

# Towards a long-term perspective: analysis of treatment participation in opioid substitution therapy in four European regions

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# Background



- Opioid substitution therapy (OST) reduces heroin use, crime and mortality
- Heroin users often cycle in and out of OST
- Evaluation only of duration of single treatment episodes is not sufficient
- A comprehensive model of treatment participation (Nordt et al. 2015) combines time *in* and *out* of treatment across episodes
- Is overall treatment participation similar across European regions?

Declaration of competing interest: None.



# Data sources and methods



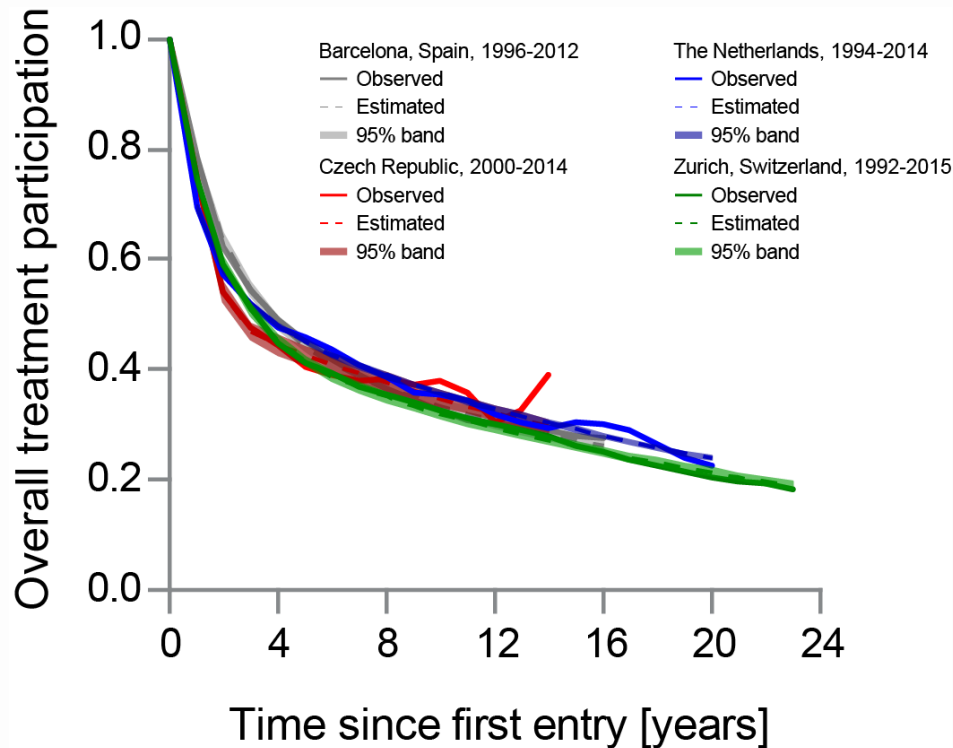
- Barcelona, Spain: 8000 patients in OST between 1996 and 2012
- Czech Republic: 3439 patients in OST between 2000 and 2014
- The Netherlands: 33024 patients in OST between 1994 and 2014
- Canton of Zurich, Switzerland: 11187 patients in OST between 1992 and 2015
- Parametric survival models for retention and readmission and an nonlinear GEE2 model for overall treatment requiring only the information if a patient was in treatment during a given year or not



# Results

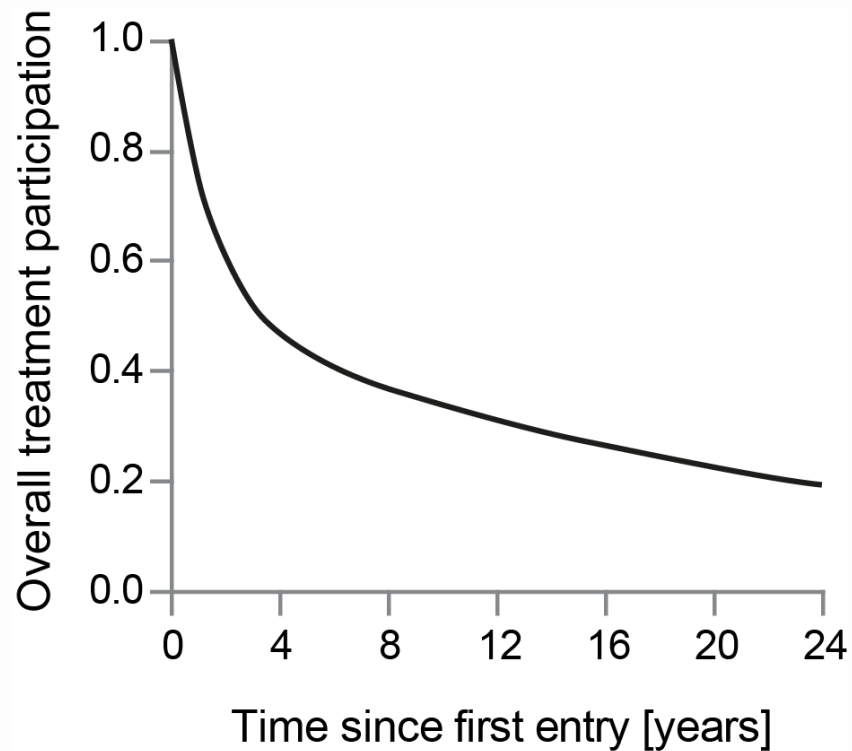


- Substantial differences with respect to retention and readmission as well as interaction with number of episodes between the four regions but overall treatment participation was similar:

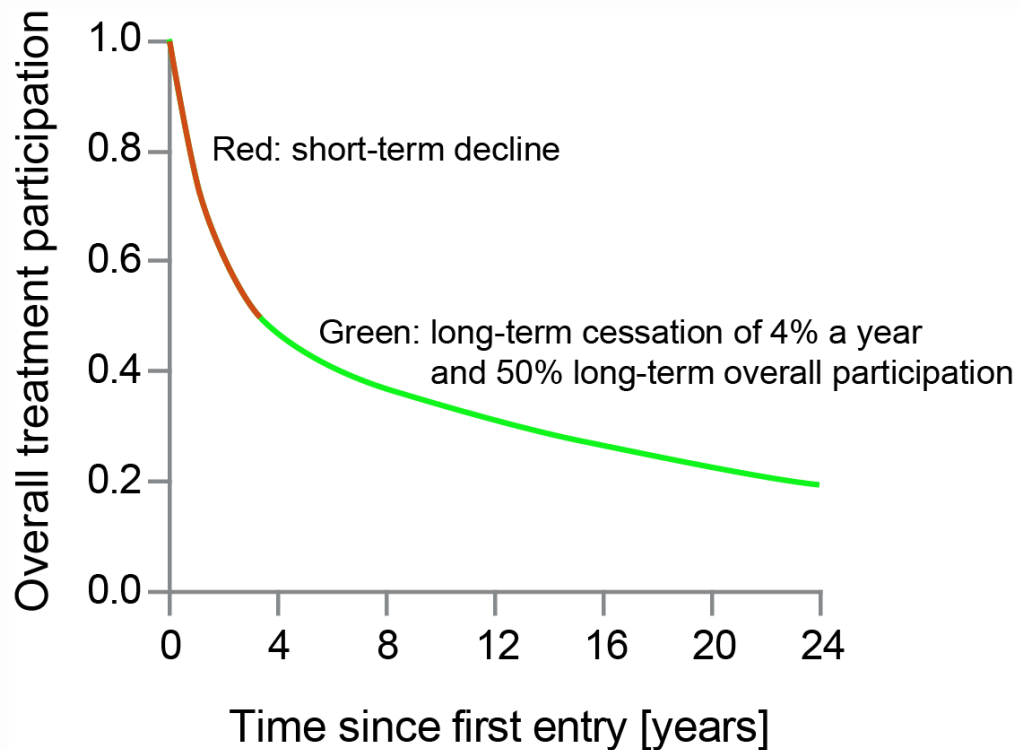


# Results

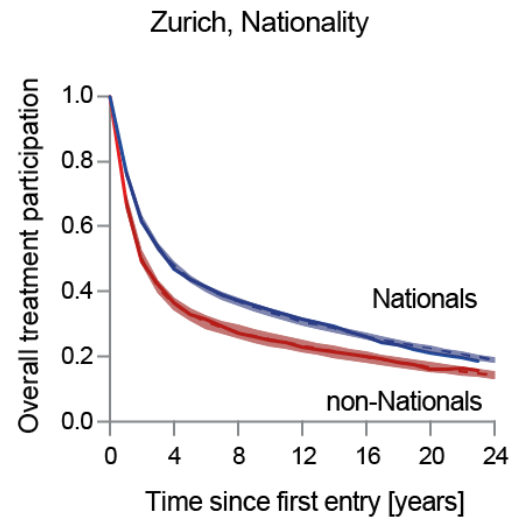
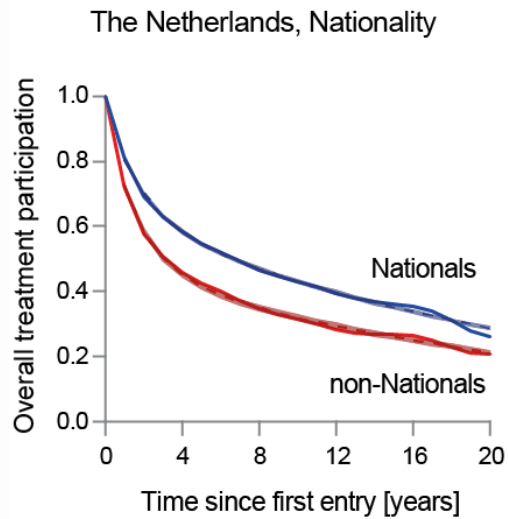
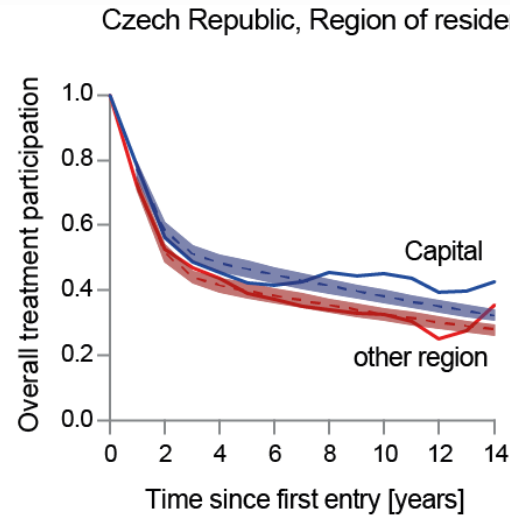
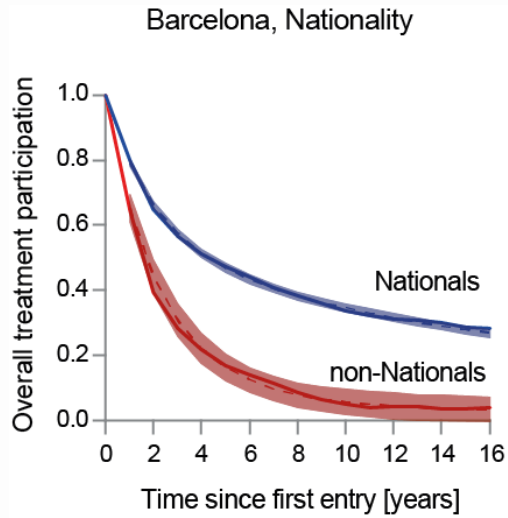
Mean evolution of the overall treatment participation:



Separation and interpretation of the overall treatment participation graph:



- The newly developed overall treatment participation model suggested that the long term cessation was 4% a year in all regions:
  - Barcelona: 4.0%, 95% CI 2.7-5.3%
  - Czech Republic: 2.6%, 95% CI 1.1-4.1%
  - The Netherlands: 3.7%, 95% CI 3.4-4.1%
  - Zurich: 4.4%, 95% CI 4.1-4.8%
- Also the long-term overall treatment participation was around 50%:
  - Barcelona: 49.5%, 95% CI 47.5-51.5%
  - Czech Republic: 52.0%, 95% CI 49.9-54.0%
  - The Netherlands: 53.2%, 95% CI 52.4-54.0%
  - Zurich: 47.7%, 95% CI 46.2-49.2%





# Conclusion

- The overall treatment participation perspective can be helpful to easily quantify the long-term inclusion of patients in OST between subgroups and regions
- Non-nationals in three regions and patients residing outside the capital in Czech republic showed lower long-term treatment participation
- The results can be useful for stakeholders to inform policy makers about the current state and shortcomings in the provision of OST
- Analysing overall treatment requires only the information if a patient was in treatment during a given year or not

# Co-authors and funding

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**Thank you for your attention**

