. State laws and  
10 regulations in this area vary widely; most states have no rules that specifically apply to research  
11 involving this population while some states have quite restrictive regulations. Both IRBs and  
12 researchers have trouble identifying (and thus following) the procedures and standards that are  
13 requisite to ethical and legal investigations involving persons with mental disorders that may affect  
14 their decisionmaking capacity, even in states that have attempted to provide the badly needed  
15 guidance. Recent events in New York State illustrate the situation. The Supreme Court of New  
16 York, Appellate Division, invalidated state regulations that had permitted State-sponsored,  
17 greater-than-minimal-risk research not offering potential benefit to subjects incapable of giving  
18 informed consent who reside in mental institutions regulated by the state. The opinion in this case,  
19 T.D. v. New York State Office of Mental Health, which resulted from a suit brought by former  
20 patients and several advocacy organizations, harshly criticized state practices, some  
21 administrative, some technical, and some constitutional in nature. Among other charges, the  
22 plaintiffs had claimed that proper procedures were not in place for reviewing and monitoring



1 research of this kind.<sup>91</sup>

2 The growing public interest in the nature of research with this population stems partly  
3 from the most recent well-publicized and often misunderstood incident, which was brought to the  
4 public's attention by the suicide of a former subject in a "drug free" or "washout" study at  
5 UCLA.<sup>92</sup> In that case, the National Institutes of Health Office for Protection from Research  
6 Risks (OPRR) concluded that the study design was ethical but the informed consent form was  
7 flawed.<sup>93</sup> Defenders of the research claim that patients are often taken off all medication to  
8 establish various baseline measurements following admission to inpatient units, but admit that  
9 withdrawing psychotropic drugs poses the danger of relapse and must be more carefully  
10 managed.<sup>94</sup>

#### 11 The Role of the National Bioethics Advisory Commission

13 Dissatisfaction with the current regulatory system also has driven many organizations  
14 and individuals to propose additional provisions to govern research involving persons with mental  
15 disorders in general, as well as research involving particular subgroups, such as persons with  
16 dementia and persons diagnosed with particular psychiatric disorders. In recent years, a network  
17 of former patients and concerned family members has developed and organized into groups,  
18 resulting in a number of specialized publications. Representatives of several of these groups,

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<sup>91</sup> *T.D. v. New York State Office of Mental Health et al.*, 650 N.Y.S.2d 173, 228 A.D.2d 95 (App.Div., 1<sup>st</sup> Dep't 1996).

<sup>92</sup>Shamoo and Keay, *op cite*.

<sup>93</sup>Office for Protection from Research Risks, *University of California, Los Angeles, op cite*.

<sup>94</sup> R.J. Beldessarini, "Chemotherapy" In: A.M. Nicolai (ed.), Harvard Guide to Modern Psychiatry (Cambridge, MA: Harvard University Press, 1978), pp. 387-432.

1 including persons who were research subjects and their family members, were among those who  
2 have spoken before the Commission.

3           Although the Commission does not have the authority to investigate specific complaints  
4 that have been made by some of those who have testified, it is persuaded that there is substantial  
5 public concern about actual or potential failures to protect persons suffering from mental  
6 disorders from inappropriate research protocols. It also believes that many clinical investigators  
7 may feel unsure about how they should conduct themselves when working with this population,  
8 and that authorities in New York, Maryland and elsewhere have indicated a sense of unease about  
9 the lack of federal guidance. With those considerations in mind, certain elaborations of the  
10 present system for the protection of human research subjects now appear to be warranted with  
11 regard to those who suffer from mental disorders that may affect decisionmaking capacity.

1 Chapter Three: DECISIONAL IMPAIRMENT AND INCAPACITY

2 The Centrality of Voluntary and Informed Choice

3 The topic addressed by this report -- what are the ethical requisites for research involving  
4 persons with mental disorders that may affect their decisionmaking capacity? -- raises fundamental  
5 questions about the premises underlying governmental and professional regulation of all research  
6 with human subjects. Since the horrific revelations in the trial of the Nazi doctors at Nuremberg,  
7 it has generally been accepted that some means of social control is necessary to minimize the  
8 possibility that unjustified harms may be done to human beings in the service of scientific and  
9 medical advances. The Nuremberg Code and the regulatory structure that has grown up over the  
10 past thirty years in the United States proceed on the premise that the central objective in  
11 regulating human subjects research is to protect potential subjects from unjustified harms by  
12 establishing barriers to research that does not meet appropriate ethical standards. In the U.S. the  
13 result has been the establishment of a system of prior review of research protocols to ensure the  
14 scientific and ethical quality of the protocol which aims at weeding out those protocols that would  
15 expose subjects to inappropriate risks.

16 In recent years, some have argued that another goal -- ensuring access of all groups to  
17 experimental treatments -- should also shape the social control of research. In this view,  
18 insistence upon obtaining the maximum benefit from research while minimizing the risk of harm to  
19 subjects unduly restricts some patients from obtaining new and still experimental medical  
20 interventions for their conditions. Such feelings are especially acute when existing therapies are  
21 quite inadequate. Hence, they would argue that regulatory requirements should be adjusted to  
22 make it easier for people facing very difficult prospects to become research subjects and to gain

1 access to and possibly benefit from experimental interventions.

2 The tension between these two paradigms remains unresolved. In the present context,  
3 however, what may be most noteworthy is that all sides in the issue rely on the voluntary and  
4 informed choice of research subjects. As noted above, the Nuremberg Code makes such consent  
5 the first and essential requisite of ethical research. Similarly, the current demands for greater  
6 access to participation in research protocols rest on a model of patient self-determination. In  
7 either view, research protocols are not acceptable if subjects have not had the opportunity to be  
8 informed about the methods, objectives, potential benefits, and risks of research and to decide  
9 whether or not to participate in a free, fully informed, and uncoerced fashion.

10 Plainly, then, the capacity to participate in this process of informed decisionmaking lies at  
11 the heart of the present system of social control of biomedical and behavioral research. Under  
12 such a framework, those who lack such capacity, or whose capacity is uncertain, may thus be  
13 excluded from research, and there would be no way to assess many new clinical approaches to the  
14 diseases from which they suffer. Under the “protection model” such exclusion may seem  
15 appropriate, as the underlying premise is that it is better to protect subjects (who may be unwilling  
16 participants) from harm, even at the cost of slowing the progress of scientific investigation and  
17 medical advances. Conversely, under the “access model,” barriers to research for persons with  
18 conditions that affect decisionmaking capacity are suspect because they prevent some people from  
19 obtaining the benefits that such research might offer them, either directly as a result of  
20 participating in the research or indirectly as a result of the improved understanding of their illness  
21 and of methods for treating it. From either perspective, impaired decisionmaking capacity  
22 presents a pivotal problem.

## Persistent Decisional Impairments

As noted above, voluntary, informed consent is an essential feature of ethically and legally acceptable research. It embodies the respect for persons that is one of the foundational principles for all physician-patient interactions (and of our political system), and it is seen as one of the basic means of protecting people from unwarranted research risks. The threshold concept that qualifies an individual for participation in the informed consent process is an adequate level of decisionmaking capacity. Throughout this report the term capacity is used rather than the term competence, as the latter carries a legal rather than a moral import. Capacity is also a functional concept, whereas competence carries a more global connotation.

Individuals whose capacity to make decisions is uncertain must be evaluated by a qualified professional to determine as best as possible, their decision-making capacity. Following a proper assessment, a person who lacks the capacity to be an informed decisionmaker may be thought of as “decisionally impaired.” Impairments can result from a variety of causes, including medical illnesses, cognitive difficulties as well as constraints on personal freedom due to institutionalization or dependency upon those who provide one’s treatment. The specific concern of this report, however, is with persons whose decisional impairments may be related to the presence of what we currently understand to be a mental disorder.

In a certain sense, all of us are decisionally impaired at various times in our lives. When we have been exposed to anesthetic agents, when we have had too little sleep, when a life event disrupts our equilibrium, or when we have over-indulged in alcoholic beverages, our ability to process information and weigh alternatives in light of our values are likely to be reduced. These acute but temporary forms of decisional impairment are not usually matters of concern, because

1 decisions about participation in a research project can normally wait until the impairment has  
2 passed.<sup>95</sup> Rather, the impairments that raise the greatest concern are those that persist as a feature  
3 of a person’s psychology. When we speak of a decisional impairment in this report we refer  
4 principally, but not exclusively, to a relatively persistent condition, a condition that is ongoing or  
5 that may periodically recur. Often these conditions are caused by (or, in medical parlance, are  
6 “secondary to”) a progressive disease, an injury, a neurological impairment, or a psychiatric  
7 illness. There are other sources of decisional impairment that are normally more temporary, such  
8 as the transitory side-effects of medical treatment, but that might also call for special planning if  
9 participation in a research protocol is being considered. Some of the discussion and  
10 recommendations in this report are relevant to these other factors that may affect decisionmaking  
11 capacity, but, again, our primary concern is with neurologic or psychiatric conditions and their  
12 affect on the decisional capacity of potential research subjects.

13 It is neither ethically acceptable nor empirically accurate simply to presume that  
14 individuals with ongoing medical problems are decisionally impaired. Less obvious, it is also  
15 inappropriate to suppose that those who exhibit some decisionmaking deficit cannot be helped to  
16 attain a level of functioning that would enable them to be part of a valid consent process. Once  
17 these facts are appreciated, they help make us aware of the special ethical obligations that are

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<sup>95</sup>The ethical problems of conducting research in emergency settings, in the face of the acute loss of decisionmaking capacity that often accompanies admission to a hospital emergency room, has recently been the subject of new federal regulation. The regulations promulgated by the Food and Drug Administration in 1996 permit a narrow exception of the informed consent requirement for emergency research involving serious conditions for which there is no proven satisfactory standard treatment. Department of Health and Human Services, Food and Drug Administration, Protection of Human Subjects; Informed Consent, 61 Fed. Reg. 51498 (Oct. 2, 1996).

1 imposed on medical institutions and society in general when research with persons who may be  
2 decisionally impaired is contemplated.

3 Not only must psychological and medical factors be taken into account, but a full  
4 understanding of the nature of impaired decisionmaking may also require a broader perspective.  
5 As has already been noted, even those of us who would not be considered as suffering from a  
6 decisional impairment may be disoriented when placed in a patient role, with all its attendant  
7 social inequalities and vulnerabilities. Persons with a tendency toward impaired decisionmaking  
8 due to a mental disorder may experience the consequences of institutionalization in a still more  
9 pronounced manner. Therefore the conditions under which a consent process takes place,  
10 including how information is presented and who is responsible for obtaining consent, can be  
11 critical in influencing the quality of the consent. Such an appreciation may also provide practical  
12 insights that can improve the process, such as the use of peers (other persons with similar mental  
13 disorders who have already participated in the research and/or their advocate) in the consent  
14 encounter or in drafting forms to render them more accessible. It is imperative that those who are  
15 engaged in research with persons with mental disorders, including clinical investigators and IRBs,  
16 not only enrich their appreciation of the importance of context in the consent process and,  
17 therefore, in setting an appropriate foundation for ethically acceptable research, but monitor the  
18 continued viability of their consent if their decisionmaking capacity changes in a significant  
19 manner.

1 Immaturity and Decisional Incapacity<sup>96</sup>

2 Especially in the context of discussions about the ethics of human subjects research,  
3 impaired decisionmaking capacity implies a condition that varies from statistical or species-typical  
4 normalcy. In this sense, normal immaturity should not be regarded as a decisional “impairment,”  
5 since the very young cannot be expected to have achieved the normative level of decisionmaking  
6 capacity. Conversely, normal aging need not involve impaired decisionmaking, and assuming  
7 such an impairment is a form of prejudice toward older persons.

8 Therefore when we speak of decisional impairments in the context of research employing  
9 human subjects who suffer from mental disorders, we intend an incapacity that is not part of  
10 normal growth and development. For example, senile dementia is not part of normal aging, and  
11 schizophrenia is a biologically-based disease. These are examples of conditions that deviate from  
12 regular developmental patterns and are not captured under regulatory categories intended to  
13 address periods in the life cycle (fetuses and children) or certain biologically defined populations  
14 (pregnant women) or even certain socially defined groups (prisoners).<sup>97</sup> If those who are  
15 decisionally impaired are to be identified as in need of special treatment under research  
16 regulations, they must be carefully distinguished from other special populations.

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<sup>96</sup>Although older children and adolescents are not specifically included in the recommendations in this report, current federal regulations require their assent for greater than minimal risk research that does not hold out the prospect of direct benefit. To the extent that an older child or adolescent is unable to provide a meaningful assent to research participation, that constitutes a morally relevant obstacle to enrollment in a study of this kind.

<sup>97</sup>Title 45 Code of Federal Regulations Part 46- “Protection of Human Subjects,” Subparts B - Additional Protections Pertaining to Research, Development, and Related Activities Involving Fetuses, Pregnant Women, and Human In Vitro Fertilization, Subpart C- Additional DHHS Protections Pertaining to Biomedical and Behavioral research Involving Prisoners as Subjects and Subpart D- Additional DHHS Protections for Children Involved as Subjects in Research.



1 Impairment versus Incapacity

2 In practice, it is not usually hard to determine whether a person lacks any ability to make a  
3 decision or not. Findings of incapacity in this global sense are not usually very challenging or  
4 subject to much disagreement. Much more challenging (and the subject of numerous “hard cases”  
5 in the law) is determining whether someone with limited decisional capacity, a decisional  
6 impairment, nevertheless has sufficient capacity so that a particular choice should be respected

7 Having a decisional impairment need not imply a particular social or legal status. Persons  
8 who are institutionalized may not be decisionally impaired and those who are not institutionalized  
9 may have impaired decisionmaking capacity. Individuals who have some cognitive deficit that  
10 renders them incapable of making some treatment decisions may nevertheless be quite functional  
11 and independent in the activities of daily living. As a functional term, decisional impairment is  
12 neutral with respect to other particular characteristics an individual may possess. As Grisso and  
13 Appelbaum have noted, what counts as impaired decisionmaking is partly determined by the  
14 standard of competence that is chosen.<sup>98</sup> Among the several major standards for assessing  
15 decisional capacity related to treatment (understanding, appreciation, and reasoning), no single  
16 standard applies to all the patients. If more than one standard is used the result could be over-  
17 inclusive and therefore deprive a large number of people of their rights to make treatment  
18 decisions. Thus what counts as decisional capacity is dependent upon a subtle set of assumptions  
19 that are far from obvious.

20 Even once the standard of capacity has been chosen, one must set the threshold that

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<sup>98</sup>Grisso T., and Appelbaum P.S., “Comparison of Standards for Assessing Patients’ Capacities to Make Treatment Decisions,” *American Journal of Psychiatry* 152:7(1995)1033-1037.

1 distinguishes those who meet the standard from those who do not. The decision regarding where  
2 the threshold of capacity is set is influenced by a society's political or value system. In a liberal  
3 democratic society such as ours, wherein the scope of state authority over individual lives is  
4 strictly limited and subject to careful scrutiny, this threshold tends to be low. But the selection of  
5 a threshold of decisional ability certainly is not wholly a political one, as it must be justified by the  
6 individual's ability to satisfy certain benchmarks. One such benchmark is the ability to  
7 understand the implications of one choice or another for their future, another the ability to  
8 communicate a preference. In turn, a society's institutions must frame information and  
9 alternatives in a manner that is suitable for that individual's level of capacity.

10         Decisional impairment is not only a matter of the relevant standard and degree. Another  
11 quality of decisional impairment that is often encountered in the clinical setting is the variable  
12 fashion in which such impairments manifest themselves. The gradual loss of capacity due to a  
13 neurodegenerative disease is rarely a straight line, and psychiatric illnesses like bi-polar disease are  
14 known for their sometimes very substantial periods of lucidity along with cycles of mania and  
15 depression.

16         For all these reasons, determining the proper standards and procedures to measure  
17 capacity poses a major challenge in formulating policy on research involving subjects with mental  
18 disorders affecting decisionmaking capacity. As noted above, persons with such disorders vary  
19 widely in their ability to engage in independent decisionmaking. Persons with mental disorders  
20 may retain such capacity, possess it intermittently, or be permanently unable to make decisions for  
21 themselves. Individuals with dementia, for example, frequently retain decisionmaking capacity  
22 early in the course of the illness, but with time they become intermittently and then permanently

1     unable to make their own decisions. Some individuals with cognitive disabilities are capable of  
2     making many choices for themselves; others completely lack such capacity.<sup>99</sup>

3             Incorrect capacity determinations are problematic, therefore, because of their moral  
4     consequences. An incorrect judgment that a capable person is incapable of exercising autonomy  
5     is disrespectful, demeaning, stigmatizing and may result in the unwarranted deprivation of an  
6     individual's civil liberties -- all serious matters. Conversely, a judgment that an incapable person  
7     is capable leaves that individual unprotected and vulnerable to exploitation by others.<sup>100</sup> In  
8     addition, the presence of many marginal cases among members of the relevant populations  
9     triggers concern about the adequacy of our ability to make capacity assessments for many  
10    individuals. Although it is important to accord due respect to mentally disabled persons capable  
11    of autonomous choice, it is also important to recognize that investigators seeking to enroll  
12    subjects face conflicting interests, and perhaps some may be too willing to label prospective  
13    subjects capable when this will advance their research objectives.<sup>101</sup> As already noted above,  
14    investigators must also be sensitive to the possibility and implications of a change in

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<sup>99</sup> See generally Thomasma, A Communal Model for Presumed Consent for Research on the Neurologically Vulnerable, 4 *Accountability in Research* 227 (1996); Sachs, et al., *Ethical Aspects of Dementia Research: Informed Consent and Proxy Consent*, 42 *Clin. Res.* 403 (1994).

<sup>100</sup> National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research* (1979) [hereinafter *Belmont Report*].

<sup>101</sup> See, e.g., Marson, et al., 45 *J. Am. Geriatrics Soc'y* 453, 455 (1997) ("researchers increasingly desire and encourage" patients with Alzheimer's disease to participate in research, but at the same time, "the progressive cognitive impairment characteristic of the disease relentlessly erodes decision-making capacity and makes AD patients vulnerable to coercion and exploitation"). See also Shamoo & Keay, *supra*, at 373 (1996) (expressing concern about researchers' assumptions of subject capacity, for example, in one study authors asserted that all twenty-eight acutely psychotic subjects with schizophrenia "were capable of informed consent and entered voluntarily." Note, however, that this does not imply that the first 28 such patients were all enrolled.)

1 decisionmaking status of a human research subject.

2 Existing federal policy fails to provide adequate guidance to investigators and IRBs on the  
3 many complexities related to capacity determinations in research involving mentally disabled  
4 subjects. In the current situation, individual IRBs determine (or at least approve) how  
5 investigators are to address these matters. Without adequate education and guidance on this  
6 issue, the likely result is too much variation in the criteria and safeguards applied to this form of  
7 research.<sup>102</sup> As a result, some commentators support more systematic and specific federal  
8 direction on capacity assessment.<sup>103</sup> More guidance is needed not only for defining decisional  
9 capacity in the research context, but also for developing better procedures for assessing such  
10 capacity.

#### 11 Procedures for Capacity Assessment and Information Disclosure

13 Shortcomings in the process of capacity assessment were cited in the T.D. case mentioned  
14 earlier, a recent New York appellate court decision invalidating state regulations governing  
15 nonfederally funded research involving incapable adult residents of facilities operated and licensed  
16 by the New York State Office of Mental Health. Plaintiffs in the case were involuntarily  
17 hospitalized individuals deemed incapable of making treatment decisions who feared they would  
18 also be labeled incapable of research decisionmaking and then "forced" to participate in greater-  
19 than-minimal risk studies.

20 The New York regulations gave the IRB "complete discretion in designating the individual

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<sup>102</sup> Bonnie, *supra*, at 109.

<sup>103</sup> E.g., *id.*

1 or individuals who will make the assessment [of subject] capacity and who will thereafter review  
2 the researcher's initial assessment." This flexibility, together with the absence of "appropriate and  
3 specific provisions for notice to the potential subject that his or her capacity is being evaluated  
4 and for appropriate administrative and judicial review of a determination of capacity" contributed  
5 to the court's conclusion that the regulations violated the due process requirements of the New  
6 York State Constitution and the Fourteenth Amendment to the U.S. Constitution.<sup>104</sup> This  
7 decision raised questions about the constitutional status of the existing federal regulations as well,  
8 since they closely resemble the invalidated New York regulations. However, the New York State  
9 Court of Appeals has since concluded that the constitutional issues should not have been  
10 adjudicated by the lower court, because the relief sought by the plaintiffs could be granted on  
11 more limited grounds.<sup>105</sup>

12 A variety of approaches to capacity assessment are endorsed in the literature on research  
13 involving adults with cognitive impairment. Many commentators believe that IRBs should at  
14 minimum require investigators to specify the method by which prospective subjects' decisional  
15 capacity will be evaluated and the criteria for identifying incapable subjects.<sup>106</sup> Evaluating  
16 decisional capacity is an even more complex task than might be inferred either from the above  
17 discussion or from most philosophical discussions of capacity. Any assessment tool measures  
18 capacity indirectly through manifest performance, and one's performance does not always reflect  
19 his or her capacity or potential. Many factors can inhibit performance, including anxiety or  
20 environmental conditions, the quality of the assessment instrument itself, and other characteristics

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<sup>104</sup> T.D. v. N.Y. State Office of Mental Health, 650 N.Y.S.2d 173 (App. Div. 1996).

<sup>105</sup> See Capron, Incapacitated Research, Hastings Center Rep. Mar.-Apr. 1997, at 25.

<sup>106</sup> E.g., Bonnie, supra; Melnick et al., supra.

1 of the task of assessment in general. All of us can attest to the variation on one occasion or  
2 another between our actual performance -- as on an examination or in a job interview -- and our  
3 actual capacity. The problem is aggravated in populations whose conditions are partly  
4 characterized by fluctuating capacity. The capacity-performance distinction suggests why the  
5 context in which the capacity assessment is made (under what conditions, by whom, etc.) is so  
6 important.

7 Unlike the discrepancy between capacity and performance, a major point of contention  
8 that has been widely discussed is whether capacity assessment and information disclosure should  
9 be conducted by an individual not otherwise connected with the research project. The National  
10 Commission recommended that IRBs have discretion to require an independent "consent auditor"  
11 for projects presenting greater than minimal risk to persons institutionalized as mentally infirm.  
12 The auditor would observe and verify the adequacy of the consent and assent process, and in  
13 appropriate cases observe the conduct of the study to ensure the subject's continued willingness to  
14 participate.<sup>107</sup> The Commission recommended that IRB's should appoint such auditors for  
15 projects presenting greater than minimal risk and no prospect of direct benefit to subjects. The  
16 DHEW regulations contemplated mandating auditors for all projects involving this subject  
17 population, but, opposition to this proposal reportedly was one reason the regulations never  
18 became final.

19 More recent commentary includes a spectrum of views on the need for an independent  
20 consent auditor. Some echo the National Commission's view that a requirement for an

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<sup>107</sup> The Commission discussed the auditor's observation of ongoing research as a means to ensure continued assent, but the mechanism could also be adopted to monitor a capable subject's continued consent, especially if a decline in capacity is possible.

1 independent evaluator becomes increasingly justified as net research risks to subjects increase. A  
2 distinguished team of Canadian scholars took this position in its recent recommendations on  
3 dementia research.<sup>108</sup> According to this group, the role of consent assessor/monitor ordinarily can  
4 be filled by a researcher or consultant "familiar with dementias and qualified to assess and monitor  
5 competence and consent in such subjects on an ongoing basis." This individual should be  
6 knowledgeable about the project and its risks and potential benefits. On the other hand, if the  
7 research team lacks a person with these qualifications, if there is "a real danger of conflict of  
8 interest" for team members who might evaluate and monitor capacity, or if the project involves  
9 greater than minimal risk and no prospect of direct benefit to subjects, an independent  
10 assessor/monitor should be appointed.<sup>109</sup>

11 Others appear open to the general use of outside observers and examiners. Recent  
12 guidelines adopted by the Loma Linda University IRB state, "[c]onsent observers who are  
13 independent of the investigator and of the institution will be required by the IRB in those  
14 conditions where the potential subject's decisionmaking capacity is suspect."<sup>110</sup> In testimony  
15 before NBAC, representatives of Citizens for Responsible Care in Psychiatry and Research  
16 recommended that "[a]n independent psychiatrist ... determine the capacity of [the] potential  
17 participant to comprehend the risks and benefits of enrolling in the proposed research study."<sup>111</sup>  
18 Recent articles also endorse the participation of a "special research educator" in the disclosure and

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<sup>108</sup> Keyserlingk, et al., *supra*.

<sup>109</sup> *Id.* at 343-44. See also Melnick, et al., *supra*.

<sup>110</sup> Orr, Guidelines for the Use of Placebo Controls in Clinical Trials of Psychopharmacologic Agents, 47 *Psych. Services* 1262 (1996).

<sup>111</sup> Shamoo & Sharev, Unethical Use of Persons With Mental Illness in High Risk Research Experiments, 2 *BioLaw S*:23 (1997).

1 decision process, particularly to ensure that prospective subjects understand when advancement of  
2 general knowledge is the primary goal of the project at hand.<sup>112</sup>

3 A 1991 article makes a strong case for an independent, federally-employed patient-  
4 advocate's involvement in capacity determinations, as well as in assisting and monitoring  
5 decisionmaking by family surrogates for incapable persons. Philip Bein notes that courts have  
6 demanded relatively strict procedural safeguards in the context of imposed psychiatric treatment  
7 and sterilization for persons with mental disabilities. He makes the following argument for a  
8 similar approach in the research context:

9 As with psychotropic medication and sterilization,  
10 several distinct features of experimentation suggest  
11 the need for special protections. First, the history  
12 of medical experimentation has been characterized by  
13 significant incidents of abuse, particularly where  
14 members of vulnerable populations have been enlisted  
15 as subjects. Second, the interests of medical  
16 researchers in securing participation in the experi-  
17 ment often conflicts with their duties as treating  
18 physicians to inform, advise, and act in the best  
19 interests of their patients. Third, experimentation

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<sup>112</sup> DeRenzo, *The Ethics of Involving Psychiatrically Impaired Persons in Research*, IRB, Nov.-Dec. 1994. In a study of this approach, researchers found that the participation of a trained educator increased the comprehension of psychiatric patients asked to enroll in research. Appelbaum, et al., *False Hopes and Best Data: Consent to Research and the Therapeutic Misconception*, *Hastings Center Rep.*, April 1987, at 20.



1 is inherently highly intrusive and dangerous, as the  
2 nature and magnitude of risks involved are largely  
3 unknown and unknowable.<sup>113</sup>

4  
5 In contrast, Bein suggests that courts have not demanded such safeguards for decisions on life-  
6 sustaining treatment, based on an absence of the above features in the treatment setting. He also  
7 argues that an IRB-administered system of patient-advocates would provide inadequate oversight  
8 because such a system would be too responsive to institutional interests.<sup>114</sup>

9 Other recent commentary proposes more diverse methods for ensuring against  
10 inappropriate capacity determinations. Richard Bonnie opposes a federal requirement for any  
11 specific procedure, contending instead that "the regulations should provide a menu of safeguards"  
12 from which IRBs could choose, including "specially tailored follow-up questions to assess subject  
13 understanding, videotaping or audiotaping of consent interviews, second opinions, use of consent  
14 specialists, or concurrent consent by a family member."<sup>115</sup>

15 Many groups advise the involvement of a trusted family member or friend in the disclosure  
16 and decisionmaking process. Capable subjects reportedly are often willing to permit such  
17 involvement. Dementia researchers frequently adopt a mechanism called "double" or "dual"  
18 informed consent when the capacities of prospective subjects are uncertain or fluctuating.<sup>116</sup> This

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<sup>113</sup> Bein, *supra*, at 748-49.

<sup>114</sup> *Id.* at 762.

<sup>115</sup> Bonnie, *supra*, at 110.

<sup>116</sup> High, et al., *supra*. See also Bonnie, *supra*, at 110 ("participation of surrogate decisionmakers can be a useful safeguard even if the subject has the requisite capacity to provide legally valid consent").

1 approach has the virtue of providing a concerned back-up listener and questioner who "may help  
2 the cognitively impaired individual understand the research and exercise a meaningful informed  
3 consent."<sup>117</sup> On the other hand, others have suggested that the presence of a caregiving relative  
4 could in some cases put pressure on subjects to enter a research study.<sup>118</sup>

5 Another suggestion is to require the use of a two-part consent process. In this process,  
6 information about a study is presented to a prospective subject and a questionnaire administered  
7 to determine the individual's comprehension. The subject is then provided with a copy of the  
8 questionnaire to refer to as needed. If the individual initially fails to demonstrate an adequate  
9 understanding of the material, written or oral information is presented again, and the subject  
10 retested. This process is likely to yield more accurate judgments of subject capacity than a less  
11 systematic and rigorous inquiry.<sup>119</sup>

12 Finally, numerous ideas have been offered to make information more accessible to subjects  
13 capable of exercising independent choice. Simple perceptual aids, such as increasing the type size  
14 of printed material, may enhance the ability of elderly subjects to comprehend the necessary  
15 information. Information can be delivered through videotape, slides, or pictorial presentations.  
16 Another promising suggestion is for investigators to ask representatives of the affected population  
17 to critique drafts of information materials prior to their actual research use.<sup>120</sup>

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<sup>117</sup> Karlawish & Sachs, Research on the Cognitively Impaired: Lessons and Warnings from the  
Emergency Research Debate, 45 J. Am. Geriatrics Soc'y 474, 477 (1997).

<sup>118</sup> Id.

<sup>119</sup> Ratzan, Technical Aspects of Obtaining Informed Consent from Persons with Senile  
Dementia of the Alzheimer's Type, in Alzheimer's Dementia: Dilemmas in Clinical Research 123  
(Melnick & Dubler eds., 1985) (citing Miller & Willner, The Two-Part Consent Form, 290 New  
Eng. J. Med. 964 (1974)).

<sup>120</sup> Melnick, et al., supra.

1           The literature offers fewer suggestions for ensuring adequate voluntariness. The  
2 Declaration of Helsinki includes a provision advising "the physician obtaining informed consent  
3 for the research project [to] be particularly cautious if the subject is in a dependent relationship or  
4 him or her or may consent under duress." In these circumstances, "informed consent should be  
5 obtained by a physician who is not engaged in the investigation and who is completely  
6 independent of this official relationship."<sup>121</sup> To guard against pressure from family or other  
7 caregivers, someone should discuss separately with consenting subjects their reasons for  
8 participating. Again, the issue is whether a research team member, independent evaluator, or IRB  
9 representative should be given this responsibility.

#### 10 Substantive Requirements for Research Decisionmaking

11           An autonomous choice to enter a research study is both informed and voluntary. To be  
12 capable of informed choice, it is generally agreed that a prospective subject should demonstrate  
13 the ability "to understand the nature of the research participation; appreciate the consequences of  
14 such participation; exhibit ability to deliberate on alternatives, including the alternative not to  
15 participate in the research; and evidence ability to make a reasoned choice."<sup>122</sup> Subjects also  
16 should "comprehend the fact that the suggested intervention is in fact research (and is not

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<sup>121</sup> World Medical Association, *supra*.

<sup>122</sup> High, et al., Guidelines for Addressing Ethical and Legal Issues in Alzheimer Disease Research: A Position Paper, 8 *Alzheimer Dis. Assoc. Disord.* 66, 69 (Supp. 4, 1994).

In discussing decisional capacity in the research context, many writers also cite the President's Commission's requirements for treatment decisionmaking capacity: (1) possession of a set of values and goals; (2) ability to communicate and comprehend information; and (3) ability to reason and deliberate about the choice at hand. President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research, *Making Health Care Decisions: A Report on the Ethical and Legal Implications of Informed Consent in the Patient-Practitioner Relationship* 60 (1982).

1 intended to provide therapeutic benefit when that is the case)," and that they may decide against  
2 participation "without jeopardizing the care and concern of health care providers."<sup>123</sup>

3         There is consensus that decisional capacity requires a certain level of cognitive ability.  
4 Less agreement exists on whether subjects should be judged incapable if they lack affective  
5 appreciation of the choice before them. In a recent article, Carl Elliott argues that some  
6 depressed persons "might realize that a protocol involves risks, but simply not *care* about the  
7 risks," or "as a result of their depression, may even *want* to take risks." (emphasis in original)<sup>124</sup>  
8 Elliott believes that judgments about a person's capacity to consent to research should take into  
9 account such emotional attitudes. He also proposes that subjects failing to exhibit a "minimal  
10 degree of concern for [their] welfare" should be deemed incapable of independent  
11 decisionmaking. Others oppose this position, contending that such an approach could yield  
12 excessive paternalism toward persons diagnosed with mental disorders, that insufficient data exist  
13 on the extent of incapacitating emotional impairment among depressed persons, that affective  
14 impairment is difficult to assess, and that normative consensus is lacking on "how much  
15 impairment we as a society are willing to accept before we consider someone incompetent."<sup>125</sup>

16         It is generally agreed that a prospective subject's capacity to decide whether to participate  
17 in a particular research project cannot be determined through a general mental status

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<sup>123</sup> Melnick, et al., Clinical Research in Senile Dementia of the Alzheimer Type, 32 J. Am. Geriatrics Soc'y 531, 533 (1984).

<sup>124</sup> Elliot, Caring About Risks, 54 Arch. Gen. Psych. 113 (1997).

<sup>125</sup> Appelbaum, Rethinking the Conduct of Psychiatric Research, 54 Arch. Gen. Psych. 117, 119 (1997). See also Hirschfeld, et al., Protecting Subjects and Fostering Research, 54 Arch. Gen. Psych. 121 (1997).

1 assessment.<sup>126</sup> Instead, investigators must develop and present the specific material relevant to  
2 that project and evaluate the prospective subject's understanding and appreciation of that  
3 information.<sup>127</sup> In its 1998 report on “Research Involving Individuals with Questionable Capacity  
4 to Consent,” a National Institutes of Health panel also concluded that “a key factor in potential  
5 participants’ decision-making is their appreciation of how the study applies to them (in the context  
6 of their lives).”<sup>128</sup>

7 Like other commentators, the 1998 NIH panel endorsed a "sliding-scale" approach to  
8 decisional capacity in the research setting.<sup>129</sup> This approach demands an increasing level of  
9 understanding and appreciation as study risks increase and potential benefits to subjects  
10 decrease.<sup>130</sup> Similarly, some suggest that many prospective subjects incapable of independent

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<sup>126</sup> High, et al., supra; Marson, Determining the Competency of Alzheimer Patients to Consent to Treatment and Research, 8 *Alzheimer Disease and Assoc. Disord.* 5 (Supp. 4, 1994).

<sup>127</sup> According to the Common Rule, prospective subjects should understand: (1) that the study involves research; (2) the purposes of the research; (3) the expected length of time of research participation; (4) the procedures to be performed and which, if any, are experimental; (5) reasonably foreseeable risks and discomforts; (6) reasonably expected benefits to subjects or others; (7) alternatives, including treatment, that could benefit the individual more than research participation; (8) the level of confidentiality protecting any identifiable information recorded on the subject; (9) whether compensation and medical treatment will be available for injuries resulting from research; (10) the identity of the person(s) to notify if the subject has questions or suspects research-related injury; and (11) that participation is voluntary, refusal will not be penalized, and participation may cease at any time without penalty. 56 Fed. Reg. sec. \_\_\_\_ .116(a). Additional information must be disclosed and understood when relevant to a particular study, such as any additional costs subjects may incur as a result of study participation. *Id.* at sec. \_\_\_\_ .116(b).

<sup>128</sup> National Institutes of Health Panel Report, “Research Involving Individuals with Questionable Capacity to Consent: Ethical Issues and Practical Considerations for Institutional Review Boards (IRBs),” February 27, 1998, p. 4.

<sup>129</sup> *Ibid.*

<sup>130</sup> Elliott, Mentally Disabled and Mentally Ill Persons: Research Issues, in *Encyclopedia of Bioethics* 1760 (W. Reich ed., rev. ed. 1995); Appelbaum, Drug-Free Research in Schizophrenia: An Overview of the Controversy, *IRB*, Jan.-Feb. 1996, at 1; Annas & Glantz, Rules for Research in Nursing Homes, 315 *New Eng. J. Med.* 1157 (1986). See also Schafer, A., “The ethics of the randomized clinical trial.” *New England Journal of Medicine* 307;(12):719-24, (1982).

1 research decisionmaking remain capable of selecting a research proxy, since "the decision-making  
2 capacity that is required to designate a proxy is far less than the capacity required to understand a  
3 detailed protocol."<sup>131</sup>

4 Besides being informed, a decision to enter research should be voluntary. The Nuremberg  
5 Code provides descriptive characteristics of a voluntary decision.<sup>132</sup> The National Commission's  
6 *Belmont Report* characterizes a voluntary decision as "free of coercion and undue influence."  
7 According to the Report, "[c]oercion occurs when an overt threat of harm is intentionally  
8 presented by one person to another in order to obtain compliance. Undue influence ... occurs  
9 through an offer of an excessive, unwarranted, inappropriate or improper reward or other  
10 overture in order to obtain compliance." In addition, the Report notes, an inducement that is not  
11 overly persuasive to most adults could unduly influence the judgment of vulnerable subjects. The  
12 Commissioners acknowledged that unjustifiable external influence cannot always be precisely  
13 defined, but that "undue influence would include actions such as manipulating a person's choice  
14 through the controlling influence of a close relative and threatening to withdraw health services to  
15 which an individual would be otherwise entitled."<sup>133</sup>

16 Due to its limited congressional mandate, the National Commission considered only the  
17 potential pressures on institutionalized persons to enroll in research. Recent commentary favors  
18 expanding this concern, on grounds that persons with mental disabilities are especially vulnerable  
19 to such pressures no matter where they reside.<sup>134</sup> Prospective subjects living in the community

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<sup>131</sup> Sachs, et al., *supra*, at 410.

<sup>132</sup> See p. 5, above.

<sup>133</sup> Belmont Report, *supra*, at 6.

<sup>134</sup> Bonnie, *supra*; Levine, Proposed Regulations, *supra*.

1 frequently rely heavily on the assistance of professionals and family members and may perceive  
2 research participation as essential to maintaining the approval of their caregivers.<sup>135</sup> Some  
3 support also remains for providing special protections to persons in residential facilities, due to  
4 their near-complete dependence on the good will of the staff.<sup>136</sup>

5 A final element of decisional capacity, implicit in the above discussion, is the subject's  
6 ongoing ability to make a voluntary and informed choice to participate. Some persons with  
7 psychiatric disorders and dementia can issue an adequately informed and voluntary consent to  
8 participate in a study, but subsequently lose their capacity for independent choice. As a result,  
9 they become unable to exercise their right to withdraw from a study.

10 Since the particular instrument and methods used to assess capacity have an important role  
11 in determining the outcome of such an assessment, IRBs should be aware of the special  
12 characteristics and implications of particular instruments and methods. Studies involving subjects  
13 with fluctuating or declining decisional capacity must include mechanisms to ascertain and address  
14 this possibility, including provision for appointment of a representative for subjects who become  
15 incapable.<sup>137</sup> The matter of legally authorized representatives is considered later in this report.

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<sup>135</sup> Relatives may view research participation as improving their own chances for avoiding conditions that appear genetically-linked or as a means to reduce their caregiving burdens. Keyserlingk, et al., Proposed Guidelines for the Participation of Persons With Dementia as Research Subjects, 38 *Perspect. Biol. Med.* 319 (1995).

<sup>136</sup> Elliott, *supra*; High & Doole, Ethical and Legal Issues in Conducting Research Involving Elderly Subjects, 13 *Beh. Sci. & L.* 319 (1995). See also American College of Physicians, Cognitively Impaired Subjects, 111 *Ann. Intern. Med.* 843 (1989) (recommending that IRB "consider asking a committee composed mostly of representative residents of, for example, a nursing home, to review proposed research projects to be conducted at the facility).

<sup>137</sup> Appelbaum, Drug-Free Research, *supra*.

1 Chapter Four: RISKS AND POTENTIAL BENEFITS IN RESEARCH INVOLVING  
2 PERSONS WITH MENTAL DISORDERS THAT MAY AFFECT DECISIONMAKING  
3 CAPACITY

4 Balancing Risks and Potential Benefits

5 The Common Rule directs IRBs to ensure that research risks are minimized through  
6 careful study design and are "reasonable in relation to anticipated benefits, if any, to subjects, and  
7 the importance of the knowledge that may reasonably be expected to result."<sup>138</sup> These provisions  
8 govern all research involving human subjects. Many commentators and organizations, as well as  
9 the international documents described earlier, favor placing additional constraints on acceptable  
10 risks in research involving persons with decisional impairments, including those whose mental  
11 disorders may affect their capacity to decide.

12 As we have noted, the National Commission proposed a research review framework in  
13 which greater substantive and procedural demands would be applied to research presenting  
14 relatively high risks to children and incapable individuals institutionalized as mentally infirm. The  
15 current DHHS regulations governing research involving children incorporate such a framework.<sup>139</sup>  
16 In addition the regulations distinguish between research that can be considered "minimal risk" to  
17 human subjects, and research that can be considered greater than minimal risk. According to the  
18 Common Rule, a study presents minimal risk if "the probability and magnitude of harm or  
19 discomfort anticipated in the research are not greater in and of themselves than those ordinarily  
20 encountered in daily life or during the performance of routine physical or psychological

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<sup>138</sup> Sec. \_\_\_\_, 111(a).

<sup>139</sup> 45 C.F.R. sec. 46 (1991). See appendix for a copy of the regulations.



1 examinations or tests."<sup>140</sup> Although the concept of “minimal risk” is controversial, it is in  
2 widespread use in order to determine which set of protections are to be required for particular  
3 protocols.

4 For example, the DHHS regulations on research involving children permit IRBs to  
5 approve research presenting no more than minimal risk as long as requirements for parental  
6 permission and child assent are satisfied. Studies presenting greater than minimal risk, on the  
7 other hand, must meet additional requirements. If a study is in this “greater than minimal risk”  
8 category, but also offers a prospect of direct benefit to subjects, criteria for IRB approval include:  
9 a finding that the risk is justified by the prospective direct benefit; and a finding that the research  
10 presents at least as favorable a risk-expected benefit ratio for subjects as that presented by  
11 available alternatives in the clinical setting.

12 For greater than minimal risk research involving children, the regulations require  
13 incremental protections depending on whether or not it presents the prospect of direct benefit to  
14 the subject. If there is a prospect of direct benefit, then the IRB must also find that the risk is  
15 justified by the prospective direct benefit, and that the risk-benefit ratio of the research is no  
16 greater than available alternative treatments. If no direct benefit is expected, criteria for IRB  
17 approval include: a finding that the research presents a minor increase over minimal risk; a finding  
18 that "the intervention or procedure presents experiences to subjects that are reasonably  
19 commensurate with those inherent in their actual or expected medical, dental, psychological,  
20 social, or educational situations"; assent of the child and permission of the parents; and a finding  
21 that the study is likely to produce generalizable and vitally important information on the subjects'

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<sup>140</sup> Sec. \_\_\_\_.102(I).

1 condition. Thus, current regulations incorporate the National Commission's notion that benefits  
2 to a particular group to which a subject belongs, could be used in balancing risks and benefits.

3 The Federal regulations also provide for a special review process to address an otherwise  
4 unapprovable study determined by an IRB to offer "a reasonable opportunity to further the  
5 understanding, prevention, or alleviation of a serious problem affecting the health or welfare of  
6 children." The Secretary of DHHS may approve such a study if, after consultation with experts in  
7 relevant fields and the opportunity for public review and comment, he or she concurs with the  
8 IRB's finding on research significance and determines that "the research will be conducted in  
9 accordance with sound ethical principles" or that the study does in fact fall into an IRB-  
10 approvable category.<sup>141</sup>

11 These regulations, the National Commission's recommendations on research involving  
12 children and persons institutionalized as mentally infirm, and the literature on research involving  
13 impaired or incapable adults present the following policy matters for consideration: the  
14 appropriate definition of risk and benefit to be adopted in policy on research involving impaired  
15 adult subjects; the appropriate limitations on risk for research involving this population; and the  
16 appropriate procedures for ensuring that the chosen substantive standards are observed during the  
17 research process.

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<sup>141</sup> To date one study has received approval under the provisions of the special review process (D. Becker, "Cognitive Function and Hypoglycemia in Children with IDDM," September 20, 1993), and at least one other was referred back to the applicant institution for possible revision and resubmission (T. Munsat and R. Brown, "Mytoblast Transfer in Duchenne Muscular Dystrophy," August 13, 1991). The latter proposal has never been re-submitted. (Personal communication, Michael Carome, Office for Protection from Research Risks, November 3, 1997.)

1 Defining Risks

2           Persons involved in research with possibly impaired decisionmaking capacity are  
3 vulnerable to a variety of possible harms when they participate in research. Risks "range from  
4 physical injury and pain at one extreme, to discomfort and inconvenience at the other, including at  
5 various points along the continuum such effects as frustration, dislocation, confusion, and  
6 shame."<sup>142</sup> The Common Rule's definition of minimal risk refers to "harm or discomfort," which  
7 seems clearly to include experiential psychosocial burdens as well as health risks.

8           The most thorough analysis on risks and potential benefits in research involving adults  
9 who lack decisionmaking capacity would suggest that review committees should consider  
10 "physical, social, psychological, and economic," risks, including "foregone benefits, ... violations  
11 of privacy, ... effects upon the subject's relationship with family members, [and] the new anxiety  
12 associated with being invited to participate in ... research before having come to terms with one's  
13 affliction."<sup>143</sup> Risk assessment also involves probability judgments: "[t]he quantification of risk  
14 involves an examination of both the degree or magnitude of harm that could occur and the  
15 possibility that such harm will occur."<sup>144</sup>

16           The National Commission was aware of the problems inherent in making such risk-benefit  
17 assessments when it wrote that:

18           It is commonly said that the benefits and risks must be "balanced" and shown to be "in a  
19 favorable ratio." The metaphorical character of these terms draws attention to the  
20 difficulty in making precise judgments. Only on rare occasions will quantitative techniques

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<sup>142</sup> Keyserlingk, et al., supra, at 326.

<sup>143</sup> Id. at 326-27.

<sup>144</sup> Berg, supra, at 24.

1 be available for the scrutiny of research protocols. However, the idea of systematic,  
2 nonarbitrary analysis of risks and benefits should be emulated insofar as possible.<sup>145</sup>

3  
4 Strictly speaking, risk assessment is a technique used to determine the nature, likelihood  
5 and acceptability of the risks of harm.<sup>146</sup> Few IRBs conduct formal risk assessments, and there  
6 may be good reason for this: First, because reliable information about risks or potential benefits  
7 associated with the relevant alternative interventions is often lacking, highly accurate risk  
8 assessment is a difficult and in many cases quite impossible task. Second, each component of risk  
9 assessment -- identification, estimation and evaluation -- involves time and particular kinds of  
10 expertise.<sup>147</sup> For example, it is a matter of both scientific and philosophic debate as to whether  
11 risk assessment should involve purely objective or subjective factors (or both). The "objectivist"  
12 school argues that quantitative risk assessment should be a value free determination limited only  
13 by the technical ability to derive probability estimates.<sup>148</sup> In contrast, the "subjectivist" school  
14 argues that the values of those who conduct the assessment, those who interpret the results, and  
15 those who bear the risks should play a role in the overall assessment.<sup>149</sup> It would seem that both  
16 schools of thought ought to influence IRB decisionmaking, the former because risk judgments

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<sup>145</sup>Belmont, pg. 7.

<sup>146</sup> Wilson R, and Crouch EAC. Risk assessment and comparisons. *Science* 1987;  
236:267-70.

<sup>147</sup>Meslin EM. Protecting human subjects from harm through improved risk judgments.  
*IRB*. Jan/Feb 1990: 7-10.

<sup>148</sup> Haefle W. Benefit-risk tradeoffs in nuclear power generation. In Ashely H., Rudman R,  
Starr C. Eds. *Energy and the Environment*. New York: Pergammon Press, 1981.

<sup>149</sup> Schrader-Frechette, K. Values, scientific objectivity and risk analysis: five dilemmas, In  
Humber JM, and Almeder RF, eds. *Quantitative Risk Assessment*: Humana Press: Clifton, NJ,  
1986: 149-70.

1 should be empirically based insofar as possible, and the latter because there are contributions that  
2 many who have an interest in research with persons who have impaired decisionmaking capacity  
3 can make to these assessments despite the lack of formal quantitative data.

4         Though conceding that precise risk and potential benefit assessments are rarely attainable,  
5 the *Belmont Report* states, "the idea of systematic, nonarbitrary analysis of risks and benefits  
6 should be emulated as far as possible."<sup>150</sup> The National Commission's *Report on Research*  
7 *Involving Children* advised IRBs to assess risks from the following points of view: "a common-  
8 sense estimation of the risk; an estimation based upon investigators' experience with similar  
9 interventions or procedures; any statistical information that is available regarding such  
10 interventions or procedures; and the situation of the proposed subjects."<sup>151</sup>

11         Evaluating risks to subjects with disorders that may affect decisionmaking capacity  
12 requires familiarity with how subjects in the relevant population may respond, both generally and  
13 as individuals, to proposed research interventions and procedures. What may be a small  
14 inconvenience to ordinary persons may be highly disturbing to some persons with decisional  
15 impairments. Thus, for example, a diversion in routine can for some dementia patients,  
16 "constitute real threats to needed order and stability, contribute to already high levels of  
17 frustration and confusion, or result in a variety of health complications."<sup>152</sup> Similarly, as the  
18 National Commission observed, some subjects institutionalized as mentally infirm may "react  
19 more severely than normal persons" to routine medical or psychological examinations.<sup>153</sup> Because

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<sup>150</sup>Belmont Report, *supra*, at 7.

<sup>151</sup>Report on Children, *supra*, at 8-9.

<sup>152</sup>Keyserlingk, et al., *supra*, at 324.

<sup>153</sup>Report on Institutionalized Persons, *supra*, at 8-9.

1 of this special vulnerability to harm and discomfort, risk evaluation should incorporate reliable  
2 knowledge on the range of anticipated reactions particular subjects may have to particular  
3 proposed study procedures.

4 Like the current DHHS regulations on research involving children, many proposals on  
5 research involving impaired or incapable adults employ the concepts of minimal risk and minor  
6 increase over minimal risk. Giving substance to these concepts, however, does pose practical  
7 difficulties.

8 The Common Rule's minimal risk definition is tied to the risks of ordinary life and medical  
9 care encountered by the population as a whole. The minimal risk concept is praised for its  
10 flexibility: "[i]t is inescapable and even desirable that determinations of risk level (and its  
11 acceptability when balanced with benefit consideration) are matters of judgment rather than  
12 detailed definition, judgments which are patient-specific, context-specific, and confirmed after  
13 consideration and debate from many points of view."<sup>154</sup> In addition, the concept's reference to  
14 "risks of everyday life" is supported as conveying a defensible normative judgment that the sorts  
15 of risks society deems acceptable in other contexts may be acceptable in research as well.<sup>155</sup>

16 In contrast to the minimal risk concept's reference to the life and medical experiences of  
17 the overall population, the concept of minor increase over minimal risk is tied to the prospective  
18 subject's individual situation. Because persons with psychiatric and other disorders undergo

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<sup>154</sup>Keyserlingk, et al., *supra*, at 329.

<sup>155</sup>Freedman, Fuks & Weijer, *In Loco Parentis: Minimal Risk as an Ethical Threshold for Research Upon Children*, *Hastings Center Rep.*, Mar.-Apr. 1993, at 13, 17-18. According to the National Commission, "where no risk at all or no risk that departs from the risk normal to childhood (which the Commission calls 'minimal risk,') is evidenced, the research can ethically be offered and can ethically be accepted by parents and, at the appropriate age, by the children themselves." *Report on Children*, *supra*, at 137.

1 treatment and tests involving some discomfort and risk, a study presenting similar procedures and  
2 potential for harm may qualify as presenting a minor increase over minimal risk to them.<sup>156</sup> For  
3 subjects not accustomed to or in need of such medical interventions, however, the same study  
4 could present a higher level of risk.

5 In its *Report on Research Involving Children*, the National Commission defended this  
6 approach to more than minimal risk research on grounds that it permitted no child to be exposed  
7 to a significant threat of harm. Further, they noted that the approach simply permits children with  
8 health conditions to be exposed in research to experiences that for them are normal due to the  
9 medical and other procedures necessary to address their health problems. An example is  
10 venipuncture, which may be more stressful for healthy children than for children being treated for  
11 a medical condition who are more accustomed to the procedure. At its January 8, 1998 meeting,  
12 OPRR director Gary Ellis asked the members of the NBAC to consider lumbar puncture as  
13 another example.

14 It should be noted that one National Commission member was highly critical of this  
15 approach, however, contending that it was wrong to take a more permissive approach to research  
16 risk in children with health problems than with other children. He argued that the only morally  
17 defensible differential treatment of sick and healthy children would be one that was more  
18 permissive about research risks to healthy children than to children already burdened by their  
19 health problems.<sup>157</sup>

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<sup>156</sup>The DHHS regulations on children in research provide that studies may be approved as presenting a minor increase over minimal risk as long as the risks and experiences "are reasonably commensurate with those inherent" in the child subjects' actual or anticipated medical or other situations.

<sup>157</sup> Report on Children, *supra*, at 146 (dissenting statement of Commissioner Turtle).

1           Commentators have criticized both the Common Rule's "minimal risk" definition, and the  
2 DHHS regulations' term "minor increase over minimal risk." Loretta Kopelman provides perhaps  
3 the most detailed critique. First, she finds the "risks of ordinary life" notion too vague to provide  
4 a meaningful comparison point for research risks. Ordinary life is filled with a variety of dangers,  
5 she notes, but "[d]o we know the nature, probability, and magnitude of these 'everyday' hazards  
6 well enough to serve as a baseline to estimate research risk?" Second, though the comparison to  
7 routine medical care furnishes helpful guidance regarding minimal risk, it fails to clarify whether  
8 procedures such as "X rays, bronchoscopy, spinal taps, or cardiac puncture," which clearly are not  
9 part of routine medical care, could qualify as presenting a minor increase over minimal risk for  
10 children with health problems who must undergo these risky and burdensome procedures in the  
11 clinical setting. Kopelman argues that the phrase, "minor increase over minimal risk" should be  
12 replaced or supplemented by a clearly defined upper limit on the risk IRBs may approve for any  
13 child subject.<sup>158</sup>

14           A few empirical studies indicate that there is substantial variation in how IRBs and  
15 investigators classify protocols using the current federal risk categories. For example, a 1981

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<sup>158</sup> Kopelman, *Research Policy: Risk and Vulnerable Groups*, in *Encyclopedia of Bioethics* 2291, 2294-95 (W. Reich ed., rev. ed. 1995); Kopelman, *When Is the Risk Minimal Enough for Children to Be Research Subjects?* in *Children and Health Care: Moral and Social Issues* 89-99 (Kopelman & Moskop eds., 1989). See also Berg, *supra*, at 24 (noting possible interpretations of minimal risk and concluding that "[i]t clearly does not mean only insignificant risk, but its exact scope is unclear").

The Maryland draft legislation adopts a definition of minimal risk similar to that in the Common Rule. It also refers to minor increase over minimal risk, which is defined as "the probability and magnitude of harm or discomfort anticipated in the research, including psychological harm and loss of privacy or other aspects of personal dignity, are only slightly greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests." Office of the Maryland Attorney General, *supra* at 5.



1 survey found differences in how pediatric researchers and department chairs applied the federal  
2 classifications to a variety of procedures commonly used in research.<sup>159</sup> Similarly, there was  
3 substantial disparity in how the nine members of a special NIH review panel applied the federal  
4 classifications to a trial of human growth hormone in which healthy short children were  
5 subjects.<sup>160</sup> A survey asking research review committee members and chairs in Canada to classify  
6 four different dementia studies "confirmed that there is considerable disagreement and uncertainty  
7 about what risks and benefits mean and about what is to be considered allowable risk."<sup>161</sup>

8 Difficulties with the minimal risk standard may partly have to with an historical confusion.  
9 Some contend that the drafters of the definition of minimal risk deliberately dropped the National  
10 Commission's reference to normal individuals, intending to make the relevant comparison point  
11 the risks ordinarily encountered by the prospective research subject. This approach would allow  
12 research risks to be classified as minimal if they were reasonably equivalent to those the subject  
13 encountered in ordinary life or routine medical care. For persons with mental disabilities who face  
14 higher-than-average risks in everyday life and clinical care, a research intervention could be  
15 classified as minimal risk for them, but classified as more than minimal risk for healthy persons.  
16 If this was the intention of the drafters of the regulations, it is not at all clear in the current  
17 Common Rule.

18 In July 1997, the Canadian Tri-Council Working Group developed a "Code of Ethical  
19 Conduct for Research Involving Humans" that explicitly adopts the standard of relativizing risk to

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<sup>159</sup> Janofsky & Starfield, *Assessment of Risk in Research on Children*, 98 *J. Pediatrics* 842 (1981).

<sup>160</sup> See Tauer, *The NIH Trials of Growth Hormone for Short Stature*, *IRB*, May-June 1994, at 1.

<sup>161</sup> Keyserlingk, et al., *supra*, at 326.

1 the potential subject in question, but with a *caveat*. It defines “normally acceptable risk” as “when  
2 the possible harms (e.g., physical, psychological, social, and economic) implied by participation in  
3 the research are within the range encountered by the participant in everyday life....”<sup>162</sup> The Code  
4 goes on to state: “In cases in which the everyday lives of prospective participants are already filled  
5 with risk, the test for a threshold for normally acceptable risk must be applied with caution.”<sup>163</sup>  
6 The text does not elaborate on the procedures that should accompany the cautious approach it  
7 counsels.

8 In sum, if policy on research involving incapable adults incorporates the concepts of  
9 minimal risk and minor increase over minimal risk without providing further guidance to  
10 investigators and IRBs, the concepts may be interpreted in materially different ways. In some  
11 cases procedures presenting greater than minimal risks to people with mental disorders that may  
12 affect decisionmaking capacity might be treated as such, while in other cases the special  
13 vulnerability of those subjects with respect to those procedures might not be taken into account.  
14 A procedure classified as minimal risk at one institution could be classified as higher risk at  
15 another, or even from one study to another. Also needed is more discussion and clarification of  
16 acceptable risk in research involving incapable adults whose ongoing health problems expose them  
17 to risks in their everyday clinical setting. Although persons with impairments who are  
18 accustomed to certain procedures may experience fewer burdens when undergoing them for  
19 research purposes, this should never be used as an excuse to expose this population to greater

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<sup>162</sup> The Medical Research Council of Canada, The Natural Sciences and Engineering Research Council of Canada , and The Social Sciences and Humanities Research Council of Canada, *Code of Ethical Conduct for Research Involving Humans* (The Tri-Council Working Group, July 1997) p. 16

<sup>163</sup>Id. at 14.

1 burdens than would be imposed on others. Thus, it may be defensible to classify the risks to them  
2 as lower than would be the case for someone unfamiliar with the procedures.

3 On the other hand, care should be taken in using the fact that an individual often  
4 undergoes medical procedures due to an illness as an excuse to perform additional procedures of  
5 the same sort for someone's else's benefit. The psychological context of illness may well make  
6 some research procedures, however familiar, more burdensome than they would be to someone  
7 who enjoys good health. Moreover, some procedures entail material burdens each time they are  
8 administered. Procedures of this sort should not be classified as lower risk for subjects who have  
9 had the misfortune of enduring them in the treatment setting.<sup>164</sup>

10 One way to reduce variance in risk classification would be to provide examples of studies  
11 that ordinarily would be expected to present a certain level of risk to members of a certain  
12 research population. The discussion could also include general considerations relevant to risk  
13 classification. For example, one author proposes that lumbar punctures and positron emission  
14 tomography "can be reasonably viewed as having greater than minimal risk for persons with  
15 dementia because 1) both procedures are invasive, 2) both carry the risk of pain and discomfort  
16 during and after, and 3) complications from either procedure can require surgery to correct."<sup>165</sup>  
17 The Maryland draft legislation states that an IRB may not classify a study as presenting minimal  
18 risk if the study would expose incapable subjects to "a loss of privacy or other aspects of personal  
19 dignity greater than that ordinarily encountered in daily life or during the performance of routine

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<sup>164</sup> Prior exposure to procedures could actually increase the fear and anxiety for some incapable subjects. Incapable adults with memory impairment may not recall undergoing procedures; for them, each procedure will be experienced as a new one.

<sup>165</sup> DeRenzo, *supra*, at 540.

1 physical or psychological examinations or tests."<sup>166</sup> The draft legislation also designates research  
2 as presenting more than a minor increase over minimal risk if, as a result of research participation,  
3 the subjects would be exposed to more than a remote possibility of "substantial or prolonged pain,  
4 discomfort, or distress" or "clinically significant deterioration of a medical condition."<sup>167</sup>

5 Another document lists as minimal risk for dementia patients "routine observation, data  
6 collection, answering a questionnaire, epidemiological surveys, venipuncture, and blood  
7 sampling," as well as neuropsychological testing.<sup>168</sup> Though some reportedly classify lumbar  
8 punctures and bone marrow biopsies as presenting a minor increase over minimal risk, this  
9 document suggests that such procedures may present "greater risks for some patients with  
10 dementia who are unable to understand or tolerate the pain or discomfort" accompanying the  
11 interventions.<sup>169</sup> Finally, the document notes that repeated performance of procedures ordinarily  
12 qualifying as minimal risk could at some point create sufficient burdens to subjects to merit a  
13 higher risk classification.

14 In 1980, the President's Commission commissioned a paper on the Swedish system for  
15 compensation of subjects injured in research. That paper included a list of risk groups. The first  
16 and lowest risk group included sampling of venous blood, administration of approved drugs in  
17 recommended doses, intravenous and intramuscular injections, and skin biopsies. The next risk  
18 group included sternal and spinal punctures, intravenous and intraarterial infusions, muscle

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<sup>166</sup> Office of Maryland Attorney General, *supra*, at 7.

<sup>167</sup> *Ibid.*

<sup>168</sup> Keyserlingk, et al., *supra*, at 330.

<sup>169</sup> *Id.* at 330.

1 biopsies, and endoscopy and biopsies of the gastrointestinal tract.<sup>170</sup> Taking these examples, a  
2 spinal tap might be more than minimal risk for patient-subject who is decisionally impaired, but  
3 not for a normal, healthy subject, while drawing venous blood might be minimal risk for all  
4 subjects.

5         Although the philosophical debate about the meaning of minimal risk in research will  
6 surely persist, the meaning of minimal risk for persons in the population of concern in this report  
7 must be addressed. For persons with mental disorders that may affect decisionmaking capacity,  
8 risks that are minimal for a general population may pose special psychological burdens. Even  
9 with regard to interventions that a person may be more familiar with due to his or her disorder,  
10 there is no reason to believe that familiarity with an unpleasant experience lessens the  
11 unpleasantness of the experience. Therefore the risks associated with specific research  
12 procedures should not be minimized by citing the subjects' other experiences, including those in  
13 their everyday lives or those associated with their ongoing health care.

14         This approach does not imply that research involving persons with mental disorders that  
15 may affect decisionmaking capacity cannot be conducted. Rather, it means that research  
16 procedures that would entail minimal risk for a general population must be assessed in light of the  
17 specific research population. In no case, however, should procedures classified as minimal risk  
18 for this population be classified as greater than minimal risk for the overall population. Therefore,  
19 research proposals should be more highly scrutinized if they involve persons with mental disorders

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<sup>170</sup>Harry Bostrom, "On the Compensation for Injured Research Subjects in Sweden," in Compensation for Research Injuries: Appendix, President's Commission for the Study of Ethical Problem in Medicine and Biomedical and Behavioral Research (Washington, DC: U.S. Government Printing Office, 1980), p. 315.

1 that may affect decisionmaking capacity, and special conditions may be required, but on the whole  
2 we believe that the most valuable research can continue within such constraints. Further,  
3 potential direct benefits of the research to the subjects must be carefully evaluated and may not by  
4 themselves justify experimental interventions that present significant risks to a subject population.  
5 Rather, these possible benefits must be considered in tandem with the risks involved. Even  
6 though there may be potential direct benefits of research participation to individuals, such  
7 research cannot be justified by the possibility of benefit alone.

### 8 9 Defining Benefits

10 Research involving adults who may have decisionmaking impairments can yield three types  
11 of benefit: direct medical benefit to subjects, indirect medical benefit and financial benefit to  
12 subjects, and benefit to others. Research benefit to others encompasses benefit to a subjects'  
13 families or other caregivers, to persons with the same disorder as subjects, and to persons  
14 diagnosed with the disorder in the future. This category of research presents the greatest  
15 challenge for those seeking the appropriate balance between subject protection and the welfare of  
16 others. As one group noted, when such research is invasive and presents no realistic possibility of  
17 direct health benefit, it "poses in the most dramatic form the conflict between the societal interest  
18 in the conduct of important and promising research and the interests of the potential subject."<sup>171</sup>

19 Direct benefit to subjects includes health improvements which may or may not be related  
20 to the disorder responsible for the subject's incapacity.<sup>172</sup> The National Commission stated that

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<sup>171</sup> Melnick, et al., *supra*, at 535.

<sup>172</sup> Keyserlingk, et al., *supra*, at 327.

1 research offering potential benefits to persons institutionalized as mentally infirm  
2 includes studies to improve existing methods of  
3 biomedical or behavioral therapy, or to develop  
4 new educational or training methods. The studies  
5 may evaluate somatic or behavioral therapies, such  
6 as research designed to determine differential  
7 responsiveness to a particular drug therapy, or to  
8 match particular clients with the most effective  
9 treatment. Studies may also assess the efficacy  
10 of techniques for remedial education, job training,  
11 elimination of self-destructive and endangering  
12 behaviors, and teaching of personal hygiene and  
13 social skills.<sup>173</sup>

14  
15 According to the National Commission, "[t]o be considered 'direct,' the possibility of benefit to  
16 the subject must be fairly immediate [and t]he expectation of success should be well-founded  
17 scientifically."<sup>174</sup> A more recent statement on dementia research limits direct benefit to  
18 a short- or long-range improvement, or a slowing

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<sup>173</sup>Report on Institutionalized Persons, *supra*, at 31.

<sup>174</sup>*Id.* at 13.

Berg also emphasizes the need to weigh the likelihood of direct benefit to subjects. In clinical trials, for example, "the benefit calculation must take into account how probable it is that a particular subject will get the experimental medium as well as the probability that, once received, the intervention will help." Berg, *supra*, at 25.

1 of a degenerative process, in the specific medical  
2 condition of the relevant subject, whether in the  
3 patient's condition of dementia, a medical symptom  
4 associated with dementia, or another physical or  
5 mental condition unrelated to dementia. Such  
6 direct benefits include those resulting from  
7 diagnostic and preventative measures.<sup>175</sup>

8  
9 Subjects may obtain other forms of benefit from research participation. As the National  
10 Commission noted, "[e]ven in research not involving procedures designed to provide direct  
11 benefit to the health or well-being of the research subjects, ... there may be incidental or indirect  
12 benefits."<sup>176</sup> Examples of indirect benefits are, "diversion from routine, the opportunity to meet  
13 with other people and to feel useful and helpful, or ... greater access provided to professional care  
14 and support."<sup>177</sup> According to one group, indirect benefit may be acknowledged, but should not  
15 be assigned the same weight as direct benefit in research review and discussions with prospective  
16 subjects and their representatives.<sup>178</sup>

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<sup>175</sup>Keyserlingk, et al., *supra*, at 327. This group notes that currently direct benefits to subjects in dementia research are limited to symptom control. There may be disagreement on whether research with the potential to extend life for someone in the later stages of a progressive dementia ought to be seen as offering the prospect of direct benefit to subjects.

<sup>176</sup> Report on Institutionalized Persons, *supra*, at 31.

<sup>177</sup> Keyserlingk, et al., *supra*, at 327.

<sup>178</sup> Thus, indirect benefit ought not be deemed sufficient to enter an incapable subject in studies presenting more than a "minor increment over minimal risk." *Id.* at 333-34. The group characterized indirect benefits as "by nature difficult to predict with any accuracy and ... often very person-specific." *Id.* at 327.



1           The T.D. decision criticized New York's failure to include a more precise definition of  
2 direct subject benefit in the regulations the court invalidated. The regulations referred to "direct  
3 benefit that is important to the general health or well being of the subject and is available only in  
4 the context of the research." Because otherwise applicable limitations and safeguards could be  
5 waived if a study offered potential direct benefit to subjects,<sup>179</sup> the court seemed to favor a narrow  
6 definition encompassing only expected benefits produced by the research procedure, related to the  
7 incapable subject's psychiatric condition, and reasonably equivalent to those provided by currently  
8 available treatments.<sup>180</sup>

9           The court's response supports at a minimum the need to scrutinize investigators'  
10 characterizations of research offering potential direct benefit to subjects.<sup>181</sup> Such claims require  
11 careful scrutiny by IRBs and other reviewers. Specific definitions of direct and indirect benefit,  
12 and a statement on the relative significance of the two, could assist investigators and reviewers in  
13 evaluations of the benefits anticipated from particular studies. The decision also questions the  
14 justification for a policy adopting less rigorous limits and safeguards for studies offering  
15 prospective direct benefit to subjects, if direct benefit is defined as broadly as it was in the New  
16 York regulations.

17  
18 Acceptable Risk-Anticipated Benefit Ratios

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<sup>179</sup> The regulations permitted the involvement of incapable subjects in greater than minimal risk research with the prospect of direct benefit without otherwise applicable requirements for an absence of subject objection and a finding that the study could not be conducted without the participation of incapable subjects. *T.D. v. New York State Office of Mental Health et al.*, 650 N.Y.S. 2d 173, 187-88, 193 (App.Div., 1<sup>st</sup> Dep't 1996).

<sup>180</sup> *Id.*

<sup>181</sup> Capron, *supra*.

1 Proposed policies on research involving adults who are decisionally impaired generally  
2 require a balancing of risks and potential benefits to determine when such research is acceptable.  
3 Most proposals take the position that adults who lack decisionmaking capacity may be involved in  
4 studies presenting little or no risk, as long as requirements for third party consent are met and the  
5 research offers a reasonable prospect of advancing knowledge or benefiting the subject, or both.  
6 There is substantial support, however, for adopting additional restrictions and review  
7 requirements for studies presenting higher risk, particularly for higher risk studies failing to offer  
8 subjects a reasonable prospect of direct benefit.

9 Research presenting more than minimal risk to subjects is generally classified into one of  
10 two categories. The first category is research offering subjects a reasonable prospect of direct  
11 benefit. “Direct benefit” is understood to refer to health benefits for the person who is both a  
12 patient and a research subject, and does not refer to any other perceived benefits to the person  
13 such as heightening a sense of altruism or relief of boredom. Though the moral justification for  
14 directly beneficial research is enhanced by the potential for improving subjects' health or welfare,  
15 most proposals incorporate the view that limits on risk are still needed to provide adequate  
16 protection to impaired or incapable individuals.

17 There is continuing debate about the role of payment as an indirect benefit of research  
18 participation. Financial incentives for the subject are harder to sort into the categories of direct or  
19 indirect benefit. They are indirect in the strict sense that they do not stem from the research  
20 interventions themselves, but they may be quite salient in the subject's mind. A concern here is  
21 who actually receives and controls the funds, the subject himself or herself or a third party who  
22 authorizes research participation. It may be preferable to structure the payment mechanism so that

1 it is not received by the individual who is authorizing research participation.

2           The principle that financial incentives should not exceed “reimbursement” for the subject’s  
3 time and expenses, so as not to establish undue motivation to participate, is well established but  
4 not always easy to apply. The problem is a complex one because normal volunteers, as well as  
5 some who are ill, may agree, for example, to pharmaceutical testing as an important supplement  
6 to their income, if not their sole income source. Payment must be great enough to justify their  
7 commitment of time and their submission to discomfort, but presumably not so great as to be an  
8 irresistible inducement. Similarly, some who are suffering from an illness may be tempted to join  
9 a study if it appears that the ancillary medical care will be superior to what he or she can obtain  
10 otherwise, especially among those who are uninsured. Surely the care should meet a high  
11 standard considering the opportunity that the patient is providing to medical science, but the study  
12 conditions also should not exploit a patient’s social and economic disadvantages.

13           In summary, the indirect benefits of study participation, ranging from monetary payment  
14 to a more attractive clinic setting to a sense of being accepted and valued by influential  
15 professionals, should not be of such magnitude that they put an undue influence on a decisionally  
16 impaired person to enroll. Because there can be no formula to determine exactly when in any  
17 given situation the indirect benefits are inappropriate inducements for some potential subjects,  
18 IRBs have a great burden in remaining sensitive to this issue in particular cases.

19  
20 Greater Than Minimal Risk Research Offering Direct Subject Benefit

21           The general view is that it is permissible to include impaired or incapable subjects in  
22 potentially beneficial research projects as long as the research presents a balance of risks and

1 expected direct benefits similar to that available in the clinical setting.<sup>182</sup> This position is adopted  
2 in current DHHS regulations on research involving children.<sup>183</sup>

3 The American College of Physicians document allows surrogates to consent to research  
4 involving incapable subjects only "if the net additional risks of participation (including the risk of  
5 foregoing standard treatment, if any exists) are not substantially greater than the risks of standard  
6 treatment (or of no treatment, if none exists)." In addition, there should be "scientific evidence to  
7 indicate that the proposed treatment is reasonably likely to provide substantially greater benefit  
8 than standard treatment (or no treatment, if none exists)."<sup>184</sup>

9 The Maryland draft legislation deems "research involving direct medical benefit"  
10 permissible if an agent or surrogate, "after taking into account ... treatment alternatives outside of  
11 the research ... concludes that participation in the research is in the individual's medical best  
12 interest."<sup>185</sup> The NIH Clinical Center permits greater than minimal risk research offering a

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<sup>182</sup> The standard is similar to the general demand for clinical equipoise when human subjects participate in clinical trials. Freedman, *Equipoise and the Ethics of Clinical Research*, 317 *New Eng. J. Med.* 141 (1987).

<sup>183</sup> See pp. 52-54, above.

<sup>184</sup> American College of Physicians, *supra*, at 845. A limited exception is permitted for incapable individuals who consented to higher risk through an advance directive.

<sup>185</sup> Office of Maryland Attorney General, *supra*, at 26-28.

Commentators take a similar position. See, e.g., Berg, *supra*, at 25 (approving this category of research if "no alternative treatment is available of at least equal value, and the experimental treatment is not available through any other source").

Much of the recent controversy over trials involving medication withdrawal for persons with serious psychiatric disorders concerns whether sufficient potential direct benefit exists to justify allowing subjects of questionable capacity to enter or remain in such trials. See Appelbaum, *supra*; Gilbert, et al., *Neuroleptic Withdrawal in Schizophrenic Patients*, 52 *Arch. Gen. Psych.* 173 (1995). The Loma Linda IRB Guidelines for use of placebos in studies involving persons with psychiatric illness present specific exclusion and inclusion criteria for such studies. Enrollment is limited to persons whose use of standard treatment has produced responses or side effects deemed unacceptable by the patient or an independent psychiatrist. Orr, *supra*, at 1263. Similarly, Appelbaum endorses a requirement for an independent clinician to screen prospective

1 prospect of direct subject benefit with the consent of a Durable Power of Attorney (DPA) or  
2 court-appointed family guardian, following an ethics consultation to ensure that the third party  
3 decision maker understands the relevant information. For subjects without a DPA or court-  
4 appointed guardian, this form of research is permitted, "if the situation is a medical emergency,  
5 when a physician may give therapy, including experimental therapy, if in the physician's judgment  
6 it is necessary to protect the life or health of the patient."<sup>186</sup>

7  
8 Greater Than Minimal Risk Research Offering No Reasonable Prospect of  
9 Direct Subject Benefit

10 The American College of Physicians and other groups take the position that greater than  
11 minimal risk research offering incapable subjects no reasonable prospect of direct benefit should  
12 be permitted only when authorized by a research advance directive<sup>187</sup> or after review and approval  
13 at the national level, through a process resembling that set forth in the current regulations  
14 governing research involving children.<sup>188</sup> The National Commission also recommended a national

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subjects with the goal of excluding those facing a high risk of harm from psychotic deterioration.  
Appelbaum, supra, at 4.

<sup>186</sup> NIH Clinical Center, supra.

<sup>187</sup> However, the ACP would rule out research that "would unduly threaten the subject's  
welfare." See pp. 41-42, above.

The Maryland draft legislation would permit research presenting more than a minor increase  
over minimal risk and no reasonable prospect of direct benefit only when subjects appointed a  
research agent and "the research is unambiguously included in the [incapacitated] individual's  
research advance directive." Office of Maryland Attorney General, supra, at A-32. Berg  
proposes that high risk research offering little or no prospect of direct subject benefit should be  
prohibited unless there is clear evidence that a subject's competent preferences would support  
participation. Berg, supra, at 28.

<sup>188</sup> American College of Physicians, supra, at 846. See also Melnick, et al., supra, at 535  
(advising national ethics review prior to any decision to permit studies in this category).

1 review process for studies that could not be approved under its other recommendations on  
2 research involving persons institutionalized as mentally infirm. However, others see this position  
3 as either too liberal or too restrictive.

4 On one hand, some favor an absolute prohibition on moderate or high-risk research  
5 offering no benefit to subjects but great promise of benefit to others, based on the Nuremberg  
6 Code's and the Declaration of Helsinki's "conviction that vulnerable and unconsenting individuals  
7 should not be put at undue risk for the sake of patient groups or society."<sup>189</sup> Supporters of this  
8 position contend that when these documents were created, "it was presumably well understood  
9 that a price of that prohibition would be that some important research could not proceed, some  
10 research answers would be delayed, and some promising therapies and preventive measures would  
11 for the time being remain untested and unavailable."<sup>190</sup> Some writers explicitly label this stance  
12 the most ethically defensible position.<sup>191</sup>

13 A position paper representing federally funded Alzheimer Disease Centers, however,  
14 adopts a somewhat different view: "[r]esearch that involves potential risks and no direct benefit to  
15 subjects may be justified if the anticipated knowledge is vital and the research protocol is likely to

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<sup>189</sup> Keyserlingk, et al., *supra*, at 334.

<sup>190</sup> *Id.*

<sup>191</sup> *Id.* at 334. The group would accept this form of research for a small group of incapable subjects who previously consented to it in an advance directive, however. See pp. 45-46, above.

Annas and Glantz also contend that without previous competent and specific consent, incapable nursing home residents should not be enrolled in "nontherapeutic experimentation that carries any risk of harm with it." Annas & Glantz, *supra*, at 1157. See also Shamoo & Sharev, *supra* (calling for "moratorium on all nontherapeutic, high risk experimentation with mentally disabled persons which is likely to cause a relapse"); Thomasma, *supra*, at 228 (incapable persons should not be involved research failing to offer direct benefit if study presents more than "very mild risk").

1 generate such knowledge."<sup>192</sup> This group also believes that a national review process is not  
2 necessarily the best way to decide whether to permit research presenting no potential direct  
3 benefit and more than minimal risk to incapable subjects. They acknowledge that "there may be  
4 some advantages" to national review, but contend that "immediate and direct monitoring of such  
5 research and on-site assurance of its humane ethical conduct are at least as important as the  
6 process of evaluation and approval of any proposed research."<sup>193</sup>

7 In sum, there is a range of opinion on how federal policy could address risks to  
8 decisionally impaired or capable subjects in studies conducted solely for the benefit of others. The  
9 literature presents at least three options: (1) preserve the status quo and allow IRBs to determine  
10 acceptable risk levels; (2) require approval at the national level for studies exceeding a specific  
11 risk level; or (3) determine a risk level beyond which further specific protections are required.

12 The Commission does not believe that the status quo is acceptable. Some specific national  
13 standards need to be developed to assist IRBs in determining what special protections must be  
14 adopted with regard to certain risk levels. We have already stated that experimental procedures  
15 or interventions that present minimal risk to a general population may present more than minimal  
16 risk for persons with mental disorders that may affect their decisionmaking capacity. Similarly,

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<sup>192</sup> The group representing the Alzheimer's Disease centers does not explicitly address whether limits on risk should be applied to this form of research. High, et al., *supra*, at 72-73.

Two other commentators recently argued in favor of permitting incapable persons to be involved in research offering no direct benefit if the risk is no more than a minor increment over minimal risk. Glass & Speyer-Ofenberg, *Incompetent Persons as Research Subjects and the Ethics of Minimal Risk*, 5 *Camb. Q. Healthcare Ethics* 362 (1996).

<sup>193</sup> High, et al., *supra*, at 72. Another statement from the Alzheimer's centers' group questions the assumption that a national review body would be particularly qualified to determine "whether the research in question is indeed extremely important to society or to a class of patients--sufficiently so that standard research norms could be put aside." Keyserlingk, et al., *supra*, at 335.

1 the distinction between a minor increase over minimal risk and a greater than minor increase over  
2 minimal risk requires special scrutiny when applied to this population, considering the  
3 psychological implications of interventions for those who may not understand their purpose and  
4 context.

#### 6 Independent Research Monitors

7 In the initial review process, IRBs evaluate a research proposal's risks and expected  
8 benefits based both on study design and on predictions of subject response. In many cases, a  
9 range of responses among subjects will be predicted. In some cases, predictions may prove  
10 inaccurate as research progresses, for some or even all subjects. As a result, subjects' health  
11 status and experiences must be evaluated on an ongoing basis to ensure that subjects can be  
12 removed from the protocol if risks become excessive. In particular, the assessment of potential  
13 harms and benefits should be individualized for the subject in question, taking into account the  
14 proposed subject's medical, psychosocial, and financial context.

15 For purposes of this paper, it is the Commission's view that the need for subject  
16 monitoring is distinct from monitoring the data being generated by the study. The need for data  
17 and safety monitoring is widely acknowledged. The Common Rule directs IRBs to ensure that  
18 "[w]hen appropriate, the research plan makes adequate provision for monitoring the data  
19 collected to ensure the safety of subjects."<sup>194</sup> However, commentators also refer to the  
20 importance of individual subject monitoring, as distinct from keeping track of data that may  
21 suggest a study or an individual's participation should be stopped because it seems to pose undue

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<sup>194</sup> Sec. \_\_\_\_, 111(a)(6).



1 risk to a group of subjects or an individual.<sup>195</sup> Although Data Safety Monitoring Boards  
2 (DSMBs) are well-established devices for multi-site studies, a major question is how and when to  
3 implement individualized subject monitoring, and whether such monitoring should be conducted  
4 by a person independent of the research team.

5 After evaluating human subject protections in schizophrenia research conducted at the  
6 University of California at Los Angeles (UCLA), the Office for Protection from Research Risks  
7 (OPRR) required the institution to "establish one or more independent Data and Safety  
8 Monitoring Boards ... to oversee [DHHS]-supported protocols involving subjects with severe  
9 psychiatric disorders in which the research investigators or coinvestigators are also responsible for  
10 the clinical management of subjects."<sup>196</sup> The institution was directed to submit to federal officials  
11 a proposal on creating and operating such monitoring boards.

12 Detailed provisions on monitoring are also included in Loma Linda University IRB  
13 guidelines on psychopharmacology research in which placebos are administered. Investigators  
14 must specify how often subjects will be assessed for deterioration or improvement during studies.  
15 The most appropriate quantitative instruments must be used for assessment and subjects must be  
16 withdrawn if their condition deteriorates to a level "greater than that expected for normal clinical  
17 fluctuation in a patient with that diagnosis who is on standard therapy," if they exhibit previously  
18 specified behaviors indicating possible danger to self or others, or if no signs of improvement in

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<sup>195</sup> See, e.g., Appelbaum, *supra*, at 4 (noting importance of close monitoring to detect early symptoms of relapse so that medication can be resumed to minimize deterioration); Keyserlingk, et al., *supra*, at 324 (researchers "must have in place at the start the needed mechanism to monitor subjects, not only as regards the research question, but also in order to identify and prevent unanticipated complications and harms, both physical and psychological").

<sup>196</sup> Office of Protection from Research Risks, *supra*, at 27.

1 their condition are evident after a specified time.<sup>197</sup>

2 It has been suggested by some that it would be appropriate to assign monitoring  
3 responsibility to the incapable subject's representative as well. According to the *Belmont Report*,  
4 the representative "should be given an opportunity to observe the research as it proceeds in order  
5 to be able to withdraw the subject from the research, if such action appears in the subject's best  
6 interest."<sup>198</sup> In this spirit, the Maryland draft legislation directs subject representatives to "take  
7 reasonable steps to learn whether the experience of the individual in the research is consistent with  
8 the expectations of the legally authorized representative at the time that consent was granted."<sup>199</sup>

9 An important policy question is whether research team members and subject  
10 representatives can provide sufficient protection to impaired or incapable subjects, since research  
11 team members may face a conflict between protecting subjects and maintaining the study  
12 population.<sup>200</sup> Further, it is unlikely that subject representatives will be present during every part  
13 of an incapable subject's research involvement, and laypersons might not recognize every  
14 indication of increased risk to subjects. In these circumstances, IRBs should require guidance on  
15 potential approaches to monitoring harms and benefits to individual subjects and on criteria for  
16 determining when the involvement of an independent health care professional is needed.<sup>201</sup> The

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<sup>197</sup> Orr, *supra*, at 1263.

<sup>198</sup> Belmont Report, *supra*, at 6.

<sup>199</sup> Office of Maryland Attorney General, *supra*, at 16.

<sup>200</sup> In the UCLA schizophrenia research, subjects received clinical care from psychiatrists who also were coinvestigators for the study. There was concern that such a conflict of interest could lead psychiatrists to be insufficiently responsive to signs of possible relapse in patient-subjects.

<sup>201</sup> See Shamoo & Sharev, *supra*, at S:29 (researchers and IRBs should be held accountable for monitoring to ensure welfare of subjects protected; physician not associated with research or institution where research conducted should help decide whether subjects' interests served by continued participation).

1 Commission believes that in research using persons with mental disorders which may effect  
2 decision making capacity independent monitoring is essential. This should be either an ongoing  
3 process or one initiated by any unexpected development that might negatively affect subject  
4 safety.

1 Chapter Five: ADVANCE PLANNING, SURROGATE DECISION MAKING,  
2 AND INFORMED CONSENT IN RESEARCH

3  
4 Assent and Dissent

5 For all persons with decisionmaking capacity, informed consent is the critical touchstone  
6 of the ethical conduct of research. For those whose decisionmaking capacity is impaired,  
7 informed consent is the standard against which all efforts to obtain the ethical participation of  
8 individuals in research must be judged.

9 At some times or under some circumstances, persons with mental disorders that may  
10 affect decisionmaking capacity are incapable of giving valid informed consent for their  
11 participation in a research protocol. Under appropriate circumstances, however, and with special  
12 protections, ethically acceptable research involving such persons is quite possible. In considering  
13 the special conditions that surround study design and consent processes in such cases, it is  
14 important never to lose sight of the need to allow human subjects to participate in the consent  
15 process as fully as possible given their individual circumstances. According to the *Belmont*  
16 *Report*, for example, respect for persons unable to make a fully autonomous choice "requires  
17 giving them the opportunity to choose to the extent they are able, whether or not to participate in  
18 research."<sup>202</sup> Consistent with this view, the National Commission recommended that under  
19 specified conditions, researchers should obtain assent to research participation from subjects  
20 incapable of independent decisionmaking. According to the National Commission, persons are  
21 capable of assent if they "know what procedures will be performed in the research, choose freely

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<sup>202</sup> Belmont Report, *supra*, at 6.

1 to undergo these procedures, communicate this choice unambiguously, and [know] that they may  
2 withdraw from participation."<sup>203</sup>

3 Dissent also plays an important role in the involvement of persons in research, regardless  
4 of their decisionmaking capacity. The National Commission recommended that an incapable  
5 subject's overt objection to initial or ongoing participation should preclude research involvement  
6 unless the study offers the subject a prospect of direct benefit *and* a court specifically authorizes  
7 the subject's participation. The National Commission also stated that an objecting incapable  
8 subject should be involved in research presenting a prospect of direct benefit and more than  
9 minimal risk only when the benefit is available solely in the research context.<sup>204</sup>

10 The members of the National Commission recommended procedural mechanisms to  
11 ensure application of these substantive provisions. They stated that IRBs should have discretion  
12 to appoint an independent auditor to verify the subject's assent or lack of objection. They also  
13 recommended that independent auditors be required to monitor the incapable subject's initial and  
14 ongoing assent in research presenting more than minimal risk and no prospect of direct benefit to  
15 subjects; if subjects object at any time to this category of research, they should be removed from  
16 the study.

17 Not all individuals who lack decisional capacity can provide assent as defined by the  
18 National Commission, though some may satisfy certain elements of the standard.<sup>205</sup> Should the

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<sup>203</sup> Report on Institutionalized Persons, *supra*, at 9.

<sup>204</sup> Report on Institutionalized Persons, *supra* at 7-10.

<sup>205</sup> An empirical study found that many dementia patients incapable of independent decisionmaking were nevertheless "able to provide useful information on their values and preferences that was pertinent to making research enrollment decisions." Sachs, et al., *supra*, at 410.

1 physical or verbal indications of persons deemed incapable of assent be considered in research  
2 decisionmaking? A related question is "whether the failure to actively object to participation in a  
3 protocol is enough to be interpreted as a tacit or implied form of assent or whether some more  
4 affirmative agreement is necessary."<sup>206</sup> According to the National Commission, "mere absence of  
5 objection" ought not be interpreted as assent.<sup>207</sup> The National Commission recommended  
6 requiring the consent of a subject's legal guardian to authorize more-than-minimal-risk research  
7 involving nonobjecting subjects incapable of assent. Whether this situation might be adequately  
8 addressed through less formal procedural safeguards, or by imposing special limits on research  
9 risks, remains unsettled in the existing literature.

10         There is general agreement, however, that the sole potential justification for imposing  
11 research interventions on actively resisting subjects would be to advance the goal of their  
12 protection; that is, to provide a potential material health benefit unavailable outside the study.  
13 Recent commentary generally supports a requirement for subject assent, or at minimum, lack of  
14 objection, except in the unusual case when research participation offers the subject direct benefits  
15 not otherwise obtainable in the clinical setting.<sup>208</sup> Yet not all commentators agree that potential  
16 direct benefit should be sufficient to override the resistance (whether verbal or behavioral) of

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<sup>206</sup> Kapp, *supra*, at 34.

<sup>207</sup> Report on Institutionalized Persons, *supra*, at 14. What constitutes a recognizable objection is another question. Subjects might exhibit a transient unwillingness to participate, due to temporary fatigue or distraction. Should any sign of unwillingness suffice as grounds to remove the subject from research, or may the investigators be given another opportunity to seek the subject's cooperation? See Keyserlingk, *supra*, at 341 (should not assume that "transient lack of cooperation always signifies an objection"; instead, "[d]ecisions as to whether a patient is clearly or probably objecting will obviously be a matter of judgment"). A related issue is whether such judgments should be made by an investigator, independent evaluator, the subject's representative, or an IRB representative.

<sup>208</sup> E.g., Berg, *supra*; High & Doole, *supra*; High, et al., *supra*; Melnick, et al., *supra*.

1 persons lacking decisional capacity with regard to research participation.

2 A Canadian group considering research involving persons with dementia recently noted:

3 Faced with an objection by a patient of impaired  
4 capacity, the justification advanced for neverthe-  
5 less imposing the investigational intervention is  
6 that it holds out the prospect of direct (therapeutic)  
7 benefit. However, it is normally not legitimate to  
8 impose even established therapy on a patient refusing  
9 it. The case for proceeding may be stronger regarding  
10 the incompetent ... patient who objects, but it is  
11 difficult to equate an intervention which is investi-  
12 gational in nature--whatever its potential for direct  
13 (therapeutic) benefit--with an intervention "which  
14 would be ordered in a purely therapeutic context."<sup>209</sup>

15  
16 This group was "not fully persuaded" that potential therapeutic benefit provides ethical  
17 justification for compelling an objecting subject's research participation. In their view, this "is at  
18 best a position in need of further debate."<sup>210</sup> The legislation under consideration in Maryland  
19 would completely bar investigators from conducting research involving a decisionally incapable  
20 individual "who refuses to perform an action related to the research."<sup>211</sup>

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<sup>209</sup> Keyserlingk, et al., supra, at 342, quoting Melnick, et al., supra.

<sup>210</sup> Id. at 342.

<sup>211</sup> Office of Maryland Attorney General. Supra, at 23.

1           The Commission believes that once subjects become part of a research study, they must  
2 always have the opportunity to withdraw at any time without prejudice and without regard to  
3 subject capacity. This is a basic tenet of ethical research with human subjects that was recognized  
4 in the Nuremberg Code. The lower court in the T.D. case labeled as constitutionally deficient  
5 New York's provision allowing the involvement of an objecting incapable subject in potentially  
6 therapeutic research because the state regulations failed to provide patients or their  
7 representatives notice and an opportunity to challenge this involvement.<sup>212</sup> Although the  
8 constitutional portion of the judgment was set aside by the Court of Appeals, such a state of  
9 affairs would also be ethically objectionable according to the Nuremberg principle, among others,  
10 as well as being legally suspect.

#### 11 12 The Incapable Subject's Preferences While Competent

13           Various groups and individual commentators have explored the relevance of advance  
14 decisionmaking in the research context. Two types of research advance directives are discussed  
15 in the literature. First, it has been suggested by some that through an instruction or substantive  
16 directive, a competent person may consent to, or refuse, future research involvement during a  
17 future period of temporary or permanent incapacity. Second, through a proxy or procedural  
18 directive (also known as a research durable power-of-attorney), a competent individual may  
19 choose someone else as his or her research decisionmaker if they subsequently lose decisional  
20 capacity.

21           As in the treatment area, advance research decisionmaking is supported as a means of

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<sup>212</sup> *T.D. v. New York State Office of Mental Health et al*, 650 N.Y.S. 2d at 193.



1 extending respect to the autonomous choices of capable individuals. Advance decisionmaking is  
2 also seen as protective in that it does not permit a surrogate to authorize an incapable subject's  
3 involvement in research that the subject previously deemed unacceptable. The primary issues  
4 raised by research advance directives are: whether advance decisions can be adequately informed;  
5 how to safeguard the subject's right to withdraw from research; and whether advance choice is a  
6 morally defensible basis for permitting otherwise prohibited levels of risks and burdens in research  
7 involving incapable subjects.

8         The concept of advance research decisionmaking was initially discussed in the 1980's. In  
9 his volume on clinical research, Robert Levine discussed the "research living will" as an avenue  
10 for competent persons to authorize future research involvement while incompetent.<sup>213</sup> In 1987,  
11 the NIH Clinical Center adopted a policy in which persons "who are or will become cognitively  
12 impaired" are asked to complete a durable power of attorney (DPA) document appointing a  
13 surrogate research decisionmaker.<sup>214</sup> Such decisionmakers may authorize an incapable subject's  
14 participation in research presenting greater than minimal risk to subjects. In such cases, an ethics  
15 consultation is conducted to verify the decisionmaker's capacity to understand information  
16 relevant to the research decision. If no DPA exists, the consent of a court-appointed family  
17 guardian is required. The Clinical Center policy deems a subject's prior exercise of choice an  
18 acceptable basis for permitting higher risk research than is otherwise permitted for subjects

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<sup>213</sup> Levine, R., *Ethics and Regulation of Clinical Research* (Baltimore: Urban and Schwarzenberg, 2nd ed., 1986) 270-74.

<sup>214</sup> Subjects "not seriously impaired" are viewed as capable of completing a research DPA. If a prospective subject is "so seriously impaired as to be incapable of understanding the intent or meaning of the DPA process, a next of kin surrogate may be chosen by the physician." In addition, if a prospective subject has a previously-completed health care DPA or a court-appointed guardian, no research DPA is sought. NIH Clinical Center, *supra*.

1 lacking court-appointed family guardians.<sup>215</sup>

2           The terminology of “research advance directive” or “research living will” can be somewhat  
3 confusing. Conventional living wills and other advance directives address the individual’s  
4 preferences concerning recognized treatment, or identify the individual to be empowered to make  
5 treatment decisions, if the individual should lose decisionmaking capacity. However, research  
6 often involves interventions that are not known to be effective or not generally considered to  
7 have therapeutic value, or interventions that are not intended to benefit the subjects at all, but only  
8 to gain information that may eventually lead to the improved treatment of this disorder. Further,  
9 while advance directives appropriately address treatment preferences well before the time they  
10 may be implemented, the moral arguments that would support a public policy favoring advance  
11 consent to a research project are not as clear -- especially considering that in many instances the  
12 individual might be asked to authorize participation in a research project that does not even exist  
13 at the time. Under these circumstances a research advance directive is a kind of blank check  
14 permitting oneself on approval of the designated surrogate to be used in a research project after  
15 the loss of decisionmaking capacity.

16           In 1989, the American College of Physicians (ACP) gave qualified endorsement to  
17 instruction and proxy mechanisms permitting competent persons to register advance consent to  
18 research. According to the ACP, investigators seeking advance consent would be required to  
19 disclose to the competent person the usual information on a study's purpose, methods, risks, and  
20 potential benefits. Moreover, the ACP recognized a need for more caution regarding advance

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<sup>215</sup> Research presenting greater than minimal risk is not permitted for subjects lacking a DPA or court-appointed family guardian.

1 research decisions than advance treatment decisions:

2 In nonexperimental care, advance directives are  
3 generally used by patients to indicate their intent  
4 to refuse procedures ... which they believe will be  
5 contrary to their interests. Respect for autonomy  
6 creates a strong presumption for adherence to  
7 instructions for nonintervention. In contrast,  
8 advance directives for research purposes would  
9 authorize interventions that do not benefit the  
10 subject in the case of nontherapeutic research, or  
11 that may not benefit the subject in the case of  
12 therapeutic research.<sup>216</sup>

13  
14 Accordingly, this group took the position that research advance directives "may be abrogated if it  
15 is later determined that the proposed research would unduly threaten the subject's welfare."<sup>217</sup>

16 Despite these cautions and restrictions, the ACP deemed an incapable subject's prior  
17 consent an acceptable basis for allowing that subject's involvement in higher risk research than is  
18 permitted for other incapable subjects. The position paper states that incapable subjects who have  
19 given only informal instructions to a surrogate decisionmaker about their research preferences

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<sup>216</sup> American College of Physicians, *supra*, at 844.

<sup>217</sup> For example, the proxy decisionmaker should withdraw an incapable subject from a study if risks or burdens increase due to changes in research methods, changes in the subject's physical condition, or the incapable subject's lack of cooperation with study procedures. *Id.* at 844.

1 should not be involved in greater than minimal risk research offering no prospect of direct benefit.  
2 In contrast, subjects with formal advance directives may be involved in such studies, as long as the  
3 above limitations are observed.

4 Other groups and commentators have expressed general support for advance research  
5 decisionmaking without addressing the concept in detail.<sup>218</sup> Four articles published between 1994  
6 and 1996 present more lengthy analyses of advance research directives and are discussed below.

7 In reviewing the advance directive's potential application to dementia research, Greg  
8 Sachs speculates that it is unlikely that many individuals will prepare research directives. He notes  
9 that relatively few people make treatment directives, even though many fear excessive treatment  
10 at the end of life. Even fewer will make research directives, he predicts, because "the fear of  
11 missing out on being a subject in a promising dementia study, or of being inappropriately  
12 volunteered by one's relatives, is simply not a prevalent or powerful concern."<sup>219</sup>

13 Federal policy establishes stringent disclosure requirements for investigators recruiting  
14 competent persons for research. An individual considering whether to authorize future research

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<sup>218</sup> E.g., Melnick, et al., *supra* (endorsing research directives and implying that such documents could authorize otherwise questionable research presenting more than minimal risk and no prospect of direct therapeutic benefit to subjects); Annas & Glantz (competent person diagnosed with disorder expected to produce incapacity could designate proxy decisionmaker; such document could authorize participation in otherwise prohibited nontherapeutic studies posing "any risk of harm," but should be used only if instructions are specific and address "reasonably well defined" research and subject retains right to withdraw even after becomes incapable).

<sup>219</sup> Sachs, *Advance Consent*, *supra*. Sachs refers to unpublished survey data finding that while 16 of 21 ethicists expressed enthusiasm for advance research directives, only 8 out of 74 investigators agreed that directives would be a workable approach. In a different survey of healthy elderly persons, many respondents indicated they would be unwilling to complete "blank checks" authorizing participation in a wide range of future studies. Respondents were more positive about advance directives authorizing research offering a reasonable prospect of direct benefit, but only if interventions were restricted to the specific procedures, pain, and discomfort set forth in the document. Keyserlingk, et al., *supra*, at 347.

1 participation ought to be informed about a prospective study as well. But problems in  
2 information delivery are posed by the time lapse between a capable individual's decision to enter a  
3 future study and the onset of actual participation. As a Canadian group points out, "[t]he  
4 research intervention, process, or technology may have evolved; the risk of harm may have  
5 increased beyond what was originally predicted; the patient's medical conditions, relationships,  
6 level of family support, and daily routine may have changed and deteriorated."<sup>220</sup>

7 In light of these possibilities, many commentators agree that a third party decisionmaker  
8 should be appointed to withdraw the subject from a study if previously unrecognized risks and  
9 burdens become apparent.<sup>221</sup> They differ, however, on the standard third parties should apply  
10 when exercising the subject's right to withdraw from research the subject previously authorized.

11 Some writers favor withdrawal only when the factual circumstances become materially  
12 different from those to which the individuals agreed in directives.<sup>222</sup> Others contend that  
13 withdrawal should also occur if it becomes apparent to others that research participation threatens  
14 the incapable subject's welfare. According to this position, a research proxy's or surrogate's  
15 obligation to respect the person's prior wishes is  
16 limited by the obligation to protect the person. The  
17 function of the [third party decisionmaker] is to

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<sup>220</sup> Keyserlingk, et al., *supra* at 347.

<sup>221</sup> See, e.g., Moorhouse & Weisstub, *Advance Directives for Research: Ethical Problems and Responses*, 19 *Int'l. J. L. & Psychiat.* 107, at 135 ("in the event of the development of unforeseen risks, a change in the subject's condition, or an objection expressed by the incapable subject or a concerned third party," subject's surrogate decisionmaker must have power to remove subject from study).

<sup>222</sup> Berg, *supra*, at 22 (surrogate has responsibility to withdraw subject only if research or risk-benefit ratio changes substantially from what subject consented to).

1 promote what subjects think are their best interests,  
2 which necessarily excludes consenting to being  
3 intentionally harmed or to being unreasonably exposed  
4 to the risk of harm.<sup>223</sup>

5  
6 This dispute is related to disagreement on the appropriate scope of a competent person's  
7 advance consent to research. Commentators are divided on whether policy should permit an  
8 incapable subject to be exposed to otherwise impermissible levels of research risks and burdens  
9 based on the subject's prior instructions. Moorhouse and Weisstub contend that directives should  
10 be restricted to authorizing research "with a negligible or less than substantial risk."<sup>224</sup> Their  
11 position is based on the belief that capable individuals cannot predict with complete accuracy how  
12 they will experience research as incapable subjects. These authors also argue that the competent  
13 individual's freedom to volunteer for research to advance the interests of others is qualified by  
14 society's responsibility to protect vulnerable individuals from material harm.

15 Addressing dementia research, Keyserlingk's group in Canada proposes that research  
16 directives should apply to studies offering no direct benefit to subjects only if the risk is minimal

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<sup>223</sup> Moorhouse & Weisstub, at 135. See also Shamoo & Sharev, *supra*, at S:29 (advance directives should not bind a subject to research participation).

An intermediate position is presented in Keyserlingk, et al., *supra*, at 352 (advance directive should be overridden if "no direct benefit is anticipated for the subject and it becomes apparent that enrollment or continued participation would seriously endanger that subject's welfare to an extent not foreseen by the subject, or even if foreseen, to an extent judged by the substitute [decisionmaker] to be socially or morally unacceptable").

<sup>224</sup> Moorhouse & Weisstub, *supra*, at 134.

1 or a minor increase over minimal.<sup>225</sup> They suggest one exception to this limit, however: "[i]f a  
2 subject who provides a directive specifying a willingness to undergo a higher risk level also  
3 provides evidence of having already experienced a similar level of physical or psychological pain  
4 or discomfort in another research setting, then the cap of allowable risk for that subject could be  
5 raised accordingly."<sup>226</sup>

6 Berg supports full implementation of advance research directives without regard to the  
7 risk level. She argues, "[b]ecause competent subjects do not have limits placed on the types of  
8 research in which they can participate while they remain competent (as long as the protocol is  
9 approved by an appropriate review board), they should not have limits placed on the types of  
10 research in which they can consent, in advance, to participate should they become  
11 incompetent."<sup>227</sup> Conversely, when an advance directive refuses research participation, Berg  
12 suggests that the subject's refusal could be overridden if a study offers possible direct benefit  
13 unavailable in the clinical setting. She fails to explain why concern for the incapable subject's best  
14 interests justify disregarding a directive in one situation and not the other.

15 A few public policy developments are also relevant to this topic. In 1996, the Food and  
16 Drug Administration and NIH adopted new regulations governing research involving incapable  
17 subjects in the emergency setting. The new regulations allow research to proceed in the absence  
18 of consent by a subject or subject representative if a number of conditions are met. One condition  
19 is that investigators cannot reasonably obtain prospective consent from competent individuals

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<sup>225</sup> Keyserlingk, et al., *supra*, at 351.

<sup>226</sup> *Id.*

<sup>227</sup> Berg, *supra*, at 22.

1 likely to be candidates for later study enrollment.<sup>228</sup>

2           The regulations and agency comments do not address the rationale for, or implementation  
3 issues raised by, prospective consent. The commentary implies that the ordinary disclosure  
4 requirements for informed consent govern advance research decisionmaking.<sup>229</sup> According to  
5 agency officials, when IRBs determine that investigators can reasonably identify and seek  
6 prospective consent from persons likely to become eligible for a study, "[t]hose individuals who  
7 either did not make a decision or who refused would be excluded from participation in the  
8 investigation."<sup>230</sup> In response to a public comment describing "the difficult task for potential  
9 subjects to imagine the kind of research they would want should they suffer a catastrophic illness,"  
10 officials acknowledged possible difficulties in implementing the prospective decisionmaking  
11 process, but suggested that IRBs could adequately address these matters.<sup>231</sup> As has been noted,  
12 this is a problem that applies to all advance directives for research participation.

13           The New York court decision invalidating existing regulations governing research at the  
14 state's mental health facilities expressed, in obiter dictum, support for prospective decisionmaking  
15 on research participation. In T.D. v. New York State Office of Mental Health, the appellate court  
16 took the position that without an incapable subject's previous consent or the consent of someone  
17 the subject specifically chose as her research decisionmaker, "[i]t may very well be that ... there is

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<sup>228</sup> 21 C.F.R. sec. 50.24 (a)(2)(iii).

<sup>229</sup> The FDA's comments on the regulations include as examples of when "prior informed consent" could be used, "use of a surgical procedure with a known severe consequence; administration of a drug product with a known serious adverse reaction; identification of a population with a particular disease or condition who are at an extremely high risk for a serious event." 61 Fed. Reg. at 51511.

<sup>230</sup> *Id.*

<sup>231</sup> *Id.*



1 at present no constitutionally acceptable protocol for obtaining the participation of incapable  
2 individuals" in studies posing greater than minimal risk and no prospect of therapeutic benefit.<sup>232</sup>  
3 The court thus seemingly implied that advance consent or the consent of a specifically authorized  
4 research proxy might be a constitutionally adequate basis for an incapable subject's participation in  
5 research posing more than minimal risk and no prospect of direct benefit to subjects.

6 The decision of the court in T.D. was based, in part, on earlier New York decisions  
7 addressing surrogate decisionmaking on life-sustaining treatment for incapable patients. These  
8 decisions established a rule that "in the absence of specific legislation, and where there is no  
9 evidence of personal intent, a surrogate has no recognized right to decide that . . . treatment  
10 should be withheld...."<sup>233</sup> Because "participation in studies involving greater than minimal risk  
11 exposes the subjects to possible harmful, and even fatal, side effects," the court stated that similar  
12 substantive and procedural safeguards should be provided to potential research subjects as are  
13 provided to patients in life-sustaining treatment settings.<sup>234</sup>

14 The State of Maryland has initiated a third policy effort relevant to advance research  
15 decisionmaking. The draft legislation includes a framework for third party decisions on research  
16 for decisionally incapacitated persons. Research is permitted with consent of an incapable  
17 subject's "legally authorized representative." Unlike current federal policy, this proposal specifies  
18 who may fill this role. Subject representatives may be, in the following priority order, (1) a  
19 research agent designated in an advance directive for research; (2) a health care agent designated

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<sup>232</sup> *T.D. v. New York State Office of Mental Health et al.*, 650 N.Y.S. 2d 173, 177, 228 A.D.2d 95, 100 (App.Div., 1<sup>st</sup> Dep't 1996).

<sup>233</sup> *Id.* at 190, 228 A.D.2d at 122.

<sup>234</sup> *Id.* at 191, 228 A.D.2d at 122.

1 in an advance directive for treatment; (3) a surrogate authorized by statute to make health care  
2 decisions for an incapable person; or (4) a proxy decision maker designated by the IRB to act as a  
3 research decisionmaker for an incapable person.<sup>235</sup>

4 The Maryland draft gives greater decisionmaking authority to third parties expressly  
5 chosen by an incapable individual. In the absence of an instruction directive, only research agents  
6 and health care agents are authorized to consent to an incapable subject's involvement in research  
7 presenting a minor increase over minimal risk and no expected direct benefit. Only a research  
8 agent may authorize an individual's involvement in research presenting more than a minor increase  
9 over minimal risk and no direct benefit.

10 The Maryland draft legislation also recognizes a limited role for instruction directives. A  
11 monitor may consent to an incapable individual's participation in research presenting minimal risk  
12 and no direct benefit if the individual's advance directive explicitly authorizes such participation.  
13 A research agent may permit an incapable subject to be involved in research presenting more than  
14 a minor increase over minimal risk only if "the research is unambiguously included in the  
15 individual's advance directive authorizing research participation."<sup>236</sup> Thus, otherwise prohibited  
16 research risk is permitted based on the prior competent choice of a now incapable subject.

17 The draft Maryland legislation does not discuss the study information that must be  
18 disclosed to a capable person making an advance research directive. Withdrawal from research is  
19 addressed, however. Any third party consenting to an incapable subject's participation must

20 (1) take reasonable steps to learn whether the

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<sup>235</sup> Office of the Maryland Attorney General, *supra*, Parts VI, VII, VIII, & IX

<sup>236</sup> *Id.* at 15.

1           experience of the individual in the research is  
2           consistent with the expectations of the legally  
3           authorized representative at the time that consent was  
4           granted; and (2) withdraw consent if continued partici-  
5           pation would, considering all relevant circumstances be  
6           detrimental to the well-being of the individual.<sup>237</sup>

7  
8           In sum, advance research decisionmaking has been widely discussed in the literature and  
9           included in some recent policy initiatives. Numerous conceptual and practical questions remain  
10          unresolved, however. The number of persons willing to prepare research directives may be small,  
11          especially if rigorous standards for information disclosure are observed. Further, investigators  
12          and IRBs face challenges in providing competent individuals with up-to-date information on a  
13          future study. Finally, the literature reveals disagreement on the significance policy should assign  
14          to the competent individual's preferences about future research participation posing more than  
15          minimal risk to incapable subjects.

### 16 17          Representatives and Research Decision Making

18          Surrogate decision makers are frequently mentioned as one solution to ethical problems of  
19          enrolling persons from certain vulnerable groups in research. In its recent report on “Research  
20          Involving Individuals with Questionable Capacity to Consent,” the 1998 NIH panel concluded  
21          that “Individuals with questionable capacity (or clear incapacity) to consent may have a family

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<sup>237</sup> Id. at 16.

1 member and/or legally authorized representative serve as a surrogate, with this role documented  
2 during the consent process.” The panel further recommended that the surrogate’s research  
3 decisions should reflect, to the greatest extent possible, the individual’s views prior to the period  
4 of incapacity.<sup>238</sup>

5 Although the term “surrogate” is frequently used in ethical discussions such as that of the  
6 NIH report, the Common Rule uses the phrase “legally authorized representative.” This phrase  
7 leaves many unanswered questions. Surrogates may be regarded as individuals who have had  
8 prior experience with the individual being represented, but legally authorized representatives (for  
9 example, legal guardians), often do not have such experience. State laws contain general  
10 provisions on the standards and procedures governing appointment of guardians for persons  
11 declared legally incompetent. Guardianship requires a judicial proceeding and ordinarily  
12 authorizes someone to make financial decisions, personal decisions, or both types of decisions for  
13 the incompetent person. Limited guardianships covering a narrower area of decisionmaking  
14 responsibility are also possible.

15 Relatively few states have laws specifically addressing the area of research decisionmaking  
16 by legal guardians. Existing state legislation limits the involvement of incapable subjects in  
17 research in various ways; a number of laws require guardians to obtain specific court  
18 authorization to make decisions on a ward’s participation in a research protocol.

19 Federal research policy is not intended to preempt or otherwise affect state or local laws

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<sup>238</sup>National Institutes of Health Panel Report, “Research Involving Individuals with Questionable Capacity to Consent: Ethical Issues and Practical Considerations for Institutional Review Boards (IRBs)” February 27, 1998, p. 3.

1 applying to research, including those conferring additional protection on subjects.<sup>239</sup> Thus,  
2 investigators and IRBs in jurisdictions with specific law governing the identity and authority of  
3 research decision makers for persons lacking decisional capacity must comply with that law. Yet  
4 in the many states without clear law, it will be left to federal policy, investigators, and IRBs to  
5 determine who, if anyone, may act as a surrogate decisionmaker for a person who may lacks  
6 decisional capacity and may be involved in research.

7 The literature indicates that at present legal guardianship is rarely, if ever, mandated in the  
8 research setting. Instead, close family members, who may or may not have formal guardianship  
9 status, are the customary decisionmakers when the research participation of incapable adults is  
10 sought.

11 Should federal policy require formal legal guardianship for one to be considered a suitable  
12 surrogate for decision making about research? The underlying question is whether such a  
13 requirement is necessary or sufficient to provide adequate protection against inappropriate  
14 research use of a vulnerable population to advance the interests of others. The National  
15 Commission recommended that the permission of either a legal guardian or a judge be required to  
16 authorize the research participation of subjects institutionalized as mentally infirm in the following  
17 situations: the incapable subject objects to participation; or the subject is incapable of assent, and  
18 the research presents more than minimal risk to subjects.<sup>240</sup>

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<sup>239</sup> Common Rule, Sec. \_\_\_\_ .101(f).

<sup>240</sup> National Commission Report, *Research Involving those Institutionalized as Mentally Infirm*, supra, at 11-20. At least one commentator supports a requirement for explicit judicial authorization prior to an incapable subject's enrollment in research if relatives are unwilling to act as subject representatives or if a subject-advocate questions a family surrogate's good faith or decisionmaking capacity. Bein, supra. Others have criticized this view as intrusive, unnecessarily adversarial, and too great an impediment to research. Berg, *Legal and Ethical Complexities of*

1           Later commentary questions whether formal legal proceedings are necessary to provide  
2 adequate protection for subjects who lack capacity, particularly those not residing in an  
3 institutional setting. As one writer notes, IRBs requiring legal guardianship "to be on the safe  
4 side" could end up contributing to a deprivation of general decisionmaking rights of subjects.<sup>241</sup>  
5 Moreover, the guardian appointment process ordinarily will not address research participation  
6 issues in any explicit way. In most cases, a judicial decision to confer guardianship status on a  
7 particular person is made without consideration of that person's suitability for making decisions  
8 regarding participation of their ward in research protocols.

9           Dissatisfaction with a requirement for legal guardianship has led to proposals of alternative  
10 mechanisms for granting authority to act as an incapable person's representative in research  
11 decisionmaking. One option, alluded to above, is to allow decisionally capable persons to  
12 authorize in advance a specific individual to make decisions regarding their research participation  
13 during a future period of incapacity. This device, which is modeled on the durable power of  
14 attorney (DPA) for health care, has the virtue of promoting the capable individual's autonomous  
15 views on who is best suited to act on his or her behalf in the research context.

16           The primary advantage of the research DPA is the explicit authority granted by the  
17 subject, who presumably will choose someone likely to express their values and protect their

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Consent with Cognitively Impaired Research Subjects: Proposed Guidelines, 24 J. L. Med. & Ethics 18 (1996); Kapp, Proxy Decision Making in Alzheimer Disease Research: Durable Powers of Attorney, Guardianship, and Other Alternatives, 8 Alzheimer Disease & Related Disorders. 28 (Supp. 4, 1994).

<sup>241</sup> Office of Protection from Research Risks, *Protecting Human Research Subjects: Institutional Review Board Guidebook* 6-30 (1993). See also High & Doole, *supra*, at 328 (guardianship process may produce rights deprivation and "is often intrusive, humiliating, expensive, and time-consuming").

1 welfare. As noted above, intramural research at the National Institutes of Health (NIH) Clinical  
2 Center is governed by a policy that encourages this approach, and the American College of  
3 Physicians and numerous others express support for use of these instruments.<sup>242, 243</sup> As a  
4 practical matter, however, it is unclear whether many individuals will be interested in or willing to  
5 complete such a document.<sup>244</sup> Moreover, the device cannot be applied to the population of  
6 persons with mental disability who are currently incapable and not expected to recover capacity.

7 A second potential source of authority is an existing health care power of attorney. In this  
8 situation, the now-incapable subject previously exercised an autonomous choice to delegate  
9 medical decisionmaking to a particular person. The question is whether an individual's choice of a  
10 friend or relative to make treatment decisions in the event of incapacity is defensibly interpreted as  
11 an authorization for research decisionmaking as well. The NIH Clinical Center policy allows  
12 previously chosen health care proxies to make research decisions for subjects.<sup>245</sup>

13 A third alternative is to regard state legislation authorizing family members to make  
14 certain treatment decisions on behalf of relatives as conferring authority for research decisions as  
15 well.<sup>246</sup> It might be argued that such legislation embodies a recognition that important health-  
16 related decisions for persons lacking decisional capacity are properly assigned to appropriate  
17 relatives. Perhaps it would be reasonable to extend the laws' application to a close relative's

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<sup>242</sup> Fletcher & Wichman, A New Consent Policy for Research With Impaired Human Subjects, 23 Psychopharm. Bull. 382 (1987); NIH Clinical Center, Consent Process in Research Involving Impaired Human Subjects (Mar. 30. 1987). If no relative or friend is available, prospective subjects may designate the Center's patient representative or a chaplain, or social worker not assigned to the research unit.

<sup>243</sup> American College of Physicians, *supra*. See also Kapp, *supra*; Melnick, et al., *supra*.

<sup>244</sup> See High & Doole, *supra*.

<sup>245</sup> NIH Clinical Center, *supra*.

<sup>246</sup> This would be extended to include friends and other appropriate representatives.

1 decision regarding research offering potential health benefit to an incapable subject.<sup>247</sup> Others  
2 believe that these laws should not be interpreted so expansively and that amendments or new  
3 legislation would be required to provide explicit statutory authority for delegation of decisions  
4 regarding this participation to relatives.<sup>248</sup>

5 A final possible option is to assign such decisionmaking authority based on the simple  
6 status of being a close relative. Support for this alternative comes from the long-held tradition in  
7 health care of relying on families to make decisions for incapable persons, as well as from the  
8 belief that relatives are most likely to make decisions in accord with the incapable person's values,  
9 preferences, and interests.<sup>249</sup> This approach also is easy to administer; moreover, it apparently has  
10 been and continues to be a common practice in many actual research settings.<sup>250</sup>

11 Each of the above options presents advantages and drawbacks. Requiring judicial  
12 involvement may cause unproductive delays and raise the costs of research, and may not  
13 necessarily advance respect for and protection of incapable persons. Requiring explicit durable  
14 powers of attorney for research poses practical difficulties, since relatively few persons have or  
15 can be expected to complete these documents. Another question is whether the power of DPAs  
16 to consent to research risks for an incapable individual should be equal to the power of competent  
17 adult subjects to consent to such risks for themselves. New legislation authorizing relatives to

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<sup>247</sup> Bonnie, *supra*, at 110.

<sup>248</sup> Kapp, *supra*.

<sup>249</sup> This position is endorsed in policy guidelines adopted by Alzheimer Disease Centers in the U.S. See High, et al., ("[u]nless there is statutory or case law to the contrary, family members should be recognized as having surrogate authority without prerequisite appointment as guardians or proxies through the use of instruments such as durable powers of attorney").

<sup>250</sup> Kapp, *supra*; High & Doole, *supra*.



1 make research decisions for incapable persons would require action by the states; such legislation  
2 would emerge slowly and in some states, not at all.

3 All of these alternatives also raise questions about the accuracy with which incapable  
4 subjects' values and preferences as competent persons will be expressed by formal or informal  
5 representatives.<sup>251</sup> The problem of potential conflicts of interest between subjects' interests and  
6 those of their representatives exist as well. Those most likely to act as representatives are family  
7 members, who may see the subject's research participation as an avenue "that may lighten the  
8 burden of caregiving or lead to treatment from which the family member may benefit."<sup>252</sup> Two  
9 empirical studies found some family members willing to allow an incapable relative to be entered  
10 in a research study even though they thought the relative would refuse if competent. Some family  
11 members also stated they would allow an incapable relative to become a subject even though they  
12 would refuse to enroll in such a study themselves.<sup>253</sup>

13 One rather complex and perhaps overly cumbersome response to the above concerns is to  
14 conduct screening and education of subject representatives, with the goal of trying to ascertain the  
15 most appropriate group decisionmakers and enhancing the likelihood that representatives will  
16 make choices that adequately respect the subject's competent preferences and current interests.<sup>254</sup>

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<sup>251</sup> See Sachs, *Advance Consent for Dementia Research*, 8 *Alzheimer Disease & Related Disord.* 19 (Supp. 4 1994) ("I think it is fair to assume that most proxies [in the current consent process] know very little about their demented relative's preferences regarding research participation").

<sup>252</sup> Keyserlingk, et al., *supra*, at 346.

<sup>253</sup> Sachs, et al., *supra*; Warren, et al., *Informed Consent By Proxy*, 315 *New Eng. J. Med.* 1124 (1986). There were also cases in which family members would not allow an incapable subject's participation even though they thought the subject would consent if competent or the family members would enter such a study themselves.

<sup>254</sup> See, e.g., High & Doole, *supra* at 328 ("family members may be disqualified to serve as surrogates for a variety of reasons, including lack of capacity, inattention to the subject's well-

1 Adopting a requirement for screening and training would raise the further question of whether this  
2 procedure should be conducted by a member of the research team, the IRB, or someone  
3 otherwise independent of the project.<sup>255</sup>

4 An alternative or additional approach is to limit the authority of any third party to consent  
5 to research participation for another. Three forms of substantive limitations are commonly  
6 endorsed. One is to allow guardians, proxies, and informal surrogates to give valid consent to  
7 studies if the incapable subject assents or fails to object to initial or ongoing research  
8 participation. The second is to require that third parties make research decisions consistent with  
9 the incapable subject's prior instructions issued while competent. The third is to permit subject  
10 representatives to authorize the involvement of incapable subjects only in studies that meet certain  
11 risk-potential benefit standards. Many of the recommendations on research involving persons  
12 with impaired decisionmaking capacity apply each of these limits, but combine them in a variety of

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being, self-interested motives, or unavailability"); American College of Physicians, *supra*, at 844 ("researchers must inform [proxies and surrogates] of the standards for decisionmaking").

Some concerns about the quality of third-party decisions are raised by empirical studies of parents consenting to their children's research participation. For example a recent study of 64 parents whose children had participated in a clinical trial found that only a small number recognized that drug trials are designed to test safety as well as efficacy, while the majority believed such trials posed either no risk or low risk. Fewer than half realized that they had the right to withdraw their children from the trial at any time. Harth & Thong, *Parental Perceptions and Attitudes About Informed Consent in Clinical Research Involving Children*, 41 *Soc. Sci. Med.* 1647 (1995).

<sup>255</sup> For contrasting views on this point, see Berg, *supra*, at 26 (investigator or IRB could prepare document for subject representatives on substantive standards for decisionmaking, and giving examples of how to apply them; in complex protocols, neutral educator could be assigned to explain relevant information) and Bein, *supra*, at 761 (independent, government-employed patient-advocate could present information to and advise family-surrogates on research decisions for incapable relatives; advocate questioning surrogate's "good faith or ability to make a proper decision" could initiate court proceedings to resolve whether incapable person should participate in study).

1 ways.

2

3 Independent Professional Support for Subjects and Surrogates

4 Although consent forms and research protocols normally provide thorough information  
5 about the study, they do not provide the individualized information and specific judgment that  
6 many people need to make a decision about their own situation. Also, some potential research  
7 participants, or their representatives, may be intimidated by the medical research environment, or  
8 feel unable to make an independent judgment due to the technical nature of medical research.

9 One way to provide intellectual and emotional support to these individuals is by ensuring  
10 that an independent and appropriately skilled health care professional (e.g. physician, nurse, social  
11 worker) is available as an advisor for each research participant or their surrogate. This  
12 independent advisor should not be involved with the study and should have a previous relationship  
13 with the potential subject. Subjects, or their representative if a subject lacks capacity, should  
14 identify their responsible health care professional. The advisor's role would be to help the  
15 potential subject and representative decide whether participation in a particular research protocol  
16 is a good choice for that subject. For persons who are incapacitated and whose research  
17 participation is contemplated, the health care professional could be an invaluable consultant to the  
18 legally authorized representative. Often this person will be a physician, however, other caregivers  
19 may serve the same role -- for example, a nurse-clinician or a social worker. The basic  
20 requirement is that such caregivers must be familiar with the patient and not part of the research  
21 team, and preferably not part of the organization conducting the research.

22 The British Law Commission recommended a similar system to the House of Commons in

1 1995, though their proposal applied only to individuals who lack capacity. They wrote: “In most  
2 cases the appropriate person to carry out an independent check [on research participation] will be  
3 a registered medical practitioner who is not involved in the research project. ... The doctor who  
4 knows the person best, by virtue of having responsibility for his or her general medical care, will  
5 often be the best candidate.”<sup>256</sup> At the very least, it seems sensible for a legally authorized  
6 representative to have access to an independent health care professional advisor before entering  
7 an individual into a research protocol.

8 A comprehensive system involving an independent health care professional advisor for  
9 persons with mental disorders that may affect their decisionmaking capacity and who are potential  
10 research participants, or their legally authorized representatives, would involve two elements: For  
11 those individuals who have decisionmaking capacity at the time of enrollment in a study, a  
12 responsible health care professional would be available to consult with each subject and his or her  
13 legally authorized representative as part of the consent planning process. For those individuals  
14 who lack decisionmaking capacity at the time of enrollment in a study, a responsible health care  
15 professional would be available to advise a legally authorized representative regarding enrollment  
16 and whether or not to halt the subject’s participation.

17 In each instance, the responsible health care advisor should, whenever possible, have been  
18 previously acquainted with the potential subject.

19 These first five chapters have surveyed certain critical aspects of the state of research and  
20 expert commentary on the participation in research of subjects with disorders that may affect their

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<sup>256</sup>The Law Commission, “Mental Incapacity: Item 9 of the Fourth Programme of Law Reform: Mentally Incapacitated Adults” (London, England: House of Commons, 1995), p.101.

1 decisionmaking capacity. The last chapter presents the Commission's reasoned judgment about  
2 appropriate protections for this population and the justification for those recommended  
3 protections.

1 Chapter Six: SPECIAL PROTECTIONS IN RESEARCH

2 Moving Ahead in Research Involving Persons with Mental Disorders

3 that May Affect Decisionmaking Capacity

4

5 This report stands in a long line of statements, reports, and recommendations by

6 governmental advisory groups and professional organizations that focused on research involving,

7 as subjects, persons with disorders affecting decisionmaking capacity. Each of these earlier

8 efforts has left a relevant and important legacy to this report. For example, the Nuremberg Code

9 (1947) established the importance of voluntary consent to research participation. The Declaration

10 of Helsinki distinguished between research intended partly to be beneficial to the subject and

11 research intended solely for others' benefit. The International Ethical Guidelines for Biomedical

12 Research of the Council for International Organizations of Medical Sciences and the World

13 Health Organization (1993) allows legal guardians to consent to low-risk and potentially

14 beneficial research. Among the landmark United States documents, the National Commission

15 (1978) proposed ethical principles that should govern all human subjects research, and protections

16 for those institutionalized as mentally infirm that resembled their proposals for pediatric research,

17 though only the latter were adopted in federal regulations. Recently, the federal Common Rule

18 (1991) attempted to bring all federal agencies conducting and/or sponsoring human subjects

19 research under a common set of regulations and guidelines whose key elements include informed

20 consent and prior review of research proposals by IRBs.

21 Much has changed since the National Commission's report twenty years ago. There is a

22 much greater sensitivity to the variety of disorders that can affect decisionmaking capacity, and an

1 improved understanding of the ways that these disorders can be recognized and ameliorated.  
2 Both diagnostic techniques and treatment methodologies have progressed, sometimes in  
3 breathtaking ways, with the promise of still greater breakthroughs on the horizon. More research  
4 is being conducted than ever before, and the research environment has become far more complex  
5 and involves a larger societal investment than ever, including a larger role for the private sector.  
6 The stigmatization and marginalization of those who suffer from mental disorders that put them at  
7 risk for impaired decisionmaking, while by no means vanquished, show signs of abating as  
8 improved understanding of and empathy for those individuals, and a new appreciation of the  
9 underlying biology of some of their conditions, gradually increase among the professional and lay  
10 public.

11 In this context, NBAC hopes that the legacy of this report in the line of its  
12 predecessors will bring persons with mental disorders that may affect decisionmaking capacity  
13 more fully and specifically within the ambit of appropriate additional protections, such as those  
14 that have been extended to other vulnerable groups under the Federal Government's Common  
15 Rule. We propose these new protections with the deepest respect for all those engaged in  
16 research on these disorders: the person with a disorder that affects decisionmaking capacity,  
17 whose individuality must be protected and, where possible, promoted; clinical investigators, who  
18 are with rare exception skilled, compassionate, and dedicated to the alleviation of some of  
19 humanity's most terrible afflictions; and informal caregivers, whose own lives are often wholly  
20 absorbed by the tragedy that has befallen their loved one. In view of the ethical uncertainties  
21 many researchers have noted and the ethical problems some thoughtful observers, subjects, and  
22 their families have identified, we believe that the protections we propose below will facilitate

1 progress in this area of research by engendering greater public trust and confidence that subjects’  
2 rights and interests are centrally important and fully respected.

### 3 4 The Costs of Special Protections

5 Concerns have been expressed that new requirements for protections placed on research  
6 involving persons with mental disorders that may affect decisionmaking capacity might limit such  
7 research and therefore impede the development of new treatments.<sup>257</sup> It is difficult to assess the  
8 force of such claims because there is insufficient evidence to support them. NBAC does not  
9 believe that the additional costs of the special protections in this report recommend would  
10 excessively burden the development of effective new treatments. Moreover, it is useful to remind  
11 ourselves that it is our joint responsibility to protect the interests of those without whom this  
12 research could not be done—those who are unable to give full informed consent and who may not  
13 themselves directly benefit from the research. In our view, the only acceptable alternative to  
14 ethically unacceptable research with human beings, or with certain groups of human beings, as  
15 subjects is ethically acceptable research; otherwise, we should not conduct research involving  
16 these populations as human subjects at all.

### 17 18 A Framework of Special Protections

19 We believe a cogent case can be made for requiring additional special protections in  
20 research for persons with mental disorders that affect their decisionmaking capacity. A

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<sup>257</sup> National Institutes of Health Panel Report, “Research Involving Individuals with Questionable Capacity to Consent: Ethical Issues and Practical Considerations for Institutional Review Boards (IRBs),” February 27, 1998, p. 1.



1 framework of special protections should include, at a minimum, the following elements: (1) a  
2 mandate that IRBs consider appropriate protections that should be integrated into the very design  
3 of a proposed study; (2) a requirement for appropriate additional membership on IRBs for  
4 research involving persons with mental disorders that may effect decisionmaking capacity; (3) a  
5 limitation on recruitment of persons in this population into research protocols; (4) requirements  
6 for notifying individuals that they have been determined to lack decisionmaking capacity and that  
7 they have been entered into a study; (5) a mandate that IRBs make full use of the Common Rule  
8 to require additional protections for the consent process; (6) a requirement that any apparent  
9 dissent to research participation be honored (absolute subjects' rights to dissent to participation);  
10 (7) focused attention on risk assessment; (8) directives concerning the participation of persons in  
11 this population in greater than minimal risk research that is potentially beneficial to subjects; (9)  
12 restrictions concerning the participation of persons in this population in greater than minimal risk  
13 research that is not potentially beneficial to subjects; (10) provisions for research that involves  
14 persons with fluctuating capacity or prospective incapacity; (11) provisions for the rights and  
15 liabilities of legally authorized representatives of persons with mental disorders that may affect  
16 decisionmaking capacity. Of course, these elements constitute the minimum protections an IRB  
17 may require. IRBs should retain the ability to require protections beyond these when appropriate.  
18 This framework is represented in the discussion and the various recommendations that follow.

19  
20 *(1) Protections in Research Design*

21 Human subjects protection begins with an ethical study design that not only ensures the  
22 scientific validity and importance of the proposed protocol, but minimizes the risks to human

1 subjects given the objectives of the study. In this context, investigators and IRBs must consider  
2 ways to measure how the method of research will affect subjects, and take actions to ensure that  
3 appropriate protections are incorporated. Several specific designs utilized in research on mental  
4 illnesses have raised concerns about the relationship between study design and increased risk to  
5 subjects. Therefore, in addition to justifying the use of an ethically controversial research design in  
6 the protocol, investigators must be required to make every effort to minimize any risks associated  
7 with the design.

8 For example, subjects with serious illnesses are more vulnerable than others to exploitation  
9 when they are included in study arms from which it is known they will receive no benefit. One  
10 way to ameliorate this problem is to incorporate into the study design a non-research or  
11 wraparound phase following the conclusion of the research period, one that provides the subject  
12 with some beneficial intervention independent of the study itself. However, a problem presented  
13 by using a wraparound phase is that it may shift the balance of protection in the opposite and  
14 equally problematic direction by providing an inappropriate incentive to participate in studies in  
15 order to derive the benefits of a recognized therapeutic strategy without payment. On the other  
16 hand, wraparounds are suitable follow-ups to certain kinds of research, including those that  
17 involve the provocation of symptoms. In appropriate circumstances, IRBs should require a  
18 wraparound phase as part of the design of studies.

19 Subjects who are included in experimental arms that involve receiving the study drug are  
20 also liable to unfair and exploitive treatment if results indicate that the drug is effective but there is  
21 no mechanism to continue those subjects on the medication when the study concludes. In such  
22 circumstances IRBs could condition study approval on the manufacturer's commitment to

1 continue to supply the medication to research participants (including any subjects who did not  
2 receive it during the study, such as placebo or standard therapy controls), if it proves to be  
3 effective.

4 Many decisional impairments are associated with psychiatric disorders that can be  
5 managed symptomatically with neuroleptic medication. When a known risk of placebo is the  
6 return of symptoms, it may be argued that it is unethical to include a placebo arm. Thus, some  
7 contend that new drug investigations should use standard therapy as a control, in spite of the  
8 additional methodological difficulties of such designs.<sup>258</sup> Among the possible grounds for  
9 excluding placebo arms in particular studies could be: (1) an individualized assessment that certain  
10 patients would be at high risk for relapse if their therapeutic regimen were discontinued; (2) that a  
11 drug holiday would not be contemplated for these patients apart from enrollment in a study; or (3)  
12 that standard therapy is generally considered effective if not ideal. Before any human subjects  
13 regulations are changed in this direction, serious consideration should be given as to how existing  
14 requirements (for drug approval) would be affected.

15 When drug-free research is conducted (whether as part of a blinded placebo-controlled  
16 study or otherwise), it is important to follow patient-subjects who are at risk for relapse.  
17 Presumably, under current regulations for vulnerable subjects IRBs would take such arrangements  
18 into account when evaluating research proposals.

19  
20 *(2) IRB Membership (for all research involving persons with mental disorders)*

21 The issues considered in this report are complex and as multi-faceted as the many and

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<sup>258</sup> Addington D. *op cit.* Rothman K.J. *op cit.*

1 various research protocols designed to assist medical progress on mental disorders that may affect  
2 decisionmaking capacity. At least some of these issues are likely to arise in most protocols  
3 involving research subjects with such disorders. In general, representation of the subject  
4 population on IRBs and the increased involvement of affected persons in the planning of clinical  
5 research on their conditions are generally viewed as good ways to increase the likelihood that the  
6 IRB's decisions will be responsive in appropriate ways to the interests of affected groups. More  
7 specifically, increased subject representation on IRBs, and therefore, in the review and conduct of  
8 research, is a commonly-endorsed strategy for improving research decisions affecting persons  
9 with mental disabilities.<sup>259</sup> It is not surprising then that the Common Rule directs IRBs frequently  
10 reviewing research involving a vulnerable subject group to consider including as reviewers  
11 persons with knowledge of and experience working with the relevant subject group.<sup>260</sup> The  
12 current provision, however, is advisory only; moreover, it refers to the involvement of expert  
13 professionals, not persons representing the interests of vulnerable subject groups.

14 After evaluating schizophrenia studies at UCLA, OPRR took the stronger measure of  
15 directing the School of Medicine's IRB to "engage one or more subject representatives as IRB  
16 members who will assist the IRB in the review of issues related to the rights and welfare of  
17 subjects with severe psychiatric disorders."<sup>261</sup> This requirement was imposed even though the

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<sup>259</sup> For example, an NIH Expert Panel also recommended that IRBs include "voting members representing patient advocate groups, family members, and others not affiliated with the research institution." Expert Panel Report to the National Institutes of Health, Research Involving Individuals with Questionable Capacity to Consent: Ethical Issues and Practical Considerations for Institutional Review Boards (IRBs) p3 (February 1998).

<sup>260</sup> 45 CFR 46.107(f)

<sup>261</sup> Office for Protection from Research Risks, *supra*, at 21-22.

1 IRB already had a psychiatrist and a psychologist as members.<sup>262</sup>

2 In NBAC's view, all IRBs that regularly consider proposals involving persons with  
3 disorders that affect decisionmaking capacity should include at least two members who are  
4 familiar with the concerns of this population, whether they are individuals from this population,  
5 family members, independent physicians, specialists, or representatives of advocacy organizations.  
6 IRBs for whom such proposals are not routine should obtain consultants in these categories. In  
7 this way the special concerns of this population are more likely to be represented in IRB  
8 deliberations and conveyed, as appropriate, to investigators. Research sponsors are also likely to  
9 be more aware of the importance of taking these issues into account when working with clinicians  
10 to design studies.<sup>263</sup>

11 It would therefore be desirable for federal policy on research involving persons with  
12 mental disorders to promote the involvement of subject representatives in planning clinical studies  
13 of the relevant mental health conditions. This phenomenon first arose in the context of HIV  
14 research, but it is now evident in other areas of clinical research as well.

15  
16 *(3) Appropriate Subject Recruitment*

17 Some potentially vulnerable populations currently receive additional protections in the  
18 regulations to ensure that they are not unfairly burdened with involvement in research simply  
19 because, for example, they may be more easily available, or because their participation otherwise

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<sup>262</sup> See also Shamoo & Hassner Sharav, *supra*, at S:29 (IRBs reviewing proposals to involve mentally disabled subjects should include at least two patient-representatives).

<sup>263</sup> See Erikson, *Breast Cancer Activists Seek Voice in Research Decisions*, 269 *Science* 1508 (1995).

1 creates special ethical issues. Thus, for example, research using prisoners as subjects is limited to  
2 conditions that especially affect that population. Considering that persons with mental disorders  
3 that affect decisionmaking capacity are likely to face some of the complicating and difficult factors  
4 discussed in this report, sometimes including their ready availability in institutions, or the feeling  
5 of helplessness they and/or their loved ones experience, their position bears earmarks of special  
6 vulnerability.

7 One important justification for research involving those with conditions that affect their  
8 decisionmaking is the need for progress in the treatment of just these conditions. However,  
9 because of the special vulnerability of this population, it is appropriate to prohibit research  
10 involving persons with impaired decisionmaking capacity as a result of their mental disorder when  
11 that research can be conducted perfectly well with other potential subjects.<sup>264</sup> At least two  
12 reasons support this prohibition. First, it is important to discourage any tendency to engage these  
13 persons in research simply because they are in some sense more available and perhaps more  
14 vulnerable than others. Second, this prohibition would further reinforce the importance of  
15 informed consent in human subjects research. The principles of respect for persons and justice in  
16 the selection of research subjects each imply that IRBs should not approve research protocols  
17 involving persons with decisional impairments due to mental illness when the research does not  
18 require subjects with this type of disorder.

19 There are circumstances, however, under which other subjects without these special  
20 disorders may not be appropriate. For example, if the research bears directly on a disorder that

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<sup>264</sup> This position was developed in Canada. Tri-Council Working Group, Code of Ethical Conduct for Research Involving Humans, July 1997, p.22.

1 underlies the subject’s decisional impairment, and the disorder is commonly associated with such  
2 an impairment, then it may not be possible to learn how to improve diagnosis and treatment for  
3 that disorder without at some stage using subjects from this population. But if the research  
4 involves new ways to protect against diseases that are also common among those who do not  
5 have mental disorders that affect their decisionmaking capacity, then individuals with impaired  
6 decision making capacity should not be recruited.

7         Apart from the fact that sometimes persons with mental disorders whose decisionmaking  
8 capacity is not impaired are not appropriate subjects for a particular protocol, an individual with  
9 impaired decisionmaking capacity may have a life-threatening condition for which there is no  
10 satisfactory treatment. When the intervention is designed to ameliorate or potentially cure a life-  
11 threatening condition, then under current regulations these individuals may obtain the  
12 investigational treatment outside the proposed study on compassionate grounds.<sup>265</sup> Therefore, as a  
13 matter of justice, people whose best therapeutic alternative may be an innovative treatment can  
14 still have access to the intervention.

15  
16 *(4) Capacity Assessment Notification*

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<sup>265</sup> The specific term used in the regulations is “treatment use.” 21 C.F.R. § 312.34;  
(b) Criteria. (1) FDA shall permit an investigational drug to be used for a treatment use  
under a treatment protocol or treatment IND if:  
(i) The drug is intended to treat a serious or immediately life-threatening disease;  
(ii) There is no comparable or satisfactory alternative drug or other therapy available to  
treat that stage of the disease in the intended patient population;  
(iii) The drug is under investigation in a controlled clinical trial under an IND in effect  
for the trial, or all clinical trials have been completed; and  
(iv) The sponsor of the controlled clinical trial is actively pursuing marketing approval of  
the investigational drug with due diligence.

1           To be found decisionally incapable and then enrolled as a subject in a research protocol on  
2 the basis of alternative decision making arrangements is to have certain rights curtailed, however  
3 justifiable the curtailment may be. Some argue that whenever an individual is found to be  
4 decisionally incapable the individual should be notified of this finding, especially when it could  
5 have important consequences for the individual's medical treatment, as in enrollment in a research  
6 protocol.<sup>266</sup> Such a notification process might sometimes seem to be an empty ritual. Worse, a  
7 requirement that implies a duty to so inform those who are in an advanced stage of dementia prior  
8 to research involvement could well contribute to undermining health professionals' respect for the  
9 regulatory system. Nevertheless, to be unaware that one has been found decisionally incapable is  
10 to be deprived of the opportunity to seek review of that decision and perhaps of the right to  
11 judicial intervention. The implications of such a determination, including the loss of control over  
12 one's own person, are among the most serious one can imagine as members of a democratic  
13 society.<sup>267</sup>

14           Rather than require that all individuals who have been found to be decisionally  
15 incapacitated be informed of that finding prior to their enrollment in a study, such a rule should be  
16 limited to those potential subjects who show signs of consciousness. The notification would also  
17 give the potential subject an opportunity to dissent from research participation, by no means a  
18 trivial recognition of individual dignity. We recommend that a notification requirement be added

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<sup>266</sup>Another way to express this issue is whether the assent of incapable subjects should be required. Dresser, R., *Research Involving Persons With Mental Disabilities: A Review of Policy Issues and Proposals* (Contract Paper for the National Bioethics Advisory Commission, 1997)

<sup>267</sup>Although this report addresses the involvement in research of persons with mental disorders who may lose their decisionmaking capacity, arguably the same notification standard should apply to all decisionally impaired persons who may be entered into a research protocol.



1 to the federal regulations concerning both potential research subjects found to lack  
2 decisionmaking capacity and their authorized representatives.

3  
4 *(5) Possible Additional Protections for the Consent Process*

5 The use of a consent auditor has frequently been suggested as an additional procedural  
6 protection in the recruitment of research subjects who may be decisionally impaired. A consent  
7 auditor, who cannot be a member of the study team but may be, for example, a member of the  
8 IRB or an institutional ethicist, witnesses the consent process and then either certifies the consent  
9 as valid, or informs the principal investigator that an individual is not able to give valid consent.  
10 IRBs could require consent auditors for potential subjects who have conditions often associated  
11 with a decisional impairment. A system of audited consent would require a substantial  
12 investment by research institutions. However, the requirement could be limited to studies that  
13 have certain characteristics, such as those that involve greater than minimal risk and/or those that  
14 do not hold out the prospect of direct benefit to the subject.

15 Studies with those who are decisionally impaired may take place over extended periods.  
16 One of the essential conditions of ethical research is continued voluntary participation, but those  
17 who are deeply involved with and dependent upon the health care system may not feel able to  
18 disenroll from a study. A requirement for periodic reconsenting would help ensure that a patient's  
19 continued involvement is truly voluntary.<sup>268</sup> Such a requirement would also provide the occasion

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<sup>268</sup> An expert panel convened by NIH also notes that "repeated exposure to information in 'small doses' over time may greatly improve comprehension." Expert Panel Report to the National Institutes of Health, Research Involving Individuals with Questionable Capacity to Consent: Ethical Issues and Practical Considerations for Institutional Review Boards (IRBs) p14 (February 1998).

1 to reassess decision making capacity, and it could trigger an advance directive or surrogate  
2 arrangement. Reconsent arrangements conform with the spirit of informed consent as a process  
3 rather than a single event, and with the view that human research participants are partners in the  
4 study process rather than passive subjects.

5 Although reconsenting is another labor-intensive measure that would add to the cost and  
6 complexity of the human research system, a number of long-term studies already include such a  
7 procedure.<sup>269</sup> IRBs should consider attaching a reconsent requirement to certain studies based on  
8 their length and on the changing condition of the individuals to be included, such as those with  
9 progressive neurological disorders or fluctuating capacity.

#### 11 *(6) Dissent from Participation in Research*

12 Our society's social philosophy includes a strong presumption in favor of individual self-  
13 determination. Judgments about an individual's decisionmaking capacity often will have a  
14 measure of uncertainty. Therefore, anyone who is found to be decisionally incapable but is  
15 conscious or has periods of consciousness has a prima facie moral right to be told of a  
16 determination of incapacity, especially when it is linked to research participation that involves a  
17 degree of risk. Obviously under many circumstances it will not be possible for the individual to  
18 comprehend the information, but reasonable efforts should be made.

19 Most importantly, notification that he or she is to be part of a study also gives the  
20 individual an opportunity to dissent from participation. Even when decisionmaking capacity  
21 appears to be severely impaired, individual self-determination is more fundamental than any

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1 asserted duty to serve the public good as a research subject. Hence, even an apparent dissent by a  
2 potential or actual subject must be honored.

3 The requirement to honor any apparent objection to research participation applies  
4 regardless of the level of risk or potential benefit, just as it would in the case of an individual who  
5 clearly retains decisional capacity. Respect for self-determination requires that we avoid forcing  
6 an individual to serve as a research subject, even when the research may be of direct benefit to the  
7 individual, his or her decisional capacity is in doubt, or the research poses no more than minimal  
8 risk. It should be noted that the right to refuse to participate in research is not dependent on  
9 establishing a right to choose to participate. The two are distinct and can be defended separately.

#### 11 *(7) Contemplation of Levels of Risk*

12 One section of the current regulatory framework for federally funded research involving  
13 human subjects diverges from all others in recognizing three categories of research expressed in  
14 terms of level of risk:<sup>270</sup> minimal risk, a minor increase over minimal risk, and more than a minor  
15 increase over minimal risk. All other sections use a two-tiered model of risk assessment. In  
16 addition, the current regulations stipulate a definition of minimal risk. The recommendations in  
17 this report adopt the two-tiered model for categorizing the risks incident to research, but also  
18 suggest that some examples of minimal risk and greater than minimal risk research be included in  
19 the regulations as good rules to follow due to the ambiguity of the concept of minimal risk.

20 The risk categories in the current regulations do not automatically apply to particular

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<sup>270</sup>§45 C.F.R. 46.406 (a), Subpart D --Additional Protections for Children Involved as  
Subjects in Research

1 procedures, but must be applied contextually in light of specific study conditions. The need for  
2 sensitivity in the application of risk categories is especially great when persons with mental  
3 disorders are among the potential subjects of a study. Persons with mental disorders that affect  
4 decisionmaking capacity may be unable to understand the rationale for an intervention that poses  
5 only a modest physical risk but due to the subject's mental state would possibly lead to  
6 considerable psychological distress. For example, repeated venapunctures (blood draws) that  
7 might be innocuous to many people could be quite disturbing to persons with certain mental  
8 disorders.

9 Thus, a procedure that *per se* presents minimal risk could nonetheless be highly  
10 threatening to those who are unable to appreciate the procedure's context, or the nature of their  
11 current situation. In particular, those who lack the practical ability to function autonomously, as  
12 in the case of institutionalized persons, may have distorted perceptions of otherwise minor  
13 interventions. Those whose treating doctor is also the researcher may also feel unable to  
14 withdraw from a study and feel more threatened by the risks of a procedure than is objectively the  
15 case. Assessments of risk levels by investigators and IRBs may thus need to be adjusted  
16 according to the circumstances of individual subjects, *a priori* categorization may not be  
17 sufficient.

18 As a consequence, clinical investigators who propose to work with persons with mental  
19 disorders affecting decisionmaking capacity must carefully articulate to IRBs the nature of their  
20 risk evaluation procedures for potential subjects. Even within a protocol, the same intervention  
21 may entail different risk levels for different individuals depending on their particular condition.  
22 When the level of risk may be higher for some subjects than for others owing to lesser capacity,

1 the determination of risk level for the entire subject group should be made conservatively.  
2 Moreover, the intensity of informed consent processes and other special protections should  
3 increase as the level of risk increases. Both investigators and IRBs should be sensitive to these  
4 considerations and adjust the required set of protections accordingly.

5 Some research involving persons with mental disorders that may affect decisionmaking  
6 capacity that is not otherwise approvable under our recommendations may have the potential for  
7 important scientific benefits for this population or may further understanding of their condition.  
8 In such cases only the Secretary of the Department of Health and Human Services (or his/her  
9 specifically designated alternate) should be able to approve such research and only after  
10 consultation with an expert panel to determine whether the research satisfies appropriate scientific  
11 and ethical standards.

12  
13 *(8) Greater than Minimal Risk Research that is Potentially Beneficial to Subjects*

14 Some important research may not be done without the involvement of persons with  
15 disorders affecting decisionmaking capacity, and some of that research may possibly offer a direct  
16 therapeutic benefit to those who participate. An example is the study of dopamine receptor  
17 function and schizophrenia, for which there are currently no suitable alternative models, and  
18 which could aid the treatment of individuals participating in the study.

19 In addition, some individuals with disorders that affect decisionmaking capacity may be  
20 able to give informed consent at certain times during their illness. The presence of a neurologic or  
21 psychiatric disorder should not a priori disqualify an individual from being permitted to volunteer  
22 if he or she has sufficient capacity to consent and/or other protections are in place. Moreover, an

1 individual may be able to give consent to participate in a specific study in advance of an  
2 anticipated period of incapacity, which may be especially important for research that examines a  
3 physiologic state during such a period.

4 Yet no one is obligated to participate in a study, even if it may be of direct medical benefit  
5 to them. Therefore, in order for research in this category to go forward, either (1) the potential  
6 subject's informed consent must be obtained, or (2) the subject's legally authorized representative  
7 must have given permission for research participation *and* the subject must have been given the  
8 opportunity to dissent from participation. The legally authorized representative will be an  
9 individual designated under state law or institutional rules to make medical decisions on behalf of  
10 another individual. Again, even an apparent dissent by the subject must be honored, regardless of  
11 his or her capacity at the time. In all cases IRBs should consider whether to require some of the  
12 additional protections discussed later in this chapter.

13  
14 *(9) Greater than Minimal Risk Research that is Not Potentially Beneficial to Subjects*

15 Research that involves persons with disorders that affect decisionmaking capacity but that  
16 is not of potential benefit to them may be conducted only with their informed consent. The  
17 presence of a neurologic or psychiatric disorder should not a priori disqualify an individual from  
18 being permitted to volunteer for a study relevant to his or her disorder that cannot be conducted  
19 on others if he or she has sufficient capacity to consent. As is the case for studies that present a  
20 potential direct benefit, their consent to a particular study may be obtained in advance of a period  
21 of incapacity.

22 In addition, any such subject must have a legally authorized representative who

1 can make decisions about continuing or stopping participation in the research on his or her behalf,  
2 based on the representative's understanding of the subject's wishes. Because the subject's  
3 representative will not ordinarily have the training to make a judgment about the subject's medical  
4 well-being, a health professional who is not a part of the study team should also be identified as  
5 available to advise the subject's representative about the subject's continued participation.  
6 Depending on the level of risk involved, IRBs should consider whether to introduce other  
7 protections as well, some of which are discussed later in this chapter, depending on the level of  
8 risk.

9  
10 *(10) Research Planning for Persons with Fluctuating Capacity or Prospective Incapacity*

11 Ethically acceptable research involving persons with fluctuating capacity or who  
12 face the prospect of loss of capacity presents special challenges. To be part of an informed  
13 consent process, a potential research subject must be able to recognize and to grasp that consent  
14 to participate in a research study constitutes an agreement to take part in a project that will occur  
15 over a specified and perhaps extended period. The potential subject also needs to discern that  
16 there is a difference between being a research subject and being a patient, and that the decision to  
17 participate may involve agreeing to additional medical procedures and/or treatment.

18 As the Commission understands it, anticipatory planning for research participation is not a  
19 "research advance directive" but a version of the standard informed consent process. A critical  
20 difference is that the planning process should include the prospect of a loss of decisionmaking  
21 capacity during the study period, a consideration that is not routinely part of an informed consent  
22 process. Therefore, the anticipatory planning envisioned by the Commission is not a "blanket"

1 consent to research participation, but requires that the terms of participation in the study in  
2 question be defined in advance.

3 For persons with fluctuating capacity and those who are at risk for loss of capacity during  
4 a study, the Commission's view is that comprehensive anticipatory planning for research  
5 participation should involve identifying a legally authorized representative who can function as a  
6 surrogate decision maker. Because the very nature of all research is to test or to generate an  
7 hypothesis, it is characterized by uncertainty in outcome. Therefore, there is always the possibility  
8 that unanticipated incidents will occur in a research study, incidents that a surrogate may find  
9 relevant to the subject's continued welfare and participation. The surrogate could be an informal  
10 caregiver, for example, a family member or close friend, but not a member of the study team.

11 In anticipatory planning, the potential subject must understand that he or she has  
12 appointed a legally authorized representative as a surrogate to make decisions concerning  
13 research participation should the subject become unable (while in the study) to make these  
14 decisions. The subject must further understand that the surrogate may never overrule his or her  
15 wish not to participate in the research or in any part of it, but may overrule the subject's  
16 instructions to continue participation, under certain conditions. Potential subjects must be aware  
17 that they have given the researchers permission to provide their surrogate decision maker and  
18 their private mental health care provider with information about treatment. The subjects should  
19 appreciate that, should their preferences change, they may alter their instructions at any time they  
20 have the capacity to do so, and that they may withdraw from the study at any time, whatever their  
21 level of decisionmaking capacity.

22 In turn, the researchers must agree to discuss information about the research subject's



1 treatment (e.g., possibilities of decompensation, description of likely symptoms, data about  
2 medications and potential side effects, and possible danger to self or others) with the surrogate  
3 decision maker and responsible health care professional. The research team must also make  
4 adequate provision for a reasonable amount of aftercare should the subject decompensate,  
5 become unable to cooperate, and drop out of the study.

6 During the course of the study, the surrogate should work closely with the subject's  
7 responsible health care professional to ensure the subject's welfare. The responsible health care  
8 professional, who can have no relationship with the research and should be concerned only with  
9 subject's well-being and interests, must follow his or her treatment, and be in communication with  
10 the surrogate.

#### 11 12 *(11) Legally Authorized Representatives and Research Decisions*

13 This report has reviewed various proposals for extending the decisionmaking authority of  
14 individuals participating in research in anticipation of a period of incapacity. For studies involving  
15 greater than minimal risk, the identification of a legally authorized representative (often informally  
16 called a surrogate) should be part of a thorough informed consent process, so that important  
17 decisions can be made while the subject is incapacitated. Legally authorized representatives are  
18 persons authorized under state law, if any, to make treatment decisions. Clinical investigators  
19 should incorporate into their protocols a plan to identify legally authorized representatives for  
20 potential subjects as part of the consent process.

21 In many instances individuals who do not have the capacity to participate in an  
22 informed consent process are still capable of identifying others they want to make

1 important decisions on their behalf. These appointments, which may particularly include family  
2 members or close friends, should be recognized in state laws that firmly establish the status of  
3 legally authorized representative for research purposes.

4           However, individuals sometimes lose decisionmaking capacity before having an  
5 opportunity to appoint a surrogate who can function as a legally authorized representative.  
6 Nevertheless, for studies that have potential direct medical benefit for the patient-subject their  
7 legally authorized representative should be permitted to enter potential subjects into such studies,  
8 if they believe it will not negatively affect their welfare, unless the potential subject apparently  
9 dissents.

10           While legally authorized representatives should be able to give permission for a patient  
11 who has lost capacity to be enrolled in research that offers potential direct medical benefit, their  
12 authority to enroll subjects should not extend to research that is not potentially beneficial and  
13 involves greater than minimal risk. For the latter type of research, legally authorized  
14 representatives should be available to decide whether a subject's participation may continue or  
15 must cease, once started, but should not be empowered to initiate research participation.

16           In order to preserve the subject's autonomy to the greatest extent possible, the  
17 legally authorized representative's decisions must be based upon the subject's wishes, so far as  
18 they are known; if the subject's wishes are unknown, then they should be based upon the subject's  
19 best interests. These ordered criteria are widely recognized in current bioethical opinion.<sup>271</sup> In  
20 addition, IRBs should consider whether to require various further protections and review  
21 mechanisms along the lines described in this report.

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<sup>271</sup> Buchanan and Brock

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*RECOMMENDATIONS*

*Recommendations for Different Decisionmakers*

Not all of this report’s recommendations are aimed at the development of new governmental regulation. The desirability of governmental regulation depends not only on the nature of the problems addressed and the importance of the policy enunciated, but also on the rules’ ultimate efficacy. Presumably, the least complex measures taken by governmental entities are the preferred ones, so long as those measures can achieve the important societal goals that have been identified. Many who are familiar with the federal regulations currently governing human subjects research complain that they are already unjustifiably complex and bureaucratic. Some of those engaged in research on conditions related to disorders affecting decisionmaking capacity fear that further regulation will unnecessarily retard scientific progress and inappropriately stigmatize individuals who may be suitable research subjects. In order to help resolve these issues, this report introduces the tools of periodic audit (internal and external) and public disclosure, in the belief that over time these tools can help meet the needs of human subjects protection while avoiding overly burdensome rules and regulations.

Nevertheless, regardless of any imperfections in current regulations, the period since their adoption has been, in the judgment of some, largely free of the sorts of large-scale problems and abuses that led to their initial promulgation. Others, however, stress that the issues discussed in this report illustrate some of the shortcomings of the Common Rule. In this context, the

1 Commission was obliged to determine whether the outstanding issues and problems in research  
2 involving persons with mental disorders that may affect their decisionmaking capacity warrant  
3 new regulations and/or whether some or all of the reforms it believes are required could be  
4 advanced through other mechanisms, such as statements of principle by those individuals involved  
5 in reviewing, regulating and carrying out these projects, suggested changes in professional  
6 guidance, or other educational materials for all relevant parties.

7 In this spirit, our recommendations fall into several categories: proposals for new federal  
8 regulations, proposals for legislation at the state level, and guidance to IRBs, to investigators, and  
9 to other professionals who work with persons with disorders that affect decisionmaking capacity,  
10 and to any others responsible for human subjects protection. In the interim, before new  
11 regulations are formally adopted, we encourage all to voluntarily adopt the recommendations put  
12 forward.

13  
14 *Proposed Regulatory Requirements for IRB Protocol Review*

15 In addition to the general regulations that already apply to all research conducted or  
16 sponsored by the federal government or otherwise subject to federal regulation, IRB deliberations  
17 and decisions about research involving subjects with mental disorders that may affect  
18 decisionmaking capacity should be governed by specific additional regulations. The Common  
19 Rule should be amended concerning research involving persons with mental disorders. The  
20 amendments would address: (1) IRB membership; (2) limiting the enrollment of subjects with  
21 mental disorders to protocols where they are necessary for the research;(3) the assessment of the  
22 potential subjects' capacity to decide about participating in research; (4) notification of

1 determination of incapacity and enrollment in research; (5) the duty to respect subjects' objection  
2 to participating in research; (6) investigator justification of the determination of a particular level  
3 of risk, informed consent procedures, and other protections; (7) examples of minimal risk and  
4 greater than minimal risk interventions in research in subjects with mental disorders that may  
5 affect decisionmaking capacity; (8) rules for greater than minimal risk, potentially beneficial  
6 research; (9) rules for greater than minimal risk research that is not potentially beneficial for this  
7 population.

8

9 *1. IRB membership.*

10 All IRBs that regularly consider proposals involving persons with mental disorders that  
11 may affect decisionmaking capacity should include at least two members who are familiar with the  
12 nature of these disorders and with the concerns of this population. At least one of these shall be a  
13 member of this population, or a family member of such a person, or a representative of an  
14 advocacy organization for this population. These IRB members should be present and voting  
15 when such protocols are discussed. IRBs that only irregularly consider such protocols should  
16 involve in their discussion two ad hoc consultants who are familiar with the concerns of this  
17 population and the nature of the mental disorders that may affect decisionmaking capacity; at  
18 least one of these two consultants shall be a member of this population, or a family member of  
19 such a person, or a representative of an advocacy organization for this population.

20

21 *2. Limiting subjects with mental disorders that may affect decisionmaking capacity to*  
22 *protocols where their participation is necessary.*

1           An IRB should not approve research involving subjects with mental disorders that may  
2 affect decisionmaking capacity when such research can be done with other subjects.

3  
4       3.     *Assessing potential subjects' capacity to decide about participating in research.*

5           An IRB should not approve research protocols involving persons with mental disorders  
6 that may affect decisionmaking capacity unless it is satisfied that investigators will employ an  
7 appropriate method, administered by an expert who is independent of the research team, to assess  
8 the potential subjects' capacity to decide whether to participate in the research.

9  
10     4.     *Notification of determination of incapacity and enrollment in research*

11          A conscious person who has been determined to lack capacity to consent to participate in  
12 a research protocol must be notified of that determination before permission can be sought from  
13 his or her legal authorized representative to enroll that person in the research, and must then be  
14 notified if permission has been given to enroll him or her in the research.

15  
16     5.     *Subjects' objection to participating in research.*

17          Any apparent dissent by a subject from participation in research must be honored (at the  
18 point of notification or by halting any research intervention with the subject at that time) whether  
19 the subject is currently able or unable to make decisions and whether the subject previously  
20 agreed to participate in research when competent to do so or was enrolled by a legally authorized  
21 representative following a determination of a lack of decisionmaking capacity.

1 6. *Investigator justification of the determination of a level of risk, informed consent*  
2 *procedures, and other protections.*

3 Investigators must justify their determination of the level of risk entailed by research  
4 protocols involving persons with mental disorders that may affect decisionmaking capacity, as  
5 well as describe the special informed consent procedures to be developed and other appropriate  
6 protections, all of which must be appropriate in light of the level of risk posed by particular  
7 research interventions and explained in the protocol.

8  
9 7. *Minimal risk and greater than minimal risk interventions in research involving human*  
10 *subjects with mental disorders that may affect decisionmaking capacity.*

11 The regulations should require investigators and IRBs to evaluate carefully the risk level  
12 entailed by particular procedures in light of the specific conditions of the individuals who may be  
13 involved as subjects in the study.

14  
15 8. *Greater than minimal risk, potentially beneficial research involving persons with*  
16 *mental disorders that may affect decisionmaking capacity.*

17 An IRB may approve this category of research only if the potential subject has given  
18 informed consent -- including as part of an advance planning process -- or the subject's legally  
19 authorized representative has given permission for the subject's participation in the research, and  
20 there is no apparent subject dissent. A legally authorized representative is an individual  
21 authorized under state law or previously approved and published institutional rules to make  
22 medical decisions on behalf of another individual. The IRB should also consider whether to

1 institute additional requirements as described below.

2  
3 9. *Greater than minimal risk research that is not potentially beneficial involving persons*  
4 *with mental disorders affecting decisionmaking capacity.*

5 An IRB may approve this category of research only if the potential subject has given  
6 informed consent, including consent given as part of an advance planning process. In addition,  
7 the IRB must ensure that there is a procedure for identifying a legally authorized representative  
8 (someone authorized under state law or previously approved and published institutional rules to  
9 make medical decisions on behalf of another individual), to make decisions about continuing or  
10 stopping the subject's participation in the research. The potential subject may still have sufficient  
11 capacity to appoint a legally authorized representative, or may have appointed a representative  
12 prior to current incapacity. The IRB must also ensure that there is a responsible health care  
13 professional identified and available to counsel the subject or the subject's representative about  
14 enrolling or continuing in the study. The IRB should consider additional requirements as  
15 described in the section on Guidance below.

16  
17 *Guidance for IRBs: The Research Context*

18 It will take time for the recommended amendments to the Common Rule described above  
19 to become regulation. Meanwhile, the IRB system should adopt the additional protections  
20 specified above as items 1-9 on a voluntary basis. In any case, those IRBs who choose not to  
21 adopt such policies should publicly disclose the differences in their policies. IRBs should be clear  
22 that their first order of business is to protect human research subjects regardless of the research's



1 potential benefits, including its potential for direct medical benefits to subjects. Moreover, as the  
2 risks of research participation increase without offsetting potential direct medical benefits to the  
3 subject, the intensity of consent processes and of other protections should increase.

4 IRBs should further consider whether the particular context of a proposed research  
5 protocol would tend to undermine the ability of persons with disorders affecting decisionmaking  
6 capacity to provide informed consent, due to their psychosocial vulnerability or the prospect of a  
7 therapeutic misconception. Features of a context that could be cause for concern include potential  
8 subjects' dependence on the institution as in-patients or for continuing care, or a dual role played  
9 by the potential subject's physician as a member of the research team (e.g., as a recruiter or as a  
10 source of names of potential subjects).

11 All of the above recommendations are intended to help minimize the potential risks and  
12 maximize the voluntariness of potential human subjects with mental disorders that may affect  
13 decisionmaking capacity in research. The following measures should also be considered by IRBs  
14 as additional protections, as they seem to be appropriate for particular studies, in light of concerns  
15 about risk and informed consent.

16 *Informed consent procedures* -- Requiring investigators to identify an independent consent  
17 auditor to attend and approve of the informed consent process with subjects known to be  
18 decisionally impaired.

19 *Individualized consent* -- Requiring investigators to assess each potential subject in order  
20 to amend the consent process and form as needed for these individual subjects.

21 *Independent health care professional advisors*-- Supplementing health care agents and  
22 legally authorized representatives by requiring that an independent physician advisor be available

1 to counsel subjects and/or their legally authorized representatives in potentially beneficial research  
2 (this is already recommended for all research that is not potentially beneficial).

3 *Study design* -- Requiring investigators to justify the need for certain controversial study  
4 designs -- e.g., challenge studies, studies involving drug holidays, certain placebo studies – in light  
5 of the risks presented to specific subjects. IRBs should also consider requiring (and mandate  
6 when the risks are significant) that a responsible health care professional be appointed to assess  
7 subjects periodically and to determine whether they should be removed from such studies if their  
8 participation is no longer consistent with the their medical interests.

9 IRBs should be especially careful in scrutinizing studies based on these designs because  
10 they incorporate many elements that raise concerns about research involving persons with mental  
11 disorders, especially the combination of a therapeutic misconception and an intervention that is  
12 mainly intended to provide valuable new information rather than direct benefit to the subject.

13 *Wraparound studies* -- Requiring that studies that may lead to confusion about their  
14 therapeutic value end with an appropriate treatment phase for the subjects involved.

15 *Commission Recommendations on Audits and Disclosure*- (These recommendations apply  
16 to all research involving human subjects.)

17 IRBs should voluntarily undertake a series of measures that would open their activities to  
18 greater public view, accountability, and understanding. In this regard, the Commission has the  
19 following three general recommendations.

20 (1) All IRBs should make publicly available brief descriptions of their policies and  
21 procedures that characterize the key aspects of their on-going work.

22 (2) Each IRBs should provide, on an annual basis, appropriate summary statistics

1 regarding the overall nature and scope of the activities they have approved. At a minimum, the  
2 summary should include the number of protocols approved, the number of human subjects  
3 involved, the names of the chair and responsible administrator, the number of protocols that  
4 required changing before the IRB was able to approve them, the number of reported adverse  
5 events, and how much time, on average, the IRB spent reviewing each protocol.

6 (3) Each institution incorporating an Institutional Review Board should adopt appropriate  
7 internal audit procedures to assure itself that its IRBs are following all appropriate rules and  
8 regulations.

9 It is the Commission's view that the instrument of audit (both internal and external) and  
10 disclosure can be very effectively used by IRBs to provide increased accountability,  
11 understanding, and inspire public confidence in their oversight activities. Indeed, these tools can  
12 be an excellent substitute for a wide variety of excessively detailed rules and regulations.

13  
14 *Recommendation to State Legislatures*

15 The states should legislate a definition of a legally authorized representative for purposes  
16 of deciding on a subject's enrollment in a research protocol. That legislation should recognize  
17 family members and close friends as appropriate candidates for this role, as well as individuals  
18 specifically designated by individuals while competent.

19  
20 *Recommendation to Professionals and Organizations of Healthcare Professionals*

21 All professionals whose expertise embraces research involving those with disorders that  
22 may affect decisionmaking capacity should find ways to recognize family members, close friends,

1 and other important caregivers as part of the healthcare team, including the appropriate sharing of  
2 information with them. Professional organizations should open discussions about methods to  
3 advance this goal. Innovations in this area must, of course, be consistent with the ethical  
4 obligation of patient confidentiality.

5  
6 *Recommendation to the National Institutes of Health*

7 The National Institutes of Health should sponsor research that can expand knowledge  
8 concerning the most reliable methodologies for assessing decisionmaking capacity, cognitive  
9 processes among those whose decisionmaking ability is impaired, and the best techniques for  
10 enhancing informed consent processes with persons who have decisional impairments.

11  
12 *Further Recommendations to all Federal Agencies Subject to the Common Rule*

13 1. In protocols that promise significant scientific benefits for persons with mental disorders  
14 that may affect their decisionmaking capacity or significant increases in understanding their  
15 conditions, but that are otherwise unapprovable under the rules proposed in this report, the  
16 Secretary of the Department of Health and Human Services should be able to convene an expert  
17 panel to determine whether a specific research protocol is so promising that it meets all  
18 appropriate scientific and ethical standards and then to approve the research if approval is  
19 warranted.

20 2. The appropriate Federal agency should be authorized to establish a mandatory IRB  
21 registry. All institutions receiving Federal funds for protocols involving human subjects should  
22 be required to register annually and to provide the following information, at a minimum: Are they

1 currently conducting human subjects research? If not, have they done so within the last three  
2 years and do they anticipate doing so within the next three years? If they have an IRB currently,  
3 who is the Chair and who is the responsible administrator? How many protocols have they  
4 reviewed, on average, within the last three years? How many protocols required changing before  
5 the IRB was able to approve them? Roughly how many subjects have been included in these  
6 protocols each year? How many adverse events have been reported? How much time, on  
7 average, does the IRB spend reviewing each protocol?

8 3. The agency housing the registry should have the authority to conduct audits of IRB  
9 records and procedures without cause.

10 4. Compliance among Federal agencies-- the auditing agency should have the authority to  
11 review and publicly disclose the results of these findings.

12 5. Information gathered under 1 above should be published annually. All federal actions with  
13 respect to IRB compliance and conduct should also be published annually.

1 Appendix 1: Summary of Proposed Regulatory Requirements for IRB Protocol Review

2  
3 *For all research involving persons with disorders that affect decisionmaking capacity:*

4  
5 € IRB Membership

6  
7 All IRBs that regularly consider proposals involving persons with disorders affecting  
8 decisionmaking capacity should include at least two members who are familiar with the concerns  
9 of this population; other IRBs should have two consultants when protocols of this kind are being  
10 considered.

11  
12 € Necessary Use

13  
14 An IRB should not approve research involving subjects with disorders affecting decisionmaking  
15 capacity when such research can, in principle, be done with other subjects.

16  
17 € Risk Determination

18  
19 Investigators must justify in their protocols their determination of the particular level of risk  
20 entailed by their research involving persons with disorders affecting decisionmaking capacity, in  
21 addition to informed consent procedures and other protections.

1 € Dissent

2

3 Any apparent dissent by a subject to participate in research (of any risk level) must be honored.

4

5

6 *For research involving persons with disorders affecting decisionmaking capacity that*

7 *entails greater than minimal risk:*

8

9 € Assessing Decisionmaking Capacity

10

11 An IRB should not approve research protocols unless it is satisfied that investigators will employ  
12 an adequate and appropriate method, administered by a competent expert who is independent of  
13 the research team, to assess the potential subjects' capacity to decide whether to participate in the  
14 research.

15

16 € Notification

17

18 A conscious person who has been determined to lack capacity to consent to participate in a  
19 research protocol must be notified of that determination before permission can be sought from his  
20 or her surrogate decision-maker to enroll that person in the research, and must then be notified if  
21 permission has been given to enroll him or her in the research.

22

1 *Additional requirement for greater than minimal risk research that is potentially beneficial to*  
2 *the subject:*

3  
4 An IRB may approve this category of research only if the potential subject has given informed  
5 consent, or the subject’s legally authorized representative has given permission for the subject’s  
6 participation in the research and there is no apparent subject dissent.

7  
8 *Additional requirement for greater than minimal risk research that is not potentially*  
9 *beneficial to the subject:*

10  
11 An IRB may approve this category of research only if the potential subject has given informed  
12 consent and a legally authorized representative and a responsible health care professional can be  
13 identified.

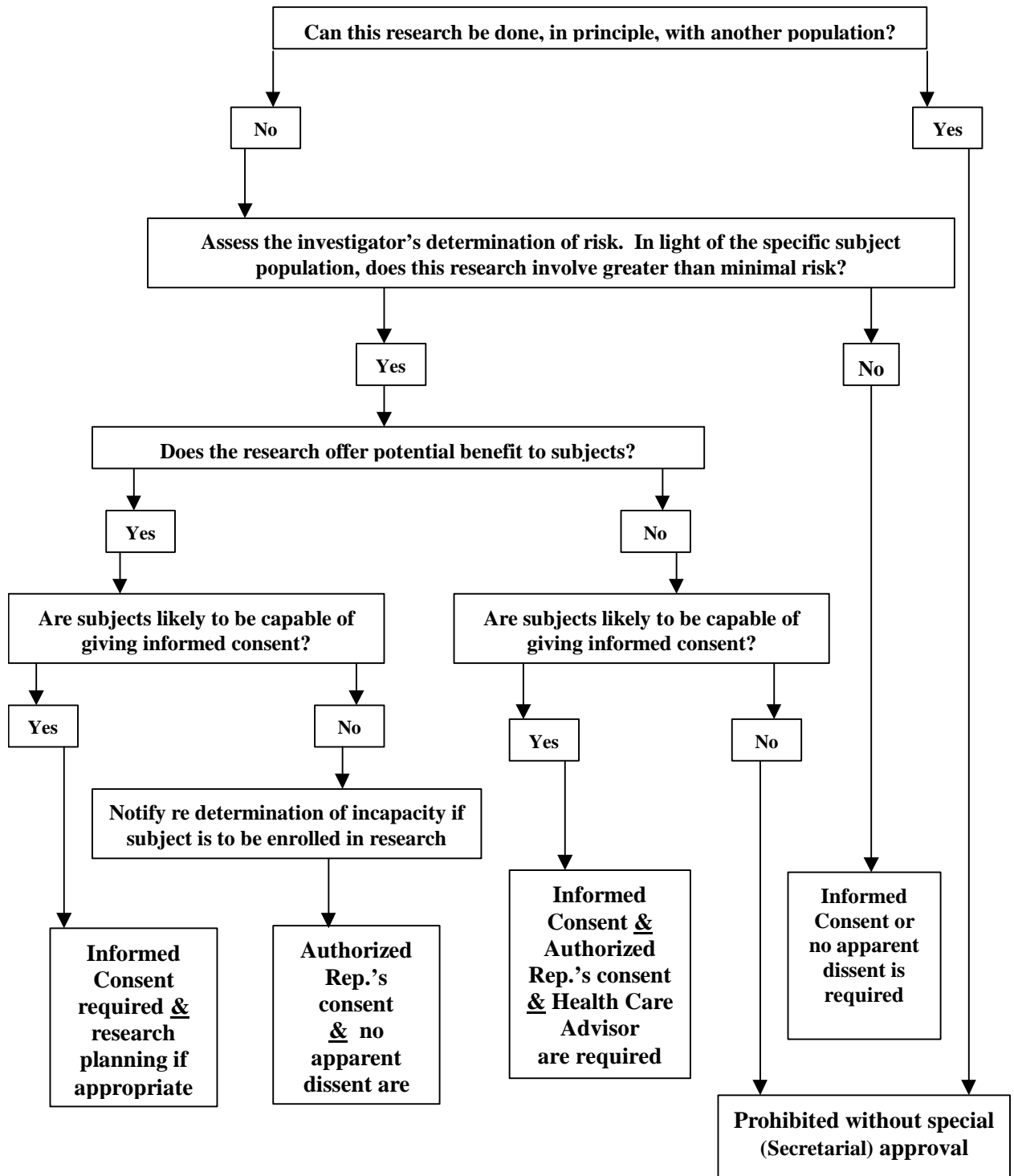
14  
15 € Audit and Disclosure

16  
17 All IRBs should provide, on an annual basis, appropriate summary statistics regarding the overall  
18 nature and scope of the activities they have approved, including policies and procedure related to  
19 the review process. Institutions that support an IRB should adopt appropriate audit procedures  
20 to assure themselves that IRBs are following all applicable rules and regulations.

21  
22



1 Appendix 2: Flow Chart Summary of Recommended Review Procedures for IRBs



2

1 Appendix 3: Title 45 CFR Part 46 -- Federal Policy for the Protection of Human Subjects

2 (enclosed)

3

4

5