Introduction to the IRB & Special Considerations for Data & Biospecimen Sharing

June 13, 2024

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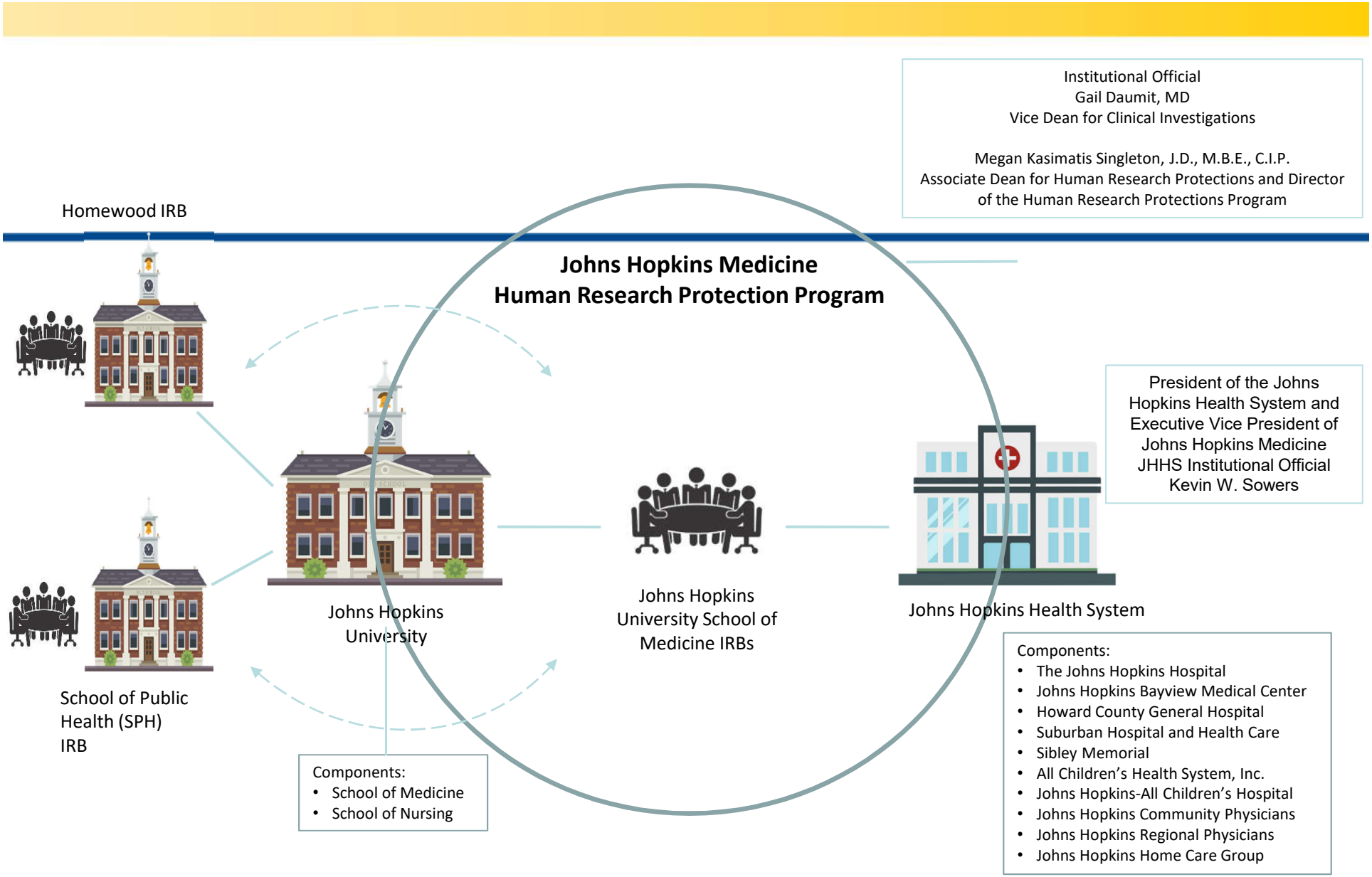
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• School of Medicine
• School of Nursing
Components:
• The Johns Hopkins Hospital
• Johns Hopkins Bayview Medical Center
• Howard County General Hospital
• Suburban Hospital and Health Care
• Sibley Memorial
• All Children's Health System, Inc.
• Johns Hopkins-All Children's Hospital
• Johns Hopkins Community Physicians
• Johns Hopkins Regional Physicians
• Johns Hopkins Home Care Group

Core Functions of the OHSR/IRBs

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- Protect the rights and welfare of participants in research
- Ensure human subjects research is compliant with requirements for protection of human subjects [federal regulation, state law, organizational policy] and aligns with ethical principles for human subjects research
- Facilitate review of human subjects research by ancillary review committees required by regulation & policy
  - Provides direct staff support to the Biospecimen Transfer Committee, Institutional Stem Cell Oversight Committee and the Clinical Research Radiation Committee

JHM INSTITUTIONAL REVIEW BOARDS*

IRB 1
Chair - Howard Lederman, MD, PhD

IRB 2
Chair – Doug Smith, MD

IRB 3
Chair – Richard Moore, MD

IRB 5
Chair – Joseph Carrese, MD

IRB 6
Chair – Ken Cohen, MD

IRB X
Chair – Susan Bassett, PhD

JH-ACH IRB
Chair – Verena Jorgenson, MD

Executive IRB
Chair – Mary Catherine Beach, MD, MPH

Current Active Protocol Volume ~11,500 protocols

Represents a 35% increase since 2015

Annually process ~2000 new protocols, ~20,000 further study actions

Created to:

- Review incidents of non-compliance that cross multiple protocols
- Review incidents of non-compliance related to research conducted without IRB approval

*The JHM IRBs are all also constituted as HIPAA Privacy Boards and authorized to make required HIPAA determinations related to research

ANCILLARY COMMITTEES

High Risk Review Committee

Data Trust Committee

Biospecimen Transfer Committee

Emergency Department Review

Institutional Biosafety Committee

Review of Research involving Employees or Students

Clinical Radiation Research Committee

JHH Nursing Review

Pharmacy and Therapeutics Committee

Ancillary Review Committees

Most ancillary reviews are pre-IRB review or concurrent with IRB review & required prior to IRB approval. See: [Department & Ancillary Reviews (hopkinsmedicine.org)]

Federal Regulations

- *45 CFR 46* - HHS Policy for Protection of Human Research Subjects Originally adopted May 1974, Revised 1981 & 1991, Revised in 2018

- Additional Protections
  - Subpart B - Pregnant Women, Fetuses and Neonates
  - Subpart C - Prisoners
  - Subpart D - Children

****In Maryland by state law we must apply the Common Rule to all research**

What is an IRB?

Institutional Review Board
=
An Independent Committee charged with protecting the rights/welfare of human subjects

- Must include sufficient expertise to review the research
- Must include at least 5 members
- Membership must be diverse with regard to race, gender and cultural backgrounds
- Must be sensitive to community concerns
- Types of Members
  - Scientists
  - Non-scientist
  - Ethicist
  - Community Representative

How does the IRB work?

- Risks are minimized
- Risks are reasonable in relationship to the potential benefits
- Subject selection is equitable
- Informed Consent is obtained and documented
- Plans for monitoring are appropriate to ensure safety
- Protections for privacy & confidentiality are adequate

How does the IRB review research?

- **Reviews are divided into categories**
  - **Administrative Determination** (not human subjects/not research/or both)
  - **Exempt** (minimal risk and meets defined category for exemption)
  - **Expedited** (minimal risk & meets expedited review criteria)
  - **Convened review** (greater than minimal risk or minimal risk but not in a defined expedited category)

What should I do if I plan to conduct research with human subjects at Hopkins?

- Step 1: Is my project human subjects research?
- Step 2: What level of review is required and what must I submit to the IRB?

Step 1: Is my Project Human Subjects Research? [Common Rule]

Definition of Research

DHHS: defines **research** as a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge.

Definition of Human Subject

DHHS: *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.

New Definitions Implemented with Revised Common Rule

- **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.

- An **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.

Definitions must be examined within 1 year and every 4 years after that- A bit of a moving target!

Exempt Review Categories

1 EDUCATIONAL SETTINGS

Research, conducted in established or commonly accepted educational settings, that **specifically involves normal educational practices** that are not likely to adversely impact students' opportunity to learn required educational content or the assessment of educators who provide instruction.

2 PUBLIC OBSERVATION, SURVEYS, INTERVIEWS

Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) **if specific criteria is met.**

3 BENIGN BEHAVIORAL INTERVENTION

Research involving benign behavioral interventions in conjunction with the collection of information from an adult subject through verbal or written responses (including data entry) or audiovisual recording if the subject prospectively agrees to the intervention & information collection **and specific criteria is met.**

4 SECONDARY STUDIES

Secondary research for which consent is not required: Secondary research uses identifiable private information or identifiable biospecimens, **if specific criteria is met.**

5/6 5: DEMONSTRATION PROJECT 6: TASTE/FOOD QUALITY

5: Research and demonstration projects that are conducted or supported by a Federal department or agency, **Must meet specific criteria.**

6: Taste and food quality evaluation and consumer acceptance studies.

Note: *Exempt Categories 7 & 8 require broad consent and are not used at JHU.*

Categories of Research deemed to be minimal risk & eligible for initial Expedited Review:

1: APPROVED DRUGS/DEVICES

Clinical studies of drugs and medical devices only when condition (a) or (b) is met:
a) drugs for which an investigational new drug application (IND) is not required
b) medical devices for which (i) an investigational device exemption application (IDE) is not required or (ii) the medical device is approved and used according to its approved indication

2: BLOOD DRAW

Collection of blood samples by finger stick, heel stick, ear stick, or venipuncture as follows:
a) healthy, nonpregnant adults (</=100lbs) may not exceed 550ml in an 8wk. period & may not occur more than 2 times per wk. **or**
b) from other adults & children, the amount drawn may not exceed the lesser of 50ml or 3ml per kg in an 8wk period & collection may not occur more frequently than 2 times per week.

3: PROSPECTIVE COLLECTION OF BIOLOGICAL SAMPLES

Prospective collection of biological specimens for research purposes by **noninvasive** means.
Examples: hair/nail clippings, teeth from clinically indicated procedure, excreta including sweat, saliva, buccal/skin swabs

4: NON-INVASIVE PROCEDURES

Collection of data through noninvasive procedures (not involving general anesthesia or sedation) routinely employed in clinical practice, excluding procedures involving x-rays or microwaves.
Where medical devices are employed, they must be cleared/approved for marketing.

5: SECONDARY STUDIES

Research involving materials (data, documents, records, or specimens) that have been collected, or will be collected solely for non-research purposes (such as medical treatment or diagnosis).

6: RECORDINGS

Collection of data from voice, video, digital, or image recordings made for research purposes

7: FOCUS GROUPS, SURVEYS, INTERVIEWS

Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Convened IRB Review

- What does it mean?
  - Review and approval required by a convened IRB
  - Quorum must be present and must be approvable by a majority vote
  - One year of approval at a time
- What qualifies?
  - Greater than minimal risk research
  - Research that does not fall into one of the designated expedited categories

Potential IRB Determinations

- **Approve**
- **Approve with Administrative Changes**

[minor administrative changes needed- expedited review of response]

- **Tabled**- Substantive changes/clarifications relevant to regulatory determinations- requires re-review by the convened IRB
- **Disapproval**- may appeal

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CONSIDERATIONS FOR SHARING DATA & BIOSPECIMENS

Key Policies/Guidelines Related To Biospecimen/Data Management & Sharing

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Transferring Human Biospecimens to Outside Organizations *

Use of Johns Hopkins Medicine Data

Guidelines & Technical Requirements for Registries

Stratification of Re-identification Risk in Genomic Data

JHU IRB Expectations for Data Sharing *

Guidelines to External Sharing of JHM Data

Let the Principles Define the Process

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Key Approaches

Data/Specimens may be shared with external entities when there is a true **research collaboration**

- We are not a data/biospecimen store

Respect Autonomy especially in areas where choices may differ

Genomic Data Sharing
Sharing via Open Access
Sharing with commercial entities
General Research Use not at all connected to health

Enable broader use by building safe tools where data may be accessed/used

JHM Data Trust:
For projects involving Biospecimens & JHM Data

The Data Trust Council is responsible for overall governance of patient and member-related data, including development of policies to ensure the quality, accessibility and use of data for appropriate purposes.

The council will also oversee the process for those requesting data for research or operations. The council has several subcouncils that help it achieve its goals.

Christopher Chute (Co-Chair)
Chief Health Research Information Officer, Johns Hopkins Medicine
Stuart Ray (Co-Chair)
Vice Chair of Medicine for Data Integrity and Analytics, School of Medicine

The Data Trust Research Data Subcouncil now offers office hours the third Thursday of each month from 8:30 to 9:30 AM. Join the Data Trust Research Data Subcouncil MS Team to join the session and stay up to date on the latest Data Trust Research Data Subcouncil announcements.

https://intranet.insidehopkinsmedicine.org/data_trust/data-trust-organization/research-data-subcouncil.html

Biospecimen Transfer Review

- Johns Hopkins Medicine Policy: Transferring Human Biospecimens to Outside Organizations
- Office of Human Research Subjects' Guidance: Guidelines on Transferring Human Biospecimens to Outside Organizations

Definition of Human Biospecimen

- **Human Biospecimen**:
  - Tissue, blood product, serum, urine, saliva, DNA, and other biological materials or specimens. This includes cell lines, organoids, and PDX models derived from JHM human specimens.
  - Obtained as part of regular clinical care, or via clinical research where individuals have agreed to donate their specimens for a specific research purpose.

Human biospecimens obtained through clinical or research procedures at any JHM facility or by JHM researchers are the property of JHM and fall under the JHM Biospecimen Transfer policy.

Key Requirements of the Policy

- Research collaboration with the entity wishing to access JHM biospecimens.
- JHM researcher must detail the role of JHM in the design, research, analysis, and proposed publication plans.
- Once a BTC request is approved, an appropriate agreement, reflecting the terms of the approval, must be documented by designated JH office.

Exceptions to Policy

- Biospecimens contained in or transferred to NIH funded tissue bank;
- Biospecimens collected and transferred as part of CTA or prospective sponsored research agreement;
- Biospecimens are collected/transferred to service provider to perform requested services – data nor specimens retained by service provider.

Special Considerations: Consent

- Longitudinal studies involving collection of biospecimens – more than one version of consent is likely
  - Variations of consent may include conflicting language based on historical evolution of consent forms
- Re-consent may be required in order to share
- Clinical biospecimens where consent was never obtained makes it difficult to transfer those specimens for research

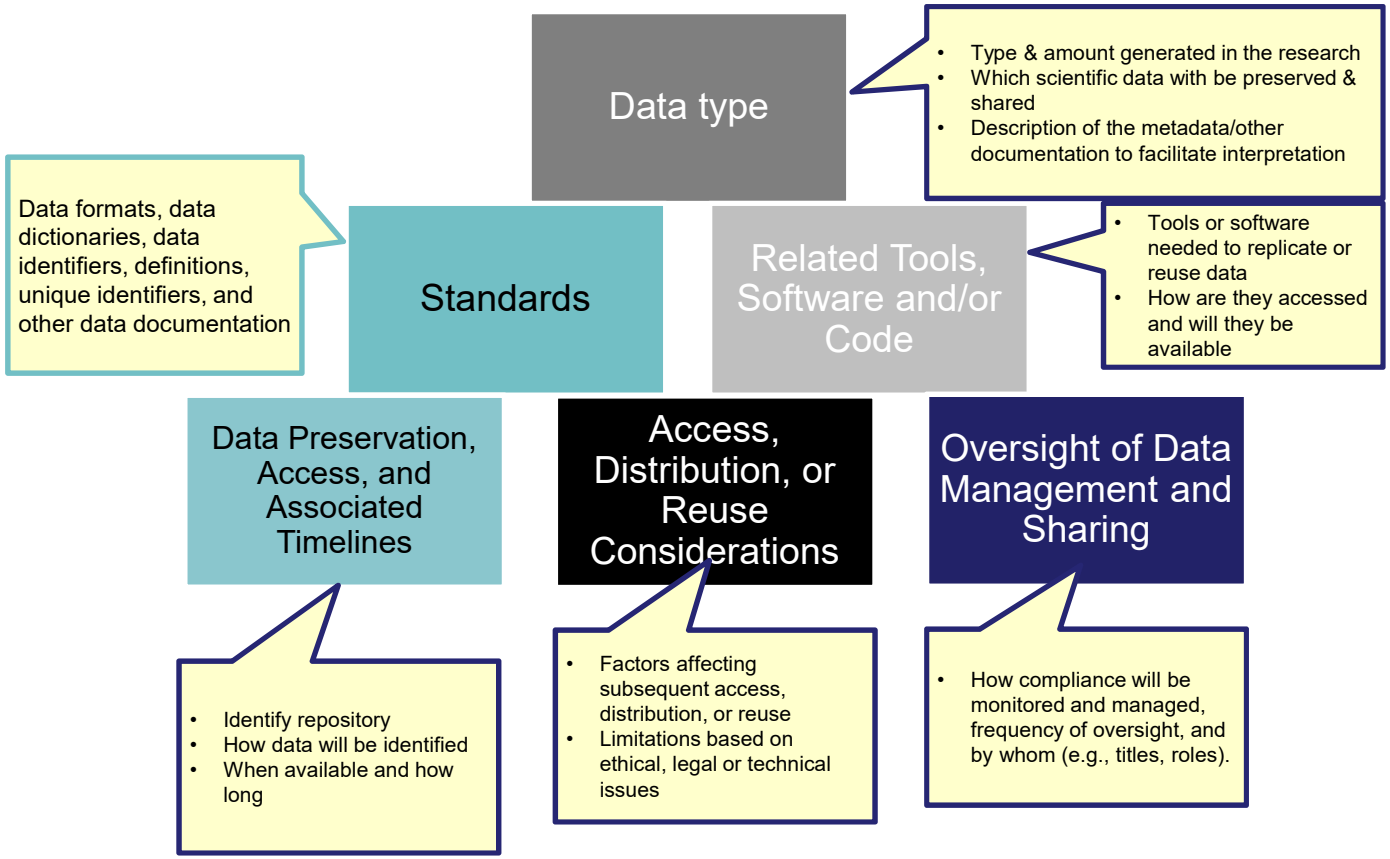
New Guidance on Umbrella Protocols

- In November 2023 new guidance was posted related to Umbrella Protocols
- Designed for studies that plan to share specimens frequently with multiple different entities
- Allows for each discrete plan for sharing to be submitted via a CIR using a specific scope of work (SOW) unique to that sharing
- SOW must align with any contractual agreement

NIH's New Data Management & Sharing Policy

- Effective **January 25, 2023 (date of receipt of grant application by NIH),**
- Applies to all research, funded or conducted in whole or in part by NIH, that results in the generation of **scientific data**.
- This includes all NIH-supported research regardless of funding level, including:
  - Extramural (grants)
  - Extramural (contracts)
  - Intramural research projects
  - Other funding agreements
- The DMS Policy does not apply to research and other activities that *do not* generate scientific data, for example: training, infrastructure development, and non-research activities.

6 DMS Plan Components



Data Management & Sharing Plans

Access, Distribution or Reuse Considerations

- Must describe any applicable factors affecting subsequent access, distribution, or reuse of scientific data including any **informed consent or privacy/confidentiality limiters**
- Whether access to scientific data derived from humans will be **controlled**
- Any **restrictions** imposed by laws, policies, or existing or anticipated agreements including licensing limitations
- Any other considerations that may limit the extent of data sharing.

IRB/HRPP Role

- Unlike prior data sharing policies (e.g. genomic data sharing) a process for institutional review and certification by the IRB is not required at the time the award is received.
- IRBs should consider consistency in data sharing plan with other study documents submitted for IRB review
  - IRB application
  - Protocol
  - Risk Tiers Calculator
  - Informed Consent Form

New eIRB Application Question-Section 9 (Support Information)

4.0 As of January 25, 2023, federal funding applications must include a data management and sharing plan. If this study is supported by federal funding applied for on or after January 25, 2023, please upload a copy of the data management and sharing plan, as included with your grant application. Please note, if your funding status is "pending", you will need to submit a change in research and upload this plan once funding has been secured.

If this research is federally funded, your protocol, consent form and section 36 of the eIRB application must be consistent with the data management and sharing plan.

Upload a copy of the Data Management and Sharing Plan:

*Click **Add** to upload a new document. Click **Update** to upload a revised version of the existing document. (Click **History** to see all uploaded versions of an existing document.)*

Add

Title	Date Modified	Version	Status
There are no items to display			

*****Data Management and Sharing Plan (DMSP) is not the same as the "Data Safety Monitoring Plan" covered in section 32 (Data Safety Monitoring Plan) or GWAS Genomic Data Sharing Plan.**

Prospective Studies: Align Consent with Plans for Sharing where Possible

- Informed Consent Template updated in 2019 to align with the Revised Common Rule. Consent Template included broader language related to data sharing
- The most recent version of the consent form template **is version 17 (March 2023)**

Excerpt:

Johns Hopkins researchers and their collaborators may use the data collected in this study for future research purposes and ***may share some of the data with others.***

Sharing data is part of research and may increase what we can learn from this study. Often, data sharing is required as a condition of funding or for publishing study results. It also is needed to allow other researchers to validate study findings and to come up with new ideas. ***Your data may be shared with researchers at Johns Hopkins and other institutions, for-profit companies, sponsors, government agencies, and other research partners. Your data may also be put in government or other databases/repositories****.*

Open Access

- Most consent language still does not contemplate "open sharing"
- Open Sharing (no controls) generally requires explicit consent

JHM IRB Combined Informed Consent/HIPAA Authorization Template (March 2023, Version 17):

JHU IRB Expectations for Data Sharing

Sharing Format	Consent	Other Considerations
Open Access	Explicit Consent for sharing via Open Access is obtained.	• Open Access sharing must be consistent with applicable laws, local approvals and governing agreements • Sharing must not pose greater than minimal risk to individual participants or communities/groups • The consent must specify the type of data and identifiability of the data to be shared
Controlled Access	Where Explicit Consent for sharing via Controlled Access is obtained	• Controlled Access sharing must be consistent with applicable laws, local approvals and governing agreements • Sharing must not pose greater than minimal risk to individual participants or communities/groups • Consent must specify the type of data and identifiability of the data to be shared • The level of controls required may vary based on the sensitivity of the data and likelihood of re-identification
	Consent obtained prior to January 25, 2023 without explicit sharing language, and does not prohibit sharing	• Sharing via controlled access must be consistent with any applicable laws, local approvals and governing agreements • Sharing must not pose greater than minimal risk to individual participants or communities/groups • The level of controls required may vary based on the sensitivity of the data and likelihood of re-identification • Only datasets without direct identifiers (limited data sets or de-identified data sets) may be shared
	Data obtained under an IRB approved waiver of consent,	• Sharing via controlled access must be consistent with any applicable laws, local approvals and governing agreements • Sharing must not pose greater than minimal risk to individual participants or communities/groups • The level of controls required may vary based on the sensitivity of the data and likelihood of re-identification • Only completely de-identified data sets as determined by an honest broker may be shared ** ** JHU IRBS may consider exceptions with exceptional controls, such as a secure enclave

Protected Health Information: 18 HIPAA Identifiers

- Names
- Geographic subdivision smaller than a state (e.g., address, county, zip code)
- Date(s) (except year) related to the individual (e.g., birthday, admission/discharge date, age if > 90)
- Telephone numbers
- Fax numbers
- Electronic mail addresses
- Social Security numbers
- Medical Records 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 Universal Resource Locators (URLs)
- Internet Protocol (IP) address numbers
- Biometric identifiers, including finger and voice prints
- Full face photographic images and any comparable images
- Any other unique identifying number, characteristic or code

Making sense of Identifiers!

Protections increase as the PHI becomes more identifiable

Identifiable

Limited Data Set

De-Identified

Requirements for Research with De-Identified Data

	Use	Disclosure
IRB/Privacy Board Requirements	Verify Data are De-Identified	Verify Data are De-Identified
Data Use Agreements	None	Generally JHU still requires some data sharing agreement

De-Identified

Requirements for De-identification

- Remove all 18 HIPAA identifiers
  - May include first three digits of zip code ((if population in the zip code > 20,000 people)
  - May include year (all those older than 89 must have data grouped)
- Covered entity must not have actual knowledge that the remaining information could be used alone or in combination with other information to identify an individual.

**Statistical de-identification is also permitted

Requirements for Research with Limited Data Sets

	Use	Disclosure
IRB/Privacy Board Requirements	Verify data qualifies as a limited data set	Require recipient has IRB approval
Data Use Agreements	None	Requires a Data Use Agreement For JHU collaborators who are study team members, DUA terms are built into the data protection attestation

Limited Data Set

Requirements for Limited Data Set

May Include:

- City, state, zip code,
- All elements of dates
- Other unique identifying numbers, characteristics code.

Requirements for Research with Identifiable Data

	Use	Disclosure
IRB/Privacy Board Requirements	Requires Authorization or Waiver	Requires Authorization or Waiver
Data Use Agreement	None	Data Sharing Agreement generally required by JHU

Identifiable

Identifiable Data

- Includes any elements of PHI that extend beyond those permitted as a limited data set

FACTORS TO CONSIDER WHEN SHARING DATA/BIOSPECIMENS IN THE ABSENCE OF CONSENT

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De-Identification	Controlled Access	Use limitations
Can the activity be accomplished without sharing?	What is the benefit of sharing?	Reduction of Risks to 3rd Parties
Re-Consent?	Is a consented source available?	

IRB Considerations

- Prospective consent offers the greatest flexibility
- Projects that intend to use data/samples collected under older consents have several considerations:
  - Did the consent(s) limit the sharing?
  - Is re-consent possible?
- Generally only de-identified data may be shared under a waiver of consent- Access must be controlled (vs. Open Access/Unrestricted Access)
- IRB will still consider the risks of the plan
  - Does the plan to share pose greater than minimal risk to individual participants or communities/groups?
  - Could it be minimized?
  - Are there additional laws/policies, etc. that must be considered based on the target population or data to be shared?
- Plans for sharing need to be approved by the IRB to assess if the consent permits the sharing or if a new waiver needs to be granted

JHM HRPP Tools

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Posted

- Expectations for sharing via open & controlled access
- FAQs for sharing of Human-Derived Data
- Template Language for Data Sharing via Open Access

How do I connect with the IRB?

- For eIRB Technical Assistance and Training Questions contact the eIRB Help Desk: jhmeirb@jhmi.edu
- The Office of Human Subjects Research is a fully remote office. OHSR team members may be reached via MS Team phone lines or MS Chat- See Contact List
- New Training Opportunities
  - IRB Office Hours: Features a new topic each month
  - IRB Basics

  **Sessions Qualify for PI recertification “in person” training requirement. Register in My Learning by searching for course title

JHM IRB Request a Consult Service

Need help navigating the IRB review process?
Use the QR code or visit the IRB website: https://www.hopkinsmedicine.org/institutional-review-board/about/contact to request a consult and be matched with IRB staff who will address your needs.

Sample topics we can help with:

- Protocol planning
- Determining IRB review type & forms
- IRB regulations and policies
- Recruitment & consent
- Responding to IRB review

Consult requests will receive a response within 24 hours – please reach out!