



**Does a mandatory telemedicine call prior
to visiting a physician reduce costs or
simply attract good risks?**

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Research goal

- Estimate the cost efficiency of a mandatory call to a telemedicine center prior to visiting a physician
- Efficiency is defined as a reduction of direct costs (medical bills)
- Cost efficiency potential: “real” physician visits saved, optimal patient steering
- Data from a major Swiss health insurance

Settings

- Comparison of two insurance plans:
 - Traditional fee-for-service plan (FFS) in which insured are free to call the telemedicine center (free of charge)
 - Alternative plan (Tel) in which insured have to call the telemedicine center prior to visiting a physician (free of charge)
- Same insurance coverage
- Premium reduction for the Tel model

Settings

- Comparison of two insurance plans:
 - Traditional fee-for-service plan (**FFS**) in which insured are free to call the telemedicine center (free of charge)
Supplied from 1996
 - Alternative plan (**Tel**) in which insured have to call the telemedicine center prior to visiting a physician (except in case of emergency)
Supplied from 2003
- Same insurance coverage
- Premium reduction for the Telmed model

Problematic

	FFS	Tel
Average expenditures in 2004	2'983	1'654
Difference FFS / Tel	1'329	

- ⋮ This huge difference may be explained by a strong **selection effect** as well as an **efficiency effect**

Evidence of selection

	FFS	Tel
Average expenditures in 2004	2'983	1'654
Difference FFS / Tel	1'329	
	FFS in 2004	Tel in 2004
Average expenditures in 2002	2'292	1'165
Difference FFS / Tel	1'126	

- Let's look at the average health expenditures in 2002, when all insured were in the FFS plan, given the future choice of insurance plan in 2004

Empirical problematic

- Need to get rid of the selection effect to estimate the efficiency effect
- Data: no good information on health status but very reliable data on health expenditures
- Observations from 2001 to 2006

Identification strategy

- Use the **information revealed by the insured** by the insurance plan choice
- Compare different groups :
 - Insured who never choose the “Tel” plan
 - Insured who choose once the “Tel” plan but not that year
 - Insured who choose the “Tel” plan that year

Econometric estimation

- Estimation of an econometric two steps model using all observable variables and constructed dummies to capture the revealed information
- 10% of the overall costs difference between the "FFS" and the "Tel" plans is explained by an efficiency effect, 90% by a selection effect

Main results

- A mandatory call to a telemedicine center prior to visiting a physician **reduces the overall costs by about 10%...**
- ... but it also **attracts good risks !**
- The efficiency effect represents a cost reduction of about CHF 150 (~ € 110) on average per year per insured (2 visits to a GP)
- Cost-effective: cost reduction is greater than the cost of the telemedicine service.



Thank you for your attention
Questions ?