

# **NATIONAL PAEDIATRIC MORTALITY REGISTER 2023**

A REVIEW OF MORTALITY IN CHILDREN  
AND YOUNG PEOPLE IN IRELAND

## **APPENDICES**



## APPENDICES

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## APPENDICES

### Accessing report appendices

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<https://www.noca.ie/publications/publications-listing/P0/category/3>.

## APPENDIX 1: National Paediatric Mortality Register Governance

### Committee Membership and Meeting Attendance, 2022–2023

Organisation/Role	Member	10.3.22	2.6.22	1.9.22	1.12.22	27.04.23
Clinical Lead, National Paediatric Mortality Register (NPMR)	Associate Prof Martina Healy	✓	✗	✓	✓	✓
Chair/ Royal College of Physicians of Ireland- Paediatric representative	Professor Michael Barrett	✓	✓	✓	✓	✓
Public and Patient Interest Representative	Mary Desmond Vasseghi	✓	✓	✓	✓	✓
Public and Patient Interest Representative	Kate Burke	✓	✗	✓	✗	✓
Senior Accountable Healthcare Manager	Dr Ike Okafor	N/A	N/A	N/A	✓	✗
Paediatric Cardiology representative	Dr Terry Prendiville	✓	✓	✓	✓	✗
Paediatric Palliative Medicine representative	Dr Mary Devins/Dr Fiona McElligott	✓	✗	✓	✗	✓
Paediatric Pathology representative	Dr Michael McDermott	✓	✓	✓	✓	✓
Paediatric Emergency Medicine representative	Dr Stewart McKenna	✓	✗	✗	✗	N/A
Paediatric Anaesthesia representative	Dr Terence Montague	✗	✗	✗	✗	N/A
Paediatric Intensive Care Medicine representative	Associate Prof. Dermot Doherty	✗	✗	✗	✗	N/A
Regional Paediatric representative	Dr Orla Neylon	✓	✓	✗	✓	✓
Coroners Society of Ireland representative	Dr Myra Cullinane/Dr Cróna Gallagher	✓	✗	✗	✗	✓
Health Service Executive (HSE) Clinical Lead Child Health Public Health	Dr Abigail Collins	N/A	N/A	N/A	✓	✗
Trinity College Dublin Department of Statistics representative	Dr Myra O'Regan	✓	✓	✓	✗	N/A
Children's Health Ireland Nursing representative	Eileen O'Toole/Anne Marie Dowling	✗	✗	✗	✗	✓
General Practice representative	Prof. Tom Fahey					✓
Paediatric Programme Manager	Cliona McGarvey	✓	✓	✓	✓	✓
Paediatric Programme Assistant Manager	Karina Hamilton	✓	✓	✓	✓	✓

Note: Meeting on 27 April 2023 was rescheduled from 30 April 2023.

## Appendix 2: National Paediatric Mortality Register Child Death Notification form

To be completed on all Paediatric deaths and forwarded to [npmr@noca.ie](mailto:npmr@noca.ie)

1. Name: ..... 2. Address: .....  
 3. Hospital Number: ..... Date of Birth: .....  
 5. Gender: Female ☐ Male ☐

6. Point of Admission: ED ☐ ICU ☐ Ward ☐ Theatre ☐  
 7. Admission Date: ..... 8. Time of first contact: ..... Please use 24hr clock (ED Only)  
 9. Date of Death: ..... 10. Time of Death: ..... Please use 24hr clock  
 11. Dead on arrival: ☐ Dead within 24hrs of admission ☐ Other: ☐

12. Location of Death: Home ☐ ED ☐ ICU ☐ Hospital Ward ☐  
 If Other: Please specify .....  
 13. Transferred from another hospital? Yes ☐ No ☐ If Yes, ..... (Please specify hospital)  
 14. Was death unexpected? Yes ☐ No ☐ (Unexpected death is defined as the death of a child which was not anticipated as a possibility 24 hrs prior to death or where there was an unexpected collapse precipitating events that led to the death)  
 15. Advance care directive in place? Yes ☐ No ☐  
 16. Was the coroner notified? Yes ☐ No ☐  
 17. Was an autopsy carried out? Yes, coroner's PM ☐ Yes, hospital PM ☐ No ☐  
 18. Was there an inquest? Yes ☐ No ☐ Don't know ☐  
 19. Child in state care? Yes ☐ No ☐

20. Provisional diagnosis leading to death:

21. Were any of the following events known to have occurred? (Tick all that apply)

Neonatal Death ☐ Acute Asthma ☐ Infection ☐ Acute epilepsy ☐  
 Sudden unexpected death in infancy ☐ Road Traffic Accident ☐ Drowning ☐ Apparent suicide ☐  
 Death of a child with life limiting condition ☐ Death from malignancy ☐ Poisoning ☐ Fall ☐  
 Acute metabolic/diabetic ketoacidosis ☐ Apparent homicide ☐

Asphyxia: ..... (Please specify)

Other unintentional injury: ..... (please specify)

For unexpected deaths in infancy and children under 5 years:

22. Position child found: Back ☐ Prone ☐ Side ☐  
 23. Where was child found: Cot ☐ Bed ☐ Sofa/armchair ☐ Other ☐ ..... (Please specify)  
 24. Child co-sleeping with adult: Yes ☐ No ☐  
 25. Child co-sleeping with another child: Yes ☐ No ☐

Completed by (block capitals): ..... MCRN: .....

Hospital: .....

Tel: .....

Signed: ..... Date: .....

## Appendix 3: Frequency tables

**FIGURE 6.1:** ANNUAL TRENDS IN INFANT, POSTNEONATAL AND NEONATAL MORTALITY RATES IN IRELAND, 1990–2021

Year	Live births	IMR (<1 year)		Postneonatal mortality rate (29–364 days)		Neonatal mortality rate (≤28 days)	
		N	N/1000 live births	N	N/1000 live births	N	N/1000 live births
1990	53 044	434	8.2	179	3.4	255	4.8
1991	52 718	401	7.6	137	2.6	264	5.0
1992	51 089	331	6.5	112	2.2	219	4.3
1993	49 304	302	6.1	104	2.1	198	4.0
1994	48 255	277	5.7	84	1.7	193	4.0
1995	48 757	311	6.4	79	1.6	232	4.8
1996	50 655	303	6.0	94	1.9	209	4.1
1997	52 775	321	6.1	135	2.6	186	3.5
1998	53 969	316	5.9	86	1.6	230	4.3
1999	53 924	317	5.9	99	1.8	218	4.0
2000	54 789	338	6.2	104	1.9	234	4.3
2001	57 854	331	5.7	101	1.7	230	4.0
2002	60 503	305	5.0	89	1.5	216	3.6
2003	61 529	326	5.3	93	1.5	233	3.8
2004	61 972	287	4.6	78	1.3	209	3.4
2005	61 372	236	3.9	69	1.1	167	2.7
2006	65 425	255	3.9	76	1.1	179	2.7
2007	71 389	230	3.2	74	1.0	156	2.2
2008	75 173	284	3.8	84	1.1	200	2.7
2009	75 554	247	3.3	79	1.0	168	2.2
2010	75 174	271	3.6	76	1.0	195	2.6
2011	74 033	262	3.5	74	1.0	188	2.5
2012	71 674	237	3.3	52	0.7	185	2.6
2013	68 954	245	3.6	64	0.9	181	2.6
2014	67 295	224	3.3	66	1.0	158	2.3
2015	65 536	225	3.4	51	0.8	174	2.6
2016	63 841	194	3.0	47	0.7	147	2.3
2017	61 824	188	3.0	48	0.8	140	2.3
2018	61 022	174	2.9	43	0.7	131	2.1
2019	59 294	167	2.8	39	0.7	128	2.2
2020	56 812	178	3.1	44	0.8	134	2.4
2021	58 443	180	3.1	40	0.7	140	2.4

**FIGURE 6.3: AGE DISTRIBUTION OF INFANT DEATHS REGISTERED IN IRELAND, 2019–2021 (n=542)**

	Neonatal (≤28 days)		Postneonatal (29–364 days)		Total (<1 year)
Year	N	%	N	%	N
2019	142	74.7%	48	25.3%	190
2020	112	73.2%	41	26.8%	153
2021	154	77.4%	45	22.6%	199
2019–2021	408	75.3%	134	24.7%	542

**FIGURE 6.4: SEX DISTRIBUTION OF INFANT DEATHS REGISTERED IN IRELAND, 2019–2021 (N=542)**

	Male		Female		Total (<1 year)
Year	N	%	N	%	N
2019	104	54.7%	86	45.3%	190
2020	78	51.0%	75	49.0%	153
2021	100	50.3%	99	49.8%	199
2019–2021	282	52.0%	260	48.0%	542

**FIGURE 6.5: SEX DISTRIBUTION OF INFANT DEATHS REGISTERED IN IRELAND, BY AGE GROUP, 2019–2021 (N=542)**

	Male		Female		Total (<1 year)
	N	%	N	%	N
Neonatal deaths	214	52.5%	194	47.5%	408
Postneonatal deaths	68	50.8%	66	49.2%	134
Total	282	52.0%	260	48.0%	542

**FIGURE 6.6: INFANT MORTALITY IN IRELAND BY PLACE OF DEATH, 2019–2021 (N=542)**

	N	%
Maternity hospital	574	50.6%
CHI hospital	130	24.0%
General hospital	98	18.1%
Home address	32	5.9%
Hospice/other	8	1.5%
<b>Total</b>	<b>542</b>	<b>100.0%</b>

**FIGURE 6.7: INFANT MORTALITY IN IRELAND BY YEARLY QUARTER, 2019–2021 (N=542)**

	Month of death
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Year of registration	January to March		April to June		July to September		October to December		Total
	n	%	n	%	n	%	n	%	N
2019	41	21.6%	57	30.0%	49	25.8%	43	22.6%	190
2020	39	25.5%	43	28.1%	37	24.1%	34	22.2%	153
2021	59	29.6%	42	21.1%	45	22.6%	53	26.6%	199
Total	139	25.6%	142	26.2%	131	24.1%	130	24.0%	542

**FIGURE 7.1: SEX DISTRIBUTION OF DEATHS AMONG CHILDREN AGED 1–18 YEARS IN IRELAND, 2019–2021 (N=350)**

	Male		Female		Total (aged 1–18 years)
Year	n	%	n	%	N
2019	83	68.6%	38	31.4%	121
2020	79	68.7%	36	31.3%	115
2021	72	63.2%	42	36.8%	114
2019–2021	234	66.9%	116	33.1%	350

**FIGURE 7.2: SEX DISTRIBUTION OF CHILD DEATHS, BY AGE GROUP, 2019–2021 (n=350)**

	Male		Female		Total
Age group	n	%	n	%	N
1–4 years	43	57.3%	32	42.7%	75
5–9 years	47	70.1%	20	29.9%	67
10–14 years	46	69.7%	20	30.3%	66
15–19 years	98	69.0%	44	31.0%	142

**FIGURE 7.3: PLACE OF DEATH OF CHILD DEATHS, BY AGE GROUP, 2019–2021 (n=350)**

Location	1–14 years		15–19 years	
	n	%	n	%
CHI hospital	71	34.1%	9	6.3%
General hospital	67	32.2%	37	26.1%
Home	54	26.0%	69	48.6%
Scene of injury outside of home	11	5.3%	18	12.7%
Hospice/other	5	2.4%	9	6.3%
<b>Total</b>	<b>208</b>	<b>100.0%</b>	<b>142</b>	<b>100.0%</b>

**FIGURE 7.4: OCCURRENCE OF CHILD DEATHS BY ANNUAL QUARTER, BY AGE GROUP, 2019–2021**  
(N=350)

(N=556)									
	Month of death								
Age group	January to March		April to June		July to September		October to December		Total
	n	%	n	%	n	%	n	%	N
1–14 years	63	30.3%	49	23.6%	49	23.6%	47	22.6%	208
15–19 years	40	28.2%	39	27.5%	38	26.7%	25	17.6%	142

**FIGURE 7.5: ANNUAL TRENDS IN CHILD MORTALITY RATES IN IRELAND, BY AGE GROUP, 2007–2021**  
(3-YEAR MOVING AVERAGE RATES)

Year	1–4 years					5–9 years			
	Population (thousands)	Deaths (n)	Deaths per 100 000 population	3-year average		Population (thousands)	Deaths (n)	Deaths per 100 000 population	3-year average
2007	244.2	54	22.1	0.2178		297.2	17	5.7	0.0743
2008	251.6	52	20.7	0.1986		306.2	28	9.1	0.0869
2009	261.7	59	22.5	0.1651		310.7	23	7.4	0.0825
2010	272.0	45	16.5	0.1403		314.6	30	9.5	0.0854
2011	283.6	31	10.9	0.1394		319.6	25	7.8	0.0879
2012	285.5	42	14.7	0.1508		325.3	27	8.3	0.0919
2013	284.4	46	16.2	0.1410		333.0	34	10.2	0.0829
2014	278.4	40	14.4	0.1254		342.1	31	9.1	0.0611
2015	273.8	32	11.7	0.1169		349.3	20	5.7	0.0564
2016	269.2	31	11.5	0.1091		355.3	13	3.7	0.0494
2017	260.7	31	11.9	0.1061		359.1	27	7.5	0.0664
2018	257.8	24	9.3	0.0996		356.9	13	3.6	0.0626
2019	253.9	27	10.6	0.0880		352.3	31	8.8	0.0678
2020	251.2	25	10.0			344.1	22	6.4	
2021	244.2	14	5.7			335.0	17	5.1	
Year	10–14 years					15–19 years			
	Population (thousands)	Deaths (n)	Deaths per 100 000 population	3-year average		Population (thousands)	Deaths (n)	Deaths per 100 000 population	3-year average
2007	276.5	50	18.1	0.1423		291.4	149	51.1	0.4471
2008	283.1	40	14.1	0.1069		295.6	131	44.3	0.3934
2009	290.5	31	10.7	0.0844		294.3	114	38.7	0.3723
2010	296.1	22	7.4	0.0843		289.4	101	34.9	0.3392
2011	301.0	22	7.3	0.0865		281.0	107	38.1	0.2940
2012	304.5	32	10.5	0.0911		281.5	81	28.8	0.2346
2013	307.9	25	8.1	0.0750		284.4	61	21.4	0.2135
2014	310.1	27	8.7	0.0795		290.6	59	20.3	0.2376
2015	314.4	18	5.7	0.0689		296.1	66	22.3	0.2348
2016	318.9	30	9.4	0.0851		301.2	86	28.6	0.2224
2017	323.3	18	5.6	0.0762		308.5	58	18.8	0.1905
2018	332.6	35	10.5	0.0791		316.2	62	19.6	0.1968
2019	341.4	23	6.7	0.0609		319.9	60	18.8	0.1950
2020	350	23	6.6			323.9	67	20.7	
2021	358	18	5.0			325.3	62	19.1	



**FIGURE 7.6A:** PRINCIPAL CAUSE OF DEATH CATEGORIES IN CHILDREN AGED 1–14 YEARS, 2019–2021 (N=208)

Cause of death category	n	%
Diseases of the circulatory system	17	8.2%
Congenital malformations and chromosomal abnormalities	38	18.3%
Endocrine, nutritional and metabolic diseases	8	3.9%
External causes	45	21.6%
Infectious and parasitic diseases	9	4.3%
Neoplasms	41	19.7%
Diseases of the nervous system	21	10.1%
Diseases of the respiratory system	11	5.3%
Symptoms, signs and abnormal clinical findings	5	2.4%
Other	13	6.3%
Total	208	100.0%

**FIGURE 7.6B:** PRINCIPAL CAUSE OF DEATH CATEGORIES IN CHILDREN AGED 1–14 YEARS, 2007–2018 (N=1124)

Cause of death category	n	%
Diseases of the circulatory system	38	3.4%
Congenital malformations and chromosomal abnormalities	157	14.0%
Diseases of the blood and blood-forming organs and certain diseases of the immune system	27	2.4%
Endocrine, nutritional and metabolic diseases	55	4.9%
External causes	307	27.3%
Certain infectious and parasitic diseases	46	4.1%
Neoplasms	227	20.2%
Diseases of the nervous system	147	13.1%
Diseases of the respiratory system	51	4.5%
Symptoms, signs and abnormal clinical findings	33	2.9%
Certain conditions originating in the perinatal period	10	0.9%
Other	26	2.3%
Total	1124	100.0%

**FIGURE 7.7A:** PRINCIPAL CAUSE OF DEATH CATEGORIES IN ADOLESCENTS AGED 15–18 YEARS, 2019–2021 (n=142)

Cause of death category	n	%
Diseases of the circulatory system	8	5.6%
Congenital malformations and chromosomal abnormalities	8	5.6%
External causes	79	55.6%
Neoplasms	24	16.9%
Diseases of the Nervous system	8	5.6%
Other	15	10.6%
Total	142	100.0%

**FIGURE 7.7B:** PRINCIPAL CAUSE OF DEATH CATEGORIES IN ADOLESCENTS AGED 15–19 YEARS, 2012–2018 (n=425)

Cause of death category	n	%
Diseases of the circulatory system	39	9.2%
External causes	251	59.1%
Neoplasms	49	11.5%
Diseases of the nervous system	24	5.6%
Other	62	14.6%
Total	425	100.0%

**FIGURE 8.1A:** BREAKDOWN OF EXTERNAL-CAUSE DEATHS IN CHILDREN AGED 1–14 YEARS, BY TYPE, 2019–2021 (n=45)

Injury type	n	%
Road traffic collisions	11	24.4%
Ligature strangulation	6	13.3%
Homicide/filicide	8	17.8%
Accidental strangulation	5	11.1%
Other external causes	15	33.3%
Total	45	100.0%

**FIGURE 8.1B:** BREAKDOWN OF EXTERNAL-CAUSE DEATHS IN CHILDREN AGED 1–14 YEARS, BY TYPE, 2007–2018 (n=351)

Injury type	n	%
Road traffic collisions	118	33.6%
Ligature strangulation	41	11.7%
Drowning	34	9.7%
Homicide/filicide	23	6.6%
Farm accidents	21	6.0%
House fires	19	5.4%
High falls	14	4.0%
Accidental strangulation	12	3.4%
Struck by heavy object	11	3.1%
Asphyxiation by choking	9	2.6%
Other external causes	49	14.0%
Total	351	100.0%

**FIGURE 8.2A:** BREAKDOWN OF EXTERNAL-CAUSE DEATHS IN ADOLESCENTS AGED 15–18 YEARS, BY TYPE, 2019–2021 (n=79)

Injury type	n	%
Ligature strangulation	46	58.2%
Road traffic collisions	13	16.5%
Drug/alcohol toxicity	7	8.9%
Other	13	16.5%

**FIGURE 8.2B:** BREAKDOWN OF EXTERNAL-CAUSE DEATHS IN ADOLESCENTS AGED 15–18 YEARS, BY TYPE, 2012–2018 (n=251)

Injury type	n	%
Ligature strangulation	120	47.8%
Road traffic collisions	66	26.3%
Drowning	22	8.8%
Drug/alcohol toxicity	21	8.4%
High falls	5	2.0%
Other	17	6.8%
Total	251	100.0%

**FIGURE 8.3A:** ANNUAL TRENDS IN INJURY-RELATED DEATHS IN CHILDREN AND YOUNG PEOPLE AGED 1–14 YEARS IN IRELAND, 2006–2021

Year	All injury fatalities (n)	Road traffic collision fatalities (n)	Ligature strangulation fatalities (n)	All injury fatalities (n/100 000)	Road traffic collision fatalities (n/100 000)	Ligature strangulation fatalities (n/100 000)	Population aged 1–14 years (thousands)
2007–2009	128	54	13	5.1	2.1	0.51	2521.7
2010–2012	82	26	11	3.0	0.96	0.40	2707.3
2013–2015	74	20	5	2.6	0.71	0.21	2804.6
2016–2018	69	21	19	2.4	0.74	0.37	2833.6
2019–2021	45	11	6	1.6	0.38	0.21	2833.0

**FIGURE 8.3B:** ANNUAL TRENDS IN INJURY-RELATED DEATHS IN ADOLESCENTS AGED 15–18 YEARS IN IRELAND, 2012–2021

Year	All injury fatalities (n)	Road traffic collision fatalities (n)	Ligature strangulation fatalities (n)	All injury fatalities (n/100 000)	Road traffic collision fatalities (n/100 000)	Ligature strangulation fatalities (n/100 000)	Population aged 15–18 years (thousands)
2012	42	13	17	14.9	4.6	6.0	281.5
2013	32	8	17	11.2	2.8	6.0	284.4
2014	31	8	15	10.6	2.8	5.2	290.6
2015	40	11	18	13.5	3.7	6.1	296.1
2016	39	10	20	12.9	3.3	6.6	301.2
2017	40	7	22	13.0	2.3	7.1	308.5
2018	27	9	12	8.5	2.8	3.8	316.2
2019–2021	79	13	46	8.2	1.3	4.7	969.1

**FIGURE 9.2: PERCENTAGE OF PAEDIATRIC IN-HOSPITAL DEATHS, BY AGE GROUP, 2009–2021 (N=2694)**

Age group	n	%
≤4 weeks	1681	62%
5 weeks to <1 year	290	11%
1–18 years	723	27%
<b>Total</b>	<b>2694</b>	<b>100%</b>

**FIGURE 9.3: PERCENTAGE OF PAEDIATRIC IN-HOSPITAL DEATHS, BY AGE GROUP AND SEX, 2009–2021 (N=2694)**

	Female		Male		Total	
Age group	n	%	n	%	N	%
≤4 weeks	730	43%	951	57%	1681	100%
5 weeks to <1 year	139	48%	151	52%	290	100%
1–18 years	298	41%	425	59%	723	100%
<b>Total</b>	<b>1167</b>	<b>43%</b>	<b>1527</b>	<b>57%</b>	<b>2694</b>	<b>100%</b>

**FIGURE 9.4: MEAN AND MEDIAN LENGTH OF STAY OF IN-HOSPITAL PAEDIATRIC DEATHS BY AGE GROUP, 2009–2021(N=2964)**

Age group	Mean	Median
≤4 weeks	11.3	3.0
5 weeks to <1 year	35.7	10.0
1–18 years	15.2	4.0
<b>Total</b>	<b>15.0</b>	<b>4.0</b>

**FIGURE 9.5: PERCENTAGE OF PAEDIATRIC IN-HOSPITAL DEATHS, BY MAIN DIAGNOSIS GROUP, 2009–2021 (N=2694)**

Main diagnosis group	n	%
Certain conditions originating in the perinatal period	1144	42%
Congenital malformations and chromosomal abnormalities	597	22%
Diseases of the respiratory system	217	8%
Injury, poisoning and certain other consequences of external causes	149	6%
Diseases of the circulatory system	140	5%
Diseases of the nervous system	104	4%
Neoplasms	90	3%
Endocrine, nutritional and metabolic diseases	53	2%
Certain infectious and parasitic diseases	46	2%
Diseases of the digestive system	40	1%
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	33	1%
Clinical and laboratory findings, not elsewhere classified	25	1%
Diseases of the blood and disorders involving the immune mechanism	23	1%
Diseases of the genitourinary system	13	0%
Diseases of the musculoskeletal system and connective tissue	12	0%
Factors influencing health status and contact with health services	8	0%
<b>Total</b>	<b>2694</b>	<b>100%</b>

**FIGURE 9.6: PERCENTAGE OF PAEDIATRIC IN-HOSPITAL DEATHS AMONG NEONATES (AGED <=28 DAYS), BY MAIN DIAGNOSIS, 2009–2021 (n=1681)**

Main diagnosis group	n	%
Certain conditions originating in the perinatal period	1105	66%
Congenital malformations and chromosomal abnormalities	489	29%
Diseases of the circulatory system	23	1%
Diseases of the nervous system	16	1%
Endocrine, nutritional and metabolic diseases	14	1%
Neoplasms	8	0.5%
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	8	0.5%
Factors influencing health status and contact with health services	~	*
Diseases of the respiratory system	~	*
Diseases of the genitourinary system	~	*
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	~	*
Diseases of the digestive system	~	*
Certain infectious and parasitic diseases	~	*
Injury, poisoning and certain other consequences of external causes	~	*
<b>Total</b>	<b>1681</b>	<b>100%</b>

~ Denotes five cases or fewer

\* Further suppression required in order to prevent disclosure of five cases or fewer

**FIGURE 9.7: PERCENTAGE OF PAEDIATRIC IN-HOSPITAL DEATHS AMONG INFANTS (AGED 5 WEEKS TO <1 YEAR), BY MAIN DIAGNOSIS, 2009–2021 (n=290)**

Main diagnosis group	n	%
Congenital malformations and chromosomal abnormalities	79	27%
Diseases of the respiratory system	45	16%
Certain conditions originating in the perinatal period	37	13%
Diseases of the circulatory system	36	12%
Diseases of the nervous system	21	7%
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	20	7%
Certain infectious and parasitic diseases	11	4%
Endocrine, nutritional and metabolic diseases	9	3%
Diseases of the digestive system	9	3%
Neoplasms	7	2%
Injury, poisoning and certain other consequences of external causes	6	2%
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	~	*
Diseases of the genitourinary system	~	*
Factors influencing health status and contact with health services	~	*
Total	290	100%

~ Denotes five cases or fewer

\* Further suppression required in order to prevent disclosure of five cases or fewer

**FIGURE 9.8: PERCENTAGE OF PAEDIATRIC IN-HOSPITAL DEATHS AMONG PATIENTS AGED 1–18 YEARS, BY MAIN DIAGNOSIS, 2009–2021 (n=723)**

Main diagnosis group	n	%
Diseases of the respiratory system	168	23%
Injury, poisoning and certain other consequences of external causes	142	20%
Diseases of the circulatory system	81	11%
Neoplasms	75	10%
Diseases of the nervous system	67	9%
Certain infectious and parasitic diseases	34	5%
Endocrine, nutritional and metabolic diseases	30	4%
Diseases of the digestive system	29	4%
Congenital malformations and chromosomal abnormalities	29	4%
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	16	2%
Diseases of the blood and disorders involving the immune mechanism	16	2%
Clinical and laboratory findings, not elsewhere classified	14	2%
Diseases of the musculoskeletal system and connective tissue	12	2%
Diseases of the genitourinary system	7	1%
Certain conditions originating in the perinatal period	~	*
Factors influencing health status and contact with health services	~	*
Total	723	100%

~ Denotes five cases or fewer

\* Further suppression required in order to prevent disclosure of five cases or fewer

**FIGURE 10.1:** PROPORTION OF PAEDIATRIC INPATIENT DEATHS AMONG CHILDREN AGED UNDER 16 YEARS IN CHILDREN'S HEALTH IRELAND AT TEMPLE STREET, BY AGE GROUP, 2019–2021 (n=55)

Age group	n	%
≤ 28 days	12	21.8%
29 days–264 days	11	20.0%
1–4 years	13	23.6%
5–9 years	6	10.9%
10–14 years	13	23.6%
Total	55	100.0%

**FIGURE 10.2:** 59.1LOCATION OF DEATHS IN CHILDREN'S HEALTH IRELAND AT TEMPLE STREET, BY YEAR, 2019–2021 (n=47)

	ICU		ED/ward/home/other		Total	
Year	n	%	n	%	N	%
2019	13	59.1%	9	40.9%	22	100%
2020	9	100.0%	0	0.0%	9	100%
2021	12	75.0%	4	25.0%	16	100%
<b>2019–2021</b>	<b>34</b>	<b>72%</b>	<b>13</b>	<b>28%</b>	<b>47</b>	<b>100%</b>

**FIGURE 10.3:** MAIN CAUSE OF DEATH CATEGORIES OF PAEDIATRIC DEATHS IN CHILDREN'S HEALTH IRELAND AT TEMPLE STREET REPORTED TO THE NATIONAL PAEDIATRIC MORTALITY REGISTER, 2019–2021 (n=55)

Cause of death category	n	%
Infection	5	9.1%
Life-limiting conditions	9	16.4%
External causes	11	20.0%
Neonatal deaths	10	18.2%
Other	12	21.8%
Cause of death category not recorded	8	14.6%
Total	55	100.0%

## Appendix 4: Variables provided from Hospital In-Patient Enquiry dataset

Anonymised identification number for each discharge
Encrypted medical record number
Year of discharge
Single year of age
Sex of patient
Hospital attended by patient
Area of residence
Date of discharge
Diagnoses 1–30 (principal diagnosis (dx01) and secondary diagnoses (dx02–dx30))
Diagnosis descriptions for Diagnoses 1–30
Procedures 1–20 (principal procedure and secondary procedures)
Procedure descriptions for Procedures 1–20
Hospital-acquired diagnoses 1–30
Length of stay
Hospital from which the patient was transferred
Diagnosis-related group
Major diagnostic category
Medical card indicator
Admission type (category of admission relating to the episode of care, indicating priority of the admission)



## Appendix 5: Hospitals from which cases notified to the National Paediatric Mortality Register were transferred to Children's Health Ireland at Temple Street

Hospital from which patient was transferred	n	%
Children's Health Ireland at Tallaght	5	16.1%
Dublin maternity hospitals (The Coombe Hospital, National Maternity Hospital and The Rotunda Hospital)	10	32.3%
Mayo General Hospital	~	~
Cavan General Hospital	~	~
South Tipperary General Hospital	~	~
Cork University Hospital	~	~
University Hospital Limerick	~	~
University Hospital Kerry	~	~
Letterkenny University Hospital	~	~
Regional Hospital Mullingar	~	~
Naas General Hospital	~	~
Our Lady of Lourdes Hospital Drogheda	~	~
Portiuncula University Hospital	~	~
Wexford General Hospital	~	~
Total	31	100.0%

~ Denotes five cases or fewer

## Appendix 6: Completion rate of variables included on the National Paediatric Mortality Register Child Death Notification form during the pilot in Children's Health Ireland at Temple Street

Variable	Denominator	Entries	Missing/redundant	Percentage captured
Year of death	55	55	0	100%
Medical record number	55	55	0	100%
Surname	55	55	0	100%
Given name	55	55	0	100%
Date of birth	55	55	0	100%
Sex	55	55	0	100%
Point of admission	55	55	0	100%
Time of first contact	55	14	23	26%
Date of death	55	55	0	100%
Age at death	55	55	0	100%
Time of death	55	43	12	78%
Dead	55	40	15	73%
Location at time of death	55	47	8	86%
Location of death if "other"	3	3	0	100%
Transferred from another hospital	55	46	9	84%
Hospital transferred from	32	31	1	97%
Death expected	55	42	13	74%
Advanced care directive in place	55	43	12	78%
Coroner notified	55	44	11	80%
Autopsy conducted	55	46	9	84%
Inquest	55	40	15	73%
Child in State care	55	35	20	64%
Provisional diagnosis	55	48	7	87%
Event (list of tick boxes)	55	47	8	86%
Position found (sudden unexplained deaths in children aged <5 years)	5	3	2	60%
Location found (sudden unexplained deaths in children aged <5 years)	5	5	0	100%
Co-sleeping with adult (sudden unexplained deaths in children aged <5 years)	5	5	0	100%
Co-sleeping with child (sudden unexplained deaths in children aged <5 years)	5	5	0	100%
Name of notifying individual	55	55	0	100%
Date form completed	55	44	11	80%
County of residence	55	46	9	84%