

# Variation in mental health care use at the end of life in Switzerland

**Xhyljeta Luta**

**Institute of Social and Preventive Medicine (ISPM)  
Bern, Switzerland**

# Overview

---

- Background
- Methods
- Results
- Conclusions

# Background

---

- Previous studies have documented high levels of psychiatric disorders among people approaching death (Gruneir *et al.*, 2006).
- Between 25 and 77% of people at the end of life experience psychiatric problems (Fine., 2001).
- Depression, anxiety, delirium, and suicides (Kelly., 2002).

# Background

---

- Mental health are associated with a reduced quality of life and increased costs to the health care system (Kelley., 2011).
- There is a lack of information about use of mental health care services (MHS) at the end of life in Switzerland.
- We need evidence to address the growing mental health needs of of this population.

# Aim

---

- To examine mental health service (MHS) use the in last 12 months of life.
- To compare overall health care services and costs among users and non-users.

# Methods: Inclusion criteria

---

- Died between 2008 -2010
- Aged 19 over
- Used MHS in the last months of life

# Methods: Exclusion criteria

---

Missing information on:

- Age (N= 555)
- Date of death (N= 36)
- Community number (N= 288)
- Provider group (N=17)

# Methods: Study population

---

- 118,031 Swiss residents who died between 2008-2010 (63% of the deceased).
- 6,511 persons who used MHS in their last 12 months of life.
- 8,389,405 health care claims.
- 62,487 mental health claims (MHC).



# Methods: Health providers

---

- Primary care
- Specialists
- Hospital ambulatory care

# Methods: Types of MHS (TARMED)

---

- **Diagnostics and psychotherapy**
  - Individual and group therapy
  - Psychological and psychiatric tests
  
- **Phone consultations**
  - Consultations with the specialists (psychiatrist, psychologist)
  - Consultations with parents/relatives of patients
  
- **Treatment of psychiatric crisis**
  - Provided in the psychiatric clinics

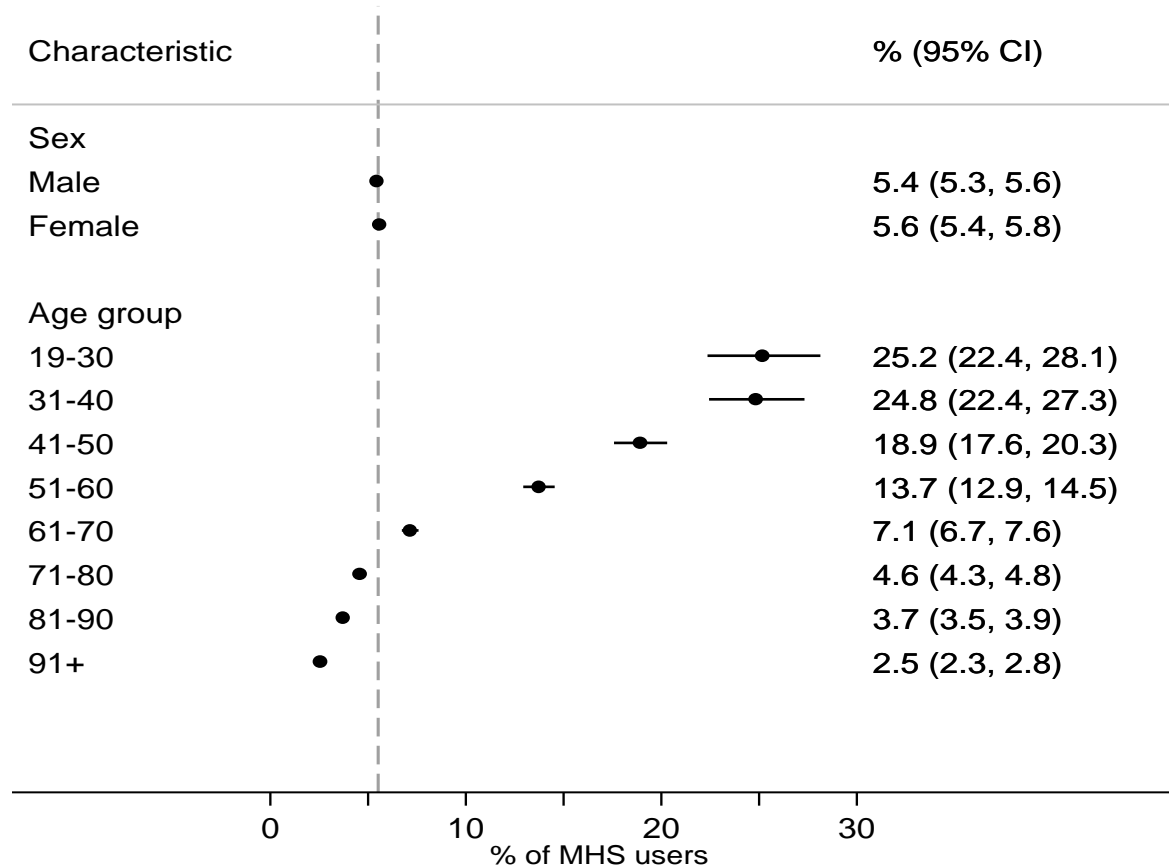
# Methods: Statistical analysis

---

- We calculated means in the case of continuous variables and percentages in case of categorical variables.
- We modelled total cost using a multiple linear regression:
  - among users
  - non-MHS costs comparing users and non users
- We adjusted for sex, age, language region, urbanicity and neighborhood socio - economic position (Swiss-SEP).

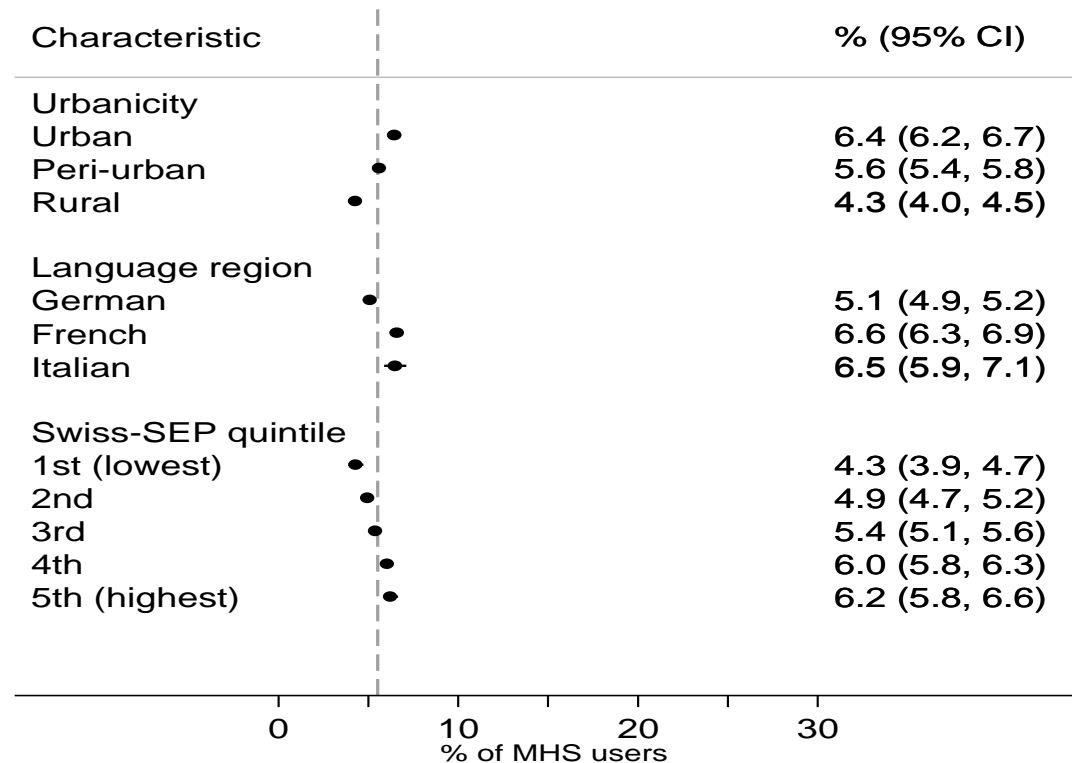
# Results:

## Study population by users and non-users

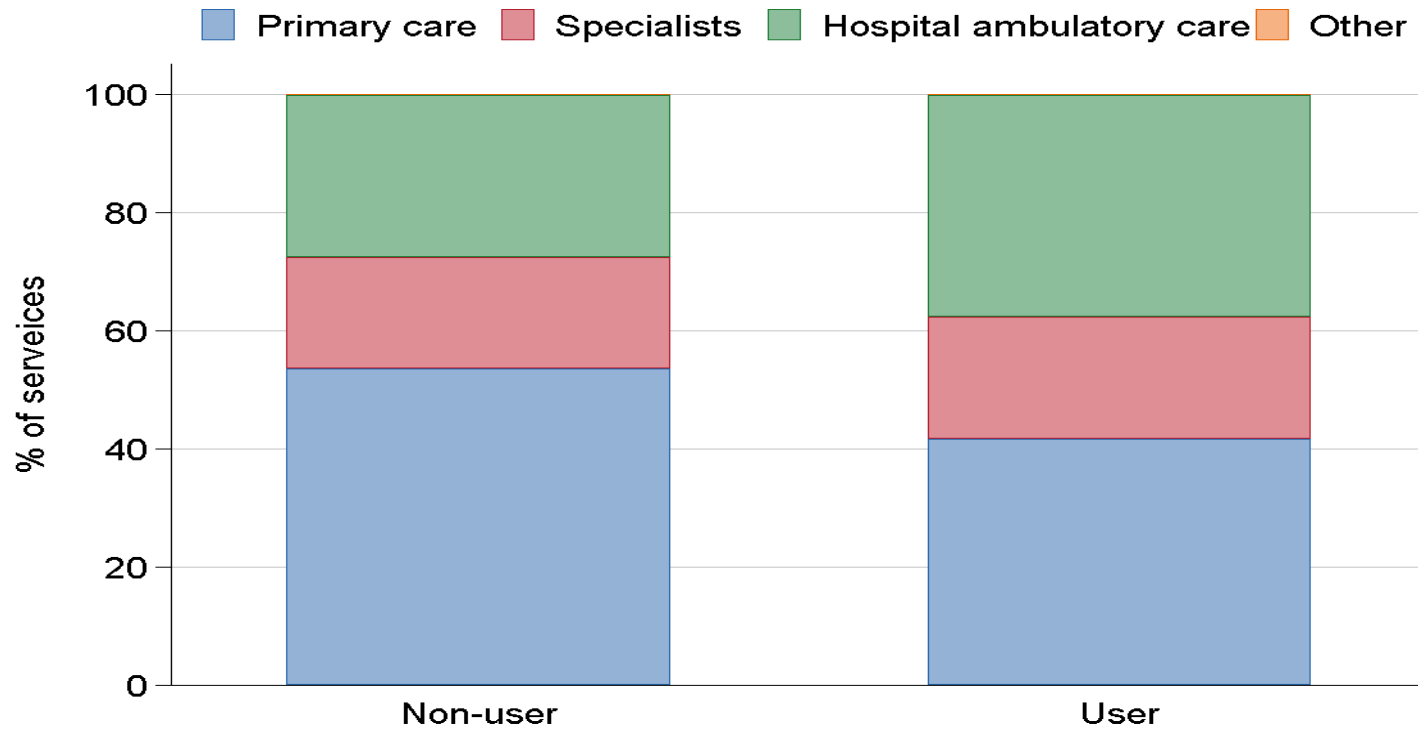


# Results:

## Study population by users and non-users

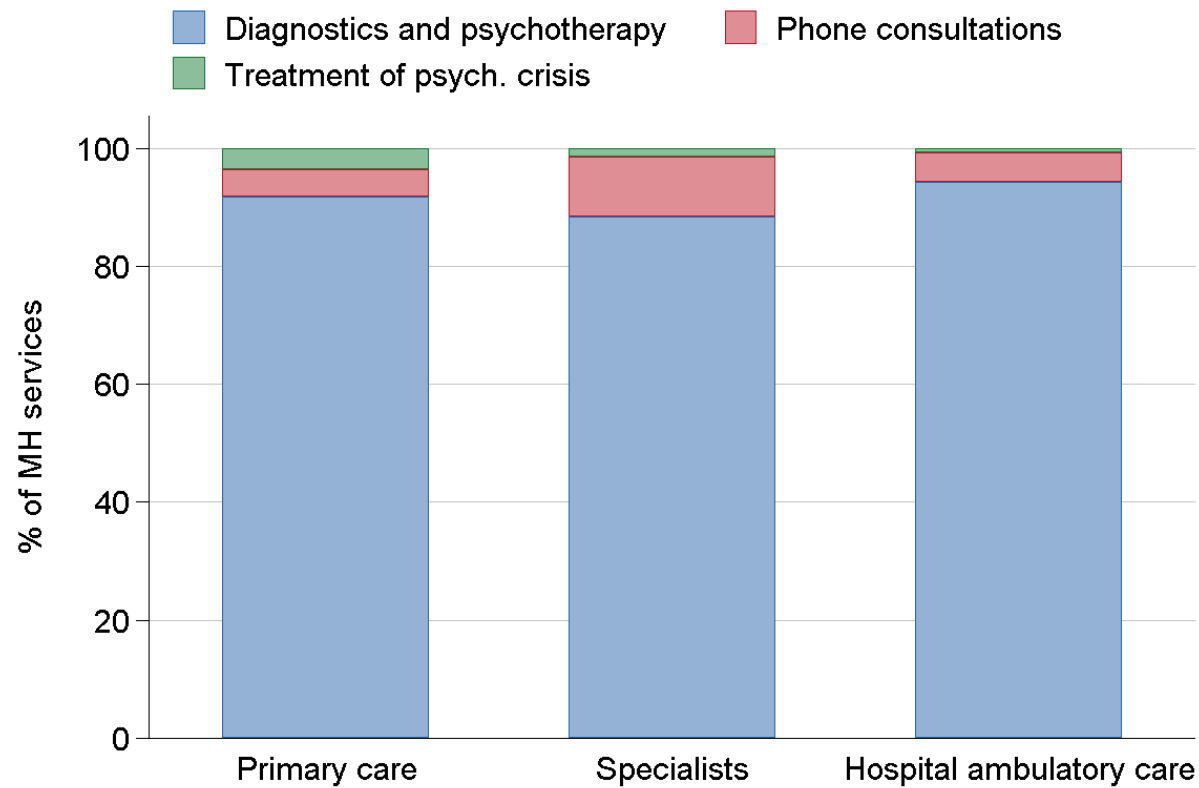


# Results: Provider by users and non-users



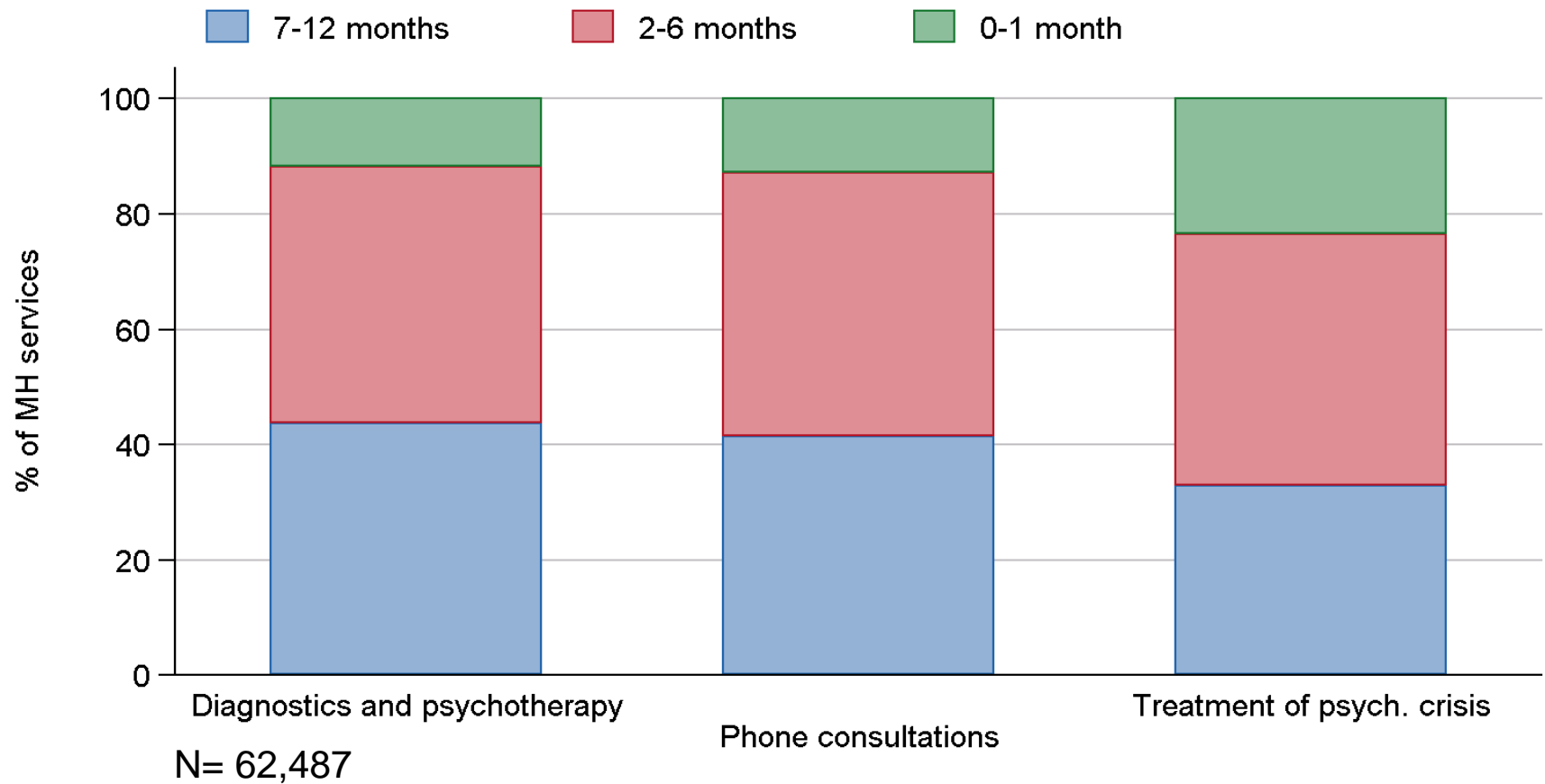
N= 8,326,925

# Results: MHS by provider



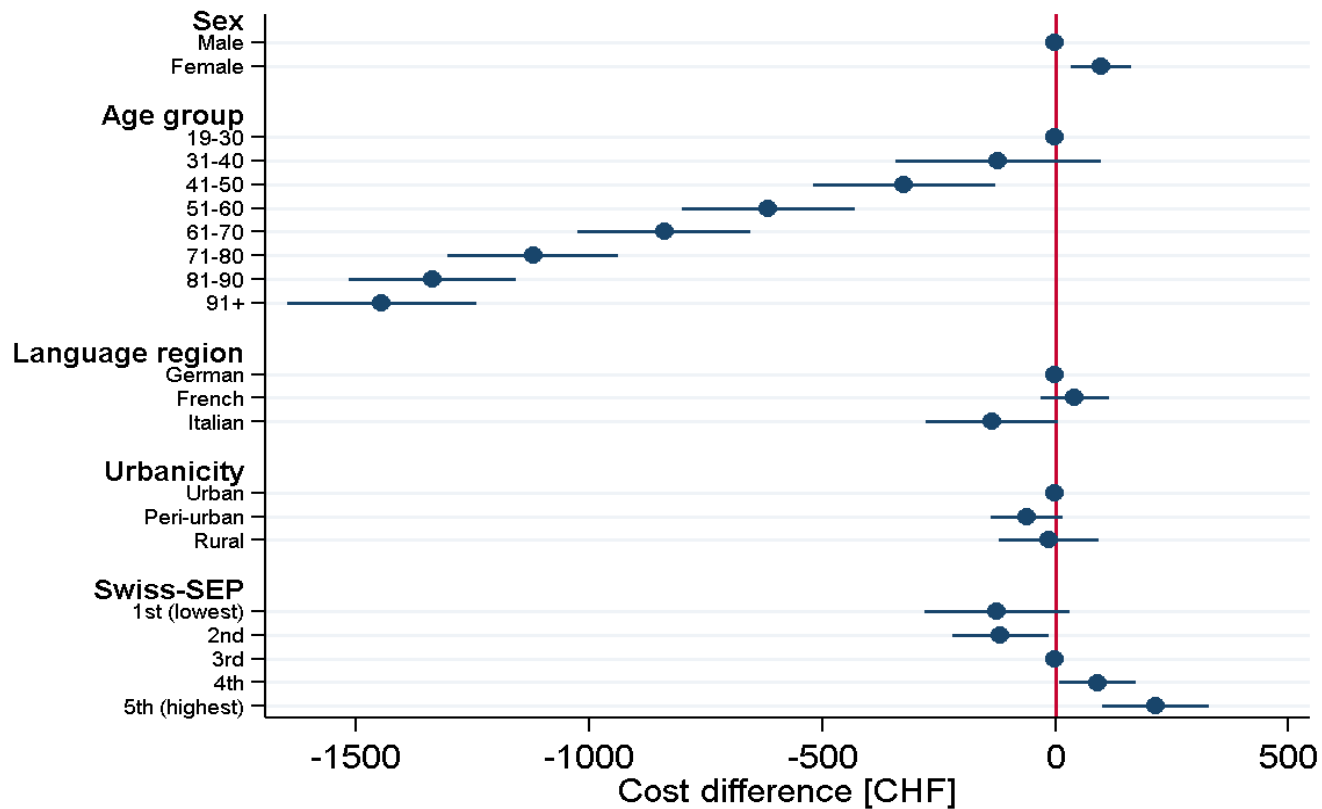
N= 62,487

# Results: MHS use by type of care according to months before death



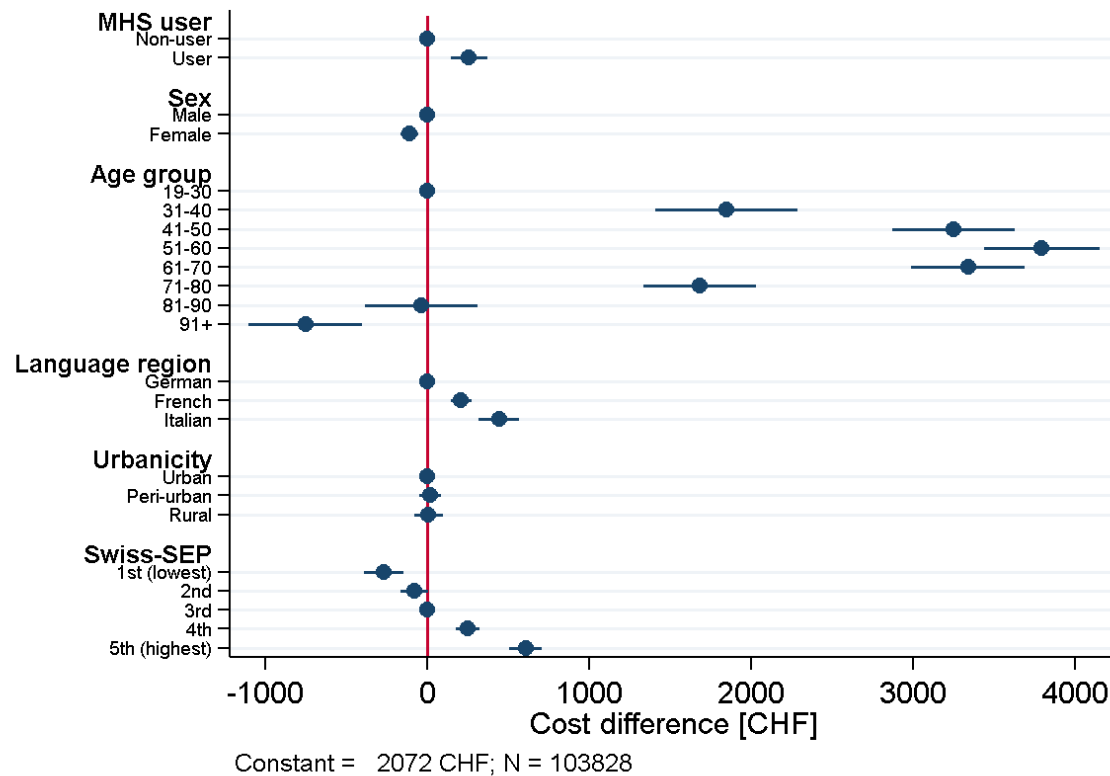


# Results: Differences in MHS costs among users



Constant = 1760 CHF; N = 6511

# Results: Differences in non-MHS costs



# Conclusions

---

- Socio-demographic factors such as age, language region and Swiss SEP contribute to the variation in MHS at the EOL in Switzerland.
- MHS users were younger and had higher overall health care costs.
- MHS use appears to decrease during the final month of life.
- Possible next steps:
  - Include cause of death
  - Include in-patient mental health care
  - Health supply measures (number of physicians, specialists)

# References

---

1. Gruneir A, Smith TF, Hirdes J, Cameron R. Depression in patients with advanced illness: an examination of Ontario complex continuing care using the Minimum Data Set 2.0. *Palliative & supportive care*. 2005 Jun;3(2):99-105. PubMed PMID: 16594434. Epub 2006/04/06. eng.
2. Fine RL. Depression, anxiety, and delirium in the terminally ill patient. *Proceedings (Baylor University Medical Center)*. 2001 Apr;14(2):130-3. PubMed PMID: 16369601. Pubmed Central PMCID: PMC1291326. Epub 2005/12/22. eng.
3. Hallford D, McCabe M, Mellor D, Davison T, Goldhammer D, George K, et al. Intervention for depression among palliative care patients and their families: A study protocol for evaluation of a training program for professional care staff. *BMC Palliat Care*. 2011 2011/06/13;10(1):1-6. English.
4. Kelley AS. Treatment intensity at end of life--time to act on the evidence. *Lancet*. 2011 Oct 15;378(9800):1364-5. PubMed PMID: 21982519. Epub 2011/10/11. eng.
5. Kelly B, McClement S, Chochinov HM. Measurement of psychological distress in palliative care. *Palliative medicine*. 2006 Dec;20(8):779-89. PubMed PMID: 17148532. Epub 2006/12/07. eng.