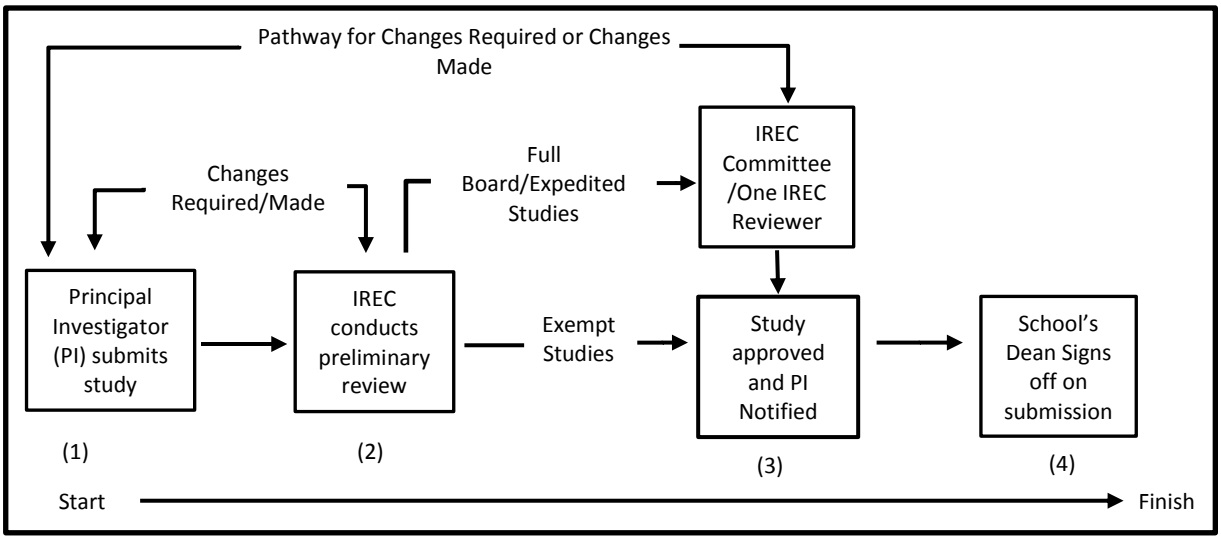
CHAPTER 7 IREC Review Process

What follows is a basic overview of each stage in the IREC review process from online submission to IREC approval. A description of each stage is provided below the flowchart.

Schematic of IREC Approval Process: non-NUSOM Schools



KEY:

(1) Principal Investigator Principal Investigator (Faculty/Staff/Student) Designs and Submits Study:

Faculty and staff investigators design their protocol and submit it via email to resethics@nu.edu.kz. Student investigators submit protocols to School-based IRECs. Investigators must indicate if the application requires expedited or full board review. The final determination of the review category is made by the IREC.

NOTE: Faculty investigators, student investigators, key personnel and faculty sponsors must fulfill the University's CITI online training requirement before the IREC will review applications.

(2) IREC:

After school Dean's approval is obtained, an initial review of the application is conducted by the IREC staff. At Nazarbayev University, the IREC staff conducts a thorough pre-review of the application to verify the correct type of review, and to evaluate the protocol and supporting documents (e.g., consent documents, recruitment materials, letters of support/permission, surveys, questionnaires, etc.). If a study is approved as **exempt** or determined to be "**not human subject research**," no further review is required by the IREC. A letter will be issued to the investigator indicating that the work does not require IREC review.

For studies designated as **expedited** or **full board**, IREC review is required by a designated reviewer or the full board, respectively. (For more information on the IREC Review categories see Chapter V: Types of IREC Review).

The possible determinations/outcomes that can be made on a study are as follows:

- ***Approved*** – the application is complete, the risks to subjects are minimal/minimized, and the procedures are appropriate. The IREC gives approval for the research to be conducted.
- ***Approved with Conditions*** – the application is complete but there are specific conditions that must be satisfied before the project can begin. Once a satisfactory response to these conditions is received the IREC will grant final approval and the research may then be initiated. **Conditional approval is used in very rare circumstances.**
- ***Deferred*** – applications that are found to have deficiencies (risk to subjects, unclear procedures, serious omissions, ethical issues, or major contingencies) will be deferred. The researcher is sent a memorandum listing the concerns that must be addressed for approval to proceed. The researcher's response is reviewed by the IREC and will be approved or deferred until all issues are addressed satisfactorily.
- ***Disapproved*** – Applications that are found to have risks that outweigh the potential benefits to subjects and/or society will receive a non-approval and the research will not be allowed. This determination can only be made by the full board at a convened meeting. Institutional administrative officials may not override this decision.

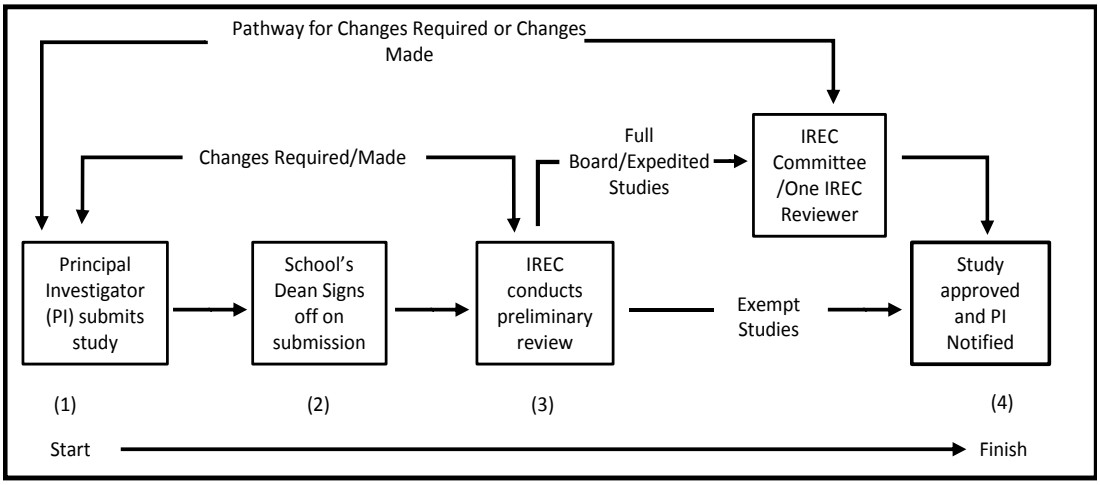
(3) Study Approved and PI Notified:

The researcher will be notified through an email when the study has been approved.

(4) Dean Sign-Off:

Once the application is completed, the principal investigator's Dean must review and sign off on the application. This sign-off represents consideration of scientific merit, availability of resources, or other issues at the department level.

Schematic of IREC Approval Process: NUSOM



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IREC APPROVAL CRITERIA: KEY POINTS

When reviewing proposed research, the IREC must consider the 7 regulatory requirements, provided below. Among the concepts that must be well understood to review human subjects research are informed consent (elements and process), privacy and confidentiality, and risk and benefit. The information below is not all inclusive and is provided to establish familiarity with these critical topics.

Regulatory Criteria for IREC Approval

NU investigators proposing a research project that involves human subjects must submit an application to the IREC. The IREC shall determine that all of the following requirements are satisfied before approving the research:

1. Risks to subjects are minimized: (i) By using procedures which are consistent with sound research design and which do not unnecessarily expose subjects to risk, and (ii) whenever appropriate, by using procedures already being performed on the subjects for diagnostic or treatment purposes.
2. 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. In evaluating risks and benefits, the IREC 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). The IREC should not consider possible long-range effects of applying knowledge gained in the

research (for example, the possible effects of the research on public policy) as among those research risks that fall within the purview of its responsibility.

3. Selection of subjects is equitable. In making this assessment the IREC should take into account the purposes of the research and the setting in which the research will be conducted and should be particularly cognizant of the special problems of research involving vulnerable populations, such as children, prisoners, pregnant women, mentally disabled persons, or economically or educationally disadvantaged persons.
4. Informed consent will be sought from each prospective subject or the subject's legally authorized representative.
5. Informed consent will be appropriately documented, unless investigator requests oral consent or waived informed consent for research involving deception.
6. When appropriate, the research plan makes adequate provision for monitoring the data collected to ensure the safety of subjects.
7. When appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of data.

Additionally, when some or all of the subjects are likely to be vulnerable to coercion or undue influence, such as children, prisoners, pregnant women, mentally disabled persons, or economically or educationally disadvantaged persons, additional safeguards have been included in the study to protect the rights and welfare of these subjects.

Informed Consent

Informed consent is the process of informing potential subjects about the key facts of a research study and what their participation will involve. The human subjects in the study must participate willingly, after having been adequately informed about the research. If the subjects are from a vulnerable population, such as pregnant women, prisoners or children, additional protections are required.

Consent documents must be clearly written and at a level understandable by the subjects. The language must be non-technical (comparable to the language in a newspaper or general circulation magazine). Scientific, technical, and medical terms must be plainly defined. It is often recommended that the informed consent be written at the sixth to eighth grade reading level. Assent forms for minors and any related recruitment materials must reflect the reading level of the minors.

What elements should be included in an informed consent?

For human subjects to participate in a research study, they need to have enough information to give a truly voluntary informed consent. Information subjects must be given include:

- *Purpose* of the research
- *Procedures* involved in the research
- *Alternatives* available should a subject decide not to participate in the research
- All reasonably *foreseeable risks and discomforts* to the subject

Note: these include not only physical injury but also possible psychological, social, or economic harm, discomfort, or inconvenience.

- *Benefits* of the research to the individual human subject and society
- *Length of time* the subject is expected to participate
- *Payment* for participation (if applicable)
- *Person to contact* for answers to questions or in the event of a research-related injury or emergency
- Statement that *participation is voluntary* and that refusal to participate will not result in any consequences or any loss of benefits that the person is otherwise entitled to receive
- Subjects' *right to confidentiality* and *right to withdraw* from the study at any time without any consequences

There are three types of consent:

- **Consent** – An adult subject, capable to give permission to participate in a research study, can provide consent. The subject must be 18 years of age and competent to make the decision to participate.

- **Parental Permission** – When children/minors are included in research, the parent/guardian must sign a parental permission consent document. Some situations require permission from at least one parent, while other situations require permission from both parents.

- **Assent** – Assent is a child's affirmative agreement to participate in research. If the subject is 7-17 years of age, assent must be obtained. The assent form must include simple language written at the appropriate reading level of the youngest subject in the age range.

Informed consent templates and guides can be found in Appendix C:

Privacy/Confidentiality

The protection of privacy and confidentiality are important issues in the protection of human research subjects. The investigator must describe plans to protect the subject's identity as well as the confidentiality of the research records. Privacy and confidentiality are extensions of the principles of autonomy (respect for persons) and beneficence from the Belmont Report.

Privacy

Can be defined in terms of having control over the extent, timing, and circumstances of sharing oneself (physically, behaviorally, or intellectually) with others.

Care should be taken to explain the mechanisms that have been devised to protect the privacy of the subjects. The concept of privacy relates to the means for obtaining the data from subjects. For example, when a researcher is interviewing a participant, they must make provisions to protect what is being

discussed. Holding the interview in a private office is one method to protect the participant's privacy. Another consideration for privacy is limiting the data being obtained to essential data only. For example, collecting information not related to the research hypothesis is inappropriate.

Confidentiality

Pertains to the treatment of information that an individual has disclosed in a relationship of trust with the expectation that it will not be divulged to others (without permission) in ways that are inconsistent with the understanding of the original disclosure.

The investigator must provide a plan to keep research records confidential. For example, storing research records in locked file cabinets and password protecting electronic files helps to ensure confidentiality. Investigators should also describe, in their IREC application, who has access to the research records. Without appropriate safeguards, problems may arise from a long-term retention of records. In some cases, to prevent potential criminal or civil prosecution of the research subjects, the IREC may require the destruction of all data that can identify the subjects. Subjects should be informed of whether the data collected will be retained, and if so, for what purpose and for what period of time. Video and audio taped data, as well as photographs require specific plans for confidentiality since these media can provide additional means for subject identification.

Risk/Benefit

When reviewing research studies, IREC must assess the risks and benefits (if any) to subjects who participate in the research. The IREC's assessment of risks and anticipated benefits involves a series of steps. IREC must: (1) identify the risks associated with the research, as distinguished from the risks of therapies the subjects would receive even if not participating in research; (2) determine that the risks will be minimized to the extent possible; (3) identify the probable benefits to be derived from the research; (4) determine that the risks are reasonable in relation to the benefits to subjects, if any, and the importance of the knowledge to be gained; (5) assure that potential subjects will be provided with an accurate and fair description of the risks or discomforts and the anticipated benefits; and (6) determine intervals of periodic review, and, where appropriate, determine that adequate provisions are in place for monitoring the data collected.

Risk

Defined as the probability of harm or injury (physical, psychological, social, or economic) occurring as the result of participation in a research study. Risks also include possible breaches of confidentiality. Both the probability and magnitude of possible harm may vary from minimal to significant.

Harms

Medical research often involves exposure to pain, discomfort, or injury from invasive medical procedures, or harm from possible side effects of drugs. All of these should be considered "risks" for purposes of IREC review. Some of the adverse effects that result from medical procedures or drugs can be permanent, but

most are transient. Procedures commonly used in medical research usually result in no more than minor discomfort (*e.g*., temporary dizziness, the pain associated with venipuncture). Some medical research is designed only to measure more carefully the effects of therapeutic or diagnostic procedures applied in the course of caring for an illness. Such research may not entail any significant risks beyond those presented by medically indicated interventions. On the other hand, research designed to evaluate new drugs or procedures may present more than minimal risk, and can cause serious or disabling injuries.

Psychological Harms. Participation in research may result in undesired changes in thought processes and emotion (*e.g*., episodes of depression, confusion, or hallucination resulting from drugs, feelings of stress, guilt, and loss of self-esteem). These changes may be transitory, recurrent, or permanent. Most psychological risks are minimal or transitory, but IREC members should be aware that some research has the potential for causing serious psychological harm.

- Subjects may feel stress caused by certain research questions or procedures such as surveys or face-to-face interviews. Some questions may raise painful memories or unresolved issues. Questions about at-risk behaviors may cause embarrassment, feelings of guilt, or legal liability when that behavior is generally illegal or socially unacceptable.

- Provisions for psychological support and referrals can be built into studies when emotional distress may be an outcome. Consent forms describing the kinds of questions the researcher will ask allows participants to choose whether they are comfortable with answering certain types of questions or exploring certain issues.
- A breach of confidentiality may be damaging to a subjects reputation, their employability may be negatively affected, and/or their ability to obtain insurance coverage may be jeopardized if confidentiality is not maintained.
- Information about certain behaviors may place subjects at risk of legal action. For example, if subjects divulge information about illegal activities or stigmatized activities, any disclosure of that information could place the subjects at risk of significant harm.

Benefit

Defined as a valued or desired outcome; an advantage. The benefits of research fall into two major categories: benefits to subjects and benefits to society. Frequently, the research subjects are undergoing treatment, diagnosis, or examination for an illness or abnormal condition. This kind of research often involves evaluation of a procedure that may benefit the subjects by ameliorating their conditions or providing a better understanding of their disorders. Patients and healthy individuals may also agree to participate in research that is either not related to any illnesses they might have or that is related to their conditions but not designed to provide any diagnostic or **therapeutic** benefit. Such research is designed principally to increase our understanding and store of knowledge about human physiology and behavior. Research that has no immediate therapeutic intent may, nonetheless, benefit society as a whole. These benefits take the form of increased knowledge, improved safety, technological advances, and better health. IREC should assure that the anticipated benefits to research subjects and the knowledge researchers expect to gain are clearly identified.