

Insurance and Health in the Older Population

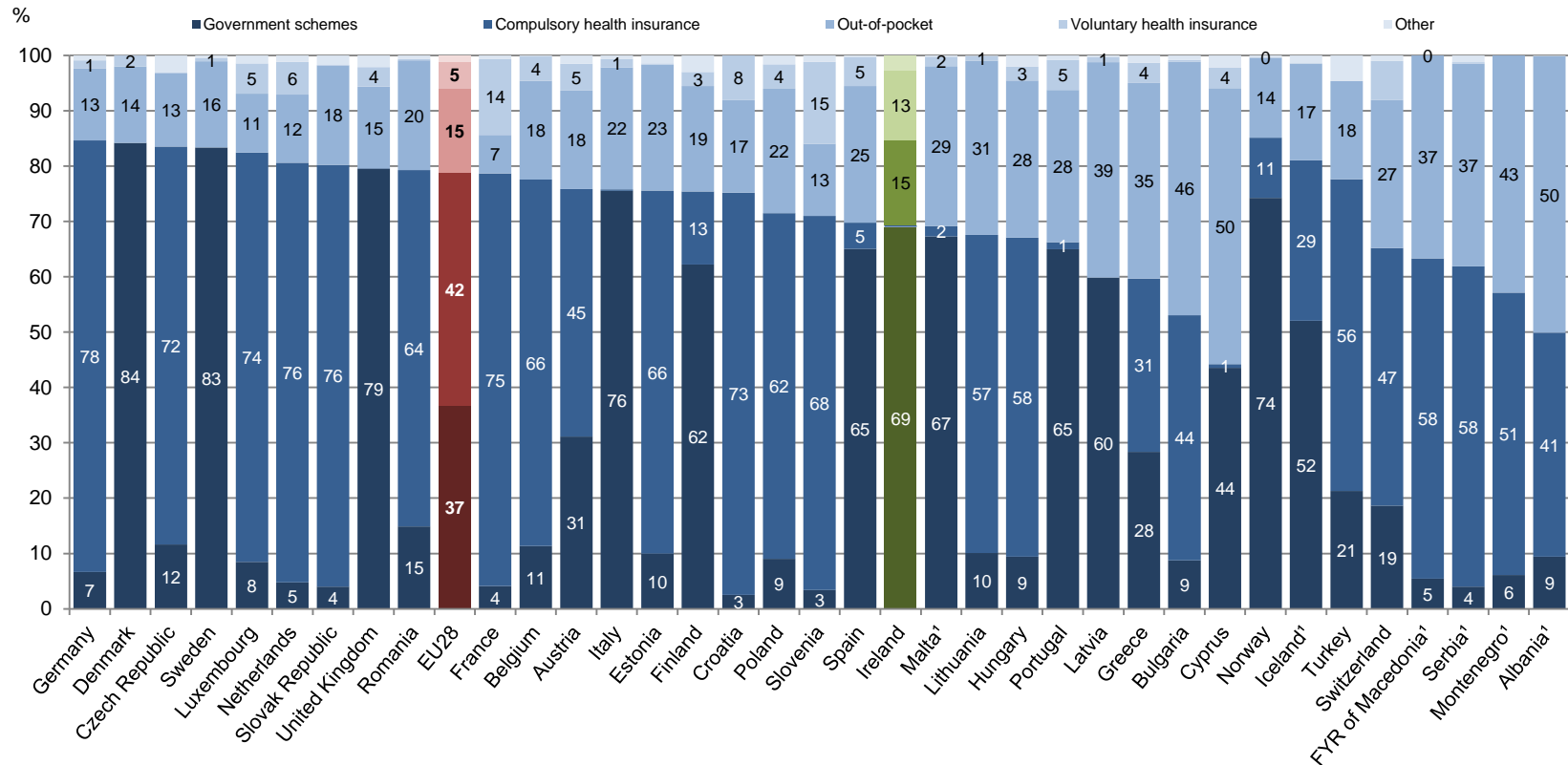
Anne Nolan, ESRI/TCD

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Context

- Particular features of healthcare markets necessitate insurance, often publically-financed
 - Heterogeneity in breadth, scope and height of population cover
- 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, primary) care

Health Expenditure by Financing Source 2014



EU28: Tax/social security (79); OOP (15); PHI (5)

Ireland: Tax/social security (69); OOP (15); PHI (13)

UK: Tax/social security(80); OOP(15); PHI (4)

Primary Care Cost-Sharing

Category	Detailed Category	GP services	Prescription medicines
Category I	Full medical card	Free at point of use	€2.50 per item (€25 limit per family per month)
Category II	GP visit card	Free at point of use	Full cost up to €144 per family per month
	PHI only	Full cost at point of use (but may be entitled to partial reimbursement under certain PHI plans)	Full cost up to €144 per family per month
	No cover	Full cost at point of use	Full cost up to €144 per family per month

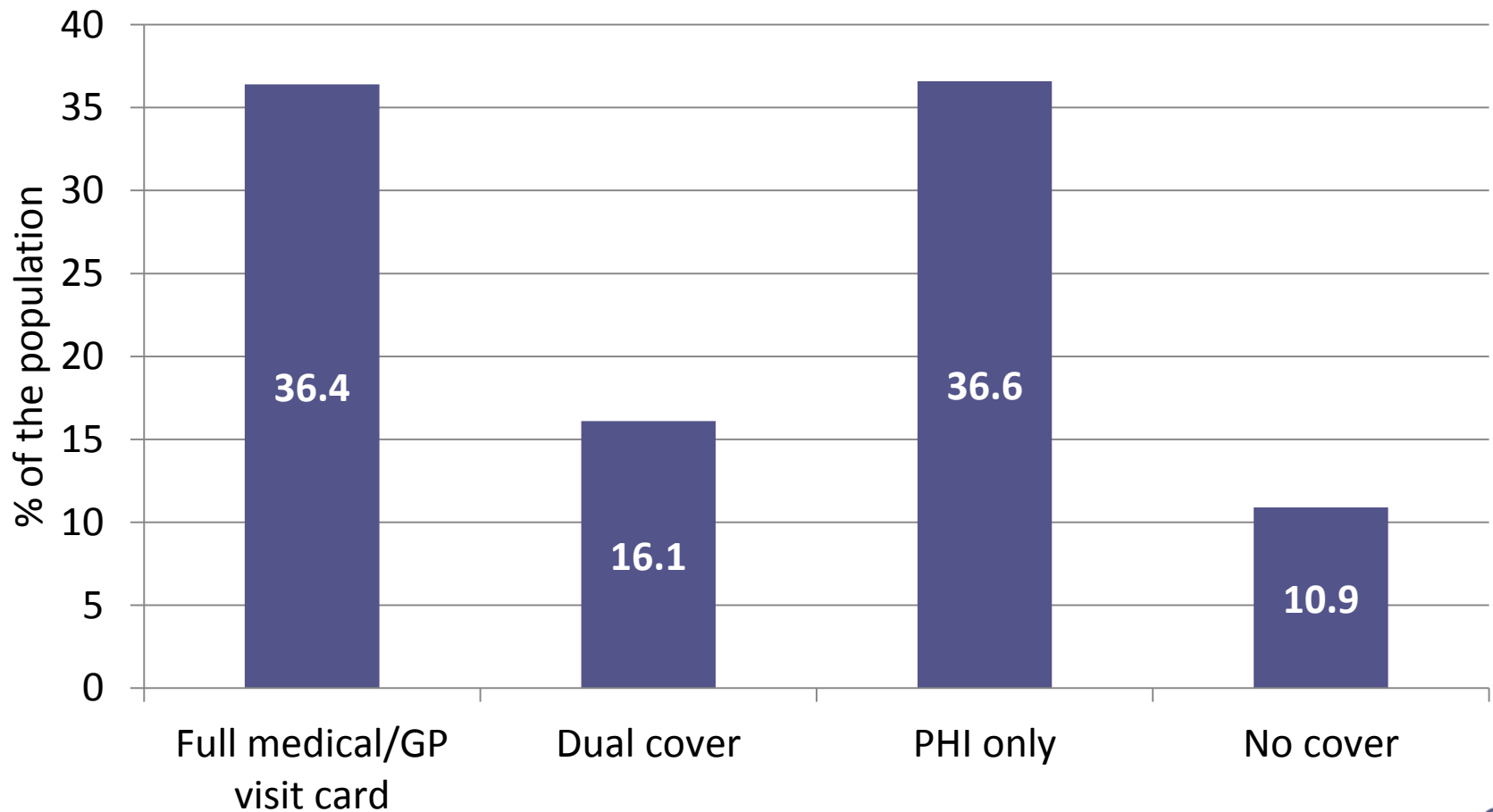
Notes:

50c per item prescription charge introduced in October 2010; increased to €1.50 per item from January 2013 and to €2.50 from December 2013

€144 deductible increased from €132 in January 2013

Full medical and GP visit cardholders may also take out PHI → ‘dual cover’

Public Healthcare Entitlements (over 50s) 2010



Research Questions

- What is the impact of this system of public healthcare entitlements on:
 - Healthcare utilisation?
 - Health?

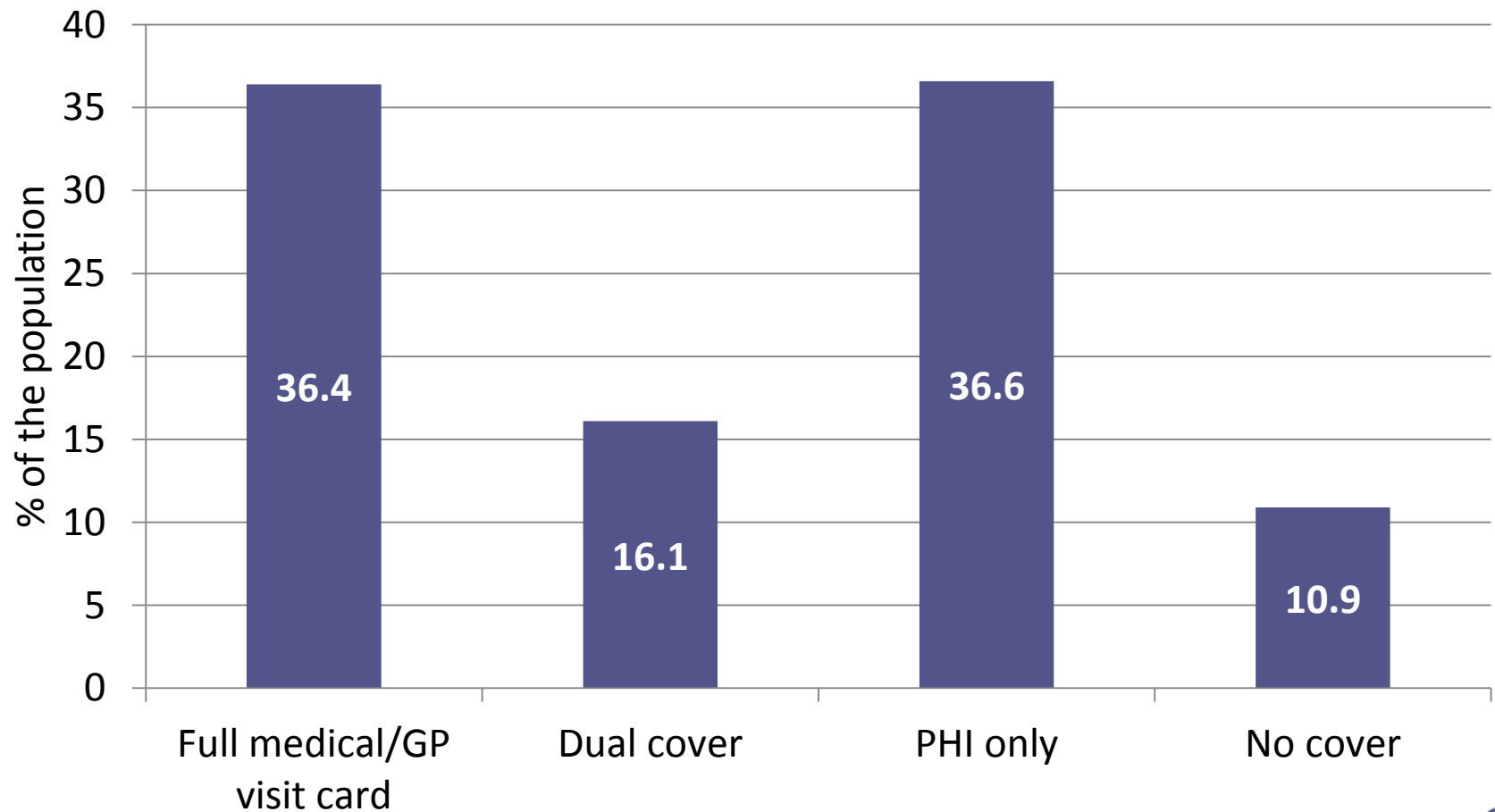
International Evidence

- Major focus in literature on identification of effect of health insurance/cost-sharing on healthcare utilisation
 - Consistent set of findings, including from two major RCTs in US (RAND and Oregon)
 - More ambiguous impacts on health
 - Most of the evidence for older population exploits quasi-experimental designs (e.g., Card et al., 2009)

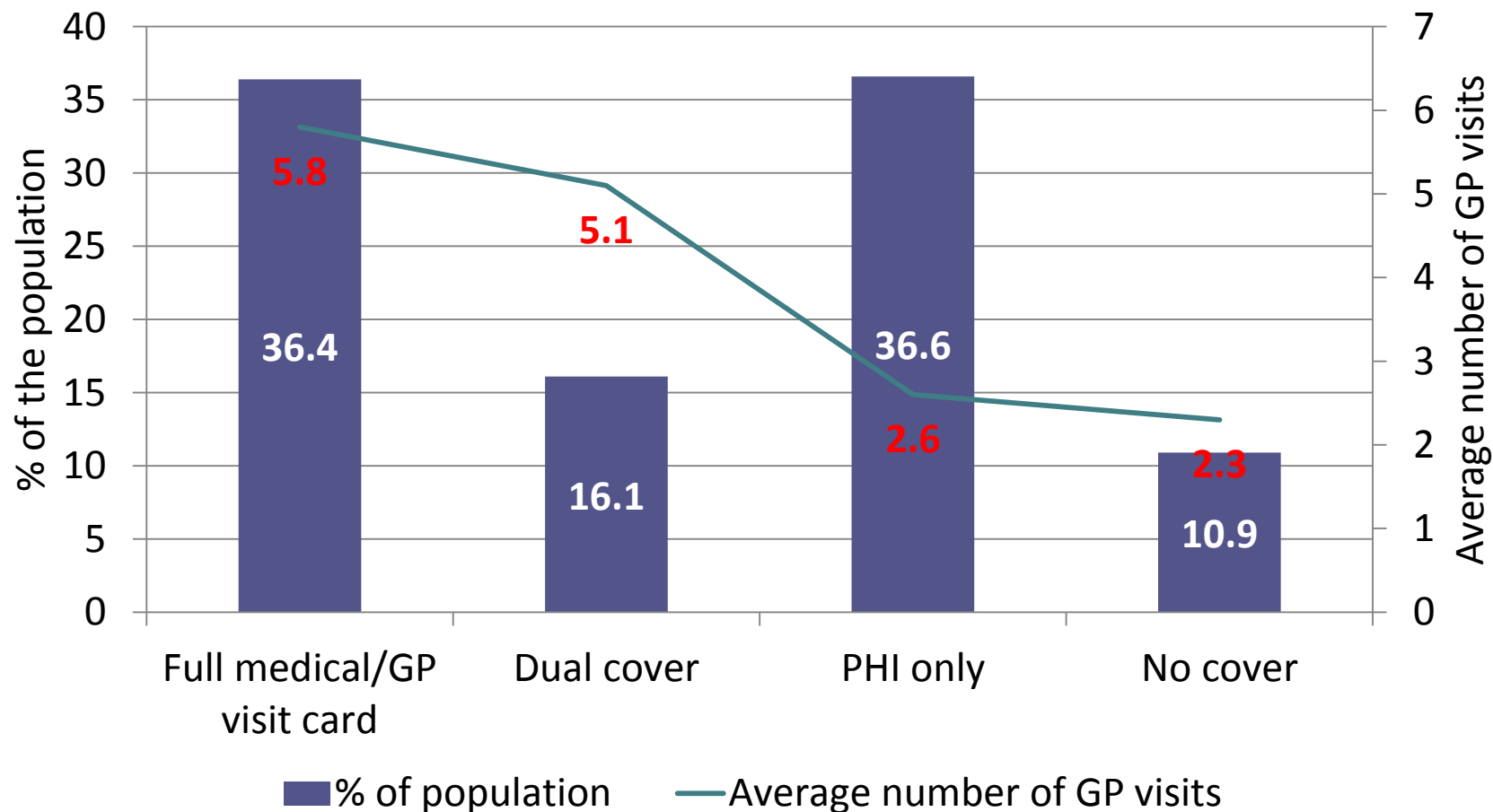
Data

- The Irish Longitudinal Study on Ageing (TILDA)
 - Nationally-representative study of 8,000+ over 50s in Ireland
 - Community-dwelling at baseline
 - Currently planning for wave 5 (2018)
 - Comparable with HRS, ELSA, SHARE...
- Here, use data from wave 1 (2010) and 2 (2012)

Public Healthcare Entitlements & GP Visits (over 50s), wave 1 (2010)



Public Healthcare Entitlements & GP Visits (over 50s), wave 1 (2010)



Methodological Issues

- Endogeneity of public health insurance
 - Not randomly assigned
- Use a variety of econometric techniques to 'deal' with endogeneity
 - Lagged dependent variable
 - Fixed effects
 - Difference-in-difference propensity score matching

DID PSM

- Two ‘treatments’
 - Becoming eligible for a GP visit/medical card
 - Losing eligibility for a GP visit/medical card
- Outcome variables
 - Change in health care utilisation between wave 1 and wave 2
 - DID PSM → controls also for unobserved time invariant characteristics
- Control variables (to estimate propensity score)
 - Age, sex, education, employment, health, *etc.*
 - All measured at wave 1

Results

	Gaining a full MC/GP	Losing a full MC/GP
GP Visits	1.3 ***	-1.2 ***

*** significant at 1% level; ** significant at 5% level; * significant at 10% level
Kernel estimates with bootstrapped standard errors

Results

	Gaining a full MC/GP	Losing a full MC/GP
GP Visits	1.3 ***	-1.2 ***
Number of Medications	0.3 ***	-0.3

No statistically significant effects for influenza vaccination, cholesterol blood test, ED visits, OPD visits or number of nights in hospital

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

Kernel estimates with bootstrapped standard errors

Discussion

- Policy relevance?
- DID-PSM controls for baseline differences in observable characteristics and time-invariant unobserved characteristics
 - Health shocks?
- Future extensions
 - Alternative methods (e.g., RDD)
 - Impact on health

Further Information

Ma, Y. And Nolan, A. (2017). Public Healthcare Entitlements and Healthcare Utilisation among the Older Population in Ireland. *Health Economics* (forthcoming)

Acknowledgements

