



JOHNS HOPKINS

BLOOMBERG SCHOOL of PUBLIC HEALTH

MAJOR DEPRESSION IN THE POPULATION: A PUBLIC HEALTH APPROACH

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Protecting Health, Saving Lives—Millions at a Time

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Section D: Case Control Studies













Exemplar Case Control Study

Wynder and Graham, 1950 **Smoking and Lung Cancer**

	Lung Cancer (Cases)	No Lung Cancer (Controls)
Smoker (moderate to chain) Exposed	583	576
Non or Light Smoker Not Exposed	22	204

Relative Odds: 583/576 (OR: ad/bc = 583*204/576*22) = 9.4

22/204



Exemplar Case Control Study Life events associated with onset of Depression

Number and Percent with severe events prior to onset

	Cases	Controls
One or more severe events	52 (68%)	76 (20%)
No severe events	24 (32%)	306 (80%)
Number of persons	76 (100%)	382 (100%)

Relative Odds: 52/76 = 8.7224/306



Strengths & Weaknesses of the Case Control Study

Strengths

- Requires no hypothesis
- Cases can come from clinics
- Small number of controls

Weaknesses

- Biased recall (strength)
- Temporality
- Controls may not match cases (consistency)

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