



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 B: Time, Space, and Disease: The Ecological Approach



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

Time, Space, and Disease: John Snow *On the Mode of Communication of Cholera* London, 1855

The most terrible outbreak of cholera which ever occurred in this kingdom, is probably that which took place in Broad Street, Golden Square, and adjoining streets, a few weeks ago. Within two hundred and fifty yards of the spot where the Cambridge Street joins Broad Street, there were upwards of five hundred fatal attacks of cholera in ten days. The mortality in this limited area probably equals any that was ever caused in this country, even by the plague; and it was much more sudden, as the greater number of cases terminated in a few hours.....





CHOLERA.

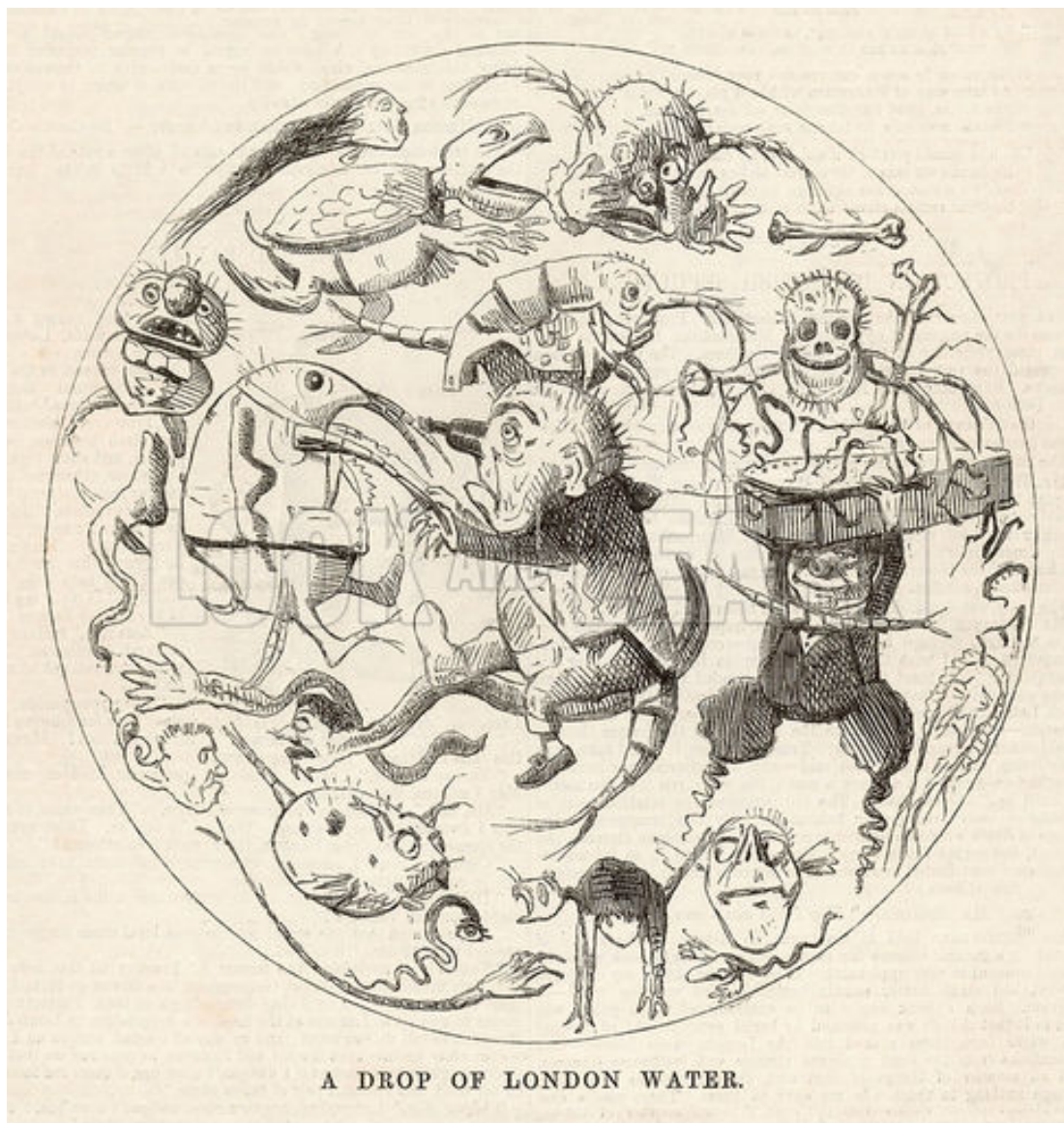
**THE
DUDLEY BOARD OF HEALTH,
HEREBY GIVE NOTICE, THAT IN CONSEQUENCE OF THE
*Church-yards at Dudley***

Being so full, no one who has died of the
CHOLERA will be permitted to be buried
after **SUNDAY** next, (To-morrow) in either
of the Burial Grounds of *St. Thomas's*, or
St. Edmund's, in this Town.

All Persons who die from **CHOLERA**, must for the future
be buried in the Church-yard at Nethertor

BOARD of HEALTH, DUDLEY.

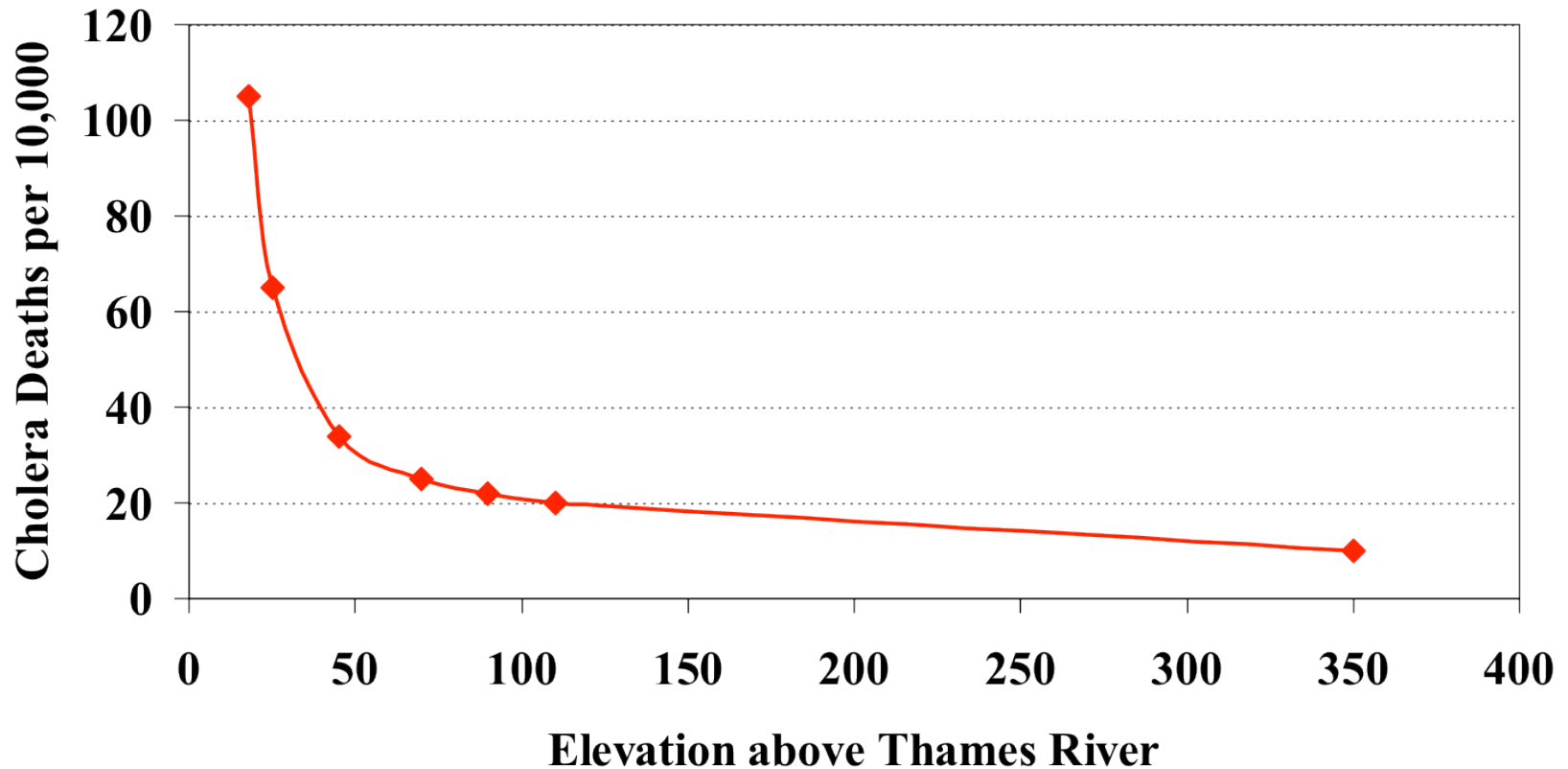




A DROP OF LONDON WATER.



The Miasma Theory of Cholera



Langmuir, A.D., Epidemiology of airborne infection. Bacteriol Rev, 1961.





John Snow, *On the Mode of Communication of Cholera*, London, 1855; adapted from reproduction in Tufte, *Visual Explanations*, 1997.



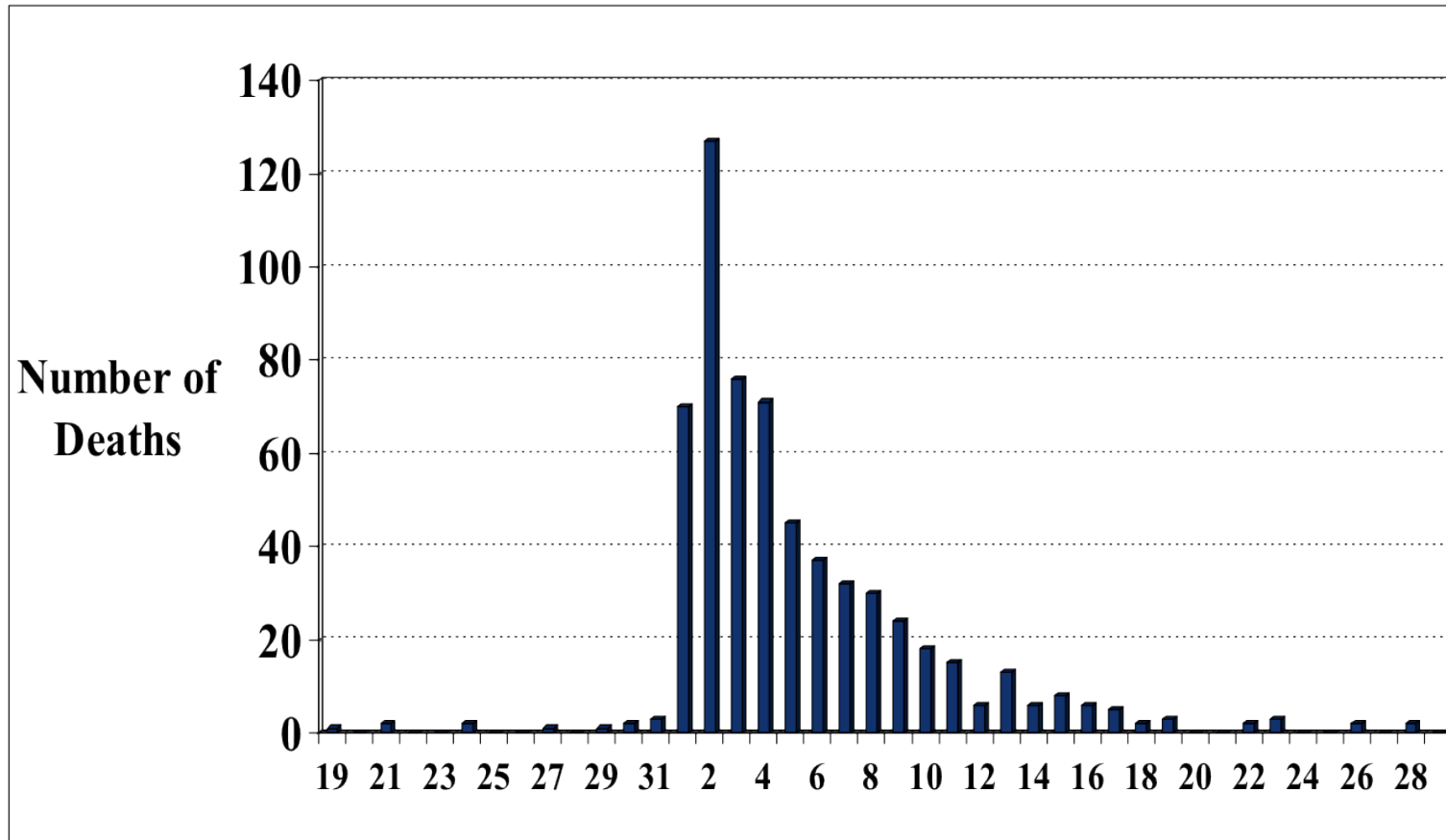
Cholera Deaths by District and Water Supply: Ecological approach

Water Supply Company	Number of districts	Population in 1851	Cholera Deaths per 100,000
Southwark & Vauxhall	12	167,654	114
Lambeth	3	14632	0
Both	16	301,149	60

From Snow on Cholera.



Deaths from London Cholera Epidemic August and September, 1854



Redrawn from Tufte, Visual Explanation, 1997.



Exceptions

- Brewery
- Workhouse
- Residence versus work– cabinetmaker
- Two schoolgirls at school in Dufour's place, Broad Street
- 59 year old widow on the west end, who preferred water from a cart which passed daily and which took water from Broad Street;
- and her niece, who visited her on August 31.



Ecological Approach: Depression & Inequality in States

Figure 1

Income inequality and prevalence of current depression across 45 states^a

