Deaths of Children and Young People due to traumatic incidents NCMD Thematic Report

Monday 17th July 2023

Presented by Professor Karen Luyt

NCMD
National Child Mortality Database

Knowledge, understanding and learning to improve young lives

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Overview of the report

- This report looks at all children who died due to physical trauma between 1 April 2019 and 31 March 2022.
- This includes children that died due to:
    - Vehicle collisions
    - Violence or maltreatment
    - Drowning
    - Drug or alcohol poisoning (excluding deliberate overdose)
    - Accidental strangulation or suffocation
    - Falls
    - Fire, Burns or electrocution
    - Choking or foreign object consumption
    - Deaths due to falling objects
    - Animal attacks
- It does not include deaths due to suicide or deliberate self-inflicted harm or deaths due to anaphylaxis

Data Collection

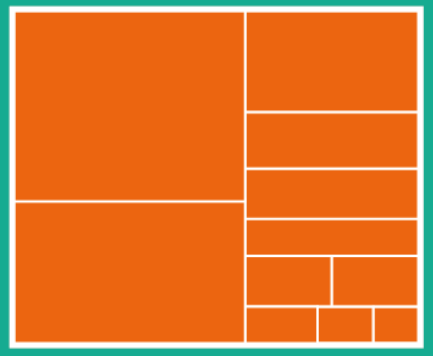
- The data in this report is collected from statutory Child Death Overview Panels (CDOPs)
- CDOPs conduct a multi-agency review of every child in England that dies before their 18th birthday
- The data collected is then analysed by NCMD and the findings published in thematic reports

Modifiable factors

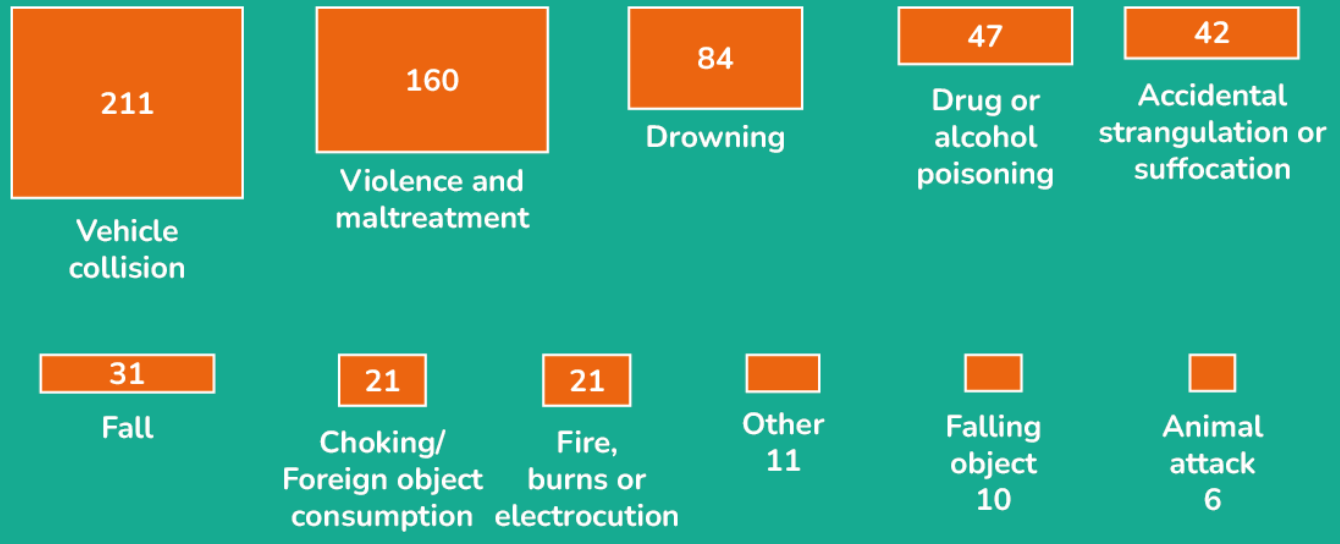
- The NCMD child death data release for 2022 shows that 63% of deaths due to deliberately inflicted injury, suicide or trauma were found to have modifiable factors
- These are factors that may, by means of a locally or nationally achievable intervention, be modified to reduce the risk of future child deaths.
- This group represents the second highest proportion of modifiable factors across all child deaths.
- Taken as a whole, deaths due to injuries encompass a wide range of contributory factors and corresponding opportunities for learning and prevention.
- The report identifies the characteristics of children and young people who die in vehicle collisions, as the result of violence or maltreatment, by drowning or by other unintentional injury
- The report examines the contributory factors and learning identified by the CDOP reviews and makes recommendations to reduce the number of children who die.

This large box represents, as an area, the 9,983 child deaths recorded in England between April 2019 and March 2022.

This smaller box shows, as a proportion of that area, the 644 deaths that were due to trauma. That's around 6% of the total.



This separated view breaks down those trauma deaths by their specific cause.



All deaths due to trauma

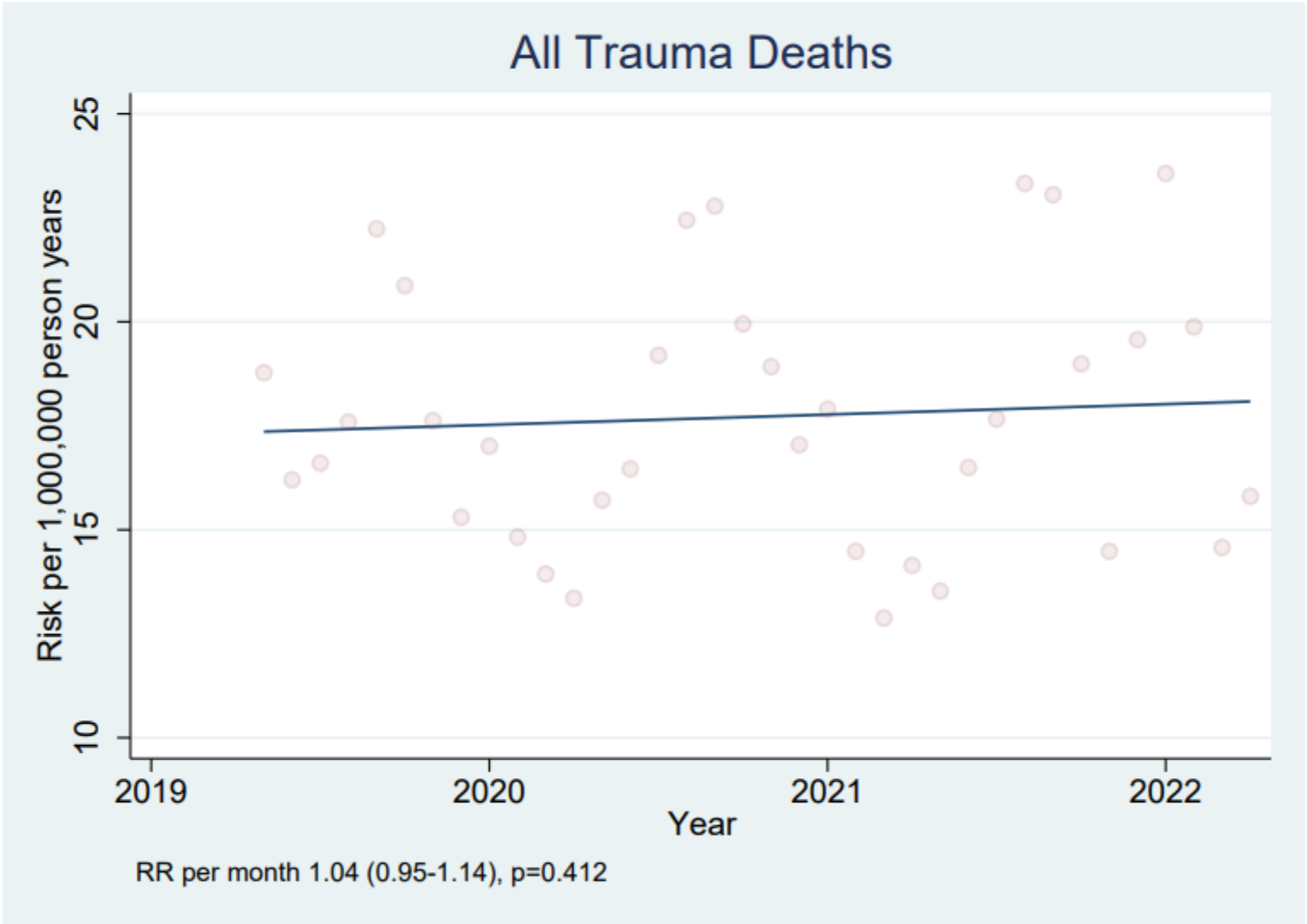
There was a total of 9,983 child deaths recorded in England between 1 April 2019 and 31 March 2022

644 of those deaths were due to trauma (around 6%)

The most common types of trauma were:

- Vehicle collision
- Violence and maltreatment
- Drowning
- Drug or alcohol poisoning
- Accidental strangulation or suffocation
- Falls
- Choking / foreign object consumption
- Fire, burns or electrocution

Figure 1: Risk of death as a result of trauma per 1,000,000 person years, for deaths April 2019 to March 2022



Characteristics of children who die by trauma

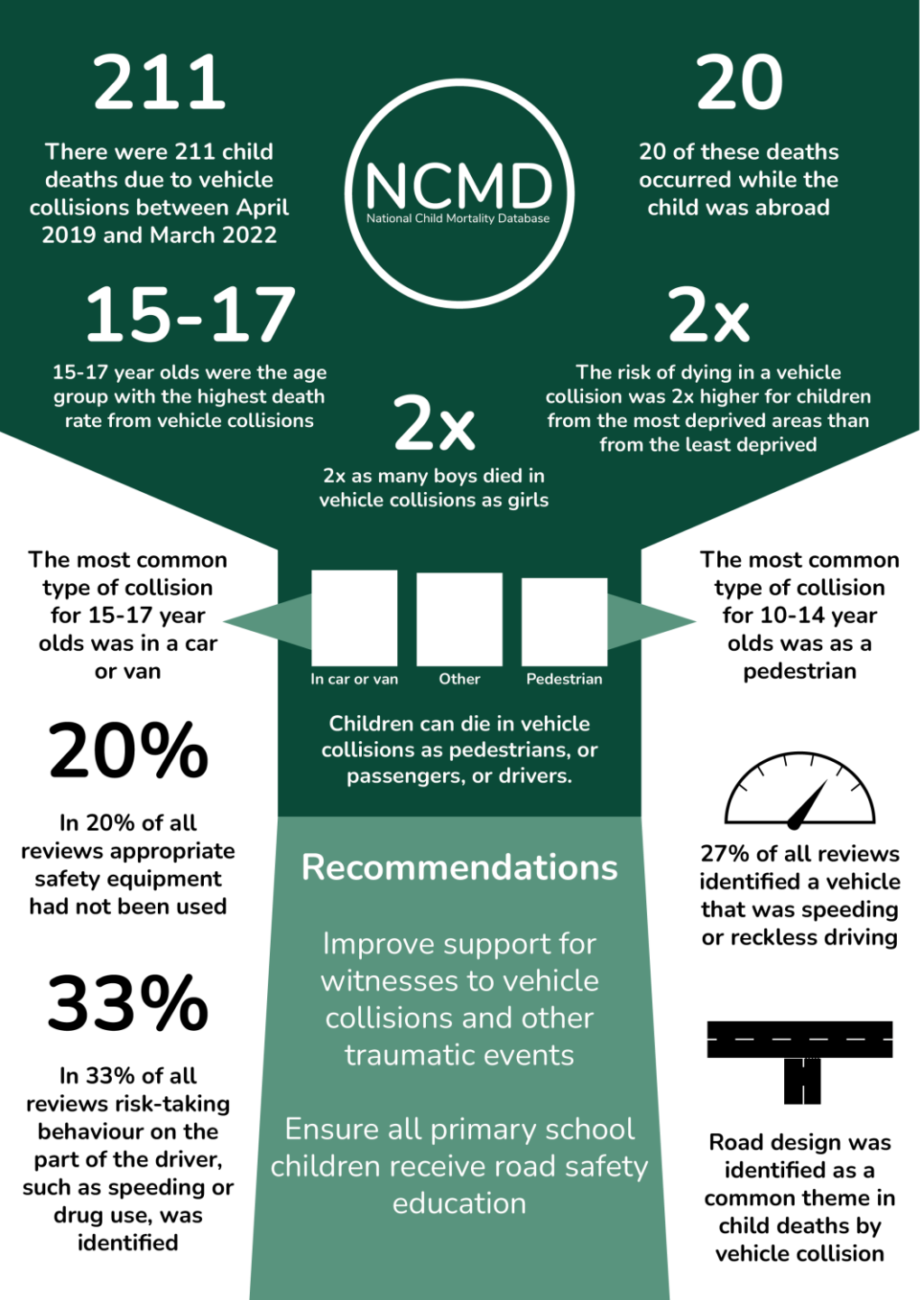
- The death rate was higher in children under 5 (22.97 per 1 million children) and children aged 15-17 years (46.92 per 1 million children)
- The rate of death was higher for males (24.03 per 1 million children) than females (11.07 deaths per 1 million children).
- Overall risk of death due to trauma was also different by the ethnicity of child, the level of deprivation where they lived, and the season of the year, but living in urban or rural environments did not appear to affect the risk.
- As the nature of trauma deaths varies significantly, further analysis and interpretation is included in individual sections in the report.

Children and Young People with a Disability, Learning Disability or Neurodevelopmental condition

- Developmental conditions or disabilities were recorded as **contributory factors in 13% (n=46/342)** of all completed child death reviews where the child died due to trauma (for 0-17 years).

- This included learning disabilities, neurodevelopmental conditions, motor impairments, sensory impairments and other developmental impairments or conditions such as speech and language difficulties.

- For those that died due to trauma, where the child or young person was aged 5-17 years,
  - **8% (n=17/222) had a learning disability** recorded by the CDOP as a factor that may have contributed to their vulnerability, ill-health or death.
  - **11% (n=24/222)** had a neurodevelopmental condition recorded as a factor that may have contributed to their vulnerability, ill-health or death. This included autism spectrum disorder (ASD) and attention deficit hyperactivity disorder (ADHD).



Deaths due to vehicle collisions

- Deaths in this group includes collisions involving cars, bicycles, scooters, motorbikes, mopeds, tractors and quad bikes. It also includes deaths as a result of collisions involving boats, trains, and aircraft.
- The number of deaths increased over the period with 62 in 2019-20, 71 in 2020-21, and 78 in 2021-22.
- There was no evidence that the rates were different by ethnicity, region or urban/rural area.

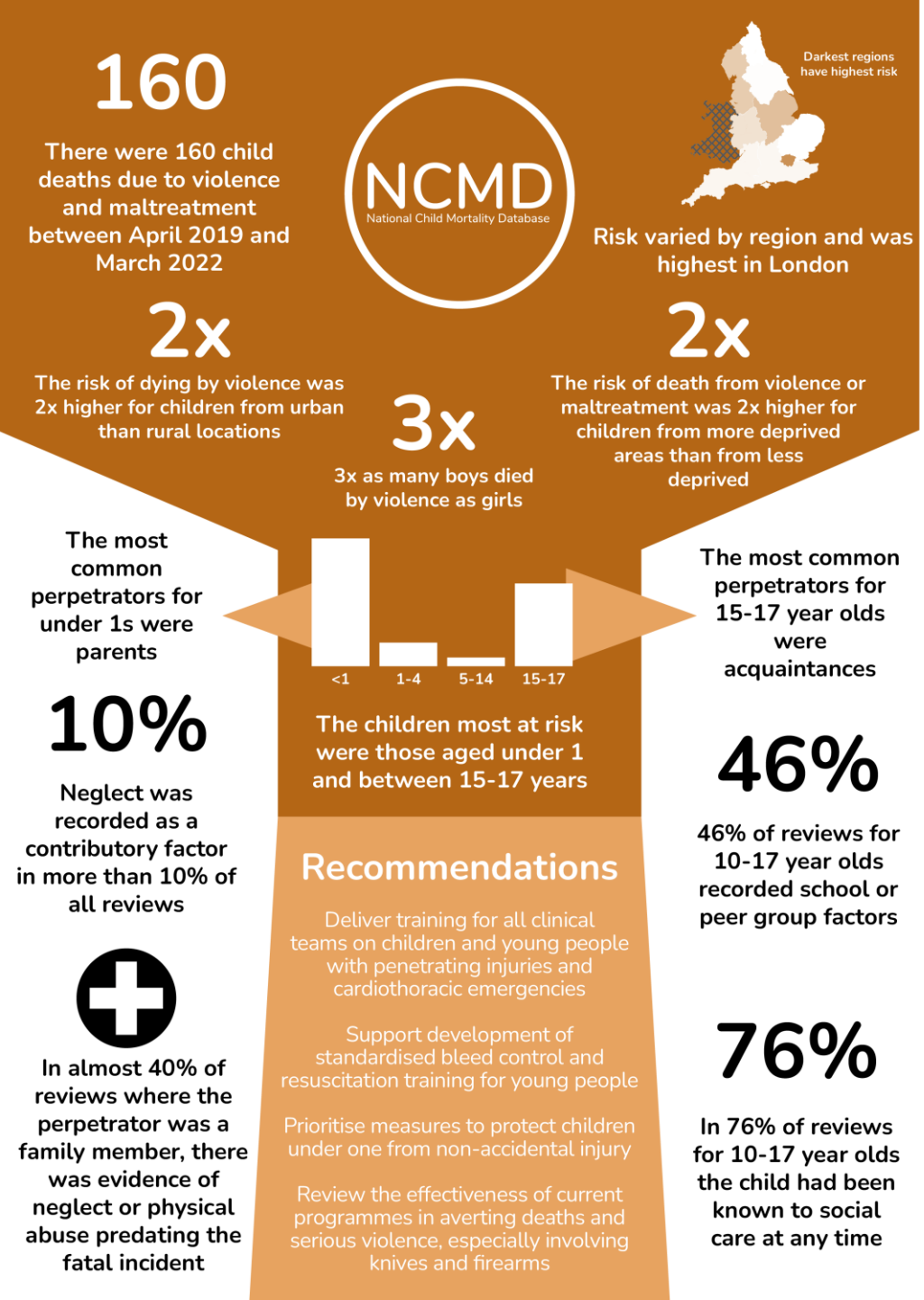
Learning from deaths due to vehicle collisions

- Contributory factors reported included
  - speeding or risk-taking behaviour
  - consumption of drugs and alcohol. This included instances where the child that died had consumed drugs or alcohol, and instances where other vehicle drivers had consumed drugs or alcohol.
  - non-use of appropriate safety equipment e.g. seatbelts
  - complex home circumstances (including abuse or neglect)

- Learning reported from CDOPs included
  - ensuring road planning and design support safe use of the road for cyclists, pedestrians and vehicle users
  - the importance of proper use of safety equipment e.g. seatbelts, helmets and car seats
  - the ongoing need for road safety education of children and young people

Recommendations relating to Vehicle Collisions

- **Ensure all primary school children receive road safety education to ensure they are aware of how to use roads safely.** Action by: Department for Education, Department for Transport, Local Authorities and Independent Schools Council
- **Consider implementation of a card or other resource which can be given to members of the public who witness a traumatic event to provide information and signpost them to appropriate support.** Action by: National Police Chiefs Council, National Fire Chiefs Council, Association of Ambulance Chief Executives



Deaths due to Violence or Maltreatment

- The age profile for these deaths was
  - 35 (22%) were infants under 1,
  - 28 (18%) were aged 1-4 years,
  - 27 (17%) were aged 5-14 years,
  - 70 (44%) were aged 15-17 years.
- Children under 1 had highest risk of death.
- Risk of death also varied by ethnicity, with the lowest in Asian or Asian British children and highest in Black or Black British children.
- There were 78 deaths due to stabbing or firearms, of which 67 children were aged 10-17 years. Most deaths in this category were related to stabbings.
- There was some evidence that deaths due to stabbings increased over the 3 years, from 23 in 2019-20, to 36 in 2021-22.

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Background features in deaths due to Violence or Maltreatment

For deaths that had been reviewed by a CDOP,

- 76% of 10-17 year olds had been known to social care at any time, with 41% known at the time of death.
- 43% of children under 10 years old were known to social care at any time, with 13% known at the time of death,
- Contributory factors reported from completed reviews included

    - challenges with access to services
    - complex home circumstances and domestic abuse or neglect.
    - home safety and living conditions,
    - developmental conditions or disabilities of the child,
    - school or peer group factors.

Learning from deaths due to Violence or Maltreatment

- Learning from CDOP reviews included the need to deliver, to all clinical teams involved in the care of major trauma patients with cardiothoracic emergencies, **ongoing education and training on pathways** and management decisions for children presenting with penetrating injuries.
- The importance of engagement around preventative **knife crime reduction campaigns** and the need for life-saving skills training for children and young people was also highlighted.
- CDOPs reported examples where there was poor communication and information sharing, particularly in instances where children and young people had moved between areas, and the need to improve this across all services.
- CDOPs also recognised and recorded the importance of **continued support and implementation of the ICON programme** (or other similar initiatives) to **reduce infant abusive head trauma**, across the country.

Recommendations for deaths due to Violence and Maltreatment

- **Review the effectiveness of current programmes in averting deaths and serious violence, especially involving knives and firearms. This should include due consideration to the findings within this report of the particular vulnerabilities of male young people and those from some ethnic groups.** Action by: Local Safeguarding Partnerships and Violence Reduction Units
- **Develop and deliver regular education and training events, including simulation-based training, on children and young people presenting with penetrating injuries and cardiothoracic emergencies including damage control surgical training for all on-call surgical consultants. This should be delivered to all clinical teams involved in the care of major trauma patients.** Action by: NHS England Workforce, Training and Education Directorate, Integrated Care Boards, Adult and Paediatric Major Trauma Operational Delivery Networks

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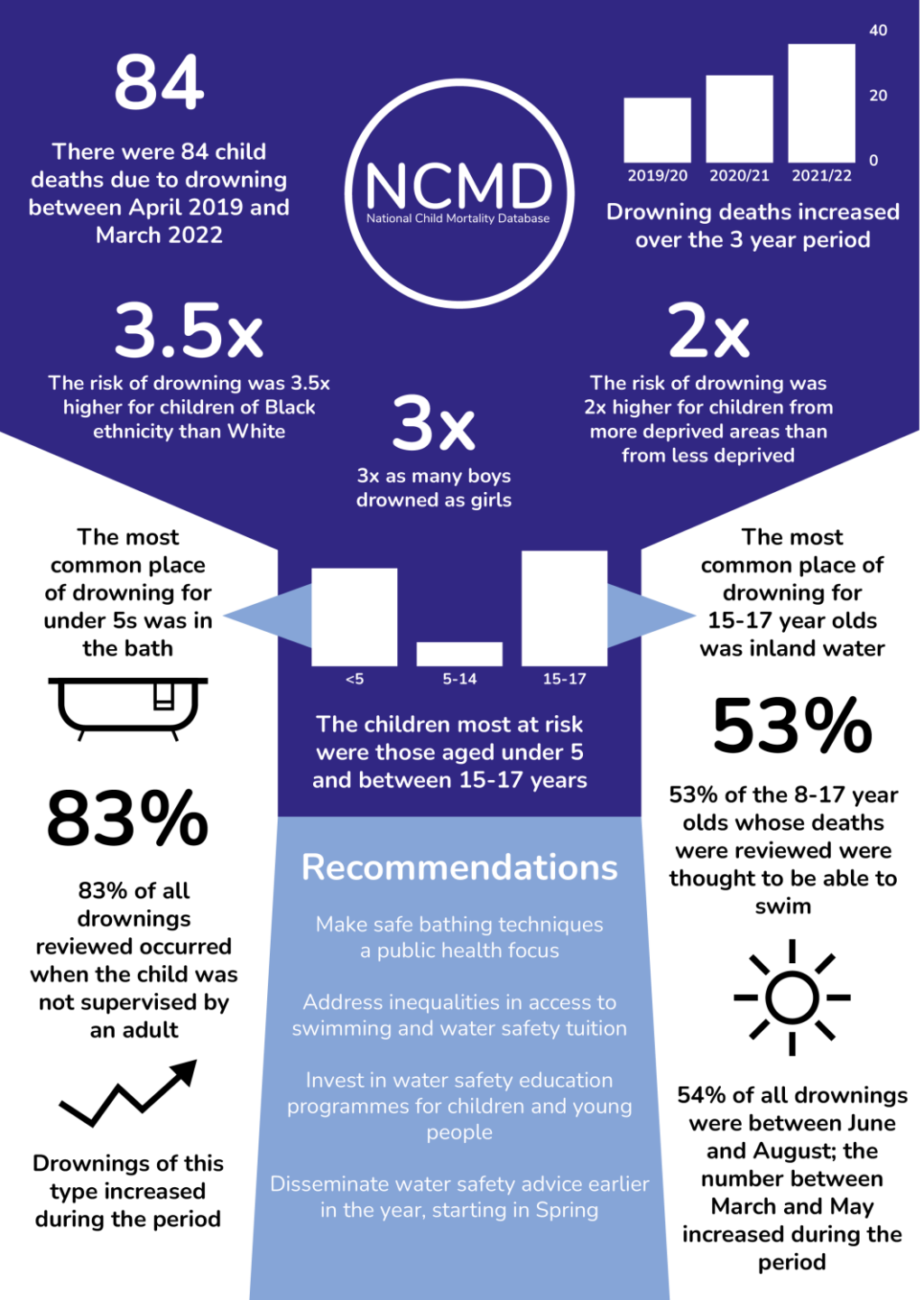
Recommendations for deaths due to Violence and Maltreatment

- **Support the development of standardised bleed control and resuscitation training to support the training of young people in life-saving skills.** Action by: NHS England Workforce, Training and Education Directorate, Violence Reduction Units, charities and not-for-profit agencies
- **Prioritise measures to safeguard and protect children under one from non-accidental injury in line with the recommendations made in the Child Safeguarding Practice Review Panel Report "The Myth of Invisible Men".** Action by: Department for Education, Local Authorities, Local Safeguarding Partnerships, NHS England Safeguarding Team, Institute of Health Visiting, Integrated Care Boards and Integrated Care Partnerships



Deaths due to drowning

- Nearly half (38 (45%) occurred in children under 5, 20 (24%) in children aged 5-14 years and 26 (31%) in those aged 15-17 years.
- The number of drownings, specifically inland drownings, and drownings in the bath, have increased across the 3 years.
- In contrast, deaths in swimming pools have reduced.
- There was also an increase in deaths that occurred during the Spring (March, April or May) over the 3 year period; suggesting that drowning deaths started to occur earlier in the year in 2021-22.

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Background features in deaths due to drowning

- Of the deaths that had been reviewed by a CDOP, over **half (53%)** of 8-17 year olds were thought to be **able to swim.**
- Drownings that occurred while the child was **unsupervised** occurred across the age spectrum, the majority of which were of children aged under 5 (82%, n=14/17).
- The most common reasons for leaving the child or young person unsupervised were taking a phone call, leaving the room to get something e.g. a towel, miscommunication between groups of adults on who was supervising the child, and attending to a sibling or other young children.
- For children aged between 10-17 years, 83% (n=19/23) were unsupervised by an adult, including 13 (57%) who were accompanied by another young person at the time of death. This raised concerns about the possible effect of peer pressure and worry about social exclusion and the potential impact this may have on risk-taking for children and young people around the water.
- Learning reported from CDOP reviews included the importance of supervision of children and young people, the need to ensure appropriate warning signs and lifesaving equipment, and the importance of water safety; both in the home and in public places.

Recommendations for Drownings

- **Ensure that the importance of safe bathing techniques, including the adult always staying within arm's reach of young children at bath time, is a public health focus in accident prevention. This should include the updating of relevant training packages for professionals including community midwives and health visitors to ensure families are aware of safe bathing techniques.** Action by: Office for Health Improvement and Disparities, Local Authorities, NHS England Workforce, Training and Education Directorate, Directors of Public Health, Institute of Health Visiting, charities and not-for-profit agencies
- **Consider an urgent focused agenda to address current inequalities and provide children unable to access statutory or private swimming and water safety tuition with access to class-based water safety education.** Action by: Department for Levelling Up, Housing and Communities, Department for Education and charities and not-for-profit agencies

Recommendations for Drownings

- **Facilitate a cross-departmental roundtable meeting to discuss the current and future risk of drowning in the UK. Including the consideration of engaging with the National Water Safety Forum to better understand the scale, scope and potential opportunities for enhanced prevention measures.** Action by: The Cabinet Office
- **Invest in practical experiential learning, water safety programmes situated outdoors, in response to the high number of child-related open water drowning fatalities.** Action By: Department for Culture, Media and Sport, Sport England, charities and not-for-profit agencies
- **Start dissemination of water safety advice earlier in the year to ensure those accessing water in the spring are also aware of safety messages.** Action by: Integrated Care Boards, Local Authorities, Office for Health Improvement and Disparities, charities and not-for-profit agencies

Deaths due to drug and alcohol poisoning

- There were 47 deaths where the death was thought to be as a result of drug or alcohol poisoning (excluding deaths as a result of a deliberate overdose).
- These deaths were all of children and young people **over the age of 10 years**.
- The children and young people in this group had used illicit drugs, also referred to as recreational drugs, prescription drugs, antihistamines and inhaled gases
- In 24% (n=11/46) of deaths, more than one drug was recorded in the cause of death.
- The most common type of drug taken by children and young people is stimulants, including MDMA, also known as ecstasy (n=23) and cocaine (n=5). The next most common group was depressants including gases and aerosol inhalation (n=8).
- Where it was recorded, 50% (n=12/24) of children and young people who died as a result of drug poisoning were known to mental health services.
- Learning identified the need to ensure **peer awareness of warning flags** or how to recognise an adverse reaction and when to call for help from the emergency services.
- CDOPs recognised that fear of repercussions as a consequence of substance misuse is a **barrier to contacting** the emergency services for young people.

Deaths due to other unintentional injuries

Accidental Strangulation or Suffocation:

- There were 42 deaths as a result of accidental strangulation or suffocation.
- 9 deaths were due to strangulation by blind/curtain cords or cables

Falls:

- There were 31 deaths as a result of a fall.
- The most common place the child fell from was an open window (n=11). 65% (n=20/31) of the deaths occurred in the home or other private residence e.g. a friend or family member's house.

Choking or foreign object consumption:

- There were 21 deaths as a result of choking or foreign object consumption/inhalation.
- For 17 children the death was as a result of choking or food inhalation. In 9 of those deaths, food was the item involved (e.g. a grape, strawberry, sausage, frozen fruit) and in 8 deaths, it was a non-food item that was involved (e.g. balls, small parts from toys, and other small plastic, metal or fabric objects).

Deaths due to other unintentional injuries

Falling Objects:

- There were 10 deaths as a result of injuries sustained from a falling object.
- The incident occurred outside of the home in 8 deaths (e.g., school, shop or other public places).
- Items that fell, included trees or branches, mirrors, lockers, walls and fireplaces.
- Learning recorded included the importance of ensuring items are fully secured to walls in both private residences and public places.

Animal Attacks:

- There were 6 deaths as the result of injuries sustained in an animal attack. In all cases the animal involved was a dog.
- Close supervision is the key to ensuring that dogs and children can live safely together.

Recommendations for other Unintentional Injuries

- **Consider including window restrictors and blind cord cleats in the Decent Homes Standard Review**. Action by: Department of Levelling Up, Housing and Communities
- **Ensure all children and young people between 10 and 18 years are provided with evidence-based, age-appropriate drug and alcohol education, with health and wellbeing education throughout primary school.** Action by: Department for Education, Local Authorities and Independent Schools Council

General Recommendations

- **Revise and update the sudden unexpected death in infancy and childhood multi-agency guidelines for care and investigation; to ensure investigations are appropriate and relevant for the wide variety of circumstances in which children and young people die.** Action by: Royal College of Pathologists, Royal College of Paediatrics and Child Health, Association of Child Death Review Professionals, National Police Chiefs Council
- **Raise awareness among healthcare professionals of post-traumatic stress disorder (PTSD) and complex grief and how these might affect families whose children have died as a result of traumatic incidents and ensure access to specialist help is available.** Action by: NHS England Workforce, Training and Education Directorate, Integrated Care Boards and commissioners of healthcare services

General Recommendations

- **Ensure universal delivery of programmes to reduce inequalities in line with the recommendations made in the NCMD thematic report on child mortality and deprivation. This should include implementation of the Healthy Child Programme and offers of intensive support to vulnerable families and those at higher risk identified in this report.** Action by: Integrated Care Boards and Local Authorities
- **Ensure sharing of information and learning within integrated care systems with support from Integrated Care Partnerships / Integrated Care Boards to support targeted implementation based on local data (e.g., knife crime).** Action by: Child Death Overview Panels, Integrated Care Boards, Integrated Care Partnerships, National Child Mortality Database
- **Review and improve the information sharing and communication between local authorities and between agencies, e.g., in the cases where children and young people move between areas due to family moves or moves between care placements. This includes information sharing between schools especially for managed moves of children in care to ensure there is sufficient information available to inform the induction process and support strategies and interventions in the new areas.** Action by: Integrated Care Boards, Integrated Care Partnerships

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