## Department of Epidemiology School of Public Health University of North Carolina

EPID 160

## Principles of Epidemiology

Fall, 1967

# Outline of Research Requirements for Scientific Public Health Practice

#### Research Requirement:

Applied to Scientific Public Health Practice

- 1. The perception of a meaningful problem and its statement in precise operational terms
- Statement of the objective of the program in operational terms. (Differentiate statement of objective from statement of procedures). Requires answers to question:

What do we wish to accomplish and how will we know whether we have attained this goal.

### Necessitates knowledge of:

- a) Extent of problem and indices to measure this by
- b) Sorts of people at highest risk
- 2. Nature of the Conceptual Frame

  a) What do we believe has to be changed in order to accomplish our objective?
  - b) What procedures or techniques can we employ to accomplish these changes
- 3. What variables need to be studied
- Leads provided by answers to above questions
- 4. Collection tabulation and analysis of data.
- Initiation and development of the program. Methodical recording of data in a standardized fachion.
- 5. Interpretation of results
- a) Have the changes postulated by the conceptual scheme as being necessary for our objective been brought about? (An indicator of the efficiency of our techniques)
- b) If yes, has our original objective been attained? (An indicator of the validity of the conceptual scheme.)
- c) Are any of the changes that have occurred a result of our efforts? (Need for control areas or "Natural experiments").