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Iechyd Cyhoeddus Cymru
Public Health Wales

CHILD DEATH REVIEW PROGRAMME

# Annual Report

July 2013

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Our thanks also to the National Child Death Review Pilot team, in particular Emeritus Professor J Sibert OBE for laying the foundations for this programme and leading the thematic panels of the pilot project.

# Foreword

**The death of every child is a tragedy. The impact of the loss of a child is a heavy burden on families, carers and friends with life-changing effects on those who are bereaved. Typically, four children die every week in Wales and the death rate for children has changed little over the last decade. I welcome this work which builds on the pilot and its evaluation. It should assist professionals and organisations to understand the patterns and causes of child deaths in Wales.**

Too many children and young people die from causes that are preventable. There is much that can, and needs be done to support and protect children from these premature deaths. The thematic reviews produced by the Child Death Review Programme highlight modifiable factors that contribute to these deaths. The recommendations flowing from these reviews need to be implemented.

As the Children's Commissioner for Wales, I welcome this annual report on child deaths in Wales. I am pleased to be associated with the work of the Child Death Review Programme and feel that the work they undertake is essential in safeguarding our children in the future. This programme makes an important contribution to informing our efforts to secure the rights of children and young people in Wales.

Keith Towler
Children's Commissioner for Wales

ARTICLE 6

*"1. States Parties recognize that every child has the inherent right to life*

*"2. States Parties shall ensure to the maximum extent possible the survival and development of the child"*

ARTICLE 24 (EXTRACT)

*"States Parties…shall take appropriate measures: to diminish infant and child mortality"*

UNITED NATIONS CONVENTION ON THE RIGHTS OF THE CHILD

*"From the beginning of May 2014, the Welsh Ministers must, when exercising any of their functions, have due regard to the requirements of Part I of the Convention"*

RIGHTS OF CHILDREN AND YOUNG PERSONS (WALES) MEASURE 2011

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# 1 Summary

## The Child Death Review Programme

This is the first annual report of the Child Death Review Programme following the implementation and evaluation of the National Child Death Review Pilot in Wales. The Child Death Review Programme aims to identify and describe patterns and causes of child death, including any trends, and to recommend actions to reduce the risk of avoidable factors contributing to child deaths in Wales.

The programme covers the death of all live born children that occur after 1 October 2009 and before the child's 18th birthday, where the child is either normally resident in Wales or dies within Wales. A key element of the programme is undertaking thematic reviews to identify common learning and themes from the deaths of children in Wales.

This programme continues the work of the National Child Death Review Pilot Project. The pilot started in July 2009, led by Emeritus Professor J Sibert OBE. The pilot submitted its report to the Welsh Government in October 2010. A subsequent independent evaluation endorsed the value of the child death review process. The recommendations of the evaluation are being considered and implemented.

## Deaths of children in Wales

During 2011, 222 deaths of children were registered in Wales. The death rate for children in Wales remains largely unchanged over the previous decade. Most deaths (61%) occur under the age of one year; just over half of the remaining deaths (20%) occur between 12 and 17 years. Although child death rates are largely similar between England and Wales, Wales has a higher rate of deaths among older children (27 and 33 per 100,000 aged 15-19 in England and in Wales respectively).

There is a strong relationship between deprivation and child death. Children in the most deprived parts of Wales are almost twice as likely (rate ratio 1.9) to die in a given year than those from the least deprived parts of Wales.

The causes of death during infancy mostly relate to specific perinatal conditions (58%) and congenital anomalies (16%), with 13% due to sudden infant death syndrome, or some other unknown cause of death. External causes and other (medical and surgical) causes of death dominate the older age groups; together these account for 92% of deaths among those aged 5-17 years.

## Thematic reviews

Thematic child death reviews are summarised within this report, including –

**The review undertaken during 2013 as part of the Child Death Review Programme:**

- Review of the deaths of teenagers in motor vehicles 2006-2010

**Reviews undertaken as part of the National Child Death Review Pilot between 2009 and 2011:**

- Young people taking their own life: an audit of suicide and events of undetermined intent in young people
- An audit of sudden unexpected death in infancy where overlaying or co-sleeping were possible factors
- An audit and review of asthma deaths of children in Wales
- A review of child deaths on quad bikes or miniature motorbikes (mini-motos) in the United Kingdom
- Review of child deaths from firearms in Great Britain

# 2 Introduction

**This is the first annual report of the Child Death Review Programme following the implementation and evaluation of the National Child Death Review Pilot in Wales.**

The commitment within Wales to improving life chances for children is demonstrated by the passing of the *Rights of Children and Young Persons (Wales) Measure 2011*, and subsequent children's rights scheme. This measure puts a duty on Welsh ministers to have due regard to the United Nations Convention on the Rights of the Child (National Assembly of Wales, 2011).

Systematic approaches to reviewing child deaths have been introduced across much of the western world, including almost all states of America and also in Canada, Australia and New Zealand (National Child Death Review Team, 2011).

In England, the Regulations introduced under *The Children Act 2004* required Local Safeguarding Children Boards (LSCBs) to set up a process for reviewing all deaths of children from 1st April 2008. The purpose of the process is to examine whether there are common factors associated with particular causes of child death which, once identified, can be addressed through local initiatives (National Child Death Review Team, 2011).

No equivalent statutory basis for child death reviews exists in Wales. The Welsh Government commissioned a pilot of a process for national child death review in Wales. The work of this pilot has formed the foundations for the establishment of the Child Death Review Programme.

# 3 Child Death Review Programme

## 3.1 Aims and objectives of the programme

**The aim** of the programme is to identify and describe patterns and causes of child death, including any trends, and to recommend actions to reduce the risk of avoidable factors contributing to child deaths in Wales.

**The objectives** of the programme are:

- To ascertain and collate data on child deaths in Wales and deaths of children who are normally resident in Wales.
- To undertake thematic reviews and make recommendations.
- To produce an annual report that:
  - Describes findings on patterns of child deaths in Wales.
  - Highlights where avoidable factors thought to contribute to child deaths have been identified from thematic reviews.
- To disseminate findings from the annual report and thematic reviews in order to inform action to address avoidable factors contributing to child deaths in Wales.

## 3.2 Scope of the programme

The programme covers the death of all live born children that occur after 1 October 2009 and before the child's 18th birthday, where the child is either normally resident in Wales or dies within Wales. This includes children who are under local authority care and placed outside of Wales; or those who may temporarily reside outside of Wales for healthcare or education purposes.

The purpose of the child death thematic reviews is to identify modifiable factors that contribute to the deaths of children in Wales and make recommendations. Making statements on the cause or circumstances of deaths of any individual child is usually beyond the scope of the review. Serious case reviews, child practice reviews and inquests continue to play specific functions regarding deaths of individual children.

## 3.3 Ways of working

Delivering a child death review programme is a multidisciplinary venture. At its heart is an effort to understand and alter modifiable factors that contribute to the deaths of children in Wales. To achieve this requires an open and enquiring approach to the factors leading to the death of children. The reviews do not seek to blame individuals or agencies but focus on learning lessons for the future.

The programme will publish its own recommendations; the content and publication of these reports and recommendations is the responsibility of Public Health Wales. The Welsh Government will receive thematic reports and recommendations six weeks before publishing to enable any response from Government to be made at the time of their release.

## 3.4 National Child Death Review Pilot

In May 2008, the then Minister for Health and Social Services agreed that the National Public Health Service for Wales (whose functions and services are now incorporated within Public Health Wales) be commissioned to establish a pilot study to inform the development of child death reviews in Wales.
The National Child Death Review Pilot started in July 2009, led by Emeritus Professor J Sibert OBE.

The aim of the two year pilot was to collect, analyse and review information about child deaths in Wales with a view to identifying preventable factors.

### Objectives of the National Child Death Review Pilot

(National Child Death Review Team, 2011)

Initial objectives:

- To set in place a system to ascertain all child deaths (0 to <18 years) from October 1st 2009. This included both expected and unexpected (not anticipated within the 24 hours prior to the recorded death) but excluded still births and terminations.
- To establish national reviews of deaths, initially focussing on suicides and apparent suicides since October 1st 2006.
- To test the feasibility of establishing local reviews/case discussions and integrating completion of information requirements into current processes.

Additional objectives identified for the pilot:

- To define a child death review model for Wales that can inform the drafting of statutory regulations and guidance.
- To develop processes and measures to ensure that the proposed model can be adopted as soon as practically possible following the introduction of the statutory regulations and guidance.
- To identify the expected benefits of the child death review process and how it can be used to support the wider safeguarding programme in Wales.

The pilot worked with stakeholders across Wales, establishing processes and documentation including information governance processes, communication and website material, and developing an information leaflet for parents. A dedicated child death database for Wales was developed and information received through multiple ascertainment of child deaths was recorded. This information was used to assist in identifying specific themes to be reviewed (section 5.2).

The pilot submitted its findings in the form of a draft report to the Welsh Government in October 2010. This drew conclusions relating to:

- **Taking the lead:** within Wales a national lead for the child death review process was appropriate.
- **Statutory basis:** the process was hindered by requirements for consent. Making the child review statutory in Wales would be essential if national child death review is to be progressed.
- **Ascertainment:** Multiple sources are essential for ascertainment, direct reporting from registrars, rather than via local safeguarding children boards, should occur; improving links with coroners is important.
- **National review of child deaths:** panels have worked well and the advantages of the approach mean it should continue.
- **Annual report of child deaths:** to continue and be presented to National Assembly, Children's Commissioner and public through the media.
- **Procedural response to unexpected deaths in childhood** (PRUDiC) to be integrated in to child death processes.

This led to a number of specific recommendations around the continuation of child death reviews for Wales (Appendix A). The report, including its conclusions and recommendations, were considered together with other evidence as part of an independent evaluation (see section 3.5).

## 3.5 Evaluation of the National Child Death Review Pilot

The Welsh Government commissioned Cordis Bright to undertake an evaluation of the child death review pilot (Cordis Bright Ltd, 2012). The evaluation took place between June and December 2011 and was published in April 2012. It was 'based mainly on 18 face-to-face interviews and 49 telephone interviews with stakeholders, as well as a review of relevant project documentation' (Cordis Bright Ltd, 2012, page 2).

The evaluation reported that 'the Child Death Review Pilot Project was seen as a very valuable process by all stakeholders interviewed as part of this evaluation.' It identified strengths of the process as well as particular areas that could be improved. It made recommendations based on Cordis Bright's evaluative judgement:

**Recommendation 1:** Consider continuation of funding for the child death review process.

**Recommendation 2:** Develop and agree clear terms of reference.

**Recommendation 3:** Put appropriate governance arrangements in place.

**Recommendation 4:** Amending the Child Death Review Team's operational practices.

**Recommendation 5:** Explore the possibility of giving the child death review process statutory powers.

Further detail on each of these is provided within the report (Cordis Bright Ltd, 2012).

## 3.6 Developing the Child Death Review Programme

The Child Death Review Programme is now being established for Wales.

In relation to the recommendations of the evaluation the following progress has been made:

1. The Welsh Government has guaranteed funding for the programme until March 2014.
2. The programme has now developed and agreed terms of reference with the Welsh Government.
3. The programme is developing clear governance arrangements; this includes a steering group (Appendix B) and lines of accountability (Appendix C).
4. Key elements of operational practices have been reviewed; including development of a new form (Appendix D). Further developments are ongoing.
5. Initial discussions on statutory powers in relation to the Child Death Review have commenced with the Welsh Government.

In addition the programme is:

- Developing a series of thematic reviews, commencing with deaths of teenagers in motor vehicles.
- Reviewing the child deaths database to ensure it is fit for purpose.
- Re-establishing relationships with the stakeholders in Wales.
- Organising stakeholder events to share the findings of the thematic reviews and annual report, encourage sharing information with the Child Death Review Team and facilitate feedback between stakeholders and the Child Death Review Programme.

# 4 Child deaths in Wales

## 4.1 Registered child deaths in Wales

This overview of child deaths in Wales is derived from official registered data within the Annual District Deaths Extract (ADDE), supplied by the Office for National Statistics (ONS). Deaths relate to children normally resident in Wales, and are presented by year of registration. Rates are calculated using official mid-year estimates (MYE). Data are presented up until the most recent available, 2011.

Unless otherwise stated, data by age group are presented as <1 year (infants), 1-4 (preschool age); 5-11 (primary school age) and 12-17 (secondary school age). In many instances data are aggregated across three or more years due to the relatively small number of events in any individual year. For a number of analyses, where smaller numbers are involved, this is across the last 10 years of data (2002-2011). Causes of death are described by International Classification of Disease (ICD) 10 chapter block, with specific breakdown for external causes and sudden infant death syndrome (World Health Organisation, 2013).

This analysis does not provide detail for deaths under the age of one year of age. The All-Wales perinatal survey annual report (Paranjothy, et al., 2013) provides detail on these deaths.

These data are supported by more detailed tables in Appendix E.

### 4.1.1 Pattern of child deaths in Wales

During 2011 there were 222 child deaths registered in Wales (Appendix E). This is the lowest number of child deaths registered during the 10 year period 2002-2011 (range: 222 to 293; mean: 246). However, the death rate for children in Wales overall is largely similar in 2011 to ten years before.

Most deaths (61%) are in those under one year of age, with 20% occurring between 12 and 17 years, and the remaining 19% between 1 year and 11 years (Table 1).

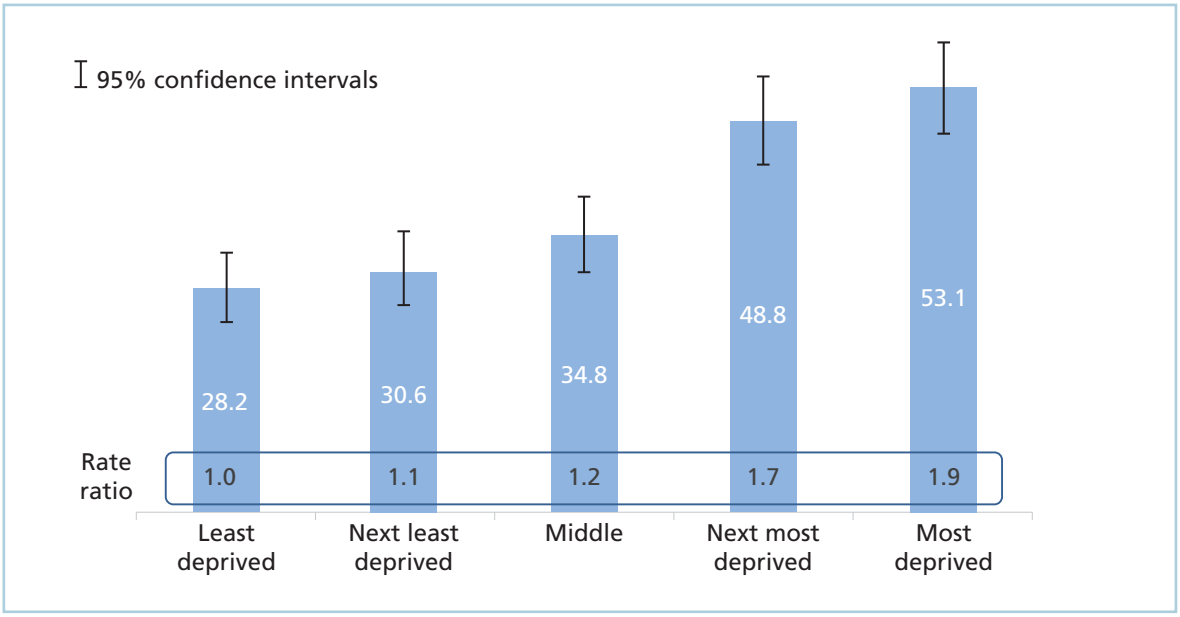
**Table 1** Child deaths by age group, Wales, 2002-2011

| | Average annual number | Proportion of child deaths | Rate per 100,000 | 95% confidence intervals |
|---|---|---|---|---|
| <1 year | 149.1 | 61% | 444.7 | (422.4 to 467.9) |
| 1-4 years | 24.0 | 10% | 18.1 | (15.9 to 20.5) |
| 5-11 years | 23.2 | 9% | 9.5 | (8.3 to 10.8) |
| 12-17 years | 49.3 | 20% | 21.2 | (19.4 to 23.2) |

Produced by the Public Health Wales Observatory, using ADDE & MYE (ONS)

Child deaths show a strong relationship with deprivation. Children in the most deprived parts of Wales are almost twice as likely to die in a given year as those from the least deprived parts of Wales (rate ratio 1.9, Figure 1).

**Figure 1** Child deaths from all causes by deprivation fifth, rate per 100,000 persons aged under 18 and rate ratios*, Wales, 2006-2010




Produced by the Public Health Wales Observatory, using ADDE & MYE (ONS), WIMD 2008 (WG). * Rate ratios compared to the least deprived fifth

To compare with England, rates have been produced by five year age bands and <1, in line with published data sources (Table 2). The infant mortality rate during 2009-2011 in Wales (421 per 100,000) was lower than in England (455 per 100,000); however, this difference was not statistically significant.

The death rate among those aged 15-19 was higher in Wales (33 per 100,000) than in England (27 per 100,000) and this difference was statistically significant.

**Table 2** Child deaths, numbers and rates per 100,000 persons* aged under 20 years, England and Wales, 2009-2011

| | England | | Wales | |
|---|---|---|---|---|
| | **Annual average** | **Rate (95% CI)** | **Annual average** | **Rate (95% CI)** |
| <1 | 3,052 | 454.6 (445.4 to 464.0) | 150 | 421.3 (383.3 to 462.2) |
| 1-4 | 479 | 18.4 (17.5 to 19.4) | 20 | 14.3 (10.9 to 18.4) |
| 5-9 | 263 | 8.9 (8.3 to 9.6) | 14 | 8.6 (6.2 to 11.6) |
| 10-14 | 304 | 9.8 (9.2 to 10.4) | 21 | 11.9 (9.1 to 15.2) |
| 15-19 | 890 | 26.6 (25.6 to 27.7) | 66 | 33.2 (28.7 to 38.1) |

Produced by Public Health Wales Observatory, using ADDE, series DR & MYE (ONS)

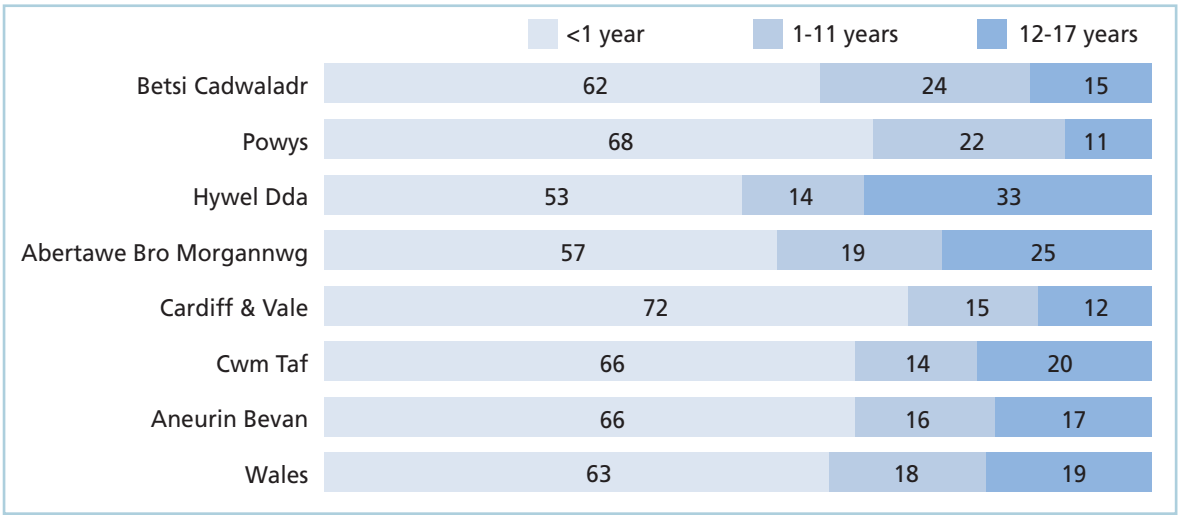
*All rates are currently based on rounded population estimates which have been updated according to the 2011 Census, until unrounded data for England is available.

Rates should be interpreted with caution where there are a small number of events.

The proportion of deaths occurring at different ages shows a broadly similar pattern in each health board (Figure 2). This should be read in conjunction with the age specific rates and their confidence intervals for the areas as outlined in Appendix E. For example, the higher proportion of child deaths occurring among those aged 12-17 in Hywel Dda is related both to a higher rate in this age group and also lower rate in infants; neither of these rates is statistically significantly different from the Welsh average.

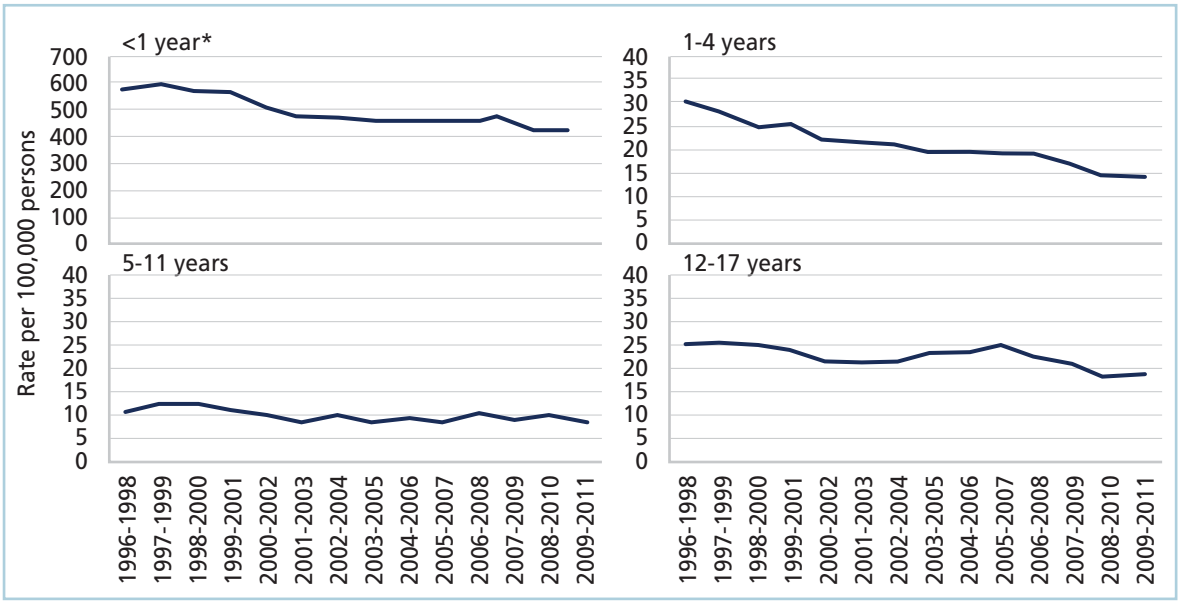
The trend over the last fifteen years shows a decline in the death rate among those aged under one during the early part of this period. Death rates among those aged one to four show a downward trend; however, this is based on relatively few cases each year. There is a less consistent pattern in the other age groups (Figure 3).

**Figure 2** Child deaths, percentage by age group, Wales health boards, 2007-11




Produced by the Public Health Wales Observatory, using ADDE (ONS). Percentages should be interpreted with caution where there are a small number of events. The sum of percentages will not always be 100, due to rounding.

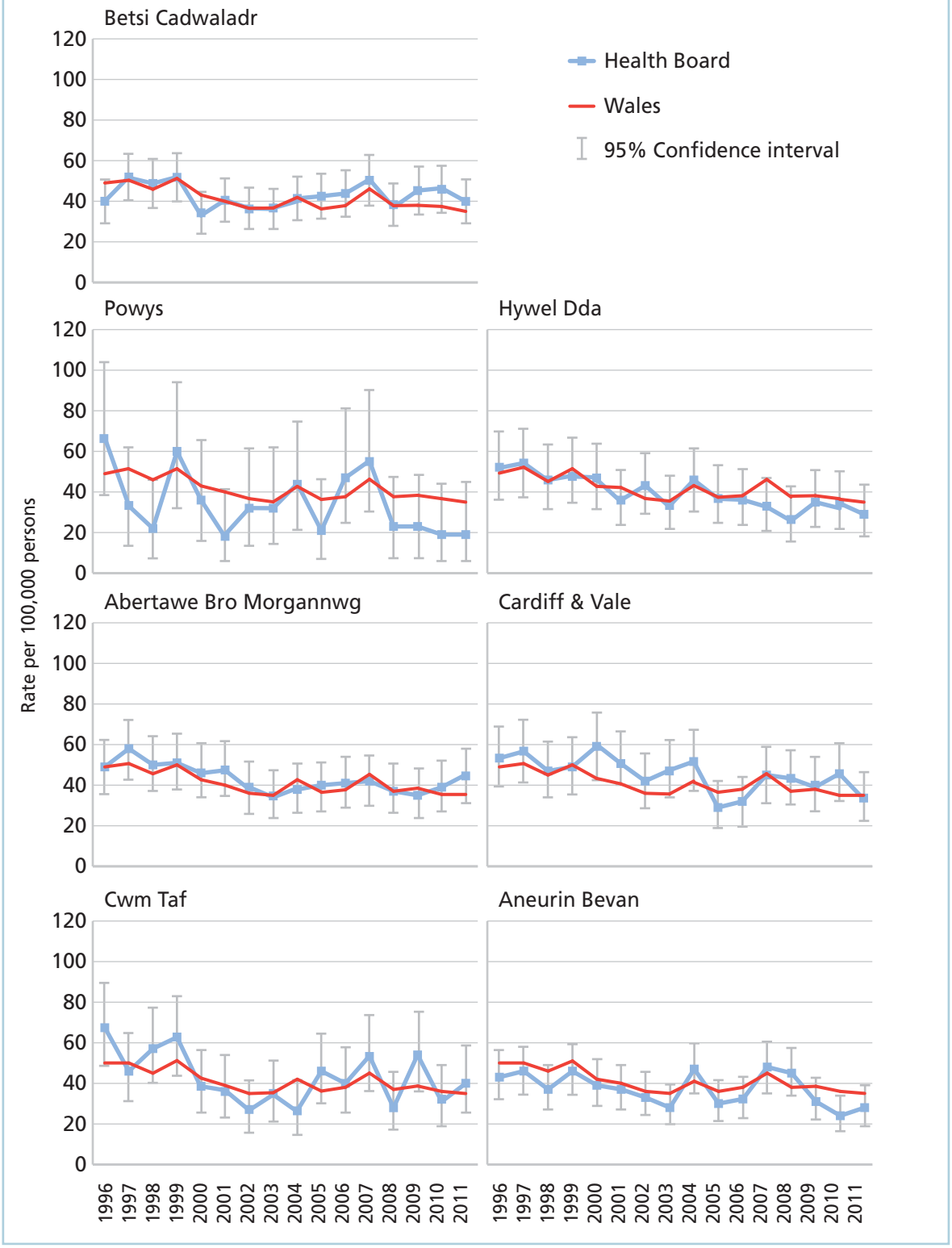
**Figure 3** Trend in child deaths, three year rolling rate per 100,000 persons under 18 years, by age group, Wales, 1996-2011




Produced by the Public Health Wales Observatory, using ADDE & MYE (ONS). *The scale of the y-axis is different for persons aged <1 compared to the other age groups. Rates should be interpreted with caution where there are a small number of events.

The overall trend for Wales shows some decline between 1996 and 2011; however, as before, much of this is seen in the early period, with little change in rates across the latest decade. Confidence intervals around rates of each health board can be wide; but the patterns are broadly similar (Figure 4).

**Figure 4** Trends in child deaths, rate per 100,000 persons aged under 18, Wales health boards, 1996-2011




Produced by the Public Health Wales Observatory, using ADDE & MYE (ONS). Rates should be interpreted with caution where there are a small number of events.

### 4.1.2 Deaths by cause

Over one third of child deaths (36%, 88 per year) were due to specific conditions originating in the perinatal period; congenital anomalies accounted for 13% (32 per year), external causes for 15% (38 per year) and unknown cause, including sudden infant death syndrome (SIDS), accounted for 9% (23). The remaining 27% relate largely to various medical and surgical conditions (Table 3).

During infancy the causes of these deaths are dominated by perinatal conditions (58%) and congenital anomalies (16%), with 13% due to SIDS, or some other unknown cause of death.

After infancy, the causes of death were dominated by other (largely medical and surgical conditions) and external causes. Together these account for 92% of deaths in the 5-11 and 12-17 year age groups. In the 12-17 year age group over half of deaths (53%, 26 per year) were due to external causes.

Other causes (66 deaths per year) relate to various medical/surgical conditions including diseases of the nervous system and neoplasms (Table 4).

**Table 3** Child deaths by cause, number and annual average, persons under 18 years, Wales, 2002-11

| | <1 | | 1-4 | | 5-11 | | 12-17 | | Total under 18 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number | Annual average | Number | Annual average | Number | Annual average | Number | Annual average | Number | Annual average |
| **Perinatal (P00-P96)** | 869 | 86.9 | 5 | 0.5 | 1 | 0.1 | 1 | 0.1 | 876 | 87.6 |
| **Congenital anomaly (Q00-Q99)** | 241 | 24.1 | 38 | 3.8 | 15 | 1.5 | 23 | 2.3 | 317 | 31.7 |
| **External (V01-Y98, U509)*** | 22 | 2.2 | 43 | 4.3 | 50 | 5.0 | 260 | 26.0 | 375 | 37.5 |
| **Ill-defined and unknown causes of mortality (R95-R99)** | | | | | | | | | | |
| SIDS (R95) | 73 | 7.3 | 4 | 0.4 | 0 | 0.0 | 0 | 0.0 | 77 | 7.7 |
| Other (R96-R99) | 122 | 12.2 | 14 | 1.4 | 3 | 0.3 | 14 | 1.4 | 153 | 15.3 |
| **Other (all other codes)** | 164 | 16.4 | 136 | 13.6 | 163 | 16.3 | 195 | 19.5 | 658 | 65.8 |
| **All causes** | 1491 | 149.1 | 240 | 24.0 | 232 | 23.2 | 493 | 49.3 | 2456 | 245.6 |

Produced by the Public Health Wales Observatory, using ADDE (ONS). * Code U509 from 2007 and code Y339 between 2002 and 2006

**Table 4** Other causes of child death, Wales, 2002-2011

| | Average annual number | Proportion of other deaths |
|---|---|---|
| **Diseases of the nervous system (G00-G99)** | 15.1 | 23% |
| **Neoplasms (C00-D48)** | 15.0 | 23% |
| **Diseases of the respiratory system (J00-J99)** | 8.2 | 12% |
| **Certain infectious and parasitic diseases (A00-B99)** | 8.1 | 12% |
| **Diseases of the circulatory system (I00-I99)** | 6.9 | 10% |
| **Endocrine, nutritional and metabolic diseases (E00-E90)** | 4.6 | 7% |
| **Alternative causes** | 7.9 | 12% |
| **Total** | 65.8 | 100% |

Over two thirds (69%) of child deaths due to external causes were among those aged 12-17 (Table 5).
Road traffic collisions accounted for 39% of all external cause deaths in children. Deaths of 12-17 years olds as a car occupant account for 43% of child road traffic deaths, and deaths of 12-17 years as pedestrians account for an additional 17% of the child road traffic deaths.

Intentional self harm accounted for typically four deaths per year.
In addition, (a) deaths in those aged 15 or over and classed as event of undetermined intent would be considered among suicide statistics and (b) some of those classed as accidental (especially hanging and strangulation) may also be suicide deaths (Office for National Statistics, 2013).
Assault accounted for an average of six deaths per year (Table 5).

**Table 5** Child deaths by external cause, by age group, persons aged under 18 years, Wales, 2002-2011

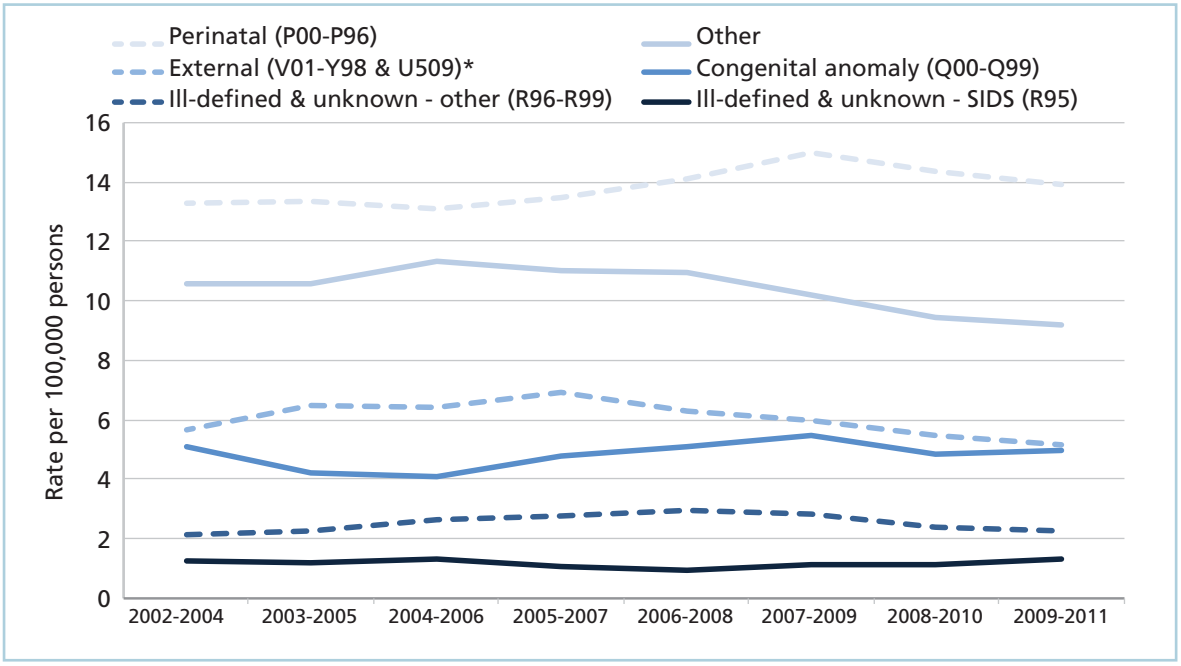
| | <1 | 1-4 | 5-11 | 12-17 | Total under 18 |
|---|---|---|---|---|---|
| **Transport Accident** | | | | | |
| Pedestrian (V01-V09) | 0 | 3 | 12 | 25 | 40 |
| Pedal cyclist (V10-V19) | 0 | 0 | 2 | 4 | 6 |
| Motorcycle (V20-V29) | 0 | 0 | 1 | 8 | 9 |
| Car passenger & unspecified (V40-V49*) | 2 | 3 | 4 | 41 | 50 |
| Car driver (V40-V49*) | 0 | 1 | 1 | 22 | 24 |
| Other & unspecified (V50-V99) | 0 | 0 | 5 | 13 | 18 |
| **Falls (W00-W19)** | 1 | 3 | 0 | 4 | 8 |
| **Exposure to inanimate mechanical forces (W20-W49)** | 0 | 5 | 1 | 6 | 12 |
| **Exposure to animate mechanical forces (W50-W64)** | 1 | 1 | 0 | 0 | 2 |
| **Accidental drowning and submersion (W65-W74)** | 1 | 4 | 3 | 10 | 18 |
| **Other accidental threats to breathing** | | | | | |
| Hanging & Strangulation (W75-W76) | 1 | 1 | 1 | 16 | 19 |
| Other (W77-W84) | 5 | 2 | 1 | 3 | 11 |
| **Exposure to smoke, fire and flames (X00-X09)** | 0 | 5 | 4 | 3 | 12 |
| **Exposure to forces of nature (X30-X39)** | 0 | 0 | 0 | 1 | 1 |
| **Accidental poisoning by and exposure to noxious substances (X40-X49)** | 0 | 0 | 1 | 8 | 9 |
| **Accidental exposure to other and unspecified factors (X58-X59)** | 1 | 1 | 2 | 2 | 6 |
| **Intentional self-harm** | | | | | |
| Hanging & Strangulation (X70) | 0 | 0 | 0 | 31 | 31 |
| Other (X60-X69, X71-X84) | 0 | 0 | 0 | 10 | 10 |
| **Assault (X85-Y09, Y339, U509)**** | 5 | 11 | 10 | 33 | 59 |
| **Event of undetermined intent** | | | | | |
| Hanging & Strangulation (Y20) | 0 | 0 | 1 | 13 | 14 |
| Other (Y10-Y19, Y21-Y34 excl Y339) | 3 | 1 | 0 | 6 | 10 |
| **Complications of medical and surgical care (Y40-Y84)** | 2 | 2 | 1 | 1 | 6 |
| **All external causes (V01 - Y98, U509)**** | 22 | 43 | 50 | 260 | 375 |

Produced by the Public Health Wales Observatory, using ADDE (ONS). * 4th digit for ICD-10 = 0 or 5 for car driver, 1-4 & 6-9 for car passenger and unspecified. ** Code U509 from 2007 and code Y339 between 2002 and 2006

The trends over the last decade show little change in most causes of death, but suggest a slight downward pattern for deaths from the various other, largely medical and surgical, conditions (Figure 5).

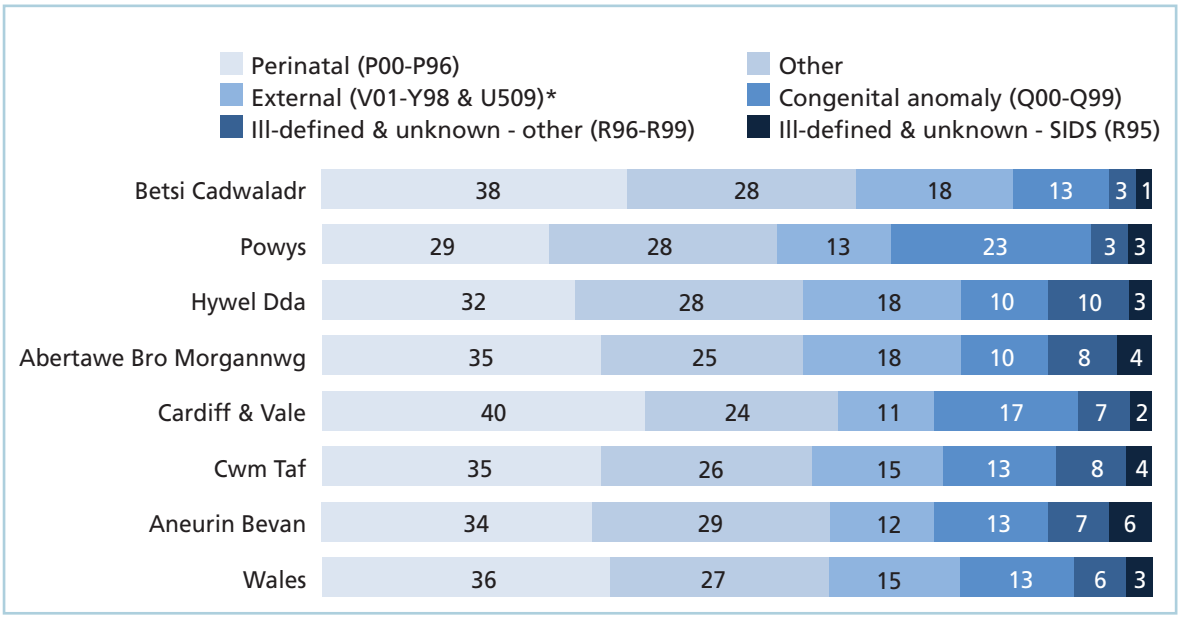
Patterns of cause of death by area are broadly similar across health boards (Figure 6). Proportions of death by cause should be interpreted in conjunction with the death rates by cause in each area and the relevant confidence intervals (Appendix E).

**Figure 5** Trend in deaths by cause, three year rolling rate per 100,000 persons aged under 18 years, Wales, 2002-2011




Produced by the Public Health Wales Observatory, using ADDE & MYE (ONS). SIDS: Sudden Infant Death Syndrome *Code U509 from 2007 and code Y339 between 2002 and 2006.

**Figure 6** Child deaths, percentage by cause, Wales health boards, 2002-2011




Produced by the Public Health Wales Observatory, using ADDE (ONS). Percentages should be interpreted with caution where there are a small number of events and their sum will not always be 100 due to rounding. SIDS: Sudden Infant Death Syndrome *Code U509 from 2007 and code Y339 between 2002 and 2006.

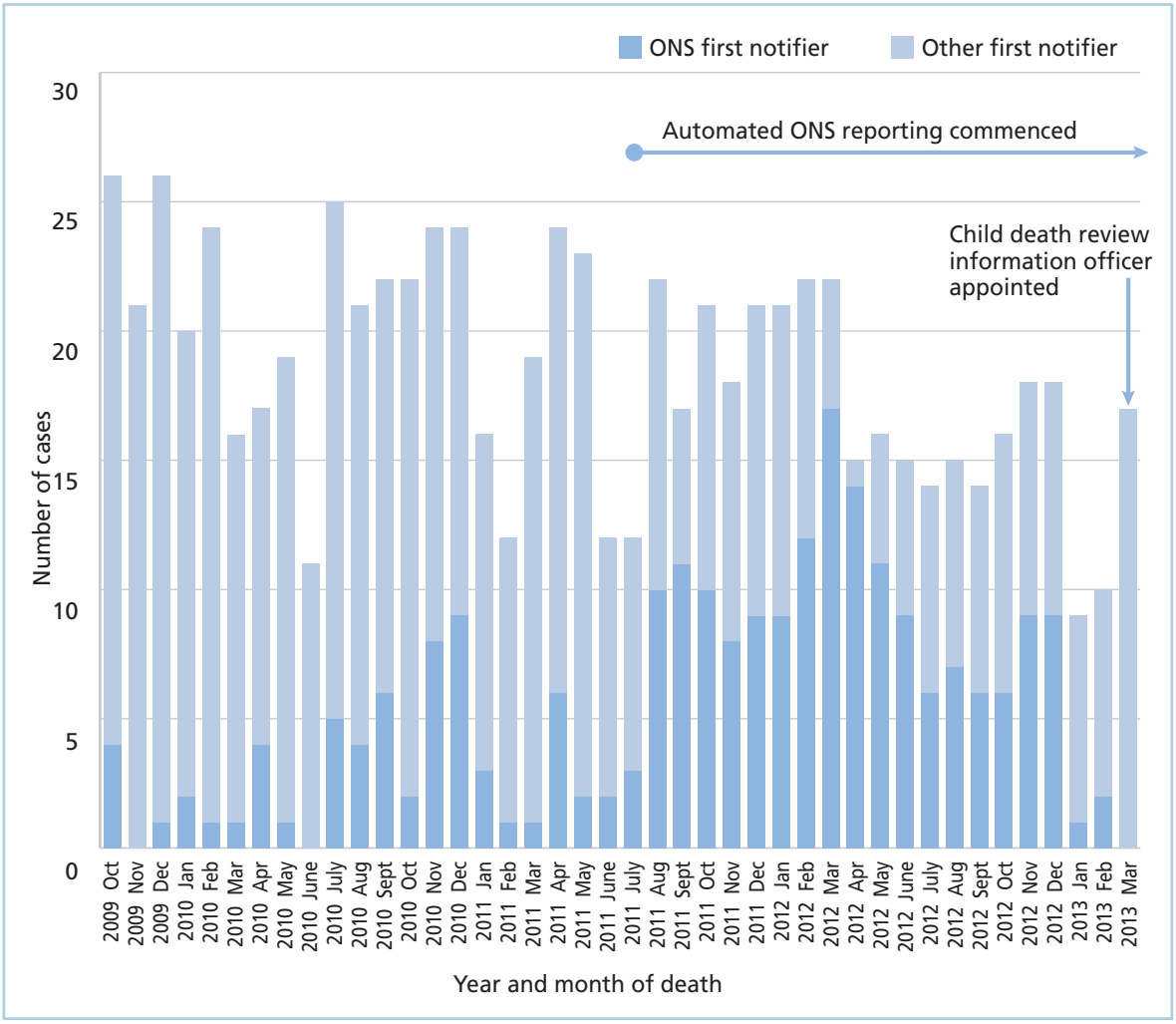
## 4.2 Child death review database

The Child Death Review Programme is supported by a child death database. This is based on multiple sources of notification to enable timely and complete reporting of cases. As part of the re-establishment of the Child Death Review Programme, the database is being reviewed.

Since August 2011 the database has received direct reports from the Office for National Statistics (Figure 7). This has meant a considerable rise in the number of cases on the database which are first reported through an ONS notification. This has coincided with a time when the programme was in transition; after the pilot but before the re-establishment of the Child Death Review programme and team.

Notifications from ONS are often substantially delayed from time of death; this is typically of the order of several months, and may be years, where there has been an inquest. In the most recent months of data, information on deaths has been almost entirely due to notifications from sources other than ONS. The appointment of an information officer has assisted improving data timeliness in this recent period Figure 7.

**Figure 7** Notifications to the child death database by source of first notification, deaths October 2009-March 2013




Source: Child Death Database, Wales, data extract 24.4.2013

# 5 Thematic reviews

## 5.1 Deaths of teenagers in motor vehicles 2006-2010

In the early part of 2013 the Child Death Review Programme undertook a review of deaths of teenagers in motor vehicles between 2006 and 2010. This involved reviewing 28 crashes, leading to 90 casualties and 45 deaths, of which 34 were among teenagers aged 13 to 17 years. (Jones, Heatman, & Humphreys, 2013)[1].

The review concluded, based on the data, an evidence review, and the expertise of the panel[2]:

- Loss of control was a critical factor in many of these crashes (recorded in 13 of 28 crash reports). This is likely to relate to a lack of driving experience and inappropriate speeds.
- Failure to wear a seatbelt was a modifiable factor in the deaths of these children and young people. At least 16 of the 34 teenagers who died were not wearing seat belts. This was a particular issue with back seat passengers.
- Of the vehicles in which there were fatalities, the driver was over the legal blood alcohol limit in five of the 22 cases, making alcohol consumption by the driver a modifiable factor.
- Around half (22) of all of the 45 deaths, and 13 of the 34 teen deaths, were in vehicles with five or six casualties.
- Driving at night was a key factor in these deaths; 19 of 28 crashes occurred between 21:00 and 05:00.
- There was evidence of defects in only 3 of 22 vehicles.

Ten recommendations were made by the review panel relating to:

- Partnership working.
- Welsh Government intervention for changes to licensing of young drivers.
- Development of a mechanism for regular review of road crash deaths.
- Support for continued implementation of procedural response to unexpected death in childhood.
- Recognition of the value of, and support for, enforcement by Roads Policing Units.
- Review of data collected by the Welsh Ambulance Service Trust.
- Delivery of a public awareness campaign to highlight the risks to young people.

1 The full review is available at http://www.wales.nhs.uk/sitesplus/888/page/44351. 2 Numbers shown relate to where information is available.

- Further research into possible interventions.
- Improvements in information sharing processes and the need to create legislation to enable the Child Death Review Team to obtain information more easily.
- Considering the findings of this review alongside the evaluation of Pass Plus Cymru.

## 5.2 Pilot thematic reviews

Between 2009 and 2011, the CDR team undertook a number of thematic reviews as part of the pilot including:

- Young people taking their own life: an audit of suicide and events of undetermined intent in young people.
- An audit of sudden unexpected death in infancy where overlaying or co-sleeping were possible factors.
- An audit and review of asthma deaths of children in Wales.
- Review of child deaths on quad bikes or miniature motorbikes (mini-motos) in the United Kingdom.
- A review of child deaths from firearms in Great Britain.

**The reviews were not formally published; however, in order to share the learning from these reviews, a summary of each follows.**

### 5.2.1 Young people taking their own life

The review identified that many of these young people had several factors in common. The panel noted that in the majority of cases one or more of the following factors were present:

- Social deprivation.
- Self-harming behaviour.
- A personal history of child abuse or neglect.
- Drugs and alcohol use.
- Bullying.
- Social connections to other suicide victims.

The review concluded that:

- Events where children and young people die either from suicide or undetermined intent should be investigated fully and lessons from the death learned.
- Young people who have attempted suicide need a co-ordinated service. They deserve a multi-disciplinary and multi-agency discussion. The development of a triage tool, using the risk factors outlined above, would be a valuable addition to clinical management.
- Suicide can be a consequence of abuse in young people; particularly sexual abuse and emotional abuse. Suicide must be considered a significant factor in the risk assessment of abused young people.
- Bullying is a well recognised cause of mental distress in children and young people. Implementation and compliance with firm anti-bullying school policies can prevent bullying. Bullying needs to be recognised as part of the risk assessment for suicide in children and young people, particularly if they have any of the other concerning factors listed above.
- Self-harm can precede suicide, particularly in girls and young women. Self-harm needs to be recognised as part of the risk assessment for suicide in children and young people, particularly if they have any of the other concerning factors listed above.

- There was cause for concern about the number of young men who kill themselves either without obvious precipitating features or after what could be perceived as a minor disagreement. They are more likely to use a violent method of suicide such as hanging. Careful consideration needs to be given to a public health campaign to discourage this.

The review posed a number of questions arising from the work. These questions, together with the findings of the panel, were discussed in a multi-agency, multi-sectoral workshop in March 2011. The workshop report was submitted to the Welsh Government in July 2011 for consideration.

Following discussion with the Welsh Government and the Child Death Review Steering Group, the programme plans to revisit this theme for the next review.

### 5.2.2 An audit of sudden unexpected death in infancy where overlaying or co-sleeping were possible factors

After considering published literature, the panel endorsed the following advice from the Welsh Government:

*"Never sleep with your baby on a sofa or armchair. The safest place for your baby to sleep is in a crib or cot in a room with you for the first six months.*

*It's especially dangerous for your baby to sleep in your bed if you (or your partner):*

- *are a smoker, even if you never smoke in bed or at home*
- *have been drinking alcohol*
- *take medication or drugs that make you drowsy*
- *feel very tired*
- *or if your baby was born before 37 weeks or weighed less than 2.5kg (5½ lbs) at birth."*

The panel concluded that:

- The research evidence points to the dangers of co-sleeping, particularly when associated with smoking, recent parental use of alcohol or drugs or baby being under three months old.
- Sleeping on a sofa is particularly dangerous for babies, with or without their carer.
- Breast-feeding mothers should be advised to feed their baby in bed (rather than on a sofa or armchair) and then put the baby back in the cot next to the parental bed.
- A public health campaign should be introduced to encourage safe sleeping practices. This should include a media campaign. It should also include a way of providing cots to especially needy families.

### 5.2.3 An audit and review of asthma deaths of children in Wales

Asthma is now a treatable condition in children and therefore deaths of children from asthma are a cause for concern.

The panel reviewed medical literature and commissioned an audit of life-threatening asthma in children. They made the following recommendations in the form of an action plan for care of children with asthma in Wales:

- Children who have asthma which is bad enough to require paediatric intensive care or high dependency care need special attention and warrant a paediatric respiratory specialist review. The concept of the Difficult Asthma Service has merit.[3]
- The clinic should have access to psychologist/psychiatrist help to aid compliance together with experienced nursing support.
- Children with severe asthma, bad enough to go to intensive care or have frequent high dependancy unit attendance, should contact 999 when they have an attack.
- Parents should be made fully aware of the dangers of severe asthma as a potentially lethal condition.
- Schools in Wales should have a health care plan for children with severe asthma.

### 5.2.4 Review of child deaths on quad bikes or miniature motorbikes (mini-motos) in the United Kingdom

Quad bikes are four-wheeled all-terrain vehicles (ATVs) with handlebars supporting the controls and a saddle similar to those on motorcycles. A quad bike's engine varies between 50cc and 650cc, according to the model. It is not against the law for children to ride quad bikes for leisure on private land, but it is illegal for children under 13 to use them for work purposes. Mini-motos are miniature, petrol-driven motorcycles and scooters which can reach speeds of up to 60 miles per hour. The only place that under 16s can ride a mini moto is on private land but they must have the permission of the land owner.

Literature on the deaths of children and young people from across the UK as the result of accidents on quad bikes and mini-motor bikes was reviewed. It was concluded that the numbers of children dying in this way was clearly a cause for concern. Research from New Zealand was cited which concluded that:

*"ATVs are potentially lethal and have the capacity to inflict significant harm. It is clear that it is not appropriate for a young child to ride an adult sized ATV due to the risk of serious injury and death. Public debate is needed as to whether education or legislation is the answer."*

The road safety charity Brake recommends:

- a law to ban children of all ages from riding mini-motorbikes or trail bikes;
- a law restricting quad bike use to older children on certified tracks, and for a minimum age to be determined following consultation with safety agencies.

3 See BTS/Sign clinical guideline (BTS/SIGN, 2012, p. 83).

### 5.2.5 Review of child deaths from firearms in Great Britain

The pilot team reviewed the literature and the deaths of children and young people as a result incidents (including accidents, suicides and murders) involving firearms from across Great Britain. Despite government figures reporting a reduction in firearm offences and deaths across all ages, the report showed that the number of childhood deaths due to firearms remains static at around 7 per year.

There seemed to be three main areas of concern where there might be hope for further prevention:

- The availability and use of airguns in accidental death and suicide.
- The licensing of shotguns to young people allowing access for suicide attempts.
- The availability of guns to young people; particularly in Afro-Caribbean communities.

They concluded that:

- The cases of murder in this report were strongly associated with gang culture; it is vital to understand this subculture and consider interventions to halt the violence.
- Air guns are not subject to licensing and ownership by children remains controversial. The number of children accidentally killed by these weapons raises questions regarding whether firearm legislation should be more stringent.

Children and young people should not be able to have licences for shot guns.

# 6 References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# Appendix A

## Recommendations of the National Child Death Review Pilot

The following recommendations are included in the draft report of the National Child Death Review Pilot, submitted to the Welsh Government in October 2010.

**Recommendation 1** – We recommend that the Welsh Assembly Government formally endorse and support the continued development of an All Wales Child Death Review with information being collated by a centrally organised NCDR [National Child Death Review] Team.

**Recommendation 2** – The National Child Death Review Team should be housed within Public Health Wales and it should consist of

- Clinical Lead: (up to 0.4 WTE sessions) this could be done on a consultancy basis to guide the collation of information, review the literature, Chair the panels, and produce reports.
- Programme Manager (1.0 WTE) – The role would ensure the project is managed and developed; engagement with stakeholders; presentations to highlight the findings of the National Child Death Review Team; Development of training package and delivery of training; provision of information to organisations to aid in the undertaking of local reviews.
- Support Officer (1.0 WTE) – The purpose of the role would be to undertake the secretarial support to the National panel; support the Manager in administrative tasks, input data into the National database.
- Safeguarding Children link

**Recommendation 3** – The Welsh Assembly Government should grant statutory legislation to enable the sharing of information between agencies in relation to the death of a child, and such information should be made available to the NCDR Team to facilitate the identification of preventable factors to enable recommendations to be published.

**Recommendation 4** – The Welsh Assembly Government should support the continuation of multiple ascertainments.

**Recommendation 5** – Notifications of child deaths by Registrars should be provided direct to the National Child Death Review Team.

**Recommendation 6** – There should be continued work with Coroners to improve the notification process and sharing of information with the National CDR [Child Death Review] team as an interested party.

**Recommendation 7** – The process of thematic review of child deaths in Wales should be continued. We believe it has given focus to our deliberations and has enabled us to collate information on cases throughout Wales. It also has enabled us to review the literature on particular causes of death in children. We believe it has real advantages over a purely local review such as is undertaken in England.

**Recommendation 8** – The National Child Death Review Team through Public Health Wales should publish an annual review of child deaths in Wales commencing in 2010.

**Recommendation 9** – The Welsh Assembly Government should seek to publish the "PRUDiC" document as the over-arching process for responding to unexpected deaths in children. To ensure the successful implementation of the PRUDiC the Welsh Assembly Government should task:

1. Local Health Boards to establish the position of a PRUDiC Practitioner with responsibility to lead within health on the child death review process by April 2011.

2. Police Constabulary with the identification of a lead Officer/s with responsibility to ensure the PRUDiC process is implemented and operated appropriately.

It is important that the PRUDiC is introduced and implemented as a strategy to underpin the National Child Death Review. The National Child Death Review Team would be instrumental in the development of a training package and provision of training and implementation of the PRUDiC across Wales.

In addition a Multi-agency Training programme should be developed, resourced and delivered to frontline staff and key professionals to support successful implementation of the PRUDiC.

**Recommendation 10** – The Welsh Assembly Government should task Local Safeguarding Children Boards to identify the key individual with responsibility for the child death review process.

The LSCBs are the key body responsible for the safeguarding of children within their locality.

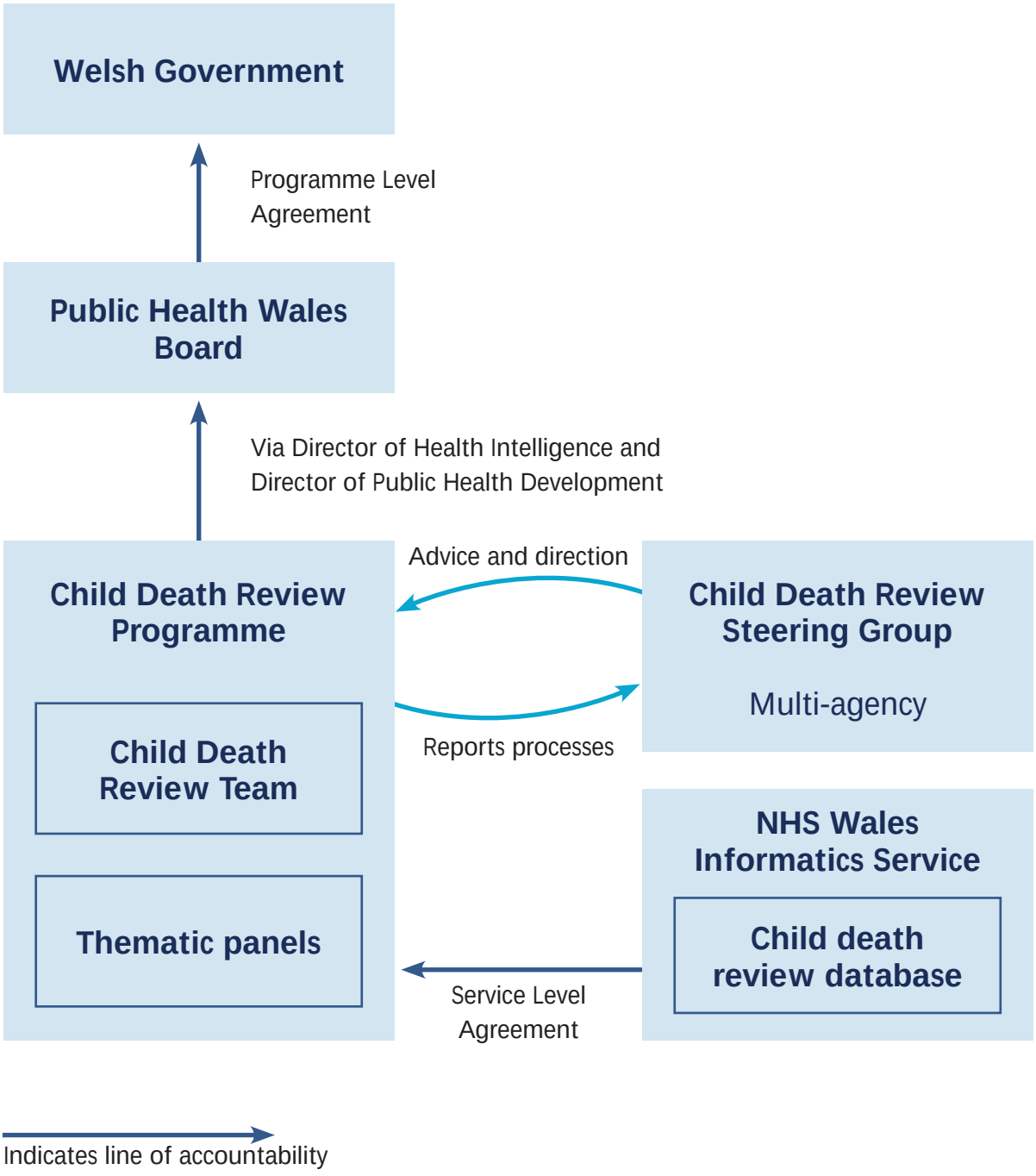
# Appendix B

## Child Death Review Steering Group Membership

| Body | Role | Name |
|---|---|---|
| Public Health Wales | Chair of Steering Group and link to Public Health Wales Board | Judith Greenacre |
| | Safeguarding Children service: advice on safeguarding aspects of work | Rhiannon Beaumont Wood |
| | Advice on use of data and information governance | Nathan Lester |
| | Communications advice | Anna Humphries |
| Welsh Government | Health policy advice | Heather Payne |
| | Social care policy advice | Stephen Gear |
| Local Safeguarding Children Boards | Local safeguarding perspective | Pauline Galluccio (Powys Teaching Local Health Board) |
| | | Liz Best (Newport Local Authority) |
| Police | Police perspective | DCI Shane Williams |
| Health board | Health service perspective | Mandy Rayani (Cardiff & Vale Health Board) |
| Children in Wales | Voluntary / third sector perspective | Karen McFarlane |
| Office of Children's Commissioner | Children's Commissioner perspective | Andrew Wallsgrove |
| Academic unit | Academic and research perspective | Shantini Paranjothy |
| Child Death Review in England | To be sought | |
| Coroners | An open invitation to remain in place | |
| **In attendance** | | |
| Public Health Wales: Child Death Review Team | Programme manager | Beverley Heatman |
| | Public Health Lead | Ciarán Humphreys |
| | Clinical Lead | Lorna Price |
| | Information officer and administrative support | Gillian Hopkins |

# Appendix C

## Lines of accountability



# Appendix D Child Death Notification Form

GIG CYMRU NHS WALES | Iechyd Cyhoeddus Cymru Public Health Wales

## Child Death Review Project Wales
### Child Death Notification Form

## A. REPORTING DETAILS: (Your Details)

| | | | |
|---|---|---|---|
| Date of Completion | | Your agency e.g. LSCB, health, police | |
| Full name & role | | | |
| E-mail address | | Tel. No | |
| Your address | | | |

## B. CHILD'S DETAILS

| | | | |
|---|---|---|---|
| Full name of child | | | |
| Date of birth | | NHS No. | |
| Address | | | |
| Postcode | | Sex | Male ☐ Female ☐ |

## C. DETAILS OF THE DEATH

| | | | |
|---|---|---|---|
| Date of death | | Expected ☐ | Unexpected* ☐ If unexpected follow PRUDiC |

Cause of death

| | | | |
|---|---|---|---|
| ☐ Neonatal | ☐ Accidental Poisoning | ☐ Substance Misuse | ☐ Known Life Limiting condition |
| ☐ Accidental Drowning | ☐ Accident Fire & Burns | ☐ Apparent Suicide | ☐ Apparent Homicide |
| ☐ other non intentional accident | ☐ Medical Death – not known life limiting condition | ☐ Sudden Infant Death | |
| ☐ Road Traffic Accident – Pedestrian | ☐ Road Traffic Accident – Passenger | ☐ Road Traffic Accident - Driver | ☐ Road Traffic Accident - Rider |

Page 1 of 2

**Please provide details relating to the child's death:**

## D. NEXT STEPS

The completed form is to be sent to the National Child Death Review Team by:

| | |
|---|---|
| **Email:** | A password protected e-mail attachment to ChildDeath.Review@wales.nhs.uk |
| **Post:** | Single envelope marked as follows: National Child Death Review Team, Public Health Wales, 1st Floor Oldway Centre, 36 Orchard Street, Swansea. SA1 5AQ |
| **Tel:** | 01792 607524 or 01792 607411 |

# Appendix E

## Tables of registrations of child deaths, Wales

## Deaths from all causes, number and rate per 100,000 persons aged under 18 years, Wales, health boards and local authorities, 2002-2011

| | 2002 | | 2003 | | 2004 | | 2005 | | 2006 | | 2007 | | 2008 | | 2009 | | 2010 | | 2011 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | N | Rate | N | Rate | N | Rate | N | Rate | N | Rate | N | Rate | N | Rate | N | Rate | N | Rate | N | Rate | (95% CI) |
| Isle of Anglesey | 9 | 61.0 | 6 | 41.0 | 4 | 27.3 | 5 | 34.4 | 6 | 41.7 | 14 | 99.0 | 7 | 50.3 | 8 | 58.2 | 9 | 66.1 | 7 | 51.8 | (20.8 to 106.7) |
| Gwynedd | 10 | 39.9 | 10 | 40.5 | 11 | 45.1 | 11 | 45.8 | 11 | 46.1 | 16 | 67.4 | 9 | 38.0 | 6 | 25.3 | 9 | 37.9 | 9 | 38.0 | (17.4 to 72.2) |
| Conwy | 8 | 34.8 | 8 | 34.9 | 11 | 47.7 | 8 | 35.0 | 13 | 57.1 | 10 | 44.2 | 11 | 49.1 | 14 | 63.1 | 5 | 22.7 | 12 | 54.7 | (28.3 to 95.5) |
| Denbighshire | 9 | 43.4 | 8 | 38.7 | 8 | 39.0 | 10 | 49.2 | 7 | 34.7 | 11 | 54.8 | 6 | 30.0 | 14 | 70.8 | 7 | 35.6 | 5 | 25.6 | (8.3 to 59.8) |
| Flintshire | 10 | 29.1 | 14 | 41.1 | 14 | 41.2 | 12 | 35.6 | 17 | 51.0 | 10 | 30.1 | 12 | 36.3 | 12 | 36.6 | 16 | 49.1 | 9 | 27.6 | (12.6 to 52.4) |
| Wrexham | 6 | 21.0 | 6 | 21.2 | 11 | 39.0 | 14 | 49.7 | 8 | 28.3 | 10 | 35.3 | 9 | 31.6 | 9 | 31.5 | 17 | 59.4 | 13 | 44.7 | (23.8 to 76.5) |
| Powys | 9 | 32.5 | 9 | 32.5 | 12 | 43.1 | 6 | 21.6 | 13 | 47.0 | 15 | 54.7 | 6 | 22.0 | 6 | 22.4 | 5 | 18.9 | 5 | 19.1 | (6.2 to 44.5) |
| Ceredigion | 5 | 35.2 | 7 | 50.3 | 12 | 87.5 | 5 | 36.9 | 2 | 14.9 | 2 | 15.0 | 2 | 15.1 | 2 | 15.2 | 5 | 38.7 | 7 | 54.8 | (22.0 to 112.9) |
| Pembrokeshire | 12 | 45.9 | 8 | 30.4 | 13 | 49.4 | 9 | 34.3 | 10 | 38.2 | 9 | 34.6 | 6 | 23.1 | 9 | 35.2 | 9 | 35.6 | 7 | 27.9 | (11.2 to 57.5) |
| Carmarthenshire | 16 | 41.8 | 11 | 28.6 | 10 | 26.0 | 15 | 39.2 | 16 | 42.2 | 14 | 36.8 | 12 | 31.5 | 16 | 42.4 | 12 | 32.0 | 8 | 21.3 | (9.2 to 41.9) |
| Swansea | 21 | 44.2 | 16 | 33.9 | 14 | 29.8 | 21 | 44.9 | 21 | 44.9 | 16 | 34.2 | 17 | 36.3 | 15 | 32.0 | 14 | 30.0 | 21 | 44.9 | (27.8 to 68.6) |
| Neath Port Talbot | 10 | 33.6 | 7 | 23.5 | 18 | 60.7 | 10 | 33.8 | 13 | 44.3 | 11 | 37.7 | 14 | 48.3 | 11 | 38.2 | 11 | 38.7 | 10 | 35.4 | (17.0 to 65.2) |
| Bridgend | 10 | 33.7 | 14 | 47.0 | 8 | 26.9 | 10 | 33.6 | 9 | 30.3 | 17 | 57.2 | 9 | 30.4 | 11 | 37.6 | 16 | 55.2 | 15 | 51.9 | (29.0 to 85.6) |
| Vale of Glamorgan | 14 | 48.6 | 14 | 48.7 | 19 | 66.4 | 7 | 24.7 | 8 | 28.4 | 13 | 46.3 | 13 | 46.3 | 5 | 18.0 | 9 | 32.6 | 3 | 11.0 | (2.3 to 32.2) |
| Cardiff | 27 | 38.6 | 32 | 46.5 | 31 | 45.4 | 22 | 32.4 | 22 | 32.5 | 30 | 44.0 | 29 | 42.1 | 34 | 48.8 | 36 | 51.4 | 30 | 42.3 | (28.6 to 60.4) |
| Rhondda Cynon Taf | 15 | 28.0 | 17 | 32.0 | 14 | 26.6 | 29 | 55.6 | 21 | 40.7 | 29 | 56.8 | 13 | 25.6 | 25 | 49.5 | 17 | 33.9 | 20 | 39.9 | (24.4 to 61.7) |
| Merthyr Tydfil | 3 | 22.3 | 6 | 45.2 | 3 | 22.9 | 1 | 7.7 | 5 | 38.5 | 5 | 38.7 | 6 | 46.8 | 9 | 70.6 | 3 | 23.8 | 5 | 39.8 | (12.9 to 92.9) |
| Caerphilly | 12 | 29.2 | 9 | 22.0 | 20 | 49.0 | 12 | 29.7 | 19 | 47.4 | 22 | 55.2 | 18 | 45.3 | 16 | 40.3 | 14 | 35.3 | 10 | 25.3 | (12.1 to 46.5) |
| Blaenau Gwent | 3 | 18.2 | 4 | 24.8 | 8 | 50.4 | 4 | 25.6 | 4 | 25.8 | 9 | 58.8 | 8 | 53.0 | 7 | 47.3 | 2 | 13.8 | 8 | 55.8 | (24.1 to 110.0) |
| Torfaen | 8 | 37.0 | 10 | 46.8 | 7 | 33.3 | 5 | 23.9 | 6 | 28.9 | 9 | 43.8 | 11 | 54.1 | 5 | 24.9 | 1 | 5.0 | 7 | 35.3 | (14.2 to 72.8) |
| Monmouthshire | 4 | 20.8 | 4 | 20.7 | 9 | 45.8 | 1 | 5.1 | 4 | 20.5 | 9 | 46.4 | 3 | 15.6 | 2 | 10.5 | 1 | 5.3 | 4 | 21.2 | (5.8 to 54.4) |
| Newport | 19 | 55.3 | 11 | 32.3 | 18 | 53.4 | 18 | 53.8 | 9 | 27.0 | 12 | 36.2 | 18 | 54.1 | 10 | 30.2 | 13 | 39.2 | 7 | 21.1 | (8.5 to 43.4) |
| Betsi Cadwaladr | 52 | 35.5 | 52 | 35.8 | 59 | 40.8 | 60 | 41.8 | 62 | 43.4 | 71 | 49.9 | 54 | 38.1 | 63 | 44.8 | 63 | 44.9 | 55 | 39.2 | (29.5 to 51.0) |
| Powys | 9 | 32.5 | 9 | 32.5 | 12 | 43.1 | 6 | 21.6 | 13 | 47.0 | 15 | 54.7 | 6 | 22.0 | 6 | 22.4 | 5 | 18.9 | 5 | 19.1 | (6.2 to 44.5) |
| Hywel Dda | 33 | 42.0 | 26 | 33.0 | 35 | 44.6 | 29 | 37.2 | 28 | 36.1 | 25 | 32.3 | 20 | 25.9 | 27 | 35.3 | 26 | 34.4 | 22 | 29.1 | (18.3 to 44.1) |
| ABM | 41 | 38.3 | 37 | 34.7 | 40 | 37.6 | 41 | 38.7 | 43 | 40.7 | 44 | 41.6 | 40 | 37.9 | 37 | 35.3 | 41 | 39.4 | 46 | 44.3 | (32.4 to 59.1) |
| Cardiff and Vale | 41 | 41.5 | 46 | 47.1 | 50 | 51.6 | 29 | 30.1 | 30 | 31.3 | 43 | 44.7 | 42 | 43.3 | 39 | 40.1 | 45 | 46.1 | 33 | 33.6 | (23.2 to 47.1) |
| Cwm Taf | 18 | 26.8 | 23 | 34.7 | 17 | 25.9 | 30 | 46.0 | 26 | 40.3 | 34 | 53.2 | 19 | 29.9 | 34 | 53.8 | 20 | 31.9 | 25 | 39.9 | (25.8 to 58.9) |
| Aneurin Bevan | 46 | 34.6 | 38 | 28.8 | 62 | 47.3 | 40 | 30.8 | 42 | 32.5 | 61 | 47.6 | 58 | 45.4 | 40 | 31.6 | 31 | 24.6 | 36 | 28.6 | (20.0 to 39.6) |
| **Wales** | **240** | **36.5** | **231** | **35.3** | **275** | **42.2** | **235** | **36.3** | **244** | **37.9** | **293** | **45.7** | **239** | **37.3** | **246** | **38.7** | **231** | **36.5** | **222** | **35.1** | **(30.6 to 40.0)** |

Produced by the Public Health Wales Observatory, using ADDE & MYE (ONS). N = number of deaths. Rate = crude rate per 100,000 persons.
Rates should be interpreted with caution where there are a small number of events. CI = Confidence Interval.

## Deaths from all causes, annual average number and rate per 100,000 persons aged under 18 years, Wales, health boards and local authorities, 2002-2011

| | <1 year | | | 1-4 years | | | 5-11 years | | | 12-17 years | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Annual average | Rate (95% CI) | | Annual average | Rate (95% CI) | | Annual average | Rate (95% CI) | | Annual average | Rate (95% CI) | |
| Isle of Anglesey | 3.9 | 536.9 | (381.8 to 733.9) | 1.2 | 41.8 | (21.6 to 73.0) | 0.6 | 11.2 | (4.1 to 24.4) | 1.8 | 34.4 | (20.4 to 54.4) |
| Gwynedd | 5.7 | 452.3 | (342.6 to 586.0) | 1.3 | 25.2 | (13.4 to 43.0) | 1.2 | 12.8 | (6.6 to 22.3) | 2.0 | 24.3 | (14.8 to 37.5) |
| Conwy | 6.0 | 546.0 | (416.7 to 702.8) | 1.0 | 22.7 | (10.9 to 41.7) | 0.7 | 8.2 | (3.3 to 17.0) | 2.3 | 26.9 | (17.0 to 40.3) |
| Denbighshire | 4.8 | 472.8 | (348.6 to 626.8) | 0.9 | 22.3 | (10.2 to 42.4) | 1.0 | 13.2 | (6.3 to 24.2) | 1.8 | 24.0 | (14.2 to 37.9) |
| Flintshire | 7.9 | 459.4 | (363.7 to 572.5) | 1.6 | 23.2 | (13.2 to 37.6) | 1.6 | 12.6 | (7.2 to 20.5) | 1.5 | 12.4 | (7.0 to 20.5) |
| Wrexham | 6.2 | 386.9 | (296.6 to 496.0) | 0.9 | 14.4 | (6.6 to 27.3) | 1.5 | 13.9 | (7.8 to 22.9) | 1.7 | 17.4 | (10.1 to 27.8) |
| Powys | 5.0 | 400.7 | (297.4 to 528.3) | 1.0 | 19.2 | (9.2 to 35.4) | 0.8 | 7.6 | (3.3 to 15.0) | 1.8 | 17.5 | (10.3 to 27.6) |
| Ceredigion | 2.4 | 378.0 | (242.2 to 562.5) | 0.3 | 11.5 | (2.4 to 33.7) | 0.5 | 9.6 | (3.1 to 22.5) | 1.7 | 34.1 | (19.9 to 54.6) |
| Pembrokeshire | 5.8 | 468.3 | (355.6 to 605.3) | 0.8 | 15.6 | (6.8 to 30.8) | 0.4 | 4.0 | (1.1 to 10.3) | 2.2 | 23.0 | (14.4 to 34.8) |
| Carmarthenshire | 6.3 | 334.0 | (256.7 to 427.4) | 1.8 | 23.5 | (13.9 to 37.1) | 1.2 | 8.3 | (4.3 to 14.4) | 3.7 | 26.5 | (18.7 to 36.5) |
| Swansea | 10.1 | 398.7 | (324.7 to 484.5) | 2.5 | 25.1 | (16.3 to 37.1) | 1.7 | 9.5 | (5.5 to 15.2) | 3.3 | 20.0 | (13.8 to 28.1) |
| Neath Port Talbot | 6.5 | 436.6 | (336.9 to 556.4) | 1.3 | 22.0 | (11.7 to 37.6) | 1.2 | 10.9 | (5.6 to 19.0) | 2.5 | 23.3 | (15.1 to 34.4) |
| Bridgend | 6.8 | 443.5 | (344.4 to 562.3) | 0.9 | 14.8 | (6.8 to 28.1) | 0.4 | 3.6 | (1.0 to 9.1) | 3.8 | 35.7 | (25.2 to 48.9) |
| Vale of Glamorgan | 6.8 | 500.1 | (388.4 to 634.0) | 0.4 | 7.1 | (1.9 to 18.3) | 1.0 | 9.3 | (4.4 to 17.0) | 2.3 | 22.1 | (14.0 to 33.2) |
| Cardiff | 20.2 | 490.6 | (425.3 to 563.2) | 2.7 | 17.7 | (11.7 to 25.8) | 2.7 | 10.3 | (6.8 to 15.1) | 3.7 | 15.7 | (11.1 to 21.6) |
| Rhondda Cynon Taf | 12.5 | 447.2 | (372.3 to 533.0) | 1.4 | 12.9 | (7.0 to 21.6) | 2.1 | 10.7 | (6.6 to 16.4) | 4.0 | 21.8 | (15.6 to 29.7) |
| Merthyr Tydfil | 3.2 | 469.4 | (321.1 to 662.7) | 0.4 | 15.2 | (4.1 to 38.8) | 0.2 | 4.1 | (0.5 to 14.9) | 0.8 | 16.7 | (7.2 to 32.8) |
| Caerphilly | 8.9 | 419.0 | (336.5 to 515.6) | 1.7 | 20.1 | (11.7 to 32.2) | 1.5 | 9.8 | (5.5 to 16.2) | 3.1 | 21.7 | (14.7 to 30.8) |
| Blaenau Gwent | 3.6 | 474.1 | (332.0 to 656.3) | 0.4 | 13.3 | (3.6 to 34.1) | 0.6 | 10.5 | (3.8 to 22.8) | 1.1 | 18.7 | (9.4 to 33.5) |
| Torfaen | 4.9 | 471.6 | (348.9 to 623.4) | 0.4 | 9.8 | (2.7 to 25.0) | 0.5 | 6.4 | (2.1 to 14.9) | 1.1 | 14.3 | (7.1 to 25.6) |
| Monmouthshire | 2.7 | 310.9 | (204.9 to 452.3) | 0.2 | 5.5 | (0.7 to 19.8) | 0.4 | 5.4 | (1.5 to 13.8) | 0.8 | 10.9 | (4.7 to 21.4) |
| Newport | 8.9 | 495.4 | (397.9 to 609.6) | 0.9 | 12.8 | (5.9 to 24.3) | 1.4 | 10.9 | (5.9 to 18.2) | 2.3 | 19.5 | (12.4 to 29.3) |
| Betsi Cadwaladr | 34.5 | 464.8 | (417.0 to 516.5) | 6.9 | 23.3 | (18.1 to 29.4) | 6.6 | 12.1 | (9.4 to 15.5) | 11.1 | 21.6 | (17.8 to 26.0) |
| Powys | 5.0 | 400.7 | (297.4 to 528.3) | 1.0 | 19.2 | (9.2 to 35.4) | 0.8 | 7.6 | (3.3 to 15.0) | 1.8 | 17.5 | (10.3 to 27.6) |
| Hywel Dda | 14.5 | 385.7 | (325.5 to 453.9) | 2.9 | 18.9 | (12.6 to 27.1) | 2.1 | 7.1 | (4.4 to 10.8) | 7.6 | 26.7 | (21.0 to 33.4) |
| ABM | 23.4 | 421.2 | (369.0 to 478.8) | 4.7 | 21.4 | (15.7 to 28.5) | 3.3 | 8.2 | (5.6 to 11.5) | 9.6 | 25.4 | (20.5 to 31.0) |
| Cardiff and Vale | 27.0 | 493.0 | (435.9 to 555.4) | 3.1 | 14.9 | (10.1 to 21.1) | 3.7 | 10.0 | (7.1 to 13.8) | 6.0 | 17.7 | (13.5 to 22.7) |
| Cwm Taf | 15.7 | 451.6 | (383.7 to 528.1) | 1.8 | 13.3 | (7.9 to 21.0) | 2.3 | 9.4 | (6.0 to 14.1) | 4.8 | 20.8 | (15.3 to 27.5) |
| Aneurin Bevan | 29.0 | 440.2 | (391.0 to 494.0) | 3.6 | 13.7 | (9.6 to 19.0) | 4.4 | 9.0 | (6.5 to 12.0) | 8.4 | 17.9 | (14.3 to 22.1) |
| **Wales** | **149.1** | **444.7** | **(422.4 to 467.9)** | **24.0** | **18.1** | **(15.9 to 20.5)** | **23.2** | **9.5** | **(8.3 to 10.8)** | **49.3** | **21.2** | **(19.4 to 23.2)** |

Produced by the Public Health Wales Observatory, using ADDE & MYE (ONS). Rates should be interpreted with caution where there are a small number of events. CI = Confidence Interval.

## Deaths by cause (ICD-10), number and rate per 100,000 persons aged under 18 years, Wales, health boards and local authorities, 2002-2011

| | Perinatal (P00-P96) | | | Congenital anomaly (Q00-Q99) | | | External (V01-Y98, U509)* | | | Ill-defined and unknown causes of mortality (R95-R99) | | | | | | Other (all other codes) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | SIDS (R95) | | | Other (R95-R99) | | | | | |
| | N | Rate (95% CI) | | N | Rate (95% CI) | | N | Rate (95% CI) | | N | Rate (95% CI) | | N | Rate (95% CI) | | N | Rate (95% CI) | |
| Isle of Anglesey | 24 | 16.9 | (10.8 to 25.2) | 11 | 7.8 | (3.9 to 13.9) | 20 | 14.1 | (8.6 to 21.8) | 2 | 1.4 | (0.2 to 5.1) | 1 | 0.7 | (0.0 to 3.9) | 17 | 12.0 | (7.0 to 19.2) |
| Gwynedd | 37 | 15.4 | (10.8 to 21.2) | 10 | 4.2 | (2.0 to 7.6) | 20 | 8.3 | (5.1 to 12.8) | 1 | 0.4 | (0.0 to 2.3) | 2 | 0.8 | (0.1 to 3.0) | 32 | 13.3 | (9.1 to 18.8) |
| Conwy | 34 | 15.1 | (10.4 to 21.0) | 16 | 7.1 | (4.1 to 11.5) | 24 | 10.6 | (6.8 to 15.8) | 2 | 0.9 | (0.1 to 3.2) | 1 | 0.4 | (0.0 to 2.5) | 23 | 10.2 | (6.5 to 15.3) |
| Denbighshire | 32 | 15.9 | (10.9 to 22.4) | 13 | 6.5 | (3.4 to 11.0) | 13 | 6.5 | (3.4 to 11.0) | 2 | 1.0 | (0.1 to 3.6) | 3 | 1.5 | (0.3 to 4.4) | 22 | 10.9 | (6.8 to 16.5) |
| Flintshire | 52 | 15.6 | (11.6 to 20.4) | 13 | 3.9 | (2.1 to 6.7) | 17 | 5.1 | (3.0 to 8.2) | 1 | 0.3 | (0.0 to 1.7) | 5 | 1.5 | (0.5 to 3.5) | 38 | 11.4 | (8.1 to 15.6) |
| Wrexham | 44 | 15.5 | (11.2 to 20.8) | 13 | 4.6 | (2.4 to 7.8) | 11 | 3.9 | (1.9 to 6.9) | 0 | 0.0 | (0.0 to 1.3) | 3 | 1.1 | (0.2 to 3.1) | 32 | 11.2 | (7.7 to 15.9) |
| Powys | 25 | 9.2 | (5.9 to 13.5) | 20 | 7.3 | (4.5 to 11.3) | 11 | 4.0 | (2.0 to 7.2) | 3 | 1.1 | (0.2 to 3.2) | 3 | 1.1 | (0.2 to 3.2) | 24 | 8.8 | (5.6 to 13.1) |
| Ceredigion | 17 | 12.7 | (7.4 to 20.3) | 1 | 0.7 | (0.0 to 4.2) | 10 | 7.5 | (3.6 to 13.7) | 1 | 0.7 | (0.0 to 4.2) | 4 | 3.0 | (0.8 to 7.6) | 16 | 11.9 | (6.8 to 19.4) |
| Pembrokeshire | 30 | 11.6 | (7.8 to 16.5) | 8 | 3.1 | (1.3 to 6.1) | 9 | 3.5 | (1.6 to 6.6) | 4 | 1.5 | (0.4 to 4.0) | 12 | 4.6 | (2.4 to 8.1) | 29 | 11.2 | (7.5 to 16.1) |
| Carmarthenshire | 40 | 10.5 | (7.5 to 14.3) | 17 | 4.5 | (2.6 to 7.2) | 30 | 7.9 | (5.3 to 11.3) | 3 | 0.8 | (0.2 to 2.3) | 10 | 2.6 | (1.3 to 4.8) | 30 | 7.9 | (5.3 to 11.3) |
| Swansea | 61 | 13.0 | (9.9 to 16.7) | 19 | 4.1 | (2.4 to 6.3) | 25 | 5.3 | (3.4 to 7.9) | 9 | 1.9 | (0.9 to 3.6) | 14 | 3.0 | (1.6 to 5.0) | 48 | 10.2 | (7.5 to 13.6) |
| Neath Port Talbot | 38 | 13.0 | (9.2 to 17.9) | 11 | 3.8 | (1.9 to 6.7) | 19 | 6.5 | (3.9 to 10.2) | 5 | 1.7 | (0.6 to 4.0) | 10 | 3.4 | (1.6 to 6.3) | 32 | 11.0 | (7.5 to 15.5) |
| Bridgend | 46 | 15.6 | (11.4 to 20.8) | 9 | 3.0 | (1.4 to 5.8) | 31 | 10.5 | (7.1 to 14.9) | 1 | 0.3 | (0.0 to 1.9) | 8 | 2.7 | (1.2 to 5.3) | 24 | 8.1 | (5.2 to 12.1) |
| Vale of Glamorgan | 39 | 13.9 | (9.9 to 18.9) | 12 | 4.3 | (2.2 to 7.4) | 13 | 4.6 | (2.5 to 7.9) | 3 | 1.1 | (0.2 to 3.1) | 9 | 3.2 | (1.5 to 6.1) | 29 | 10.3 | (6.9 to 14.8) |
| Cardiff | 119 | 17.2 | (14.3 to 20.6) | 55 | 8.0 | (6.0 to 10.4) | 31 | 4.5 | (3.1 to 6.4) | 5 | 0.7 | (0.2 to 1.7) | 18 | 2.6 | (1.5 to 4.1) | 65 | 9.4 | (7.3 to 12.0) |
| Rhondda Cynon Taf | 63 | 12.2 | (9.4 to 15.6) | 24 | 4.7 | (3.0 to 6.9) | 31 | 6.0 | (4.1 to 8.5) | 8 | 1.6 | (0.7 to 3.1) | 17 | 3.3 | (1.9 to 5.3) | 57 | 11.1 | (8.4 to 14.3) |
| Merthyr Tydfil | 22 | 17.0 | (10.6 to 25.7) | 7 | 5.4 | (2.2 to 11.1) | 5 | 3.9 | (1.3 to 9.0) | 1 | 0.8 | (0.0 to 4.3) | 3 | 2.3 | (0.5 to 6.8) | 8 | 6.2 | (2.7 to 12.2) |
| Caerphilly | 46 | 11.5 | (8.4 to 15.3) | 15 | 3.7 | (2.1 to 6.2) | 26 | 6.5 | (4.2 to 9.5) | 12 | 3.0 | (1.5 to 5.2) | 10 | 2.5 | (1.2 to 4.6) | 43 | 10.7 | (7.7 to 14.4) |
| Blaenau Gwent | 17 | 11.1 | (6.4 to 17.7) | 10 | 6.5 | (3.1 to 12.0) | 8 | 5.2 | (2.2 to 10.3) | 3 | 2.0 | (0.4 to 5.7) | 3 | 2.0 | (0.4 to 5.7) | 16 | 10.4 | (6.0 to 16.9) |
| Torfaen | 26 | 12.6 | (8.2 to 18.5) | 10 | 4.8 | (2.3 to 8.9) | 8 | 3.9 | (1.7 to 7.6) | 3 | 1.5 | (0.3 to 4.2) | 6 | 2.9 | (1.1 to 6.3) | 16 | 7.8 | (4.4 to 12.6) |
| Monmouthshire | 14 | 7.3 | (4.0 to 12.2) | 5 | 2.6 | (0.8 to 6.0) | 3 | 1.6 | (0.3 to 4.5) | 1 | 0.5 | (0.0 to 2.9) | 2 | 1.0 | (0.1 to 3.7) | 16 | 8.3 | (4.7 to 13.5) |
| Newport | 50 | 14.9 | (11.1 to 19.7) | 18 | 5.4 | (3.2 to 8.5) | 10 | 3.0 | (1.4 to 5.5) | 7 | 2.1 | (0.8 to 4.3) | 9 | 2.7 | (1.2 to 5.1) | 41 | 12.2 | (8.8 to 16.6) |
| Betsi Cadwaladr | 223 | 15.6 | (13.6 to 17.8) | 76 | 5.3 | (4.2 to 6.7) | 105 | 7.4 | (6.0 to 8.9) | 8 | 0.6 | (0.2 to 1.1) | 15 | 1.1 | (0.6 to 1.7) | 164 | 11.5 | (9.8 to 13.4) |
| Powys | 25 | 9.2 | (5.9 to 13.5) | 20 | 7.3 | (4.5 to 11.3) | 11 | 4.0 | (2.0 to 7.2) | 3 | 1.1 | (0.2 to 3.2) | 3 | 1.1 | (0.2 to 3.2) | 24 | 8.8 | (5.6 to 13.1) |
| Hywel Dda | 87 | 11.2 | (9.0 to 13.9) | 26 | 3.4 | (2.2 to 4.9) | 49 | 6.3 | (4.7 to 8.4) | 8 | 1.0 | (0.4 to 2.0) | 26 | 3.4 | (2.2 to 4.9) | 75 | 9.7 | (7.6 to 12.2) |
| ABM | 145 | 13.7 | (11.6 to 16.2) | 39 | 3.7 | (2.6 to 5.0) | 75 | 7.1 | (5.6 to 8.9) | 15 | 1.4 | (0.8 to 2.3) | 32 | 3.0 | (2.1 to 4.3) | 104 | 9.8 | (8.0 to 11.9) |
| Cardiff and Vale | 158 | 16.3 | (13.8 to 19.0) | 67 | 6.9 | (5.3 to 8.8) | 44 | 4.5 | (3.3 to 6.1) | 8 | 0.8 | (0.4 to 1.6) | 27 | 2.8 | (1.8 to 4.0) | 94 | 9.7 | (7.8 to 11.8) |
| Cwm Taf | 85 | 13.2 | (10.5 to 16.3) | 31 | 4.8 | (3.3 to 6.8) | 36 | 5.6 | (3.9 to 7.7) | 9 | 1.4 | (0.6 to 2.6) | 20 | 3.1 | (1.9 to 4.8) | 65 | 10.1 | (7.8 to 12.8) |
| Aneurin Bevan | 153 | 11.9 | (10.1 to 13.9) | 58 | 4.5 | (3.4 to 5.8) | 55 | 4.3 | (3.2 to 5.6) | 26 | 2.0 | (1.3 to 3.0) | 30 | 2.3 | (1.6 to 3.3) | 132 | 10.2 | (8.6 to 12.1) |
| **Wales** | **876** | **13.6** | **(12.7 to 14.5)** | **317** | **4.9** | **(4.4 to 5.5)** | **375** | **5.8** | **(5.3 to 6.4)** | **77** | **1.2** | **(0.9 to 1.5)** | **153** | **2.4** | **(2.0 to 2.8)** | **658** | **10.2** | **(9.5 to 11.0)** |

Produced by the Public Health Wales Observatory, using ADDE & MYE (ONS). N = number. SIDS = Sudden infant death syndrome. Rates should be interpreted with caution where there are a small number of events. * Code U509 from 2007 and code Y339 between 2002 and 2006. CI = Confidence Interval.

## Deaths by external cause, number of persons aged under 18 years, Wales, health boards and local authorities, 2002-2011

| | Accidental | | | Intentional Self Harm | | Assault (X85-Y09, Y339, U509)* | Undetermined Intent | | Other External Causes (Y40-Y84, Y35-Y36 & Y85-Y89) | Total External Causes (V01-Y98, U509)* |
|---|---|---|---|---|---|---|---|---|---|---|
| | Transport accidents (V01-V99) | Hanging & Strangulation (W75-W76) | Other (W00-X59 excl. W75-W76) | Hanging & Strangulation (X70) | Other (X60-X84 excl. X70) | | Hanging & Strangulation (Y20) | Other (Y10-Y34 excl. Y20 and Y339) | | |
| Isle of Anglesey | 6 | 1 | 9 | 2 | 1 | 0 | 0 | 0 | 1 | 20 |
| Gwynedd | 11 | 2 | 2 | 0 | 0 | 4 | 0 | 1 | 0 | 20 |
| Conwy | 9 | 1 | 6 | 4 | 1 | 1 | 1 | 1 | 0 | 24 |
| Denbighshire | 6 | 1 | 1 | 2 | 0 | 3 | 0 | 0 | 0 | 13 |
| Flintshire | 5 | 0 | 5 | 1 | 0 | 5 | 1 | 0 | 0 | 17 |
| Wrexham | 4 | 0 | 3 | 1 | 1 | 2 | 0 | 0 | 0 | 11 |
| Powys | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 11 |
| Ceredigion | 5 | 0 | 1 | 2 | 0 | 1 | 0 | 1 | 0 | 10 |
| Pembrokeshire | 6 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 9 |
| Carmarthenshire | 15 | 0 | 9 | 0 | 1 | 3 | 1 | 1 | 0 | 30 |
| Swansea | 9 | 1 | 7 | 3 | 0 | 5 | 0 | 0 | 0 | 25 |
| Neath Port Talbot | 6 | 4 | 5 | 0 | 2 | 0 | 2 | 0 | 0 | 19 |
| Bridgend | 7 | 3 | 6 | 5 | 0 | 5 | 2 | 1 | 2 | 31 |
| Vale of Glamorgan | 7 | 0 | 1 | 3 | 0 | 0 | 2 | 0 | 0 | 13 |
| Cardiff | 5 | 0 | 8 | 3 | 2 | 10 | 2 | 1 | 0 | 31 |
| Rhondda Cynon Taf | 15 | 2 | 4 | 0 | 2 | 2 | 2 | 2 | 2 | 31 |
| Merthyr Tydfil | 1 | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 5 |
| Caerphilly | 8 | 2 | 6 | 1 | 0 | 9 | 0 | 0 | 0 | 26 |
| Blaenau Gwent | 6 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 8 |
| Torfaen | 0 | 0 | 1 | 2 | 0 | 4 | 0 | 0 | 1 | 8 |
| Monmouthshire | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Newport | 4 | 1 | 2 | 0 | 0 | 1 | 0 | 2 | 0 | 10 |
| Betsi Cadwaladr | 41 | 5 | 26 | 10 | 3 | 15 | 2 | 2 | 1 | 105 |
| Powys | 10 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 11 |
| Hywel Dda | 26 | 0 | 11 | 4 | 1 | 4 | 1 | 2 | 0 | 49 |
| ABM | 22 | 8 | 18 | 8 | 2 | 10 | 4 | 1 | 2 | 75 |
| Cardiff and Vale | 12 | 0 | 9 | 6 | 2 | 10 | 4 | 1 | 0 | 44 |
| Cwm Taf | 16 | 2 | 6 | 0 | 2 | 3 | 3 | 2 | 2 | 36 |
| Aneurin Bevan | 20 | 4 | 9 | 3 | 0 | 16 | 0 | 2 | 1 | 55 |
| **Wales** | **147** | **19** | **79** | **31** | **10** | **59** | **14** | **10** | **6** | **375** |

Produced by the Public Health Wales Observatory, using ADDE & MYE (ONS). * Code U509 from 2007 and code Y339 between 2002 and 2006.