The impact of co-payments for nursing home care on use, health, and welfare

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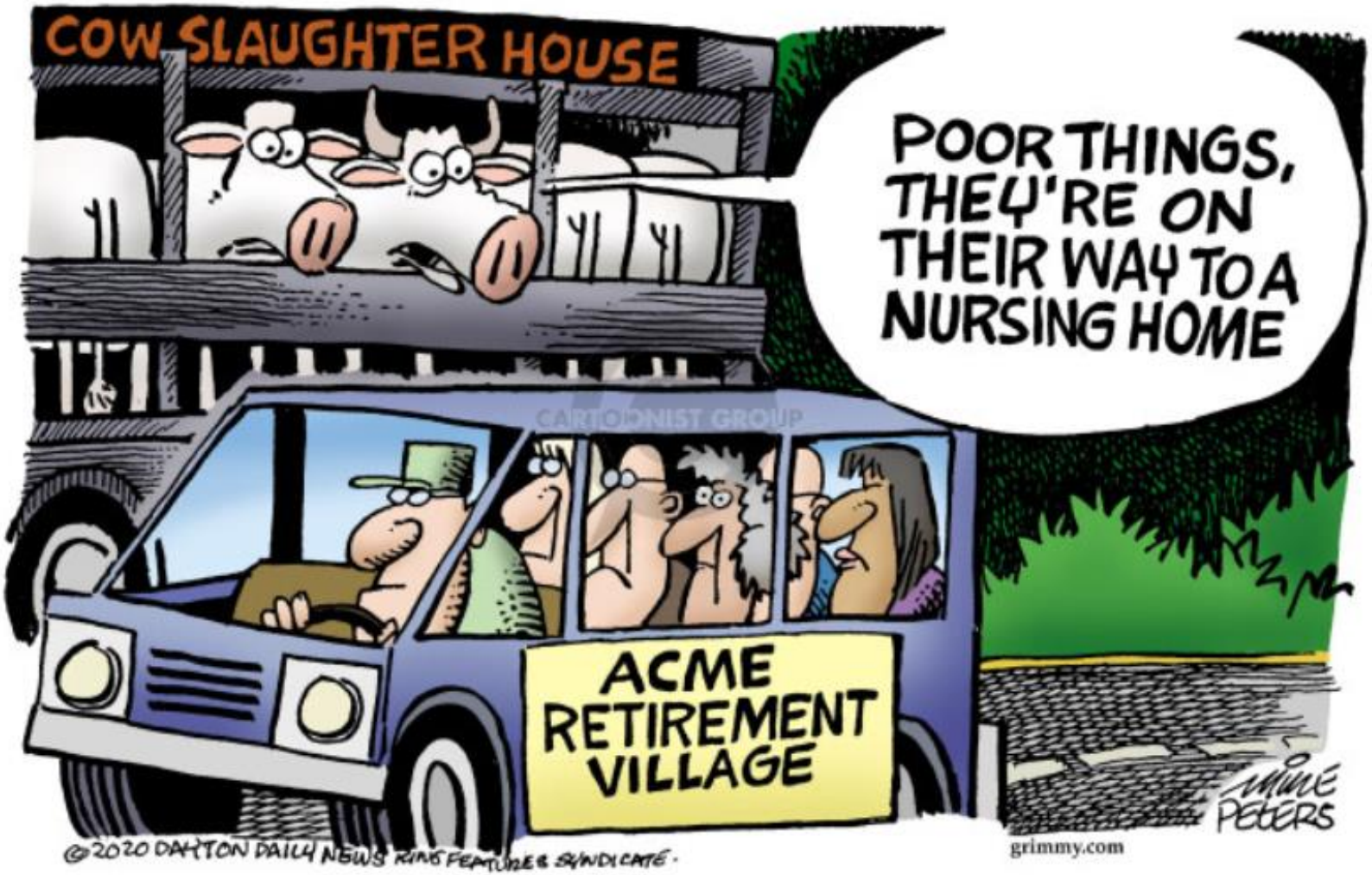
EsCHER

Co-payments for nursing home care are high

- Many countries require substantial co-payments for users of nursing home care
  - Even in NL, 5% of middle-income older people will spend more than 30.000 euros on co-payments, and 1% more than 80.000. (Wouterse et al., 2020)
- Co-payments are expected to:
  - Reduce public spending
  - Stimulate ageing in place
  - Reduce moral hazard/suboptimal use of care

No-one wants to go to a nursing home



This Paper

- Estimate the impact of co-payments on NH use
- Exploit a reform of co-payments on long-term care implemented in the Netherlands
  - difference-in-difference approach
- Provide evidence of causal effect of demand-side financial incentives on permanent NH admissions
  - No effects on financial access or quality
- Shed light on the likely welfare effects of the reform
  - mortality/ health care use/ home care use/ outcomes for potential informal caregivers to capture spillovers and health responses
  - Factor in the financial risk

LTC in the Netherlands

- Home care and institutional care are financed through a social insurance (AWBZ, until 2015)
- Eligibility for LTC
  - Independent needs assessment
  - Access to different types of home/nursing home care depending on need
- Admission into a nursing home
  - Choice of provider and timing of entry left to the client
  - Home care as an alternative
  - Provider payment independent of co-payments

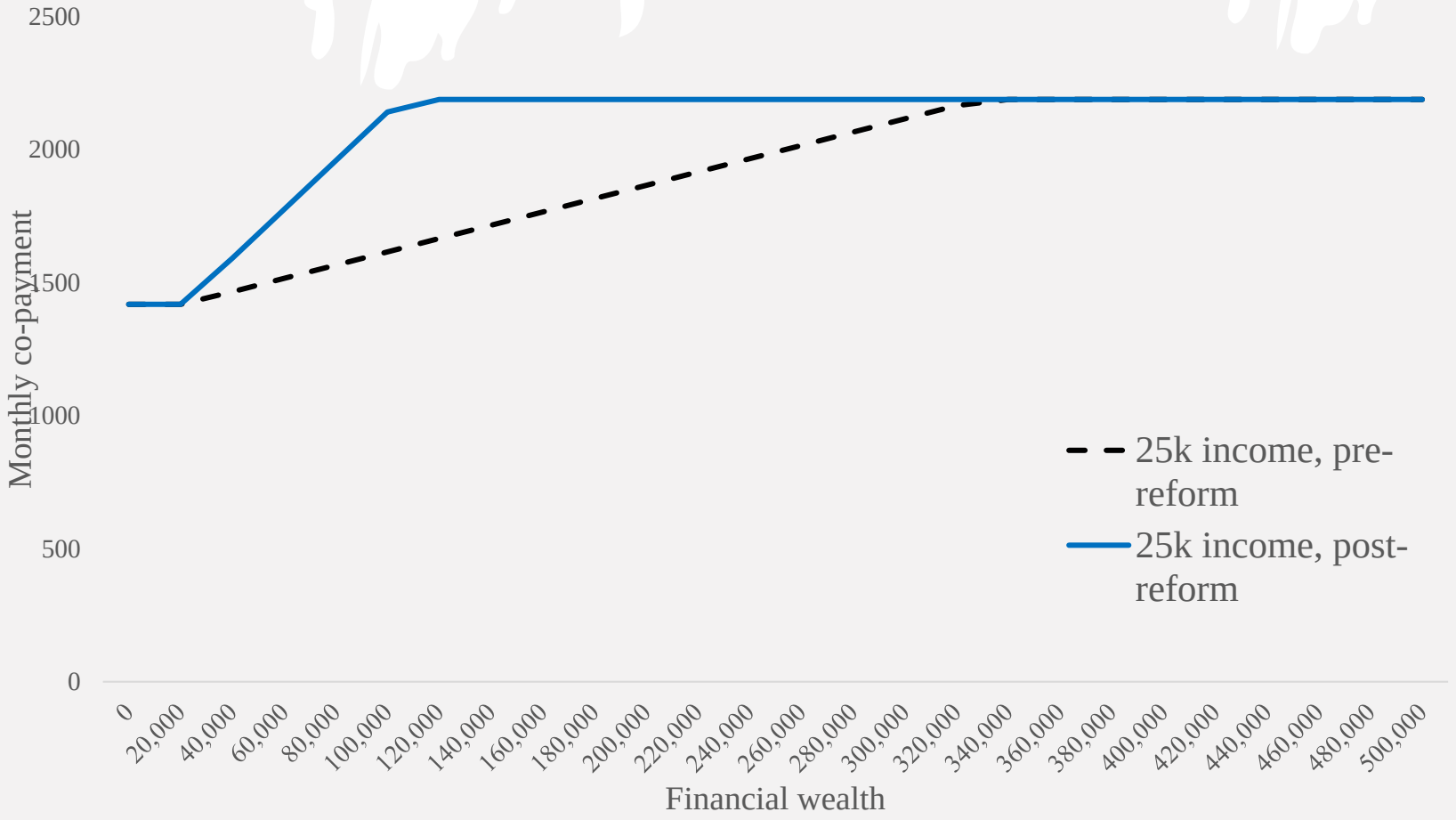
Co-payments for care users

- Co-payments: < 10% of aggregate LTC costs
- Co-payments for nursing homes
  - Function of income+wealth
  - Capped at a maximum (2,300 euros per month)
- Home care
  - Depend on volume of care used
  - Capped at a much lower level

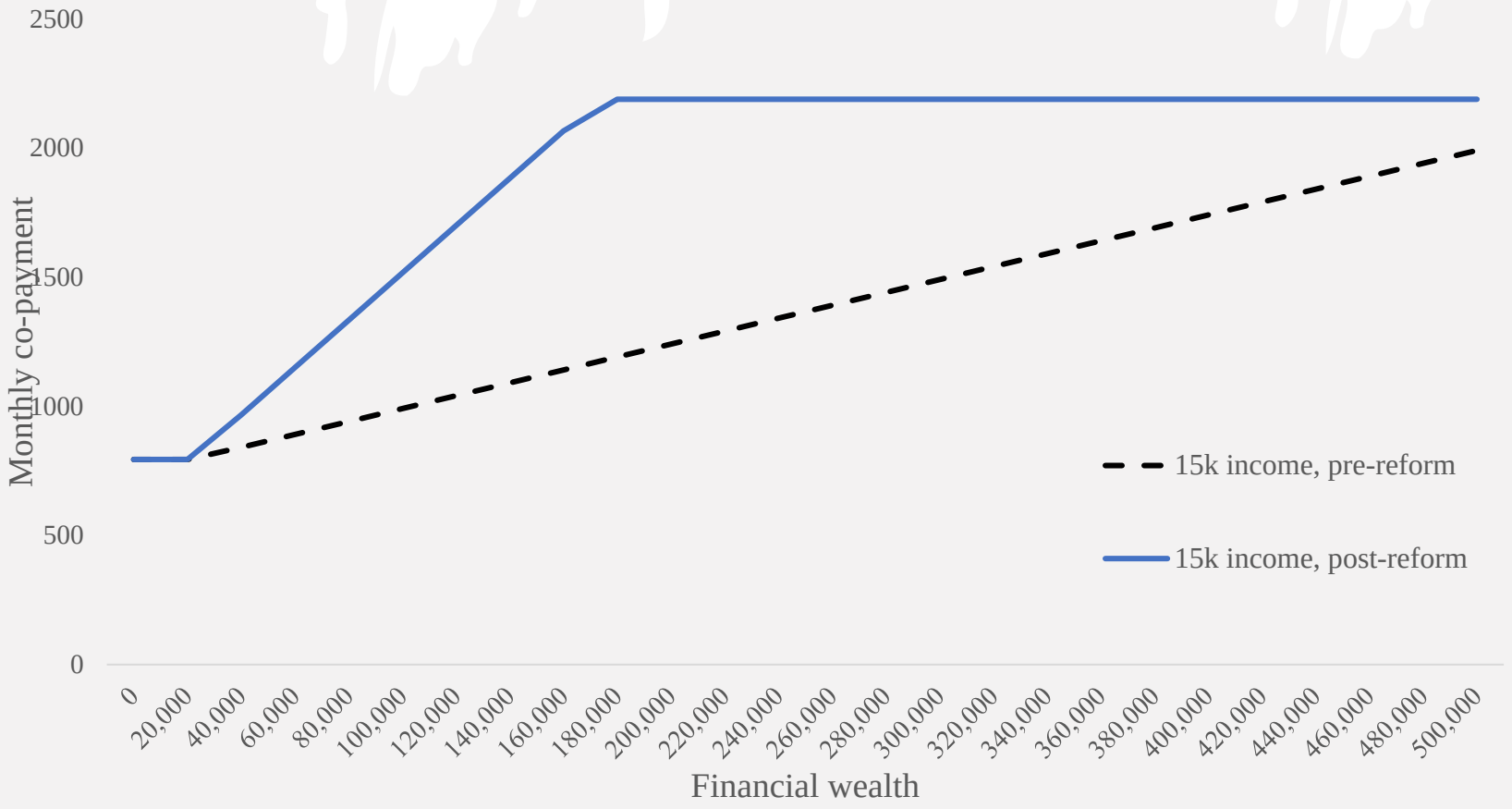
The co-payment reform in 2013

- Before 2013, 4% of taxable wealth was added to the income definition to determine the co-payment
- In 2013, an additional 8 % of wealth was added to the co-payment calculation
- Increase in the private price of NH care,
  - But only for those with relatively high wealth

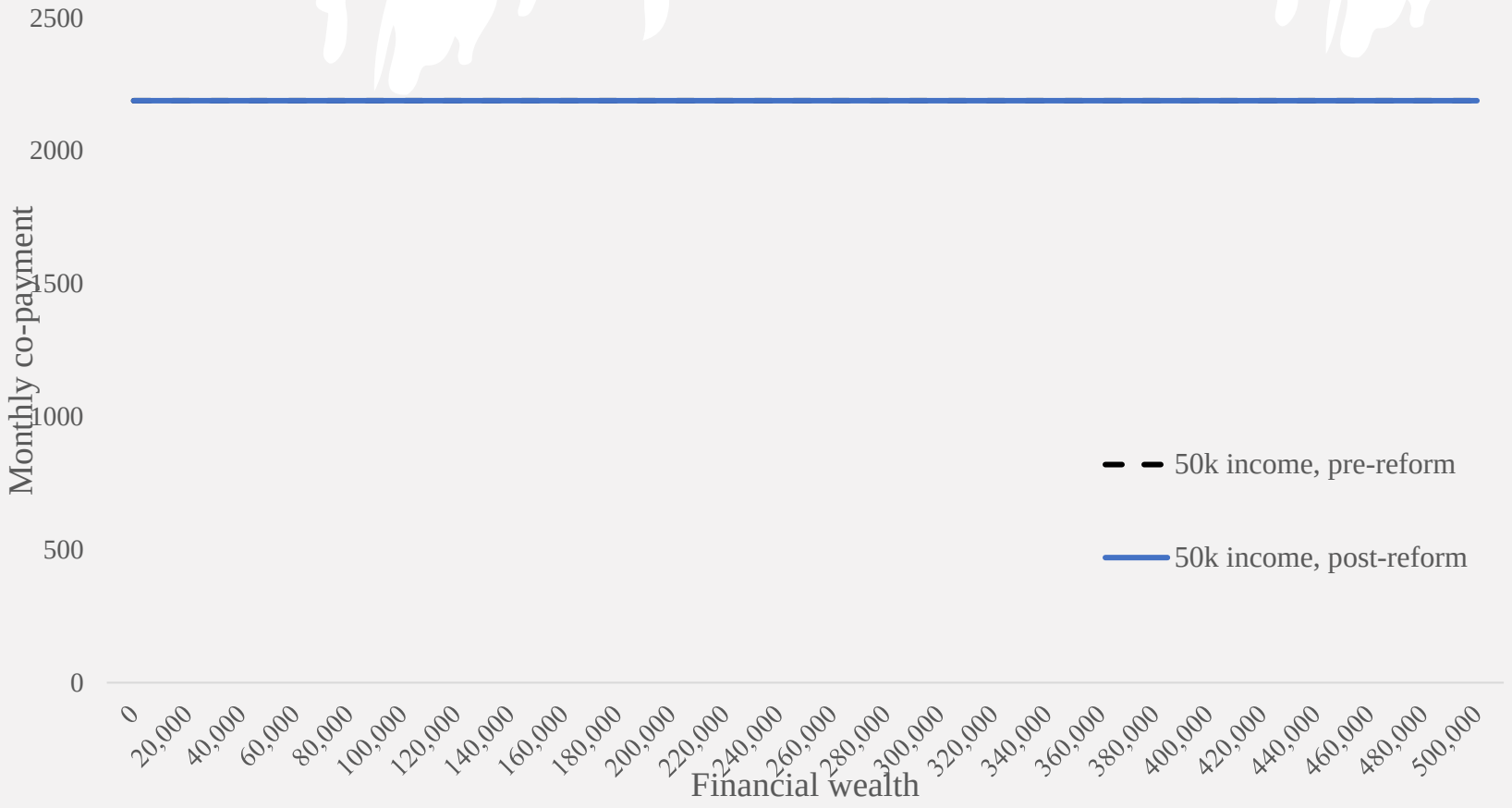
Co-payment by wealth
(for individual with 25.000 euros taxable income)



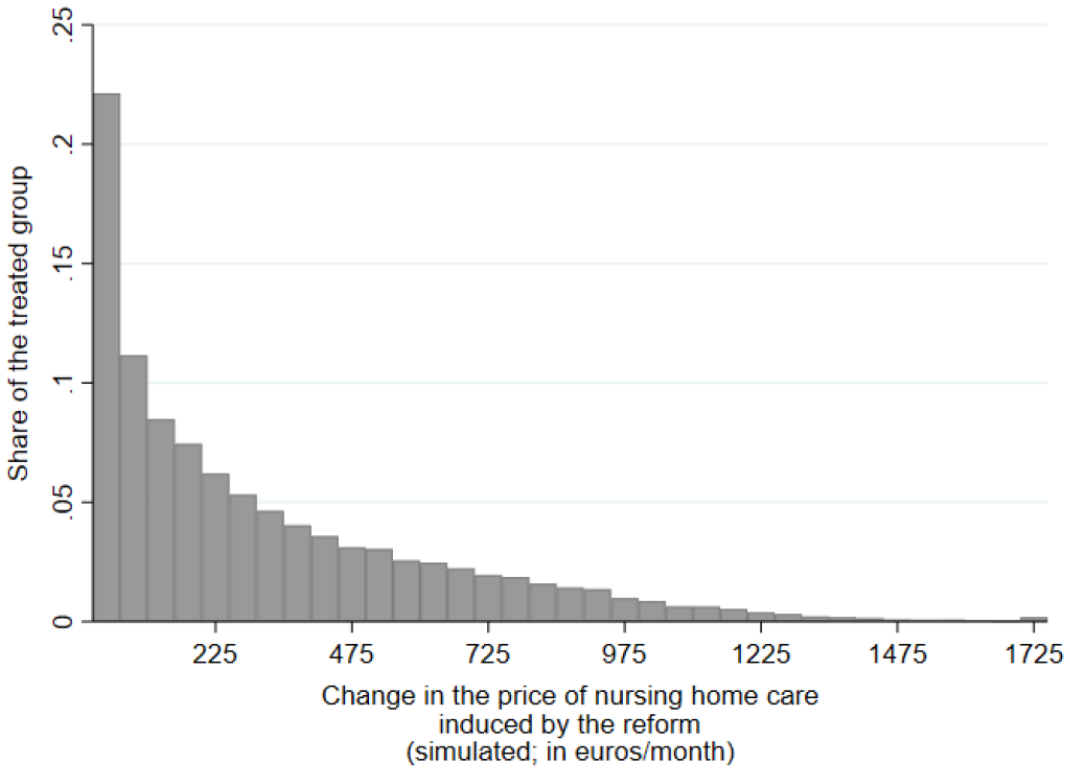
Co-payment by wealth
(for individual with 15.000 euros taxable income)



Co-payment by wealth
(for individual with 50.000 euros taxable income)



37% of eligible singles experienced a price change



- Distribution of the change in the monthly co-payment (for individuals who experienced an increase in price)

Data

- Sample:
  - Individuals who become eligible for NH care for the first time between January 2009 and December 2014
  - Focus on the 66+ who are singles
  - N = 79,559 individuals

- Data sources:
  - Administrative data for the entire Dutch population
  - Tax data (income, wealth), eligibility for LTC, use of LTC (home care, nh care), medical care costs, mortality, socio-demographic data, parent-child links

Outcomes

- Probability of NH use within 1 year after eligibility
- Number of NH days used within 1 year after eligibility

- Mortality (within 2 years after eligibility)
- Health care expenditures (in year of eligibility)
  - NH care, home care, hospital care, medical care
- Potential caregivers: childrens' health care use and income

Empirical approach

- Dif-in-dif, with those unaffected by the reform as the control group
- Use linear price effect:

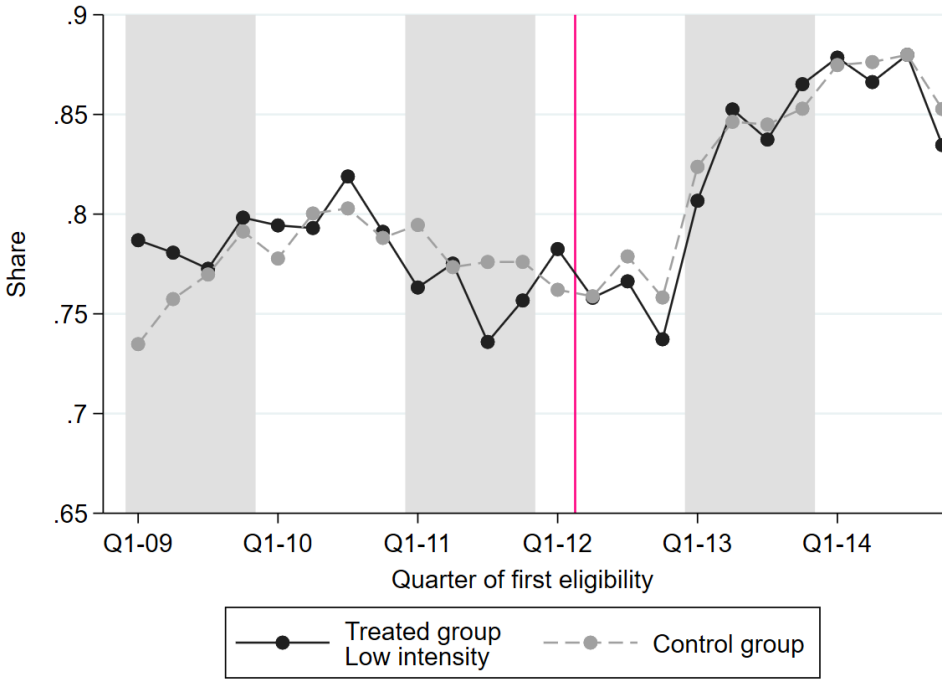
$$Y_{it} = \beta_0 + \beta_1 Treat_i + \beta_2 Post_t + \beta_3 Post_t \times Treat_i \times \Delta_i + X_i' + \varepsilon_i$$

  - Y: outcome
  - Treat: dummy for treatment status
  - Post: dummy for post-reform
  - Δ: reform-induced change in the monthly price of nh care (in 100 euros)
  - X: covariates (including quarter FE)

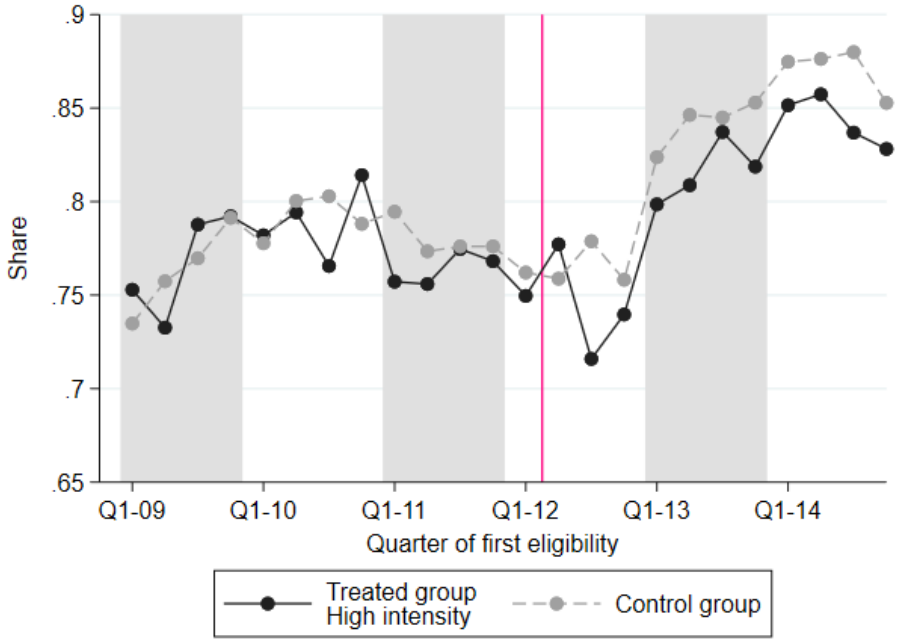
- β_3: impact of a 100 euros changes in the monthly price for NH care

Probability of NH use within 12 months after eligibility, by quarter of first eligibility.

Control versus low-intensity treated



Control versus high-intensity treated



Effect of a 100 euro increase in the monthly co-payment

	P(nursing home use)	Days in nursing home
$Post_t$ $\times Treat_i$ $\times \Delta_i$	-0.003*** (0.001)	-0.821** (0.323)

Reading of results

- On average, the reform decreased the probability of entering a NH within 12 months after eligibility by 1.15 percentage points for the treatment group
- Price elasticity: -0.04

Effects on health care spending

(per 100 euro increase in the monthly co-payment)

	Nursing home costs	Home care costs	Medical care costs	Hospital care costs	Total care costs
$Post_t$ $\times Treat_i$ $\times \Delta_i$	-299,40*** (103.2)	50.80 (53.16)	-58.06 (54.81)	-43.52 (31.87)	-306.7*** (115.1)

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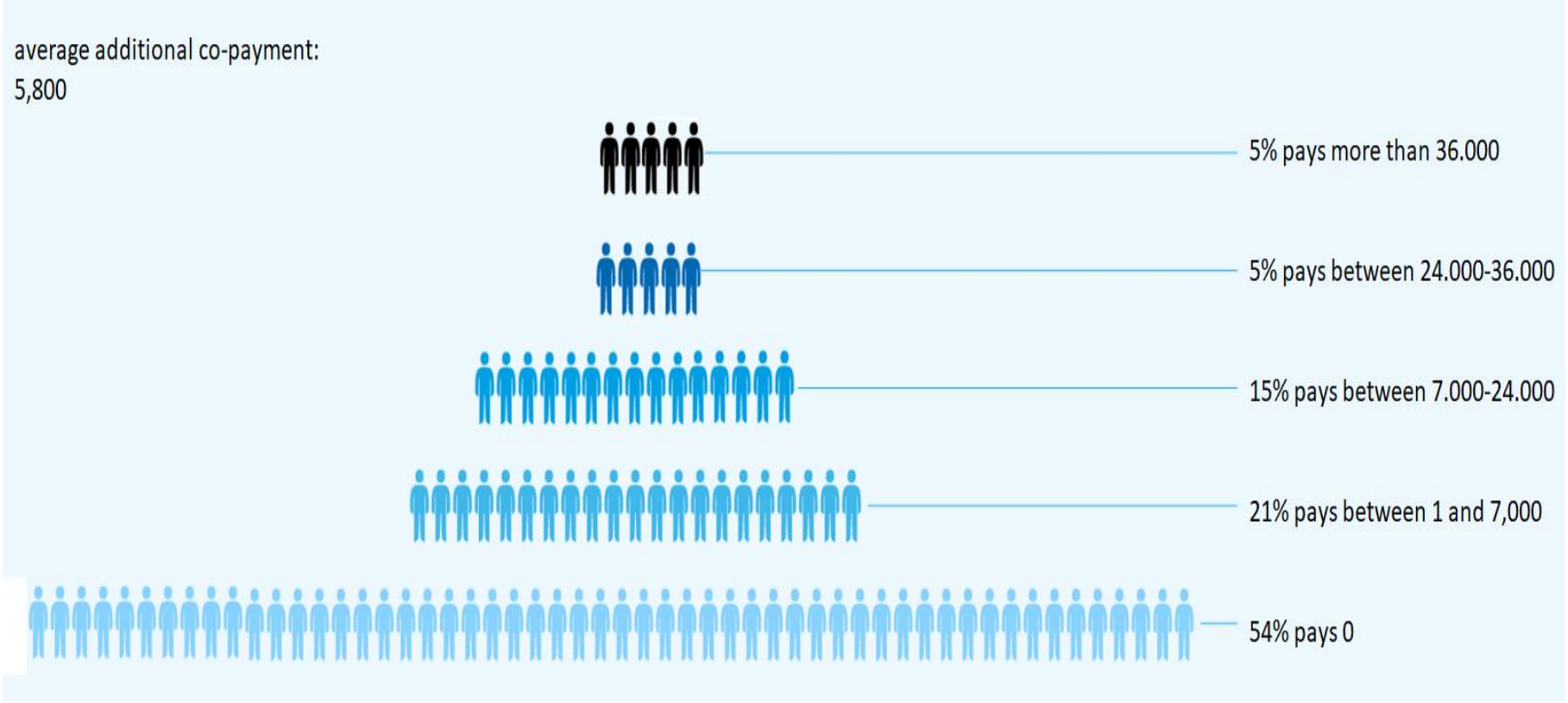
On average, the reform decreased total care spending by 440 euros per affected individuals (ATT)

Other outcomes and heterogeneity

- No effect on mortality
- No effect on childrens' income or care use
- No effect on the probability of becoming eligible

- Some evidence that effects on use are largest for groups for which we'd expect the most price sensitivity: individuals without dementia, individuals with children (who do not work)

The distribution of additional lifetime co-payments for individuals with moderate income and wealth (in euros)



Welfare effects?

Conclusions I

- Results suggest that co-payments do affect NH admissions for singles
  - A 100 euro increase in the monthly co-payment reduced the probability of a NH admission by 0.3 %-points and the days spent in a NH by 0.8 days
  - In terms of the change of the *marginal* price, this seems economically meaningful
- Limited (negative) spillovers in terms of mortality, other (health) care use or impact on informal care givers

Conclusions II

- However,…
- Lifetime co-payments and financial risk increase substantially
  - Also relative to the reduction in moral hazard

- Policy challenge:
  - How to combine substantial marginal price with limited impact on lifetime co-payments
  - Cap on lifetime payments (Dilnot, 2011)?