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MAJOR DEPRESSION IN THE POPULATION: A PUBLIC HEALTH APPROACH

William W. Eaton, PhD, Johns Hopkins University, 2013

Protecting Health, Saving Lives—*Millions at a Time*

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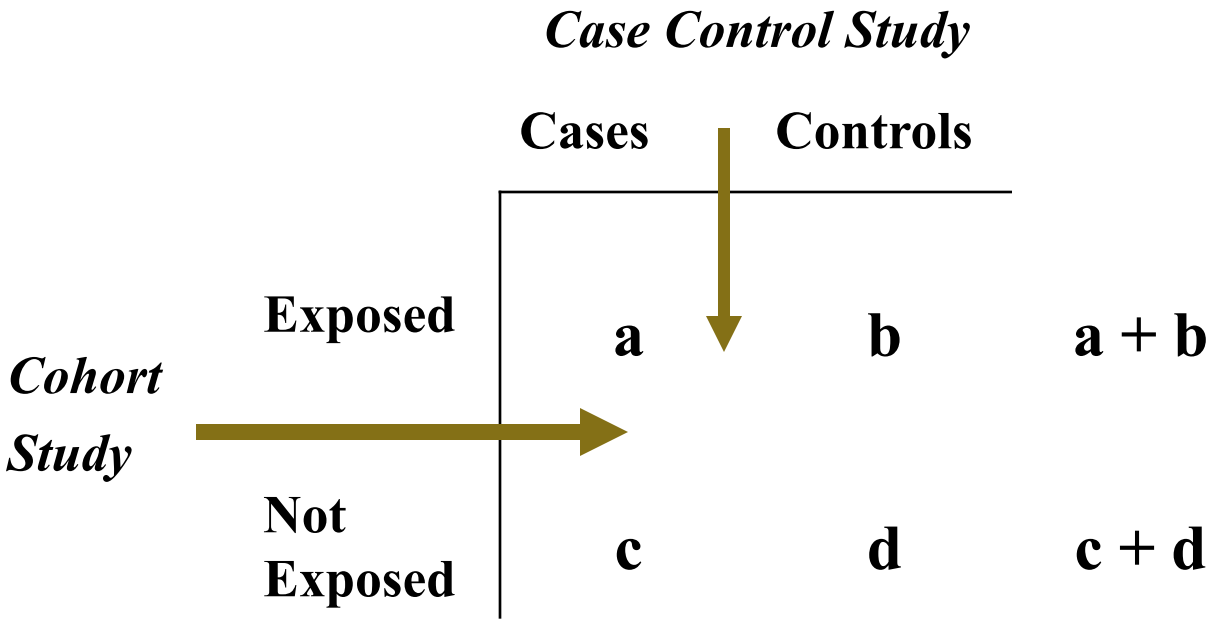
Section C: Cohort Studies

Protecting Health, Saving Lives—*Millions at a Time*

Case Control and Cohort Studies



Relative Risk: $\frac{a/(a+b)}{c/(c+d)}$

Relative Odds: $\frac{a/b}{c/d}$

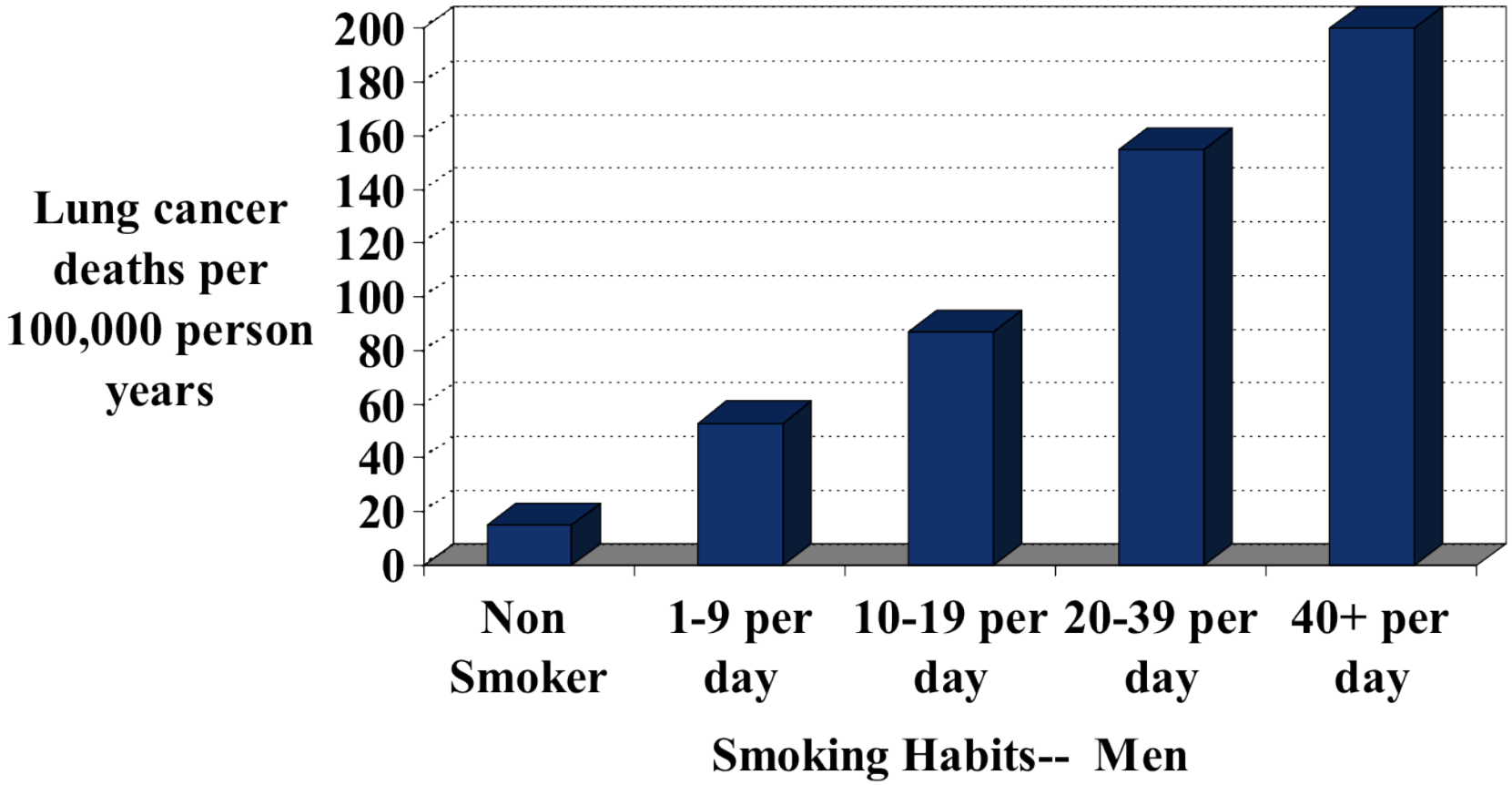
Cohort studies look forward; Case control studies look backward

Exemplar Cohort Study: Smoking and Lung Cancer

- 68,116 volunteers enrolled families
- Volunteers as family informants
- 1,045,087 persons
- Self-report questionnaires
- Annual followups
- 27,513 not traced
- Death certificates for 46,212 deaths
- 1959-1962

Hammond 1966 in Lilienfeld and Stolley, 1994

Cohort Study of Smoking & Lung Cancer



Hammond 1966 in Lilienfeld and Stolley, 1994

New York Cohort Study: Miscarriages and Community Controls

Followed for six months after miscarriage

(frequency matched on age, education, language, season)

	Major Depression	No Major Depression	Total	Cumulative Incidence	Odds
Miscarriage Exposed	25	204	229	10.9%	0.122
Community Not Exposed	10	220	230	4.3%	0.045
	35	524	559	6.3%	

Relative Risk: (25/229)/(10/230) = 2.51

Relative Odds: (25/204)/(10/220) = CPR = (25*220)/(10*204) = 2.71

Neugebauer et al, JAMA, 1997

Strengths & Weaknesses of the Cohort Study

- Strengths
  - No recall bias
  - Estimates incidence
  - Estimates Relative Risk
- Weaknesses
  - Expensive
  - Many controls
  - Long time
  - Attrition bias