

# The Revised International Guidelines for Ethical Health-Related Human Research

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In 2016, the Council for International Organizations of Medical Sciences (CIOMS; Geneva, Switzerland) published the Revised CIOMS International Ethical Guidelines for Health-Related Research Involving Humans (Ethical Guidelines).<sup>1</sup> CIOMS was formed in 1949 by the World Health Organization (Geneva, Switzerland) and the United Nations Educational, Scientific, and Cultural Organization (UNESCO; Paris, France) as a non-government, non-profit association with a goal of providing international guidelines of ethics for the conduct of scientific evaluation and study that involves human subjects. CIOMS is currently comprised of 45 international and national organizations, including academies of science and biomedical research councils.<sup>1</sup> Since 1949, the Ethical Guidelines have had on-going evaluation with occasional updates. The current Ethical Guidelines are applicable to all health and medical research that involves human subjects. Important to prehospital and disaster health research is that the Ethical Guidelines provide guidance for research and scientific evaluation in low- and middle-income countries.

The objective of this discussion is to summarize the 2016 Revised CIOMS Ethical Guidelines. The original document is 122 pages in length, including an appendix stating items to be included in protocols for research including humans and an appendix providing essential information for obtaining informed consent. Discussed below is each of the 25 elements of the Ethical Guidelines presented in the 2016 revision.<sup>1</sup>

Guideline 1: Scientific and social value are the fundamental justification for conducting research that includes human subjects. All associated with human subject research have a moral obligation to assure all research is carried out in ways that uphold human rights with respect, protection, and fairness to study participants and the communities in which the research is conducted. Scientific and social value cannot be a legitimate justification for subjecting study participants or host communities to mistreatment or injustice.

Guideline 2: For low-resource settings, ethical standards should be no less stringent than for high-resource settings. Community engagement should be included from the inception of research planning. Research in low-resource communities may require improvement of the local health system and should also require assurance of post-study availability of any scientific or commercial benefit of the research for the community.

Guideline 3: All groups or classes of persons should have equitable exposure to the benefits and potential risks of research if they are representative of the study population. Human study subjects must be selected for scientific reasons and not because they are easier to recruit or easily manipulated to participate in a study. Inclusion and exclusion criteria should not be potentially discriminatory and rather, should be based on sound scientific criteria.

Guideline 4: Before recruiting human study subjects, researchers and their sponsors must assure that risks to participants

is minimized. Each individual research intervention or procedure must be evaluated for risks and benefits to individual participants. As a second step, the aggregate risks and benefits of the entire study must be assessed and appropriate. Important is monitoring a study and providing mechanisms for responding to adverse events and instituting explicit criteria for stopping a study. In addition to minimizing risk for study participants, risk for researchers and research staff must be minimized.

Guideline 5: The control group of a diagnostic, therapeutic, or prevention intervention should receive an established effective intervention. Placebo can be considered when there is no established effective intervention or when the placebo is added to an established effective intervention.

Guideline 6: In the context of clinical trials, researchers and sponsors must make provisions for human participants' health needs during research and for the transition of participants' health care to appropriate providers when the research is concluded. Information on study participants' health needs during and after research must be included within the consent process.

Guideline 7: Communities in which research is conducted should be engaged in research development, implementation, consent, and monitoring processes, as well as in the dissemination of results.

Guideline 8: Government authorities conducting or initiating human subject related research must assure that the research is reviewed ethically and conducted in a sound scientific manner by competent and independent research ethics committees and competent research teams. In settings where ethics committees and research teams are not available, sponsors of research should engage in capacity-building to develop such resources within the local community.

Guideline 9: Research subjects have the right to receive information such that they understand their role and the research project and must have the opportunity to give their free and informed consent to participate.

Guideline 10: A research ethics committee may approve a modification or waiver of informed consent to research if the research would not be feasible without the waiver or modification and the research has important social value and the research poses no more than minimal risks to participants. Enrollment of human subjects in any research must not be initiated without obtaining individual informed consent or explicit approval to initiate the research from a qualified research ethics committee.

Guideline 11: Collection, storage, and use of biological materials and related data that are collected and stored as part of research requires that institutions have an approved governance system to obtain authorization for future use of the materials. Research cannot adversely affect the rights and welfare of individuals from whom the materials were collected.

Guideline 12: Collection, storage, and use of data in health-related research must not adversely affect the rights and welfare of

individuals from whom the data were collected. Data from low-resource settings should only be collected and stored in collaboration with local health authorities.

Guideline 13: Subjects should have reasonable reimbursement for costs directly incurred during research. Compensation must not be so large as to induce consent to participate against better judgement.

Guideline 14: Researchers and sponsors must assure that research subjects who suffer physical, psychological, or social harm as a result of participation must receive free treatment and rehabilitation for such harms as well as compensation for lost wages. Ethics committees must determine if there is an adequate arrangement for treatment and compensation for research-related harm.

Guideline 15: Researchers and ethics committees must assure that when vulnerable individuals and groups are recruited for study that the rights and welfare of these at-risk individuals and groups are safeguarded and protected.

Guideline 16: Adults who are not capable of giving consent must be included in health-related research unless scientific reason justifies their exclusion. Specific protections for the rights and welfare of these individuals is therefore necessary. If such individuals become capable of providing consent during the research, their consent to continue participation must be obtained.

Guideline 17: Children and adolescents must be included in health-related research unless scientific reason justifies their exclusion. For research involving children and adolescents, researchers and ethics committees must assure a parent or legal representative has given permission and the assent of the child or adolescent has been obtained (considering the child or adolescent's capacity to understand and assent to the research).

Guideline 18: Women must be included in health-related research unless good scientific reason justifies their exclusion. Women of child-bearing age must be informed of any risks for pregnancy and when research poses a risk in pregnancy, a woman must be provided access to contraceptives and pregnancy tests before and during the research.

Guideline 19: Research involving pregnant and breast-feeding women must have risks to the mother and fetus or child minimized. Short-term and long-term follow-up of the fetus and the child may be required. If the social value of the research is compelling and cannot be conducted with non-pregnant or non-breast-feeding women, an ethics committee may permit a minor increase above minimal risks.

Guideline 20: Research in disasters and disease outbreaks must be conducted in accordance with the ethical standards of all other research. Individual informed consent or ethical committee waiver of informed consent is required. In addition, research sponsors and researchers should minimize the risk to those conducting health research in a disaster setting.

Guideline 21: For cluster randomized trials, research ethics committees should determine what informed consent is feasible from subjects, health care workers, or community members.

Guideline 22: When data are obtained for health research from online or digital sources, there should be privacy-protection measures to protect individuals from the possibility that their personal information is not directly revealed or otherwise inferred when a dataset is published, shared, combined, or linked. Interactions with data should be controlled, monitored, and reviewed across all stages of the research.

Guideline 23: Research ethics committees must be formally established and given adequate mandate and support to assure timely and competent review according to clear and transparent procedures.

Guideline 24: Public accountability is necessary for the social and scientific value of health-related research. Researchers, sponsors, research ethics committees, funding sources, editors, and publishers have an obligation to comply with recognized publication ethics.

Guideline 25: Conflicts-of-Interest should be avoided in health research. Research ethics committees should evaluate each study in light of any disclosed interests and assure minimization of any potential conflicts-of-interest. Sponsors and researchers must disclose any potential conflict-of-interest in a research project.

#### Reference

1. *International Ethical Guidelines for Health-Related Research Involving Humans, Fourth Edition*. Geneva: Switzerland: Council for International Organizations of Medical Sciences (CIOMS); 2016; <https://cioms.ch/shop/product/international-ethical-guidelines-for-health-related-research-involving-humans/>. Published 2016. Accessed December 6, 2016.

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