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**Report 8:
Surveillance of
Congenital Anomalies in
Europe
1980-1999**

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Similarly for all selected anomalies.

Technical Notes (draft)

1. LB= livebirths, FD= fetal deaths from 20 weeks gestation, including stillbirths, IA= induced abortion following prenatal diagnosis.
2. Total prevalence rate (LB+FD+IA) = Cases (LB + FD+ IA) / all births (live and still)

Birth prevalence rate (LB+FD) = Cases (LB+FD)/ all births (live and still)
Livebirth prevalence rate (LB) = Cases (LB)/ all livebirths
3. The following anomalies were not included in the database for certain registries:
Hypospadias: Saxony, North Thames West
Cleft Lip: Sicily
Cleft Palate: Sicily
Bilateral Renal agenesis: Sicily
Syndactyly: North Thames West
Polydactyly: North Thames West
Microcephaly: Mainz
Holoprosencephaly: North East Italy
Cystic kidney disease: North East Italy
indeterminate sex, North East Italy
diaphragmatic hernia, North East Italy
trisomy 13, North East Italy
trisomy 18 North East Italy
duodenal atresia and stenosis and North East Italy
atresia and stenosis of other parts of small intestine: North East Italy
common arterial truncus North East Italy
transposition of great vessels North East Italy
Anorectal atresia and stenosis: North Thames West
4. Terminations of pregnancy/induced abortion for fetal anomaly (IA) were not registered in South East Sicily, ECEMC (Spain) from 1985, Central East France prior to 1985, Emilia Romagna prior to 1994. Numbers are therefore represented by a “-“ for these registries for relevant years, and they are not included in total prevalence rates across registries. Emilia Romagna had incomplete information on terminations after 1994, which has been included. In Dublin, Galway and Malta, as well as ECEMC before 1985, terminations of pregnancy for fetal anomaly are/were illegal – in these registries numbers of IA are “0” and these registries are included in total prevalence rates across registries.
5. A list of minor anomalies for exclusion is given in Appendix b. These cases are only for exclusion when isolated (not associated with other major anomalies). However, when reporting on individual anomaly categories (see Appendix a), these cases are also excluded if they have only a minor anomaly within the specified category.

Main tabulated source of information on listed anomalies

Anomalies	Tables	Registries
Nervous system		
Neural Tube Defects:	A1-A2	Full members only
Neural Tube Defects (contd):	A1-A2	Full members only
Anencephalus and similar	A5, B1, B2, B3, B4	Full members & Associate members
Anencephalus and similar (contd)	A1,	Full members only
Encephalocele	A5, B1, B2, B3, B4, B5	Full members & Associate members
Encephalocele (contd)	A1	Full members only
Spina Bifida	A5, B1, B2, B3, B4, B5	Full members & Associate members
Spina Bifida (contd)	A1	Full members only
Hydrocephaly	A5, B1, B2, B3, B4, B5	Full members & Associate members
Hydrocephaly (contd)	A1	Full members only
Microcephaly	A5, B1, B2, B3, B4, B5	Full members & Associate members
Microcephaly (contd)	A1	Full members only exc Mainz, NE Italy
Arhinencephaly / holoprosencephaly	A5, B1, B2, B3, B4	Full members & Associate members exc Mainz, NE Italy
Arhinencephaly / holoprosencephaly (contd)	A1	Full members only exc NE Italy
Eye	A5, B1, B2, B3, B4	Full members & Associate members exc NE Italy, Norway
Anophthalmos / microphthalmos	A1-A2	Full members only
Anophthalmos / microphthalmos (contd)	A1	Full members only
Anophthalmos *	A5, B1, B2, B3, B4	Full members & Associate members
Microphthalmos *	A1	Full members only
Cataract	A1	Full members only
Cataract (contd)	A1	Full members only
Ear	A5, B1, B2, B3, B4	Full members & Associate members
Annotia/microtia	A1-A2	Full members only
Annotia/microtia (contd)	A1	Full members only
Anotia *	A5, B1, B2, B3, B4	Full members & Associate members
microtia *	A1	Full members only
Congenital heart disease	A1-A2	Full members only
Anomalies of cardiac chambers and connections	A1, A5, B1, B2, B3, B4	Full members only
common arterial truncus	A1	Full members only exc NE Italy
common arterial truncus (contd)	A5, B1, B2, B3, B4	Full members & Associate members excl NE Italy, CE France, ECEMC
transposition of great vessels, non-corrected	A1	Full members only exc NE Italy
transposition of great vessels, non-corrected (contd)	A5, B1, B2, B3, B4, B5	Full members & Associate members excl NE Italy

Single ventricle *	A1	Full members only
Malformations of cardiac septa	A1, A5, B1, B2, B3, B4	Full members only
VSD *	A1	Full members only
ASD *	A1	Full members only
AVSD	A1, A5, B1, B2, B3, B4	Full members only
Tetralogy of Fallot	A1, A5, B1, B2, B3, B4	Full members only
Malformations of valves	A1, A5, B1, B2, B3, B4	Full members only
tricuspid atresia and stenosis *	A1	Full members only
Ebstein's anomaly *	A1	Full members only
aortic atresia/stenosis *	A1	Full members only
hypoplastic left heart	A1	Full members only
hypoplastic left heart (contd)	A5, B1, B2, B3, B4, B5	Full members & Associate members
Malformations of great arteries and veins	A1, A5, B1, B2, B3, B4	Full members only
coarctation of aorta	A1, A5, B1, B2, B3, B4	Full members only
Cleft lip with or without palate	A1-A2	Full members only exc Sicily
Cleft lip with or without palate (contd)	A5, B1, B2, B3, B4	Full members & Associate members exc Sicily
Cleft palate	A1-A2	Full members only exc Sicily
Cleft palate (contd)	A5, B1, B2, B3, B4	Full members & Associate members exc Sicily
Digestive system	A1-A2	Full members only
Small intestinal atresia and stenosis	A1	Full members only
Small intestinal atresia and stenosis (contd)	A5, B1, B2, B3, B4	Full members & Associate members
Tracheo-oesophageal fistula, oesoph. atr. and sten.	A1	Full members only
Tracheo-oesophageal fistula, oesoph. atr. and sten. (contd)	A5, B1, B2, B3, B4	Full members & Associate members
Duodenal atresia and stenosis	A1, A5, B1, B2, B3, B4	Full members excl NE Italy
Atresia and stenosis of other parts of small intestine	A1, A5, B1, B2, B3, B4	Full members excl NE Italy
Ano-rectal atresia and stenosis	A1	Full members excl NW Thames
Ano-rectal atresia and stenosis (contd)	A5, B1, B2, B3, B4	Full members & Associate members excl NW Thames
Internal urogenital system: ovaries, uterus, and renal system	A1-A2	Full members only
Bilateral renal agenesis	A1	Full members only exc Sicily
Bilateral renal agenesis (contd)	A5, B1, B2, B3, B4, B5	Full members & Associate members excl Sicily, CE France, Norway, ECEMC
Cystic kidney disease	A1	Full members only exc NE Italy
Cystic kidney disease (contd)	A5, B1, B2, B3, B4	Full members & Associate members excl NE Italy
Congenital hydronephrosis *	A1	Full members only
Bladder extrophy *	A1	Full members only

External genital system	A1-A2	Full members only
Hypospadias	A1	Full members only excl Saxony-Anhalt, NW Thames
Hypospadias (contd)	A5, B1, B2, B3, B4	Full members & Associate members excl Saxony-Anhalt, NWT
Indeterminate sex	A1	Full members only excl NE Italy
Indeterminate sex (contd)	A5, B1, B2, B3, B4	Full members & Associate members excl NE Italy
Limb	A1-A2	Full members only
Limb reduction	A1	Full members only
Limb reduction (contd)	A5, B1, B2, B3, B4, B5	Full members & Associate members
Upper limb reduction	A1	Full members only
Upper limb reduction (contd)	A5, B1, B2, B3, B4	Full members & Associate members exc Norway
complete absence of upper limb *	A1	Full members only
absence of upper arm and forearm with hand present *	A1	Full members only
absence of both forearm and hand *	A1	Full members only
absence of hand and fingers *	A1	Full members only
longitudinal reduction defect/shortening of arm *	A1	Full members only
Lower limb reduction	A1	Full members only
Lower limb reduction (contd)	A5, B1, B2, B3, B4	Full members & Associate members exc Norway
complete absence of lower limb *	A1	Full members only
absence of thigh and lower leg with foot present *	A1	Full members only
absence of both lower leg and foot *	A1	Full members only
absence of foot and toe *	A1	Full members only
longitudinal reduction defect/shortening of leg *	A1	Full members only
Polydactyly	A1	Full members only exc NW Thames
Polydactyly (contd)	A5, B1, B2, B3, B4	Full members & Associate members exc NW Thames
Syndactyly	A1	Full members only exc NW Thames
Syndactyly (contd)	A5, B1, B2, B3, B4	Full members & Associate members exc NW Thames
Musculoskeletal and connective tissue	A1-A2	Full members only
choanal atresia *	A1	Full members only
craniosynostosis *	A1	Full members only
Pierre Robin Syndrome *	A1	Full members only
Mandibulofacial dystosis (Treacher-Collins, Franceschetti) *	A1	Full members only
Oculomandibular dysostosis (Hallerma-Streiff) *	A1	Full members only
Goldenhar's syndrome *	A1	Full members only
Chondrodystrophies, osteodystrophies	A1, A5, B1, B2, B3, B4	Full members only

Diaphragmatic hernia	A1, A5, B1, B2, B3, B4, B5	Full members excl NEItaly
Omphalocele	A1	Full members only
Omphalocele (contd)	A5, B1, B2, B3, B4, B5	Full members & Associate members
Gastroschisis	A1	Full members only
Gastroschisis (contd)	A5, B1, B2, B3, B4, B5	Full members & Associate members
Prune Belly Syndrome *	A1	Full members only
Chromosomal		
Down's syndrome	A1-A2	Full members only
Down's syndrome (contd)	A1	Full members only
Down's syndrome (contd)	A5, B1, B2, B3, B4, B5	Full members & Associate members
Patau syndrome/trisomy 13	B6, B7, B8	Full members only exc Bulgaria, NE Italy, Sicily, NW Thames
Patau syndrome/trisomy 13 (contd)	A1	Full members only exc NE Italy
Edward syndrome/trisomy 18	A5, B1, B2, B3, B4, B5	Full members & Associate members exc NE Italy, Norway
Edward syndrome/trisomy 18 (contd)	A1	Full members only exc NE Italy
Other trisomies and partial trisomies of autosomes *	A5, B1, B2, B3, B4, B5	Full members & Associate members exc NE Italy, Norway
Monosomies and deletions from the autosomes *	A1	Full members only
Turner's syndrome *	A1	Full members only
Klinefelter's syndrome *	A1	Full members only

* Anomalies not tabulated separately but included in overall prevalence table (Table A1)

Part I: Population Statistics

P1: Birth population per registry. Number of livebirths and stillbirths per year in 32 EUROCAT Registries, 1980-1999

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Styria (Austria)																				
live births	-	-	-	-	-	13604	13244	13242	13301	13115	13299	13750	13702	13361	12945	12226	12424	11721	10987	10765
still births	-	-	-	-	-	59	59	34	39	46	50	44	42	34	43	50	41	47	39	35
Total births	-	-	-	-	-	13663	13303	13276	13340	13161	13349	13794	13744	13395	12988	12276	12465	11768	11026	10800
Antwerp (Belgium)																				
live births	-	-	-	-	-	-	-	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
still births	-	-	-	-	-	-	-	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total births	-	-	-	-	-	-	-	-	-	-	3740	4688	6180	7555	10964	10899	10796	18282	17930	17719
Hainaut (Belgium)																				
live births	8383	8140	8154	7801	8011	8129	8327	8467	8763	13504	13408	13530	13264	12529	12218	11866	12354	12259	11971	12041
still births	66	64	55	61	55	53	53	51	42	75	95	65	64	54	55	67	62	55	73	56
Total births	8449	8204	8209	7862	8066	8182	8380	8518	8805	13579	13503	13595	13328	12583	12273	11933	12416	12314	12044	12097
Bulgaria																				
live births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9822	8938	9102	10103
still births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	86	66	75	65
Total births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9908	9004	9177	10168
Croatia																				
live births	-	-	-	3998	3997	3752	6813	6628	6140	7297	6922	6972	6443	6493	6111	6245	6404	6303	6143	6005
still births	-	-	-	25	32	32	54	58	43	32	26	31	38	39	24	35	31	34	27	28
Total births	-	-	-	4023	4029	3784	6867	6686	6183	7329	6948	7003	6481	6532	6135	6280	6435	6337	6170	6033
Odense (Denmark)																				
live births	5125	4581	4453	4283	4453	4679	4830	4830	5044	5266	5668	5724	6029	5926	6083	6119	5831	5773	4970	5659
still births	23	23	25	26	18	19	19	22	22	21	26	28	30	20	25	34	44	34	33	30
Total births	5148	4604	4478	4309	4471	4698	4849	4852	5066	5287	5694	5752	6059	5946	6108	6153	5875	5807	5003	5689
Paris (France)																				
live births	-	36516	36380	35408	35507	36170	36017	35759	36399	36566	37028	37301	36249	35605	35708	36672	37029	37059	37974	38000

still births	-	401	361	373	395	366	367	321	273	300	274	240	220	214	210	212	208	213	186	200
Total births	-	36917	36741	35781	35902	36536	36384	36080	36672	36866	37302	37541	36469	35819	35918	36884	37237	37272	38160	38200
Strasbourg (France)																				
live births	-	-	13581	12432	12841	13077	13012	12778	13504	13358	13701	13682	13647	13083	12804	13247	13126	13180	13594	-
still births	-	-	81	87	83	89	100	117	91	67	74	88	89	65	61	66	59	57	62	-
Total births	-	-	13662	12519	12924	13166	13112	12895	13595	13425	13775	13770	13736	13148	12865	13313	13185	13237	13656	-
Mainz (Germany)																				
live births	-	-	-	-	-	-	-	-	-	-	3886	4098	3926	4013	3756	3544	3586	3870	3527	3263
still births *	-	-	-	-	-	-	-	-	-	-	74	64	47	69	50	52	54	62	15	12
Total births	-	-	-	-	-	-	-	-	-	-	3960	4162	3973	4082	3806	3596	3640	3932	3542	3275
Saxony-Anhalt (Germany)																				
live births	-	-	-	-	-	-	-	17081	16527	15111	14487	9083	7595	6890	7515	7651	8851	9570	10499	11428
still births	-	-	-	-	-	-	-	84	96	91	49	40	38	20	42	56	77	36	55	72
Total births	-	-	-	-	-	-	-	17165	16623	15202	14536	9123	7633	6910	7557	7707	8928	9606	10554	11500
Dublin (Ireland)																				
live births	26202	25317	24613	23165	22131	21941	21537	20625	19682	18799	19259	19690	18848	18378	18299	18443	19186	20156	20781	20639
still births	258	193	209	187	181	190	171	143	148	115	134	110	85	113	113	107	102	101	106	107
Total births	26460	25510	24822	23352	22312	22131	21708	20768	19830	18914	19393	19800	18933	18491	18412	18550	19288	20257	20887	20746
Galway (Ireland)																				
live births	-	3512	3569	3372	3240	3049	3140	3029	2828	2619	2691	2578	2636	2624	2360	2414	2509	2588	2733	2655
still births	-	34	35	25	28	30	15	22	30	17	0	0	30	21	15	22	25	0	14	0
Total births	-	3546	3604	3397	3268	3079	3155	3051	2858	2636	2691	2578	2666	2645	2375	2436	2534	2588	2747	2655
Campania (Italy)																				
live births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46454	50283	51414	47262
still births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	204	175	154	135
Total births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46658	50458	51568	47397
Emilia Romagna (Italy)																				
live births	13104	18219	21615	23032	23892	22762	22634	22625	23256	23397	24981	24887	24456	25782	26265	28777	28747	20866	23927	
still births	85	145	154	123	124	106	92	135	124	127	114	115	77	104	94	96	112	62	76	
Total births	13189	18364	21769	23155	24016	22868	22726	22760	23380	23524	25095	25002	24533	25886	26359	28873	28859	20928	24003	

North-East Italy

live births	-	27521	36092	40973	42975	43169	41044	41821	45102	47309	52000	50875	50182	49556	49280	51336	56697	55727	54776	54190
still births	-	187	229	222	227	232	221	227	205	206	205	218	158	179	163	150	172	181	163	174
Total births	-	27708	36321	41195	43202	43401	41265	42048	45307	47515	52205	51093	50340	49735	49443	51486	56869	55908	54939	54364

South East Sicily (Italy)

live births	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
still births	-	-	-	-	-	-	-	-	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total births	-	-	-	-	-	-	-	-	-	-	-	19430	20273	19746	20031	18986	18054	18795	16922	-

Tuscany (Italy)

live births	9631	9290	9214	8902	8553	8918	8444	8472	8829	8518	8712	8617	25587	24416	24391	24429	24511	24448	25388	25966
still births	65	60	67	46	39	62	33	39	40	38	39	40	83	88	96	91	95	87	80	93
Total births	9696	9350	9281	8948	8592	8980	8477	8511	8869	8556	8751	8657	25670	24504	24487	24520	24606	24535	25468	26059

Malta

live births	-	-	-	-	-	-	5263	5333	5411	5573	5368	5302	5474	5147	4826	4613	4944	4835	4488	4308
still births	-	-	-	-	-	-	47	42	50	44	32	26	29	25	37	20	34	29	23	31
Total births	-	-	-	-	-	-	5310	5375	5461	5617	5400	5328	5503	5172	4863	4633	4978	4864	4511	4339

Northern Netherlands

live births	-	7833	7696	7504	7512	7735	11856	11762	11528	18968	19526	19742	19036	19274	19178	19188	18921	19305	19831	20084
still births	-	44	35	38	47	57	80	85	67	125	109	111	104	113	105	108	112	92	110	83
Total births	-	7877	7731	7542	7559	7792	11936	11847	11595	19093	19635	19853	19140	19387	19283	19296	19033	19305	19941	20167

Southern Portugal

live births	-	-	-	-	-	-	-	-	-	-	5415	5503	7322	7066	6950	14921	15323	16208	16220	16950
still births	-	-	-	-	-	-	-	-	-	-	46	51	69	86	50	38	116	85	92	97
Total births	-	-	-	-	-	-	-	-	-	-	5461	5554	7391	7152	7000	14959	15439	16293	16312	17047

Asturias (Spain)

live births	-	-	-	-	-	-	-	-	-	-	7676	7649	7430	6962	6591	6512	6471	6440	6285	6488
still births	-	-	-	-	-	-	-	-	-	-	46	44	44	50	35	41	36	33	36	28
Total births	-	-	-	-	-	-	-	-	-	-	7722	7693	7474	7012	6626	6553	6507	6473	6321	6516

Barcelona (Spain)

live births	-	-	-	-	-	-	-	-	-	-	-	-	-	13389	12691	12544	12144	11960	12170	11626	12221
still births	-	-	-	-	-	-	-	-	-	-	-	-	-	88	47	65	55	71	70	58	49
Total births	-	-	-	-	-	-	-	-	-	-	-	-	-	13477	12738	12609	12199	12031	12240	11684	12270

Basque Country (Spain)

live births	-	-	-	-	-	-	-	-	-	-	16361	16228	16250	15801	15284	15322	15987	16325	16113	-
still births	-	-	-	-	-	-	-	-	-	-	77	63	66	90	73	75	73	72	56	-
Total births	-	-	-	-	-	-	-	-	-	-	16438	16291	16316	15891	15357	15397	16060	16397	16169	-

Vaud (Switzerland)

live births	-	-	-	-	-	-	-	-	-	7184	7658	8168	8056	7663	7657	7663	7709	7531	7410	7442
still births	-	-	-	-	-	-	-	-	-	28	39	43	20	37	26	34	21	31	28	23
Total births	-	-	-	-	-	-	-	-	-	7212	7697	8211	8076	7700	7683	7697	7730	7562	7438	7465

Glasgow (UK:Scotland)

live births	13350	13390	12808	12592	12709	13003	12937	12909	12840	12225	12400	12763	12266	11817	11333	11136	10908	10944	10164	9668
still births	88	101	76	69	74	86	76	78	68	64	71	68	73	66	74	91	68	53	75	53
Total births	13438	13491	12884	12661	12783	13089	13013	12987	12908	12289	12471	12831	12339	11883	11407	11227	10976	10997	10239	9721

Mersey (UK:England)

live births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28645	28871	27846	27372	26409
still births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	141	160	137	142	144
Total births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28786	29031	27983	27514	26553

North Thames (West) (UK:England)

live births	-	-	-	-	-	-	-	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
still births	-	-	-	-	-	-	-	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total births	-	-	-	-	-	-	-	-	-	-	47510	47330	47493	46762	47526	47324	47324	47355	47549	46874

Wales (UK)

live births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33428	32111
still births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	182	155
Total births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33610	32266

total (full member registries)

live births	80660	166949	192368	199363	202202	218190	225998	225370	208841	248668	288862	286236	312218	303751	301615	340601	379647	383132	407779	407584
still births	644	1329	1423	1433	1411	1494	1478	1415	1201	1393	1593	1488	1532	1507	1466	1639	1859	1695	1765	11849

Total births	81304	168278	193791	200796	203613	219684	227476	226785	229872	250061	341705	359172	387696	379321	381602	419449	486876	498428	488399	473923
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Associate member registries

Finland

live births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64826	65231	63067	60723	59329	57108	57574
still births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	272	249	301	242	240	237	208
Total births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65098	65480	63368	60965	59569	57345	57782

Central East France

live births	74760	75677	75246	85843	86300	90160	91327	89618	90810	99260	106801	106011	103940	98762	99191	101562	102989	101596	102029	102526
still births	572	543	567	590	604	665	623	573	493	598	569	596	540	487	483	591	451	494	454	456
Total births	75332	76220	75813	86433	86904	90825	91950	90191	91303	99858	107370	106607	104480	99249	99674	102153	103440	102090	102483	102982

Norway **

live births	50964	50563	51142	49774	50145	50997	52464	53942	57521	59263	61061	60925	60205	59772	59875	60107	60673	59529	58074	-
still births	531	458	500	484	431	419	421	371	415	449	462	461	431	394	431	381	419	367	408	-
Total births	51495	51021	51642	50258	50576	51469	52948	54376	58018	59807	61624	61497	60762	60291	60466	60617	61253	60016	58646	-

ECEMC (Spain)

live births	56358	55607	60795	71229	68971	66163	57769	50664	52278	58635	83759	87045	91032	82358	86705	86842	93572	98438	96035	103846
still births	552	495	538	583	542	557	476	387	408	411	620	663	575	567	534	530	472	507	455	491
Total births	56910	56102	61333	71812	69513	66720	58245	51051	52686	59046	84379	87708	91607	82925	87239	87372	94044	98945	96490	104337

Total (associate member registries)

live births	182082	181847	187183	206846	205416	156323	149096	140282	143088	157895	190560	193056	194972	181120	185896	188404	196561	200034	198064	206372
still births	1655	1496	1605	1657	1577	1222	1099	960	901	1009	1189	1259	1115	1054	1017	1121	923	1001	909	947
Total births	183737	183343	188788	208503	206993	209014	203143	195618	202007	218711	253373	255812	256849	242465	247379	250142	258737	261051	257619	207319

Total (all registries)

live births	262742	348796	379551	406209	407618	374513	375094	365652	351929	406563	479422	479292	507190	484871	487511	529005	576208	583166	605843	613956
still births	2299	2825	3028	3090	2988	2716	2577	2375	2102	2402	2782	2747	2647	2561	2483	2760	2782	2696	2674	12796
Total births	265041	351621	382579	409299	410606	428698	430619	422403	431879	468772	595078	614984	644545	621786	628981	669591	745613	759479	746018	681242

* Mainz stillbirths include fetal deaths from 16 weeks gestation

** Norway's total birth population from 1985-1998 includes termination of pregnancy

P2: Maternal age distribution in 28 EUROCAT registries: 1980-1999, 1995-1999.

Registry	1980-1999					1995-1999				
	<20	20-24	25-29	30-34	35+	<20	20-24	25-29	30-34	35+
	%	%	%	%	%	%	%	%	%	%
Styria (Austria) [Based on 86-99] *	3.6	19.6	50.4	19.0	7.5	4.3	24.4	37.1	24.2	9.9
Antwerp (Belgium) [Based on 90-99]	2.3	15.9	43.5	29.3	9.1	2.3	15.1	42.2	30.7	9.7
Hainaut (Belgium) [Based on 80-96]	4.9	28.0	38.1	22.2	6.8	2.9	21.4	38.0	26.8	10.9
Croatia [Based on 83-99]	7.5	37.2	32.9	15.8	6.7	5.5	30.0	33.8	21.1	9.7
Odense (Denmark) [Based on 80-99]	3.0	22.8	40.5	24.8	8.9	1.9	16.1	38.9	31.4	11.6
Paris [Based on 81-99]	1.6	14.0	33.8	31.8	18.9	0.9	8.4	30.0	36.8	23.9
Strasbourg (France) [Based on 82-98]	3.5	23.2	39.3	24.2	9.8	2.8	17.7	38.8	28.3	12.5
Mainz (Germany) [Based on 90-99]	3.1	16.8	35.6	32.2	12.3	3.1	14.9	32.6	35.0	14.3
Saxony-Anhalt (Germany) [Based on 91-93]	5.4	36.2	36.9	16.0	5.5	n/a	n/a	n/a	n/a	n/a
Dublin (Ireland) [Based on 80-99]	5.8	18.6	31.2	29.0	15.3	6.4	15.0	26.3	33.6	18.7
Galway (Ireland) [Based on 81-99]	3.4	15.2	29.7	31.2	20.5	3.6	12.6	26.5	33.9	23.5
Campania (Italy) [Based on 96-99]	3.3	20.1	36.6	27.6	12.4	3.3	20.1	36.6	27.6	12.4
Emilia Romagna (Italy) [Based on 80-99]	2.5	17.0	36.0	30.1	14.3	1.4	12.1	33.3	36.2	17.0
Tuscany (Italy) [Based on 80-99]	2.2	14.6	35.1	32.9	15.2	1.4	10.7	32.7	37.2	18.0
Malta [Based on 86-99]	3.7	20.0	36.6	25.7	13.9	4.7	20.5	35.3	25.2	14.4
Northern Netherlands [Based on 81-99]	1.6	14.7	40.2	32.7	10.8	1.3	9.8	36.9	37.9	14.1
Southern Portugal [Based on 90-92, 95-99]	9.1	23.7	32.9	23.5	10.7	8.3	22.4	33.2	24.8	11.3
Asturias (Spain) [Based on 90-99]	4.3	16.9	32.4	32.0	14.5	3.4	13.4	29.6	35.4	18.2
Barcelona (Spain) [Based on 92-96, 98-99]	1.9	6.9	29.3	42.3	19.5	2.2	5.9	25.6	44.2	22.1
Basque Country (Spain) [Based on 90-99]	1.5	7.3	29.2	43.8	18.3	1.0	4.8	22.7	47.6	23.8
Vaud (Switzerland) [Based on 89-99]	1.2	14.2	38.5	32.7	13.4	1.1	11.9	35.6	35.6	15.8
Glasgow (UK:Scotland) [Based on 80-99]	9.2	25.3	32.9	23.3	9.3	8.8	17.9	29.5	29.5	14.3
Mersey (UK:England) [Based on 95-99]	8.1	19.2	30.5	28.9	13.2	8.1	19.2	30.5	28.9	13.2
Wales (UK) [Based on 98-99]	11.2	19.9	29.6	24.4	14.9	11.2	19.9	29.6	24.4	14.9
Associate member registries										
Finland [Based on 93-99]	2.5	16.3	34.4	30.8	16.0	2.6	16.2	33.1	31.4	16.8

Central East France [Based on 80-99]	2.1	20.1	39.3	26.5	11.9	1.4	13.4	38.6	31.7	14.8
Norway [Based on 80-98]	4.7	24.9	37.0	23.9	9.5	2.8	18.4	37.2	28.8	12.7
ECEMC (Spain) [Based on 80-99]	5.1	20.0	36.1	26.9	11.9	3.4	12.7	33.5	35.2	15.2

* Women aged <25 years were included in the 25-29 age group for the years 1986-89

** Based on Live Birth distribution

N/A = Not available

P3a: Maternal age. Percentage of births with maternal age less than 20 years in 28 EUROCAT registries 1980-1999

Registry	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
Styria (Austria) [Based on 86-99]							NA	NA	NA	NA	6.3	6.3	5.6	5.6	4.8	4.5	4.1	4.4	4.3	4.4	
Antwerp (Belgium) [Based on 90-99]											2.1	1.7	2.2	2.3	2.1	2.1	2.4	2.4	2.3	2.4	
Hainaut (Belgium) [Based on 80-96]	9.2	9.0	8.4	8.9	5.7	5.0	4.8	4.6	4.5	4.3	4.1	4.0	3.8	3.6	3.0	2.9	2.8	NA	NA	NA	
Croatia [Based on 83-99]				8.1	7.4	7.9	9.0	8.8	8.2	8.9	8.3	8.2	8.1	8.1	8.0	5.8	5.9	5.2	5.0	5.5	
Odense (Denmark) [Based on 80-99]	5.1	4.8	4.5	4.0	3.5	3.9	3.3	3.6	2.7	2.7	3.0	2.8	2.9	2.2	2.4	2.1	2.2	1.7			
Paris [Based on 81-99]		3.0	2.7	2.7	2.5	2.1	1.9	1.6	1.6	1.5	1.5	1.4	1.2	1.1	0.9	0.7	0.9	0.9	1.0	1.0	
Strasbourg (France) [Based on 82-98]			4.4	4.0	3.8	3.4	3.1	3.0	3.2	3.8	4.3	4.2	3.8	3.6	3.3	2.7	2.8	2.7	3.0		
Mainz (Germany) [Based on 90-99]											3.3	3.1	3.3	2.8	2.9	3.3	3.2	1.8	3.4	3.7	
Saxony-Anhalt (Germany) [Based on 91-93]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.1	4.3	5.6	NA	NA	NA	NA	NA	NA	
Dublin (Ireland) [Based on 80-99]	5.3	5.5	5.3	5.2	5.1	5.0	5.3	5.3	5.5	5.9	6.3	6.3	6.5	6.5	5.9	5.6	6.1	6.3	6.7	7.0	
Galway (Ireland) [Based on 81-99]		3.4	3.1	3.2	3.3	3.3	3.3	3.5	3	2.8	3.4	4.1	3.8	4.4	3.1	3.7	3.0	3.9	3.4	3.9	
Campania (Italy) [Based on 96-99]																	3.5	3.2	3.2	3.2	
Emilia Romagna (Italy) [Based on 80-99]	7.7	4.6	3.5	4.0	4.1	3.6	2.8	3.4	2.3	2.7	3.0	1.4	0.8	2.1	1.6	1.5	1.4	1.6	1.2	1.2	
Tuscany (Italy) [Based on 80-99]	4.7	4.7	4.3	3.9	3.3	2.7	3.5	3.5	3.7	2.3	2.3	2.1	1.9	1.7	1.4	1.5	1.7	1.4	1.0	1.3	
Malta [Based on 86-99]							3.2	3.6	3.4	3.8	2.7	3.0	3.0	3.4	3.1	3.1	4.8	5.1	5.2	5.4	
Northern Netherlands [Based on 81-99]		3.1	2.7	2.9	2.7	2.3	2.1	1.6	1.8	1.7	1.7	1.5	1.5	1.2	1.2	1.2	1.3	1.3	1.3	1.5	
Southern Portugal [Based on 90-92, 95-99]											13.3	12.9	11.6	NA	NA	9.8	9.0	8.3	7.5	7.3	
Asturias (Spain) [Based on 90-99]											6.3	5.5	4.8	4.6	4.2	4.1	3.7	3.3	3.4	2.3	
Barcelona (Spain) [Based on 92-96, 98-99]													1.7	1.7	1.3	1.3	1.2	NA	2.9	3.6	
Basque Country (Spain) [Based on 90-99]											2.5	2.1	1.8	1.7	1.6	1.4	0.9	0.9	0.9	0.8	
Vaud (Switzerland) [Based on 89-99]										1.0	1.4	1.3	1.4	1.4	1.1	1.2	1.0	1.1	1.1	1.3	
Glasgow (UK: Scotland) [Based on 80-99]	12.2	12.0	11.6	9.3	9.0	9.0	9.2	8.7	8.2	8.2	7.5	9.0	8.6	8.4	7.8	8.1	8.4	8.6	9.4	9.5	
Mersey (UK: England) [Based on 95-99]																7.9	7.9	8.0	8.3	8.7	
Wales (UK) [Based on 98-99]																			11.5	10.8	
Associate member registries																					
Finland [Based on 93-99]															2.6	2.5	2.5	2.6	2.4	2.6	2.7
Central East France [Based on 80-99]	3.5	3.2	3.1	3.1	2.9	2.5	2.4	2.3	2.1	2.2	2.1	2.2	1.9	1.7	1.5	1.4	1.4	1.4	1.4	1.4	
Norway [Based on 80-98]	7.6	7.3	6.8	6.4	6.2	5.7	5.7	5.4	5.1	4.7	4.4	4.2	3.8	3.5	3.2	3	2.9	2.8	2.8		
ECEMC (Spain) [Based on 80-99]	5.7	8.6	5.7	8.2	6.2	5.6	6.4	7.7	6.5	5.7	5.9	5.3	5.2	3.2	4.5	3.4	3.9	2.5	3.3	4.1	

P3b: Maternal age. Percentage of births with maternal age 35 years plus in 28 EUROCAT registries 1980-1999

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Styria (Austria) [Based on 86-99]							5.5	5.9	5.3	5.7	6.4	6.1	6.7	7.4	7.9	8.7	9.1	10.1	10.6	11.4
Antwerp (Belgium) [Based on 90-99]											6.8	7.8	6.8	7.7	8.2	8.3	9.4	9.4	10	10.7
Hainaut (Belgium) [Based on 80-96]	3.9	4.3	4.5	5.0	4.9	4.7	5.1	5.5	5.9	6.3	6.7	7.1	7.5	7.9	9.2	10.5	11.4	NA	NA	NA
Croatia [Based on 83-99]				4.0	4.5	5.0	4.7	4.7	4.9	4.5	5.4	5.8	6.2	6.6	7.0	7.5	8.9	11.4	10.5	10.1
Odense (Denmark) [Based on 80-99]	5.4	5.6	6.4	6.1	6.5	6.9	7.3	7.8	7.7	8.3	8.6	9.2	9.4	10.4	10.0	10.7	11.0	11.8		
Paris [Based on 81-99]		11.1	12.1	13.0	13.9	15.3	16.7	17.7	17.9	19.0	19.4	19.4	20.5	20.6	21.8	22.3	22.7	23.9	25.1	25.2
Strasbourg (France) [Based on 82-98]			6.2	6.7	7.1	7.8	8.5	9.7	10.1	8.9	9.5	9.5	10.8	10.6	11.1	11.5	12.2	12.6	13.5	
Mainz (Germany) [Based on 90-99]											10.4	9.0	10.2	10.5	11.5	12.3	12.9	15	14.8	16.6
Saxony-Anhalt (Germany) [Based on 91-93]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.5	5.0	4.8	NA	NA	NA	NA	NA	NA
Dublin (Ireland) [Based on 80-99]	14.0	13.9	14.3	14.5	14.5	14.7	15.1	14.8	14.7	15.5	12.7	13.6	13.5	13.9	14.2	17.3	18.2	18.5	19.6	19.7
Galway (Ireland) [Based on 81-99]		17.4	17.6	17.6	18.4	18.8	18.6	19.9	19.2	20.6	21.1	20.1	22.4	22.2	22.1	23.8	22.9	21.6	25.3	23.5
Campania (Italy) [Based on 96-99]																	10.7	11.0	13.8	13.8
Emilia Romagna (Italy) [Based on 80-99]	15.9	11.6	14.0	12.6	9.3	11.3	12.1	12.9	11.4	14.3	12.3	8.7	20.6	14.3	18.0	16.2	16.3	18.6	17.0	17.0
Tuscany (Italy) [Based on 80-99]	10.6	10.8	11.4	12.1	12.4	12.8	11.2	11.2	11.3	15.8	15.3	13.4	13.8	14.3	15.6	15.9	15.0	16.4	21.0	21.5
Malta [Based on 86-99]							14.2	13.6	12.9	13.2	14.1	13.8	13.1	14.5	14.3	14.7	14.4	14.5	14.3	13.8
Northern Netherlands [Based on 81-99]		5.1	6.5	6.5	7.2	7.0	7.2	7.4	8.2	9.1	8.9	9.9	11.0	11.9	12.5	13.6	13.6	14.2	14.2	14.7
Southern Portugal [Based on 90-92, 95-99]											8.5	8.2	8.6	NA	NA	10.1	10.4	10.6	12.2	12.9
Asturias (Spain) [Based on 90-99]											9.6	10.2	11.4	12.1	13.1	14.9	15.8	18.5	18.6	23.1
Barcelona (Spain) [Based on 92-96, 98-99]													15.0	16.5	17.8	18.9	20.4	NA	23.6	25.3
Basque Country (Spain) [Based on 90-99]											10.7	11.6	12.3	13.5	15.1	16.6	22.5	24.2	26.4	28.8
Vaud (Switzerland) [Based on 89-99]																				
Glasgow (UK: Scotland) [Based on 80-99]	5.7	6.1	6.0	7.4	7.3	7.1	7.7	8.0	8.0	8.7	9.2	9.2	9.1	10.0	10.6	12.2	13.2	14.5	15.6	16.3
Mersey (UK: England) [Based on 95-99]																11.5	12.0	13.5	14.4	14.9
Wales (UK) [Based on 98-99]																			17.1	12.7
Associate member registries																				
Finland [Based on 93-99]														14.0	14.5	15.3	16.1	16.8	17.6	18.3
Central East France [Based on 80-99]	6.9	7.9	8.5	8.5	9.1	9.7	10.2	10.8	11.6	11.9	12.1	12.4	12.6	12.9	13.5	13.7	14.4	14.9	15.6	15.6
Norway [Based on 80-98]	6.1	6.6	7.1	7.6	7.7	7.8	7.5	7.9	8.4	8.6	9.2	9.9	10.4	11.1	11.6	12.0	12.3	13.1	13.6	
ECEMC (Spain) [Based on 80-99]	14.1	9.7	9.6	10.4	10.3	9.7	9.9	10.7	8.5	10.0	9.3	9.6	10.3	12.4	11.6	12.7	12.0	16.4	16.0	18.2

NA = Not available

Part II: All Congenital Anomalies

A0: Total congenital anomalies. Cases_ population and prevalence per 10_000 births in 32 EUROCAT registries_ 1980-99

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
Styria (Austria)																					
total cases	-	-	-	-	-	253	290	215	286	262	411	408	450	500	395	389	330	284	345	308	5126
live births	-	-	-	-	-	223	263	188	263	231	368	372	411	463	367	355	306	254	309	274	4647
fetal deaths	-	-	-	-	-	9	8	10	5	5	13	10	14	9	5	8	5	2	3	2	108
induced abortions	-	-	-	-	-	21	19	17	18	26	30	26	25	28	23	26	19	28	33	32	371
population:	-	-	-	-	-	13663	13303	13276	13340	13161	13349	13794	13744	13395	12988	12276	12465	11768	11026	10800	192348
prevalence:	-	-	-	-	-	185.17	218	161.95	214.39	199.07	307.89	295.78	327.42	373.27	304.13	316.88	264.74	241.33	312.9	285.19	266.4961
Antwerp (Belgium)																					
total cases	-	-	-	-	-	-	-	-	-	-	122	136	151	189	310	234	188	446	424	402	2602
live births	-	-	-	-	-	-	-	-	-	-	100	122	144	181	292	226	174	400	379	347	2365
fetal deaths	-	-	-	-	-	-	-	-	-	-	8	4	2	2	4	0	3	9	5	4	41
induced abortions	-	-	-	-	-	-	-	-	-	-	14	10	5	6	14	8	11	37	40	51	196
population:	-	-	-	-	-	-	-	-	-	-	3740	4688	6180	7555	10964	10899	10796	18282	17930	17719	108753
prevalence:	-	-	-	-	-	-	-	-	-	-	326.2	290.1	244.34	250.17	282.74	214.7	174.14	243.96	236.48	226.88	239.2578
Hainaut (Belgium)																					
total cases	193	207	172	176	174	157	194	202	240	346	341	349	334	331	349	320	302	300	349	354	5390
live births	186	187	159	159	156	135	177	177	218	318	299	310	292	290	306	268	262	264	290	304	4757
fetal deaths	3	18	10	13	8	9	6	3	6	11	15	15	11	7	7	6	7	7	7	5	174
induced abortions	4	2	3	4	10	13	11	22	16	17	27	24	31	34	36	46	33	29	52	45	459
population:	8449	8204	8209	7862	8066	8182	8380	8518	8805	13579	13503	13595	13328	12583	12273	11933	12416	12314	12044	12097	214340
prevalence:	228.43	252.32	209.53	223.86	215.72	191.88	231.5	237.14	272.57	254.81	252.54	256.71	250.6	263.05	284.36	268.16	243.23	243.63	289.77	292.63	251.4696
Bulgaria																					
total cases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	205	161	183	186	735
live births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	180	139	160	177	656
fetal deaths	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	11	8	5	39
induced abortions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	11	15	4	40
population:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10229	9290	9295	10310	39124
prevalence:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200.41	173.3	196.88	180.41	187.8642
Croatia																					
total cases	-	-	-	41	52	34	106	115	128	135	132	130	120	114	74	84	96	113	104	92	1670

live births	-	-	-	37	52	33	103	115	124	134	132	129	120	113	74	83	94	104	97	90	1634
fetal deaths	-	-	-	4	0	1	3	0	4	1	0	0	0	0	0	1	1	6	0	0	21
induced abortions	-	-	-	0	0	0	0	0	0	0	0	1	0	1	0	0	1	3	7	2	15
population:	-	-	-	4023	4029	3784	6867	6686	6183	7329	6948	7003	6481	6532	6135	6280	6435	6337	6170	6033	103255
prevalence:	-	-	-	101.91	129.06	89.852	154.36	172	207.02	184.2	189.98	185.63	185.16	174.53	120.62	133.76	149.18	178.32	168.56	152.49	161.7355

Odense (Denmark)

total cases	140	131	120	113	103	92	105	110	114	121	126	115	147	128	127	137	115	138	120	90	2392
Live births	133	125	115	106	94	85	94	99	104	104	112	102	127	113	106	123	98	119	100	72	2131
fetal deaths	6	6	3	2	3	2	6	5	4	9	5	5	5	5	8	2	7	7	6	3	99
induced abortions	1	0	2	5	6	5	5	6	6	8	9	8	15	10	13	12	10	12	14	15	162
population:	5148	4604	4478	4309	4471	4698	4849	4852	5066	5287	5694	5752	6059	5946	6108	6153	5875	5807	5003	5689	105848
prevalence:	271.95	284.54	267.98	262.24	230.37	195.83	216.54	226.71	225.03	228.86	221.29	199.93	242.61	215.27	207.92	222.66	195.74	237.64	239.86	158.2	225.9844

Paris (France)

total cases	-	593	604	757	749	669	879	803	902	1117	1202	1145	1126	1304	1339	1213	1181	1266	1282	1378	19509
Live births	-	523	527	634	570	502	704	608	718	848	931	831	803	990	1015	861	810	861	900	926	14562
fetal deaths	-	35	35	47	50	40	42	45	26	45	40	42	37	34	23	21	20	25	27	27	661
induced abortions	-	35	42	76	129	127	133	150	158	224	231	272	286	280	301	331	351	380	355	425	4286
population:	-	36917	36741	35781	35902	36536	36384	36080	36672	36866	37302	37541	36469	35819	35918	36884	37237	37272	38160	38200	698681
prevalence:	-	160.63	164.39	211.56	208.62	183.11	241.59	222.56	245.96	302.99	322.23	305	308.76	364.05	372.79	328.87	317.16	339.67	335.95	360.73	279.2261

Strasbourg (France)

total cases	-	-	273	355	374	403	430	454	454	413	472	432	513	397	447	383	415	409	451	-	7075
Live births	-	-	250	329	338	366	380	401	404	356	427	371	435	338	368	312	335	325	360	-	6095
fetal deaths	-	-	9	16	9	15	23	19	12	12	8	9	10	4	8	5	6	3	11	-	179
induced abortions	-	-	14	10	27	22	27	34	38	45	37	52	68	55	71	66	74	81	80	-	801
population:	-	-	13662	12519	12924	13166	13112	12895	13595	13425	13775	13770	13736	13148	12865	13313	13185	13237	13656	-	225983
prevalence:	-	-	199.82	283.57	289.38	306.09	327.94	352.07	333.95	307.64	342.65	313.73	373.47	301.95	347.45	287.69	314.75	308.98	330.26	-	313.0766

Mainz (Germany)

total cases	-	-	-	-	-	-	-	-	-	-	142	151	169	197	119	132	165	135	106	157	1473
Live births	-	-	-	-	-	-	-	-	-	-	125	141	159	178	112	112	143	113	88	143	1314
fetal deaths	-	-	-	-	-	-	-	-	-	-	8	3	5	0	3	8	11	7	9	2	56
induced abortions	-	-	-	-	-	-	-	-	-	-	9	7	5	19	4	12	11	15	9	12	103
population:	-	-	-	-	-	-	-	-	-	-	3960	4162	3973	4082	3806	3596	3640	3932	3542	3275	37968
prevalence:	-	-	-	-	-	-	-	-	-	-	358.59	362.81	425.37	482.61	312.66	367.07	453.3	343.34	299.27	479.39	387.9583

Saxony-Anhalt (Germany)

total cases	-	-	-	-	-	-	-	258	278	278	252	130	110	132	218	316	259	294	363	463	3351
Live births	-	-	-	-	-	-	-	208	224	240	218	120	108	123	204	295	227	228	307	416	2918
fetal deaths	-	-	-	-	-	-	-	19	19	12	13	6	1	2	2	0	4	2	9	7	96
induced abortions	-	-	-	-	-	-	-	31	35	26	21	4	1	7	12	21	28	64	47	40	337
population:	-	-	-	-	-	-	-	17165	16623	15202	14536	9123	7633	6910	7557	7707	8928	9606	10554	11500	143044
prevalence:	-	-	-	-	-	-	-	150.31	167.24	182.87	173.36	142.5	144.11	191.03	288.47	410.02	290.1	306.06	343.95	402.61	234.2636

Dublin (Ireland)

total cases	697	714	664	704	718	597	586	513	521	394	444	428	448	433	430	417	482	448	436	317	10391
Live births	640	664	620	667	680	562	557	488	501	372	422	415	430	412	407	400	463	427	418	296	9841
fetal deaths	57	50	44	37	38	35	29	25	20	22	22	13	18	21	23	17	19	21	18	21	550
induced abortions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
population:	26460	25510	24822	23352	22312	22131	21708	20768	19830	18914	19393	19800	18933	18491	18412	18550	19288	20257	20887	20746	420564
prevalence:	263.42	279.89	267.5	301.47	321.8	269.76	269.95	247.01	262.73	208.31	228.95	216.16	236.62	234.17	233.54	224.8	249.9	221.16	208.74	152.8	247.073

Galway (Ireland)

total cases	-	72	47	42	48	42	83	69	49	37	60	57	45	45	37	31	21	29	38	23	875
Live births	-	72	42	38	45	40	79	64	47	36	59	53	42	45	36	28	21	27	38	23	835
fetal deaths	-	0	5	4	3	2	4	5	2	1	1	4	3	0	1	3	0	2	0	0	40
induced abortions	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
population:	-	3546	3604	3397	3268	3079	3155	3051	2858	2636	2691	2578	2666	2645	2375	2436	2534	2588	2747	2655	54509
prevalence:	-	203.05	130.41	123.64	146.88	136.41	263.07	226.16	171.45	140.36	222.97	221.1	168.79	170.13	155.79	127.26	82.873	112.06	138.33	86.629	160.524

Campania (Italy)

total cases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	920	922	765	750	3357
Live births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	782	799	621	597	2799
fetal deaths	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	3	4	7	19
induced abortions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	133	120	140	146	539
population:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46658	50458	51568	47397	196081
prevalence:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	197.18	182.73	148.35	158.24	171.2048

Emilia Romagna (Italy)

total cases	-	188	261	347	331	376	346	359	337	364	403	398	405	441	451	428	470	396	411	412	7124
Live births	-	185	258	338	329	373	338	358	333	357	401	396	399	436	448	426	448	384	344	404	6955
fetal deaths	-	3	3	9	2	3	8	1	4	6	2	1	3	3	2	1	4	0	3	3	61
induced abortions	-	0	0	0	0	0	0	0	0	1	0	1	3	2	1	1	18	12	64	5	108
population:	-	13189	18364	21769	23155	24016	22868	22726	22760	23380	23524	25095	25002	24533	25886	26359	28873	28859	20928	24003	445289
prevalence:	-	142.54	142.13	159.4	142.95	156.56	151.3	157.97	148.07	155.69	171.31	158.6	161.99	179.76	174.23	162.37	162.78	137.22	196.39	171.65	159.986

North-East Italy

total cases	-	269	286	342	413	438	423	395	470	526	575	568	691	774	739	802	810	746	639	511	10417
Live births	-	257	277	334	398	428	409	383	430	449	479	475	596	655	590	635	614	556	495	361	8821
fetal deaths	-	12	9	8	15	10	14	8	8	12	9	2	3	5	6	4	2	5	3	1	136
induced abortions	-	0	0	0	0	0	0	4	32	65	87	91	92	114	143	163	194	185	141	149	1460
population:	-	27708	36321	41195	43202	43401	41265	42048	45307	47515	52205	51093	50340	49735	49443	51486	56869	55908	54939	54364	894344
prevalence:	-	97.084	78.742	83.02	95.597	100.92	102.51	93.94	103.74	110.7	110.14	111.17	137.27	155.62	149.47	155.77	142.43	133.43	116.31	93.996	116.4764

South East Sicily (Italy)

total cases	-	-	-	-	-	-	-	-	-	-	-	239	236	223	264	283	298	325	278	-	2146
Live births	-	-	-	-	-	-	-	-	-	-	-	235	223	212	262	282	296	325	278	-	2113
fetal deaths	-	-	-	-	-	-	-	-	-	-	-	4	13	11	2	1	2	0	0	-	33
induced abortions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
population:	-	-	-	-	-	-	-	-	-	-	-	19430	20273	19746	20031	18986	18054	18795	16922	-	152237
prevalence:	-	-	-	-	-	-	-	-	-	-	-	123.01	116.41	112.93	131.8	149.06	165.06	172.92	164.28	-	140.9644

Tuscany (Italy)																					
total cases	195	164	171	139	116	139	111	111	167	166	151	142	549	524	509	551	540	535	494	534	6008
Live births	189	156	159	120	106	120	93	92	141	142	122	123	489	473	438	508	448	438	404	460	5221
fetal deaths	6	8	6	7	1	2	2	6	3	6	3	2	9	6	10	2	8	7	3	4	101
induced abortions	0	0	6	12	9	17	16	13	23	18	26	17	51	45	61	41	84	90	87	70	686
population:	9696	9350	9281	8948	8592	8980	8477	8511	8869	8556	8751	8657	25670	24504	24487	24520	24606	24535	25468	26059	306517
prevalence:	201.11	175.4	184.25	155.34	135.01	154.79	130.94	130.42	188.3	194.02	172.55	164.03	213.87	213.84	207.87	224.71	219.46	218.06	193.97	204.92	196.0087
Malta																					
total cases	-	-	-	-	-	-	88	106	78	59	64	57	107	122	133	153	120	152	171	169	1579
Live births	-	-	-	-	-	-	74	103	75	55	60	56	106	121	129	152	115	149	169	157	1521
fetal deaths	-	-	-	-	-	-	14	3	3	4	4	1	1	1	4	1	5	3	2	12	58
induced abortions	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
population:	-	-	-	-	-	-	5310	5375	5461	5617	5400	5328	5503	5172	4863	4633	4978	4864	4511	4339	71354
prevalence:	-	-	-	-	-	-	165.73	197.21	142.83	105.04	118.52	106.98	194.44	235.89	273.49	330.24	241.06	312.5	379.07	389.49	221.291
Northern Netherlands																					
total cases	-	198	201	201	206	215	283	241	324	449	454	519	457	459	514	485	467	459	377	295	6804
Live births	-	188	192	183	186	195	257	217	289	418	417	466	421	418	466	449	429	421	345	259	6216
fetal deaths	-	7	5	8	12	10	13	14	10	18	16	19	8	11	12	5	14	7	12	8	209
induced abortions	-	3	4	10	8	10	13	10	25	13	21	34	28	30	36	31	24	31	20	28	379
population:	-	7877	7731	7542	7559	7792	11936	11847	11595	19093	19635	19853	19140	19387	19283	19296	19033	19305	19941	20167	288012
prevalence:	-	251.36	259.99	266.51	272.52	275.92	237.1	203.43	279.43	235.16	231.22	261.42	238.77	236.76	266.56	251.35	245.36	237.76	189.06	146.28	236.2402
Southern Portugal																					
total cases	-	-	-	-	-	-	-	-	-	-	37	42	75	84	107	140	176	209	220	224	1314
Live births	-	-	-	-	-	-	-	-	-	-	33	37	71	77	105	120	151	200	202	177	1173
fetal deaths	-	-	-	-	-	-	-	-	-	-	1	3	3	6	2	13	11	3	6	8	56
induced abortions	-	-	-	-	-	-	-	-	-	-	3	2	1	1	0	7	14	6	12	39	85
population:	-	-	-	-	-	-	-	-	-	-	5461	5554	7391	7152	7000	14959	15439	16293	16312	17047	112608
prevalence:	-	-	-	-	-	-	-	-	-	-	67.753	75.621	101.47	117.45	152.86	93.589	114	128.28	134.87	131.4	116.688

Asturias (Spain)

total cases	-	-	-	-	-	-	-	-	-	-	192	126	139	137	161	157	172	167	176	189	1616
Live births	-	-	-	-	-	-	-	-	-	-	171	108	120	111	137	135	139	141	137	150	1349
fetal deaths	-	-	-	-	-	-	-	-	-	-	6	4	5	3	3	3	2	4	1	0	31
induced abortions	-	-	-	-	-	-	-	-	-	-	15	14	14	23	21	19	31	22	38	39	236
population:	-	-	-	-	-	-	-	-	-	-	7722	7693	7474	7012	6626	6553	6507	6473	6321	6516	68897
prevalence:	-	-	-	-	-	-	-	-	-	-	248.64	163.79	185.98	195.38	242.98	239.58	264.33	257.99	278.44	290.06	234.553

Barcelona (Spain)

total cases	-	-	-	-	-	-	-	-	-	-	-	-	198	235	237	195	192	225	195	235	1712
Live births	-	-	-	-	-	-	-	-	-	-	-	-	143	188	180	147	143	154	138	149	1242
fetal deaths	-	-	-	-	-	-	-	-	-	-	-	-	7	7	7	9	5	7	7	6	55
induced abortions	-	-	-	-	-	-	-	-	-	-	-	-	48	40	50	39	44	64	50	80	415
population:	-	-	-	-	-	-	-	-	-	-	-	-	13477	12738	12609	12199	12031	12240	11684	12270	99248
prevalence:	-	-	-	-	-	-	-	-	-	-	-	-	146.92	184.49	187.96	159.85	159.59	183.82	166.89	191.52	172.4972

Basque Country (Spain)

total cases	-	-	-	-	-	-	-	-	-	-	324	293	332	272	278	301	314	335	293	-	2742
Live births	-	-	-	-	-	-	-	-	-	-	284	249	284	231	212	240	241	255	211	-	2207
fetal deaths	-	-	-	-	-	-	-	-	-	-	6	9	5	5	7	6	3	4	1	-	46
induced abortions	-	-	-	-	-	-	-	-	-	-	34	35	43	36	59	55	70	76	81	-	489
population:	-	-	-	-	-	-	-	-	-	-	16438	16291	16316	15891	15357	15397	16060	16397	16169	-	144316
prevalence:	-	-	-	-	-	-	-	-	-	-	197.1	179.85	203.48	171.17	181.02	195.49	195.52	204.31	181.21	-	189.9997

Vaud (Switzerland)

total cases	-	-	-	-	-	-	-	-	-	230	255	256	263	337	282	277	336	299	308	240	3083
Live births	-	-	-	-	-	-	-	-	-	198	214	219	214	277	234	239	278	265	270	197	2605
fetal deaths	-	-	-	-	-	-	-	-	-	8	8	7	6	8	6	5	3	4	2	1	58
induced abortions	-	-	-	-	-	-	-	-	-	24	33	30	43	52	42	33	55	30	36	42	420
population:	-	-	-	-	-	-	-	-	-	7212	7697	8211	8076	7700	7683	7697	7730	7562	7438	7465	84471
prevalence:	-	-	-	-	-	-	-	-	-	318.91	331.3	311.78	325.66	437.66	367.04	359.88	434.67	395.4	414.09	321.5	364.9773

Glasgow (UK:Scotland)

total cases	500	473	492	420	465	433	423	387	394	360	361	372	357	349	361	306	364	270	236	174	7497
Live births	420	395	443	369	419	374	363	331	358	311	307	323	298	313	312	261	311	235	186	145	6474
fetal deaths	33	36	13	14	14	16	12	16	10	10	12	18	9	7	11	17	7	11	9	5	280
induced abortions	47	42	36	37	32	43	48	40	26	39	42	31	50	29	38	28	46	24	41	24	743
population:	13438	13491	12884	12661	12783	13089	13013	12987	12908	12289	12471	12831	12339	11883	11407	11227	10976	10997	10239	9721	243634
prevalence:	372.08	350.6	381.87	331.73	363.76	330.81	325.06	297.99	305.24	292.94	289.47	289.92	289.33	293.7	316.47	272.56	331.63	245.52	230.49	178.99	307.7157

Mersey (UK:England)

total cases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	414	474	530	655	692	2765
Live births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	308	328	394	495	558	2083
fetal deaths	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	13	20	36	32	109
induced abortions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	98	133	116	124	102	573
population:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28786	29031	27983	27514	26553	139867
prevalence:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	143.82	163.27	189.4	238.06	260.61	197.6878

North Thames (West) (UK:England)

total cases	-	-	-	-	-	-	-	-	-	-	-	861	873	670	615	631	607	583	586	554	5980
Live births	-	-	-	-	-	-	-	-	-	-	-	610	624	412	323	335	326	297	322	314	3563
fetal deaths	-	-	-	-	-	-	-	-	-	-	-	41	34	44	52	46	43	44	35	34	373
induced abortions	-	-	-	-	-	-	-	-	-	-	-	210	215	214	240	250	238	242	229	206	2044
population:	-	-	-	-	-	-	-	-	-	-	-	47330	47493	46762	47526	47324	47324	47355	47549	46874	425537
prevalence:	-	-	-	-	-	-	-	-	-	-	-	181.91	183.82	143.28	129.4	133.34	128.26	123.11	123.24	118.19	140.5283

Wales (UK)

total cases	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	993	884	1877
Live births	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	760	701	1461
fetal deaths	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	35	38	73
induced abortions	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	198	145	343
population:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33610	32266	65876
prevalence:	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	295.45	273.97	284.9293

total (full member registries)

total cases	1725	3009	3291	3637	3749	3848	4347	4338	4742	5257	6520	7354	8295	8397	8496	8779	10019	10176	10998	9633	126610
Live births	1568	2752	3042	3314	3373	3436	3891	3832	4229	4569	5681	6263	7059	7170	7123	7300	8162	8274	8823	7697	107558
fetal deaths	105	175	142	169	155	154	184	179	136	182	200	222	212	201	208	192	225	224	262	235	3762
induced abortions	52	82	107	154	221	258	272	327	377	506	639	869	1024	1026	1165	1287	1632	1678	1913	1701	15290
population:	63191	150396	176097	183358	186263	202517	210627	226785	229872	250061	294195	359172	387696	379321	381602	419449	487197	498714	522127	474065	6082705
prevalence:	272.98	200.07	186.89	198.36	201.27	190.01	206.38	191.28	206.29	210.23	221.62	204.75	213.96	221.37	222.64	209.3	205.65	204.04	210.64	203.2	208.1475

associate member registries

Finland

total cases	-	-	-	-	-	-	-	-	-	-	-	-	-	2045	1940	1640	1986	1989	2023	1914	13537
Live births	-	-	-	-	-	-	-	-	-	-	-	-	-	1808	1672	1407	1709	1752	1729	1673	11750
fetal deaths	-	-	-	-	-	-	-	-	-	-	-	-	-	44	42	46	51	44	49	40	316
induced abortions	-	-	-	-	-	-	-	-	-	-	-	-	-	193	226	187	226	193	245	201	1471
population:	-	-	-	-	-	-	-	-	-	-	-	-	-	65098	65480	63368	60965	59569	57345	57782	429607
prevalence:	-	-	-	-	-	-	-	-	-	-	-	-	-	314.14	296.27	258.81	325.76	333.9	352.78	331.25	315.1019

Central East France

total cases	1134	1049	998	1049	960	1082	1231	1271	1342	1367	1547	1460	1545	1530	1526	1809	1811	1912	1976	2047	28646
Live births	1114	1032	980	1020	919	1012	1132	1121	1170	1162	1298	1220	1254	1202	1210	1387	1422	1464	1475	1566	24160
fetal deaths	20	17	18	29	39	30	31	31	27	34	29	18	26	24	18	31	25	26	26	21	520
induced abortions	-	-	-	-	-	40	68	119	145	171	220	222	265	304	298	391	364	422	475	460	3964
population:	75332	76220	75813	86433	86904	90825	91950	90191	91303	99858	107370	106607	104480	99249	99674	102153	103440	102090	102483	102982	1895357
prevalence:	150.53	137.63	131.64	121.37	110.47	119.13	133.88	140.92	146.98	136.89	144.08	136.95	147.88	154.16	153.1	177.09	175.08	187.29	192.81	198.77	151.1378

Norway

total cases	1409	1392	1615	1665	1771	1436	1606	1572	1812	1979	2189	2425	2094	2070	1975	1849	1759	1810	1710	-	34138
Live births	1340	1347	1561	1612	1728	1362	1529	1521	1725	1885	2100	2334	2006	1979	1847	1742	1628	1709	1583	-	32538
fetal deaths	69	45	54	53	43	63	59	34	63	54	56	48	37	37	58	44	50	54	40	-	961
induced abortions	0	0	0	0	0	11	18	17	24	40	33	43	51	54	70	63	81	47	87	-	639
population:	51495	51021	51642	50258	50576	51469	52948	54376	58018	59807	61624	61497	60762	60291	60466	60617	61253	60016	58646	-	1076782
prevalence:	273.62	272.83	312.73	331.29	350.17	279	303.32	289.1	312.32	330.9	355.22	394.33	344.62	343.33	326.63	305.03	287.17	301.59	291.58	-	317.0372

ECEMC (Spain)

total cases	1250	1282	1401	1567	1497	1491	1254	1045	1091	1228	1537	1628	1492	1324	1306	1284	1252	1373	1265	1342	26909
Live births	1208	1258	1364	1536	1471	1443	1230	1021	1069	1198	1506	1602	1464	1293	1279	1254	1221	1354	1250	1322	26343
fetal deaths	42	24	37	31	26	48	24	24	22	30	31	26	28	31	27	30	31	19	15	20	566
induced abortions	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0
population:	56910	56102	61333	71812	69513	66720	58245	51051	52686	59046	84379	87708	91607	82925	87239	87372	94044	98945	96490	104337	1518464
prevalence:	219.65	228.51	228.43	218.21	215.36	223.47	215.3	204.7	207.08	207.97	182.15	185.62	162.87	159.66	149.7	146.96	133.13	138.76	131.1	128.62	177.212

total (associate member registries)

total cases	3793	3723	4014	4281	4228	4009	4091	3888	4245	4574	5273	5513	5131	6969	6747	6582	6808	7084	6974	5303	103230
Live births	3662	3637	3905	4168	4118	3817	3891	3663	3964	4245	4904	5156	4724	6282	6008	5790	5980	6279	6037	4561	94791
fetal deaths	131	86	109	113	108	141	114	89	112	118	116	92	91	136	145	151	157	143	130	81	2363
induced abortions	0	0	0	0	0	51	86	136	169	211	253	265	316	551	594	641	671	662	807	661	6074
population:	183737	183343	188788	208503	206993	209014	203143	195618	202007	218711	253373	255812	256849	307563	312859	313510	319702	320620	314964	265101	4920210
prevalence:	206.44	203.06	212.62	205.32	204.16	191.81	201.39	198.75	210.14	209.13	208.11	215.51	199.77	226.59	215.66	209.95	212.95	220.95	221.42	200.04	209.8041

total (all registries)

total cases	5518	6732	7305	7918	7977	7857	8438	8226	8987	9831	11793	12867	13426	15366	15243	15361	16827	17260	17972	14936	229840
Live births	5230	6389	6947	7482	7491	7253	7782	7495	8193	8814	10585	11419	11783	13452	13131	13090	14142	14553	14860	12258	202349
fetal deaths	236	261	251	282	263	295	298	268	248	300	316	314	303	337	353	343	382	367	392	316	6125
induced abortions	52	82	107	154	221	309	358	463	546	717	892	1134	1340	1577	1759	1928	2303	2340	2720	2362	21364
population:	246928	333739	364885	391861	393256	411531	413770	422403	431879	468772	547568	614984	644545	686884	694461	732959	806899	819334	837091	739166	11002915
prevalence:	223.47	201.71	200.2	202.06	202.79	190.92	203.93	194.74	208.09	209.72	215.37	209.22	208.3	223.71	219.49	209.58	208.54	210.66	214.7	202.07	208.8883

Part III: All Congenital Anomalies

A1: Total Congenital Anomalies. Number of cases by type of birth and total prevalence rates per 10,000 births in 28 full member registries combined, 1980-1999

	LB	FD	IA	LB+FD	rate
	N	N	N	+IA N	
Nervous system	6943	1250	5196	13389	22.01
Neural Tube Defects	2613	759	3244	6616	10.88
Anencephalus and similar	368	463	1661	2492	4.10
Encephalocele	351	81	372	804	1.32
Spina Bifida	1894	215	1211	3320	5.46
Hydrocephaly	1645	302	1165	3112	5.12
Microcephaly	1123	70	122	1315	2.55
Arhinencephaly/holoprosencephaly	205	56	303	564	1.09
Eye	2870	102	204	3176	5.22
Anophthalmos/microthalmos	619	50	120	789	1.30
Anophthalmos	117	20	37	174	0.29
Microthalmos	502	30	83	615	1.01
Cataract	558	4	18	580	0.95
Ear	4210	134	258	4602	7.57
Anotia/microtia	514	20	43	577	0.95
Anotia	119	6	18	143	0.24
Microtia	395	14	25	434	0.71
Congenital heart disease	29294	848	2595	32737	53.82
Anomalies of cardiac chambers and connections	2595	114	348	3057	5.03
Common arterial truncus	341	37	68	446	0.86
Transposition of great vessels (complete)	1167	21	82	1270	2.45
Single ventricle	430	37	98	565	0.93
Malformations of cardiac septa	19735	513	1490	21738	35.74
Ventricular septal defect	12803	315	798	13916	22.88
Atrial septal defect	6119	131	291	6541	10.75
Atrioventricular septal defect	1516	73	400	1989	3.27
Tetralogy of Fallot	1358	36	118	1512	2.49
Malformations of valves	4908	152	575	5635	9.26
Tricuspid atresia and stenosis	513	18	69	600	0.99
Ebstein's anomaly	158	12	14	184	0.30
Aortic valve atresia/stenosis	582	17	41	640	1.05
Hypoplastic left heart	898	40	325	1263	2.08
Malformations of the great arteries and veins	6447	176	417	7040	11.57
Coarctation of aorta	1652	47	100	1799	2.96
Cleft lip with or without palate	4696	211	470	5377	9.07
Cleft palate	3080	119	227	3426	5.78
Digestive system	10027	435	1011	11473	18.86
Tracheo-oesophageal fistula-Oesophageal atresia and stenosis	1593	70	122	1785	2.93
Congenital absence_ atresia and/or stenosis of the small intestine	1234	51	97	1382	2.27
Congenital absence_ atresia and/or stenosis of the duodenal	591	30	59	680	1.31
Congenital absence_ atresia and/or stenosis of other specified parts of small intestine	372	8	19	399	0.77
Ano-rectal atresia and stenosis	1475	92	200	1767	3.12

Internal urogenital system-ovaries uterus and renal system	12953	682	2352	15987	26.28
Bilateral renal agenesis	527	168	520	1215	2.05
Cystic kidney disease	1823	107	625	2555	4.92
Congenital hydronephrosis	4054	83	304	4441	7.30
Bladder extrophy	190	9	49	248	0.41
External genital system	7635	143	313	8091	13.30
Hypospadias	5788	24	46	5858	10.62
Indeterminate sex	291	49	68	408	0.79
Limb	22075	656	1712	24443	40.18
Limb reduction	2710	194	536	3440	5.66
Upper limb reduction	1739	139	377	2255	3.71
Complete absence of upper limb	38	14	21	73	0.12
Absence of upper arm and forearm with hand present	40	5	9	54	0.09
Absence of both forearm and hand	139	7	25	171	0.28
Absence of hand and fingers	667	57	113	837	1.38
Longitudinal reduction defect/shortening of arm	580	52	172	804	1.32
Lower limb reduction	861	72	207	1140	1.87
Complete absence of lower limb	31	5	22	58	0.10
Absence of thigh and lower leg with foot present	27	4	14	45	0.07
Absence of both lower leg and foot	18	3	8	29	0.05
Absence of foot and toe	244	23	40	307	0.50
Longitudinal reduction defect/shortening of leg	301	18	68	387	0.64
Polydactyly	4658	117	289	5064	8.95
Syndactyly	3613	110	209	3932	6.95
Musculoskeletal and connective tissue	11350	856	2762	14968	24.61
Choanal atresia	444	4	17	465	0.76
Craniosynostosis	759	16	32	807	1.33
Pierre Robin Syndrome	568	5	7	580	0.95
Mandibulofacial dystosis (Treacher-Collins and Franceschetti)	82	7	1	90	0.15
Oculomandibular dysostosis (Hallerman-Streiff)	6	0	0	6	0.01
Goldenhar's Syndrome	133	2	4	139	0.23
Chondodystrophies and osteodystrophies	808	73	412	1293	2.13
Diaphragmatic hernia	1181	74	234	1489	2.87
Omphalocele	826	164	594	1584	2.60
Gastroschisis	605	64	172	841	1.38
Prune Belly Syndrome	77	11	94	182	0.30
Chromosomal	9214	670	6580	16464	27.07
Down Syndrome (trisomy 21)	6591	231	3400	10222	16.81
Patau syndrome (trisomy 13)	259	60	356	675	1.30
Edward syndrome (trisomy 18)	511	172	945	1628	3.14
Other trisomies and partial trisomies of autosomes	464	61	540	1065	1.75
Monosomies and deletions from the autosomes	368	16	149	533	0.88
Turner's syndrome	309	86	594	989	1.63
Klinefelters syndrome	188	9	225	422	0.69
Total (all registries)	107558	3762	15290	126610	208.15

A2: Percentage of cases in major anomaly groups, 28 full member registries combined 1980-99, by five year time period

Anomaly group	1980-1984		1985-1989		1990-1994		1995-1999		total(1980-1999)	
	N	%	N	%	N	%	N	%	N	%
Nervous system	1960	12.7	2418	10.7	3861	9.9	5150	10.4	13389	10.6
Neural Tube Defects	1231	8.0	1302	5.8	1786	4.6	2297	4.6	6616	5.2
Eye	429	2.8	573	2.5	1046	2.7	1128	2.3	3176	2.5
Ear	587	3.8	1044	4.6	1466	3.8	1505	3.0	4602	3.6
Congenital heart disease	3286	21.3	5046	22.4	10178	26.1	14227	28.7	32737	25.9
Cleft lip with or without palate	695	4.5	1050	4.7	1643	4.2	1989	4.0	5377	4.3
Cleft palate	461	3.0	654	2.9	1066	2.7	1245	2.5	3426	2.7
Digestive system	1639	10.6	2278	10.1	3334	8.5	4222	8.5	11473	9.1
Internal urogenital system	1047	6.8	2345	10.4	5591	14.3	7004	14.1	15987	12.6
External genital system	1122	7.2	1499	6.7	2615	6.7	2855	5.8	8091	6.4
Limb	3614	23.5	4829	21.4	7576	19.4	8424	17.0	24443	19.3
Musculoskeletal and connective tissue	1947	12.6	2857	12.7	4659	11.9	5505	11.1	14968	11.8
Chromosomal	1511	9.8	2539	11.3	5008	12.8	7406	14.9	16464	13.0

Part III: Selected Congenital Anomalies

B1: Neural Tube Defects.

Prevalence per 10,000 births in 32 EUROCAT registries, by type of birth, 1995-99

	LB+FD+IA N	rate	95% CI lower	upper	Trend
full member registries					
Styria (Austria)	153	7.95	6.74	9.32	
Antwerp (Belgium)	98	9.01			\
Hainaut (Belgium)	232	10.82	9.48	12.31	
Bulgaria	72	18.40	9.71	17.14	
Croatia	57	5.52	4.18	7.15	
Odense (Denmark)	124	11.71	9.74	13.97	
Paris (France)	827	11.84			/
Strasbourg (France)	235	10.40	9.11	11.82	
Mainz (Germany)	70	18.44			/
Saxony-Anhalt (Germany)	167	11.67			\
Dublin (Ireland)	922	21.92			\
Galway (Ireland)	84	15.41			\
Campania (Italy)	137	6.99	5.87	8.26	
Emilia Romagna (Italy)	198	4.45			\
North-East Italy	573	6.41	5.89	6.95	
South East Sicily (Italy)	75	4.93			\
Tuscany (Italy)	235	7.67			\
Malta	79	11.07	8.77	13.80	
Northern Netherlands	324	11.25			\
Southern Portugal	67	5.95	4.61	7.56	
Asturias (Spain)	90	13.06	10.50	16.06	
Barcelona (Spain)	90	9.07	7.29	11.15	
Basque Country (Spain)	151	10.46	8.86	12.27	
Vaud (Switzerland)	81	9.59	7.62	11.92	
Glasgow (UK:Scotland)	627	25.74			\
Mersey (UK:England)	179	12.80			~
North Thames (West) (UK:England)	551	12.95			\
Wales (UK)	119	18.06	14.97	21.62	
total (full member registries)	6617	10.88	10.52	11.04	
associate member registries					
Finland	379	8.82	7.96	9.76	
Central East France	961	5.07			/
Norway	884	8.21			\
ECEMC (Spain)	956	6.30			\
total (associate member registries)	3180	6.46	6.24	6.69	
total (all registries)	9797	8.90			

LB=livebirths, FD=foetal deaths from 20 weeks gestation, IA=induced abortions following prenatal diagnosis

Based on chi-squared test for trend:

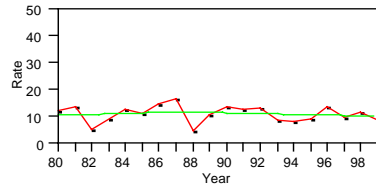
/ = linear increasing

\ = linear decreasing

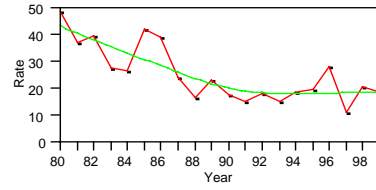
~ = non-linear change

B2: Neural Tube Defects: Line Graphs of Total Prevalence Rates Over Time, Per Registry, 1980-99

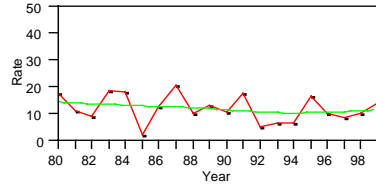
Hainaut



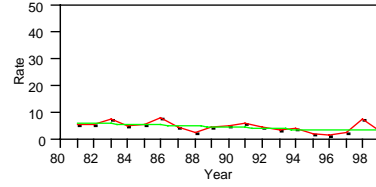
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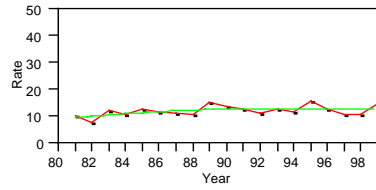
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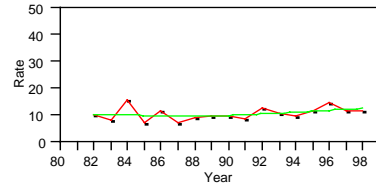
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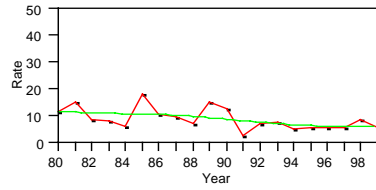
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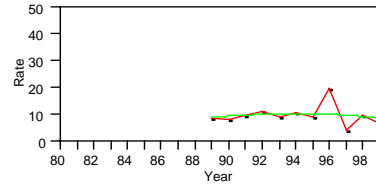
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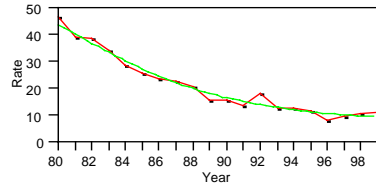
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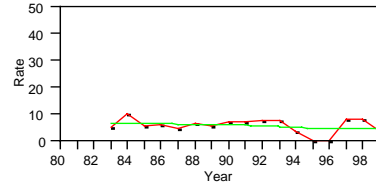
Vaud



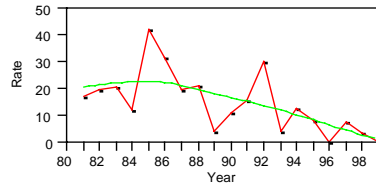
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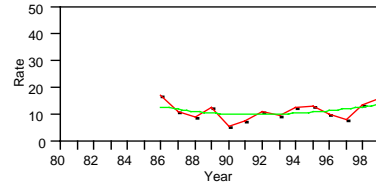
Croatia



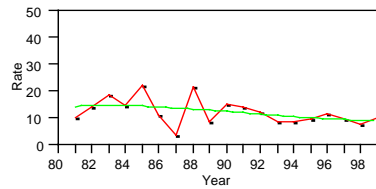
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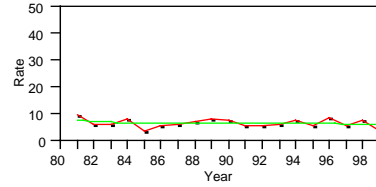
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Northern Netherlands

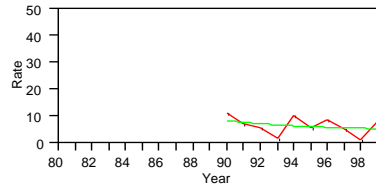


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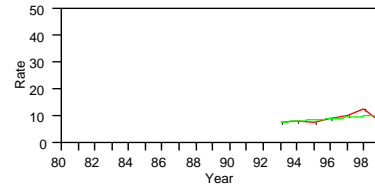


--- Yearly Total Prevalence Rates
 --- Spline Fit Line

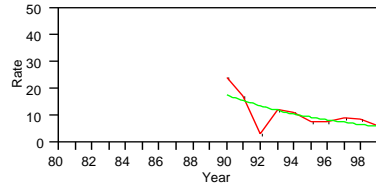
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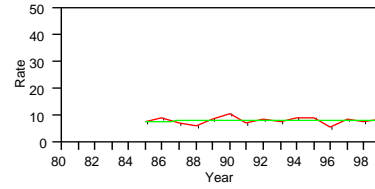
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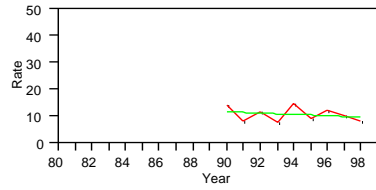
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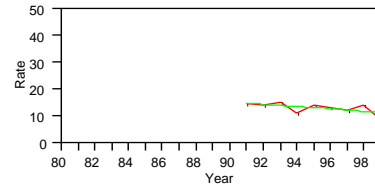
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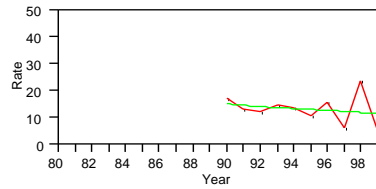
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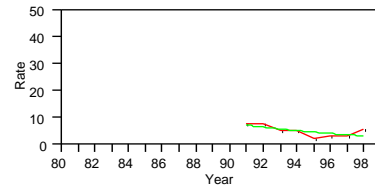
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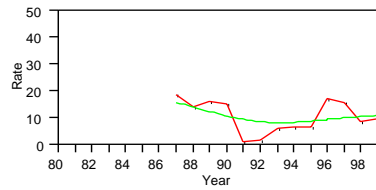
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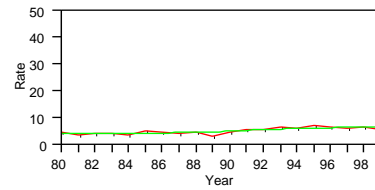
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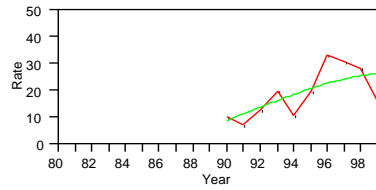
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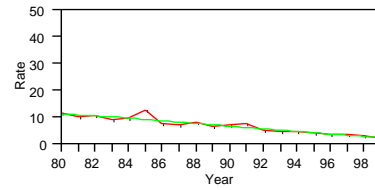
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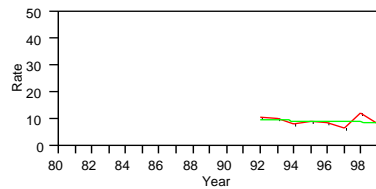
Mainz



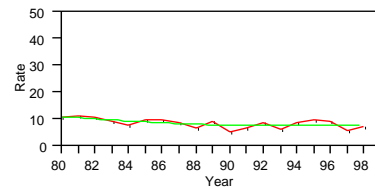
ECEMC



Barcelona



Norway



B3: Neural Tube Defects.

Prevalence per 10,000 births in 32 EUROCAT registries, by type of birth, 1995-99

	LB N	FD N	IA N	LB+FD+IA N	LB rate	LB+FD rate	LB+FD+IA rate
full member registries							
Styria (Austria)	24	2	19	45	4.13	4.46	7.71
Antwerp (Belgium)	15	0	43	58	-	1.98	7.67
Hainaut (Belgium)	19	1	44	64	3.14	3.29	10.53
Bulgaria	32	18	22	72	8.43	13.07	18.40
Croatia	5	2	5	12	1.61	2.24	3.84
Odense (Denmark)	19	5	10	34	6.70	8.41	11.92
Paris (France)	22	6	211	239	1.18	1.49	12.73
Strasbourg (France)	10	5	50	65	1.88	2.81	12.17
Mainz (Germany)	33	4	9	46	22.98	20.53	25.52
Saxony-Anhalt (Germany)	18	0	37	55	3.75	3.73	11.39
Dublin (Ireland)	81	19	0	100	8.16	10.03	10.03
Galway (Ireland)	3	2	0	5	2.33	3.86	3.86
Campania (Italy)	51	7	79	137	2.61	2.96	6.99
Emilia Romagna (Italy)	29	2	9	40	2.26	2.40	3.10
North-East Italy	45	4	122	171	1.65	1.79	6.25
South East Sicily (Italy)	24	0	-	24	-	3.30	-
Tuscany (Italy)	21	2	54	77	1.68	1.84	6.15
Malta	22	6	0	28	9.49	12.00	12.00
Northern Netherlands	47	10	36	93	4.83	5.83	9.51
Southern Portugal	21	3	21	45	2.64	3.00	5.62
Asturias (Spain)	7	0	32	39	2.17	2.16	12.05
Barcelona (Spain)	9	6	38	53	1.50	2.48	8.77
Basque Country (Spain)	11	2	49	62	1.73	2.03	9.68
Vaud (Switzerland)	9	1	27	37	2.38	2.64	9.76
Glasgow (UK: Scotland)	24	11	69	104	4.54	6.58	19.56
Mersey (UK: England)	24	9	146	179	1.72	2.36	12.80
North Thames (West) (UK: England)	32	19	243	294	-	2.16	12.44
Wales (UK)	12	2	105	119	1.83	2.13	18.06
total (full member registries) *	669	148	1480	2297	2.80	3.40	9.76
associate member registries							
Finland	106	14	159	279	3.56	4.01	9.33
Central East France	99	5	219	323	1.94	2.03	6.29
Norway	86	36	66	188	3.61	5.07	7.82
ECEMC (Spain)	133	20	-	153	2.78	3.18	-
total (associate member registries) **	424	75	444	943	2.78	3.25	7.50
total (all registries) ***	1093	223	1924	3240	2.79	3.34	9.06

LB=livebirths, FD=foetal deaths from 20 weeks gestation, IA=induced abortions following prenatal diagnosis

* The LB+FD+IA prevalence rate (full member registries): Sicily's numerator and denominator are excluded from the calculation

** The LB+FD+IA prevalence rate (associate member registries): ECEMC's numerator and denominator are excluded from the calculation

*** The LB+FD+IA prevalence rate (all registries): Sicily & ECEMC's numerator and denominator are excluded from the calculation

Table B4: NTD.

Summary information on association with chromosomal anomalies, gestational age at fetal death and maternal age, for 28 full member registries combined, 1995-99.

Chromosomal	N	%
	98	4.3

Gestational age at fetal death (out of all FD)		
	N	%
20-23 weeks	17	12.0
24-27 weeks	15	10.6
28+ weeks	110	77.5

Maternal age	N	%	(non-chromosomal only)
<20 years	104	5.1	
20-34	1608	78.5	
35+	336	16.4	

Table B5: Anencephaly. Prenatal diagnosis and termination in 26 EUROCAT registries*, 1995-99

Registry	LB+FD+IA		PD not known*		PD**		Gestational age at PD***					IA/PD****		Gestational age at IA (weeks)				
	N	N	N	%	N	%	25th	median	75th	N	%	%	%	%	%			
																< 20	20-27	> 28
Styria (Austria)	12	2	10	100.0	0	0.0				10	100.0	80.0	10.0	10.0	0.0			
Antwerp (Belgium)	25	0	25	100.0	21	84.0	12	14	17	25	100.0	84.0	16.0	0.0	0.0			
Hainaut (Belgium)	20	0	20	100.0	17	85.0	13	14	17	19	95.0	94.7	0.0	0.0	5.3			
Bulgaria	27	1	18	69.2	16	88.9	19	21.5	25.5	14	77.8	33.3	53.3	6.7	6.7			
Croatia	3	0	3	100.0	2	66.7	-	-	-	-	-	-	-	-	-			
Odense (Denmark)	11	0	11	100.0	9	81.8	19	19	27	8	72.7	87.5	12.5	0.0	0.0			
Paris (France)	107	0	107	100.0	107	100.0	12	14	20	104	97.2	71.2	23.1	5.8	0.0			
Strasbourg (France)	18	0	18	100.0	17	94.4	14	15	16	17	94.4	94.1	5.9	0.0	0.0			
Mainz (Germany)	5	0	5	100.0	5	100.0	14	16	16	4	80.0	75.0	25.0	0.0	0.0			
Saxony-Anhalt (Germany)	19	0	15	79.0	9	60.0	-	-	-	-	-	-	-	-	-			
Dublin (Ireland)	31	7	-	-	-	-	-	-	-	0	0.0							
Galway (Ireland)	2	0	2	100.0	2	100.0	14	19.5	25	0	0.0							
Campania (Italy)	55	0	47	85.5	43	91.5	14	16	19	40	85.1	70.0	20.0	0.0	10.0			
Emilia Romagna (Italy)	12	1	10	90.9	0	0.0				5	50.0	40.0	20.0	0.0	40.0			
NE Italy	59	9	50	100.0	0	0.0				50	100.0	72.0	26.0	0.0	2.0			
Tuscany (Italy)	28	0	28	100.0	17	60.7	-	-	-	-	-	-	-	-	-			
Malta	11	0	11	100.0	11	100.0	20	23	38	0	0.0							
Northern Netherlands	30	0	28	93.3	10	35.7	-	-	-	-	-	-	-	-	-			
S Portugal	17	0	16	94.1	10	62.5	-	-	-	-	-	-	-	-	-			
Asturias (Spain)	17	0	17	100.0	17	100.0	15	16	17	16	94.1	93.8	6.3	0.0	0.0			
Barcelona (Spain)	28	0	28	100.0	26	92.9	13	15	18	22	78.6	63.6	18.2	0.0	18.2			
Basque Country (Spain)	32	0	32	100.0	31	96.9	13	15	17	30	93.8	83.3	16.7	0.0	0.0			
Vaud (Switzerland)	15	0	14	93.3	14	100.0	13	14.5	16	12	85.7	91.7	0.0	8.3	0.0			
Glasgow (UK: Scotland)	43	0	43	100.0	39	90.7	13	15	17	38	88.4	100.0	0.0	0.0	0.0			
Mersey (UK: England)	73	6	67	100.0	0	0.0				67	100.0	65.7	22.4	1.5	10.5			
NW Thames (UK: England)	122	22	100	100.0	4	4.0	-	-	-	-	-	-	-	-	-			
Wales (UK)	54	0	54	100.0	54	100.0	13	16	18	50	92.6	84.0	16.0	0.0	0.0			
TOTAL	869	47	796	96.8	499	62.7				700	87.9	74.7	20.3	1.9	3.1			

* LB + FD: not known whether prenatally diagnosed

** LB+FD prenatally diagnosed + all IA out of all cases with PD known and all IA cases

*** Gestational age at prenatal diagnosis for all prenatally diagnosed cases with gestational age at diagnosis known

**** Proportion of cases terminated out of all cases prenatally diagnosed (LB+FD prenatally diagnosed + all IA)

LB=livebirths, FD=fetal deaths from 20 weeks gestation

IA=induced abortions following prenatal diagnosis

PD=prenatal diagnosis

B1: Down Syndrome (trisomy 21).

Prevalence per 10,000 births in 32 EUROCAT registries, by type of birth, 1995-99

	LB+FD+IA	rate	95% CI		Trend
	N		lower	upper	
full member registries					
Styria (Austria)	245	12.74	11.19	14.44	
Antwerp (Belgium)	120	11.03			~
Hainaut (Belgium)	292	13.62			/
Bulgaria	48	12.27	6.45	12.74	
Croatia	133	12.88	10.79	15.27	
Odense (Denmark)	155	14.64			/
Paris (France)	1760	25.19			/
Strasbourg (France)	376	16.64			/
Mainz (Germany)	76	20.02	15.76	25.03	
Saxony-Anhalt (Germany)	156	10.91			/
Dublin (Ireland)	825	19.62	18.30	21.00	
Galway (Ireland)	122	22.38	18.59	26.72	
Campania (Italy)	265	13.51	11.94	15.24	
Emilia Romagna (Italy)	517	11.61			\
North-East Italy	1389	15.53			~
South East Sicily (Italy)	168	11.04	9.43	12.84	
Tuscany (Italy)	457	14.91			~
Malta	123	17.24	14.33	20.57	
Northern Netherlands	406	14.10	12.76	15.54	
Southern Portugal	88	7.81	6.27	9.63	
Asturias (Spain)	118	17.13			/
Barcelona (Spain)	192	19.35			~
Basque Country (Spain)	344	23.84			/
Vaud (Switzerland)	191	22.61			~
Glasgow (UK:Scotland)	352	14.45			/
Mersey (UK:England)	253	18.09			/
North Thames (West) (UK:England)	929	21.83			/
Wales (UK)	123	18.67	15.52	22.28	
total (full member registries)	10223	16.81	16.30	16.95	
associate member registries					
Finland	973	22.65	21.25	24.12	
Central East France	2928	15.45			/
Norway	1149	10.67	10.06	11.31	
ECEMC (Spain)	1966	12.95			\
total (associate member registries)	7016	14.26	13.93	14.60	
total (all registries)	17239	15.67			

LB=livebirths, FD=foetal deaths from 20 weeks gestation, IA=induced abortions following prenatal diagnosis

Based on chi-squared test for trend:

/ = linear increasing

\ = linear decreasing

~ = non-linear change

B3: Down Syndrome (trisomy 21).

Prevalence per 10,000 births in 32 EUROCAT registries, by type of birth, 1995-99

	LB N	FD N	IA N	LB+FD+IA N	LB rate	LB+FD rate	LB+FD+IA rate
full member registries							
Styria (Austria)	44	1	34	79	7.57	7.71	13.54
Antwerp (Belgium)	42	2	35	79	-	5.82	10.45
Hainaut (Belgium)	46	3	63	112	7.60	8.06	18.42
Bulgaria	44	0	4	48	11.59	11.50	12.27
Croatia	36	1	3	40	11.58	11.84	12.80
Odense (Denmark)	31	3	14	48	10.93	11.92	16.83
Paris (France)	140	10	484	634	7.50	7.99	33.77
Strasbourg (France)	36	2	76	114	6.77	7.12	21.35
Mainz (Germany)	26	0	14	40	18.10	14.43	22.19
Saxony-Anhalt (Germany)	40	4	42	86	8.33	9.11	17.81
Dublin (Ireland)	201	11	0	212	20.26	21.26	21.26
Galway (Ireland)	23	0	0	23	17.83	17.75	17.75
Campania (Italy)	150	1	114	265	7.68	7.70	13.51
Emilia Romagna (Italy)	113	0	25	138	8.79	8.76	10.70
North-East Italy	215	2	214	431	7.88	7.93	15.75
South East Sicily (Italy)	81	1	-	82	-	11.27	-
Tuscany (Italy)	93	3	115	211	7.46	7.67	16.85
Malta	32	1	0	33	13.80	14.15	14.15
Northern Netherlands	96	4	45	145	9.86	10.23	14.83
Southern Portugal	49	1	10	60	6.15	6.25	7.50
Asturias (Spain)	41	0	25	66	12.73	12.67	20.39
Barcelona (Spain)	38	0	84	122	6.32	6.29	20.19
Basque Country (Spain)	88	1	99	188	13.80	13.90	29.36
Vaud (Switzerland)	24	3	65	92	6.36	7.13	24.28
Glasgow (UK:Scotland)	56	1	33	90	10.60	10.72	16.93
Mersey (UK:England)	135	9	109	253	9.70	10.30	18.09
North Thames (West) (UK:England)	264	18	283	565	-	11.93	23.90
Wales (UK)	68	2	53	123	10.38	10.63	18.67
total (full member registries) *	2252	84	2043	4379	9.42	9.73	18.45
associate member registries							
Finland	314	14	341	669	10.54	10.97	22.37
Central East France	395	8	612	1015	7.73	7.85	19.78
Norway	239	10	33	282	10.03	10.35	11.72
ECEMC (Spain)	520	2	-	522	10.86	10.85	-
total (associate member registries) **	1468	34	986	2488	9.62	9.79	18.68
total (all registries) ***	3720	118	3029	6867	9.50	9.75	18.52

LB=livebirths, FD=foetal deaths from 20 weeks gestation, IA=induced abortions following prenatal diagnosis

* The LB+FD+IA prevalence rate (full member registries): Sicily's numerator and denominator are excluded from the calculation

** The LB+FD+IA prevalence rate (associate member registries): ECEMC's numerator and denominator are excluded from the calculation

*** The LB+FD+IA prevalence rate (all registries): Sicily & ECEMC's numerator and denominator are excluded from the calculation

Table B4: Down syndrome.

Summary information on association with chromosomal anomalies, gestational age at fetal death and maternal age, for 28 full member registries combined, 1995-99.

Gestational age at fetal death (out of all FD)		
	N	%
20-23 weeks	15	17.9
24-27 weeks	9	10.7
28+ weeks	60	71.4

Maternal age		
	N	%
<20 years	54	1.4
20-34	1828	47.7
35+	1950	50.9

Table B5: Down syndrome. Prenatal diagnosis and termination in 26 EUROCAT registries, 1995-99

registry	LB+FD+IA		PD not known*		PD**		Gestational age at PD*** known					IA/PD****		Gestational age at IA (weeks)				
	N		N	%	N	%	25th	median	75th	N	%	< 20	20-27	> 28	not known			
Styria (Austria)	79		45		34	-		0	0.0			34	100.0	79.4	14.7	2.9	2.9	
Antwerp (Belgium)	79		11		42	61.8		30	-	-	-	35	83.3	68.6	28.6	0.0	2.9	
Hainaut (Belgium)	112		0		73	65.2		68	93.2	15	16	63	86.3	44.4	47.6	4.8	3.2	
Bulgaria	48		1	8.5	4		4	100.0	18.5	20.5	21	4	100.0	0.0	50.0	0.0	50.0	
Croatia	40		0	10.0	4		2	-	-	-	-	3	75.0	33.3	66.7	0.0	0.0	
Odense (Denmark)	48		9	41.0	16		16	100.0	13.5	17	18	14	87.5	85.7	14.3	0.0	0.0	
Paris (France)	634		96	98.1	528		525	99.4	14	16	19	484	91.7	53.1	40.7	6.2	0.0	
Strasbourg (France)	114		0	72.8	83		83	100.0	12	15	17	76	91.6	50.0	42.1	7.9	0.0	
Mainz (Germany)	40		0	57.5	23		22	95.7	16	19	20	14	60.9	57.1	42.9	0.0	0.0	
Dublin (Ireland)	212		73	-	4		4	100.0	27	29.5	31.5	0	0.0					
Galway (Ireland)	23		3	0.0	0													
Campania (Italy)	265		0	43.4	115		100	87.0	18	19	21	114	99.1	36.8	50.0	0.0	13.2	
Emilia Romagna (Italy)	138		3	26.7	36		0	0.0				25	69.4	40.0	48.0	0.0	12.0	
NE Italy	431		217	-	214		0	0.0				214	100.0	51.9	43.9	0.0	4.2	
Tuscany (Italy)	211		2	61.2	128		87	-	17	18	19	115	89.8	61.7	38.3	0.0	0.0	
Malta	33		0	3.0	1		1	100.0	20	20	20	0	0.0					
Northern Netherlands	145		3	38.7	55		29	-	-	-	-	45	81.8	66.7	31.1	0.0	2.2	
S Portugal	60		0	16.7	10		5	-	-	-	-	10	100.0	80.0	20.0	0.0	0.0	
Asturias (Spain)	66		0	45.5	30		28	93.3	16	18	19	25	83.3	80.0	20.0	0.0	0.0	
Barcelona (Spain)	122		4	75.4	89		80	89.9	14	16	16	84	94.4	47.6	39.3	0.0	13.1	
Basque Country	188		0	58.0	109		109	100.0	15	15	16	99	90.8	80.8	17.2	2.0	0.0	
Vaud (Switzerland)	92		0	73.9	68		64	94.1	15.5	18	19	65	95.6	52.3	43.1	3.1	1.5	
Glasgow (UK: Scotland)	90		3	44.8	39		31	79.5	14	17	18	33	84.6	75.8	24.2	0.0	0.0	
Mersey (UK: England)	253		144	-	109		0	0.0				109	100.0	37.6	56.0	2.8	3.7	
NW Thames (UK: England)	565		282	-	283		39	-	-	-	-	283	100.0	64.3	34.6	1.1	0.0	
Wales (UK)	123		0	57.7	71		62	87.3	15	17	19	53	74.7	66.0	32.1	1.9	0.0	
TOTAL	4367		936	64.4	2210	64.4	1420	64.3				2040	92.3	55.8	39.3	2.6	2.4	

* LB + FD: not known whether prenatally diagnosed

LB=livebirths, FD=fetal deaths from 20 weeks gestation

** LB+FD prenatally diagnosed + all IA out of all cases with PD known and all IA cases

IA=induced abortions following prenatal diagnosis

*** Gestational age at prenatal diagnosis for all prenatally diagnosed cases with gestational age at diagnosis known

PD=prenatal diagnosis

**** Proportion of cases terminated out of all cases prenatally diagnosed (LB+FD prenatally diagnosed + all IA)

Table B6: Down Syndrome. Prevalence per 10,000 births in selected EUROCAT registries*, by maternal age, 1980-99

registry	years**	<20 years		20-24 years		25-29 years		30-34 years		35+ years		Total rate	
		LB+FD+IA		LB+FD+IA		LB+FD+IA		LB+FD+IA		LB+FD+IA		LB+FD+IA	
		N	rate	N	rate	N	rate	N	rate	N	rate	N	rate
Styria (Austria)	86-99	5	7.9	37	10.6	51	5.7	33	9.7	88	65.7	214	12.0
Antwerp (Belgium)	90-99	1	4.1	10	5.8	34	7.2	40	12.5	33	33.5	118	10.9
Hainaut (Belgium)	80-96	8	9.2	37	7.4	55	8.1	43	10.9	70	57.5	213	12.0
Croatia	83-99	9	11.7	31	8.1	39	11.5	25	15.4	29	42.2	133	12.9
Odense (Denmark)	80-99	2	6.4	19	7.9	33	7.7	42	16.0	59	62.8	155	14.6
Paris	81-99	12	10.9	85	8.7	232	9.8	391	17.6	1025	77.8	1745	25.0
Strasbourg (France)	82-98	10	12.7	45	8.6	70	7.9	80	14.6	170	76.8	375	16.6
Mainz (Germany)	90-99	1	8.6	6	9.5	18	13.4	22	18.2	29	62.6	76	20.2
Dublin (Ireland)	80-99	20	8.2	55	7.0	122	9.3	200	16.4	422	65.5	819	19.5
Galway (Ireland)	81-99	1	5.3	5	6.0	17	10.5	23	13.5	73	65.5	119	21.8
Campania (Italy)	96-99	3	4.7	14	3.5	41	5.7	58	10.7	119	49.1	235	12.0
Emilia Romagna (Italy)	80-99	6	5.3	52	6.7	122	7.4	140	10.2	183	27.9	503	11.0
Tuscany (Italy)	80-99	1	1.5	24	5.4	81	7.5	125	12.4	220	47.2	451	14.7
Malta	86-99	4	15.1	6	4.2	14	5.4	29	15.8	67	67.4	120	16.8
Northern Netherlands	81-99	0	0.0	32	7.6	89	7.7	120	12.8	162	52.0	403	14.0
Southern Portugal	90-92, 95-99	0	0.0	8	3.4	11	3.4	22	9.5	32	30.3	73	7.4
Asturias (Spain)	90-99	1	3.4	6	5.2	17	7.6	36	16.4	58	58.1	118	17.1
Barcelona (Spain)	92-96, 98-99	2	11.8	9	15.1	22	8.6	36	9.8	92	54.1	161	18.5
Basque Country (Spain)	90-99	0	0.0	7	5.9	43	9.1	115	16.3	179	60.8	344	21.3
Vaud (Switzerland)	89-99	1	9.8	8	6.7	43	13.2	54	19.5	84	74.1	190	22.5
Glasgow (UK:Scotland)	80-99	18	8.0	41	6.7	74	9.2	81	14.3	137	60.2	351	14.4
Mersey (UK:England)	95-99	7	6.1	16	5.9	29	6.8	62	15.3	122	66.0	236	16.9
Wales (UK)	98-99	7	9.5	11	8.4	24	12.3	26	16.2	55	55.9	123	18.7
Total		119	7.2	564	7.0	1281	8.2	1803	14.1	3508	59.1	7275	16.5

* full member registries for which maternal age denominator data was available

** years of data used - maternal age denominator data not available for all years.

footnote: LB=livebirths, FD=foetal deaths from 20 weeks gestation, IA=induced abortions following prenatal diagnosis

Table B7: Down Syndrome. Proportion (%) with maternal age 35+ among all births, all cases, and liveborn cases, by 5 year time periods 1980-99, 23 EUROCAT registries

registry	years**	1980-84				1985-89				1990-94				1995-99				
		Births 35+ N	LB+FD+IA 35+ %	LB 35+ N	LB 35+ %**	Births 35+ N	LB+FD+IA 35+ %	LB 35+ N	LB 35+ %**	Births 35+ N	LB+FD+IA 35+ %	LB 35+ N	LB 35+ %**	Births 35+ N	LB+FD+IA 35+ %	LB 35+ N	LB 35+ %**	
Styria (Austria)	86-99					2969	23	39.7	26.1	3966	28	31.8	22.2	5790	9.9	37	46.8	36.4
Antwerp (Belgium)	90-99									2521	8	19.5	14.3	7331	9.7	25	31.7	19.1
Hainaut (Belgium)	80-96	1835	11	29.7	28.1	2664	8	17.0	12.8	5002	37	38.5	30.6	2666	10.9	14	35.9	17.7
Croatia	83-99	343	2	20.0	20.0	1467	8	15.4	15.4	2043	5	16.1	16.1	3016	9.7	14	35.0	30.6
Odense (Denmark)	80-99	1374	5	38.5	33.3	1885	13	27.1	11.1	2820	21	45.7	30.8	3322	11.6	20	41.7	22.6
Paris	81-99	18186	100	45.9	33.3	31626	235	59.5	40.3	37216	304	59.3	35.1	44800	23.9	386	60.9	45.7
Strasbourg (France)	82-98	2606	17	44.7	36.4	5968	41	39.1	24.7	6921	52	43.7	25.8	6649	12.5	60	52.6	30.6
Mainz (Germany)	90-99									2059	14	38.9	21.1	2570	14.3	15	37.5	23.1
Dublin (Ireland)	80-99	17421	116	52.5	53.7	15431	89	45.4	44.9	12892	108	55.1	54.8	18646	18.7	109	51.4	51.2
Galway (Ireland)	81-99	2450	21	56.8	55.6	2866	17	58.6	58.6	2793	22	66.7	66.7	3039	23.5	13	56.5	56.5
Campania (Italy)	96-99													24228	12.4	119	44.9	32.0
Emilia Romagna (Italy)	80-99	10810	49	47.6	47.1	14334	52	33.8	34.0	18384	32	26.2	25.0	21976	17.0	50	36.2	29.2
Tuscany (Italy)	80-99	5248	29	39.7	32.8	5404	30	58.8	46.2	13366	61	50.0	38.1	22587	18.0	100	47.4	24.7
Malta	86-99					2932	16	44.4	44.4	3666	34	63.0	64.2	3348	14.4	17	51.5	53.1
Northern Netherlands	81-99	1945	8	24.2	16.7	4962	33	34.4	24.4	10534	51	38.6	20.9	13739	14.1	70	48.3	31.3
Southern Portugal	90-92, 95-99									1559	7	50.0	50.0	9014	11.3	25	41.7	34.7
Asturias (Spain)	90-99									4092	24	46.2	38.1	5887	18.2	34	51.5	31.7
Barcelona (Spain)	92-96, 98-99									6375	35	50.0	30.6	10627	22.1	57	60.6	43.3
Basque Country (Spain)	90-99									10138	77	49.4	32.7	19284	23.8	102	54.3	31.8
Vaud (Switzerland)	89-99					795	3	37.5	20.0	4539	39	42.9	18.8	5957	15.8	42	45.7	20.8
Glasgow (UK:Scotland)	80-99	4227	26	35.1	27.4	5069	25	32.5	20.0	5845	40	36.0	28.6	7599	14.3	46	51.1	44.6
Mersey (UK:England)	95-99													18472	13.2	122	48.2	38.5
Wales (UK)	98-99													9834	14.9	55	44.7	32.4
		66445	384	44.8	40.6	98372	593	43.9	33.7	156731	999	46.8	34.6	270381	1532	50.0	36.3	

* percentage of all LB+FD+IA DS cases with maternal age 35+

** percentage of all LB DS cases with maternal age 35+

Table B8: Down Syndrome. Prevalence per 10,000 births in x EUROCAT registries*, by maternal age and type of birth, 1995-99

registry	years**	<20 years			20-24 years			25-29 years			30-34 years			35+ years			Not known	
		LB+FD	IA	rate	LB+FD	IA	rate	LB+FD	IA	rate	LB+FD	IA	rate	LB+FD	IA	rate	LB+FD	IA
Styria (Austria)	95-99	2	0	7.9	7	2	6.3	10	2	5.5	8	4	8.5	17	20	63.9	1	6
Antwerp (Belgium)	95-99	1	0	5.7	3	1	3.5	14	9	7.2	17	8	10.8	8	17	34.1	1	0
Hainaut (Belgium)	95-96	1	0	14.4	3	1	7.7	7	4	11.9	3	4	10.7	5	9	52.5	0	2
Croatia	95-99	0	0	0.0	8	0	8.5	9	0	8.5	9	0	13.7	11	3	46.4	0	0
Odense (Denmark)	95-99	2	0	36.4	3	0	6.5	12	1	11.7	9	1	11.2	8	12	60.2	0	0
Paris	95-99	1	0	5.9	9	12	13.3	25	53	13.8	47	100	21.3	67	319	86.2	1	0
Strasbourg (France)	95-98	1	0	6.7	6	2	8.5	7	9	7.7	13	16	19.2	11	49	90.2	0	0
Mainz (Germany)	95-99	1	0	18.2	3	0	11.2	7	1	13.7	9	4	20.7	6	9	58.4	0	0
Dublin (Ireland)	95-99	6	0	9.4	11	0	7.4	22	0	8.4	64	0	19.1	109	0	58.5	0	0
Galway (Ireland)	95-99	0	0	0.0	0	0	0.0	4	0	11.7	4	0	9.1	13	0	42.8	2	0
Campania (Italy)	96-99	3	0	4.7	14	0	3.5	25	16	5.7	38	20	10.7	48	71	49.1	23	7
Emilia Romagna (Italy)	95-99	2	0	11.1	12	0	7.7	24	2	6.1	37	3	8.6	33	17	22.8	5	3
Tuscany (Italy)	95-99	0	0	0.0	7	3	7.5	18	14	7.8	45	22	14.4	24	76	44.3	2	0
Malta	95-99	1	0	9.1	0	0	0.0	3	0	3.6	12	0	20.4	17	0	50.8	0	0
Northern Netherlands	95-99	0	0	0.0	5	0	5.2	20	1	5.8	44	5	13.2	31	39	50.9	0	0
Southern Portugal	95-99	0	0	0.0	7	0	3.9	8	0	3.0	18	1	9.6	17	8	27.7	0	1
Asturias (Spain)	95-99	1	0	9.2	2	1	6.9	4	1	5.2	21	2	20.1	13	21	57.8	0	0
Barcelona (Spain)	95-96, 98-99	0	1	9.3	1	5	21.3	6	4	8.1	9	10	8.9	13	44	53.6	1	0
Basque Country (Spain)	95-99	0	0	0.0	3	0	7.7	11	8	10.3	47	17	16.6	28	74	52.9	0	0
Vaud (Switzerland)	95-99	0	1	23.4	2	1	6.6	10	11	15.6	8	16	17.8	7	35	70.3	0	1
Glasgow (UK:Scotland)	95-99	5	0	10.7	6	0	6.3	9	3	7.7	12	9	13.4	25	21	60.5	0	0
Mersey (UK:England)	95-99	6	1	6.1	11	5	5.9	18	11	6.8	39	23	15.3	55	67	66.0	15	2
Wales (UK)	98-99	4	3	9.5	8	3	8.4	19	5	12.3	17	9	16.2	22	33	55.9	0	0
Total		37	6	6.8	131	36	6.5	292	155	8.0	530	274	14.5	588	944	56.7	51	22

* registries for which maternal age denominator data was available

** years of data used - maternal age denominator data not available for all years.

footnote: LB=livebirths, FD=foetal deaths from 20 weeks gestation, IA=induced abortions following prenatal diagnosis

Appendix A – Definition of EUROCAT Congenital Anomaly Subgroups: ICD9 and ICD10 Codes

EUROCAT Groups selected for tabulation in REPORT 8	ICD9-BPA	ICD10-BPA	comments
Nervous system	740, 741, 7420-7425, 7428, 7429	Q00, Q01, Q02, Q03, Q04, Q05, Q06, Q07	
Neural Tube Defects:	7400-7420	Q00, Q01, Q05	
Anencephalus and similar	7400-7402	Q00	
Encephalocele	7420	Q01	excl association with anencephalus
Spina Bifida	7410-7419	Q05	excl association with anencephalus or encephalocele
Hydrocephaly	7423, excl 74232	Q03	excl hydranencephaly, excl association with NTDs
Microcephaly	7421	Q02	excl association with NTDs
Arhinencephaly / holoprosencephaly	74226	Q041, Q042	
Eye	7430-7436, 7438-7439	Q10-Q15	Excl 74354, Q105
Anophthalmos / microphthalmos	7430, 7431	Q110, Q111, Q112	
Anophthalmos	7430	Q110, Q111	
Microphthalmos	7431	Q112	excl association with anophthalmos
Cataract	74332	Q120	
Ear	7440-7442	Q16, Q17	Excl 74411, 74412, Q179
Annotia/microtia	74401, 74421	Q160, Q172	
anotia	74401	Q160	
microtia	74421	Q172	excl association with anotia
Congenital heart disease	7450-7459, 7460-7469, 7470-7474	Q20-Q26	excl PDA in preterm/LBW babies (<2,500g or <37 wks)
Anomalies of cardiac chambers and connections	74500, 7451, 7453, 7457	Q20	
common arterial truncus	74500	Q200	
transposition of great vessels, complete	74510	Q203	
(double outlet right ventricle		Q201	
double outlet left ventricle		Q202	
dextrotranspositions of aorta)		Q203	
single ventricle	7453	Q204	
Malformations of cardiac septa	74501, 7452, 7454, 7455, Q21 7456, 7458, 7459		
VSD	7454	Q210	
ASD	7455	Q211	
AVSD	7456	Q212	
Tetralogy of Fallot	7452	Q213	
Malformations of valves	7460-7467	Q22-Q23	
tricuspid atresia and stenosis	7461	Q224	
Ebstein's anomaly	7462	Q225	
aortic valve atresia/stenosis	7463	Q230	
hypoplastic left heart	7467	Q234	
Malformations of great arteries and veins	7470, 7471, 7472, 7473, 74742, 74743	Q25-Q26	excl PDA in preterm/LBW babies (<2,500g or <37 wks)
coarctation of aorta	7471	Q251	
Cleft lip with or without palate	7491, 7492	Q36-Q37	
Cleft palate	7490	Q35	excl association with cleft lip

Digestive system	7503-7505, 7507-7519	Q39, Q400, Q402, Q403, Q408, Q409, Q41, Q42, Q43, Q44, Q45	
Tracheo-oesophageal fistula, oesoph. atr. and sten.	75030-75038	Q390-Q394	
Small Intestinal Atresia	7511	Q41	
Duodenal atresia and stenosis	75110	Q410	
Atresia and stenosis of other parts of small intestine	75111-75112	Q411-Q418	
Ano-rectal atresia and stenosis	75121-75124	Q420, Q421, Q422, Q423	
Internal urogenital system: ovaries, uterus, renal	7520-7523, 7529, 7530, 7531, 7533, 7532, 7534-7539	Q50, Q510-Q514, Q517-Q519, Q60, Q61, Q62, Q63, Q641-Q649	
<i>Bilateral</i> renal agenesis	75300	Q601, Q604, Q606	
Cystic kidney disease	7531	Q61	
Congenital hydronephrosis	75320	Q620	
Bladder extrophy	7535	Q641	
External genital system	7524, 7526, 7527, 7528	Q515, Q516, Q52, Q54, Q55, Q56, Q640	
Hypospadias	75260	Q541-Q543, Q548, Q549	
Indeterminate sex	7527	Q56	
Limb	7550-7551, 7552-7554, 7543-7544, 7545-7547, 7555-7556, 7558-7559	Q650-Q656, Q66, Q682-Q685, Q69, Q70, Q71, Q72, Q73, Q74	Excl 75432, 75473, 75452, 75460, 75560, Q668, Q662, Q664
Limb reduction	7552-7554	Q71-Q73	
Upper limb reduction	7552	Q71	
complete absence of upper limb	75520	Q710	
absence of upper arm and forearm with hand present	75521	Q711	
absence of both forearm and hand	75523	Q712	
absence of hand and fingers	75524	Q713	
longitudinal reduction defect/shortening of arm	75525-75527	Q714-Q718	
Lower limb reduction	7553	Q72	
complete absence of lower limb	75530	Q720	
absence of thigh and lower leg with foot present	75531	Q721	
absence of both lower leg and foot	75533	Q722	
absence of foot and toe	75534	Q723	
longitudinal reduction defect/shortening of leg	75535, 75536	Q724-Q728	
Polydactyly	7550	Q69	
Syndactyly	7551	Q70	
Musculoskeletal and connective tissue	7444-7445, 7448-7449, 7480-7481, 7501-7502, 7540-7542, 7548, 7560-7568, 7569, 5240	Q18, Q30, Q380, Q382-Q389, Q67, Q680, Q688, Q75, Q76, Q77, Q78, Q79, Q8704, Q8705, Q8708, Q870A, K070	Excl 75610, 75636, 75481, 74819, 74491, Q760, Q676, Q767, Q309, Q189, Q401
choanal atresia	7480	Q300	
craniosynostosis	75600	Q750	
Pierre Robin Syndrome	75603	Q8708	
Mandibulofacial dystosis (Treacher-Collins, Franceschetti)	75604	Q754, Q870A	
Oculomandibular dysostosis (Hallerman-Streiff)	75605	Q755, Q8705	
Goldenhar's syndrome	75606	Q8704	
Chondrodystrophies, osteodystrophies	7564, 7565	Q77, Q78	
Diaphragmatic hernia	75661	Q790	
Omphalocele	75670	Q792	
Gastroschisis	75671	Q793	
Prune Belly Syndrome	75672	Q794	
Chromosomal	7580-7583, 7585-7589	Q90-Q94, Q96-Q99	excl balanced translocations
Down's syndrome	7580	Q90	

Patau syndrome/trisomy 13	7581	Q914-Q917
Edward syndrome/trisomy 18	7582	Q910-Q913
Other trisomies and partial trisomies of autosomes	7585	Q92
Monosomies and deletions from the autosomes	7583	Q93
Turner's syndrome	75860, 75861, 75862, 75869	Q96
Klinefelter's syndrome	7587	Q980-Q984

Appendix C – Text Definition of Congenital Anomaly Subgroups

EUROCAT Groups selected for	Description	Surgery necessary for long term survival	Surgery usually recommended	Often diagnosed after one week of age
tabulation in REPORT 8				
Nervous system				
Neural Tube Defects:	Neural tube defects include anencephaly, encephalocele, spina bifida and iniencephaly			
Anencephalus and similar	Absence or deficiency of a major portion of the cranial vault, the covering skin and the brain tissue. (incompatible with life)			no
Encephalocele	Herniation of the brain and/or meninges through a defect in the skull	yes	yes	no
Spina Bifida	Midline defect of the osseous spine usually affecting the posterior arches resulting in a herniation or exposure of the spinal cord and/or meninges	yes	yes	no
Hydrocephaly	Dilation of ventricular system, not due to primary atrophy of the brain, with or without enlargement of the skull		yes	no
Microcephaly	A reduction in the size of the brain with a skull circumference less than three standard deviations below the mean for sex and age. Definitions known to vary between clinicians and regions.			yes
Arhinencephaly / holoprosencephaly	Absence of the first cranial (olfactory) nerve tract. There is a spectrum of anomalies from a normal brain, except for the first cranial nerve tract, to a single ventricle (holoprosencephaly)			yes
Eye				
Anophthalmos / microphthalmos	-			
Anophthalmos	Unilateral or bilateral absence of the eye tissue. Clinical diagnosis			no
Microphthalmos	Small eye/eyes with smaller than normal axial length. Clinical diagnosis			yes
Cataract	Alteration in the transparency of the crystalline lens		yes	yes
Ear				
Annotia/microtia	-			
anotia	Absent pinna, with or without atresia of ear canal			no
microtia	Small or deformed pinna, with or without atresia of ear canal			no

Congenital heart disease					
Anomalies of cardiac chambers and connections		-			
common arterial truncus			yes	yes	yes
		Presence of a large single arterial vessel at the base of the heart (from which the aortic arch, pulmonary and coronary arteries originate), always accompanied by a large subvalvar septal defect.			
transposition of great vessels, complete		Total separation of circulation with the aorta arising from the right ventricle and the pulmonary artery from the left ventricle	yes	yes	no
single ventricle		Only one complete ventricle with an inlet valve and an outlet portion even though the outlet valve is atretic	yes	yes	no
Malformations of cardiac septa		-			
VSD		Defect in the ventricular septum	yes for large defects	yes if symptoms	yes
ASD		Defect in the atrial septum		yes for large defects	yes
AVSD		Central defect of the cardiac septa and a common atrioventricular valve, includes primum ASD defects	yes	yes	yes
Tetralogy of Fallot		VSD close to the aortic valves, infundibular and pulmonary valve stenosis and over-riding aorta across the VSD	yes	yes	yes
Malformations of valves		-			
tricuspid atresia and stenosis		Obstruction of the tricuspid valve and hypoplasia of the right ventricle	yes	yes	no
Ebstein's anomaly		Tricuspid valve displaced with large right atrium and small right ventricle			no
aortic valve atresia/stenosis		Occlusion of aortic valve or stenosis of varying degree, often associated with bicuspid valves	yes for atresia	yes	yes for stenosis
hypoplastic left heart		Hypoplasia of the left ventricle, outflow tract and ascending aorta resulting from an obstructive lesion of the left side of the heart	yes	yes	no
Malformations of great arteries and veins		-			
coarctation of aorta		Constriction in the region of aorta where the ductus joins aorta	yes	yes	yes
Cleft lip with or without palate					
		Clefting of the upper lip with or without clefting of the maxillary alveolar process and hard and soft palate		yes	no
Cleft palate					
		Fissure defect of the soft and/or hard palate(s) or submucous cleft without cleft lip		yes	no
Digestive system					

Tracheo-oesophageal fistula, oesoph. atr. and sten.	Occlusion or narrowing of the oesophagus with or without tracheo-oesophagael fistula	yes	yes	no
Small Intestinal Atresia				
Duodenal atresia and stenosis	Occlusion or narrowing of duodenum	yes	yes	no
Atresia and stenosis of other parts of small intestine	Occlusion or narrowing of other parts of small intestine	yes	yes	no
Ano-rectal atresia and stenosis	Imperforate anus or absence or narrowing of the communication canal between the rectum and anus with or without fistula to neighbouring organs	yes	yes	no
Internal urogenital system: ovaries, uterus, renal				
<i>Bilateral</i> renal agenesis	Bilateral absence, agensis, dysplasia or hypoplasia of kidneys including Potter's sequence. Incompatible with life			no
Cystic kidney disease	Presence of single or multiple cyst(s) enlarging kidney tissue			yes
Congenital hydronephrosis	Obstruction of the urinary flow from kidney to bladder		yes	yes
Bladder extrophy	Defect in the closure of the bladder and lower abdominal wall	yes	yes	no
External genital system				
Hypospadias	Agenesis of the distal urethra and opening of the urethra on the ventral side of the penis behind the coronary sulcus		yes	yes
Indeterminate sex	Includes true and pseudohermaphroditism male or female		yes	no
Limb				
Limb reduction	Total or partial absence or severe hypoplasia of skeletal structure of the limbs			no
Upper limb reduction	-			no
complete absence of upper limb	-			no
absence of upper arm and forearm with hand present	-			no
absence of both forearm and hand	-			no
absence of hand and fingers	-			no
longitudinal reduction defect/shortening of arm	-			no
Lower limb reduction	-			no
complete absence of lower limb	-			no
absence of thigh and lower leg with foot present	-			no
absence of both lower leg and foot	-			no
absence of foot and toe	-			no
longitudinal reduction defect/shortening of leg	-			no
Polydactyly	Extra digit or extra toe		yes	no
Syndactyly	Partial or total webbing between 2 or more digits includes minor forms		yes	yes

Musculoskeletal and connective tissue

Choanal atresia	Bony or membranous choanae with no passage from nose to pharynx		yes	yes for unilateral
Craniosynostosis	Premature closure of cranial sutures		yes	yes
Pierre Robin Sequence	Micrognathia, glossoptosis and often cleft palate	often	yes	no
Mandibulofacial dysostosis (Treacher-Collins, Franceschetti)	Malar and mandibular hypoplasia, malformation of ear, often cleft palate			no
Oculomandibular dysostosis (Hallerman-Streiff)	Oculomandibulodyscephaly with hypotricosis syndrome, eye malformations (microphthalmos, cataract)		yes	yes
Goldenhar's syndrome	Facial, auriculo and vertebral malformations, usually unilateral		yes	yes
Chondrodystrophies, osteodystrophies	Heterogeneous group of dwarfism and other skeletal syndromes			yes for some
Diaphragmatic hernia	Defect in the diaphragm with protrusion of abdominal content into the thoracic cavity. Various degree of lung hypoplasia on the affected side	yes	yes	no
Omphalocele	Herniation of abdominal content through the umbilical ring, the contents being covered by a membrane sometimes ruptured at the time of delivery	yes	yes	no
Gastroschisis	Protrusion of abdominal contents through an abdominal wall defect lateral to an intact umbilical cord and not covered by a membrane	yes	yes	no
Prune Belly Sequence	Syndrome with deficient abdominal muscle and urinary obstruction/distension. May be secondary to urethral obstruction.			no
Chromosomal				
Down's syndrome	karyotype 47,xx +21 or 47,xy +21			no
Patau syndrome/trisomy 13	karyotype 47,xx +13 or 47,xy +13			no
Edward syndrome/trisomy 18	karyotype 47,xx +18 or 47,xy +18			no
Other trisomies and partial trisomies of autosomes				no
Monosomies and deletions from the autosomes				yes
Turner's syndrome	karyotype 45,x or other structural anomalies of X chromosome			yes
Klinefelter's syndrome	karyotype 47,xyy			yes

Appendix 1: Time of diagnosis of live births, 1995-99

registry	All Congenital Anomalies						not known / other	All Congenital Heart Disease						not known / other
	N	< 1 wk*	1-4 wks	1-12 m	> 12 m	%		N	< 1 wk	1-4 wks	1-12 m	> 12 m	%	
2	1448	91.4	4.2	4.2	0.0	0.1	468	87.0	6.0	7.1	0.0	0.0		
3	525	64.4	4.6	16.2	4.4	10.5	218	43.6	7.3	28.4	7.3	13.3		
5	4628	66.4	0.1	0.0	0.0	33.5	966	61.4	0.1	0.0	0.0	38.5		
8	2398	85.5	6.4	5.9	0.1	2.1	1081	80.4	9.5	7.6	0.2	2.3		
10	2095	57.7	1.3	1.3	0.2	39.4	561	44.2	1.4	1.3	0.2	52.9		
11	148	86.5	2.7	0.7	0.0	10.1	28	78.6	3.6	3.6	0.0	14.3		
13	2067	59.8	8.1	25.5	2.9	3.7	429	52.2	13.5	22.6	5.8	5.8		
14	1221	63.1	9.3	21.4	4.0	2.3	248	68.2	6.1	16.9	4.4	4.4		
18	2075	96.4	0.0	0.0	0.0	3.6	752	94.2	0.0	0.0	0.0	5.9		
19	1373	74.3	5.8	17.3	1.8	0.7	485	69.3	10.1	19.2	0.8	0.6		
20	1299	60.4	11.6	21.0	6.6	0.5	477	49.9	18.0	27.5	4.4	0.2		
21	496	90.7	4.2	2.8	0.0	2.2	111	81.1	9.9	6.3	0.0	2.7		
23	777	77.2	6.6	13.8	0.9	1.5	371	62.5	9.7	24.8	1.4	1.6		
25	2661	0.0	0.0	0.0	0.0	100.0	926	0.0	0.0	0.0	0.0	100.0		
28	880	88.1	5.1	1.5	0.0	5.3	259	80.7	9.7	2.7	0.0	7.0		
29	1598	51.1	10.0	17.9	0.1	20.9	329	66.3	4.6	6.7	0.0	22.5		
30	974	85.7	5.7	8.5	0.0	0.1	274	77.4	11.0	11.3	0.0	0.4		
32	749	89.2	5.1	5.1	0.1	0.5	269	82.5	8.6	8.2	0.0	0.7		
33	1526	87.9	3.6	1.2	0.0	7.3	454	87.4	3.5	0.9	0.0	8.2		
34	610	98.2	1.0	0.3	0.0	0.5	145	97.2	1.4	0.0	0.0	1.4		
35	782	94.8	0.0	0.0	0.0	5.2	331	93.1	0.0	0.0	0.0	7.0		
39	1525	0.0	0.0	0.0	0.0	100.0	463	0.0	0.0	0.0	0.0	100.0		
41	667	69.0	4.4	7.7	0.6	18.4	208	63.0	3.4	5.3	0.0	28.4		
43	1639	0.0	0.0	0.0	0.0	100.0	374	0.0	0.0	0.0	0.0	100.0		
50	1406	39.6	5.6	13.4	1.1	40.3	431	31.6	5.8	10.7	0.7	51.3		
51	2927	98.5	1.0	0.5	0.0	0.0	941	97.2	1.8	1.0	0.0	0.0		
52	4016	0.0	0.0	0.0	0.0	100.0	498	0.0	0.0	0.0	0.0	100.0		
57	1509	75.5	6.1	13.3	4.1	1.1	371	68.2	8.1	18.9	4.0	0.8		
TOTAL	44019	58.6	3.3	6.0	0.8	31.4	12468	59.1	4.8	7.0	0.8	28.2		

* < 1wk includes prenatal

Appendix 2: Gestational age at fetal death, all congenital anomalies, 1995-99

registry	Gestational age at fetal death				
	N	20-23 wks %	24-27 wks %	28+ wks %	not known %
2	32	25.0	9.4	65.6	0.0
3	25	12.0	4.0	84.0	0.0
5	123	24.4	18.7	56.9	0.0
8	26	38.5	7.7	50.0	3.9
10	99	3.0	8.1	87.9	1.0
11	5	0.0	20.0	40.0	40.0
13	47	10.6	14.9	72.3	2.1
14	51	19.6	27.5	52.9	0.0
18	12	0.0	0.0	91.7	8.3
19	26	38.5	19.2	38.5	3.9
20	15	33.3	33.3	33.3	0.0
21	9	11.1	0.0	88.9	0.0
23	25	4.0	12.0	84.0	0.0
25	15	0.0	0.0	86.7	13.3
28	41	31.7	4.9	61.0	2.4
29	22	13.6	22.7	59.1	4.6
30	14	0.0	21.4	78.6	0.0
32	10	10.0	20.0	70.0	0.0
33	22	36.4	27.3	36.4	0.0
34	40	27.5	32.5	40.0	0.0
35	36	8.3	22.2	50.0	19.4
39	20	25.0	30.0	45.0	0.0
41	40	12.5	10.0	77.5	0.0
43	215	30.7	16.3	53.0	0.0
50	3	0.0	33.3	33.3	33.3
51	20	0.0	0.0	70.0	30.0
52	138	30.4	23.2	44.9	1.5
57	75	30.7	21.3	46.7	1.3
TOTAL	1206	22.1	17.0	58.6	2.3

Appendix 3: ICD codes outside malformation range*

registry	1980-1999		1995-1999	
	N	%	N	%
2	314	5.7	98	5.8
3	83	3.4	2	0.3
5	969	4.7	263	4.0
8	193	3.1	57	2.0
10	757	7.1	110	5.0
11	50	5.5	4	2.6
13	414	5.7	105	4.7
14	536	6.9	81	5.6
18	425	5.8	102	4.7
19	439	6.0	123	7.2
20	153	4.8	62	4.1
21	53	3.1	14	2.7
23	48	2.9	24	3.0
25	125	1.2	66	1.9
28	14	1.0	9	0.9
29	201	7.4	136	7.7
30	28	1.0	9	0.7
32	63	3.7	27	3.0
33	188	3.9	74	4.2
34	28	1.9	7	1.0
35	38	2.1	30	2.7
39	492	9.1	157	9.3
41	28	3.8	28	3.8
43	108	1.7	48	1.6
50	0	0.0	0	0.0
51	70	2.0	70	2.0
52	241	5.0	241	5.0
57	134	6.9	134	6.9

* cases where the ONLY anomaly coded lies outside the malformation range of ICD 9 (740-759) or ICD10 (Q codes)

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