#### **PF1.9:** Aspects of child protection

#### Definitions and methodology

Child protection refers to a set of services, most often publicly-run, that are designed to safeguard the well-being of children (see indicator PF1.8 for the legal age threshold – Age of Majority – below which a person is legally defined as a child). Child protection is primarily designed to prevent acts of maltreatment, which can be based on commission/action (abuse) and inaction/omission (neglect) (Gilbert *et al.*, 2009). The main types of maltreatment fall into the categories of neglect, physical abuse, sexual abuse, and psychological/emotional maltreatment (including exposure to adult-on-adult family violence). Legal definitions of maltreatment differ considerably by country (and sometimes by state, region, or province within a country), and these are typically subject to further definition by the court system. This indicator presents three different aspects of child protection as described below.

<u>Child mortality rates</u> can serve as an "iceberg" indicator of extreme outcome which can be indicative of broader underlying rates of child maltreatment. The indicator presents child mortality rates due to intentional and accidental injuries, based on harmonised data across countries under the International Classification (ICD) protocol. Deaths due to intentional injuries can be a direct consequence of maltreatment, while deaths due to accidental injuries can be a consequence of neglect (only some, but not all, child accidental deaths can be considered as maltreatment as some accidental deaths will be beyond the responsibility of the caregiver).

Legislation banning corporal punishment against children can act as a legal deterrent for any form of violence against children and provides an indication of how maltreatment is defined within a country. The legislation on such bans is not universal across the OECD and can vary by type. The indicator presents data on whether such legislation exists, and if so, then whether the bans are specific for corporal punishment against children. The indicator also presents attitude and prevalence of corporal punishment against children based on various country surveys and as such the data should interpreted with caution as they may not be directly comparable.

International comparison of <u>child protection systems/services</u> (CPS) is difficult due to a lack of a harmonised approach in dealing with child protection across countries, and due to variations in the way that information on systems to minimise maltreatment is collection (OECD, 2011). A common technical approach to measuring the work of the CPS is based on the *notification rate* (number of cases that the CPS deals with), however, data are not available on a comparable basis across countries and notifications rate can often simply be a reflection of the amount of monitoring in a country rather than actual levels of maltreatment. Another commonly used measure is the rate of <u>children in state care</u> (i.e. children in foster care or child homes) as this often reflects children who have taken under the care of the state. This indicator presents the rates of children aged 11, 13 and 15 living in state care as reported in the survey of *Health Behaviour in School-Aged Children* (HBSC).

### Key findings

### A) Child mortality rates

Chart PF1.9.A shows child mortality rates for across countries: Panel A shows the mortality rates due to intentional injuries and Panel B shows the rates for accidental injuries. For countries with smaller populations of children, e.g. Estonia, the latest average data has been included to remove some of the "data noise" associated with small child populations (see Annex 1, Chart A1 on trends in child mortality rates due to intentional and accidental injuries illustrating the fluctuations in death rates from year to year). Chart PF1.9.B presents data on changes in intentional and accidental death, from the early 1980s until the latest figures (late-2000s). Annex 1 provides time series for each OECD country (except Turkey) from 1970 until the most recent date, the late-2000s in most cases.

Other relevant indicators: SF3.4 Family violence; PF 1.8 Legal age threshold related to transition from childhood to adulthood; CO4.4 Teenage suicides



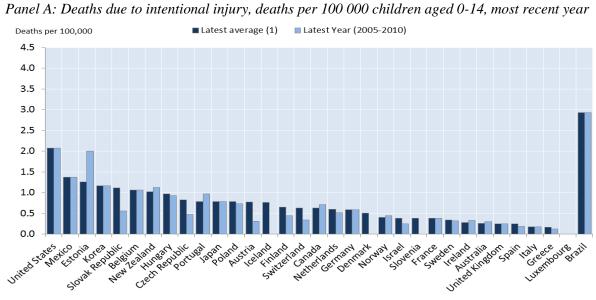
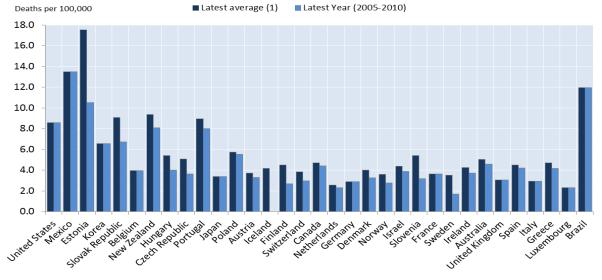


Chart PF1.9.A: In most countries intentional child mortality is very rare

Panel B: Deaths due to accidental injury, deaths per 100 000 children aged 0-14, most recent year



Countries in both panels are ordered in descending order of latest average child mortality rates due to intentional injury.

1 Latest average based on most recent years for which the cumulative number of 0-14 years olds exceeds 10 million, going back no further than the start of the WHO ICD-10 classification system. The years considered for each country are as follows: Australia (2006-2008), Austria (2005-2010), Belgium (2006), Canada (2005-2006), Czech Republic (2006-2010), Denmark (2001-2008), Estonia (1999-2010), Finland (2002-2010), France (2009), Germany (2008), Greece (2006-2010), Hungary (2006-2010), Iceland (2003-2010), Ireland (2002-2010), Israel (2007-2009), Italy (2009), Japan (2010), Korea (2008), Luxembourg (2008), Mexico (2009), the Netherlands (2008-2010), New Zealand (2002-2008), Norway (2004-2009), Poland (2009-2010), Portugal (2004-2005), Slovak Republic (2000-2007), Slovenia (1999-2010), Spain (2006-2007), Sweden (2005-2009), Switzerland (2003-2009), United Kingdom (2009), United States (2007), Brazil (2007).

Source: WHO (2013), the WHO Mortality database

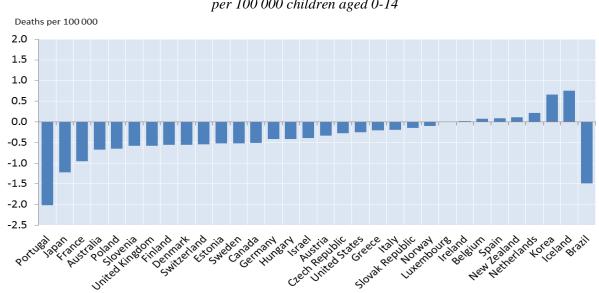
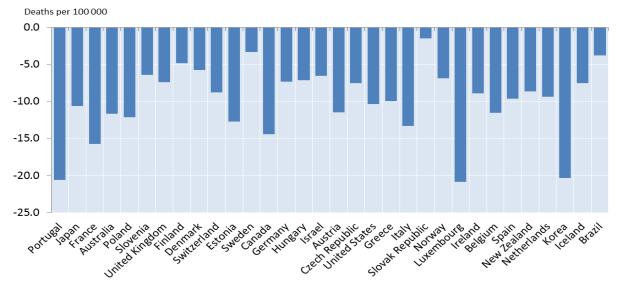


Chart PF1.9.B: Child mortality rates declined in almost all OECD countries since the 1970s Panel A: Changes in child deaths due to intentional injury, early 1980s to latest figures, average deaths per 100 000 children aged 0-14

Panel B: Changes in child deaths due to accidental injury, early 1980s to latest figures, average deaths per 100 000 children aged 0-14



Countries in both panels are ordered in ascending order of change in child mortality rates due to intentional injury.

Figures are averages based on combined years such that the cumulative population of 0-14 year olds exceeds 10 million.

Data from early 1980s are based on the ICD9 classification system; data from late 2000s are based on the ICD10 classification system. Annex 1 to this chapter provides detail on which categories were included for intentional and accidental deaths. The categories are consistent with those used in UNICEF (2001) and (2003). Deaths by "undetermined intent" are considered as intentional here, to try and overcome classification problems (UNICEF, 2003).

Source: WHO (2013), the WHO Mortality database

The data shows that there is a wide variation in child mortality rates across countries (Chart PF1.9.A). The prevalence of both intentional and accidental deaths fluctuates considerably from year to year in countries with small numbers of children, e.g. Iceland, and is fairly stable for countries with large numbers of children, e.g. the United States (Chart PF1.9.B). In almost all countries, accidental-injury deaths show a strong trend decline and have converged closer to accidental-injury death rates.

Declining trends in intentional-injury death rates are harder to discern (Chart PF1.9.B and trend data in Annex 1). This may be in part because rates were relatively low to start with. Defining a significant trend as correlation of the rate with time in excess of -0.50 to give the analysis some (arbitrary) objective benchmark, downward trends for at least one of the two age groups may be found in just over one-third of OECD countries: Australia, Canada, Chile, Denmark, Finland, Germany (note the short time period in the chart notes), Hungary, Italy, Japan, Mexico (although this trend is almost certainly due to an change in the definition regarding the categorisation of accidents, see ....), Poland, Sweden and the United Kingdom.

#### B) Attitudes towards and prevalence of corporal punishment against children and related legislation

Table PF1.9.A presents data on attitudes towards and prevalence of corporal punishment of children. These figures need to be interpreted with caution as they are not fully comparable due to methodological differences (e.g., questionnaires use different wording, age of children differs, respondents may include parents or adult population). Nevertheless, they provide an overview of societal attitudes of acceptable forms of parental discipline of children in OECD countries. They suggest that in most countries a significant number of parents consider mild forms of corporal punishment (e.g., smacking, slapping or spanking) acceptable practices to discipline children. The exceptions include Denmark and Sweden, where a recent study showed that around 57% of parents are against the use of corporal punishment. In addition, these studies show that a majority of parents admit to the use moderate forms of physical punishment (smacking or spanking) and only a minority admit to the use severe physical punishment (e.g., kicking, beating or hitting with an object).

A reflection of societal attitudes towards corporal punishment against children is legislation related to such activity. Table PF1.9.B outlines whether legislation exists in OECD countries in banning corporal punishment against children, whether it is specific in nature, and when such legislation was introduced. Around half of OECD countries have enacted laws prohibiting the use of corporal punishment by parents towards children, mostly in the past decade. Sweden was the first country to introduce a ban on corporal punishment at home (in 1979), followed by other Nordic countries such as Finland (1983) and Norway (1987).

### Table PF1.9.A Attitudes towards and prevalence of child corporal punishment

	Attitudes towards corporal punishment				Prevalence of corporal punishment		
	Year	Acceptable	Unacceptable / Never acceptable	Year			
Australia <sup>1</sup> Belgium	2006 2004	41% smacking is effective in shaping children's behaviour, 69% agreed sometimes necessary to smack a naughty child 77% acceptable for parents to smack their children (17% always acceptable and 60% in some circumstances)	19% unacceptable in any circumstances	2007	71% smacked their children occasionally; 43% were likely or very likely to use a single smack as a punishment		
Canada	2004	64% support use of force such as spanking by parents to discipline a child		2002	50% of parents reported they had "inflicted light corporal punishment, like a slap" on their children; 6% reported they had "inflicted painful corporal punishment".		
Chile				2002	Mothers report using physical punishment as follows: 51% spanked buttocks with hand, 39% shook child, 27% twisted ear, 24% pulled hair, 18% hit with object on buttocks, 13% slapped face or head, 12% hit with knuckles, 3% pinched child.		
Cyprus <sup>2,3</sup>	2000	15% smacking is a socially acceptable method of child discipline.					
Denmark				2000	12% of 3 year-olds were spanked "sometimes" or "seldom"		
Estonia	2000	41% support use of corporal punishment					
Finland	2007	25% acceptable physical discipline of children at least in exceptional situations		2007	73% of women and 68% of men reported they had sometimes used physical punishment.		
Germany				2001	54% of parents frequently used "minor" corporal punishment (such as beatings and spankings); 17% frequently used "serious" corporal punishment; 28% of parents rarely resorted to disciplinary sanctions and "as far as possible" did not use corporal punishment.		
Italy	2004	69% acceptable for parents to smack their children (7% always acceptable and 62% in some circumstances).	25% unacceptable in any circumstances	2001	Incidence of severe violence was 8%		
Korea				2001	45% or parents reported that they had hit, kicked or beaten their children.		
Mexico				2003	55% of mothers and 29% of fathers reported using physical discipline		
New Zealand	2001	80% of parents believed smacking with an open hand should be legally permissible		2004	51% of parents reported using physical discipline, 45% smacking on the bottom		
Poland	2001	54% considered beating children with a belt acceptable, and 77% acceptable to shout at and threaten children.					
Portugal	2004	83% acceptable for parents to smack their children (16% always acceptable and 67% in some circumstances).	13% unacceptable in any circumstances				
Romania				2000	47% of parents admitted using corporal punishment;16% beating their children with an object		
Slovak Rep	2002	98.6% agree with a "smack on the buttock from time to time", 75.3% believed that parents should be allowed to use "occasional slaps"					
Spain	2004	26% necessary to smack children to impose discipline; 59% stated it may be sometimes necessary to smack a child					
Switzerland				2004	Estimates show that 13,000 children under 30 months of age had been slapped; nearly 18,000 had been pulled by the hair and about 1,700 hit with objects.		
UK	2003	10% always acceptable to smack a child 50% acceptable in some circumstances	40% never acceptable to smack a child	1998- 2001	58% of parents use minor physical punishment (slapping and smacking) during the past year. 9% used severe physical punishment in the last year.		
US	2002	65% approved of spanking children					

Note: 1) Data from Australia concerns a survey of parents in Queensland; 2) and 3) see notes 1) and 2) in Chart SF3.4.B. Sources: Korea and US (prevalence), WHO (2002); Mexico, ENDIREH 2003; UK, ESRC (2003); Others: http://www.endcorporalpunishment.org

Last updated 5/12/2013

	Type of	Year of		Type of	Year of
Country	legislation	introduction	Country	legislation	introduction
Australia <sup>1</sup>	0	-	Korea	0	-
Austria	1	1989	Luxembourg	1	2008
Belgium	0	-	Mexico	0	-
Canada <sup>2</sup>	1	2004	Netherlands	1	2007
Chile	0	-	New Zealand	1	2007
Czech Republic	2	-	Norway	1	1987
Denmark	1	1997	Poland <sup>4</sup>	2	-
Estonia	0	-	Portugal	1	2007
Finland	1	1983	Slovak Rep	0	-
France	0	-	Slovenia	0	-
Germany	1	2000	Spain	1	2007
Greece	1	2006	Sweden	1	1979
Hungary	1	2004	Switzerland	0	-
Iceland	1	2003	Turkey	0	-
Ireland	2	-	United Kingdom	0	-
Italy <sup>3</sup>	1	1996	United States	0	-
Japan	0	-			

#### . . . . . . . .

Note: 0: no explicit provisions for children or unknown; 1: specific legislation; 2: non-specific legislation (legislation restrict maltreatment against children but does not specify forms of maltreatment).

1. Australia: laws vary across the jurisdictions, which may result in women and children being subject to different levels of protection depending upon where they live. 2. Canada: 2004 Criminal Code allows parents, teachers and caregivers the use of corporal punishment to correct the behaviour of children aged 2-12 years, if the force does not exceed what is reasonable under the circumstances, but not using objects and not involving slaps or blows to the head. 3. Italy: in1996, the Supreme Court in Rome declared all corporal punishment to be unlawful; this is not yet confirmed in legislation. 4. Poland: corporal punishment prohibited at home in 1997 constitution.

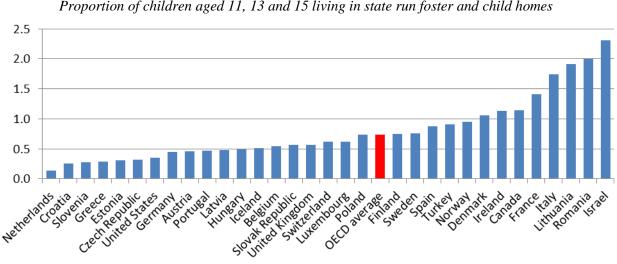
Source: Save the Children (2009) and End All Corporal Punishment - The nature of corporal punishment: Prevalence and Attitudes Research (http://www.endcorporalpunishment.org/pages/research/making-visible.html) - retrieved December 2013

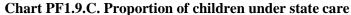
#### C) Child protection systems – children in state care

While it is difficult to measure characteristics of the child protection systems on a comparable basis across countries, one aspect of such systems concerns public authorities taking full responsibility for children in their care. Chart PF1.9.C presents the proportion of children in state care for children aged 11-15 in foster care or child homes under state responsibility.

On average, across the OECD, around 0.7% of children live in state care, either in a foster home or a child home. The proportion living in state care is highest, at over 1.5%, in Israel and Italy, while it is below 0.3% in Greece, the Netherlands and Slovenia.







Proportion of children aged 11, 13 and 15 living in state run foster and child homes

Source: Health Behaviour of School-aged Children 2010

#### Comparability and data issues

Mortality rates were drawn from the WHO mortality database, which in turn, collects data from national vital registration systems. The underlying cause of death is defined in accordance with the rules of the International Classification of Diseases (ICD). Procedures for determining causes of death may vary across countries and homicides may be missed in countries with less advanced systems to register and prosecute these incidents.

Data on prevalence of corporal punishment were taken from an international review on the use of violence as a disciplinary method carried out by End Corporal Punishment Organisation (see www.endofcorporalpunishment.org); a WHO report on Violence and Health for Korea and the United States; the Encuesta Nacional de la Dinamica de las Relaciones en los Hogares (ENDIREH 2003) for Mexico; and the National Study of parents, children and discipline in Britain for the UK. Data from Australia on corporal punishment concerns a survey of parents in Queensland, conducted by the Parenting and Family Support Centre, University of Queensland. Similar to intimate partner violence, cultural aspects have to be considered when interpreting corporal punishment data as this greatly influences answers from respondents.

The data on children in state care is based on the survey of Health Behaviour in School-aged Children (HBSC) that surveys school children only and is likely to be an underestimate. Further, a high or low proportion of children under state care may not necessarily reflect more or less children being subject to maltreatment and needing state protection, but rather may reflect of more or less stringent measures within a country.

Sources and further reading: End Corporal Punsihment (2013), Comparative Research, http://www.endcorporalpunishment.org/pages/research/research.html; Gilbert, R., C.S. Widom, K., Brown, D. Fergusson, E. Webb and S. Janson (2009a). "Burden and Consequences of Child Maltreatment in High-Income Countries." Lancet, 373, pp. 68-81; OECD (2011), Doing Better for Families, www.oecd.org/social/family/doingbetter; End All Corporal Punishment - The nature of corporal punishment: Prevalence and Attitudes Research (http://www.endcorporalpunishment.org/pages/research/making-visible.html); Health Behaviour in School-aged Children http://www.euro.who.int/en/what-we-do/health-topics/Life-stages/child-and-adolescenthealth/publications/2012/social-determinants-of-health-and-well-being-among-young-people.-health-behaviour-inschool-aged-children-hbsc-study; Save the Children (2009),"Ending legalised violence against children, Global Report

2009", Save the Children Sweden, Stockholm; WHO (2002), "World Report on violence and health", WHO, Geneva; and, WHO (2013) mortality database (<u>http://www.who.int/whosis/mort/en/</u>)

# ANNEX 1: MORTALITY DATA AND THE INTERNNATIONAL CLASSIFICATION OF DISEASES (ICD)

#### A1.1 Classification of cause of death

Different countries used different WHO coding systems (ICD 8, ICD 9 and ICD 10) at different times. Classification of causes of death under the ICD 8 and 9 systems are broadly similar and comparable in most countries. However, classification of causes of death under ICD 9 and 10 are not comparable and causes a break in series. Statistics Canada (2005) provides a country specific study of the effects of changing from ICD9 to ICD10 on mortality rates. Data on suicides is not included.

The data here are thus drawn from three different databases depending on country and year and Tables A1 and A2 present the categories of data that have been used.

ICD 8	ICD 9	ICD 10
A138 (motor vehicle accidents).	B47 (transport accident).	1096 (transport accident).
A139 (other transport accidents).	B48 (accidental poisoning).	1097 (falls).
A140 (accidental poisoning).	B49 (misadventures during medical care, abnormal reactions, late complications).	W20-W49 (exposure to inanimate mechanical forces).
A141 (accidental falls).	B50 (accidental falls).	W50-W64 (exposure to animate mechanical forces).
A142 (accidents caused by fires).	B51 (accidents caused by fire and flames).	1098 (accidental drowning and submersion).
A143 (accidental drowning and submersion).	B52 (other accidents, including late effects).	W75-W84 (other accidental threats to breathing).
A144 (accidents caused by firearm missiles).	B53 (drugs, medicaments causing adverse effects in therapeutic use).	W85-W99 (exposure to electrical current, radiation and extreme ambient temperature and pressure).
A145 (accidents mainly of industrial type).		1099 (exposure to smoke, fire and flames).
A146 (all other accidents).		X10-X19 (contact with heat and hot substances).
		X20-X29 (contact with venomous animals and plants).
		X30-X39 (exposure to forces of nature).
		1100 (accidental poisoning by and exposure to noxious substances).
		X50-X57 (overexertion, travel and

#### Table A1: Deaths due to maltreatment, accidental injury

X58-X59 (accidental exposure to other and unspecified factors).	to other
---	----------

ICD 8	ICD 9	ICD 10
A148 (homicide and legal interventions)	B55 (homicide)	X85-Y09 (assault including homicide)
A149 (undetermined intent - see discussion under ICD-10)	B560 (undetermined intent - see discussion under ICD-10)	Y10-Y34 (undetermined intent - undetermined causes of death are treated as maltreatment for statistical purposes to better align WHO figures with national surveys (UNICEF, 2003).
A150 (operations of war)	<ul><li>B561 (legal interventions and operations of war)</li><li>B569 (other assault)</li></ul>	Y35-Y36 (legal interventions and operations of war) Y87, Y89 (other assault)

#### Table A2: Deaths due to maltreatment, intentional injury

### A1.2. Country specific issues

#### All countries

Most countries either use less detailed or more detailed classification system but not both. This is especially true for ICD10. To overcome this problem calculations were done based on both more detailed and less detailed classifications and the larger number is used for this analysis

#### Mexico

Population data for 2002-2008 are not available from WHO Mortality database. Thus for 2002-2008 population data was derived from the *OECD Education database*, 2010.

#### Switzerland

The disaggregation of deaths by undetermined intent, other assault, and other accidents is not available; numbers are aggregated under "other external causes" in ICD 10. Deaths due to "other external causes" are included in figures for accidental deaths but excluded from figures for maltreatment deaths, as this produces figures more in line with historic figures in ICD9. Thus, deaths due to maltreatment are a slight undercount, while deaths to accident are a slight over count.

#### Turkey

No data on child mortality classified under causes of death

#### <5 --- 5-14 Australia: Deaths due to maltreatment Australia: Deaths due to accidental injury Austria: Deaths due to accidental injury Austria: Deaths due to accidental injury Deaths per 100 00 hs per 100 000 hs per 100 0 hs per 100 ( Deat 50 4.0 50 ICD-9 ICD-10 ICD-9 ICD-10 ICD-9 ICD-10 ICD-9 ICD-10 40 40 3.0 3.0 30 30 2.0 2.0 20 20 1.0 1.0 10 10 0.0 0 0.0 0 1970 1980 1990 2000 2010 1970 1980 1990 2000 2010 1970 1980 1990 2000 2010 1970 1980 1990 2000 2010 Canada: Deaths due to accidental injury Belgium: Deaths due to maltreatment Belgium: Deaths due to accidental injury Canada: Deaths due to maltreatment Deaths per 100 000 Deaths per 100 000 Deaths er 100 000 Deaths per 100 000 50 4.0 50 ICD-9 ICD-10 ICD-9 ICD-10 ICD-9 ICD-10 ICD-9 ICD-10 4.0 40 40 3.0 3.0 30 30 2.0 2.0 20 20 1.0 1.0 10 10 0.0 0 0.0 0 2010 1970 1980 1990 2000 2010 1970 1980 1990 2000 2010 1970 1980 1990 2000 1970 1980 1990 2000 2010 Chile: Deaths due to maltreatment Chile: Deaths due to accidental injury Czech Rep: Deaths due to maltreatment Czech Rep: Deaths due to accidental injury Deaths per 100 000 Deaths per 100 0 50 \_\_\_\_\_ 60 ICD-9 ICD-10 ICD-9 ICD-10 ICD-9 ICD-10 ICD-9 ICD-10 4.0 50 40 30 40 3.0 30 30 20 2.0 20 20 10 1.0 10 10 0 0 0 0.0 1970 1980 2010 1970 1980 1970 1980 1990 2000 2010 1970 1980 1990 2000 2010 1990 2000 1990 2000 2010 Denmark: Deaths due to maltreatment Denmark: Deaths due to accidental injury Estonia: Deaths due to maltreatment Estonia: Deaths due to accidental injury Deaths per 100 000 Deaths per 100 000 Deaths per 100 000 9.0 Deaths per 100 000 ICD-9 ICD-10 ICD-9 ICD-10 ICD-9 ICD-10 ICD-9 ICD-10 60 40 3.0 6.0 30 40 2.0 20 3.0 20 1.0 10 $\mathbf{h}$ 200 0.0 0 0.0 0 1970 1980 1990 2000 2010 1970 1980 1990 2000 2010 1970 1980 1990 2000 2010 1970 1980 1990 2000 2010 Finland: Deaths due to accidental injury Finland: Deaths due to maltreatment France: Deaths due to maltreatment France: Deaths due to accidental injury Deaths per 100 000 Deaths per 100 000 Deaths per 100 000 Deaths per 100 000 50 4.0 50 ICD-9 ICD-10 ICD-9 ICD-10 ICD-9 ICD-10 ICD-9 ICD-10 40 40 40 3.0 3.0 30 30 2.0 2.0 20 20 1.0 10 10 10 1. 1. 0.0 0 0.0 0

1970

1980

1990

2000

2010

1970

1980

1990

2000

2010

1970

1980

1990

2000

2010

1970

1980

#### Chart A1: Intentional and accidental child mortality rates, 1970-latest

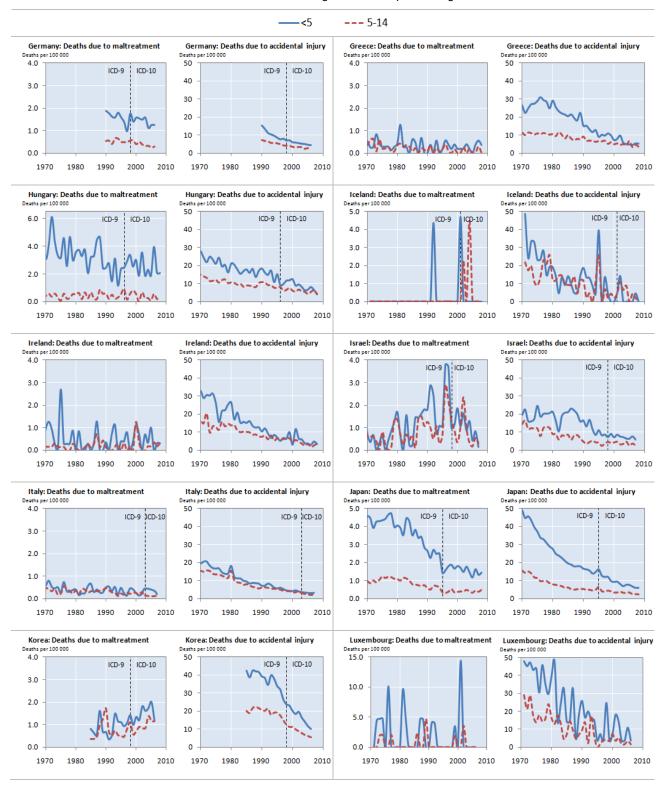
Number of deaths among children of specified age

1990

2000

2010

#### Chart A1: Intentional and accidental child mortality rates, 1970-latest (Contd.)



Number of deaths among children of specified age

Last updated 5/12/2013

#### <5 --- 5-14 Mexico: Deaths due to maltreatment Mexico: Deaths due to accidental injury Netherlands: Deaths due to maltreatment Netherlands: Deaths due to accidental injury Deaths per 100 000 Deaths per 100 000 4.0 50 ICD-8 ICD-9 ICD-10 ICD-10 ICD-9 ICD-9 ICD-10 ICD-9 ICD-10 ICD-9 ICD ICD-9 40 40 15.0 3.0 30 30 10.0 2.0 20 20 5.0 1.0 10 10 0.0 0 0.0 0 1990 1970 1980 1990 2000 2010 1970 1980 1990 2000 2010 1970 1980 2000 2010 1970 1980 1990 2000 2010 New Zealand: Deaths due to maltreatment New Zealand: Deaths due to accidental injury Norway: Deaths due to accidental injury Norway: Deaths due to maltreatment Deaths per 100 000 Deaths per 100 000 Deaths per 100 000 Deaths per 100 000 50 4.0 50 ICD-9 ICD-10 ICD-9 ICD-10 ICD-9 ICD-10 ICD-9 ICD-10 4.0 40 40 3.0 3.0 30 30 2.0 2.0 20 20 1.0 1.0 10 10 0.0 0 0.0 0 2010 2010 1970 1980 1990 2000 2010 1970 1980 1990 2000 1970 1980 1990 2000 2010 1970 1980 1990 2000 Poland: Deaths due to maltreatment Poland: Deaths due to accidental injury Portugal: Deaths due to maltreatment Portugal: Deaths due to accidental injury Deaths per 100 00 Deaths per 100 000 Deaths per 100 0 Deaths per 100 00 50 4.0 12.0 ICD-8 ICD-9 ICD-8 ICD-9 ICD-9 ICD-10 ICD-9 ICD-10 ICD-9 ICD-10 ICD-9 ICD-10 50 ICD-9 ICD-10 ICD-9 ICD-10 40 3.0 9.0 40 30 30 2.0 6.0 20 20 1.0 3.0 10 10 $\sim$ 0.0 0 0 0.0 1970 1980 2000 2010 1970 1980 1980 1990 2000 2010 1970 1980 1990 2010 1990 1990 2000 2010 1970 2000 Slovak Rep: Deaths due to maltreatment Deaths per 100 000 4.0 Slovak Rep: Deaths due to accidental injury Slovenia: Deaths due to maltreatment Slovenia: Deaths due to accidental injury Deaths per 100 000 Deaths per 100 000 ICD-10 ICD-10 ICD-9 ICD-10 ICD-9 ICD-9 ICD-10 4.0 40 40 3.0 3.0 30 30 2.0 2.0 20 20 1.0 1.0 10 10 0.0 0 0.0 0 1970 1980 1990 2000 2010 1970 1980 1990 2000 2010 1970 1980 1990 2000 2010 1970 1980 1990 2000 2010 Spain: Deaths due to maltreatment Spain: Deaths due to accidental injury Sweden: Deaths due to maltreatment Sweden: Deaths due to accidental injury Deaths per 100 000 per 100 000 Deaths per 100 000 Deaths per 100 000 Deaths 4.0 50 4.0 50 ICD-9 ICD-10 ICD-9 | ICD-10 ICD-9 ICD-10 ICD-9 | ICD-10 40 40 3.0 3.0 30 30 2.0 2.0 20 20 1.0 1.0 10 10 0.0 0 0.0 0

1970

1980

1990

2000

2010

1970

1980

1990

2000

2010

1970

1980

1990

2000

2010

1970

#### Chart A1: Intentional and accidental child mortality rates, 1970-latest (Contd.)

Number of deaths among children of specified age

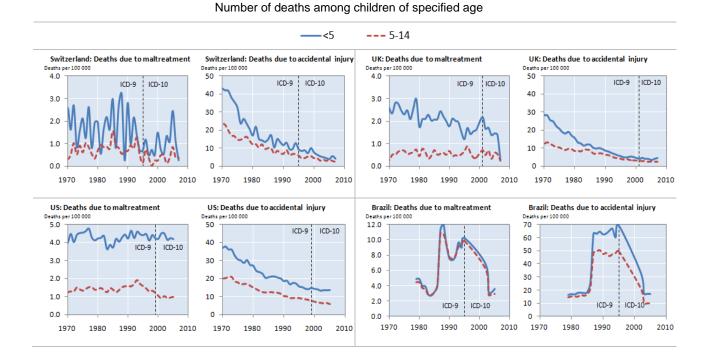
Last updated 5/12/2013

1980

1990

2000

2010



#### Chart A1: Intentional and accidental child mortality rates, 1970-latest (Contd.)

The classification of causes of death under ICD 9 and 10 are not fully comparable and causes a break in series. A dotted line is used to denote this break in the series from one classification system. Although ICD coding changes may cause a break in the series, there does not appear to be an evident data discontinuity in most data when the ICD changes. There are a couple of possible exceptions, the most evident being declines in Mexico when shifting from ICD8 to 9 for intentional injury and rises for Portugal for the same shift.

Source: WHO (2013), The WHO mortality database.

Last updated 5/12/2013