



The association between breastfeeding and respiratory illness in 9- month old infants in Ireland

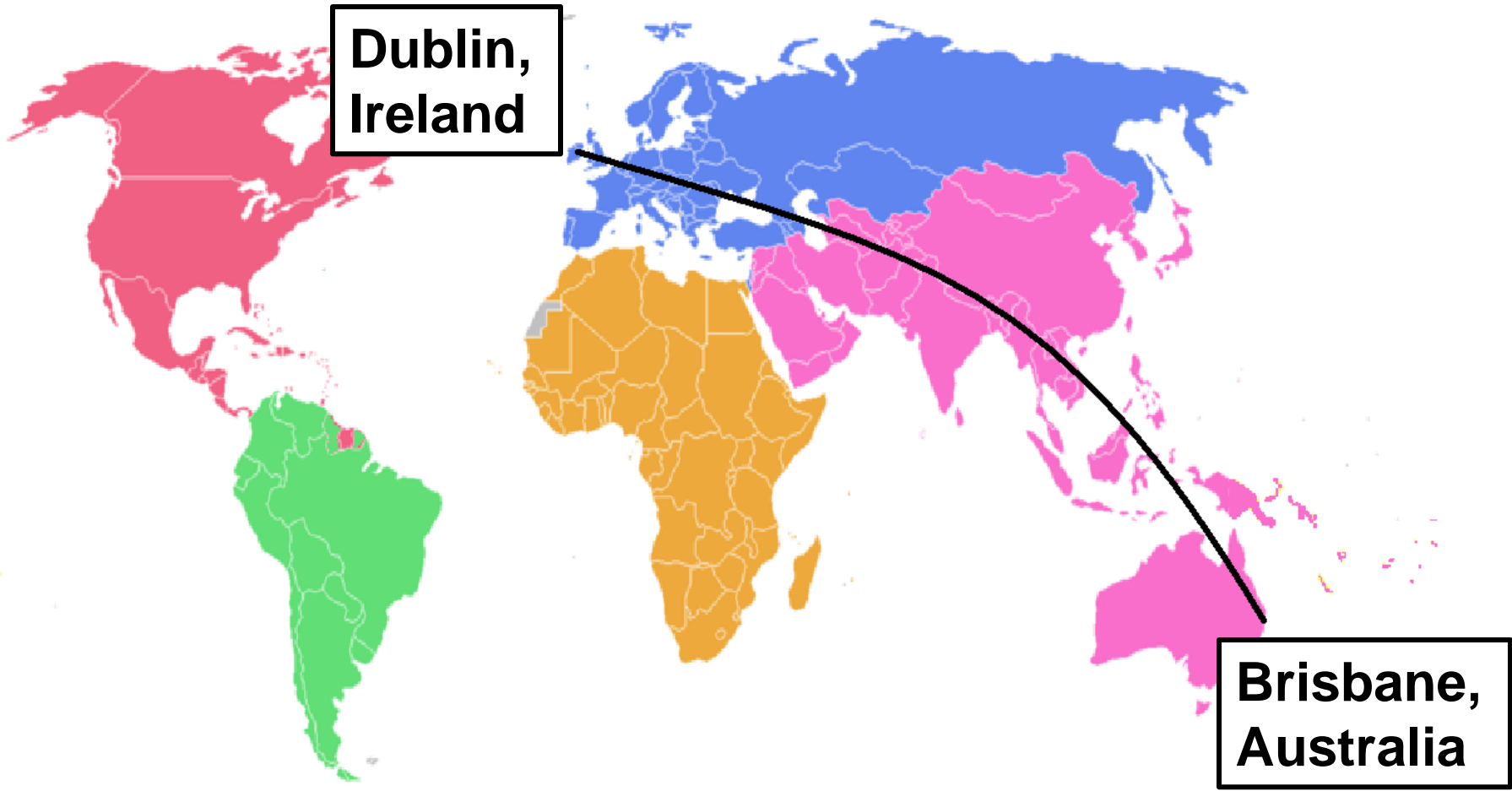
E. Ladewig, T. O'Dowd, U. Reulbach

www.growingup.ie





About Me



**Dublin,
Ireland**

**Brisbane,
Australia**



Research Background

- Paediatric Nursing Background
- Master of Science through Research
- Department of Public Health and Primary Care, Trinity College Dublin
- Funding from the Irish Lung Foundation



Research Objective

To examine the association between breastfeeding and respiratory illness in Irish nine month olds, considering the impact of socioeconomic factors



Methods: Sample

- Growing Up in Ireland Infant Cohort
- Subsample of 11,093 infant & biological mother pairs



Methods: Respiratory Illness

“Has a medical professional ever told you that <baby> has any of the following conditions?”

- Respiratory disease [including asthma]

“We would like to know about any health problems or illnesses for which <baby> has been taken to the GP, Health Centre or Public Health Nurse or to Accident and Emergency. What were these problems?”

- Wheezing or asthma
- Chest Infection
- Snuffles or Common Cold



Methods: Breastfeeding History

“Was <baby> ever breastfed?”

- Include Colostrum in first few days after birth

**“Are you currently breastfeeding <baby>?
(include partial/complementary
breastfeeding?)”**



Methods: Analyses

- Logistic regression analysis to estimate odds ratios for the association between breastfeeding and respiratory diseases
- Multivariate logistic regression models based on stepwise backward likelihood selection procedure

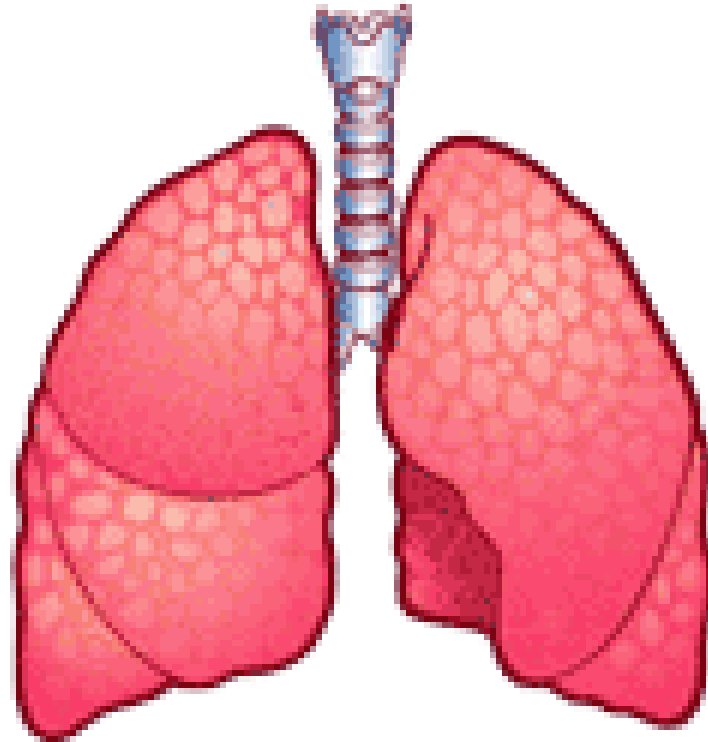


Potential Confounders

- Maternal age
- Birth weight of baby
- Citizenship status
- Residence in rural or urban area
- Highest maternal education
- Current maternal smoking status
- Smoking hazard in pregnancy
- Financial ability of household to make ends meet
- State funded medical card status



Respiratory illness in infants





Respiratory illness in infants

- 1.9 million childhood deaths worldwide per year are attributable to acute respiratory illness (Williams et al., 2002)
- Respiratory and gastrointestinal infections – leading cause of morbidity in infancy and childhood



Asthma, Wheezing & Respiratory Infection

- Asthma is the most common chronic disease among children
- 25-45% of infants experiencing at least one episode of wheezing during the first year of life (Garcia-Marcos et al., 2010)
- Allergic wheeze versus transient infectious wheeze



Breastfeeding





Breastfeeding

- Established as the optimal form of nutrition for infants
- Breastfed infants less prone to a variety of infections (Ladomenou et al., 2010)
- Suggested that even a short period of breastfeeding may benefit

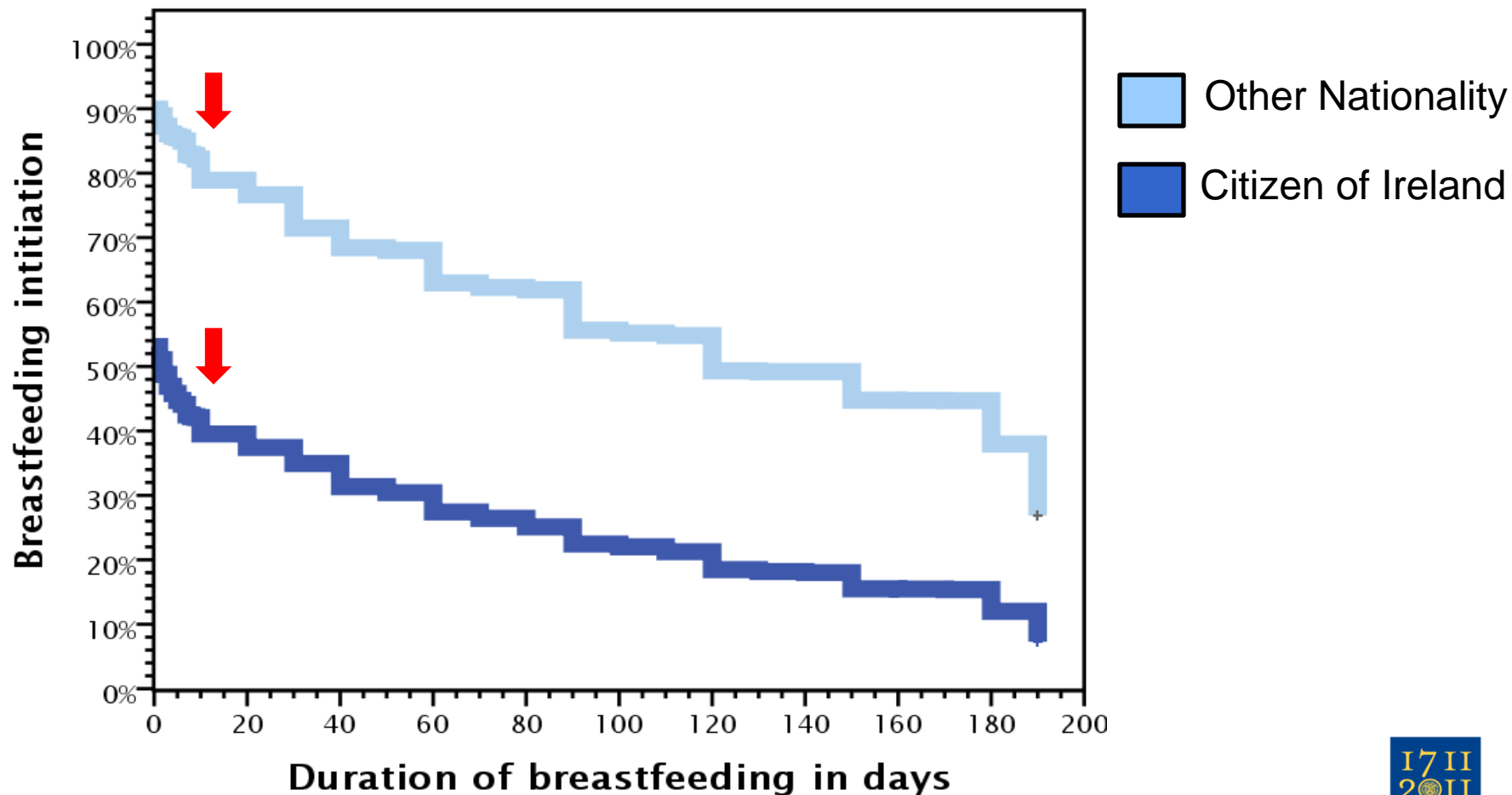


Results: Breastfeeding

- 57% were ever breastfed
- 49% still breastfed when they left hospital
- 9% still being breastfed at 9 months
- Average duration of breastfeeding – 11 weeks
- Maternal citizenship status - biggest impact on breastfeeding rates



Breastfeeding initiation & duration





Breastfeeding & Respiratory Illness

	Infant was ever breastfed	
	Yes	No
Diagnosed with a Respiratory Illness	3.2% ** 95% CI: 2.8 – 3.6%	5.2% 95% CI: 4.5 – 5.8%
Taken to a HP due to Asthma / Wheezing	7.1% ** 95% CI: 6.5 – 7.7%	11.2% 95% CI: 10.4 – 12.1%
Taken to a HP due to Chest Infection	28.9% ** 95% CI: 27.8 – 30.1%	36.2% 95% CI: 34.9 – 37.6%
Taken to a HP due to Snuffles / Common Cold	45.1%** 95% CI: 43.8 – 46.3%	49.3% 95% CI: 47.9 – 50.7%

p < 0.001**



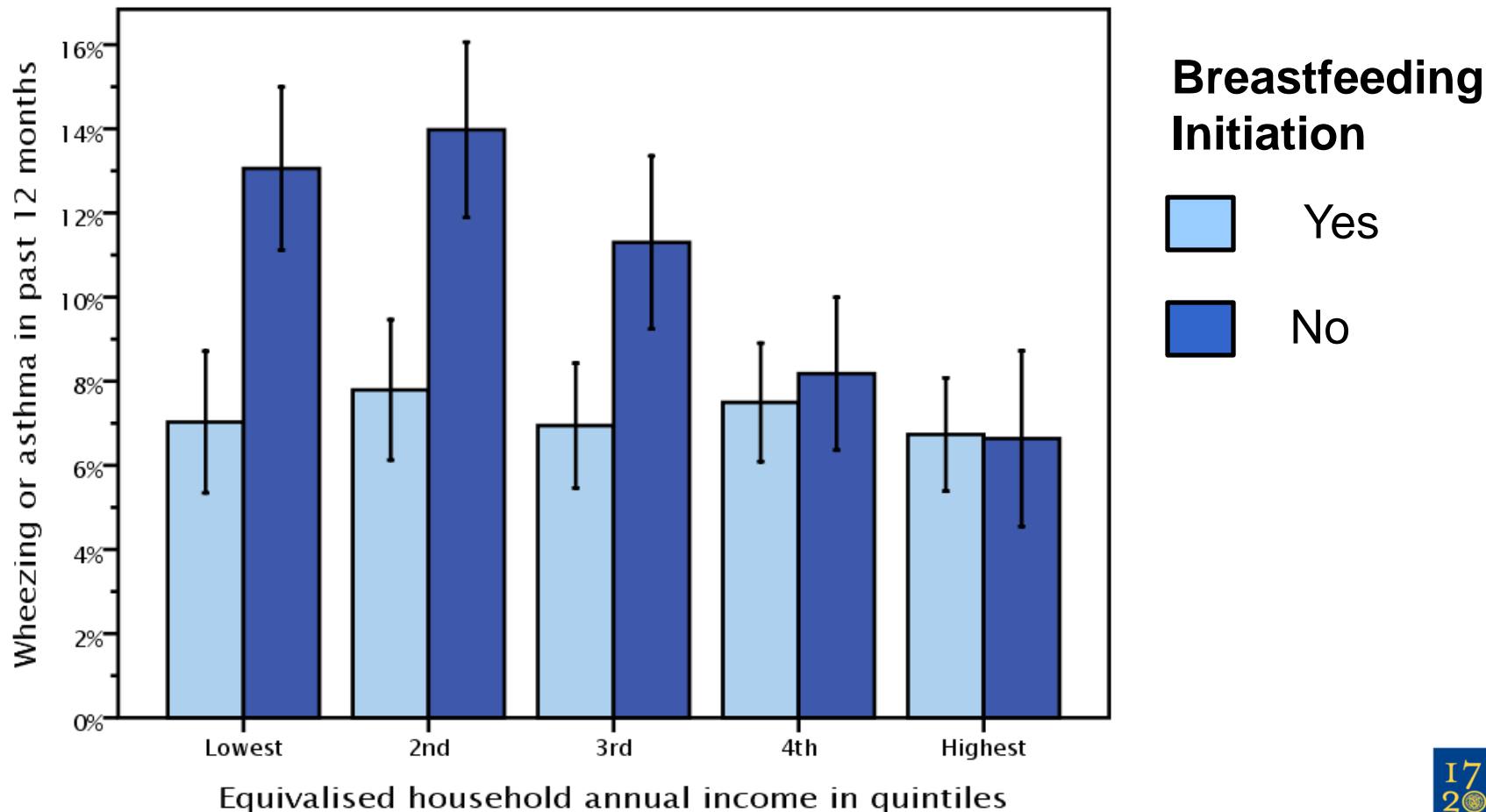
Breastfeeding & respiratory illness

Infant was NEVER breastfed versus infant was EVER breastfed

	OR	95% CI	p value
Diagnosed with a Respiratory Illness	1.36	1.08 – 1.70	0.008
Ability of the household to meet ends, citizenship status, highest maternal education and medical card status.			
Wheezing / Asthma	1.23	1.06 – 1.42	0.007
Ability of the household to meet ends, citizenship status, region, and medical card status.			
Chest Infection	1.15	1.05 – 1.27	0.003
Birth weight of baby, current maternal smoking status, ability of the household to meet end citizenship status, highest maternal education attained, and medical card status.			

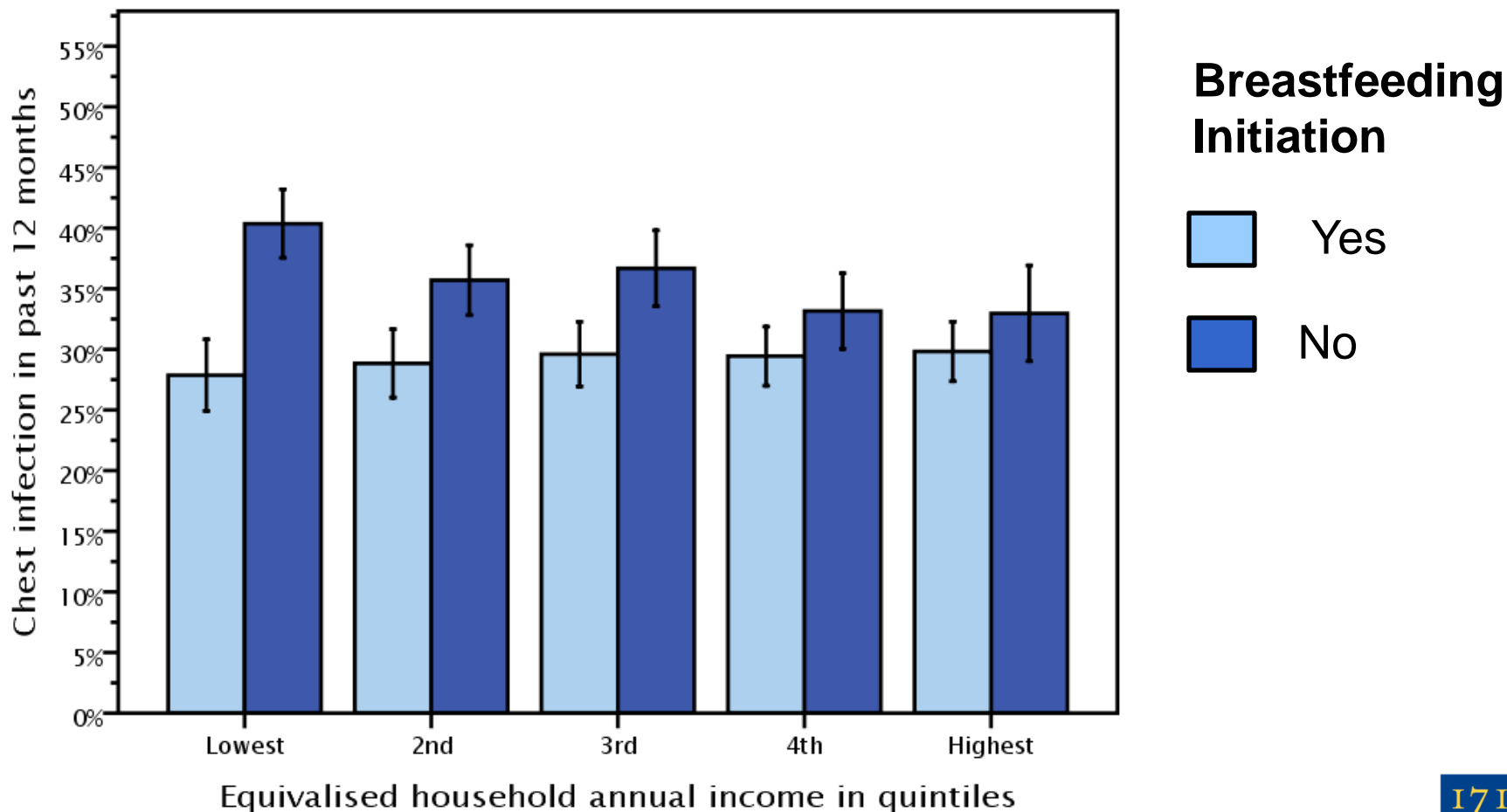


Breastfeeding & Wheezing / Asthma





Breastfeeding & Chest Infection



Error bars: 95% CI



Conclusions

- Breastfed infants significantly less likely
 - to be diagnosed with a respiratory illness
 - taken to a health professional for asthma / wheezing or chest infection or snuffles / common cold
- Initiation of breastfeeding may be sufficient to provide a protective effect
- Lower socioeconomic groups may benefit more from breastfeeding



References

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- Garcia-Marcos L, Mallol J, Sole D, Brand PL. International study of wheezing in infants: risk factors in affluent and non-affluent countries during the first year of life. *Pediatr Allergy Immunol.* 2010 Aug;21(5):878-88.
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- For more information: www.growingup.ie



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Take a Deep Breath.....
and give us some of your time

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Thank You

Questions?