Session Overview and Report from the SACGHS Large Population Studies Task Force

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SACGHS Task Force on Large Population Studies

- Hunt Willard
- Sylvia Au
- Chira Chen
- Kevin FitzGerald
- Debra Leonard
- Julio Licinio
- Joseph Telfair
- Ellen Fox, DVA
- Alan Guttmacher, NIH
- Muin Khoury, CDC

Issue Description

- Large population studies are one approach to learning more about the relationship(s) among genes, the environment and common disease

- Goals of such studies include:
  - *Determining the mechanisms underlying common, complex disease*
  - *Targeting treatment and prevention strategies*
  - *Improving health*

Presentation and Session Overview

- Background
- Update on Relevant Recent Events
- Task Force Progress in Developing Report
- Discussion of Issues and Potential Approaches
- Develop Approaches and Recommendations

Background

- June 2003 – NIH requests SACGHS to weigh in on the value of an LPS
- March 2004 – SACGHS undertakes a priority setting process and determines that the issue of large population studies warrants *in-depth study*
- October 2004 – SACGHS forms the Large Population Studies Task Force to guide Committee work in this area

Background

- March 2005 – Day-long fact-finding session
  - Different scientific approaches to exploring relationships between genetic variation, the environment and common disease
  - Discussion of some of the scientific, logistical, ethical, legal, and social issues around such studies

Background

- June 2005 – SACGHS, with input from NIH Director, agrees to develop report to HHS Secretary that:
  - Identifies the key policy issues around a potential LPS in the U.S.;
  - Outlines approaches that could be used to address the identified issues; and
  - Makes recommendations about which mechanisms might work best to address the issues

Background

- October 2005 – Day-long consultation session
  - In-depth presentations from scientists, ethicists, and public engagement experts
    - Input on key policy issues and how to address them from members
    - Input on public engagement mechanisms and best practices

Background

- October 2005 Meeting Outcomes:
  - Identification of policy issues and possible mechanisms
  - Sufficient information to move forward with the drafting of a report
  - Reaffirmation that the public must be involved in all stages of the development, planning, and conduct of any such study

October 2005 Meeting (cont.)

- *Despite* the study's challenges, members expressed initial enthusiasm for the study concept because of its potential to generate significant health benefits; but…
- *Because* of the study's challenges, members recognized need for in-depth analysis before final decision
- Endeavor to complete a draft report with framework for analysis in time for discussion in March 2006

October 2005 Meeting (cont.)

- NIH requested a sense of the Committee about whether it should proceed with public engagement efforts
  - SACGHS noted its Secretarial advisory role and indicated that, given the importance of public engagement, it would not wish to inhibit NIH in moving forward

Recent Developments

- Gene and Environment Initiative (GEI)
- Genetic Association Information Network (GAIN)
- National Children's Study
- NHGRI Plan to Seek Public Input
- VA's Genomic Medicine Program Advisory Committee

LPS Task Force Draft Report Charge

- Step 1
  - Delineate the policy issues/questions that policy makers need to address
    - *Outlined in draft report*

LPS Task Force Draft Report Charge

- Step 2
  - Explore the ways in which, or processes by which, these questions that are can be addressed, including any intermediate research studies, pilot projects or policy analysis efforts needed
    - *To be discussed today*

LPS Task Force Draft Report Charge

- Step 3
  - Determine which approaches are optimal from a substantive and feasibility standpoint and recommend a specific course of action for moving forward
    - *To be discussed today*

Draft Report Scientific Background

- Methods for Identifying the Genetic Basis of Disease
- Biobanks and Large Population Studies
- Overview of Hypothetical U.S. Large Population Cohort Study of Genes, Environment and Health

Key Points and Policy Issues Identified by the LPS Task Force

- Need for Public Engagement
- Research Policy Considerations
- Research Logistics
- Regulatory and Ethical Considerations
- Public Health Implications of Research Results
- Social Implications of Research Results

Why Public Engagement Matters

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.

Why Public Engagement Matters

- Cost is unprecedented, particularly in light of competing priorities
- Scale of study and number of people to be enrolled and exposed to study's risks and potential benefits
- Duration of study
- Potential significance and social implications of study findings

Engaging the Public

- What level?
  - ‘GO’ or ‘NO GO’?
  - study design and planning
  - study initiation
  - throughout all phases of the study
- Who’s “the Public”?
  - Lay public? Scientists? Elected leaders?

Engaging the Public

- When?
  - right away
  - when decision about the study is made
  - after study design and planning have been completed
- What questions should the public be asked?
- Which subgroups of the public should be engaged?

Key Policy Topic I:
Research Policy Considerations

- What is the need for such a study?
- What is its value and cost?
- What would be the effect of funding the project on other areas of research or programs?
- Can existing studies achieve the same goals?

Research Policy Considerations

- Should there be collaboration with other countries conducting similar studies?
- Which agencies should be involved? Which agency should take the lead?
- What should be the role of the private sector?
- What intellectual property policies should govern the study?

Research Policy Considerations

- Given that the long-term cost required to mount a large population study will be significant if not unprecedented, will it be possible to sustain public, scientific and political support for such an investment?

Research Policy Considerations Issues in Report

- Need for and Value of Such a Study
  - Arguments For/Against a Large Population Study
  - Arguments in Favor of Pooling Existing Cohort Studies and Biobanks
  - Arguments in Favor of a Combination of Approaches
  - Arguments Questioning the Value of a Study

Research Policy Considerations Issues in Report

- Cost and Effects on Other Areas of Science
- Capacity to Conduct Interdisciplinary Science
- Need for Partnerships
- Intellectual Property Concerns and Access

Key Policy Topic II:
Research Logistics

- How will representativeness be defined and achieved?
- Given that the study's benefits to participants may only be indirect, will it be difficult to recruit a broad range of study participants?
- What are the ramifications of using racial or ethnic categories?
- Will the uninsured or underserved be part of the study, and if so, how will they be recruited?

Research Logistics

- How will non-genetic study variables be defined and studied?
- Will the lack of uniform methods for collecting, storing and centralizing clinical health information make a study on this scale difficult/impossible to implement?
- Will new technologies be required to collect the necessary range of environmental data?

Research Logistics Issues in Report

- Enrollment Criteria and Recruitment of Racial/Ethnic Groups
  - *Race, ethnicity, and sex*
  - *Recruiting*
- Measuring Differences in the Population
- Coordination across Multiple Institutions and Healthcare System

Key Policy Topic III:
Regulatory and Ethical Considerations

- What are the regulatory requirements for the research and how will they be met?
- Are there unique informed consent considerations?
- Will the study provide health care to its uninsured participants? If so, at what additional cost? And, what will be provided?
- If children or adolescents are to be enrolled, what additional protections must be considered?

Regulatory and Ethical Considerations

- Who will have access to study data, under what circumstances, and how?
- Will the study require special arrangements or practices to enable participants to control how their samples and data are used?
- Will the study be able to accommodate participants' expectations regarding the confidentiality of their data?

Regulatory and Ethical Considerations

- Will additional privacy protections be necessary?
- How and for how long will research data and samples be stored?
- Will study results be returned to participants and what criteria will be used to determine when it is appropriate to return results?

Regulatory and Ethical Considerations

- What Federal laws and regulations will need to be considered in deciding whether to return (or withhold) results to participants and/or their family members?
- How will the study handle results that could be relevant to family members who are not participating in the study?

Regulatory and Ethical Considerations Issues in Report

- IRB Review
- Informed Consent
  - Lack of Public Understanding about the Study
  - Level of Prospective Subjects' Understanding of Study

Regulatory and Ethical Considerations Issues in Report

- Providing Care and the Therapeutic Misconception
- Privacy and Confidentiality
- Control of Samples and Data
- Returning Research Results

Key Policy Topic IV:
Public Health Implications

- Will the study's statistical genetic associations (or gene-environment associations) be robust enough to lead to new therapeutic or preventive strategies that are evidence-based?
- Will such a study widen the gap between what can be diagnosed (or predicted) and what can be treated (or prevented)?
- Will data gathered at the broad population level be applicable to all communities and groups?

Public Health Implications

- How will study results, which may magnify the complexity of population risk assessment, be implemented by regulatory health and safety agencies?
- Do regulatory agencies, local public health departments, and healthcare providers have sufficient resources to translate the knowledge that such a study will generate?

Key Policy Topic V:
Social Implications

- Could such a study create or change the ways we currently think about health disparities?
- Could the findings exacerbate existing vulnerabilities such as age, race, and disability?
- If the study findings result in new vulnerable populations, will there be sufficient social and public health resources available to respond?

Social Implications

- If the study generates clinically useful knowledge, will it largely benefit only those with access to the health care system?
- Can the study results be realized in a decentralized and fragmented health care system?
- Could the findings from such a study exacerbate racial discrimination and group stigmatization?

Social Implications

- What are the views of minority communities about the study's implications?
- Will the study pose or increase risks of genetic discrimination?
- Could study findings lead to simplistic and reductionist explanations of the role of genetics in disease?

Social Implications
Issues in Report

- Elucidating and/or Exacerbating Health Disparities
- The Risks of Genetic Determinism
- Developing Reasonable Social and Policy Responses to Research Findings

Goals of Today's Session

- Review and discuss identified policy issues for relevance and completeness, and determine whether they should be prioritized
- Discuss approaches for addressing policy issues and develop additional options
- Discuss and reach consensus on which approaches and public engagement mechanisms to recommend

Possible Public Engagement Mechanisms

- To address the fundamental conceptual question:
  - National survey
  - State referendums
  - Seek explicit Congressional support and funding
  - Town Meetings
  - Focus Groups
  - On-line collaborations

Possible Public Engagement Mechanisms

- To address operational questions regarding design, planning, conduct, follow up, reporting
  - Town Meetings
  - Focus Groups
  - On-line collaborations

Conceptualization

SACGHS (2006)

Concept (2004)

NIH Design Considerations (2005)

Consultation

Public Consultation

Protocol Development

Education and Training

Centralized Database Development

Pilot

Recruit 25,000 individuals from 10 sites

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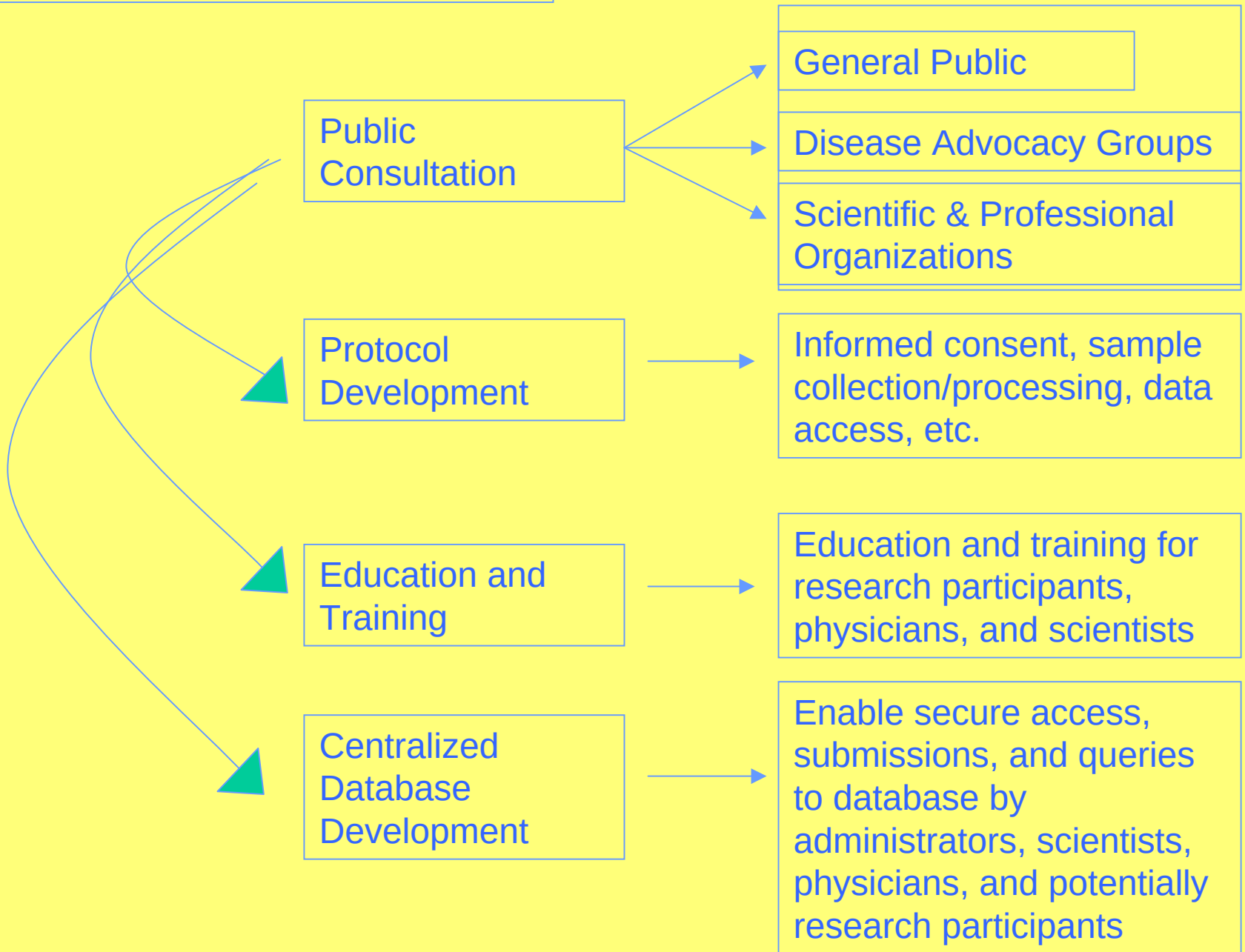
Consultation Stage



Public Consultation – goals include raising awareness, education, obtaining feedback, and establishing on-going relationship (should not be a one-time contact)

Need to be prepared to act on feedback and if necessary, revise study goals or design and initiate second round of consultations

Discussion Session

Possible Approaches
Research Policies

- The HHS Secretary, in consultation with the NIH Director, could ensure that there are opportunities and fora for the broader scientific community to discuss the commitment of resources to such a project, including whether there are benefits to leveraging existing efforts.

Possible Approaches
Research Policies

- Given the multidisciplinary nature of the study and its potential scope, the Secretary may wish to establish a highly collaborative model of project leadership and management.

Possible Approaches
Research Policies

- The Secretary could consult with the international community and the private sector to explore opportunities for collaboration.

Possible Approaches
Research Policies

- In embarking on such a large-scale initiative, the Secretary, in consultation with the HHS Directors, other agencies, and appropriate congressional committees, should ensure that there is widespread support for sustaining a long-term and stable investment.

Possible Approaches
Research Logistics

- The Secretary could consult with the scientific community to develop clear and consistent definitions and parameters for stratifying the projected sample population.

- The Secretary could seek public input on the developing the best approaches for fairly and justly identifying subpopulations for recruitment, as well as issues to be considered in approaching and enrolling various subpopulations.

Possible Approaches
Research Logistics

- The Secretary could consult with healthcare providers to develop uniform and secure approaches for collecting, storing, tracking, and centralizing clinical information to be gathered over the course of the study.

Possible Approaches
Regulatory and Ethical Considerations

- The Secretary, in consultation with the NIH Director, could convene a working group of representatives from AHRQ, CDC, FDA, OHRP, HRSA, CMS, OCR, DVA and other relevant federal agencies to develop a set of recommended best practices and standard operating procedures to ensure that all research sites are aware of and implementing the regulations established to protect research subjects, medical privacy, and patient safety. Public input on the policies and procedures could be sought.

Possible Approaches
Regulatory and Ethical Considerations

- Project leadership could systematically seek the input of study subjects regarding their experiences, their concerns, and their recommendations for enhancing protections.

Possible Approaches
Public Health Implications

- The Secretary and project leadership could systematically and regularly disseminate study findings as they emerge with clear descriptions of the possible clinical implications of the results, the limitations of the data, the generalizability of the data, and the public health implications. This information could be made widely available with concerted efforts to reach the public health and healthcare communities.

Possible Approaches
Public Health Implications

- To support the above effort, project leadership could be convened on a regular basis to review research results. As appropriate, given the status of findings, opportunities for public engagement could be provided.

Possible Approach
Social Implications

- The Secretary, in consultation with project leadership, could establish an independent standing committee for the duration of the project, charged with periodically assessing the social implications of the project. The committee could consist of individuals with expertise in science, medicine, law, ethics, and patient and community advocacy. The committee could routinely seek public input on the implications of the research.

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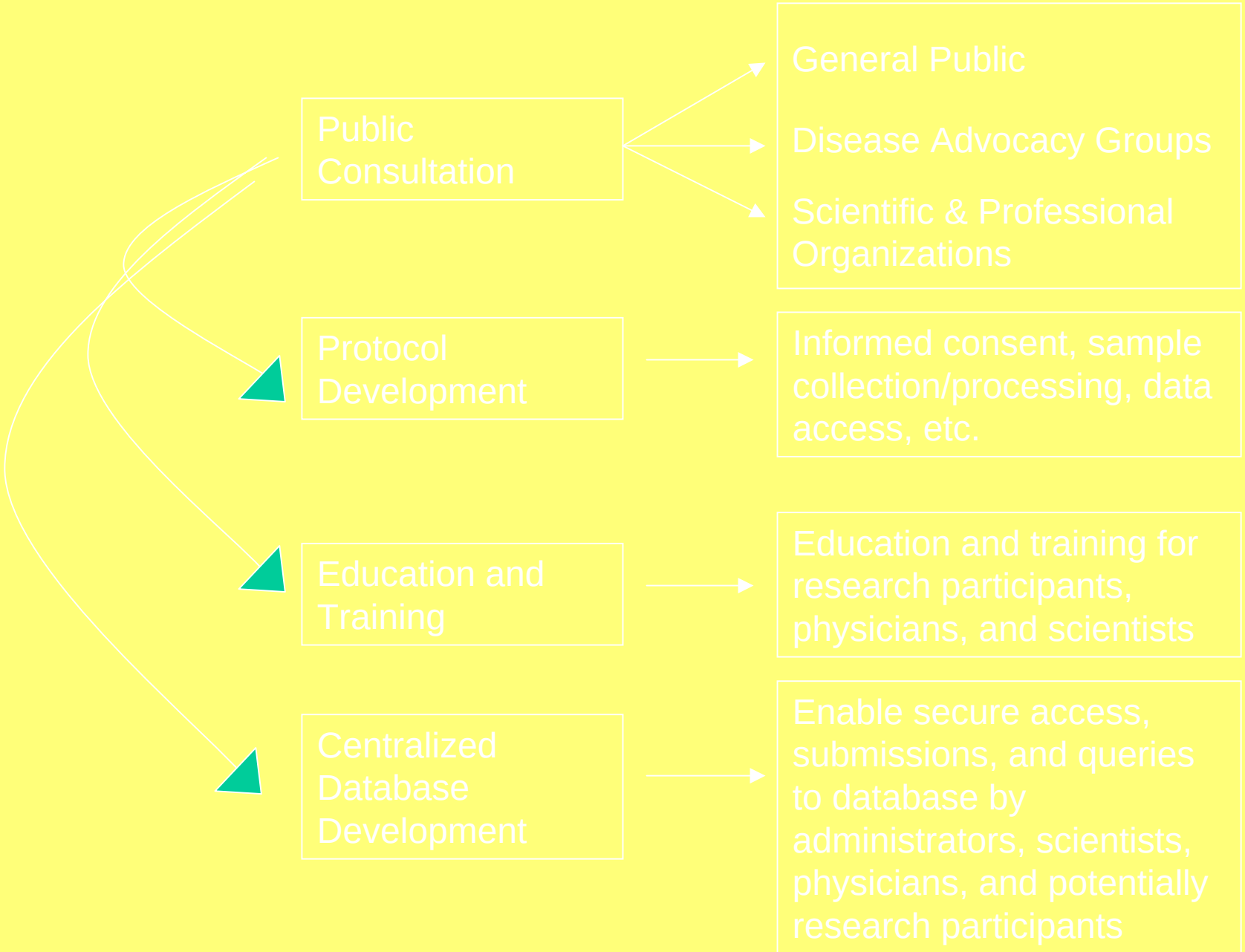
KICK-OFF

Consultation Stage



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