THE UNIVERSITY OF ARIZONA
Research
Innovation & Impact

What is Human Research?

Overview

Any 'agent' of the University of Arizona (e.g., faculty, staff or students) requires IRB oversight when the activity they are conducting is both 'research' that involves 'human subjects.' Please see the guidance on 'Principal Investigator (PI) Eligibility' at the University of Arizona.

First, is the activity research?

Research means a systematic investigation, including research development, testing, and evaluation, designed to develop or contribute to generalizable knowledge. The following activities are deemed not to be research:

(1) Scholarly and journalistic activities (e.g., oral history, journalism, biography, literary criticism, legal research, and historical scholarship), including the collection and use of information, that focus directly on the specific individuals about whom the information is collected.

(2) Public health surveillance activities, including the collection and testing of information or biospecimens, conducted, supported, requested, ordered, required, or authorized by a public health authority. Such activities are limited to those necessary to allow a public health authority to identify, monitor, assess, or investigate potential public health signals, onsets of disease outbreaks, or conditions of public health importance (including trends, signals, risk factors, patterns in diseases, or increases in injuries from using consumer products). Such activities include those associated with providing timely situational awareness and priority setting during the course of an event or crisis that threatens public health (including natural or man-made disasters).

(3) Collection and analysis of information, biospecimens, or records by or for a criminal justice agency for activities authorized by law or court order solely for criminal justice or criminal investigative purposes.

(4) Authorized operational activities (as determined by each agency) in support of intelligence, homeland security, defense, or other national security missions.

If conducting FDA regulated activity the IRB must consider whether the project is a **clinical investigation** which means any experiment that involves a test article and one or more human subjects. There are additional exceptions that may apply, however, the Investigator must contact the HSPP to determine whether the rule applies.

Second, does the activity involve human subjects?

If the investigator is conducting 'research' as described above, and the project involves a human subject as defined below, then activity is 'human research' and requires IRB oversight.

Human subject means a living individual about whom an investigator (whether professional or student) conducting research:

- Obtains information or biospecimens through intervention or interaction with the individual, and uses, studies, or analyzes the information or biospecimens; or

- Obtains, uses, studies, analyzes, or generates identifiable private information or identifiable biospecimens.

The definitions below will help frame and understand the terms listed in the definition of human subject above:

- Intervention includes both physical procedures by which information or biospecimens are gathered (e.g., venipuncture) and manipulations of the subject or the subject's environment that are performed for research purposes.
- Interaction includes communication or interpersonal contact between investigator and subject.
- Private information includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation or recording is taking place, and information that has been provided for specific purposes by an individual and that the individual can reasonably expect will not be made public (e.g., a medical record).
- Identifiable private information* is private information for which the identity of the subject is or may readily be ascertained by the investigator or associated with the information.

  *Note that if the private information is health information from a healthcare covered entity (CE) it may be subject to the HIPAA rules.
- Identifiable biospecimen* is a biospecimen for which the identity of the subject is or may readily be ascertained by the investigator or associated with the biospecimen.

  *Note the biospecimen may be subject to the HIPAA rules if it is obtained from a healthcare covered entity (CE).

If conducting FDA regulated research, secondary research involving non-identifiable newborn screening blood spots is not considered human research any longer. However, investigators must submit a determination form to the HSPP for review.

When conducting medical device research that involves an in vitro diagnostic (IVD) and unidentified tissue specimens, the FDA defines the unidentified tissue specimens as human subjects, and IRB oversight is required.

Quality Improvement (QI) and Program Evaluation (PE)

There is no regulatory definition for Quality Improvement (QI) or Program Evaluation (PE), but they are often described as being designed to bring about immediate (or nearly immediate) improvements in delivery or system performance. These activities include changes to systems or processes, development of guidelines, training and education, and access to private information. The goal of these activities is to provide real-time evidence-based data related to performance, needs, or output.

Strict QI/PE generally do not require review by an IRB because they do not meet the definition of research (45CFR46.102.e).

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QI or PE activities may be systematic in nature; however, many are not designed to develop or contribute to generalizable knowledge even though the information may be shared throughout the organization. Keep in mind, however, that QI/PE can and many times does have a dual purpose – to find and document improvement in the organization AND to make generalizable conclusions. When in doubt, contact the Human Subjects Protection Program to discuss.

Differences Between QI/PE and Research

Points to consider	Research	QI/PE
Purpose	To test a hypothesis OR establish clinical practice standards where none are accepted	To assess or promptly improve a process, program, or system; OR improve performance as judged by accepted/established standards
Starting Point	To answer a question or test a hypothesis	To improve performance
Benefits	Designed to contribute to generalizable knowledge and may or may not benefit subjects	Designed to promptly benefit a process, program, or system and may or may not benefit patients or clients
Risks/Burdens	May place a subject at risk	Be design, does not increase risk
Data Collection	Systematic data collection	Systematic data collection
End Point	Answer a research question	Promptly improve a program/process/system
Testing/Analysis	Statistically prove or disprove a hypothesis	Compare to an established set of standards

Can a project be both QI/PE and human research?

Yes, projects can be both QI/PE and human research. The following characteristics make it more likely that a project involves both QI/PE and research. Consult with the IRB if you are uncertain.

- Randomization of patients into different intervention groups in order to enhance confidence in differences that might be obscured by nonrandom selection (but not to achieve equitable allocation of a scarce resource).
- Testing issues that are beyond current science and experience, such as new treatments.
- The involvement in key project roles of researchers who have no ongoing commitment to improvement of the local care situation.
- Delayed or ineffective feedback of data, especially if feedback is delayed or altered in order to avoid biasing the interpretation of results.
- Funding from an outside research organization with an interest in the use of the results.
- Secondary analysis of identifiable QI or PE data with the intent to develop or contribute to generalizable knowledge is research and requires human subjects review.
- Intent to inform or change public policy.

If a study includes randomization, is it always considered HSR?

No, however, randomization is a trigger that the project should be discussed with the HSPP. An example of a QA/QI study that involved medication compliance included the randomization of patients to one of three conditions:

- In one condition patients were given a cell phone and a reminder call when it was time to take their medication.
- Patients in a second condition were given a reminder call but no cell phone.
- Patients in a third condition took their medication while being directly observed by staff (direct observation therapy--DOT).

Is it research if I intend to publish?

The intent to publish is an 'insufficient criterion' for determining whether a quality improvement activity involves research, according to OHRP. When QI/PE is published or presented, the intent is usually to discuss potentially effective models, strategies, assessment tools or to provide benchmarks, rather than to develop or contribute to 'generalizable' knowledge.

What if I need to access PHI?

HIPAA makes an exception for QI/PE activities, including outcomes evaluation and development of clinical guidelines or protocols. These activities fall under the category of 'health care operations' for which no HIPAA Authorization or Waiver of Authorization needs to be sought. The organization that owns the medical information must grant permission to access it for QI/PI.

The UA requires that any access to health information in an electronic medical record, regardless if it is human research, be submitted to the IRB for review. The 'Determination of Human Research' form should be used to document access to this private information for tracking purposes.

What to do next?

If it is not clear whether the project is human research, then the investigator should complete the 'Determination of Human Research' form found on the Human Subjects Protection Program website. Submit the completed form to the HSPP for review. The investigator will receive a formal letter of determination for their files.

If the project clearly IS human research, then the investigator should complete the 'application for human research' form found on the HSPP website. The HSPP will review the activity and submit it to the IRB for approval.