

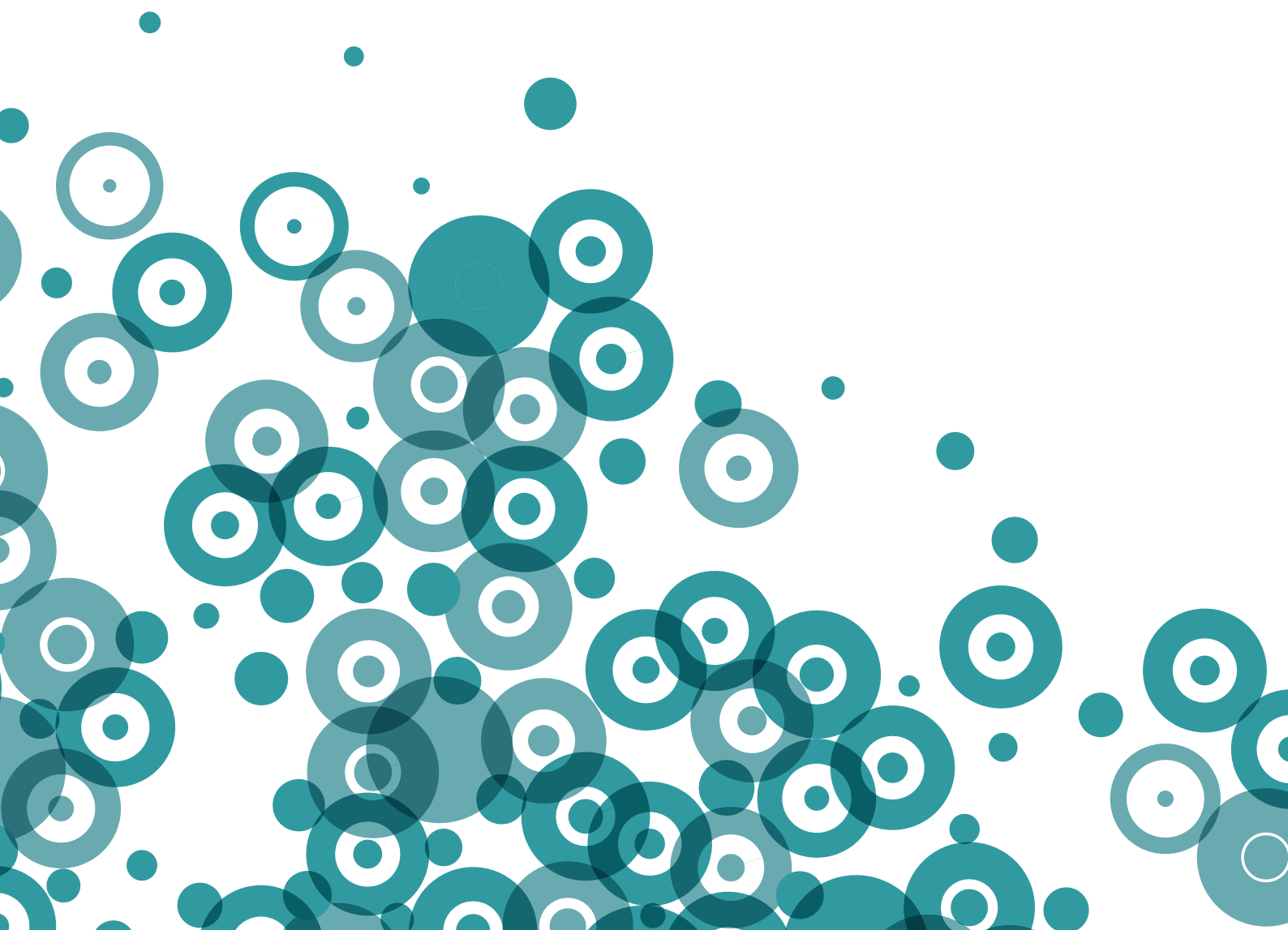


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Patterns and trends of child deaths in Wales, 2011–2020

Child Death Review Programme
April 2022



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TITLE: Patterns and Trends of Child Deaths in Wales, 2011-20

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1. Introduction

The Child Death Review Programme (CDRP) collects information on children (age under 18 years) who die where the child is either normally resident in Wales or dies within Wales.

This is the first report that describes patterns and trends of child deaths over a 10-year period using information from the programme.

2. Key points

- There were on average 197 deaths per year of Welsh resident children during 2011–2020.
- The child death rate in Wales has decreased over the long term, but has plateaued in the last 6 years, with the rate in 2020 being 28.9 per 100,000.
- The child death rate was 70% higher in the most deprived areas of Wales compared with the least deprived areas.
- Children from black and ethnic minority backgrounds appear to be over represented from the information available.
- For sudden unexpected deaths in infancy, parental alcohol use and co-sleeping where there are risk factors are a notable concern.
- Wales has a similar child death rate to the UK but has had a consistently significantly higher child death rate than Finland, Spain and Italy over the last 5 years.

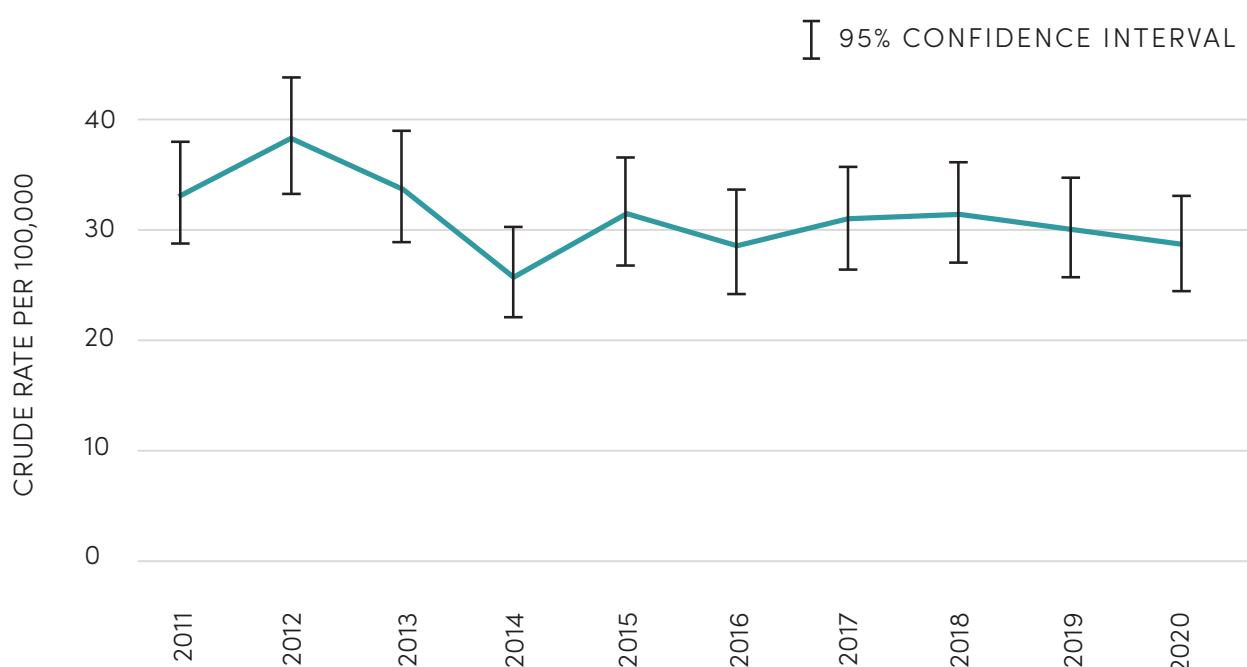
3. Child deaths in Wales

- The number of children aged 0–17 years in Wales is approximately 630,000.¹ There were around 29,000 live births in 2020.²
- From 2011–2020, 2,007 deaths of children between the ages of 0–17 years were notified to the Child Death Review Programme.
- 1,965 (98%) of these children were Welsh residents.
- The majority died in Wales but 238 (12%) died outside of Wales.
- 42 children who were non-Welsh residents died in Wales over the 10-year period.
 - Two thirds of the non-Welsh resident children were either neonates (11 children) or age 12–17 years (17 children).
 - There were twenty deaths from trauma/ non-intentional injury, with 7 of these being transport related and 8 due to drowning.

The analysis in this report will focus on the 1,965 Welsh-resident children. The child death rate per year has been similar during 2011–20 apart from a statistically significant difference (see glossary) between the rate in 2014 and 2012 (fig 1).

Long term trends of Office for National Statistics (ONS) data since 1996 (see appendix 1) show that prior to 2002 the crude death rate was 41–51 per 100,000 and then there was a gradual decline. Rates in the last 6 years have plateaued (28–31 per 100,000) (fig 1) and although they are statistically significantly lower than rates in 1996–2001, they are generally not statistically significantly lower than the rates in the early 2000s, with the exception of a small number of fluctuations.

Figure 1: Trend in death rate, crude rate per 100,000, children and young people aged 0–17 years, Wales, 2011–2020. *Produced by Public Health Wales Observatory, using CDR data (PHW) & MYE (ONS).*

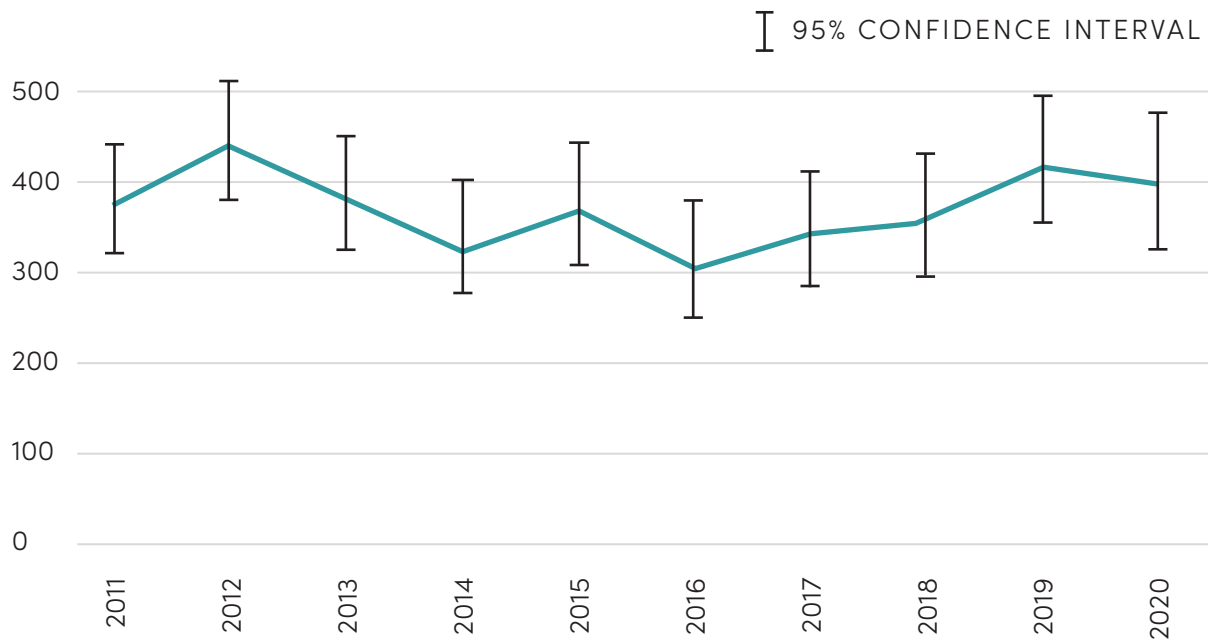


The infant mortality rate has been declining in England and Wales since 1980³ but the rate in Wales between 2011 and 2020 has stayed much the same (fig 2).

Key points:

- The child death rate has plateaued over last 6 years
- Although decreased in the long term, rates are not significantly different to rates 20 years ago

Figure 2: Trend in death rate, crude rate per 100,000, children aged under 1 years, Wales, 2011–2020. Produced by Public Health Wales Observatory, using CDR data (PHW) & Annual Live Births (ONS).



4. Years of life lost

Years of life lost (YLL) is a measure which calculates the number of years lost when a person dies prematurely (i.e. aged under 75 years) from any cause. Both the number of deaths and the age of the person at death are taken into account giving a greater weight to deaths at a younger age. Thus, YLL is useful in showing the impact of deaths in childhood. The annual average years of life lost for deaths in childhood in Wales is 13,618 (Table 1). An analysis of 2014–16 mortality data showed that the annual average years of life lost for people under 75 years for the leading cause of death, coronary heart disease, was 14,341.⁴ This illustrates the high impact of child deaths.

Table 1: Years of life lost, count, crude rate per 100,000 and average annual, children under 1 and under 18, Wales, 2011–2020. Produced by Public Health Wales Observatory, using CDR Data (PHW), PHM, PHB & MYE (ONS).

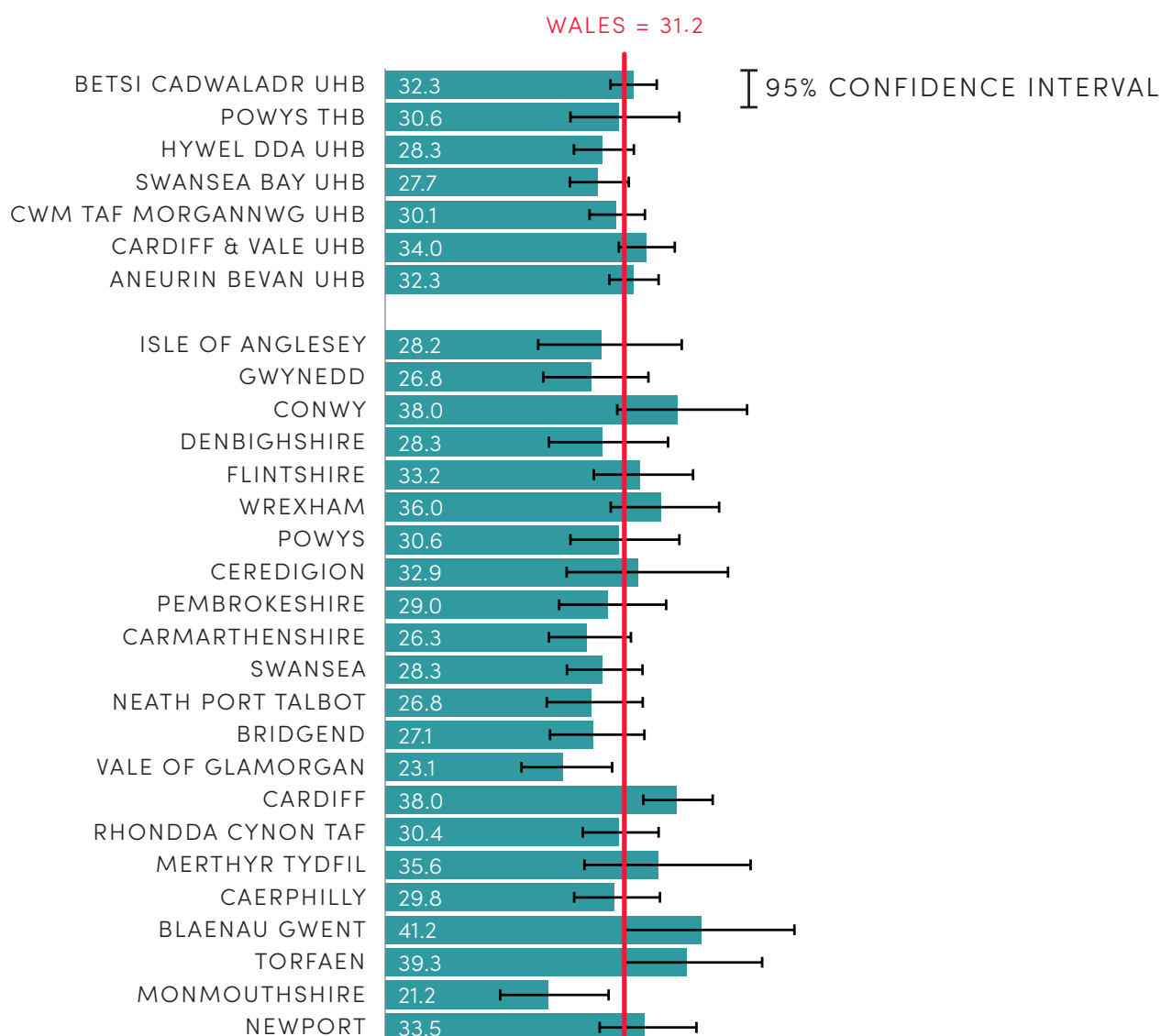
Age	Years of life lost		
	Total YLL	Average annual	Crude rate per 100,000 (95% Confidence Interval)
Under 1	90,592	9,059	27,777.5 (27,596.9 to 27,959.0)
Under 18	136,177	13,618	2,162.6 (2,151.2 to 2,174.1)

5. Child deaths by area

Monmouthshire and Vale of Glamorgan had the lowest rates of child death from 2011-20 (21.2 and 23.1 per 100,000 respectively); these were statistically significantly lower than the all Wales rate.

The highest rate was in Blaenau Gwent (41.2 per 100,000) but this was not statistically significantly different to the all Wales rate. Cardiff had a statistically significantly higher rate of child death at 38.0 per 100,000 (fig 3).

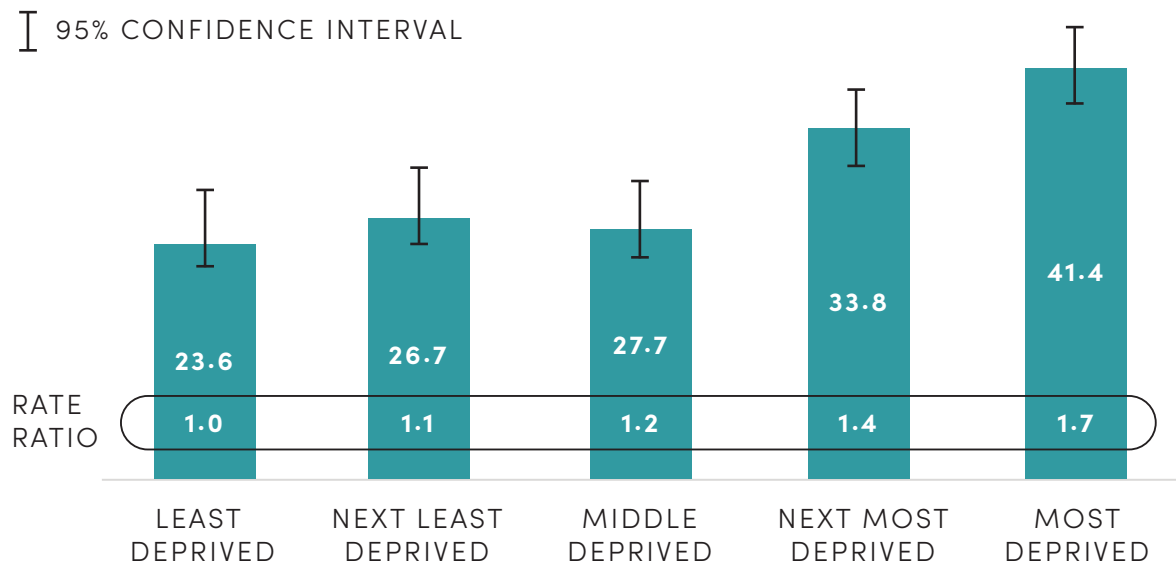
Figure 3: Mortality rate per 100,000 by Health board and local authority, children and young people aged under 18, 2011–2020. *Produced by Public Health Wales Observatory, using CDRP (PHW) & MYE (ONS).*



6. Child deaths by area deprivation

- The death rate in children from the most deprived areas was 70% higher than in children living in the least deprived areas, which is statistically significant (fig 4).
- For deaths from prematurity related conditions, the rate for children in the most deprived areas was double that of children in the least deprived areas, this was also statistically significant.
- The rate of Sudden Unexpected Death in Infancy in the most deprived areas was also double that of children in the least deprived areas but it did not reach statistical significance.

Figure 4: Deaths from all causes by deprivation fifth, crude rates per 100,000 and rate ratios*, children and young people aged under 18 years, Wales, 2011–2020. *Produced by Public Health Wales Observatory, using CDR data (PHW) & MYE (ONS), WIMD 2019 (WG).*



* RATE RATIOS COMPARED TO THE LEAST DEPRIVED FIFTH



Key point:

- The death rate in children from the most deprived areas was 70% higher than in children living in the least deprived areas

7. Child deaths by age and sex

Over half of all deaths occurred in the under 1 age group during the 10-year period, with the majority of these occurring in babies under 28 days of age. 41% of children were female and 59% were male. The most common causes of death are shown in Table 2.

Table 2: Common causes of death by age group, Wales, 2011–2020. *Produced by CDRP, Public Health Wales using CDRP data.*

Age group	Number of deaths	% of all deaths	Most common cause of death	Next most common cause of death
0–27 days	844	43%	Prematurity related conditions (46%)	Chromosomal, genetic and congenital anomalies (31%)
28 days to <1 year	376	19%	Chromosomal, genetic and congenital anomalies (31%)	Sudden unexpected death in infancy (30%)
1–4 years	220	11%	Chromosomal, genetic and congenital anomalies (29%)	Infection (18%)
5–11 years	199	10%	Medical (27%)	Cancer (24%)
12–17 years	326	17%	Probable/possible suicide (23%)	Trauma/non-intentional injury (21%)
Total	1,965		Chromosomal, genetic and congenital anomalies (26%)	Prematurity related conditions (23%)

✦ Key point:

- Almost half of deaths in 12–17 year olds are preventable

8. Child deaths by ethnicity

Ethnicity data were available from 2016–20 and ethnic group was recorded for 44% of children. It is not known whether the 56% of children who did not have ethnic group recorded were different from those who did have ethnic group recorded.

If they were not different, the figures show that there was an overrepresentation of children who died from Asian/Asian British, Black/Black British, Mixed ethnic group and Other ethnic groups, compared to Any White background (Table 3). However, the percentage of the population in each ethnic group at the time of the 2011 census may have changed by 2016–20, and may also be different for children.

Table 3: Child deaths by ethnic group, Wales, 2011–2020. *Produced by CDRP, Public Health Wales using CDRP data, 2011 Census (ONS).*

	% children	% population (2011 census) ⁵
Asian/Asian British background	6	2.3
Black/Black British background	3	0.6
Mixed ethnic background	3	1.0
Any White background	87	95.6
Other ethnic backgrounds	2	0.5



Key point:

- Children from black and ethnic minority backgrounds appear to be over represented in child death data from the information available

9. Child deaths by expectancy

Expectancy looks at whether a child's death was expected or unexpected. For babies who were born in hospital and died there (n=907, 46%), we do not have enough information to determine the expectancy, and expectancy can also be more difficult to determine in this group. More information will be available in the future for more detailed analysis when additional data sources are available.

For the other 1,058 babies and children, expectancy is determined based on the definition in the Procedural Response to Unexpected Death in Childhood (PRUDiC) guidance⁶. The PRUDiC should be followed for all unexpected deaths. Data on the number of PRUDiCs is available from 2016 onwards (Table 4). There were a further 11 PRUDiCs undertaken (appropriately) for babies who were born in hospital and died there.

Table 4: Child deaths by expectancy, Wales, 2011–2020. *Produced by CDRP, Public Health Wales using CDRP data.*

Expectancy	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Expected	25	14	26	17	31	34	36	37	31	32
Unexpected	67	88	86	59	69	72	75	71	63	58
PRUDiC undertaken for unexpected death						68	73	66	54	56
Born and died in hospital	106	119	86	81	91	72	81	86	94	91
Not known	11	17	13	7	6	3	3	4	2	1
Total	209	238	211	164	197	181	195	198	190	182

10. Child deaths by cause

The rate of death from each cause did not change significantly between 2011–15 and 2016–20 (Table 5).

Table 5: Child deaths by cause, Wales, 2011–2020. *Produced by CDRP, Public Health Wales using CDRP data, MYE (ONS).*

Cause of death	2011-20 number	Average annual	2011-15 Number, crude rate & 95% CI	2016-20 Number, crude rate & 95% CI	% of all deaths
Trauma/non-intentional injury	115	12	59 1.9 per 100,000 0-17yrs (1.4-2.4)	56 1.8 per 100,000 0-17yrs (1.3-2.3)	6
Deliberately inflicted injury, abuse or neglect	25	3	15 0.5 per 100,000 0-17yrs (0.3-0.8)	10 0.3 per 100,000 0-17yrs (0.2-0.6)	1
Probable/possible suicide	79	8	32 2.3 per 100,000 10-17yrs* (1.6-3.2)	47 3.4 per 100,000 10-17yrs* (2.5-4.5)	4
Sudden unexpected and unexplained death	170	17	100 3.2 per 100,000 0-17yrs (2.6-3.9)	70 2.2 per 100,000 0-17yrs (1.7-2.8)	9
Chromosomal, genetic and congenital anomalies	513	51	262 8.3 per 100,000 0-17yrs (7.3-9.4)	251 8.0 per 100,000 0-17yrs (7.0-9.0)	26
Prematurity related conditions	447	45	243 7.7 per 100,000 0-17yrs (6.8-8.7)	204 6.5 per 100,000 0-17yrs (5.6-7.4)	23
Other perinatal conditions	162	16	78 2.5 per 100,000 0-17yrs (2.0-3.1)	84 2.7 per 100,000 0-17yrs (2.1-3.3)	8
Medical	174	17	83 2.6 per 100,000 0-17yrs (2.1-3.3)	91 2.9 per 100,000 0-17yrs (2.3-3.6)	9
Infection	123	12	70 2.2 per 100,000 0-17yrs (1.7-2.8)	53 1.7 per 100,000 0-17yrs (1.3-2.2)	6
Cancer	138	14	62 2.0 per 100,000 0-17yrs (1.5-2.5)	76 2.4 per 100,000 0-17yrs (1.9-3.0)	7
Complications of medical and surgical care	7	1	4 0.13 per 100,000 0-17yrs (0-0.3)	3 0.10 per 100,000 0-17yrs (0-0.3)	<1
Other	1	<1	1	0	<1
Insufficient information	11	1	10	1	<1
Total	1965		1019	946	

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

*Rate is calculated by dividing the number of deaths in under 18 year olds by the population aged 10-17 years.

115 TRAUMA/ NON-INTENTIONAL INJURY

The most common trauma/
non-intentional injury deaths were
transport related (56 children, 49%).

Other causes include drowning (15),
poisoning (11), fire and burns (9),
threats to breathing (8) and other
causes (16).

25 DELIBERATELY INFLECTED INJURY, ABUSE OR NEGLECT

21 of the 25 deaths in this
category were deliberately
inflicted injuries or abuse and
of these, 8 were under one
year of age and 9 were aged
1-4 years.

There were four deaths
from neglect.

174 MEDICAL CAUSES

The majority (51%) of the 174
deaths from medical causes
were nervous system and
developmental conditions, such as
cerebral palsy or degenerative
neurological conditions.

Other causes included respiratory
conditions (16%) such as asthma or
chronic lung conditions, and
circulatory/cardiac conditions (14%)
such as intracerebral
haemorrhage and heart failure.

123 INFECTION

Of the 123 deaths from
infection, almost three
quarters (74%) occurred in
children under 5 years old.

This category does not
include antepartum infections
or early onset neonatal
infections (within first 7 days
of life). No deaths from
SARS-CoV-2 infection
(Covid-19) were reported
in 2020.

513 DEATHS FROM CHROMOSOMAL, GENETIC AND CONGENITAL ANOMALIES

Chromosomal, genetic and
congenital anomalies account for
just over a quarter of all child
deaths (26%). Almost three
quarters (74%) of children who
died from these conditions died in
the first year of life.

The **Congenital Anomaly Register
and Information Service (CARIS)**
— **Public Health Wales (nhs.wales)**
publishes comprehensive data on
chromosomal, genetic and
congenital anomalies in Wales.

170 SUDDEN UNEXPECTED AND UNEXPLAINED DEATHS

See page 10 for details.

79 PROBABLE/ POSSIBLE SUICIDE

Previous thematic reviews
published by the child death
review programme have looked
at probable suicides only.

The figures here include deaths
from probable suicide in
children age 10-17 years as well
as deaths from possible suicide
in children age 10-17 years and
deaths from self-harm in
children under 10 years (see
appendix 2 for definitions).

There were 79 deaths in total
over the ten year period:

- 67% were male
- 81% died by hanging,
suffocation or strangulation
- 11% were looked after children

- 20% had experienced household
domestic abuse
- 11% had experienced sexual
abuse or assault
- 43% had either been referred or
been under the care of Child and
Adolescent Mental Health
Services (CAMHS), previously or
at time of death
- 32% had a history of self-harm
- 10% had a family history
of suicide.

Deaths from probable/possible
suicide were monitored over the
Covid-19 pandemic. A rapid review
of 2021 deaths was undertaken
recently and a summary is shown
in appendix 3.

**1,965
DEATHS**
2011-2020

19 DEATHS FROM OTHER CAUSES

Complications of medical surgery (7),
other (1) and deaths which we have no
information on (11).

609 DEATHS FROM PREMATURITY RELATED CONDITIONS AND OTHER PERINATAL CONDITIONS

Prematurity related conditions
account for almost a quarter of all
child deaths (23%).

- 87% occur in the first 28 days
of life.
- 162 deaths from other perinatal
conditions including intrapartum
asphyxia, anoxia or trauma (47%)
and antepartum infection (37%).
- 94% of these deaths occurred in
the first 28 days of life.

The Wales Maternity and Neonatal
Network review all deaths that
occur on a neonatal unit in Wales.
Good practice and learning points

from national monthly mortality
review meetings are collated and
shared across the Network.

MBRRACE—UK (Mothers and
Babies: Reducing Risk through
Audits and Confidential Enquiries
across the UK) analyse all
neonatal deaths (up to 27
completed days), in the UK,
whether in hospital or the
community and from 20 weeks
gestation (and include 24 weeks
onwards in their main analyses).

**MBRRACE—UK reports
provide a comprehensive
analysis of neonatal deaths.**

138 CANCER

40% of child cancer deaths
occurred in the 12-17 year
old age group and 35% occurred
in the 5-11 year old age group.

**The Welsh Cancer Information
and Surveillance Unit** publish
detailed statistics on cancer
incidence, survival and mortality.

Sudden unexpected and unexplained deaths

There were 170 sudden unexpected and unexplained deaths:

- 154 (91%) were 'confirmed' i.e. all investigations are completed and remain unexplained.
- 16 deaths are still 'possible' sudden unexpected and unexplained deaths so there is a possibility that these may be allocated to other cause of death categories such as infection or chromosomal, genetic

and congenital anomalies or other categories once investigations are complete.

- Of the 170 of sudden unexpected and unexplained deaths in total, 137 (81%) were sudden unexpected deaths in infancy (SUDI) (i.e. under 1 year of age).
- There were 76 SUDI in 2011-15 (crude rate 0.44 per 1000 live births, 95% CI 0.35-0.55) and 61 in 2016-20 (crude rate 0.39 per 1000 live births, 95% CI 0.30-0.51).

Modifiable factors for SUDI from 2016-20 are shown in Table 6.

Table 6: Modifiable factors for sudden unexpected deaths in Infancy (SUDI), Wales, 2016-2020.

Produced by CDRP, Public Health Wales using CDRP data.

Modifiable factor	2016-20%
Co-sleeping in the presence of at least one risk factor (parental alcohol or drug use, parental smoking, low birth weight or preterm baby)	48
Other unsafe sleep environment e.g. snugglepod/babynest, bouncer, sleeping alone under 6 months	11
Parental smoking	26
Parental alcohol use either at time of death or past history of concern	30
On or previously on the Child Protection Register	7
No risk factors for SUDI	26

In 2010-12 in Wales, parental smoking in SUDI was 56% and parental alcohol use at the time of death or past history of concern was 29%.⁷ The percentage of parental smoking has decreased but parental alcohol use is the same.

Key points:

- Parental smoking as a risk factor has decreased but is still present in 26% sudden unexpected deaths in infancy
- Death where alcohol is a modifiable factor still occur in 30% of deaths which shows no improvement over the last 10 years
- 59% of deaths were associated with unsafe sleep

11. Safeguarding and adverse childhood experiences (ACEs)

Information from 2016–20 showed that:

- Of the 946 child deaths from 2016–20, 15 children were looked after children and 4 were previously looked after children.
- 4 were on the child protection register and 8 were previously on the child protection register (these children were not looked after children at the time of death or previously).

Information from 2019–20 showed that:

- Of the 372 child deaths in 2019 and 2020, 22% of children had at least one ACE and 6% had three or more ACEs.
- This varied depending on the cause of death. The percentage who had three or more ACEs was higher for deaths from:
 - Deliberately inflicted injury, abuse or neglect (100%)
 - Sudden unexpected, unexplained death (24%)
 - Probable/possible suicide (33%).

12. International comparisons

The latest available UK and international comparisons are shown in Table 7.

- For the five-year period between 2015 and 2019, the child death rate in Wales was similar to the overall UK rate.
- However, the rate in Wales during this period has been significantly higher than in Finland, Spain and Italy and significantly higher than Iceland in 2018 and 2019 and Sweden in 2015, 2017, 2018 and 2019.
- If Wales had the same child death rate as Finland, there would have been 120 deaths in 2020, instead of 182, an excess of 62 deaths.

Table 7: Child deaths, counts and crude rate per 100,000, children aged under 18 years of age, EU countries and the UK, 2015–2019. *Produced by Public Health Wales Observatory, using CDRP (PHW), European Commission, Eurostat, PHM & MYE (ONS) CI = Confidence Interval.*

	2015			2016			2017			2018			2019		
Country	Count	Rate	(95% CI)	Count	Rate	(95% CI)	Count	Rate	(95% CI)	Count	Rate	(95% CI)	Count	Rate	(95% CI)
Sweden	477	24	(21.9 to 26.3)	481	24	(21.7 to 26.0)	451	22	(19.8 to 23.8)	444	21	(19.0 to 23.0)	417	19	(17.5 to 21.3)
Finland	193	18	(15.5 to 20.7)	207	19	(16.8 to 22.1)	223	21	(18.2 to 23.7)	204	19	(16.6 to 21.9)	204	19	(16.7 to 22.1)
Iceland	19	24	(14.3 to 37.1)	13	16	(8.7 to 27.9)	20	25	(15.3 to 38.7)	12	15	(7.7 to 26.1)	8	10	(4.3 to 19.5)
Spain	1,861	22	(21.3 to 23.3)	1,839	22	(21.0 to 23.1)	1,811	22	(20.7 to 22.7)	1,753	21	(20.0 to 22.0)	1,666	20	(19.0 to 21.0)
Italy	2,338	23	(22.2 to 24.1)	2,266	23	(21.7 to 23.6)	2,174	22	(21.0 to 22.9)	2,149	22	(21.0 to 22.9)	1,805	19	(18.0 to 19.7)
Denmark	310	26	(23.6 to 29.6)	301	26	(23.0 to 28.9)	331	28	(25.4 to 31.6)	325	28	(24.9 to 31.1)	277	24	(21.1 to 26.9)
United Kingdom	4,576	33	(32.3 to 34.2)	4,504	32	(31.5 to 33.4)	4,448	32	(30.9 to 32.8)	4,351	31	(30.1 to 31.9)	4,242	30	(29.1 to 31.0)
Wales	197	31	(27.1 to 36.1)	181	29	(24.8 to 33.3)	195	31	(26.8 to 35.7)	198	31	(27.2 to 36.1)	190	30	(26.0 to 34.8)

✦ Key point:

- Wales has a similar child death rate to the UK but has had a consistently significantly higher child death rate than Finland, Spain and Italy over the last 5 years

13. Actions to reduce child deaths

Actions to reduce child deaths have been widely published. The Child Death Review Programme have identified recommendations or opportunities for prevention in previous thematic reviews on drownings, transport related deaths, deaths from fire and burns, sudden unexpected deaths in infancy and suicides.⁸

The Royal College of Paediatrics and Child Health's State of Child Health 2020 (Wales) report⁹ made several policy recommendations relating to maternity care and early years, including health boards' use of the Perinatal Mortality Review Tool, Maternity and Neonatal network Safer Pregnancy campaign, and the implementation of recommendations from the Healthy Child Wales programme. MBRRACE-UK also make recommendations on actions to take to reduce neonatal mortality.¹⁰

14. Method

This report used data from the CDRP database from 2011-2020. The CDRP database includes deaths of Welsh residents (wherever that death may occur) and deaths of non-Welsh residents that occur in Wales.

For the main analyses in this report, only Welsh residents are included. ONS data were used to illustrate long-term trends and comparisons with other countries.

There may be a difference between ONS data on child deaths and those reported by the CDRP as deaths of live born babies following termination of pregnancy are excluded in the CDRP database, but included by ONS. ONS data also refers to the year that the death was registered, not when it occurred.

15. Strengths and limitations

↑ Strengths

1. The Child Death Review Programme Database is a population-based registry covering all child deaths in Wales.
2. Multi-source reporting means that there is a rich dataset of good quality information.

↓ Limitations

1. There are a small number of deaths in certain cause of death groups which limits meaningful analysis in those groups.
2. Data on ethnicity is incomplete.
3. Data on ACEs are likely to be underestimated.

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17. Glossary

Confidence interval — Confidence intervals are indications of the natural variation that would be expected around a measurement (such as a proportion or a rate) and they should be considered when assessing or interpreting such measures. The size of the confidence interval is dependent on the size of the population from which the events came. Proportions or rates based on small populations are likely to have wider confidence intervals.

Chromosomal, genetic and congenital anomalies — A structural, metabolic, endocrine, or genetic defect present in the child/fetus at the end of pregnancy, even if undetected until later. This category includes Q00-99 codes of ICD-10 and the following chromosomal, genetic and congenital anomalies which are included in the CARIS database: D12.6, D44.8, D55-58, D66, D67, D68, D80-82, E00, E25, E70-E72, E73.0, E74-E85, E88, F84.2, G11, G12, G71, H31.2, H35.5, H49, P96.0

If under 2yrs: N07, N13, N17-19, N27-28, N31-32, N36.

If the cause was genetic: D61, D64, D74, D76, E03, E07, E20, E23, E28-29, E31, E34, G90, H47, H50.8, H90.3 - H90.8, I42, I45, I78, K07, N04 (if <6m).

Additional ICD-10 codes not included in above, from ONS classification of neonatal deaths and associated ICD-10 codes: D69.1-69.4, D70, D71, D75, D83-89, G80, I34-37, I44, K74 (if <28 days).

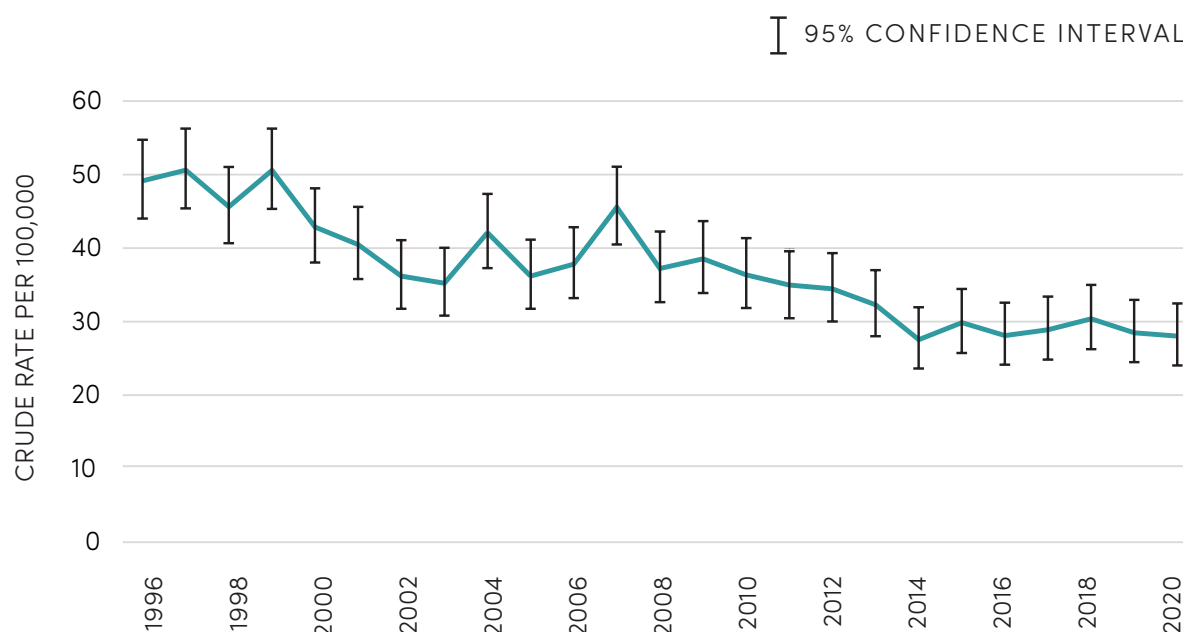
Infant deaths — Deaths among live born children under one year of age (includes all neonatal deaths),

Neonatal deaths — Deaths among live born children under 28 days of age.

Statistical significance — A result may be deemed statistically significant if it is considered unlikely to have occurred by chance alone. The basis for such judgements is a predetermined and arbitrary cut-off, usually taken as 5% or 0.05 (the chance/probability of a difference as extreme being observed, if underlying 'true' values were the same). In this report a difference is considered to be statistically significant when the confidence intervals do not overlap. Statistical significance is not the same as clinical or public health significance.

18. Appendix 1 – Long term trend

Figure 5: Trend in child deaths, crude rate per 100,000 children and young people aged under 18 years, Wales, 1996–2020. Produced by Public Health Wales Observatory, using PHM & MYE (ONS).



19. Appendix 2 – Definition of deaths from probable/possible suicide

Category	Description
Probable suicide	Intentional self-harm, ICD10 codes X60–84 >=10 years
	Events of undetermined intent, (Y10–Y34) in >= 15 years
	No ICD-10 code available for unexpected death in 15–17 years but history suggests intent AND/OR risk factors for suicide were present and mode of death was suggestive of suicide
Possible suicide	Coded accidental deaths: Accidental poisoning (X40, X41, X43–X49), strangulation (W75, W76), falls (W138), drowning (W70), death from fire & burns & single occupant/single vehicle deaths in >=10 years but history suggests intent AND/OR risk factors for suicide were present. Consider deaths with X42 code if history suggest intent/risk factors. Exclude if history suggests clear accidental cause.
	Events of undetermined intent, (Y10–Y34) in 10–14 years
	No ICD-10 code available for unexpected death in 10–17 year olds but mode of death was suggestive of suicide (history may suggest intent AND/OR risk factors for suicide were present but not necessarily).
	Other coded deaths in 10–17 year olds and history suggests intent AND/OR risk factors for suicide were present.
	Deaths in under 10 year olds cause by self-injury or self-poisoning.

20. Appendix 3 – Rapid review of deaths from probable/possible suicide in 2021

Welsh Government commissioned the Child Death Review Programme to undertake a rapid review of deaths from probable or possible suicide from 1st January to 30th November 2021, to identify any themes or issues and make recommendations for action.

The Child Death Review Programme worked with Professor Ann John (Clinical Professor in Public Health and Psychiatry, Swansea University; Chair of the National Advisory Group to Welsh Government on suicide and self-harm prevention) to undertake the review.

We considered deaths from probable/possible suicide in children aged under 18 years. We reported to Welsh Government in December 2021 then updated the review in January 2022 to take into account all deaths from 1 January to 31 December 2021. A case review using PRUDiC (Procedural Response to Unexpected Death in Children) minutes was undertaken. A research evidence review of risk factors and effective interventions was not undertaken. An evidence review was published in December 2019 in the Child Death Review Programme and Swansea University's *Thematic Review of deaths of children and young people through probable suicide 2013–2017*.¹¹

Findings

There were 14 deaths of under 18 year olds from probable/possible suicide from 1 January to 31 December 2021. The number and rate of deaths from 2016 to 2021 is shown below. The rates are higher in 2021 and 2020 but are not statistically significantly different to the rates in previous years. Because of the relatively small numbers of deaths from probable/possible suicide recorded each year, the numbers can fluctuate over time and therefore changes in rates should be interpreted with caution.

Table 9: Deaths from probable/possible suicide, crude rate per 100,000, persons aged under 18, Wales, 2016 to 2021. Includes deaths from probable/possible suicide, 2020 mid-year population estimates used as a proxy for 2021. Denominator includes 10–17 year olds only, but numerator includes all children under 18 years. Rates are calculated by dividing the number of deaths in under 18 year olds by the population aged 10–17 years.

	Deaths	Crude rate per 100,000 (95% confidence intervals)	
2016	9	3.3	(1.5 to 6.3)
2017	12	4.4	(2.3 to 7.7)
2018	5	1.8	(0.6 to 4.2)
2019	8	2.9	(1.2 to 5.6)
2020	13	4.5	(2.4 to 7.8)
2021	14	4.9	(2.7 to 8.2)

Several themes emerged from the case review:

- Vulnerable children
 - Children who were either looked after children, on the child protection register or had previously been a looked after child/on the child protection register.
 - Children whose families were known to social services.
- Schools and sports clubs – a small number of schools and sports clubs had more than one possible suicide linked to them.
- Young people with a history of self-harm.

The themes identified where opportunities for prevention could be focussed and recommended that a package of support is made available to include support for children and young people to know how and when to seek help.

Welsh Government circulated existing suicide and self-harm guidance for schools and recommended increased vigilance

across the system to identify and provide additional support for those young people at risk of suicide.

Other recommendations that were made include:

- PRUDiC should be made statutory to ensure that a consistent process is in place for all unexpected deaths in childhood.
- The activities of the Child Death Review Programme should also be made statutory, as in England, in order that comprehensive information can be obtained to maintain an oversight of all deaths of children in Wales.
- Ensuring NICE guidance on the management of self-harm in young people is adopted and monitored in Wales with a focus on crisis care and follow-up.
- A Wales overview of out of area placements for Looked after Children (including those from England) and seamless CAMHS care.

The Child Death Review Programme will continue to closely monitor deaths from probable/possible suicide in Wales.

Author

Dr Rosalind Reilly, Consultant in Public Health

Team involved

Dr Claire Thomas, Paediatric Lead
Helen Crowther, Programme Manager
Gillian Hopkins, Information Officer
Gavin Collins, Project Support Officer
Jessica Hilton, Public Health Intelligence Officer
Mari Ann Jones, Advance Public Health
Intelligence Officer

E-mail: ChildDeath.Review@wales.nhs.uk

Website: [www.publichealthwales.org/
childdeathreview](http://www.publichealthwales.org/childdeathreview)

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Your feedback

How did you use the information in this report? Do you have any other comments?

Please get in touch using the contact details for the Child Death Review Programme team.



