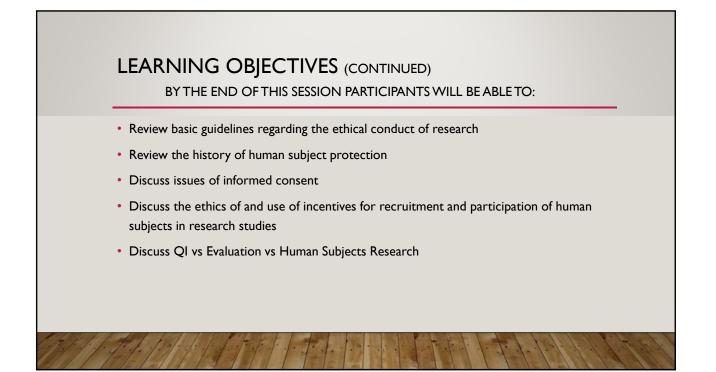
IRB: EVERYTHING YOU WANTED TO KNOW BUT WERE AFRAID TO ASK

KENNETH BIELAK CYNTHIA LANGLEY ANTHONY WILSON OCTOBER 24, 2018

LEARNING OBJECTIVES

BY THE END OF THIS SESSION PARTICIPANTS WILL BE ABLE TO:

- · Give examples of unethical historical research which led to the formation of IRBs
- · Determine the level of IRB review needed based on the risk to subjects
- · Complete an IRB application using iMedRIS, the IRB's online application system
- Avoid common pitfalls that delay IRB approval



DIRECT AND INDIRECT NEEDS FOR HUMAN SUBJECTS PROTECTION

- There are a number of challenges to ethical conduct in research!
- Whether conducted in an academic setting or a healthcare institution, by an agency or a
 private organization, research involving human subjects often raises ethical concerns as
 study participants may experience risks and inconveniences primarily to benefit others by
 advancing knowledge.
- Ethical questions may arise at any time during the research process from the <u>design</u> phase to <u>subject recruitment</u> to <u>data collection</u> to <u>analyses</u> and <u>dissemination of study</u> <u>results</u>.

DIRECT AND INDIRECT NEEDS FOR HUMAN SUBJECTS PROTECTION

- Institutions engaged in research using human subjects are required to provide written assurance of compliance with regulations (including documentation that the IRB reviewed the research project) to funding sources. For federally funded research this means a Federalwide assurance or FWA.
- There may be times when multiple IRBs must approve the study (e.g., for multi-center trials, for collaborative projects between two agencies, etc.). Studies conducted at multiple sites may pose additional IRB concerns (e.g., maintaining confidentiality of data held at multiple sites; ensuring consistency of protocols between sites, etc.).

WHAT IS AN IRB?

(Institutional Review Board, aka: Ethics Committee)

A federally mandated committee, governed by federal law, that oversees research at an institution that receives federal funds to conduct research

Membership must include:

- Scientists: physicians, pharmacists, nurses, other scientists
- Non-scientists
- At least one member unaffiliated with the institution

Purpose:

To protect human subjects involved in research

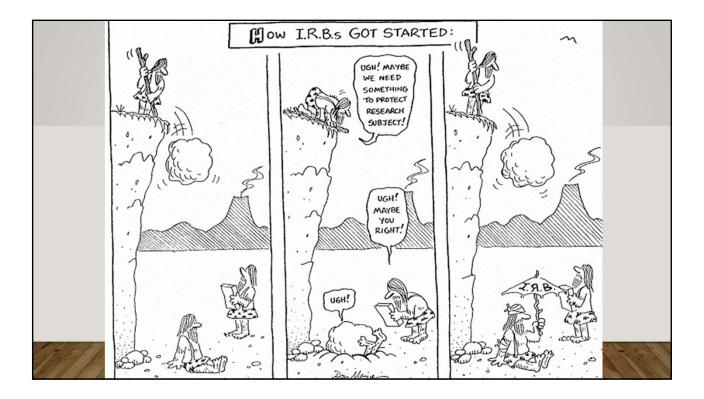
WHAT DOES IT DO? An IRB shall review and have authority to: Approve, require modifications in, or disapprove all research activities Suspend or terminate research that is not being conducted as approved or that has been associated with unexpected serious harm to subjects Any suspension or termination shall be reported promptly to the investigator, appropriate institutional officials, OHRP and/or FDA. If the IRB approves a study, institutional officials can overrule IRB's decision If the IRB disapproves a study, institutional officials cannot overrule IRB's decision PI has the right to appeal IRB's decision but IRB has final say

INSTITUTIONAL REVIEW BOARD (IRB)

- The goal of the IRB (aka Human Subjects Committee or Committee for the Protection of Human Subjects Research) process is to protect the rights and welfare of those individuals who contribute to the research process by participating as subjects.
- In protecting the rights of subjects, the IRB also protects the institution and the researcher from the potential consequences of an inadequate consent process or the exposure of the subject to a negative risk.
- "The ultimate responsibility for protecting human subjects must be borne by the institutions that perform the research."
 - (Shalala, D. Protecting research subjects what must be done. New Engl J Med 2000;343:808-10)

HISTORY OF THE HUMAN SUBJECTS PROTECTION SYSTEM

How IRBs got started...



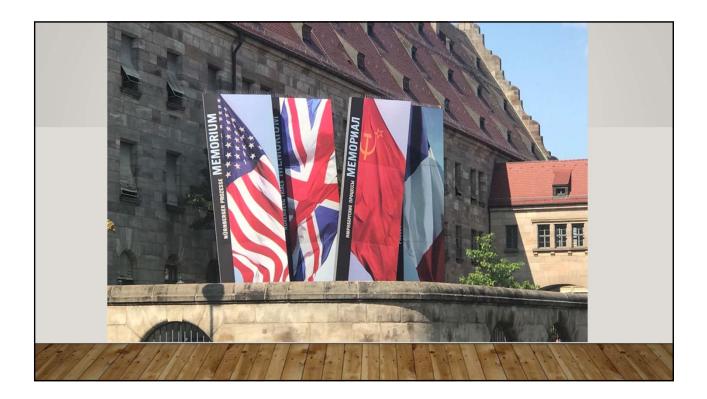
HISTORY OF THE HUMAN SUBJECTS PROTECTION SYSTEM

- The modern story of human subjects protections began with the *Nuremberg Code* (of 1947), developed for the Nuremberg Military Tribunal as the standard by which to judge the human experimentation conducted by the Germans.
- The Code captures many of what are now taken to be the basic principles governing the ethical conduct of research involving human subjects.
- The first provision of the Code states that "the **voluntary consent** of the human subject is absolutely essential."
- <u>Freely given consent to participation in research</u> is the **cornerstone of ethical experimentation** involving human subjects.









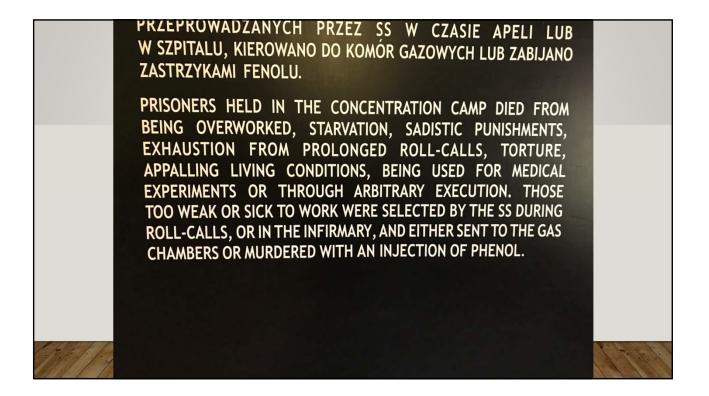












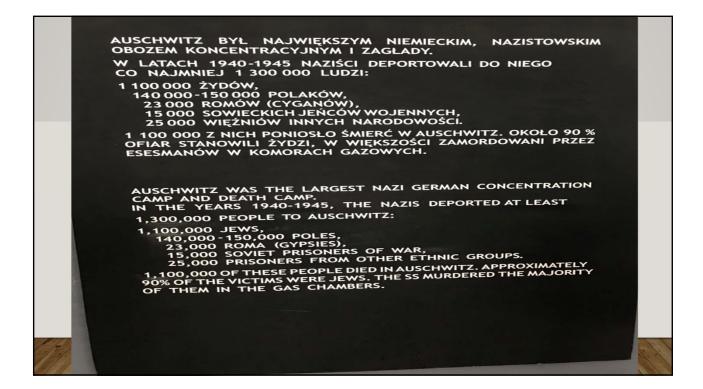
lekarze SS.

Several hundred women prisoners, mainly Jewish were held in two upstairs rooms of this block and used as human guinea-pigs for sterilization experiments conducted by Prof. Dr Carl Clauberg, a German gynaecologist, from April 1943 to May 1944. Some of them died from the treatment they received, others were murdered so that autopsies could be performed on them. Those who survived were left with permanent injuries.

Other SS doctors also conducted experiments on women in this block.

בבלוק זה, החל מאפריל 1943 ועד למאי 1944, ערך רופא





NUREMBERG CODE (OF 1947) The Code provides details implied by such a requirement: capacity to consent; freedom from coercion; and comprehension of the risks and benefits involved. Other provisions require: the minimization of risk and harm; a favorable risk / benefit ratio; qualified investigators using appropriate research designs; and freedom for the subject to withdraw at any time.

HISTORY OF THE HUMAN SUBJECTS PROTECTION SYSTEM

- Similar recommendations were made by the World Medical Association in its Declaration of Helsinki: Recommendations Guiding Medical Doctors in Biomedical Research Involving Human Subjects – first adopted in 1964.
- In the U.S., regulations protecting human subjects first became effective in 1974. The regulations established the IRB as one mechanism through which human subjects would be protected.

HISTORY OF THE HUMAN SUBJECTS PROTECTION SYSTEM

 The National Research Act, passed in 1974, led to the issuance of reports and recommendations identifying the basic ethical principles that should underlie the conduct of biomedical and behavioral research involving human subjects and recommending guidelines to ensure that research is conducted in accordance with those principles – known as The Belmont Report (submitted in 1978 by the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research – the commission established by the National Research Act).

HISTORY OF THE HUMAN SUBJECTS PROTECTION SYSTEM

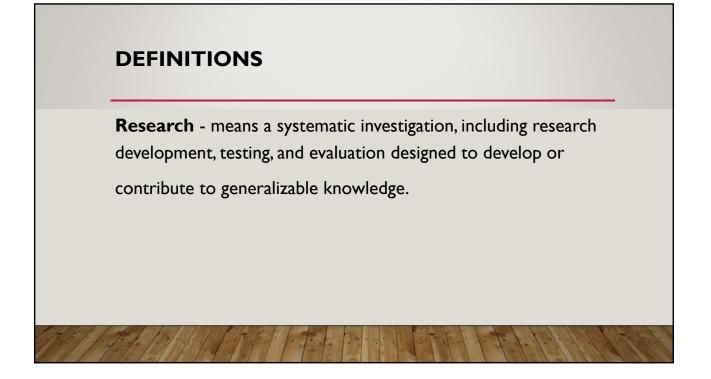
- **The Belmont Report** set forth the basic ethical principles of <u>respect for persons</u>, <u>beneficence</u>, and <u>justice</u> – the quintessential requirements for the ethical conduct of research involving human subjects.
- Respect for persons involves a recognition of the personal dignity and autonomy of individuals, and special protection of those persons with diminished autonomy. This principle underlies the need to obtain <u>informed consent</u>.

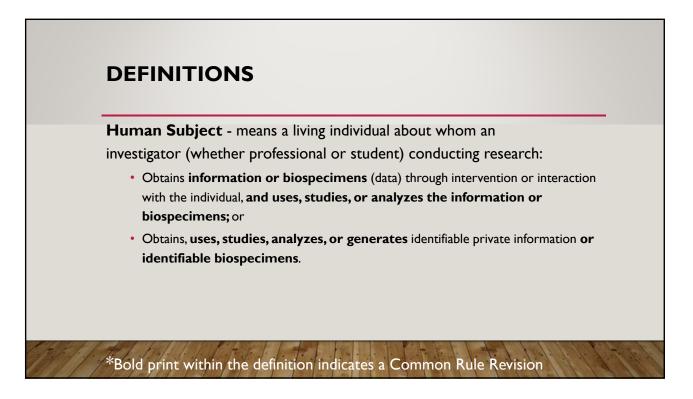
HISTORY OF THE HUMAN SUBJECTS PROTECTION SYSTEM

- **Beneficence** entails an obligation to protect persons from harm by maximizing anticipated benefits and minimizing possible risks of harm. This principle underlies the need to engage in a risk / benefit analysis and to <u>minimize risks</u>.
- **Justice** requires that the benefits and burdens of research be distributed fairly. This principle requires that subjects be *fairly selected*.

HISTORICAL CONSEQUENCES OF NOT HAVING IRB OVERSIGHT

- Tuskegee Study of untreated syphilis in African American men, 1932-1972
- Walter E. Fernald State School, 1946-1953
- Thalidomide, 1957-1961
- Jewish Chronic Disease Hospital, 1963
- Willowbrook Hepatitis Study, 1963-1966
- Holmesburg Prison, 1964-1968
- Stanford Prison Experiment, 1971
- Johns Hopkins Study of Lead Paint Hazards, 1990s 2001 (after IRBs were estab.)



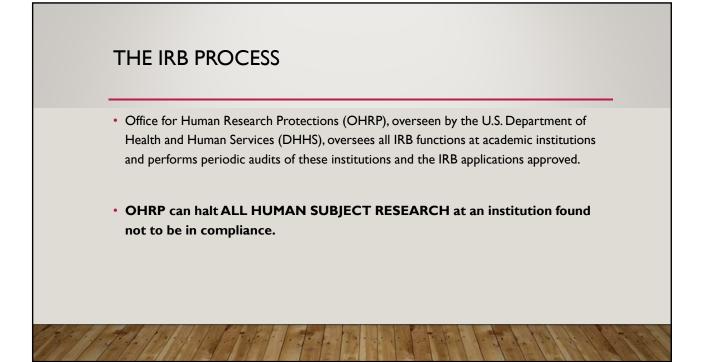


DEFINITIONS

Minimal risk means that 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.

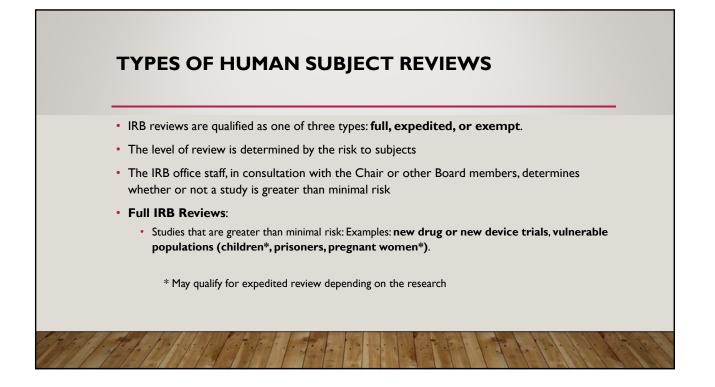
THE IRB PROCESS

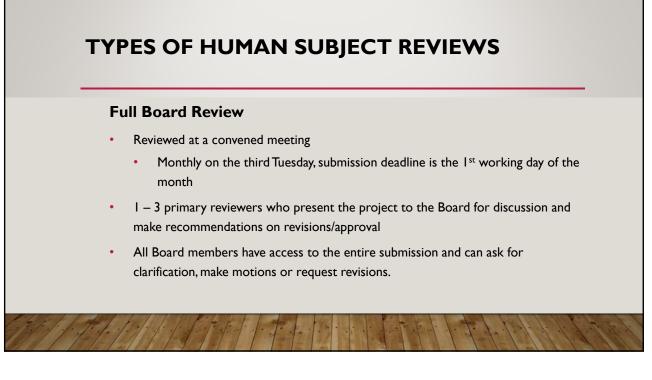
- The purpose of the IRB is to review research and determine if the rights and welfare of human subjects involved in research are adequately protected.
- It has the authority to approve, require modification, or disapprove all human subjects research activities.
- Research approved by the IRB may be subject to review/ approval or disapproval by officials of the institution.

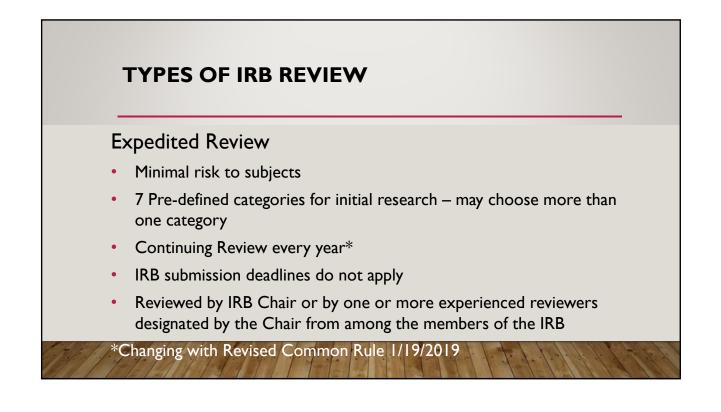




- The type of IRB review that is required typically depends on the <u>level of risk</u> presented by the study.
- The primary focus of IRBs is on the safety and well-being of research participants.
- The IRB office is a valuable resource in determining whether a research project requires a **full** or **expedited review** or whether the project may be **exempt** from review.



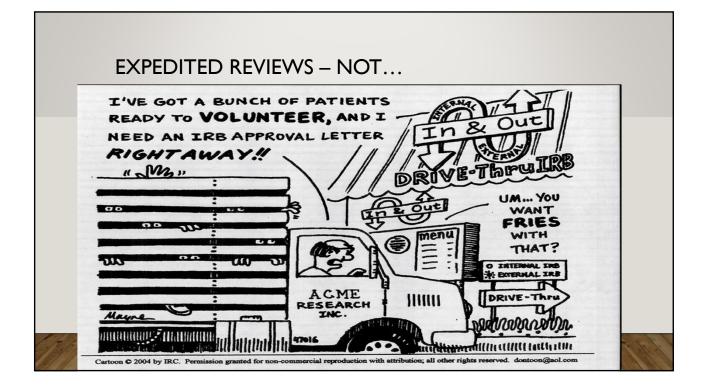


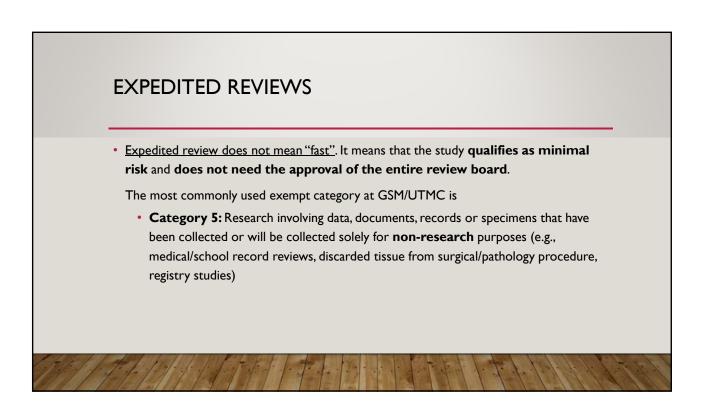


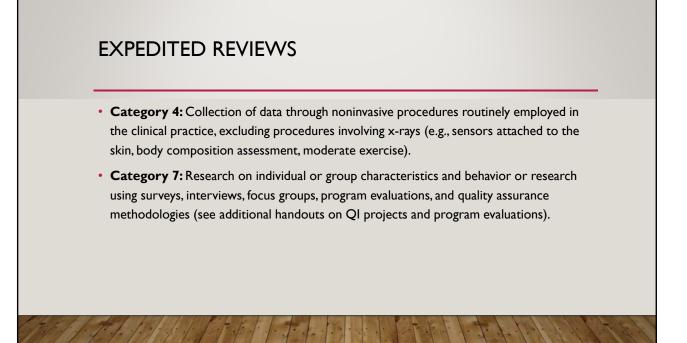
TYPES OF IRB REVIEW

Expedited Review (continued)

- The reviewers may exercise all of the authorities of the IRB except that the reviewers may not disapprove the research. A research activity may be disapproved only after review by the full Board.
- Each IRB that uses an expedited review procedure must notify members of research proposals that have been approved by expedited review.

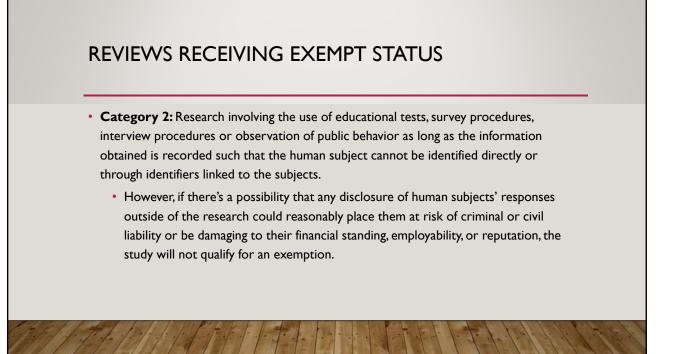






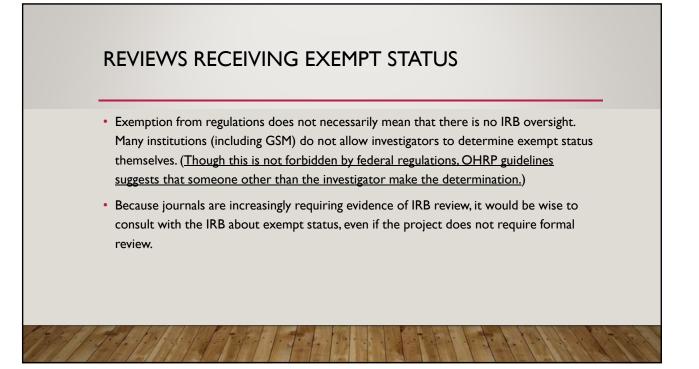
REVIEWS RECEIVING EXEMPT STATUS

- Research involving prisoners <u>does not</u> qualify for exemption, nor can a project be exempt if the funding agency prohibits this.
- **Category I:** Research conducted in an established or commonly accepted educational setting, involving normal education practices such as instructional strategies, research on effectiveness, or comparison among instructional techniques, curricula or classroom management.



REVIEWS RECEIVING EXEMPT STATUS

- **Category 4:** Research that involves only the collection or study of <u>existing</u> data, documents, records, pathological specimens, or diagnostic specimens. **Existing means** <u>existing before the research is proposed or initiated; existing at the time of request</u>.
 - The data, documents, records, etc., to be used must be publicly available OR recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.





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UTK Knoxville Main Campus IRB Application	Knoxvile Institutional Review Board (IRB)	
O UT Graduate School of Medicine / UHS Knoxville: IRB Study Application	GSM Knowville Enstbutional Review Board (IRB)	
O UTK - Institutional Biosafety Committee Registration	Knowlle Institutional Biosafety Committee (IBC)	
O UTHSC IBC PROTOCOL APPLICATION	Health Science Center - Memphis Institutional Biosafety Committee (IBC)	



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COMMON PITFALLS THAT DELAY APPROVAL

When the IRB receives your submission, it undergoes a pre-review by the IRB staff. We look for:

- Sign off by all members of the study team and the PI's Dept. Chair
- Current GSM or UTK CITI training for all Key Study Personnel (iMedRIS notifies you)
- A complete application: no obvious incorrect answers (such as the wrong review type, wrong exempt or expedited category, answering "No" to Use of PHI when submitting a retrospective chart review, etc.)
- Required attachments (consents, surveys, etc.) to insure they are attached

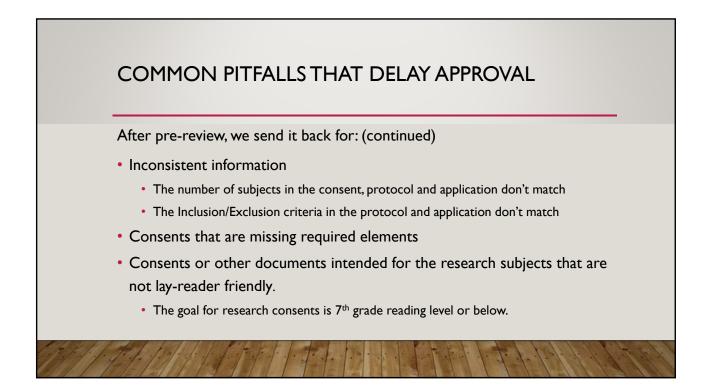
COMMON PITFALLS THAT DELAY APPROVAL

After pre-review, we may send it back for:

• Failure to route for signatures

All members of the study team AND the Department Chair of the Principal Investigator must sign the initial application

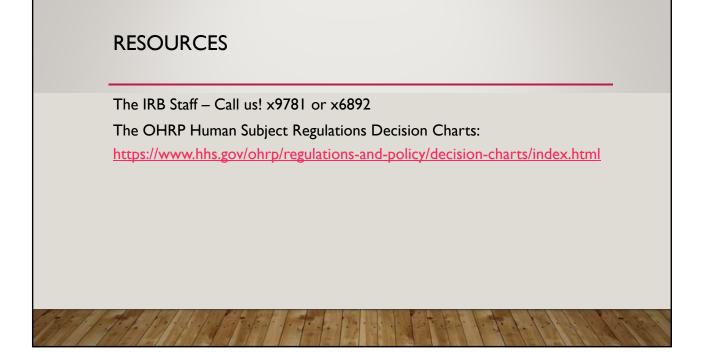
- Incomplete information
 - Not listing a Faculty Advisor or Department Chair
 - Missing information about who will obtain consent (if applicable)
 - "Answers" that don't answer the question



RESOURCES

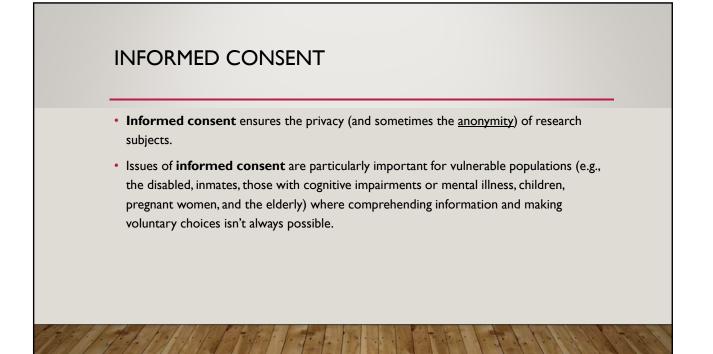
The GSM IRB Website: <u>http://gsm.utmck.edu/irb/</u> contains:

- Forms (Case Report, QI, NHS, Collaboration Forms, etc.)
- Fee and Meeting schedules
- The link to iMedRIS <u>https://ris01.uthsc.edu/</u>
- IRB Standard Operating Procedures
- General Information



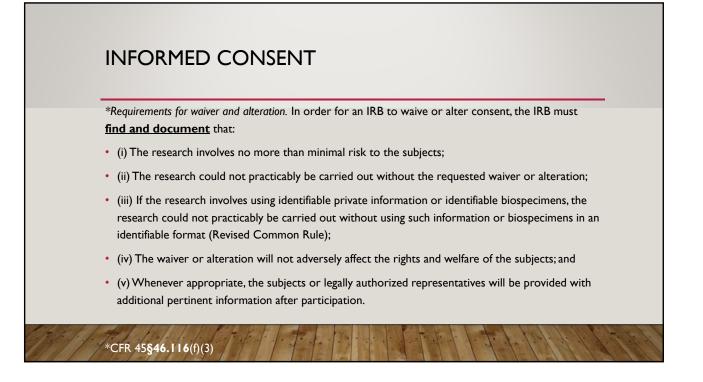
INFORMED CONSENT

- Informed consent requires documentation ensuring that research subjects have voluntarily accepted to participate in the research and have been properly informed of each step in the research process.
- Informed consent should include: an <u>invitation to participate</u> in the research study; the <u>purpose of the research</u>; the <u>selection criteria</u>; the research <u>procedures</u>; the description of the <u>benefits and risks</u>; an <u>alternative treatment</u> if an experimental procedure is offered; the possibility to have <u>questions answered</u> by the study team; and an <u>assurance of confidentiality</u>.



INFORMED CONSENT

- Under federal guidelines, there are 2 circumstances in which informed consent is **not** required:
 - when the research is **exempt** from the regulations;
 - and when the research meets the requirements for waiver of consent:



INFORMED CONSENT

- A retrospective chart /record review that collects any of the 18 Health Insurance Portability and Accountability Act (HIPAA) identifiers does not qualify as exempt.
- Research that poses minimal risk but does not qualify as exempt may be eligible for review under the <u>expedited</u> process and may qualify for a waiver of consent and a waiver of HIPAA Authorization.

HIPAA - THE FOLLOWING 18 IDENTIFIERS ARE CONSIDERED **PROTECTED HEALTH INFORMATION**

Names

- Geographic subdivisions smaller than a state (addresses, zip codes, etc.)
- Telephone numbers
- Fax numbers
- Email addresses
- Social security numbers
- Medical record numbers
- Health plan beneficiary numbers
- Account numbers

- Certificate/license numbers
- Vehicle identifiers and serial numbers (including license plate numbers)
- Device identifiers and serial numbers
- Web URLs
- Internet protocol (IP) address numbers
- Biometric identifiers (finger and voice prints)
- Full face photographic images
- Any other unique identifying number, characteristic or code

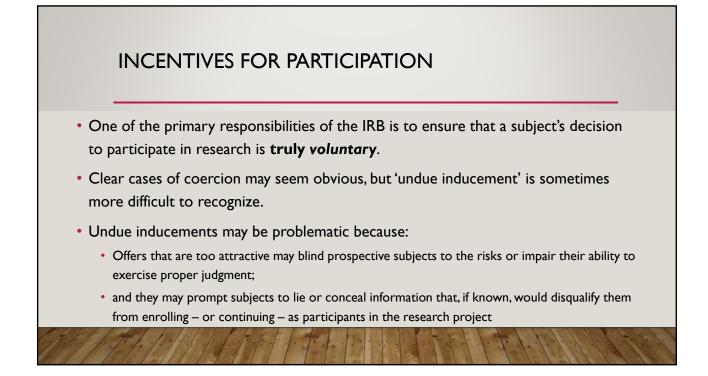
INCENTIVES FOR PARTICIPATION





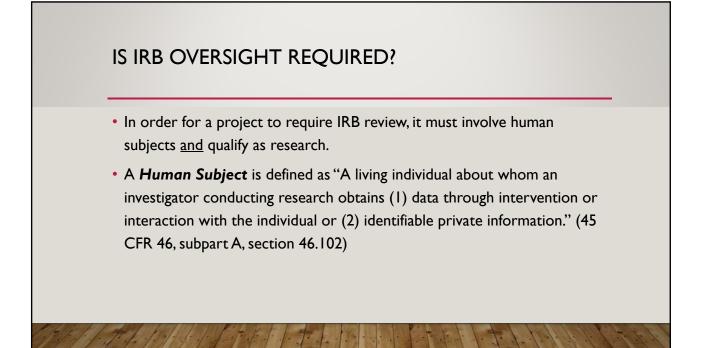
INCENTIVES FOR PARTICIPATION

- Regardless of the external incentive, IRBs must consider whether 'paid' participants in research are <u>recruited fairly</u>, informed adequately, and <u>reimbursed appropriately</u>.
- Taking into consideration the subjects' medical, employment, and educational status, as well as their financial, emotional, and community resources, the IRB must determine whether incentives for participation in research constitute *undue inducements or coercion*.
- Federal regulations governing research with human subjects contain no specific guidance for IRB review of payment practices



THE IRB CITI PROCESS

- The <u>Collaborative Institutional Training Initiative (CITI)</u> program is the vehicle for ensuring comprehensive education in bioethics and human subjects protection.
- The CITI program is a 13-module program created by 'IRB experts' (experienced researchers and IRB personnel) and is used by many academic health centers across the country. Certification via the CITI exam can be transferred to another academic institution.
- The complete set of modules may take up to 4 hours to complete, but they *do not* have to be completed at one sitting. <u>Recertification is required every three (3) years</u>.



IS IRB OVERSIGHT REQUIRED?

- Research is defined as "a systematic investigation, including research development, testing, and evaluation, designed to develop or contribute to generalizable knowledge." (45 CFR 46, subpart A, section 46.102)
- **NOTE**: Intent to publish, by itself, is *not* a reason to go to the IRB for review/oversight. It must be human subjects research (HSR) at the start of the study

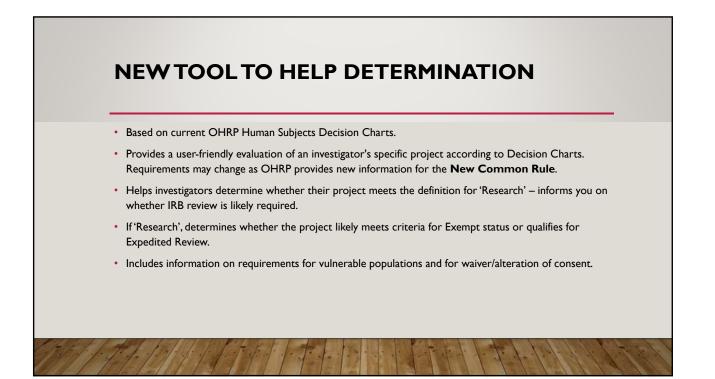






IS IRB OVERSIGHT REQUIRED?

- Program Evaluations:
 - http://oregonstate.edu/research/irb/does-evaluationrequire-irb-review
 - When does evaluation require IRB review?
 - <u>https://compliance.vpr.okstate.edu/IRB/documents/IRB_toolbox/Program_Evaluation.pdf</u>
 - Program Evaluation: When is it Research?



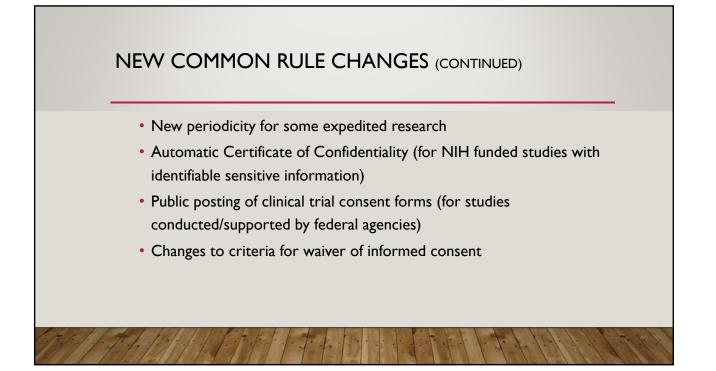
NEW COMMON RULE

- Changes to the Federal Code of Regulations for the Protection of Human Subjects
- Original roll-out: January 19, 2018 (did not happen)
- New roll-out: July 19, 2018 (still did not happen)
- Potential (probable) new roll-out: January 21, 2019
- Some changes are specific to research that is FDA-regulated or funded/supported by the Department of Justice.



NEW COMMON RULE

- Additional exemption categories that do not require Continuing Review
 - Uses of secondary data and biospecimens that are already subject to HIPAA
 - Research involving benign behavioral interventions with adults
 - Research that only includes interactions involving educational tests, survey procedures, interview procedures, or observation of public behavior, even if identifiers are recorded and disclosure may pose a confidentiality risk to research participants



SELECTED BIBLIOGRAPHY AND RESOURCES

- DHHS.gov web site: http://ohrp.osophs.dhhs.gov/irb/irb_introduction.htm. NOTE: This website has an abundance of historical information about conducting research using human subjects, plus dozens of useful and interesting references and links to other pertinent information.
- Aita M, Richer MC. Essentials of Research Ethics for Healthcare Professionals. Nursing and Health Sciences 7:119-125, 2005.
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