### Ethics in Epidemiology

E2040

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### Tuskegee Syphilis Study (1932-1972)

- To observe the effect of untreated syphilis
- 600 poor African Americans enrolled (399 cases, 201 controls)
  - Never informed about the purpose of the study
  - Deception "treated for bad blood"
- No treatment offered (penicillin available since 1943)
- 1972: study was stopped after media coverage
  - 28 died directly from s., 100 from complications due to s.
  - 40 wives infected with s., 19 children born with s.



### The Belmont Report (1978)

- Reaction to ethical problems in research, especially the Tuskegee Study
- It defined basic ethical principles and guidelines for human subject research

### Declaration of Helsinki (1964)

- Developed by World Medical Association
- Revised 7 times since
- Ethical principles for medical research involving human subjects
- Respect for individual, their right of self-determination, their right to make informed decisions, their welfare

# Basic ethical principles by the BR

- 1. Respect for persons
  - Autonomy of individuals should be respected
  - Extra protection for children, people with illness or mental disability
- 2. Beneficence
  - Protecting subjects from harm
  - Maximizing possible benefits and minimizing possible harms
- 3. Justice
  - Fair treatment and fair distribution of risk and benefits of research



#### Informed consent

Necessary part of every study with human subjects

- 1. Information ensure that all information is provided to participants
- 2. Comprehension ensure that participants can fully understand the information
- 3. Voluntariness ensure that participation is voluntary

## Institutional Review Board (IRB) or Ethics Committee

- Every research institution needs to have a board for evaluating research with regards to ethics
- Every study needs to be approved by the committee before conducted
- The submission to IRB/EC needs to describe the study, the benefits and risks for participants, how informed consent is obtained, what steps are taken to protect subjects from harm etc.



### Research ethics more broadly

- 1. Conducting research
  - Respect, Beneficence, Justice
  - Confidentiality and Privacy
- 2. Research integrity
  - Data accuracy
  - No fabrication or falsification of data
  - Transparent reporting of results
  - Avoiding bias
- 3. Ethics in Publishing
  - Authorship
  - Conflict of Interst
  - Plagiarism
  - Peer review