

Grand Valley State University Institutional Review Board (IRB)	
Title: <i>Assessing risks to research participants</i>	
Section: 710.	This policy and procedure supersedes those previously drafted
Approved by HRRC: 09/13/2011 Revised: 08/01/2012, 10/28/2014 Reviewed 10/28/2014	Approved by the RIO/HRPA: 09/23/2011. Revisions approved 08/01/2012; 10/28/2014 Revision approved by AIO/RIO: 3/16/2020
Related documents: 720: <i>Assessing risk to vulnerable participants</i> 730: <i>Collection, management and security of research information</i> G-1: <i>Guidance on research involving vulnerable populations</i> G-5: <i>Guidance on assessing risk using magnitude of harm in categorizing risk level</i> G-6: <i>SACHRPP guidance on assessing risk</i> FAQs: <i>Background on Assessing Risk</i>	

Policy

Determining the proper risk classification of a research protocol is an important aspect of assuring adequate protections for research participants. Risk classification as initially set by the researcher is subject to modification at the discretion of the IRB. Classification may influence the mode of review (expedited vs. full board), approval requirements (e.g. some research involving children or prisoners require approval by the DHHS Secretary), the need or recommendation for a Certificate of Confidentiality, the required frequency of IRB review, specific consent requirements, and other factors.

Procedures

1. Identifying and Evaluating the Research-Related Risks

- a. The IRB will focus on risks that are directly related to participation in the research components themselves. *In evaluating risks and benefits, the IRB should consider only those risks and benefits that may result from the research (as distinguished from risks and benefits of therapies subjects would receive even if not participating in the research) [45 CFR 46.111 (a)(2).*

Moreover, the IRB will concentrate on the immediate or reasonably foreseeable risks of the research. *The IRB should not consider possible long-range effects of applying knowledge gained in the research (e.g., possible effects of the research on public policy) as among those research risks that fall within the purview of its responsibility. [45 CFR 46.111(a)(2)]*

- b. The IRB will consider a wide range of categories or types of risks including physical, psychological, social, economic, legal or unknown risks. In most cases these risks apply to individuals, however, risks can also apply to groups of individuals (e.g., research on alcoholism among Native Americans. Such research may be perceived as denoting a negative stereotype).

2. Minimal Risk vs. Greater Than Minimal Risk

- a. Two main characteristics influence the nature of assessing overall risk:
 - i. probability of the harm occurring
 - ii. magnitude (severity) of the harm
- b. The magnitude of potential harm is the summative measure of its severity, duration and reversibility. Thus, a research protocol with a low probability of harm occurring, but a high severity of harm if it occurs, may be assigned a greater than minimal risk (e.g. a severe allergic reaction to a new medication). Alternatively, a protocol with a high probability of harm occurring, but a low severity of harm, may be assigned minimal risk for participants (e.g. itchiness after electrode tape removal, or bruising or swelling after needle removal).
- c. A research procedure or intervention may be minimal risk to certain individuals or groups, but greater than minimal risk to others. For example, the effect on "vulnerable" populations and the specific circumstances of a protocol may change the risk/benefit ratio making the study greater than minimal risk. The *overall study risk* is determined by the risk to the most vulnerable *known members of the group*.
 - *Note:* there may be vulnerable members included in the study population that are not known to be present. If relevant to reducing known risks, the IRB may require an explicit testing for vulnerable persons in the larger group. For example, persons with a history of major depression may need to be excluded from a study, or provided special counseling prior to consenting to participate. Special notices or required clearance from a physician may be required.

3. Risk/Benefit Ratio Assessment

- a. *The benefits of a study do not alter the risk classification.*
 - i. The risk/benefit ratio assessment only refers to the acceptability of the risk, not the level of the risk. A study deemed greater than minimal risk cannot be classified as minimal risk just because the potential benefits are great, but the research could be approved for this reason. However, the same study may not be approvable if the

risks are greater than minimal, but anticipated benefits are also minimal or lacking. *An IRB reviewer should recommend disapproval of any research in which the risks are judged to be unreasonable in relation to the anticipated benefits.*

- b. IRB reviewers identify any anticipated risks involved with the study and classify those risks as minimal or as greater than minimal risk. Reviewers then determines whether the anticipated risks to participants are reasonable in relation to the anticipated benefits to participants, if any, and the importance of the knowledge that may reasonably be expected to result.
- c. *Risks to subjects are reasonable in relation to anticipated benefits, if any, to subjects, and the importance of the knowledge that may reasonably be expected to result. [45 CFR 46.111: (a)]*

4. Minimizing the Risks: Impact on Risk Assessment

- a. An important aspect of risk assessment is the nature and type of planned protections to minimize the probability and/or severity of potential harm to participants. A greater than minimal risk may be reduced to minimal risk if protections for research participants are judged to be adequate. For example, a breach of confidentiality of sensitive information poses a risk of serious harm, but protections such as restricted access (encrypted data storage, locked files, Certificates of Confidentiality) reduce the absolute risk significantly and may thereby render a minimal overall risk to participants.

Background

1. Definition

- a. Minimal risk is defined in the Code of Federal Regulations as: *The probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests.* [45 CFR 46.102, and 21 CFR 56.102(23)(i)] (note: minimal risk defined slightly differently for prisoners. See ORCI ***Policy 720: Assessing risk to vulnerable participants***)

2. Interpretation of Minimal Risk as Defined in 45 CFR 46

- a. The IRB uses a healthy person (i.e. general, non-research population) standard for determining minimal risk as is recommended by both the National Bioethics Advisory Commission report (2001) and the DHHS Secretary's Advisory Committee on Human Research Protection (2005). Research procedures which constitute minimal risk under the

standard definition may be greater than minimal risk for vulnerable populations. See also ORCI *Policy 720: Assessing risk to vulnerable participants* and the risk matrix below which provides examples of moderate and high risk.

Risk Level	Potential Harm Health/Physical	Potential Harm Privacy/Social/Legal	Potential Harm Psychological	Potential Harm Financial
No More Than Minimal Risk	<p>The <i>probability and magnitude</i> of harm or discomfort anticipated in the research is not greater in and of themselves than those ordinarily encountered in daily life or during the performance of <i>routine physical or psychological examinations or tests</i> [45 CFR 46.102(i)].</p> <p>For <i>children</i>, minimal risk is further defined as the level of risk that a normal, average, healthy child may be exposed to in the course of that child's everyday life, or those risks encountered by <i>normal, average, healthy children living in safe environments</i> in daily life or during the performance or routine physical or psychological examinations or tests*</p> <p>For <i>prisoners</i>, minimal risk is further defined as the probability and magnitude of physical or psychological harm that is normally encountered in the daily lives, or in the routine medical, dental or psychological examination of healthy persons [45 CFR 46.303].</p>			
Minor Increase Over Minimal Risk	<p>This risk category may be used to classify research involving adult participants, it <i>must be considered</i> in the evaluation of risk in research involving <i>children</i> as defined in 45 CFR 46 section 404 – 407**. Risks are more severe than those defined above (NMMR) and less severe than those defined below (Moderate Risk).</p>			
Moderate Risk	Temporary (lasting more than 24 hours) but reversible or moderate discomfort, dysfunction, bodily harm, or pain.	Temporary or moderate harm to social reputation in any of the other 3 domains, e.g., release of research data results in embarrassment.	Subjectively upsetting, unwanted emotional or behavioral responses that are non-impairing and transient (up to a few days), e.g., feeling sad, nervous, sleep disruption, altered relationship dynamics. Nb: Informed consent procedures may reduce risk to minimal	Temporary or moderate financial costs or loss, e.g., short absence from work resulting in lost wages. Possibly significant wasted time if research lacks scientific merit.
High Risk & Life-Threatening Risk	Death, severe pain and/or permanent dysfunction or harm to body organ or structure.	Severe or long-term harm to social reputation or any of the other three domains, e.g., release of research data resulting in loss of employment, insurability, social stigma or criminal penalties.	Pronounced distress during the research activity, or negative outcomes that impair or persist for more than a few days, e.g. depressive symptoms, impulsive behavior, major alteration in relationship dynamics or social reputation	Severe and/or permanent financial harm, e.g., permanent disability resulting in job loss or loss of assets.

Research classified as greater than minimal risk must be reviewed by the full board at a convened meeting.