

# Social Epidemiology

Yvonne L. Michael, ScD  
Department of Public Health and  
Preventive Medicine

OHSU

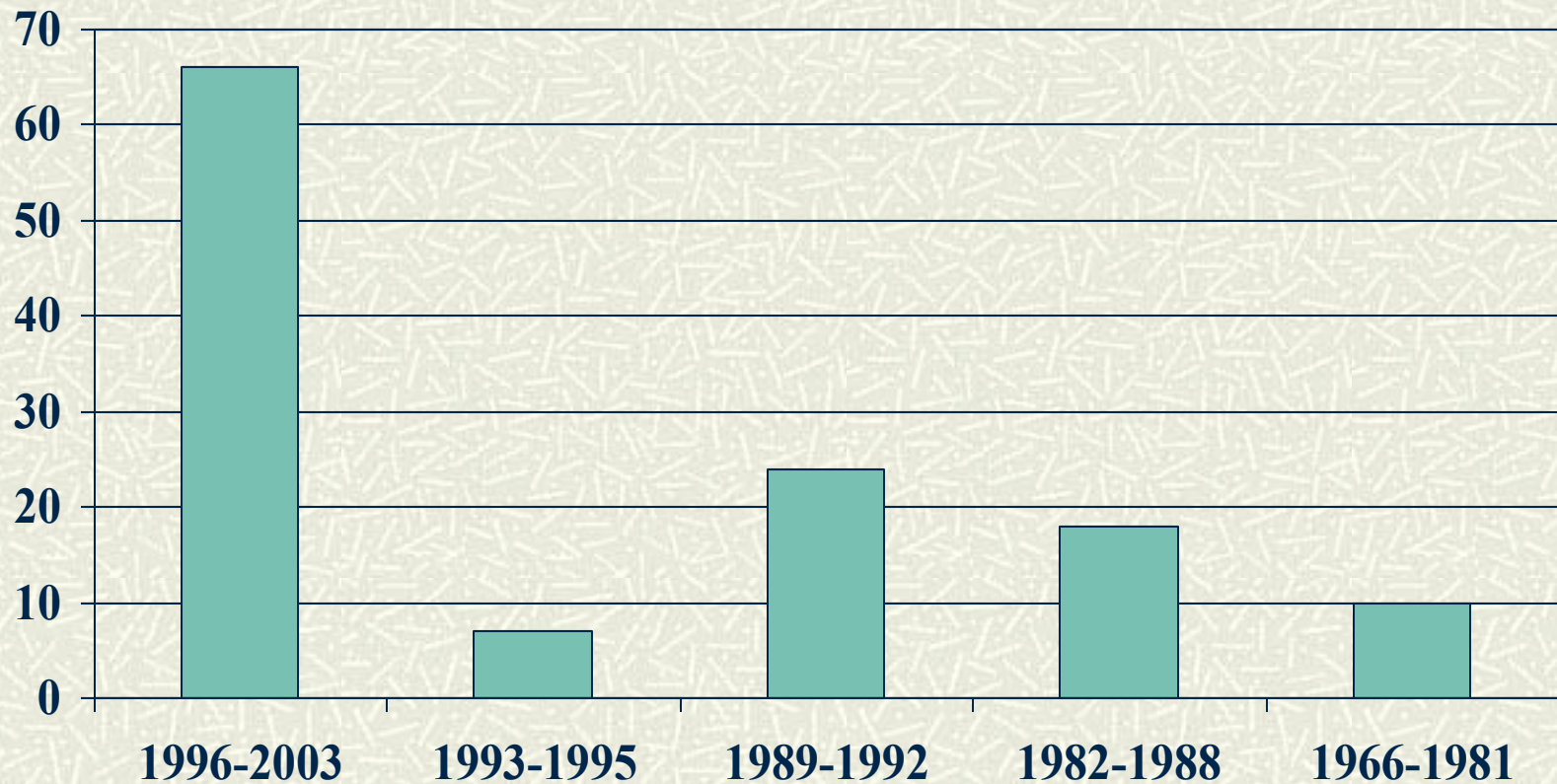


# Social Epidemiology

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- # The study of “the social distribution and social determinants of states of health.”
    - Identify socioenvironmental exposures that may be related to broad range of physical and mental health outcomes.
  - # “...the vast majority of diseases and other health outcomes such as functional status, disability, and well-being are affected by the social world surrounding us all...”
    - (Berkman and Kawachi, 2000)
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# Social Epidemiology Publications



Search conducted in Medline using "Social Epidemiology" as key word (5-Dec-03)

# A Useful Sub-discipline?

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- # Public health involves understanding societal, social and psychological processes
  - # Multidisciplinary training necessary for broad understanding of population health
    - True integration of biomedical and social/behavioral disciplines
  - # Scientific progress in identifying social gradient as well as mechanisms
    - International Journal of Epidemiology 2001;30:43-50.
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# Socioeconomic Gradients in Health

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- # Social class differences in health
    - Exist as a gradient rather than poverty threshold
    - Related to social distribution of wealth
  - # Fundamental Social Causes approach
    - People who have resources (knowledge, money, prestige) gain health advantage
      - Influence individual health behaviors
      - Shape access to broad contexts (neighborhoods, occupations, social networks)
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# Average Annual Mortality, 1817-1821, Paris

Arrondissement	% untaxed rents	Mortality proportion	Rate per 100,000
2	7	1 in 62	1612.9
3	11	1 in 60	1666.7
1	11	1 in 60	1724.1
4	15	1 in 58	1960.8
11	19	1 in 51	1851.8
6	21	1 in 54	1785.7
5	22	1 in 53	1923.1
7	22	1 in 52	2000.0
10	23	1 in 50	2272.7
9	31	1 in 44	2325.6
8	32	1 in 43	2325.6
12	38	1 in 43	2325.6

Table adapted from Krieger, 2001 (Villermé, 1826)

# Important Psychosocial Risk Factors for Health

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- # Psychosocial factors patterned by socioeconomic position and race/ethnicity
    - Social relationships and support
    - Chronic stress in work and life
    - Acute or event-based-based stress
    - Psychological dispositions
      - Anger/hostility, lack of self-efficacy/control, negative affect
        - House (2002) journal of health and social behavior
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# Methodological and Conceptual Challenges

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- # Study design
  - # Measurement of exposure/risk factors
  - # Data analysis strategies
  - # Etiological theory about how exposure affects outcomes
    - Kasl and Jones (2002) International Journal of Epidemiology
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# Study Design

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- # Ambiguity about mechanism of social risk factors in disease causation
  - # Research design needs to utilize a “disease development paradigm”
    - Determine transition points affected by social variable
    - Disentangle causal priorities
  - # “Doubly” prospective design
    - Study the causes of the causes
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# Measurement of Exposures

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- # Objective v. subjective measures
  - # Inconsistent operationalization of constructs
  - # Psychosocial exposures often “reactive”
    - Length of exposure may lose meaning
    - Cohort follow-up starts at beginning of exposure
    - Post-baseline monitoring for exposure-linked changes in behaviors, attitudes, perceptions
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# Data Analysis Strategies

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- # “Risk factor epidemiology in its pure form exploits neither the depth and precision of micro-levels nor the breadth and compass of macro-levels.” (Susser, 1998)
    - Contextual analysis undermined by ecologic fallacy
  - # Multilevel analysis provides opportunity to combine individual-level data with contextual effects
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# Theory in Social Epidemiology

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## # Psychosocial

- Endogenous biological responses to interaction

## # Social production of disease/political economy of health

- Economic and political determinants

## # Ecosocial theory and related multi-level frameworks

- Integrate social and biological reasoning

- Krieger (2001) International Journal of Epidemiology
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