

# Swiss Public Health Conference 2012

## Determinants of assisted suicides in Switzerland

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# Outline

- > Background
- > Methods
- > Results
- > Conclusions

## Assisted suicide in Switzerland

- > Penal code of 1918:
  - euthanasia forbidden (art 114)
  - assisting in suicide forbidden if self-interest is involved (art 115)

Organization	Founded	Cases per year	Members
Exit Suisse allemand	1982	305 (2011)	Only Swiss residents
Exit Suisse Romande	1982	111 (2011)	Only Swiss residents
Dignitas	1998	~110 (2010)	Swiss residents and foreigners
Ex international	1996	~20 per year	Only foreigners
Eternal Spirit	2011	Started activity in 2012	Swiss residents and foreigners

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## **Aim of the study**

Cohort study: What are the determinants of dying assisted by right-to-die-organizations?

### **Hypotheses: Higher hazard for**

- **divorced/widowed people**
- **well educated people**
- **people without an affiliation to religion**

## Methods: data

Right-to-die organizations reported cases to the Federal Statistical Office for the period 2003-2008

Cause of death      date of death      date of birth      Community /sex

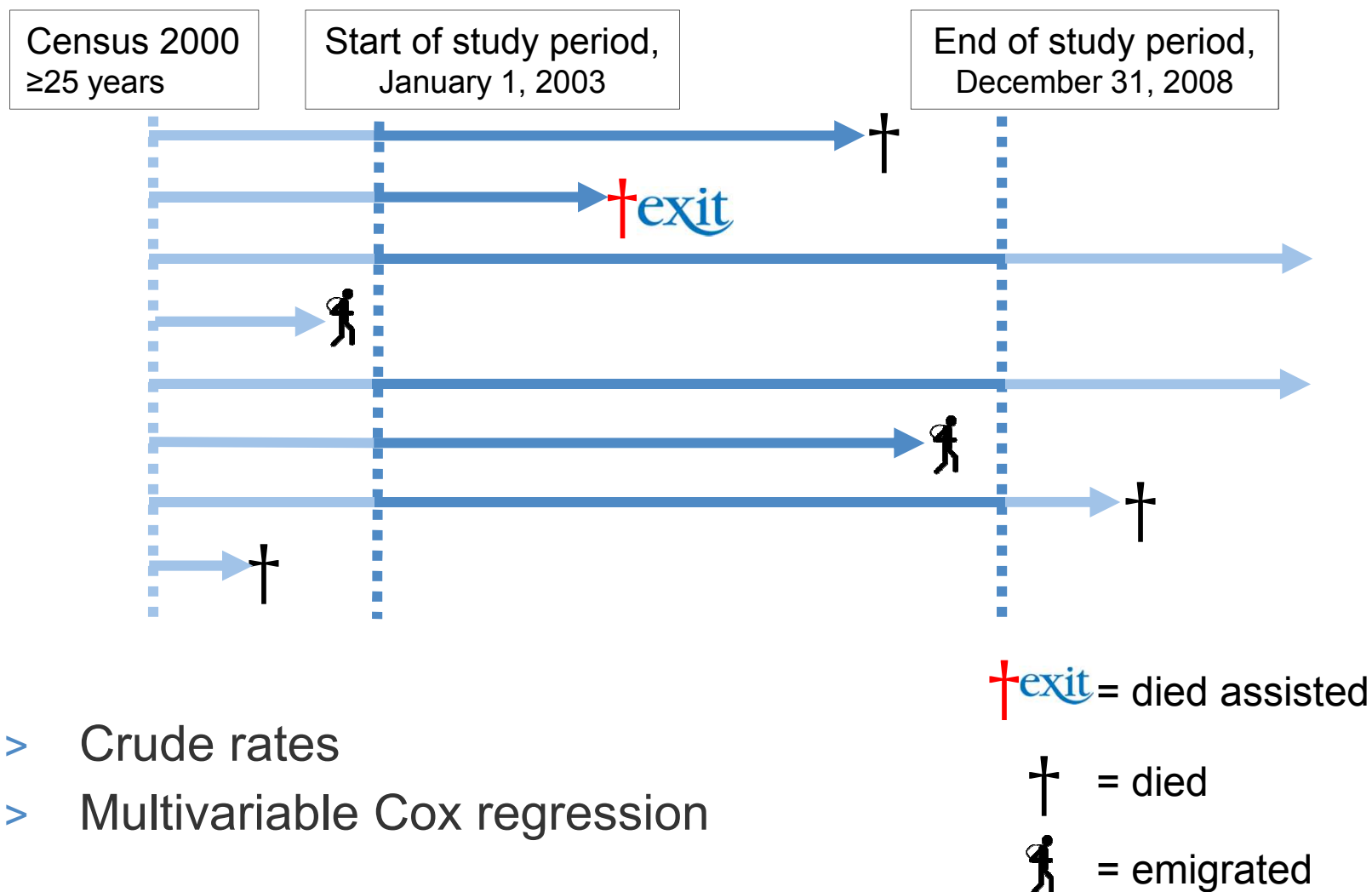
### L I N K A G E C R I T E R I A



- based on individual data from the census 1990 and 2000
- census records linked to death or emigration record
- 2000 census coverage is estimated at 98.6 percent

## Methods: Statistical Analysis

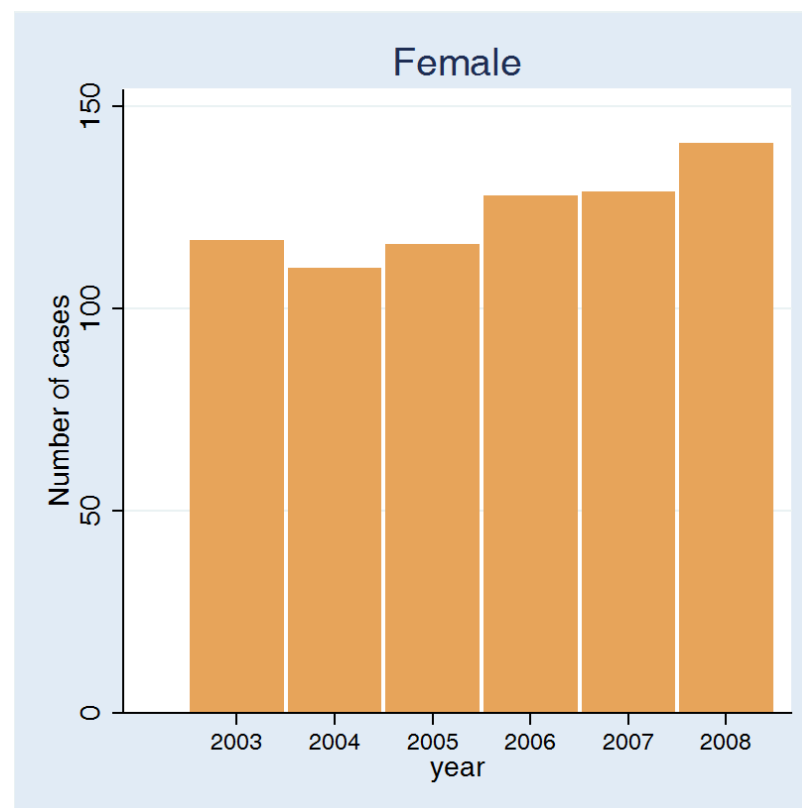
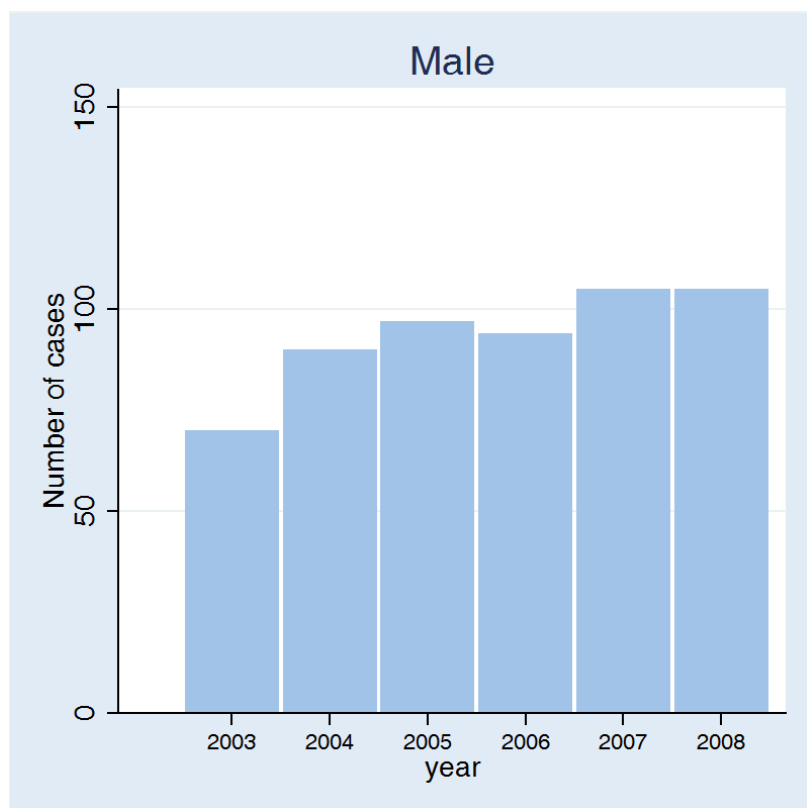
### > Time to event analysis



- > Crude rates
- > Multivariable Cox regression

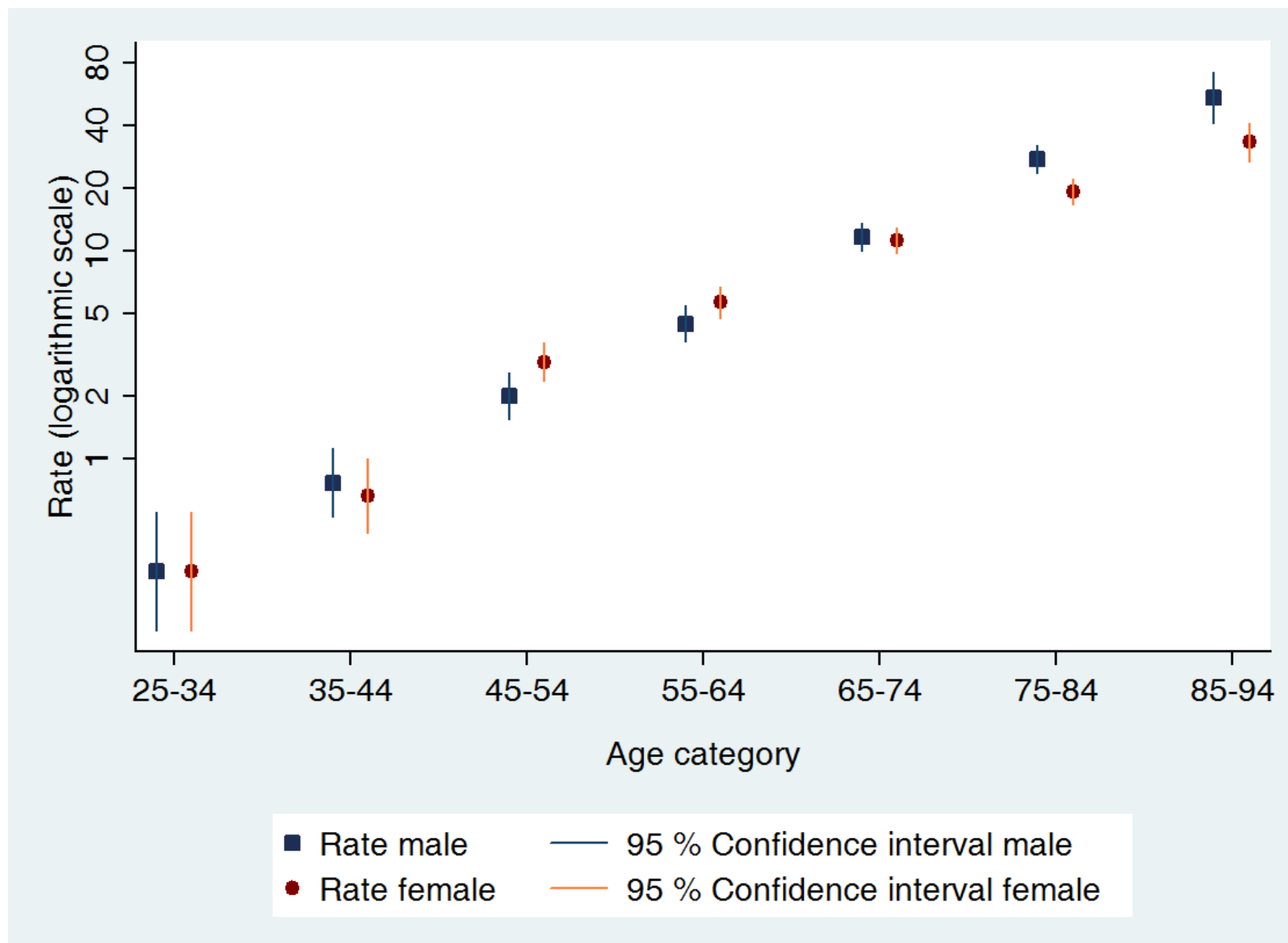
## Results: cases

- > 1,329 cases reported by three organizations for 2003 - 2008
- > 1,302 cases linked to SNC (98 % of all reported cases)





## Crude rates of assisted suicide by age-category at census and sex



<b>Cox regression</b>		<b>25-64 years at census</b>		<b>65-94 years at census</b>	
		<b>Haz. Ratio</b>	<b>95% CI</b>	<b>Haz. Ratio</b>	<b>95% CI</b>
Corrected for age, region, nationality and parenthood					
<b>Sex</b>	Male	1		1	
	Female	1.3	1.1 - 1.6	0.9	0.7 - 1.0
<b>Marital status</b>	Married	1		1	
	Single	0.9	0.6 - 1.3	1.2	0.9 - 1.7
	Divorced	0.9	0.6 - 1.5	1.4	1.1 - 1.8
	Widowed	1.2	0.8 - 1.6	1.9	1.5 - 2.6
<b>Type of household</b>	Several persons	1		1	
	Single	1.8	1.3 - 2.4	1.2	1.0 - 1.5
	Institution	1.2	0.5 - 2.7	0.93	0.6 - 1.4
<b>Education</b>	Primary	1		1	
	Secondary	1.6	1.2 - 2.2	1.7	1.4 - 2.0
	Tertiary or higher	1.7	1.2 - 2.4	2.5	2.1 - 3.1
<b>Religion</b>	Catholic	1		1	
	Protestant	1.4	1.1 - 1.9	2.2	1.8 - 2.6
	No affiliation	2.9	2.2 - 3.7	6.6	5.3 - 8.2
<b>Urbanisation</b>	Rural	1		1	
	Urban	1.6	1.2 - 2.2	2.3	1.8 - 2.6
	Peri-urban	1.3	1.0 - 1.7	1.9	1.5 - 2.3

Cox regression Corrected for age, region, nationality and parenthood		25-64 years at census		65-94 years at census	
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## Strengths and limitations

- + First population-based cohort study for assisted suicide
- + Data of all three right-to-die-organizations that assist Swiss residents
- Only suicides assisted by organizations, not assisted otherwise
- Some variables of interest could not be examined (quality of life, attitudes)



## Conclusions

- **Socioeconomic factors are determinants for assisted suicide**
- **Religion and education are the strongest determinants**
- **In the younger age group women have a higher hazard of assisted suicide**

## Thanks

- Federal Statistical Office: Christoph Junker, Chantal Violand
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