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# **Epidemiology of Legionnaires' disease in Switzerland – in- depth analysis of data of the National Notification System for Infectious Diseases, 2000 – 2016**

22.11.2017

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# Introduction

- Gram-negative aerobic bacteria, ubiquitous
- Technical systems
- Infection by inhalation of contaminated aerosols
- Legionnaires' disease (LD), definition: pneumonia
- Pontiac fever
- 1976 Philadelphia
- Typical sources: showers, fountains, cooling towers, humidifier



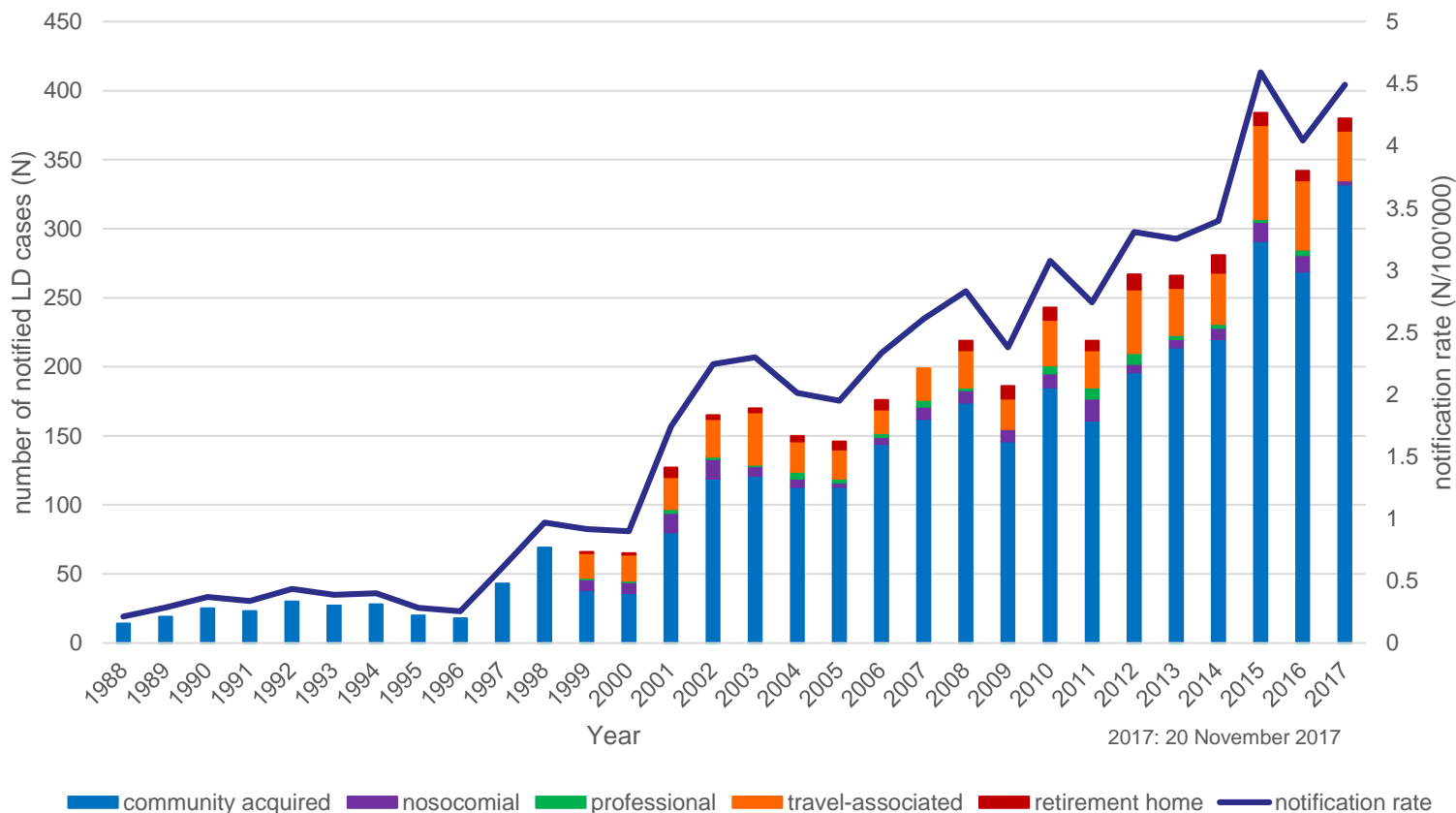
# Notification of Legionnaires' disease

**Notification** of Legionnaires disease (LD) is mandatory since 1988.

- Laboratories have to notify detection of *Legionella* **within 1 week** (Laboratory form)
- Physicians have to notify **LD** patients **within 1 week** (Physicians declaration form)
- Laboratories have to notify **once a year** the sum of tests performed for *Legionella*

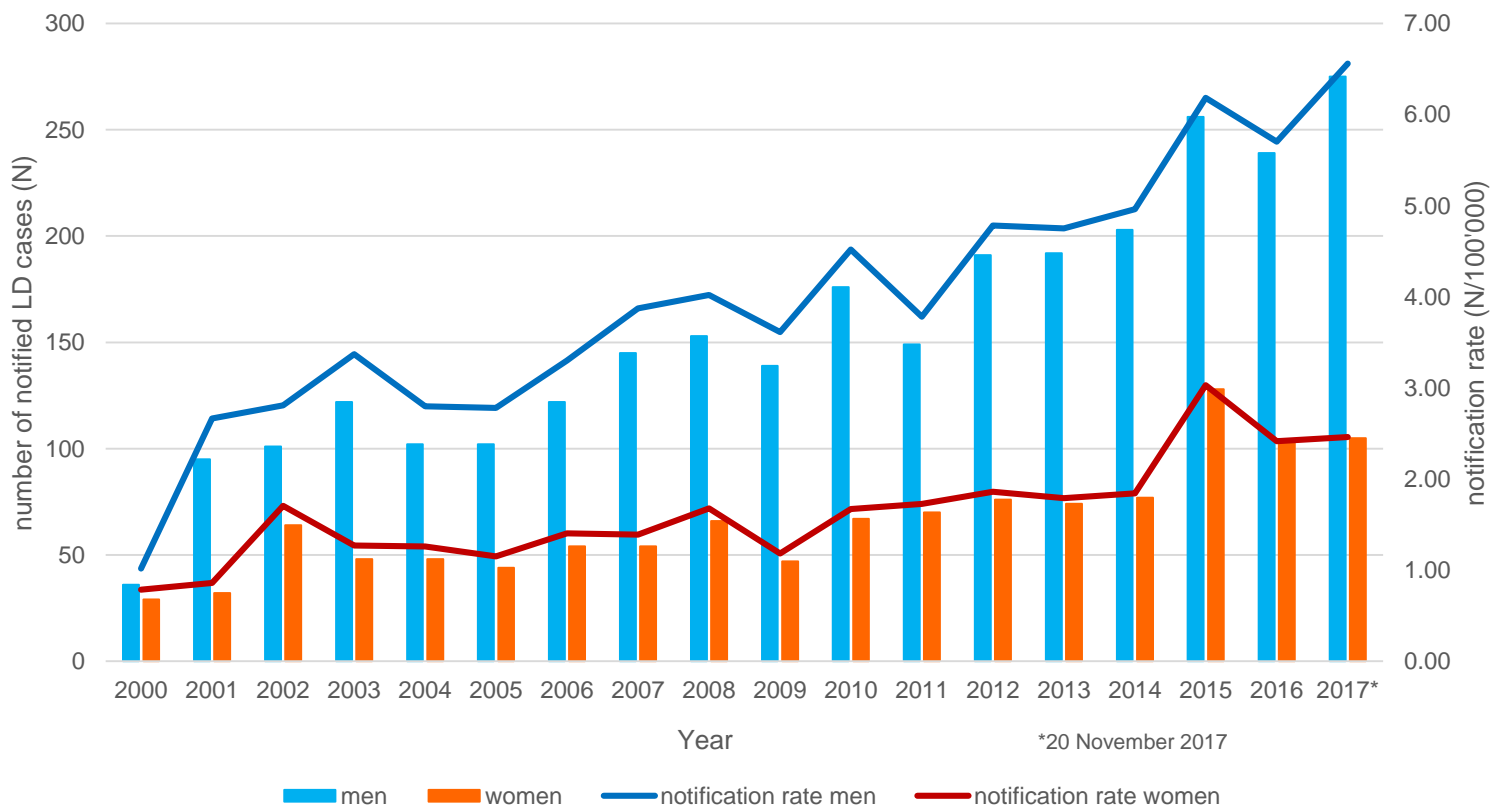


## Swiss annual notified number of LD cases by most probable way of infection and notification rate by year, 1988 – 2017



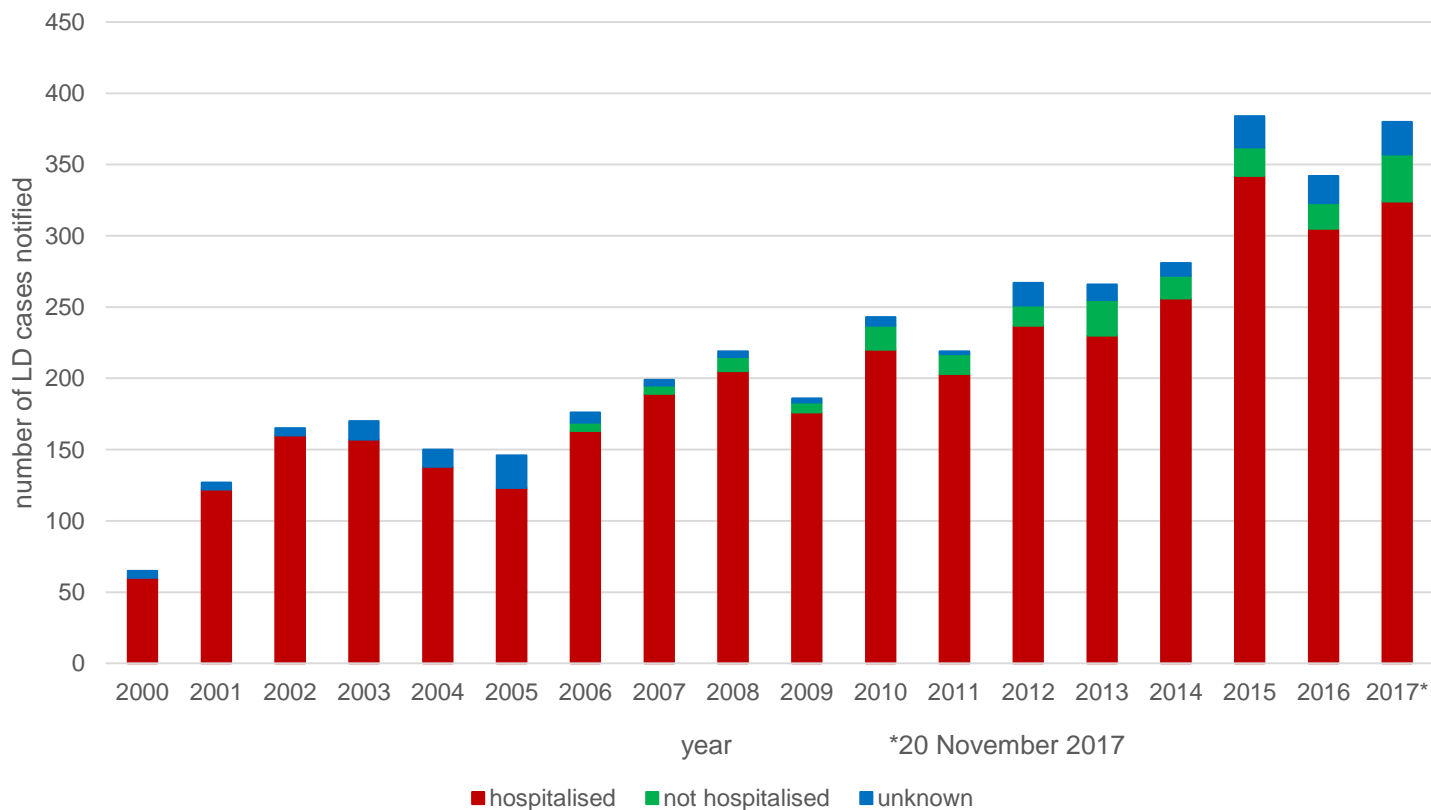


# Number of notified LD cases and notification rate for men and women in Switzerland, 2000 – 2017





# Hospitalisation of LD cases in Switzerland, 2000 - 2017



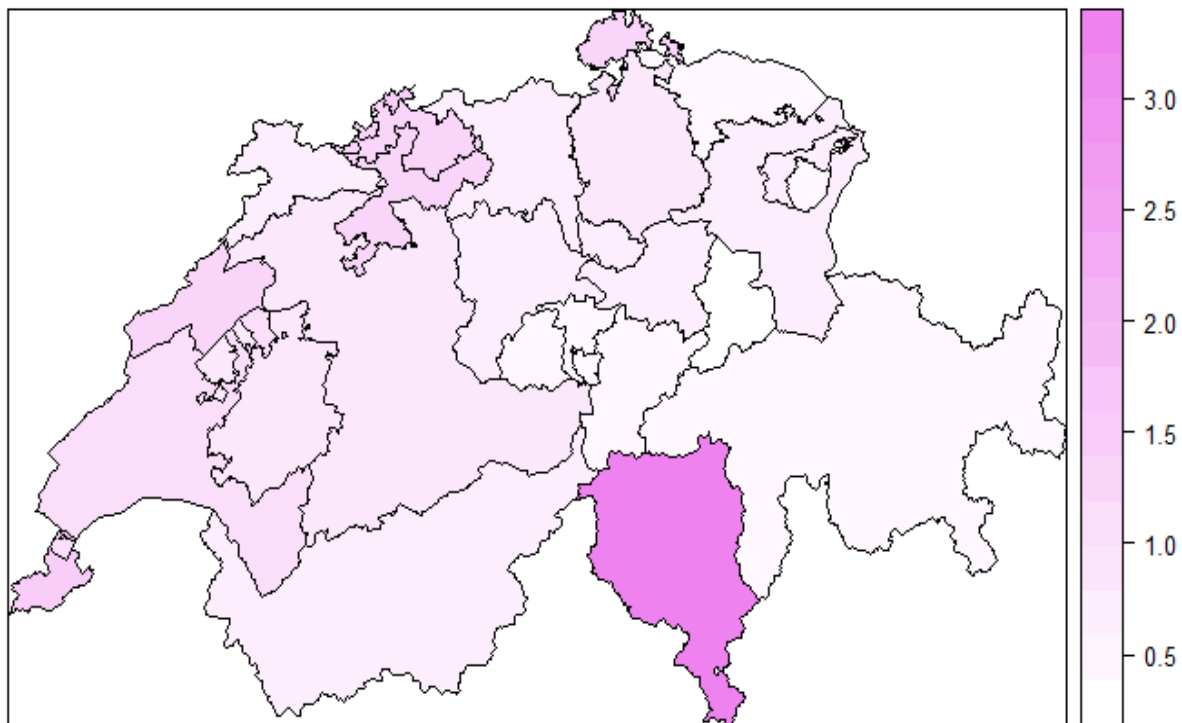
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## Relative Risk, 2000-2016



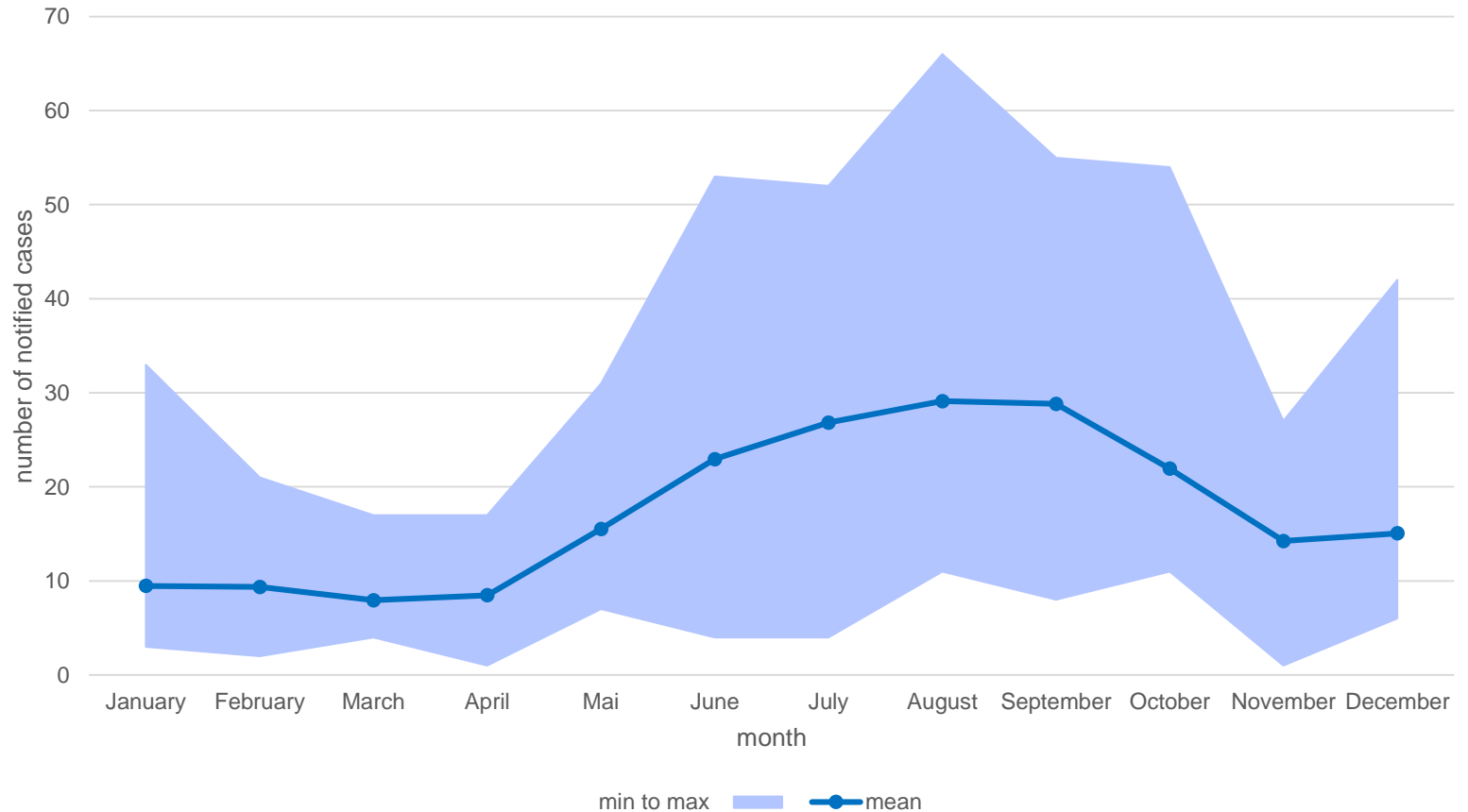
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## Seasonality, pooled data 2000-2016







# Summary

- Increase of cases
- Increase also in other countries
- Regional and seasonal distribution of cases
- 70% of sources unknown



# Outlook

- Threshold values for *Legionella*
- Positivity analysis
- Other studies
- Subsidiary organ



# Thank you for attention



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