BLEEDING HEARTS, PROFITEERS OR BOTH? UNDERSTANDING DOCTORS' FEES IN AN UNREGULATED MARKET

HSRAANZ, WEBINAR SERIES, 27 APRIL 2017

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- Presentation draws on papers by:
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    - Do doctors charge high income patients more? *Economics Letters*, 2012
    - “Bleeding hearts, profiteers, or both: specialist physician fees in an unregulated market” *Health Economics*, 2016
    - “The rise and fall in out-of-pocket costs in Australia: an analysis of the Strengthening Medicare reforms”, *Health Economics*, 2016

AIM

- “[The Government] has no authority to control the amount doctors charge for their services as this would amount to civil conscription. Doctors are free to determine their own value of the health service they provide.”
  - The Australian Department of Health and Ageing, 2009

- To what extend to doctors use this freedom?
  - Prices determine equity and efficiency
  - Distribution of prices (who pays what) gives insights into access
- Has government policy influenced how doctors use this freedom?

OUTLINE

- Setting the scene
- Fee gaps among doctors
  - General practitioners
  - Specialists
- Fees, co-payments and policy change
- Conclusions

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SETTING THE SCENE

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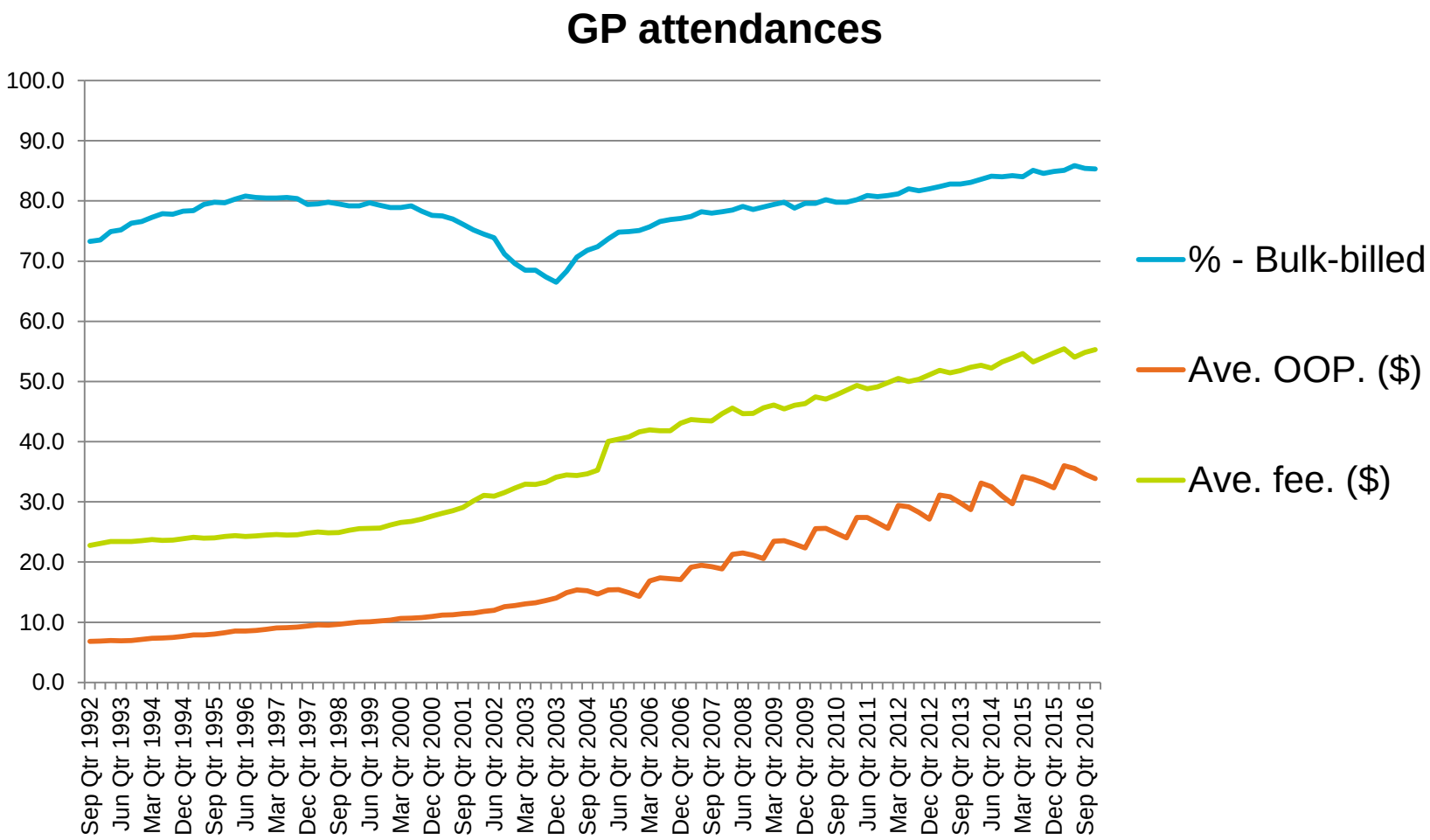
INSTITUTIONAL BACKGROUND

- Medicare coverage
  - All Australians/permanent residents eligible
  - Medical services listed as items on the Medical Benefits Schedule (MBS)
  - Each item has a government set Schedule Fee
  - Covers out-of-hospital and private inpatient services
  - Patient's Medicare benefit claim for out-of-hospital services:
    - Since 2005: 100% of Schedule Fee for GP consults (non-referred attendances)
    - 85% of Schedule Fee for all other items

INSTITUTIONAL BACKGROUND

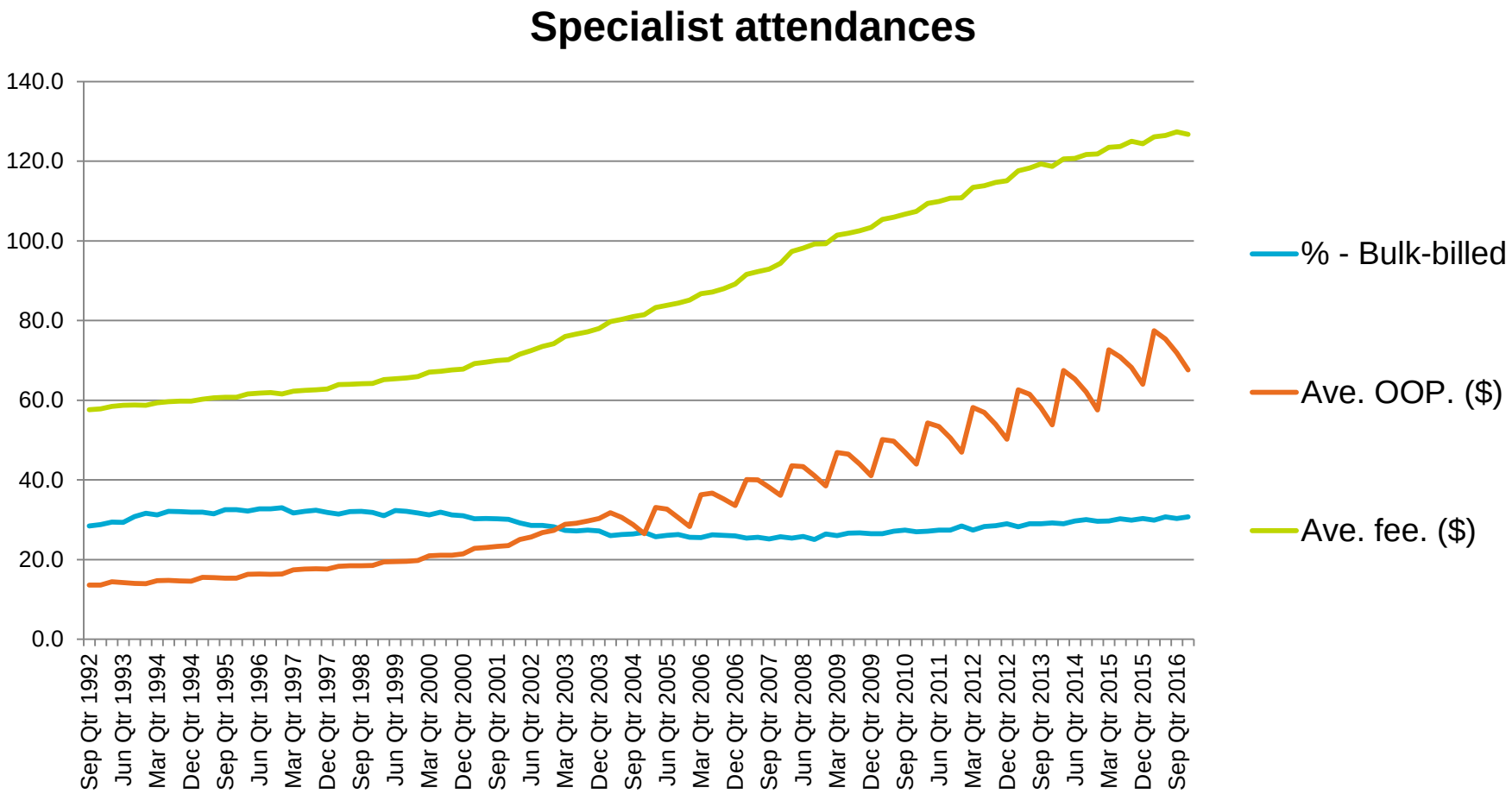
- Doctors not constrained by Schedule Fee
- For out-of-hospital services, patients are responsible for doctors charges above the Medicare benefit
- Out-of-pocket costs closely linked to doctor's fees
  - Safety Net in place to provide additional protection for those with high OOP costs during the year (1 in 20 Australians qualify)

BULK-BILLING, FEES AND OOP COSTS



Source: DOH, Medicare Statistics, February 2017
Out-of-hospital only
Ave. OOP for patient billed services (excludes bulk-billed attendances)

BULK-BILLING, FEES AND OOP COSTS



Source: DOH, Medicare Statistics, February 2017
Out-of-hospital only
Ave. OOP for patient billed services (excludes bulk-billed attendances)

AUSTRALIAN EVIDENCE ON PRICES AND OUT-OF-POCKETS

- Concession-cards protect patients from GP-related OOP costs, but not specialists (Jones et al 2008).
- Higher fees (lower bulk-billing) in rural and region levels – though gap has reduced (Young et al 2003; Dolja-Gore et al 2011)
- Likelihood of GP bulk-billing (De Abreu Lourenco et al 2015):
  - Less likely: larger practice size, income and living in inner or outer regional areas.
  - More likely: chronic diseases, concession card.
- Hip-replacement separations ranged between $18 309 and $61 699 with a median of $26 661 (Hills et al, MJA 2017)
- Widespread variation in initial consultant physician fees (item 110) across and within specialty areas (Freed et al, MJA, 2017).

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FEE GAPS: DO DOCTORS CHARGE DIFFERENT AMOUNTS TO THEIR HIGH AND LOW INCOME PATIENTS?

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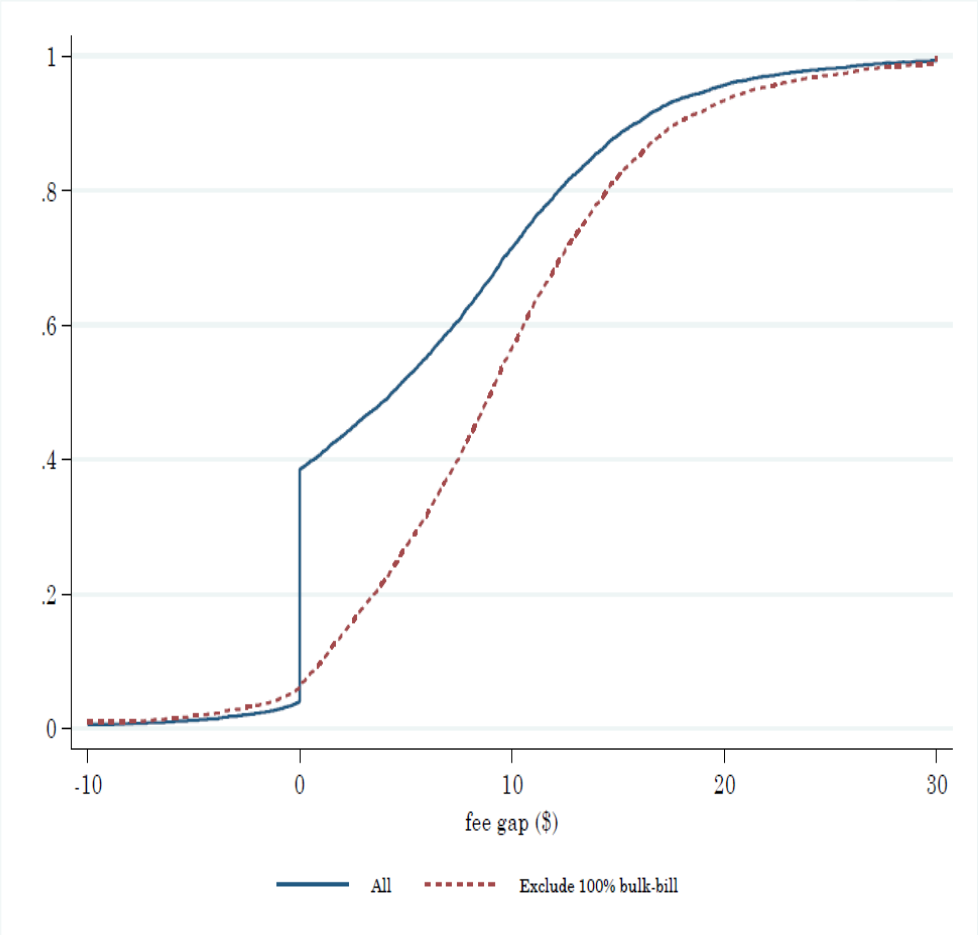
GP FEE GAPS

- Johar (2012):
  - 45 Up study linked to MBS data
  - 260 000 people residing in NSW
  - For MBS item 23, extract GP fee information
    - High and low income patient (top and bottom 25%)
    - First time GP sees patient
    - Measure gap of what GP charges their low income patients and their high income patients (within analysis)
  - Identifies 7500 GPs

GP FEE GAP(JOHAR 2012)

Figure 1: The cumulative distribution of average fee gap between high and low income patients



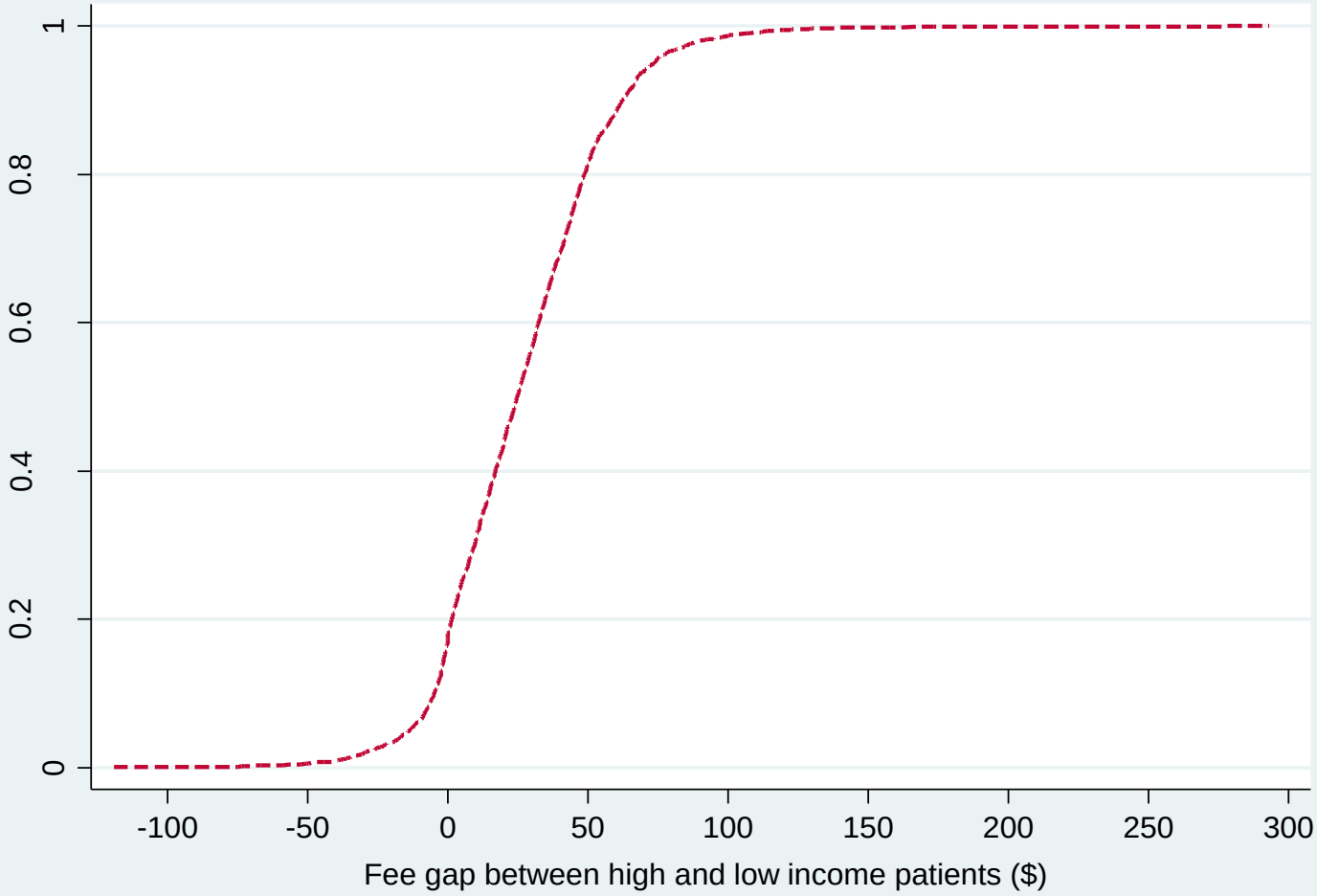
60% of GP charge high-income patients a higher fee compared to their low-income patients, with a median gap $5

Gap persist after accounting for GP quality, area income, but reduces in areas where there is high level of GP competition

SPECIALIST FEE GAP

- Extract MBS fee data for MBS Item 104 (initial attendance) for first observation with specialist
- Sample:
  - 4,202 specialists charge for item 104
  - 16% of these specialists always bulk-bill.
  - Exclude those who do not see at least one high and one low income patients and missing data
  - Final sample: 2,124.

SPECIALIST FEE GAP



Source: 45 and Up Study and MBS Australia

SPECIALIST FEE GAP

	High income	Low income	Fee gap	Number of specialists
All	$142.50	$116.13	$26.38	2,124
A.				
Outside major city (inner regional, outer regional, and remote areas)	$129.52	$111.40	$18.13	406
Major city	$145.57	$117.25	$28.33	1,718
B.				
Most disadvantaged local areas (SEIFA-IRSD deciles 1-2)	$130.77	$102.96	$27.81	205
Mid disadvantaged local areas (SEIFA-IRSD deciles 3-8)	$140.82	$115.83	$24.98	1,333
Least disadvantaged local areas (SEIFA-IRSD deciles 9-10)	$150.44	$121.40	$29.04	586

SPECIALIST FEE GAP

Patients' income status	Mechanisms	Mean fee	Fee gap	Number of specialists
High income	Non-concession card holders	$142.67	$8.25	652
	Concession card holders	$134.42		
Low income	Non-concession card holders	$117.96	$6.03	
	Concession card holders	$111.93		
High income	Have private health insurance	$140.86	$0.20	1,134
	No private health insurance	$140.66		
Low income	Have private health insurance	$117.40	$6.38	
	No private health insurance	$111.02		

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FEES, CO-PAYMENTS AND POLICY CHANGE

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INSTITUTIONAL BACKGROUND

- *Strengthening Medicare* reforms:
  - Introduced and implemented 2004/2005
  - Three main reforms:
    - Medicare Safety Net (March 2004)
    - An incentive for GPs to bulk-bill children and concession cardholders (+ regional) (Mar 2004)
    - Increase Medicare benefit to 100% of Schedule Fee for GP services (Jan 2005)

THE STRENGTHENING MEDICARE GP CHANGES

	Children (age < 16) and Concession Card Holders		General Population	
	Metropolitan Areas	Rural, Remote and outer areas	Metropolitan Areas	Rural, Remote and outer areas
February 2004 Policy (P1)	$5 additional reimbursement to GP if GP 'bulk-bills'	$7.50 additional reimbursement to GP if GP 'bulk-bills'	No change	No change
January 2005 Policy (P2)	Increase in reimbursement of 17.6% to GP for all services, regardless of whether OOP costs are required			

EMPIRICAL STRATEGY

- Random effects model:

$$y_{it} = \alpha_0 + \alpha_1 P1 + \alpha_2 P1 * Reg_{it} + \alpha_3 P2 + \alpha_4 P2 * Reg_{it} + \beta_k \boldsymbol{D}_{it} + \gamma_t \boldsymbol{T}_{t=5-16} + \epsilon_i + \mu_{it}$$ - equation (1)

- Where:
  - y is average OOP cost/fee/benefit per GP consultation
  - P1 = BB incentive; P2 = 100% MBS fee
  - *Reg* is high bulk-billing incentive region
  - D a vector of demographic variables: age cohort, region, education, SEIFA
  - T is a set of post policy dummy variables marking each quarter
- Separate regressions for concession card holders and the general population.

EMPIRICAL STRATEGY

- Subpopulation analysis:
  - Repeat equation (1)
  - Categorise sample on the basis of:
    - Average 2003 OOP costs:
      - Ave OOP < $1.00
      - $1.00 ≤ Ave OOP < $6.00
      - $6.00 ≤ Ave OOP < $12.00
      - Ave OOP ≥ $12.00

DATA

- Australian Longitudinal Study of Women's Health:
  - National representative sample commenced in 1996
  - Three cohorts: young: 1973-'78; mid: 1946-'51; old: 1921-'26.
  - Linked Survey and Medicare Australia data
- Medicare Australia data:
  - Individual level by quarter between Q12003 & Q42005
  - GP: Services, Medicare Benefits, doctor fees, and OOP costs
  - Location: RRMA, SEIFA
  - Concession card status: PBS and survey
- Exclusions:
  - Women who died during observation period
  - Women who switched concession card status during observation period
  - Observations with zero GP services (relevant quarter only)

SAMPLE

	High BB incentive region		Low BB incentive region		Overall
	Concession card	General	Concession card	General	
Sample	3,614	2,397	2,107	1,870	9,988
Mean age (at Jan 2003)	71.3	47.22	72.58	42.79	60.45
Highest education (at Jan 2003)					
High school or trade qualification	84%	53%	81%	37%	67%
University degree	16%	47%	19%	63%	33%

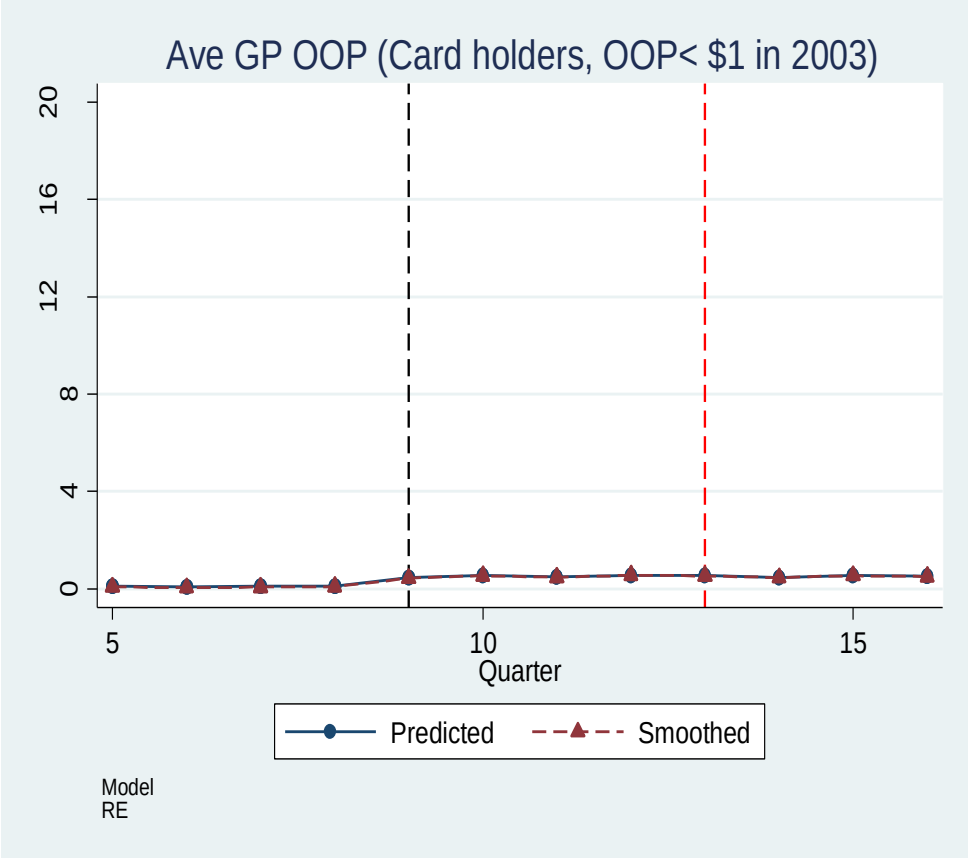
RESULTS: OOP COSTS

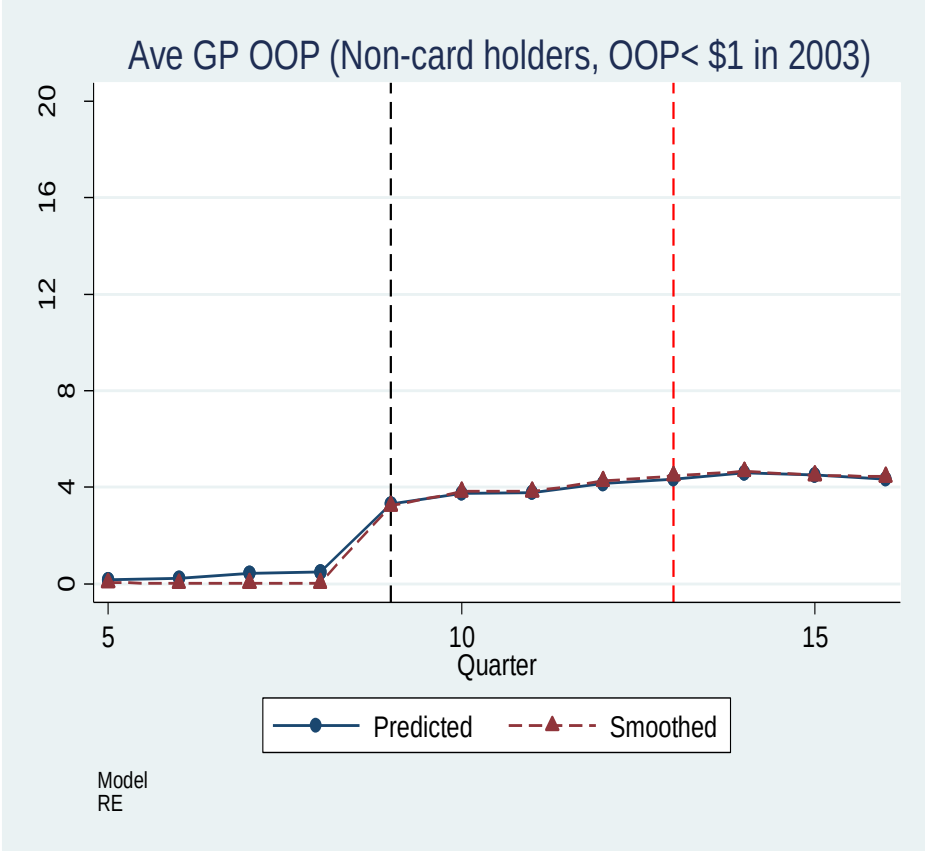
	Concession card holders	General
P1: BB incentive	-0.047	1.232***
	(0.089)	(0.197)
P1: BB incentive*Region	-0.432***	-0.021
	(0.085)	(0.176)
P2: MBS_100%	-0.338***	-0.942***
	(0.086)	(0.204)
P2: MBS_100% * Region	-0.429***	-0.683***
	(0.084)	(0.181)
Constant	3.672***	8.910***
	(0.279)	(0.323)
Observation	64037	49731

COMPARED TO 2003: CHANGES IN $ PER GP VISIT

	Concession card holders	General
Metro areas		
OOP	-0.39	0.29
Medicare benefits	10.66	6.80
Doctor's fees	10.28	7.09
Regions areas		
OOP	-1.25	-0.41
Medicare benefits	7.43	6.35
Doctor's fees	6.18	5.94

CHANGE IN OOP





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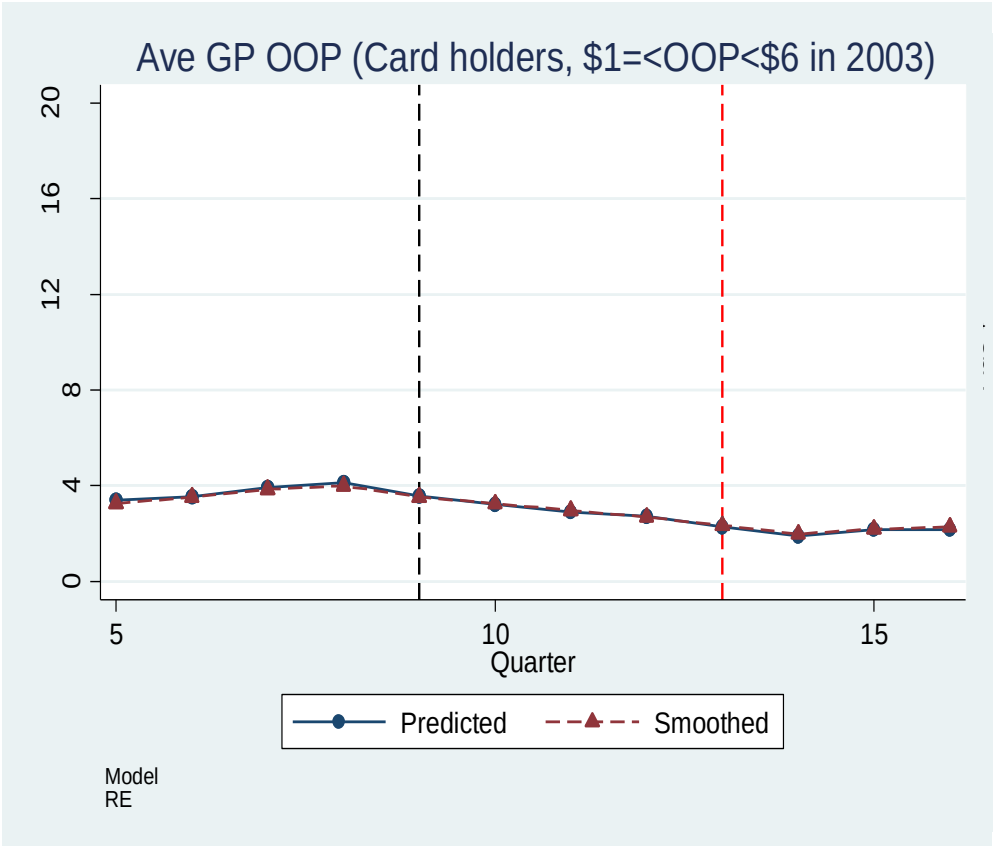

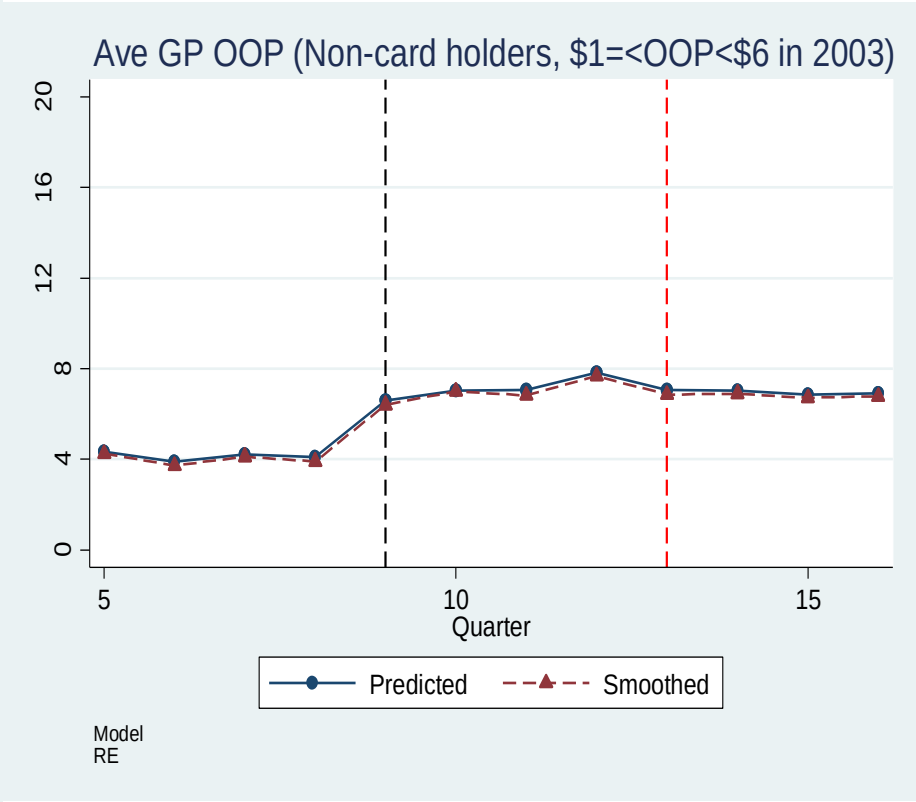

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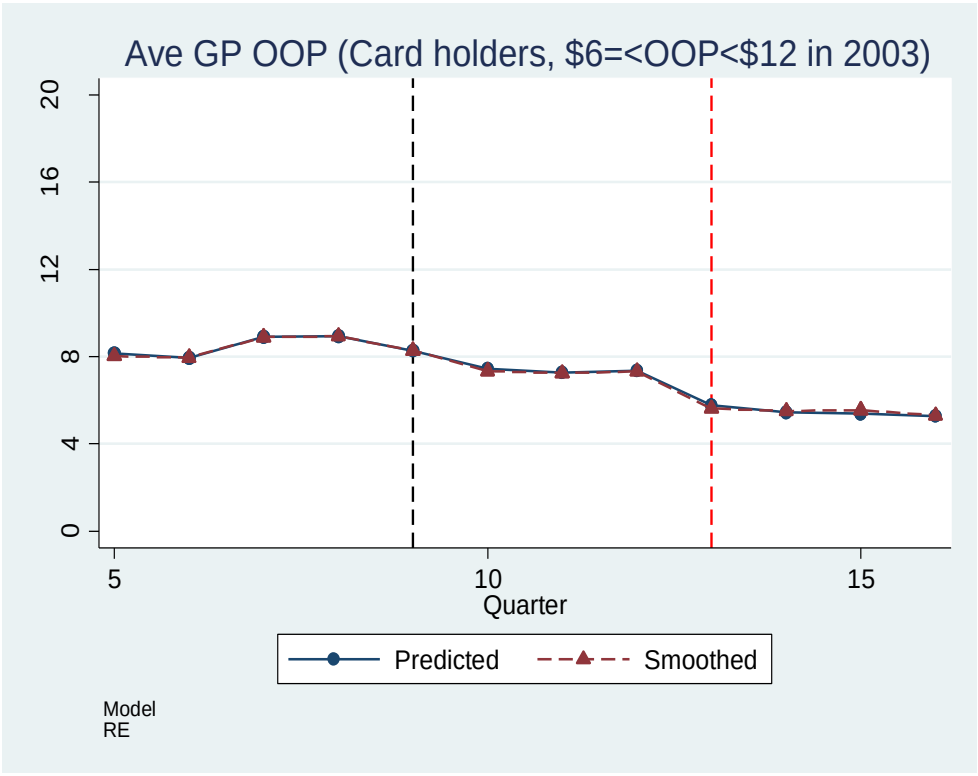

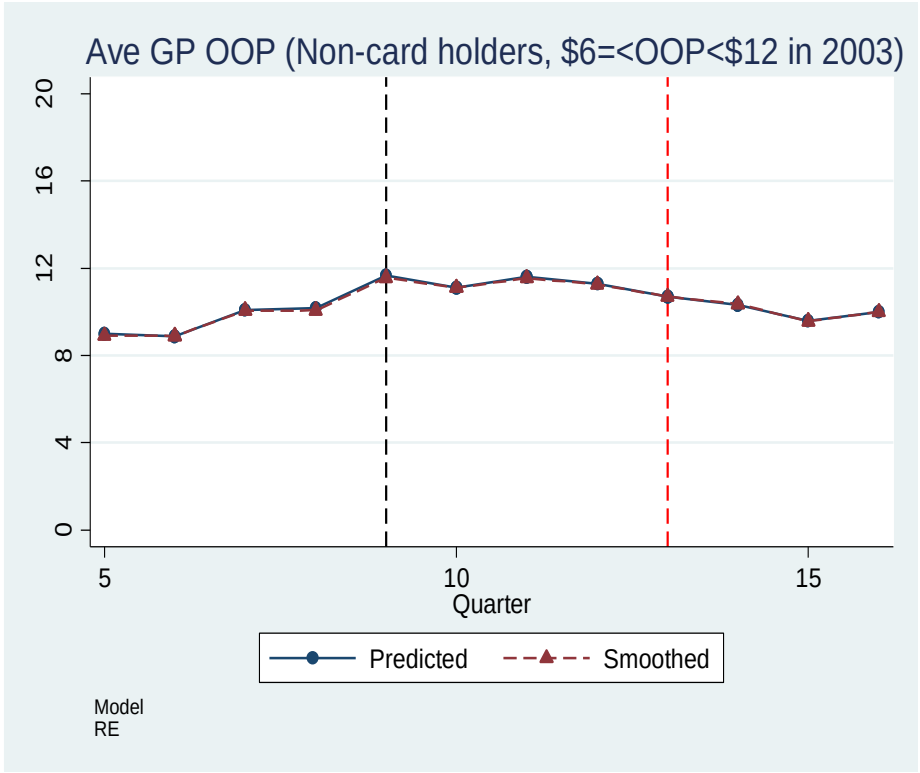

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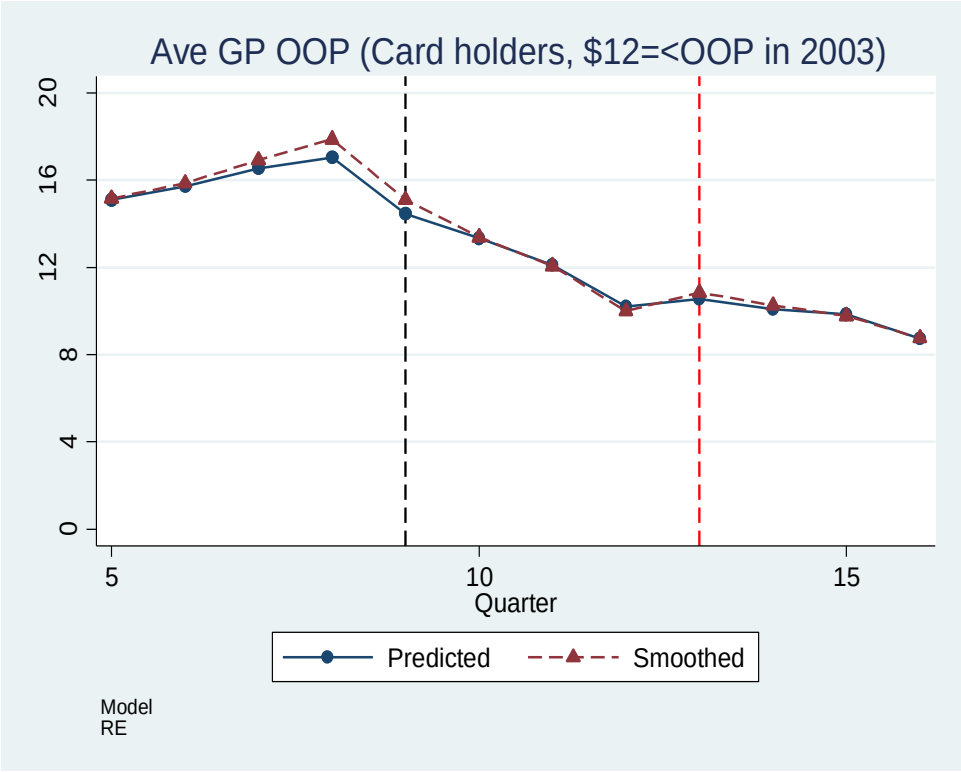

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IMPLICATIONS

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CONCLUSIONS

- Doctors in an unregulated fee setting environment charge higher fees to higher income patients.
- Observable patient characteristics explains gaps to limited extent:
  - matter more for the low income patients than for high income patients
  - may use multiple proxies at once.
- Fee gap is consistent with price discrimination and profit maximisation behaviour if low income patients are more price responsive.
- Despite lower fee for those on low income, specialists fees may still present a barrier to equitable access

CONCLUSIONS

- Strengthening Medicare
  - Some reductions in OOP costs but
    - Depends on concession card status
    - Number of groups saw OOP costs rise
  - Reduction has come at a considerable cost to government
  - Evidence of greater price discrimination based on concession card status

CONCLUSION

- Strengthening Medicare reinforced the role of concession cards for targeting OOP costs.
  - Protects elderly, poor but also middle class
  - But may also create greater barriers for the sick and lower incomes not eligible for a concession card

WHAT'S WRONG WITH PRICE VARIATION?

- Prices and expenditure
- Profiteers:
  - Willingness to pay – extract economic rent
  - Monopolistic competition
    - Product differentiation
  - Transaction costs
    - Price information (lack of)
    - Referrals
    - Continuity of care
- Restricted entry to market
- Bleeding hearts:
  - Equity of access
  - Cross subsidising

POLICY IMPLICATIONS

- Are concession cards too blunt?
  - Alternatives?
- Can greater transparency improve price competition?
  - What if it also reduces cross-subsidies?
- Bulk-billing incentives for specialists
  - Aligned to income, disease, safety net?
  - Insurance design

ACKNOWLEDGEMENTS

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- This research uses data from the 45 and Up Study, which is managed by the Sax Institute in collaboration with major partner Cancer Council New South Wales, and partners the Heart Foundation (NSW Division); NSW Ministry of Health; *beyondblue*; Ageing, Disability and Home Care, NSW Family and Community Services; Australian Red Cross Blood Service; and Uniting Care Ageing. This project was undertaken by the University of Technology Sydney and utilised MBS data supplied by the Department of Human Services and linked to the 45 and Up Study by the Sax Institute. The study's findings are those of the authors' and do not necessarily represent the views of the Department of Health, or the Department of Human Services. All opinions and any mistakes are our own.
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