



The Effect of Nutritional Status on Historical Infectious Disease Morbidity: Evidence from the London Foundling Hospital, 1892-1919

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Motivation

- Debate about the importance of nutrition for disease in the past
 - McKeown et al. (1975) argue that improving nutrition explains most of the mortality decline during the health transition
 - Spread of disease due to malnutrition important for explanations of famine mortality
- Difficult to understand the significance of this relationship
 - Not all diseases are nutrition sensitive
 - Imprecise measure of malnutrition in history
 - Confounding factors
 - Extrapolating from modern medical studies is difficult

Data and Method

- London Foundling Hospital Cohort Study (1892-1919)
 - Selective orphanage caring for illegitimate children
 - Detailed information about their health
 - Weight in infancy
 - Height and weight at age 5
 - Sickness incidence and mortality ages 0-5
 - Sickness incidence and duration ages 5-15
- Method
 - Use movement across life stages to eliminate confounding bias and estimate causal effect of nutrition on disease
 - Focus on five infectious diseases: measles, mumps, rubella, chickenpox and whooping cough



Foundling Girls at Prayer in the Chapel
Sophie Gengembre Anderson (c. 1877)

Results and Implications

- Results

- Low nutritional status did not affect the propensity to contract disease
- Low nutritional status did affect the following:
 - Case fatality rates from measles
 - Sickness duration from measles and mumps
 - Complications arising from measles
- No affect of nutritional status on whooping cough case fatality, incidence or duration

- Implications

- Complicates our understanding of declining mortality from measles and whooping cough in the 19th and 20th centuries
- Compromised immunity unlikely to cause spread of these diseases during famines

Full version of the paper: <https://www.lse.ac.uk/Economic-History/Assets/Documents/WorkingPapers/Economic-History/2020/WP328.pdf>