

# **Data linkages in the Finnish Reproductive Health Registers**

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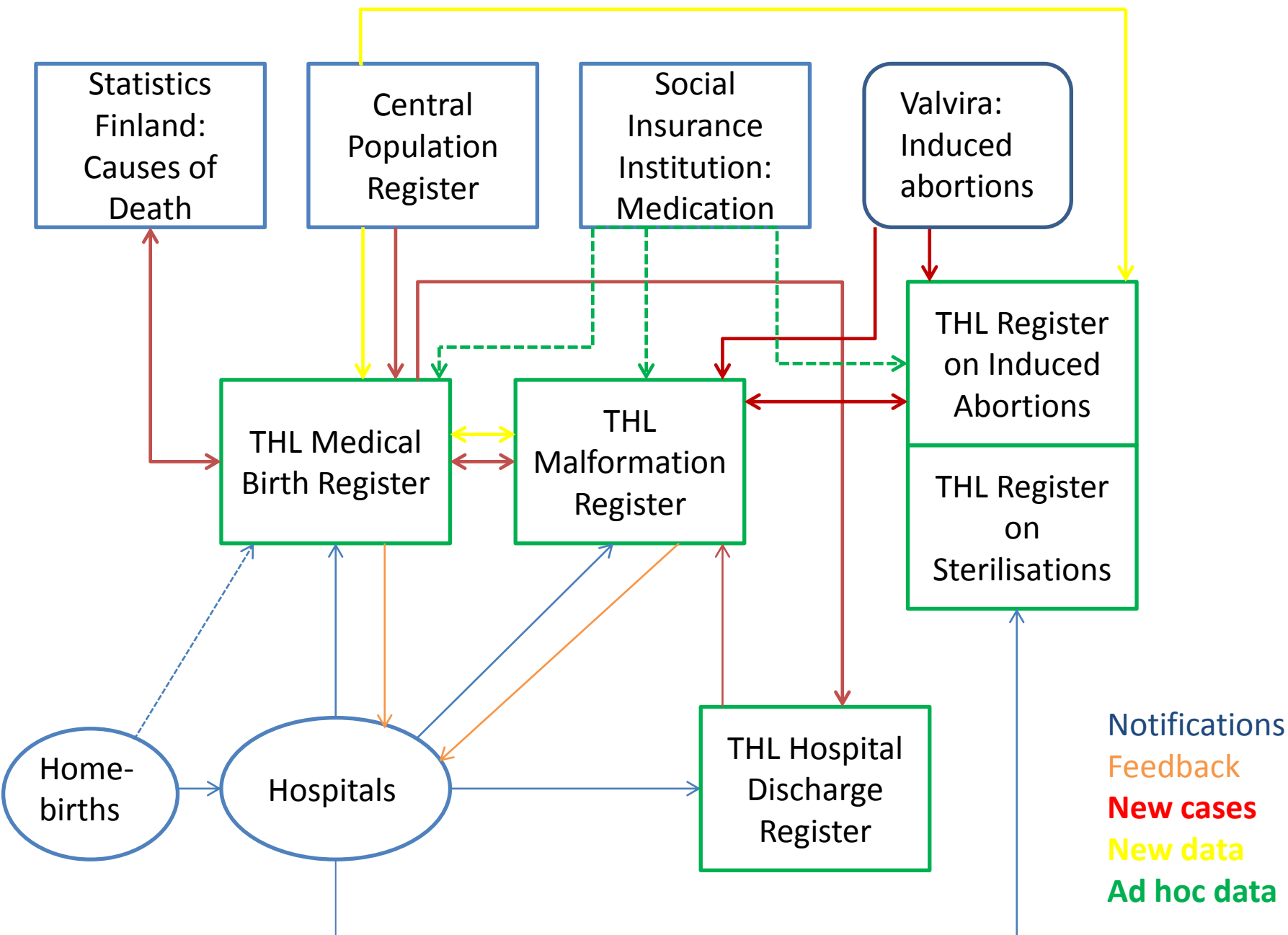
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# Data on reproductive health at THL

- Abortions and sterilisations since 1983  
(statistics since 1950/1939)
- Congenital anomalies since 1963
- Parturients, deliveries and newborns since 1987
  - Premature live born children (< 32 weeks and/or < 1501 grams) since 2005
- Statistics on fertility treatments since 1992
  - Donations since 2001
  - Inseminations since 2005

# Data on reproductive health at THL

- Drugs and pregnancy –database since 1996
  - Prescribed and reimbursed medication 3 months before pregnancy, during pregnancy and 3 months after pregnancy (Social Insurance Institution)
  - Pregnancies ending in an induced abortion or birth
- Care Register at Health Care Institutions
  - Inpatient care since 1967/1969
  - Day surgery since 1994
  - Hospital outpatient care since 1998
  - Health care centre visits since 2011



# Missing data

- Prenatal screening
  - The data on prenatal screening in the registers is not accurate enough to monitor prenatal screening practices and effectiveness.
- Causes-of-Death Register remains at Statistics Finland
  - No continuous surveillance of causes of death, maternal deaths and pregnancy-related deaths.
- Background information at Statistics Finland
  - Education, income and migrant status (country of birth, first immigration year, language, nationality).

# Future?



- New legislation 2013...?
  - Combine the Medical Birth Register and the Malformation Register
  - Include new routine data sources for the new Birth Register:
    - Medication, prenatal screening, parturients' and newborns' deaths and their causes, migrant status, GIS-codes
  - Consider registration of all fertility treatments and the started pregnancies
  - Consider discontinuation of registration of sterilisations.

# Registers in Finland

- At national level, population data have been collected for more than 250 years and health data for more than 150 years.
- Registers are less used in other fields, such as social welfare research and criminology.
- First health registers were started in the 1940-1950s, when improved computers were available, e.g. cancer register.
- Personal identification numbers were given for all citizens and permanent residents in 1964-1968, which makes the data linkages technically easy.
- Several data quality studies have shown the high quality of routinely collected registers.
- Data protection allows the use of register data in research.

# The 1987 Finnish Birth Cohort

- All children born in Finland in 1987 (n=60 069)
- Focus on mental health, behaviour and wellbeing from uterus to childhood and adulthood
- Follow-up from fetal period until early adulthood using **register data only**:

First study	1987-1994/1996
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Second study	1987-2008/2009
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Third study	1987-2011/2012
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- Reference: Paananen R, Gissler M: Cohort Profile: The 1987 Finnish Birth Cohort. International Journal of Epidemiology 2011. E-published Mar 4, 2011. PMID:21378104



# Health registers: 1987 Finnish Birth Cohort

Register	Data	Period covered
Finnish Medical Birth Register	Pregnancy and birth outcomes	1987
Finnish Hospital Discharge Register	Hospitalisation data (discharge diagnosis, date, duration, etc.)	1987-2008, outpatient visits since 1998
Cause of Death Register	Dates and causes of death	1987-2008
Register on Prescribed Medicine and Special Refunded Medicine	Redeemed prescriptions of psychotropic medication (ATC codes, date)	1994-2008
Infectious Disease Register	Sexually transmitted infections	2004-2008
Register on Induced Abortions	Induced abortions	2000-2008
Finnish Medical Birth Register	Pregnancy and birth outcomes	2000-2008

# Other registers: 1987 Finnish Birth Cohort

Register	Data	Period covered
Statistics Finland & Central Population Register	Births and deaths, parents' marriages and divorces, migration, education, occupations	1987-2009
Register on Social Assistance	Social assistance for parents and cohort members	2002-2008 for cohort members 1987-2008 for parents
Register on Child Welfare	Information on children taken into custody	1987-2008
Finnish Defence Forces Registers	Data on service and results of aptitude tests	2005-2009
Finnish Legal Register Centre	Information on criminality, offences and court decisions	2002-2009