Congenital malformations in children live born during 1998-2002 in Poland - data from the Polish Registry of Congenital Malformations (PRCM)

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Aims

To determine the prevalence and structure of major congenital malformations (CM) identified in live born children aged 0-2 years in Poland during 1998-2002 and reported to the Polish Registry of Congenital Malformations (PRCM)

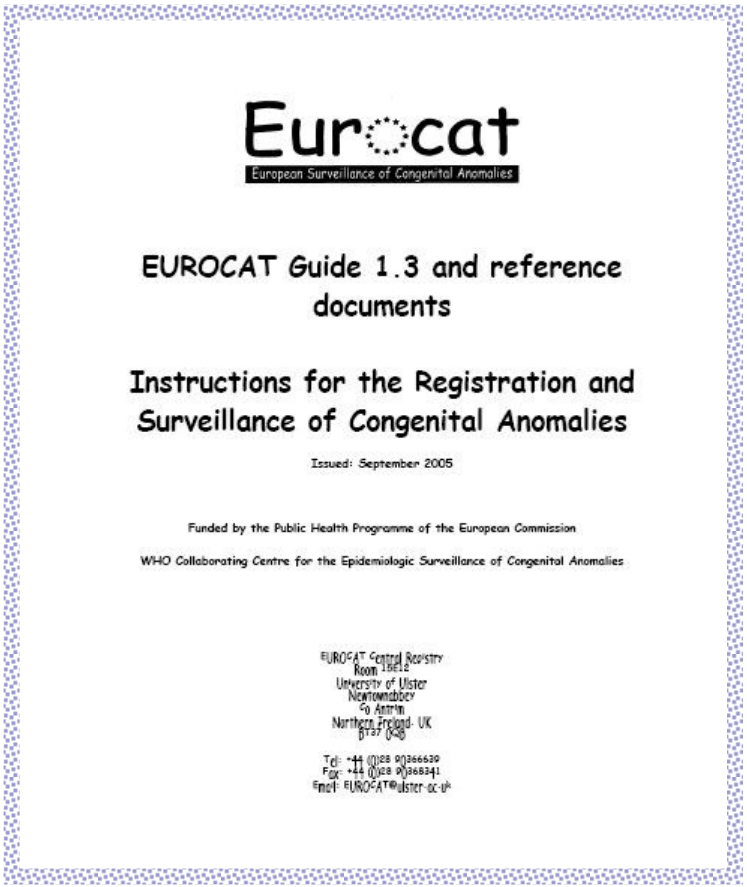
Main outcome measures:

- ✓ total LB prevalence of major CM
- ✓ sex distribution of major CM
- ✓ secular trends in LB prevalence of selected groups and subgroups of CM (according to ICD-10 coding system)
- ✓ comparison with EUROCAT data

Methods (1)

- Population-based registry study of **2,902,452** live births (LB) of mothers resident in eight Polish provinces in years 1998-2000, nine provinces in 2001 and eleven provinces in 2002

Methods – coding of CM



Eurocat

European Surveillance of Congenital Anomalies

EUROCAT Guide 1.3 and reference documents

Instructions for the Registration and Surveillance of Congenital Anomalies

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- Groups and subgroups consistent with hierarchical classification of ICD-10 with British Paediatric Association (BPA) extension;
- Minor congenital malformation excluded from analysis, (minor CM: malformations that „have lesser medical, functional or cosmetic consequences", ex. clinodactyly, preauricular tags etc., list of minor CM provided by EUROCAT

- **total LB prevalence of major CM**
- sex distribution of major CM
- secular trends in LB prevalence of selected groups and subgroups of CM (according to ICD-10 coding system)
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Prevalence of major CM in live born children reported to the PRCM during 1998-2002

Year	n (CM)	n (demography)	Prevalence (n/10000)
1998	3,072	158,026	**194.40**
1999	2,811	160,443	**175.20**
2000	3,236	157,989	**204.82**
2001	3,879	196,131	**197.78**
2002	4,783	229,863	**208.08**
1998-2002	17,781	902,452	**197.03**

n - number of LB

- total LB prevalence of major CM
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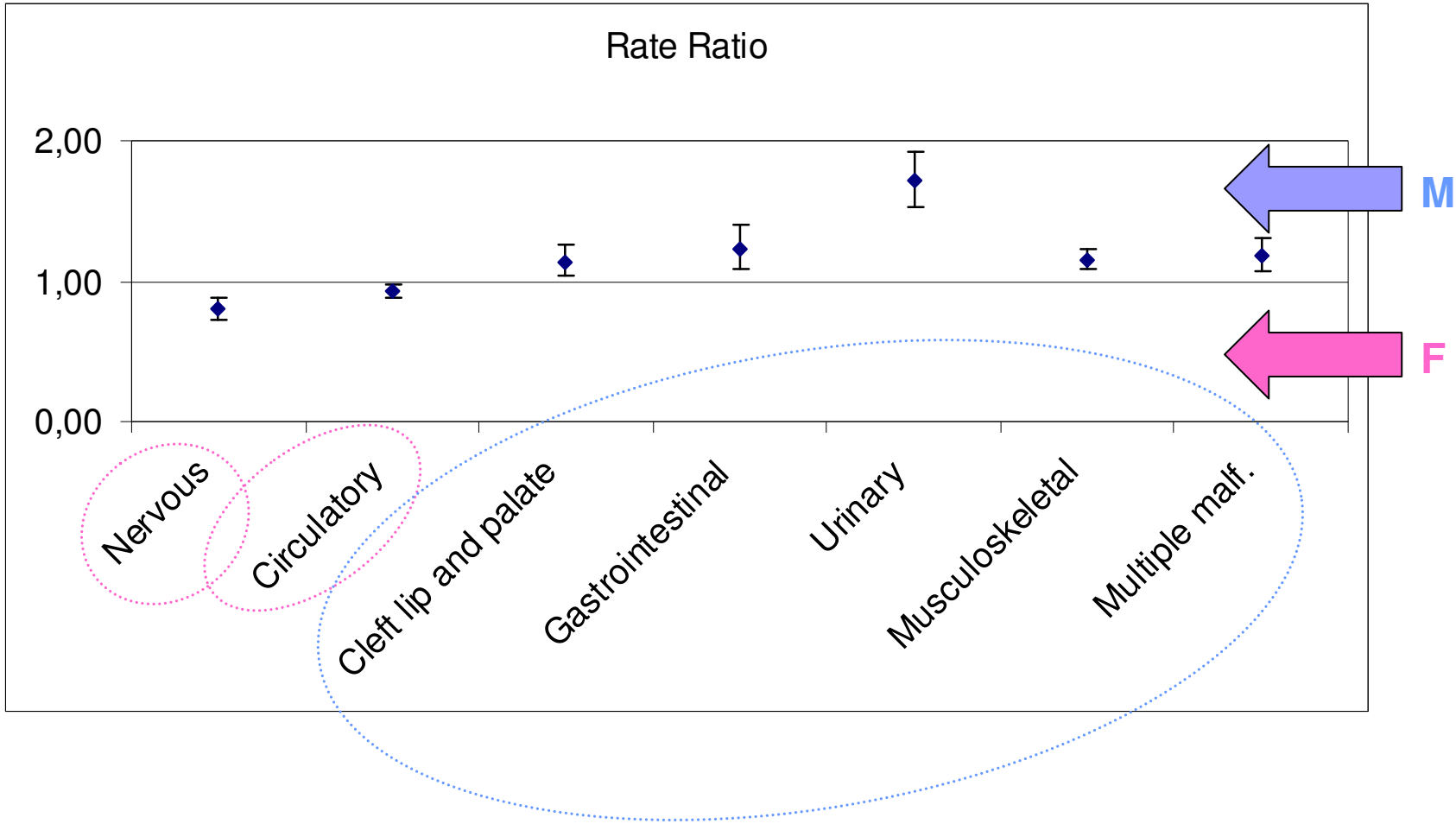
Sex distribution of major CM in live born children reported to the PRCM during 1998-2002

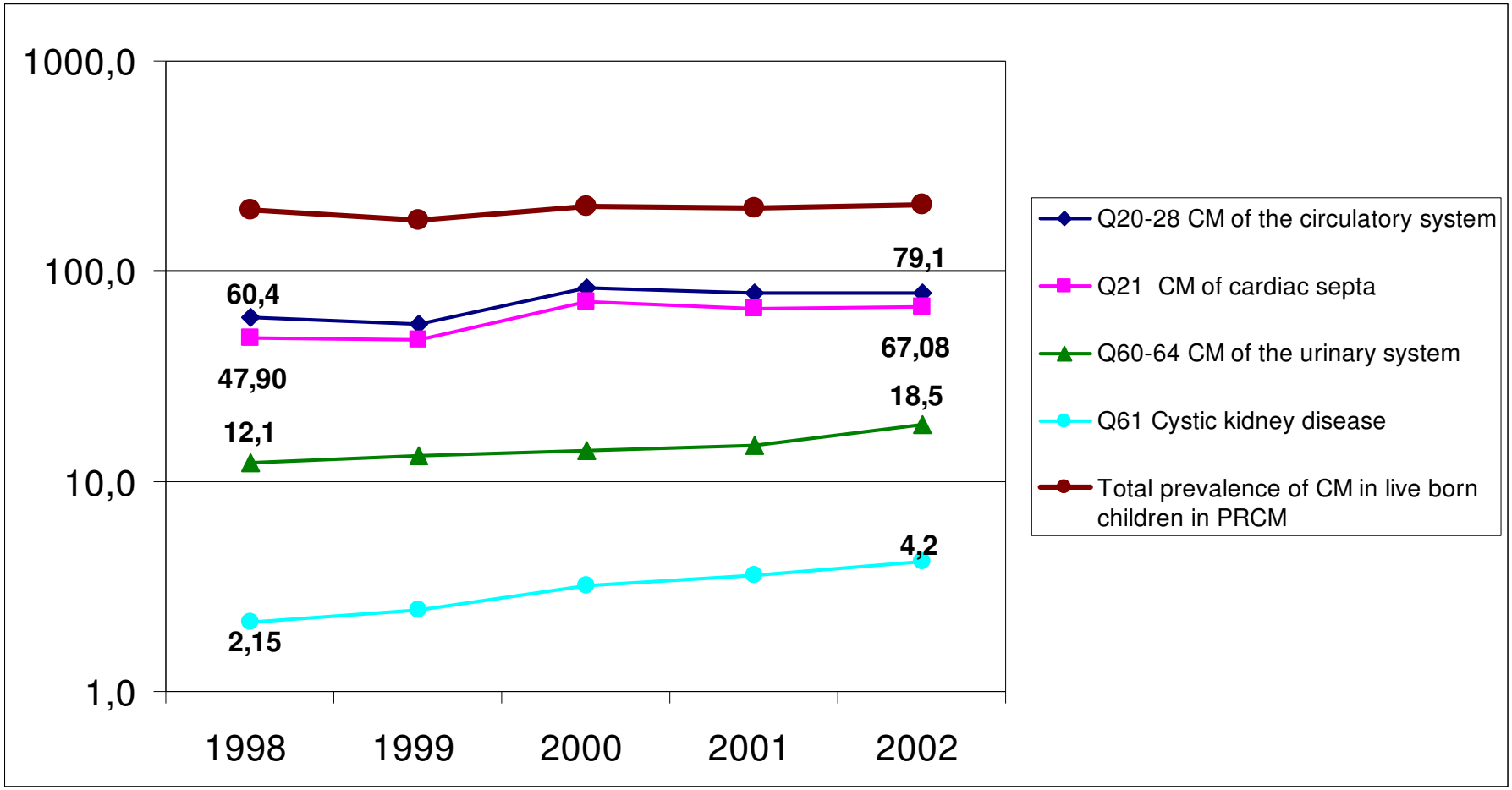
Group of CM	males		females				
	Prev.	95%CI	Prev.	95%CI	mid-p	rate retio	RR 95%CI
Q00-07 CM of the nervous system	14.86	(13.81; 16.02)	18.67	(17.43; 19.99)	<0.00001	0.80	(0.72; 0.88)
Q10-18 CM of eye, ear, face and neck	5.12	(4.50; 5.80)	5.10	(4.46; 5.80)	0.96288	1.00	(0.84; 1.21)
Q20-28 CM of the circulatory system	68.53	(66.18; 70.93)	74.17	(71.66; 76.74)	0.00151	0.92	(0.88; 0.97)
Q30-34 CM of the respiratory system	3.66	(3.14; 4.24)	2.95	(2.47; 3.49)	0.06488	1.24	(0.99; 1.56)
Q35-37 Cleft lip and palate	18.50	(17.29; 19.76)	16.21	(15.05; 17.43)	0.00902	1.14	(1.03; 1.26)
Q38-45 CM of the digestive system	11.29	(10.36; 12.29)	9.17	(8.30; 10.10)	0.00160	1.23	(1.08; 1.40)
Q60-64 CM of the urinary system	18.22	(17.02; 19.47)	10.61	(9.67; 11.60)	<0.00001	1.72	(1.53; 1.92)
Q65-79 CM and deformations of the musculoskeletal system	52.59	(50.54; 54.70)	45.6	(43.63; 47.63)	<0.00001	1.15	(1.09; 1.22)
Q80-85 CM of integument	1.87	(1.51; 2.30)	1.60	(1.26; 2.01)	0.33034	1.17	(0.85; 1.60)
Q86-87 Multiple malformations	19.62	(18.37; 20.92)	16.59	(15.42; 17.83)	0.00075	1.18	(1.07; 1.30)
Q90-99 Chromosomal abnormalities, not elsewhere classified	18.11	(16.92; 19.36)	17.99	(16.76; 19.28)	0.89170	1.01	(0.91; 1.11)

Sex distribution of major CM in live born children reported to the PRCM during 1998-2002



- total LB prevalence of major CM
- sex distribution of major CM
- **secular trends in LB prevalence of selected groups and subgroups of CM (according to ICD-10 coding system)**
- comparison with EUROCAT data

Secular trends in LB prevalence of selected groups and subgroups of CM



- total LB prevalence of major CM
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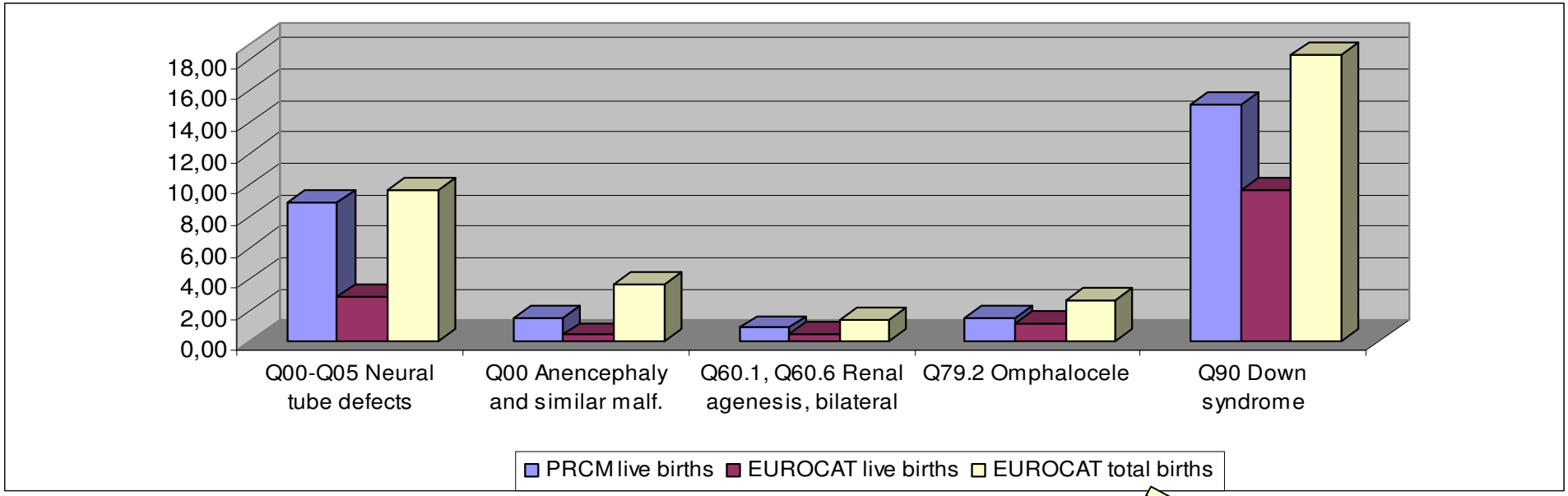
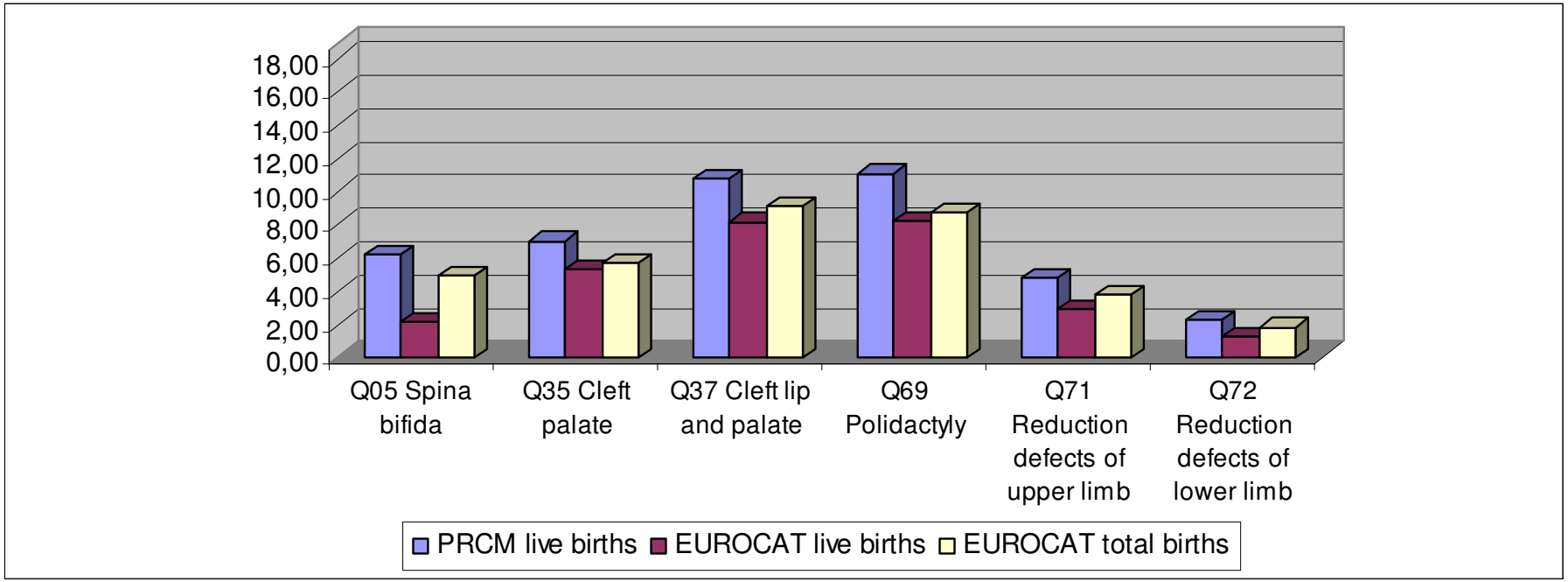
- **comparison with EUROCAT data**

Comparison with EUROCAT data (1)



Total births:
live births, stillbirths, terminations of pregnancy for fetal anomaly (TOPFA)

Comparison with EUROCAT data (2)



Total births:
live births, stillbirths, terminations of pregnancy for fetal anomaly (TOPFA)

Conclusions

- The study presents the very first data on CM in Poland, collected according to recognized standards using population based registry.
- Differences in prevalence rates of selected CM in LB between the PRCM and the EUROCAT can be partially explained by ascertainment variation as well as Polish law regulations concerning termination of pregnancy.
- Higher prevalence rates of selected CM in LB in Poland than in total births in EUROCAT countries require further analysis, including detailed geographic distribution and suspected risk factors.

Thank you for your attention!