



The Effect of User Fees on the Utilisation of GP Services by Children

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Introduction

- **User fees influence health-care use**
 - Newhouse and Insurance Experiment Group (1993)
- **Why are inequities in access to health care a particular concern for children?**
 - Demonstrated causal links between access to health care, utilisation and child health (Currie and Gruber, 1996; Currie *et al* 2008; Lin (2009)
- **Complex system of public health-care entitlements in Ireland**
 - Little or no evidence on effect on utilisation among children



Public Health Entitlements

- **Irish system of eligibility for free public health care is unusual (in comparison with other European countries)**
 - Particularly for GP services
 - Important role of private health insurance (PHI) in financing hospital (and increasingly, GP) care
 - Major reform envisaged as part of current Programme for Government



Eligibility/PHI Status and User Fees

| | GP User Fee | Prescription User Fee |
|----------------------|--|---|
| Full medical card | free | €0.50 per item (€10 limit per family per month) |
| GP visit card | free | full cost up to €132 per family per month |
| PHI with GP cover | full cost at point of use, with full or partial reimbursement by PHI | full cost up to €132 per family per month |
| PHI without GP cover | full cost at point of use | full cost up to €132 per family per month |
| No cover | full cost at point of use | full cost up to €132 per family per month |

Notes:

50c per item prescription charge introduced in October 2010
 €132 deductible increased from €120 in January 2012



Motivation

- **Large body of research has analysed the impact of this system on GP visiting patterns among *adults* in Ireland**
- **Apart from Tussing (1985), no research on children**
- **In recent years, the system has become more complex**



Research Questions

- **Does eligibility for free GP care have an impact on the use of GP services by children?**
- **Does type of PHI cover have an impact on the use of GP services by children?**
- **Are user fees for GP care a particular burden on children from low income families?**
- **Do these effects differ for different cohorts of children?**



Data

- **GUI Infant Cohort**
 - At wave 1: 11,134 children (average age 9 months)
 - First surveyed between September 2008 and April 2009
 - Sampling frame was Child Benefit Register
- **GUI Child Cohort**
 - At wave 1: 8,658 children (average age 9 years)
 - First surveyed between August 2007 and May 2008
 - Sampling frame was primary school system
- **Currently, micro-data from first waves only are available**



Variables

- **Dependent Variable**

- Number of GP visits in previous nine months (9-month olds)
- Number of GP visits in previous twelve months (9-year olds)

- **Independent Variables:**

- Eligibility/insurance status
- Child: sex; number of siblings; health
- Pregnancy/birth: birth weight; gestation
- Mother: age; education; health; ethnicity
- Household: equivalised income; childcare arrangements; lone parent

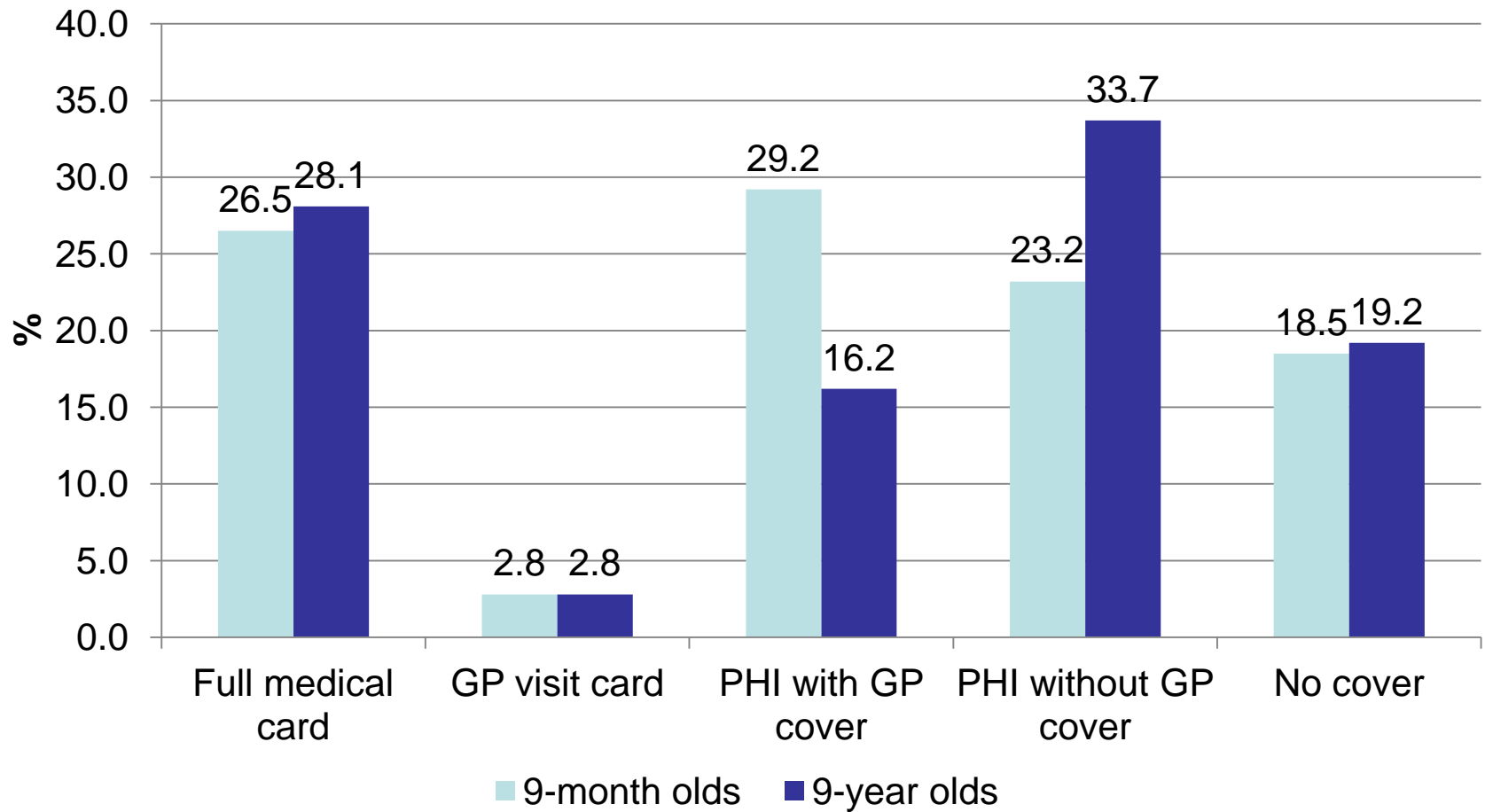


Methods

- **Form of dependent variable** → **count data methods**
- **Today, present results from negative binomial model**
 - Others:
 - Two-part (hurdle) model
 - Latent class models
- **Estimate separate models for the two cohorts**
- **Also focus on children without medical/GP Visit cards**
 - To examine if user fees for GP care are a particular burden on children from low income families



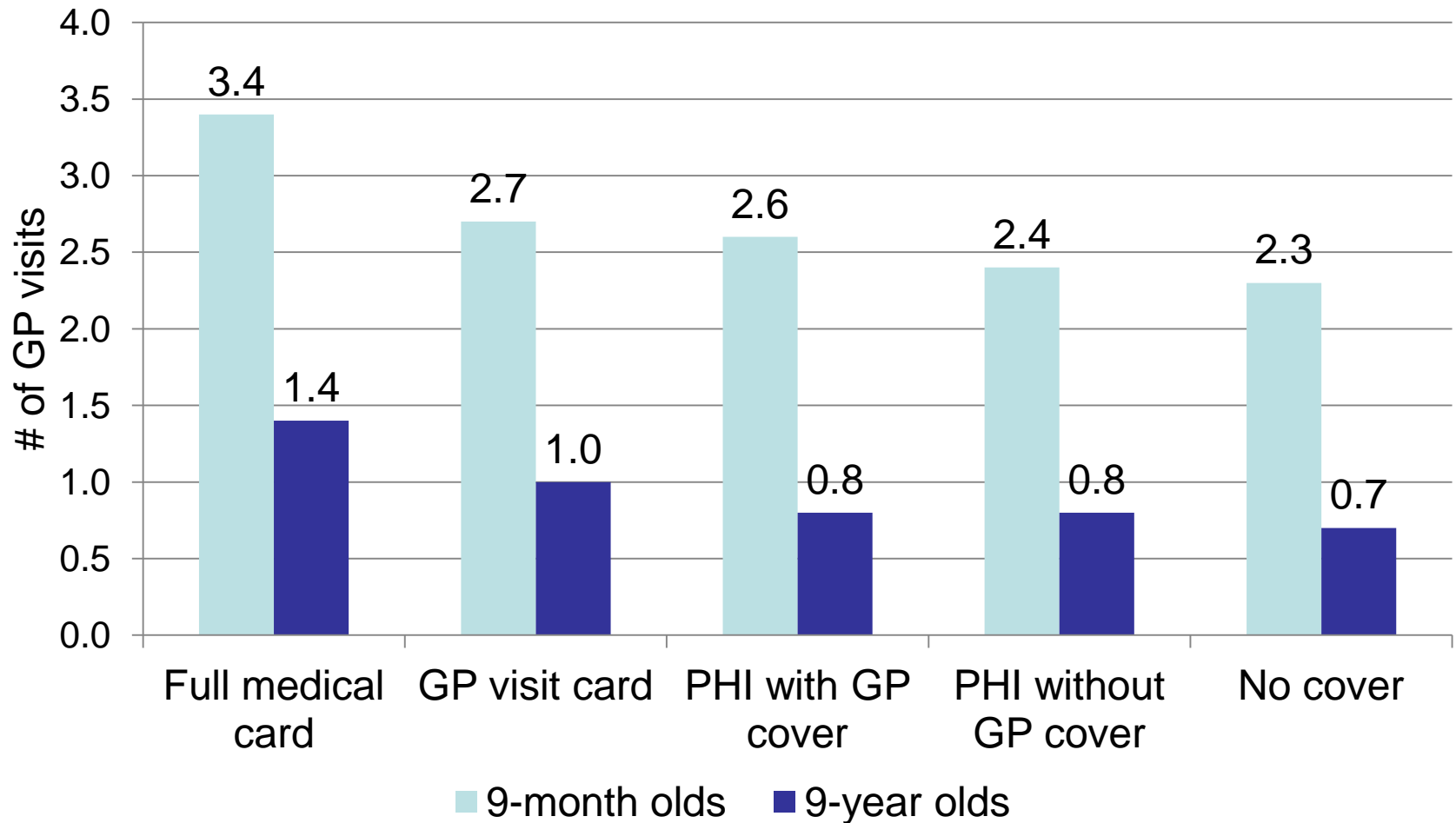
Eligibility/PHI Status



Note:
Data are weighted



Average Number of GP Visits by Eligibility/PHI Status



Note:
Data are weighted



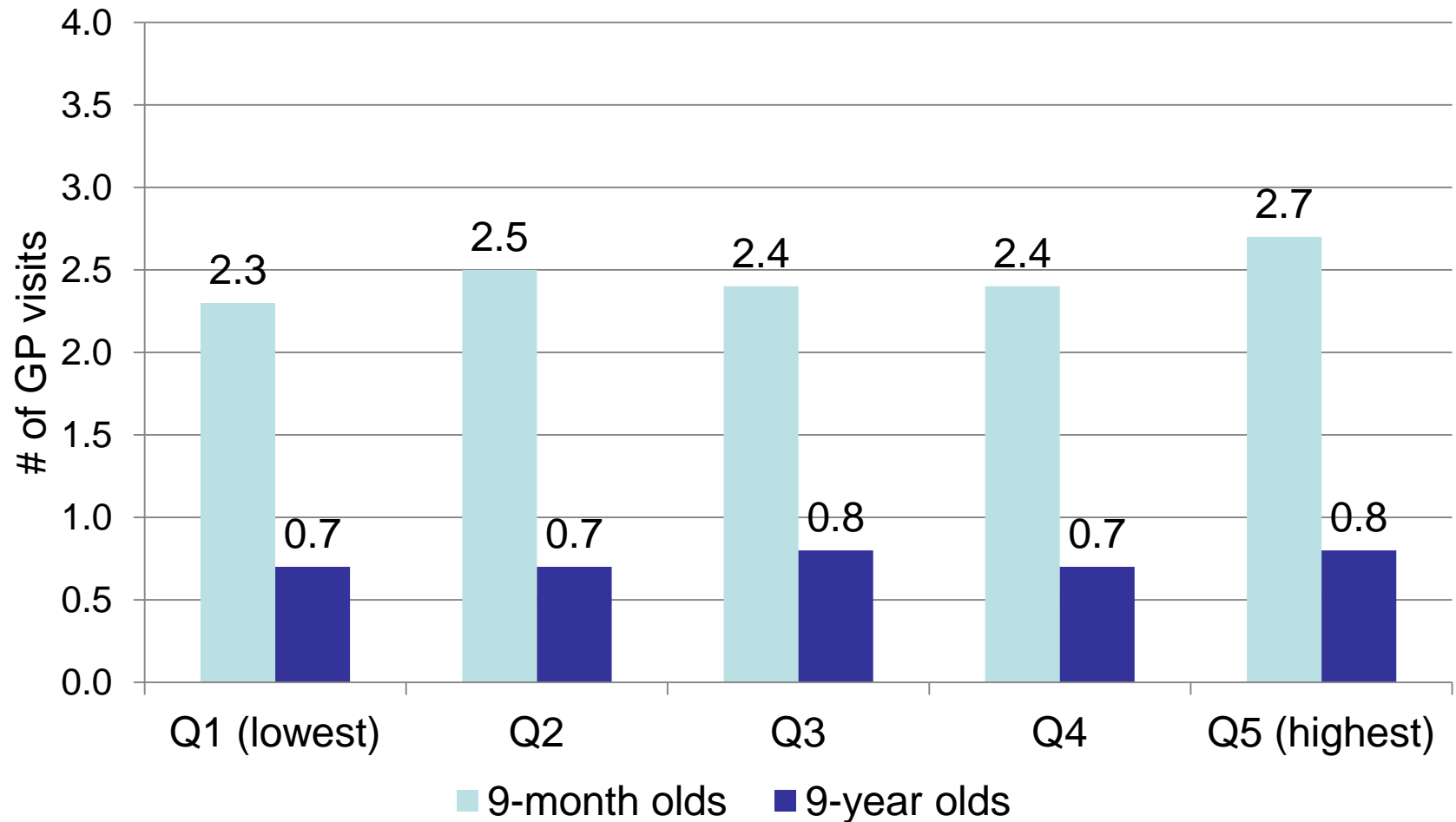
Multivariate Results (Marginal Effects) Full Sample

| | 9-month olds | 9-year olds |
|----------------------|--------------|-------------|
| Medical card | 0.821 *** | 0.401 *** |
| GP visit card | 0.416 ** | 0.375 *** |
| PHI with GP cover | 0.385 *** | 0.155 ** |
| PHI without GP cover | 0.231 ** | 0.099 |
| No cover | ref | ref |
| Income Quintile 1 | -0.074 | 0.005 |
| Income Quintile 2 | -0.108 | -0.001 |
| Income Quintile 3 | -0.205 * | -0.110 * |
| Income Quintile 4 | -0.183 ** | -0.040 |
| Income Quintile 5 | ref | ref |
| N | 9,538 | 6,985 |

¹ Additional covariates include *child characteristics* (sex, number of siblings, health), *pregnancy/early life circumstances* (birth weight, gestation), *mother characteristics* (age, education, health, ethnicity), *household characteristics* (child care arrangements, lone parent)

* Significant at 10% level; ** significant at 5% level; *** significant at 1% level

Average Number of GP Visits by Equivalised Income (Private Sample)



Note:
Data are weighted



Multivariate Results (Marginal Effects) Private Sample

| | 9-month olds | 9-year olds |
|----------------------|--------------|-------------|
| Full medical card | - | - |
| GP visit card | - | - |
| PHI with GP cover | 0.326 *** | 0.142 *** |
| PHI without GP cover | 0.197 ** | 0.098 * |
| No cover | ref | ref |
| Income Quintile 1 | -0.207 * | 0.020 |
| Income Quintile 2 | -0.089 | -0.103 * |
| Income Quintile 3 | -0.196 ** | -0.057 |
| Income Quintile 4 | -0.215 ** | 0.018 |
| Income Quintile 5 | ref | ref |
| N | 6,783 | 5,567 |

¹ Additional covariates include *child characteristics* (sex, number of siblings, health), *pregnancy/early life circumstances* (birth weight, gestation), *mother characteristics* (age, education, health, ethnicity), *household characteristics* (child care arrangements, lone parent)

* Significant at 10% level; ** significant at 5% level; *** significant at 1% level



Discussion

- **Significant differences in GP visiting by eligibility/PHI status**
 - Medical and GP visit cardholders visit more frequently
 - As do children who have PHI with GP cover
- **Consistent with research on the adult population**
- **Caveats**
 - Association rather than causation
 - To what extent do the eligibility effects reflect adverse selection?
 - Tests with a wider variety of control variables confirm the results
 - Other research on PHI (e.g., Harmon and Nolan, 2001)



Discussion

- **For private patients:**
 - Significant income effects for infants (9-month olds)
 - No significant income effect for older children (9-year olds)
- **Some evidence that user fees are a particular burden on infants from low-income families**
 - Recession effect?
- **Key question for future research using longitudinal data:**
 - Do user fees discourage health-care use, and impact on health and other outcomes?