

Progress in reducing drink driving deaths

Explanatory note to Road Safety PIN Flash 5

Each of the 18 countries included in the ranking provided the annual total number of road deaths (Table 1) and the annual number of deaths in accidents related to drink driving, based on its own procedures which remained consistent for the available years of data (Table 2)

$T(Y)$ = Total number of reported road accident deaths in year Y

$A(Y)$ = Estimated number of deaths in drink driving related accidents in year Y

On the basis of these two timelines, a third series of data was established, being

$N(Y) = T(Y) - A(Y)$ = Estimated number of other deaths in road accidents, ie deaths in accidents not related to drink driving by the country's procedure

The developments in these numbers were reflected as average yearly percentage reductions $P(A)$ and $P(N)$ between a baseline year, year 1, and year L (2005). The middle one of the first 3 available years, usually 1996-1998, was taken as the baseline year and the average of the numbers of deaths in these 3 years was taken as the number in the baseline year.

$$P(A) = 100 \left[1 - \left(\frac{A(L)}{A(1)} \right)^{\frac{1}{L-1}} \right]$$

$$P(N) = 100 \left[1 - \left(\frac{N(L)}{N(1)} \right)^{\frac{1}{L-1}} \right]$$

The average yearly percentage change $P(DD)$ in drink driving deaths relative to the change in other deaths was then estimated as

$$P(DD) = 100 \left[1 - \left(\frac{100 - P(A)}{100 - P(N)} \right) \right]$$

The number of years in the series was $L=9$ for all countries except France ($L=8$), Lithuania ($L=6$), Slovakia ($L=5$) and Spain ($L=6$). The resulting figures for each country are given in Table 3.

	Total reported road traffic deaths									
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Austria	1,027	1,105	963	1,079	976	958	956	931	878	768
Belgium	1,356	1,364	1,500	1,397	1,470	1,486	1306	1214	1162	1089
Cyprus	128	115	111	113	111	98	94	97	117	102
Czech Republic	1,568	1,597	1,360	1,455	1,486	1,334	1,431	1,447	1,382	1,286
Denmark	514	489	499	514	498	431	463	432	369	331
Estonia	213	279	284	232	204	199	223	164	170	169
Finland	404	438	400	431	396	433	415	379	375	379
France	8,540	8,445	8,920	8,486	8,079	8,162	7655	6058	5530	5318
Germany*	12,290	12,040	11,042	11,425	11,079	10,292	10020	9583	8575	7863
Greece	2,157	2,105	2,182	2,116	2,037	1,880	1,634	1,605	1,670	1,658
Hungary	1,370	1,391	1,371	1,306	1,200	1,239	1429	1326	1296	1278
Ireland	453	473	458	414	418	412	376	337	379	399
Italy	6,676	6,714	6,313	6,688	6,649	6,691	6739	6065	5625	5426
Latvia	594	567	677	652	635	558	559	532	516	442
Lithuania	667	725	829	748	641	706	697	709	752	760
Luxembourg	72	56	56	58	77	69	62	53	49	46
Malta	19	18	17	4	15	16	16	16	13	17
Netherlands	1,180	1,163	1,066	1,090	1,082	993	987	1028	804	750
Norway	255	303	352	304	341	275	310	280	257	224
Poland	6,359	7,310	7,080	6,730	6,294	5,534	5827	5640	5712	5444
Portugal	2,730	2,521	2,126	2,028	1,877	1,670	1668	1542	1294	1247
Slovakia	616	788	819	647	628	614	610	645	603	560
Slovenia	389	357	309	334	313	278	269	242	274	258
Spain**	3,017	3,156	3,400	3,336	3,349	3,220	3140	3196	2861	2738
Sweden	537	541	531	580	591	583	560	529	480	440
Switzerland	616	587	597	583	592	544	513	546	510	409
Great Britain	3,598	3,599	3,421	3,423	3,409	3,450	3431	3508	3221	3201

Table 1

	Estimated number of deaths in drink driving accidents									
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Austria	70	77	72	75	56	52	75	74	57	46
Belgium										
Cyprus	14	12	13	7	9	10	10	8	24	23
Czech Republic	207	205	188	160	126	112	157	127	68	71
Denmark	117	93	113	127	103	97	110	98	94	76
Estonia	57	68	69	55	40	54	68	45	44	48
Finland	78	89	75	83	71	82	91	67	84	89
France	2750	2770	2935	2741	2472	2644	2319	1920	1736	1532
Germany	1087	1033	769	752	672	645	627	578	489	399
Greece	210	221	279	229	252	202	149	131	157	177
Hungary	77	110	95	84	83	112	136	115	133	112
Ireland										
Italy										
Latvia	139	170	183	183	125	111	160	119	113	96
Lithuania				76	69	101	78	68	84	90
Luxembourg						4	6	2	7	0
Malta										
Netherlands	240	225	225	210	200	180	170	170	135	115
Norway										
Poland	827	896	911	732	644	425	529	463	423	458
Portugal										
Slovakia					80	85	92	87	73	67
Slovenia	133	78	75	90	89	101	86	78	85	83
Spain**			331	359	450	484	466	516	398	
Sweden										
Switzerland	117	114	95	128	114	107	93	106	103	79
Great Britain	580	550	460	460	530	530	550	580	590	560

*Drivers involved in fatal crashes

**Killed drivers

Table 2

	Average yearly percentage change in road deaths	Average yearly percentage change in deaths related to drink driving	Average yearly percentage change in other road deaths	Yearly percentage change in deaths related to drink driving relative to change in other road deaths
Czech Republic	-1.97	-12.14	-0.92	-11.33
Germany*	-4.94	-10.43	-4.54	-6.17
Poland	-2.95	-7.81	-2.37	-5.58
Slovakia	-2.41	-5.96	-1.87	-4.17
Netherlands	-5.06	-8.30	-4.35	-4.13
Latvia	-4.00	-6.47	-3.20	-3.39
Austria	-3.62	-5.61	-3.48	-2.20
France	-6.17	-6.69	-5.92	-0.81
Greece	-3.18	-3.57	-3.14	-0.44
Lithuania	1.71	1.88	1.68	-0.19
Switzerland	-4.68	-3.91	-4.85	0.99
Denmark	-5.04	-4.26	-5.26	1.06
Estonia	-5.18	-3.66	-5.73	2.20
Great Britain	-1.25	0.69	-1.62	2.35
Finland	-1.10	1.24	-1.73	3.01
Slovenia	-3.80	-1.72	-4.66	3.09
Hungary	-0.93	2.21	-1.19	3.45
Spain**	-3.17	0.93	-3.75	4.86
Europe 14***	-2.70	-4.24	-2.47	-1.82

* Average yearly percentage change in drivers involved in fatal drink driving crashes (Germany)

** Average yearly percentage change in driver deaths from drink driving crashes (Spain)

***This includes all countries for which timeline data over 1996 -1998 to 2005 is available:

Austria, Cyprus, Czech Republic, Denmark, Estonia, Finland, Great Britain, Greece, Hungary, Latvia, Netherlands, Poland, Slovenia and Switzerland

Table 3 Average yearly changes in deaths from crashes related to drink driving and in other road crashes between 1996 -1998 (baseline) and 2005, except France (last year 2004), Lithuania (baseline 1999-2001), Slovakia (baseline 2000-2002) and Spain (baseline 1998-2000; last year 2004).