

## Increasing incidence of the Down syndrome in the Czech Republic: Long-term population-based study

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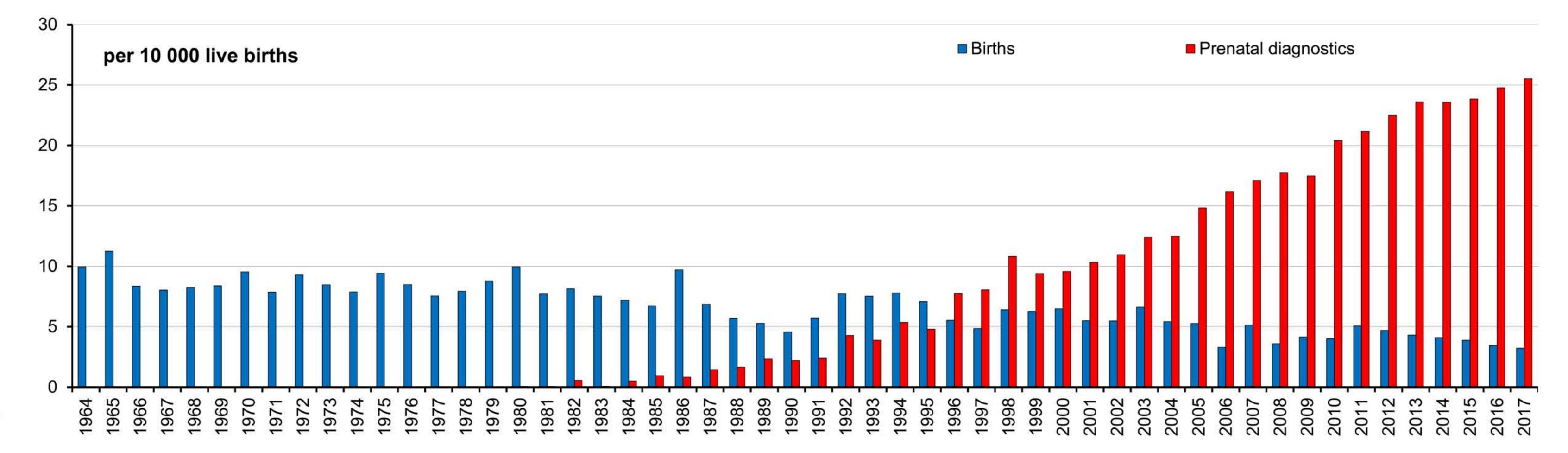
## Czech Republic - Infobox 13 regions and the capital Prague; 76 districts in total Population: 10 553 843 Area: 78,866 km<sup>2</sup>

## Surveillance - Infobox

- 50+ years of history; the registry was founded in 1964.
- Population-wide coverage; reporting is compulsory.
- Data are stored in the State Institute of Health Information and Statistics (ÚZIS ČR)
- Multiple sources (geneticists, neonatologists, paediatricians, other specialists).
- Registry includes cases diagnosed in livebirths, stillbirths and prenatally diagnosed cases.
- Termination of pregnancy legal (up to 24th GW)
- Main classification system: ICD-10 (national)

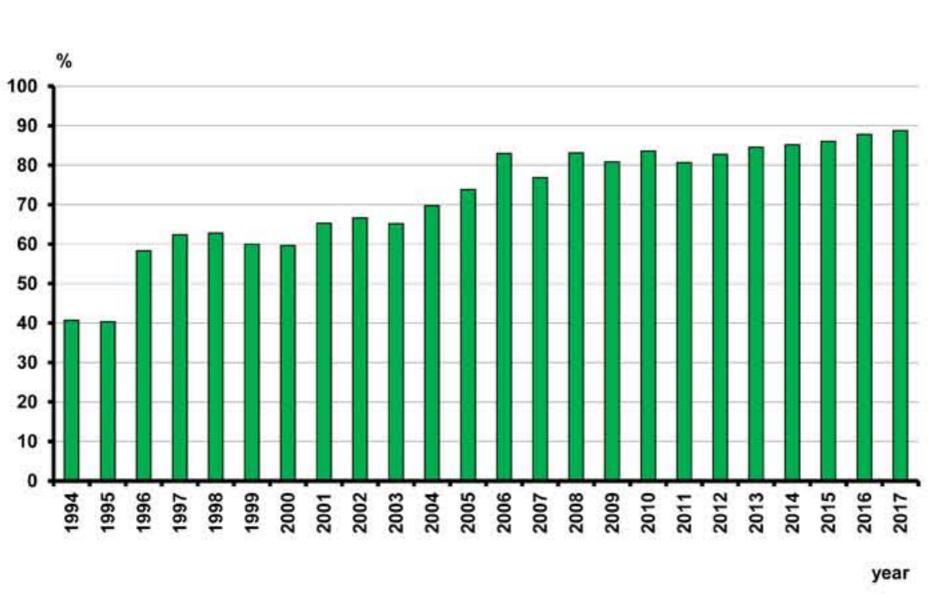
## Methods

- Data source: National registry of Reproductive Health of the Czech Republic
- Prenatal diagnostics data: 1985 2017
- Live-births data: 1964–2017
- Congenital anomalies group: (Q900-Q909)
- Statistical anomalies were performed by Pearson's chi-square test and by logistic regression analysis.
- p values lower than 0.05 were considered statistically significant

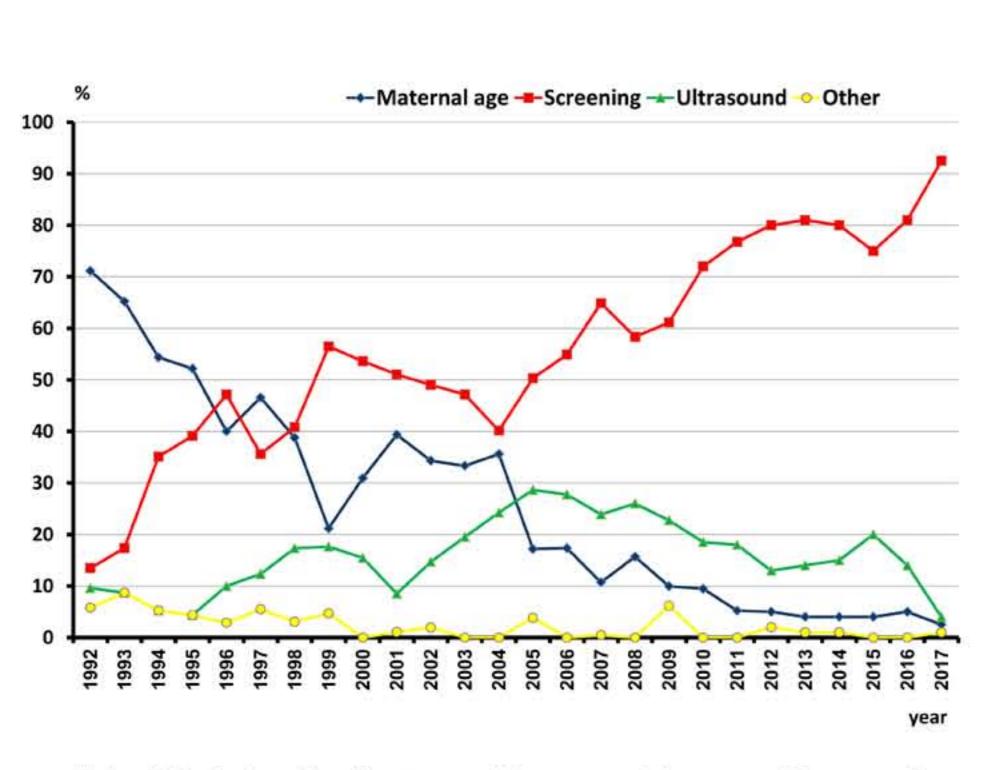


Incidence of Down syndrome in the Czech Republic (1964-2017): relative incidence in births and in prenatally diagnosed cases

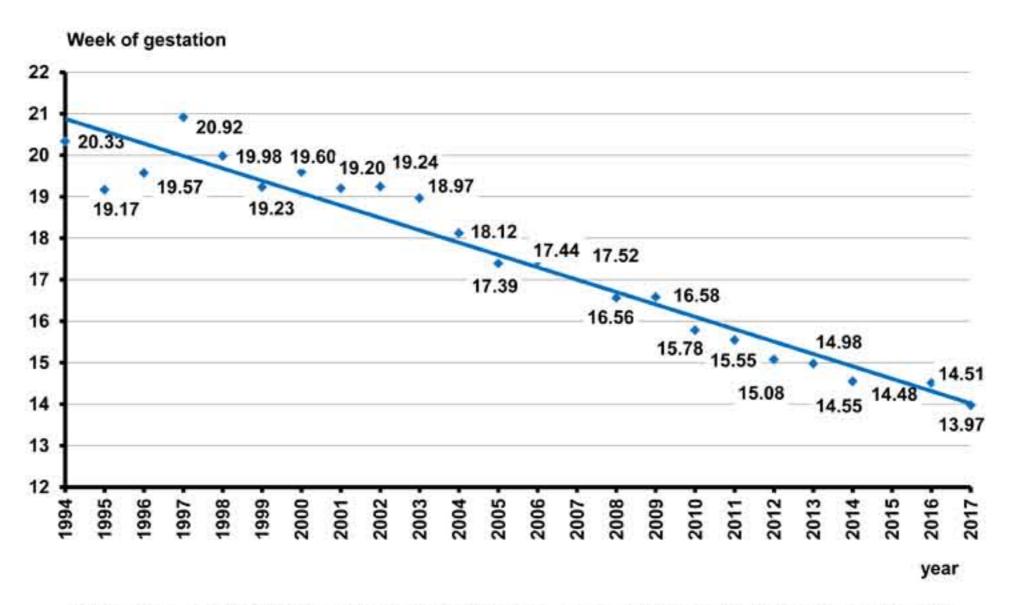
year



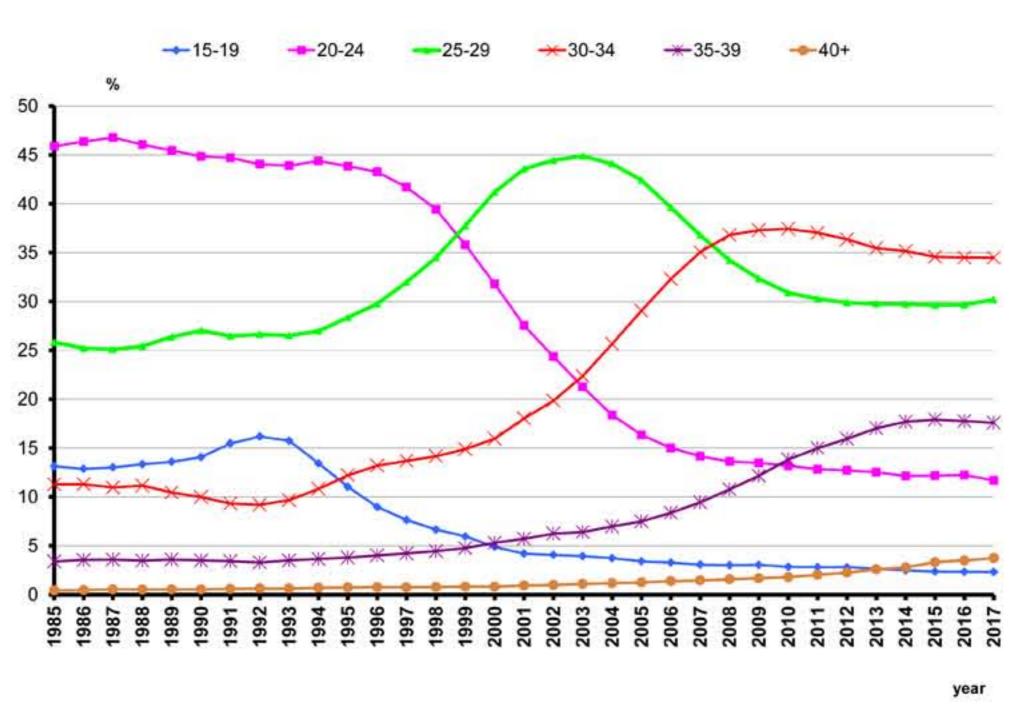
The proportion of elective terminations of pregnancy for associated anomaly on the total incidence of Down syndrome (Czech Republic; 1994-2017)



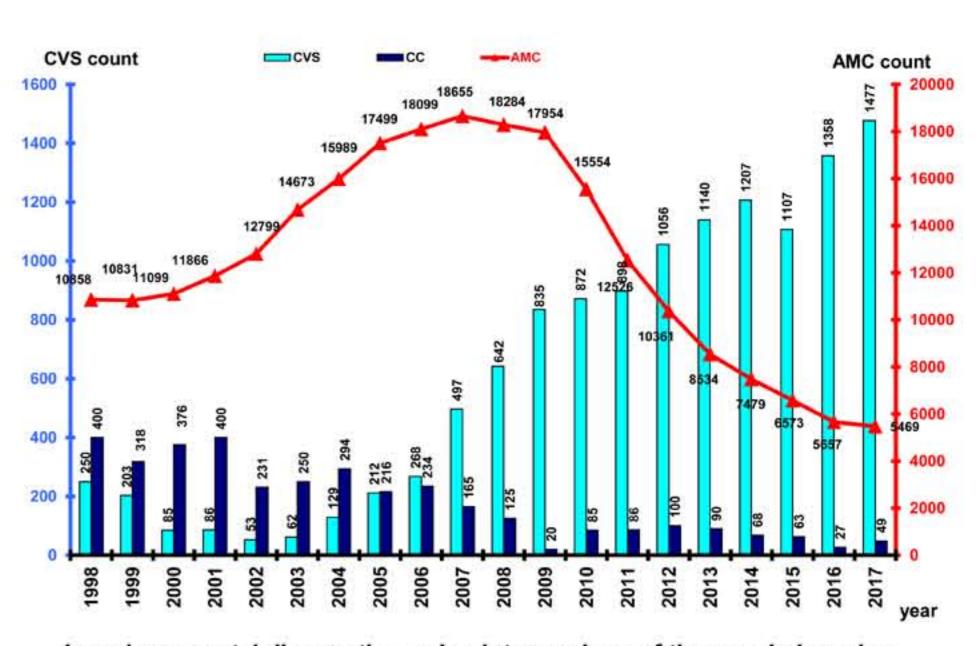
Main clinical referral leading to a positive prenatal diagnose of Down syndrome (Czech Republic; 1992-2017)



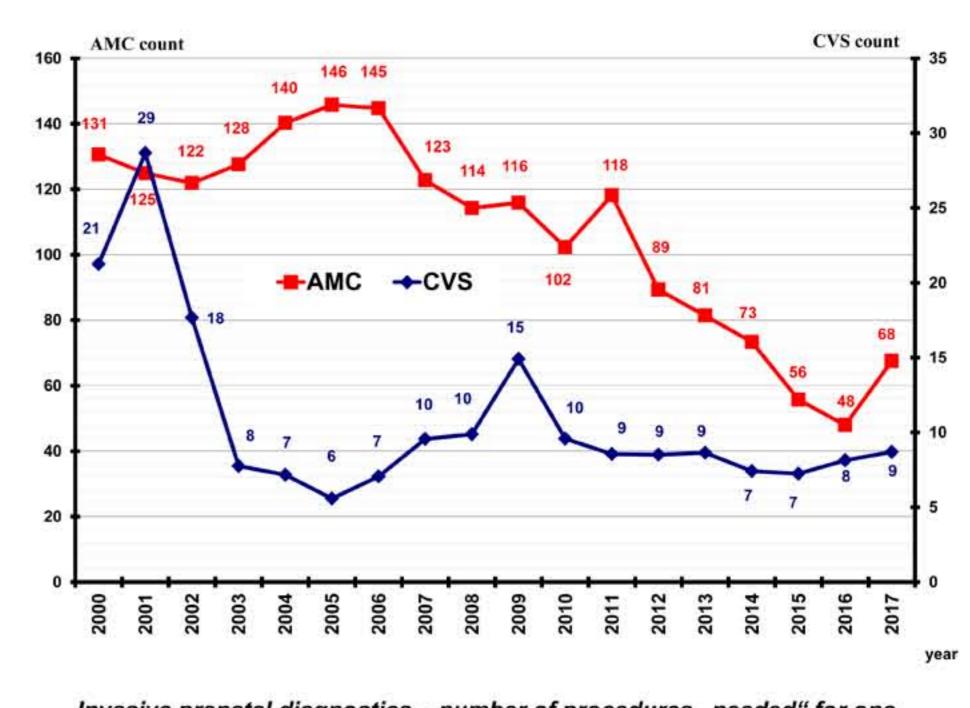
The average week of gestation at the time of positive prenatal diagnostics of Down syndrome (Czech Republic; 1994-2017)



Demographic trends – proportion of different age-groups of pregnant women (Czech Republic; 1985-2017)



Invasive prenatal diagnostics – absolute numbers of three main invasive diagnostics procedures (Czech Republic; 1998-2017)



Invasive prenatal diagnostics - number of procedures "needed" for one positive diagnose of Down syndrome (Czech Republic; 1998-2017)

http://www.vrozene-vady.cz/





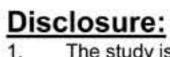












The study is based on the official data from the National Registry of Congenital Anomalies of the Czech Republic. The study is supported by the Ministry of Health of the Czech Republic, grant nr. AZV 17-29622A

The results of this study were not yet published.