



# “Attriters” and their impact on *Growing Up in Ireland*

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# Introduction

- Inter wave non-response/attrition unavoidable in longitudinal surveys
- Substantial literature in this area – Watson and Wooden (2009); Waterton and Lievesley (1987); Laurie et al (1999); Behr et al (2005); Watson (2003)
- Related to:
  - *Survey characteristics* in prior waves: length; complexity; interviewer continuity etc.
  - *Respondent characteristics*: gender; age; race/ethnicity; marital status; household type/composition; education; income; labour force status



# Research questions

- 1. Are there patterns of attrition in the infant cohort?**
- 2. To what extent do these patterns of attrition (if any) affect estimates from the samples?**



# Infant Cohort AMF data

9 months	3 years	5 year A	5 year B
11,134	9,793	9,001	8712



		9 month	3 years	5 years	n	%
<b>5yr Sample A</b>	<b>5yr Sample B</b>	Yes	No	No	1052	9.4
		Yes	Yes	No	1081	9.7
		Yes	No	Yes	289	2.6
		Yes	Yes	Yes	8712	78.2



# “Out of scope” families

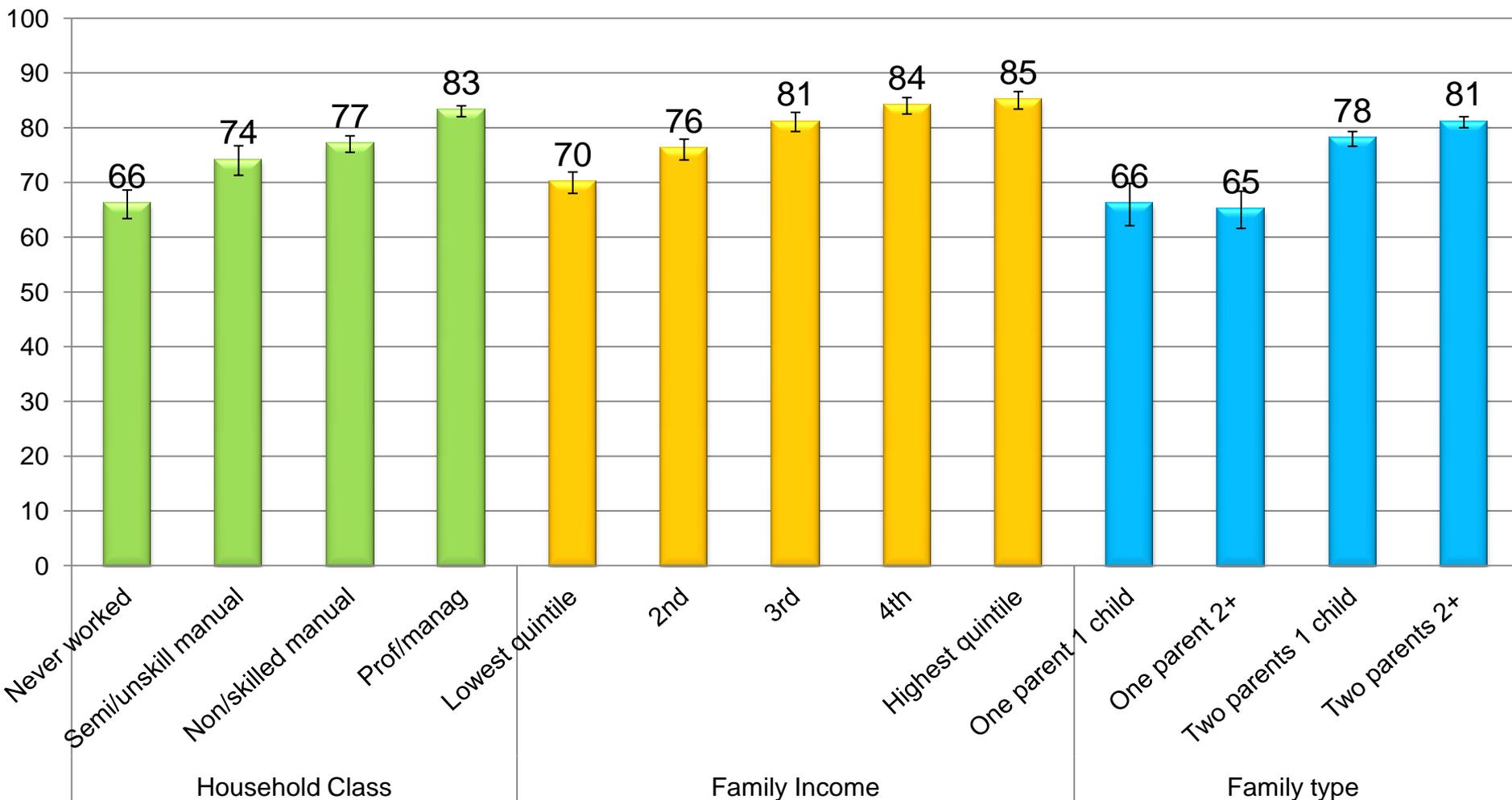
## Summary response rates in the Infant Cohort (At 3 years)

Outcome	(n)	Per cent
(i) Interviewed	9,793	91.4
(ii) Refused	494	4.6
(iii) Appointment continuously broken	189	1.8
(iv) Unavailable throughout fieldwork	41	0.4
(v) No contact despite repeated callbacks	93	0.9
(vi) Moved, no forwarding address	55	0.5
(vii) Address vacant / demolished / derelict	5	0.0
(viii) Other	39	0.4
<b>Total valid</b>	<b>10,709</b>	<b>100.0</b>
(ix) Moved outside RoI or child deceased	425	-
<b>Grand total</b>	<b>11,134</b>	-

McCorry, C., Williams, J., Murray, A., Quail, A., & Thornton, M. (2013). Growing Up in Ireland: Design, Instrumentation and Procedures for the Infant Cohort at Wave Two (3 years). Technical Report No. 3. Dublin: Department of Children and Youth Affairs.

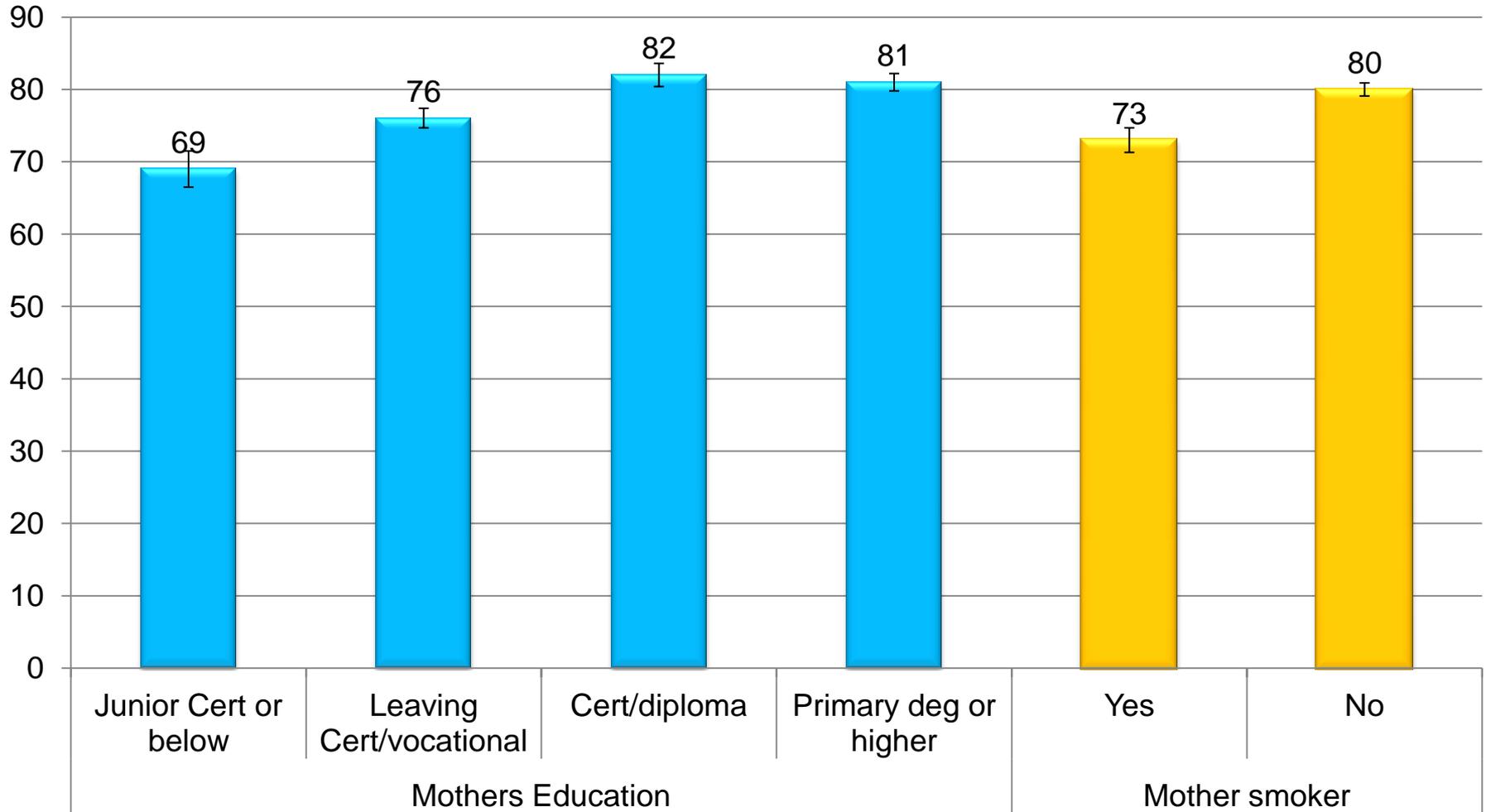


# Family and Household Characteristics



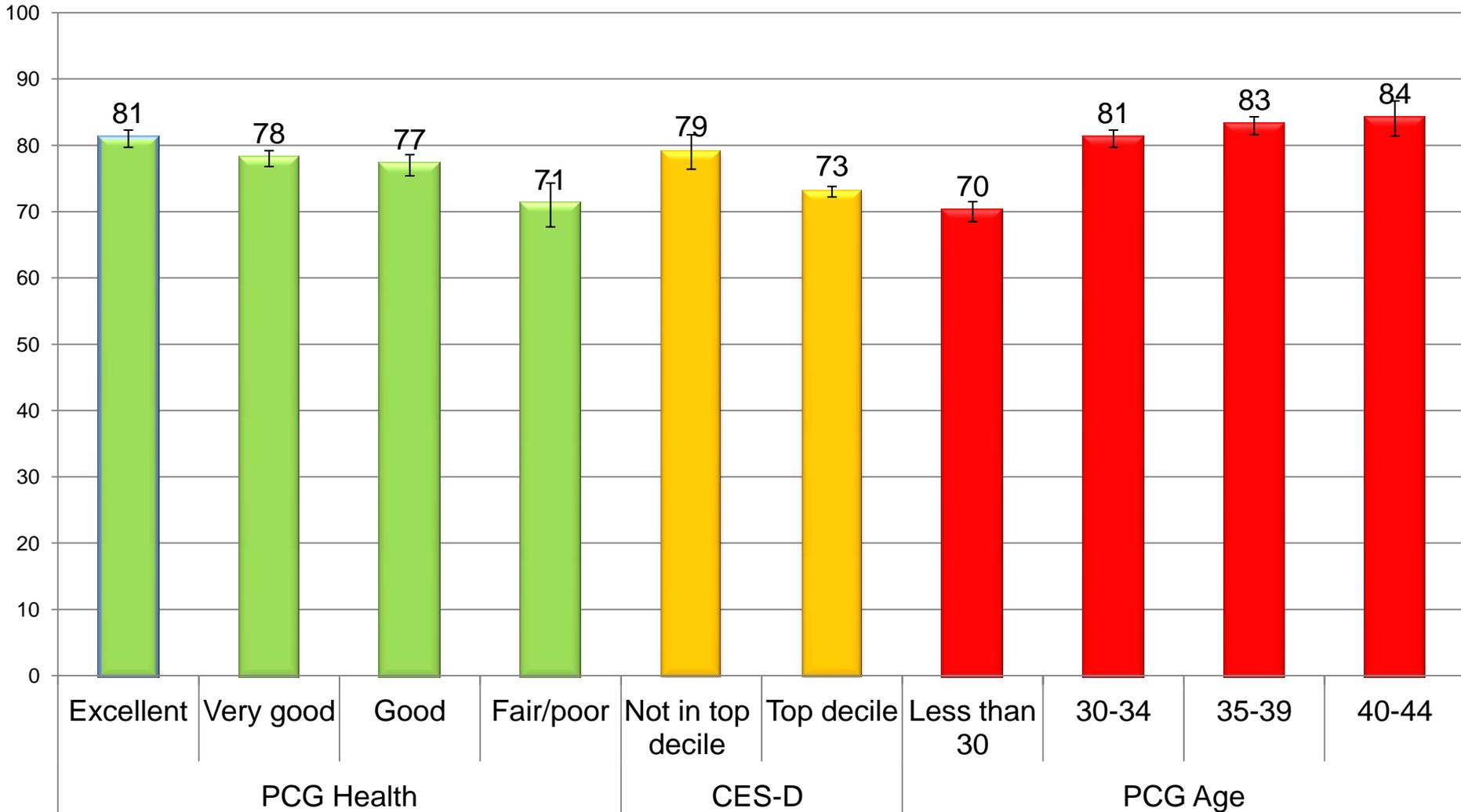


# PCG characteristics



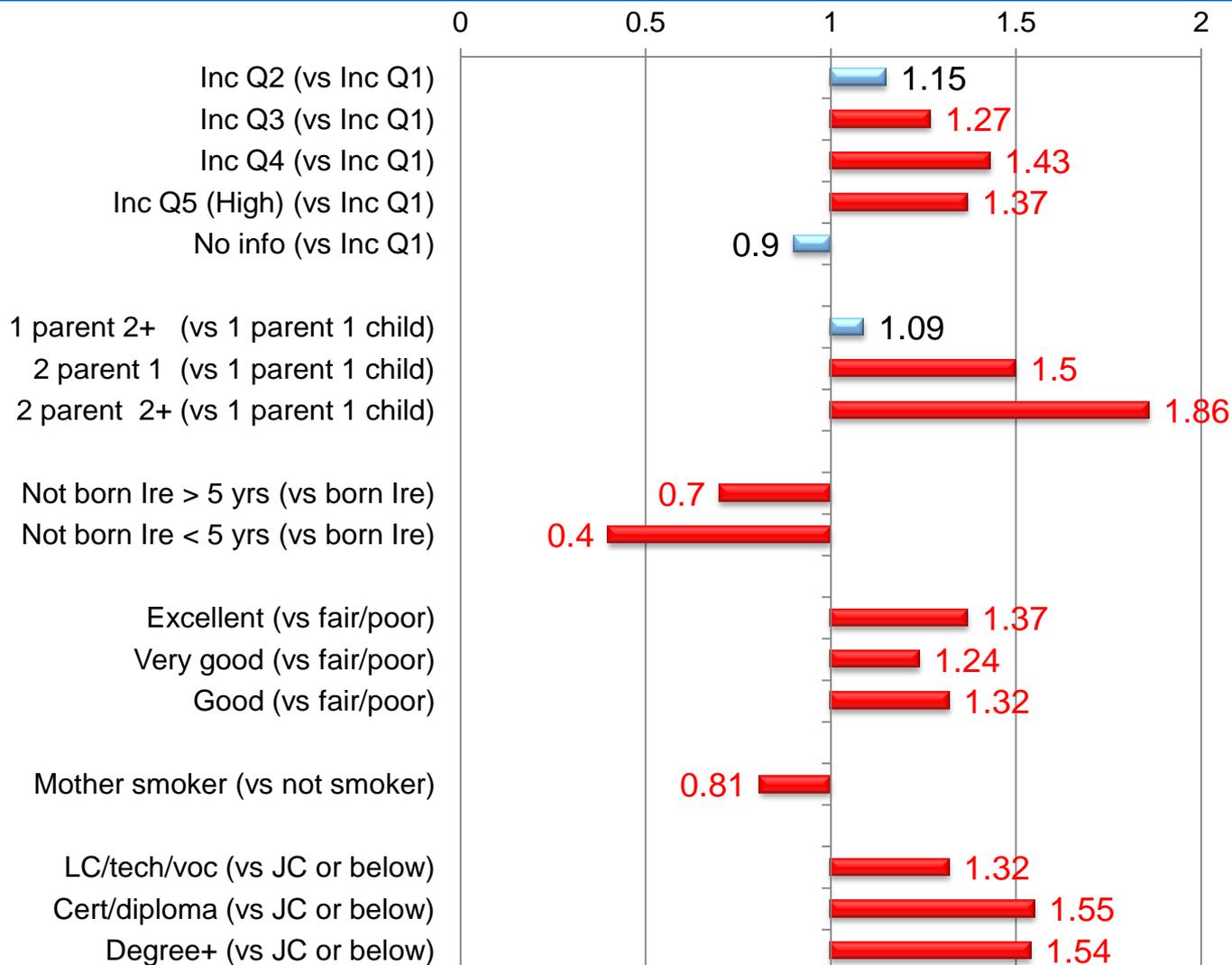


# PCG characteristics





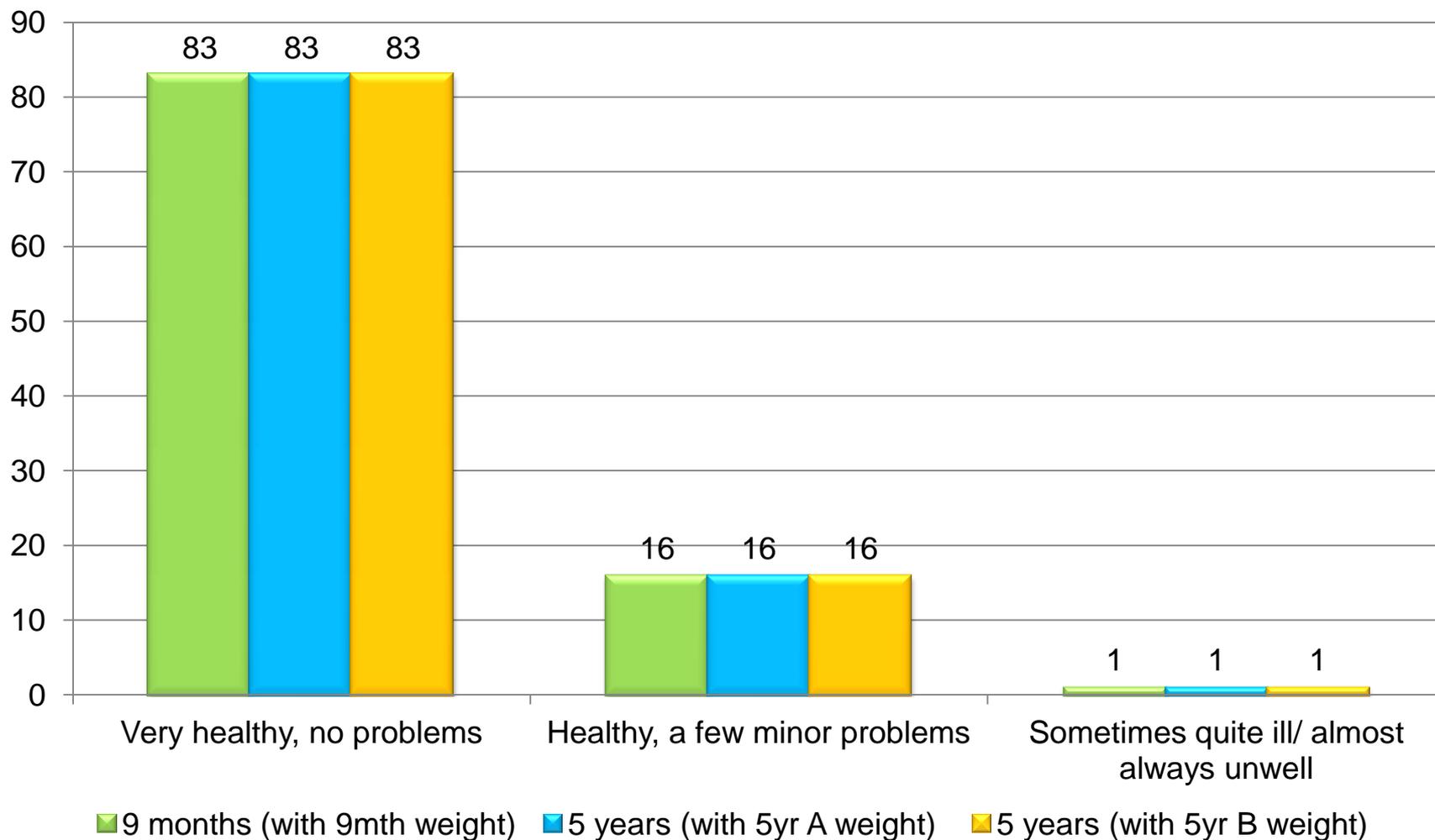
# Odd ratios from multivariate models: Who are the GUI Infant cohort participants?





# Does this attrition affect estimates?

## Infant health status





# Does this attrition affect estimates?

## Birth weight

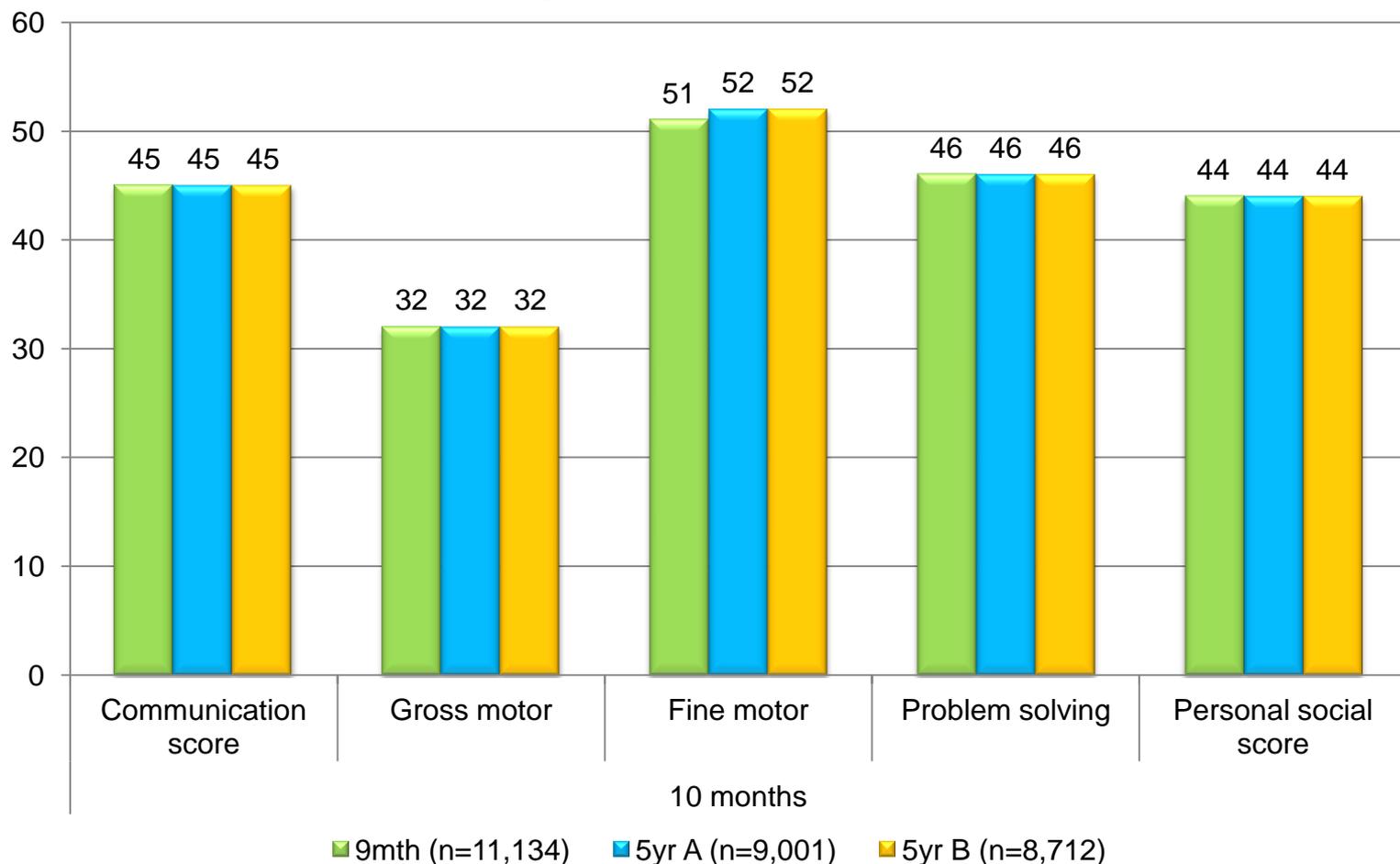
	Birth weight	95% CI
9 months (9mth weight)	3477.75	3467.66 - 3487.83
5 years (5yr A weight)	3484.06	3472.85 - 3495.27
5 years (5yr B weight)	3487.34	3475.92 - 3498.76



# Does this attrition affect estimates?

## Ages and Stages Questionnaire

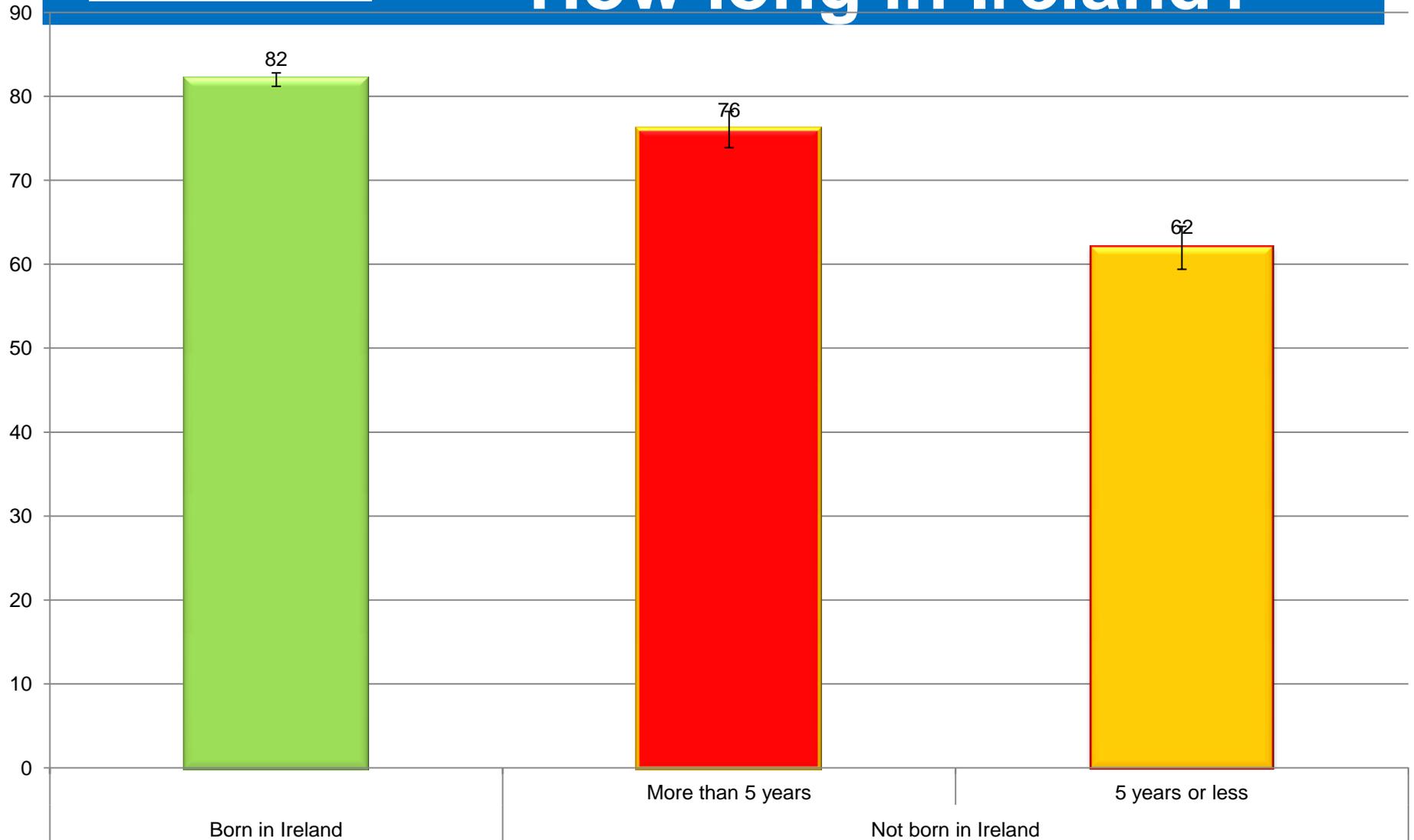
- An adapted version of the ASQ (Squires, Potter & Bricker, 1999) was used to measure the infant's developmental status at 9 months





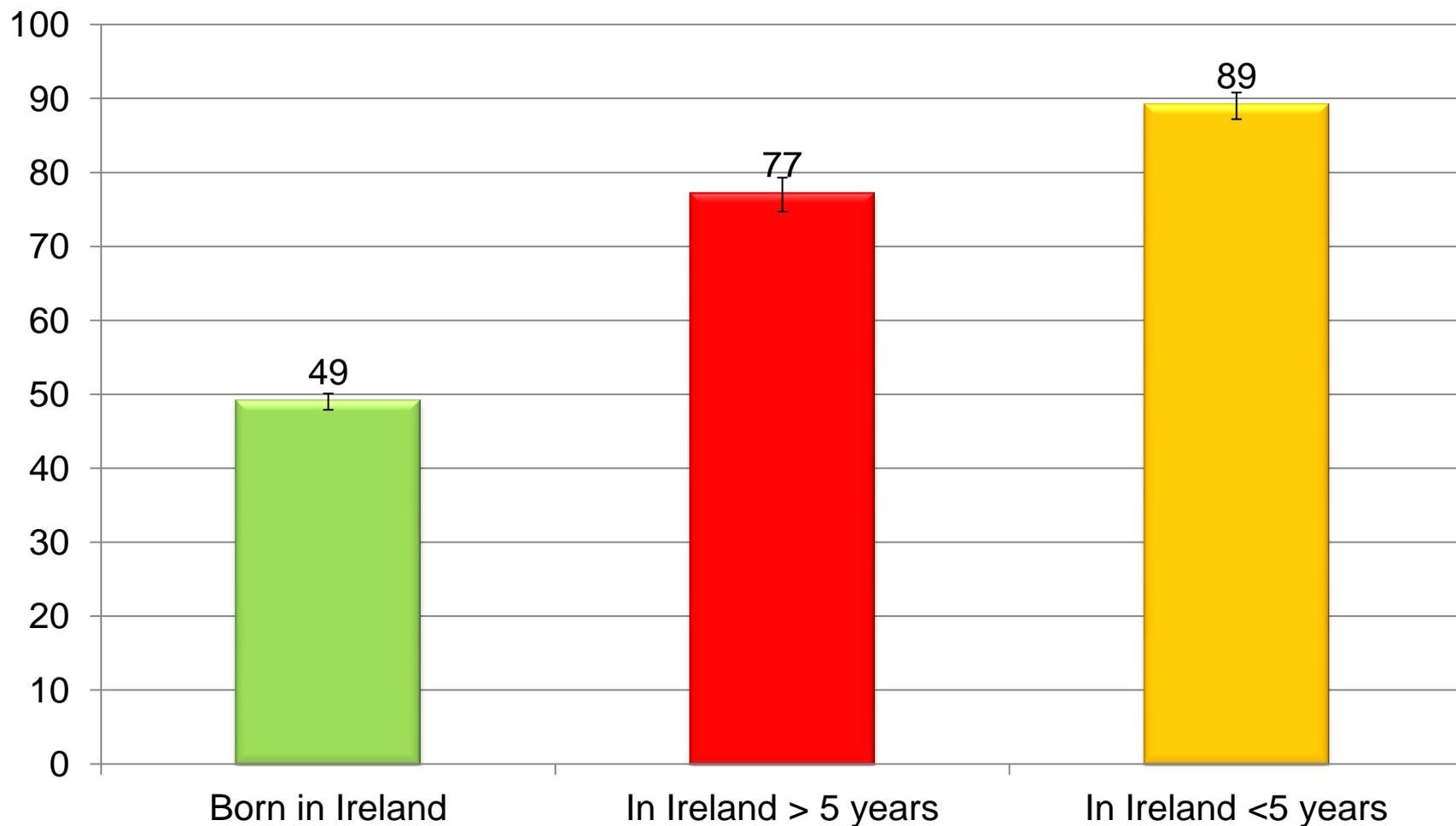
# Attrition

## How long in Ireland?





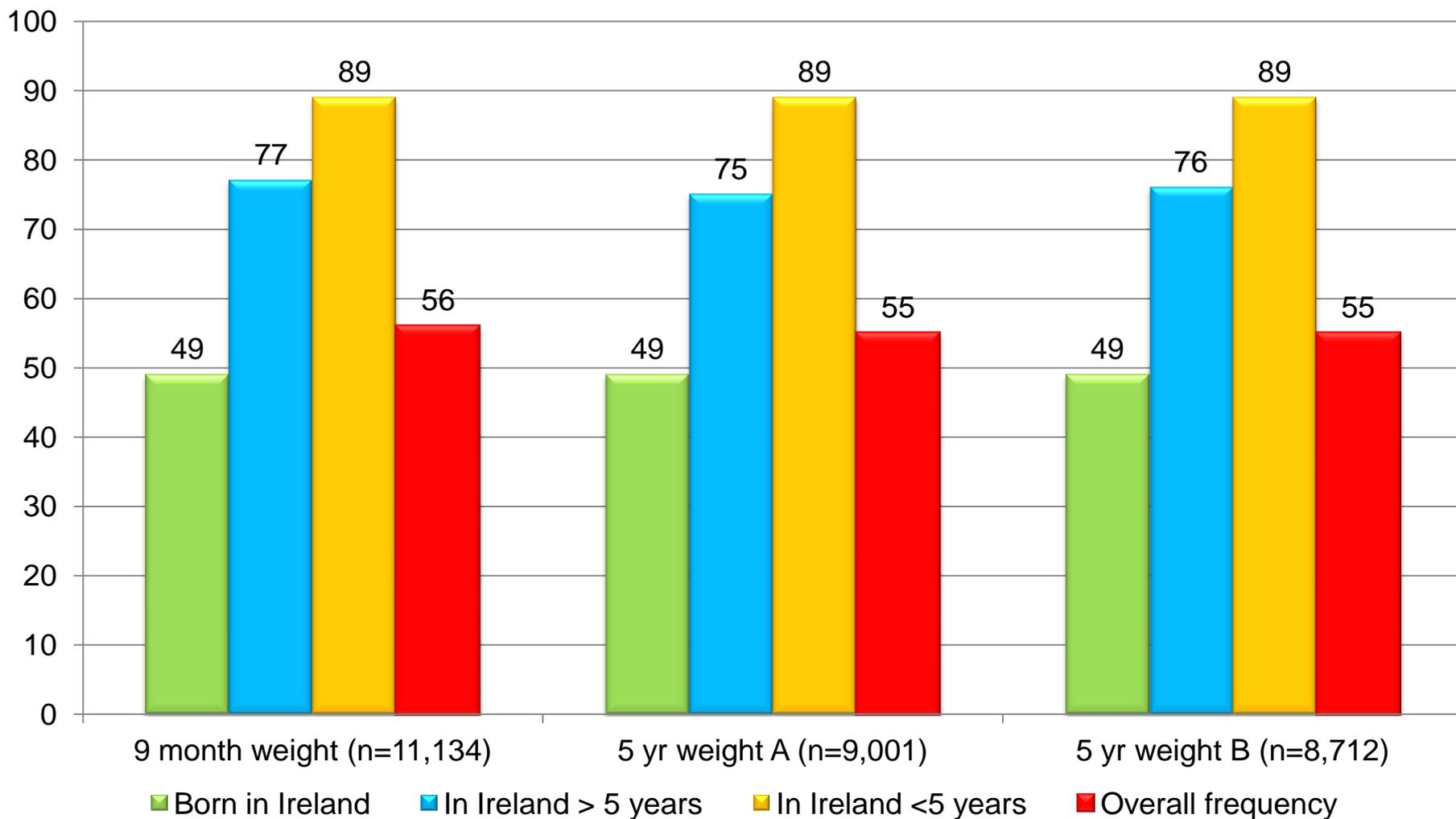
# Breastfeeding rates if born/not born in Ireland





# Does this attrition affect estimates?

## Was baby ever breastfed?





# Conclusions

- **Attrition is a problem in all longitudinal studies. Reduces sample n and so results in increased standard errors – often among policy-relevant subgroups.**
- **Attrition in GUI associated with: Household income; Family type/composition; Ethnicity; Mother’s health; Mother’s education and whether mother smoked or not**
- **Examined impact of attrition on Wave 1 estimates from smaller samples in Wave 3 - weights appear to compensate and no difference in “full sample” and “reduced sample” estimates**