



Public Health  
England

Protecting and improving the nation's health

# Reducing child mortality in London

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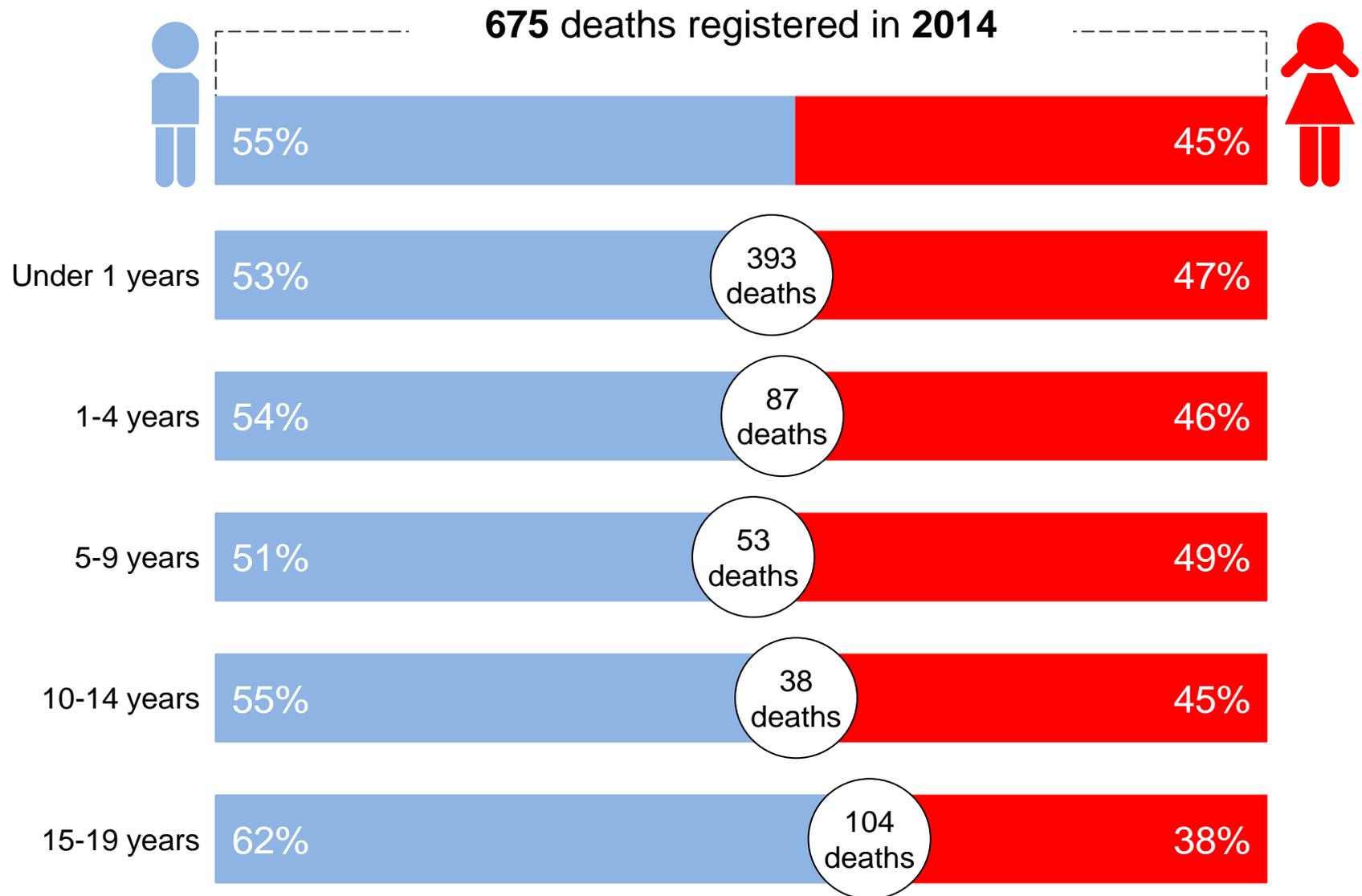
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# Background

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- Although there have been significant reductions in child deaths in the past three decades in England, **too many children are still dying unnecessarily**
- If the UK had the same childhood mortality for children aged 0-14 years as Sweden there would be **five fewer child deaths every day** and about **1,951 fewer child deaths every year**
- In 2014, almost **one in three** child deaths in England and Wales was avoidable
- In 2015, about **one in four** child death reviews in England was identified by CDOPs as having a modifiable risk factor
- **675** children and young people (CYP) aged 0-19 years died in London in 2014

# Key child mortality statistics for CYP in London



# Key child mortality statistics for CYP in London (2011-13)

## Infant mortality

3.8

per 1,000 live births of infants under one year of age in **London** compared with the England average of

## Child mortality

12.2

per 100,000 people aged one to 17 years in **London** compared with the England average of

## Children killed or seriously injured in road traffic accidents

13.7

per 100,000 people from 0-15 years in **London** compared with the England average of

4.0

11.9

19.1

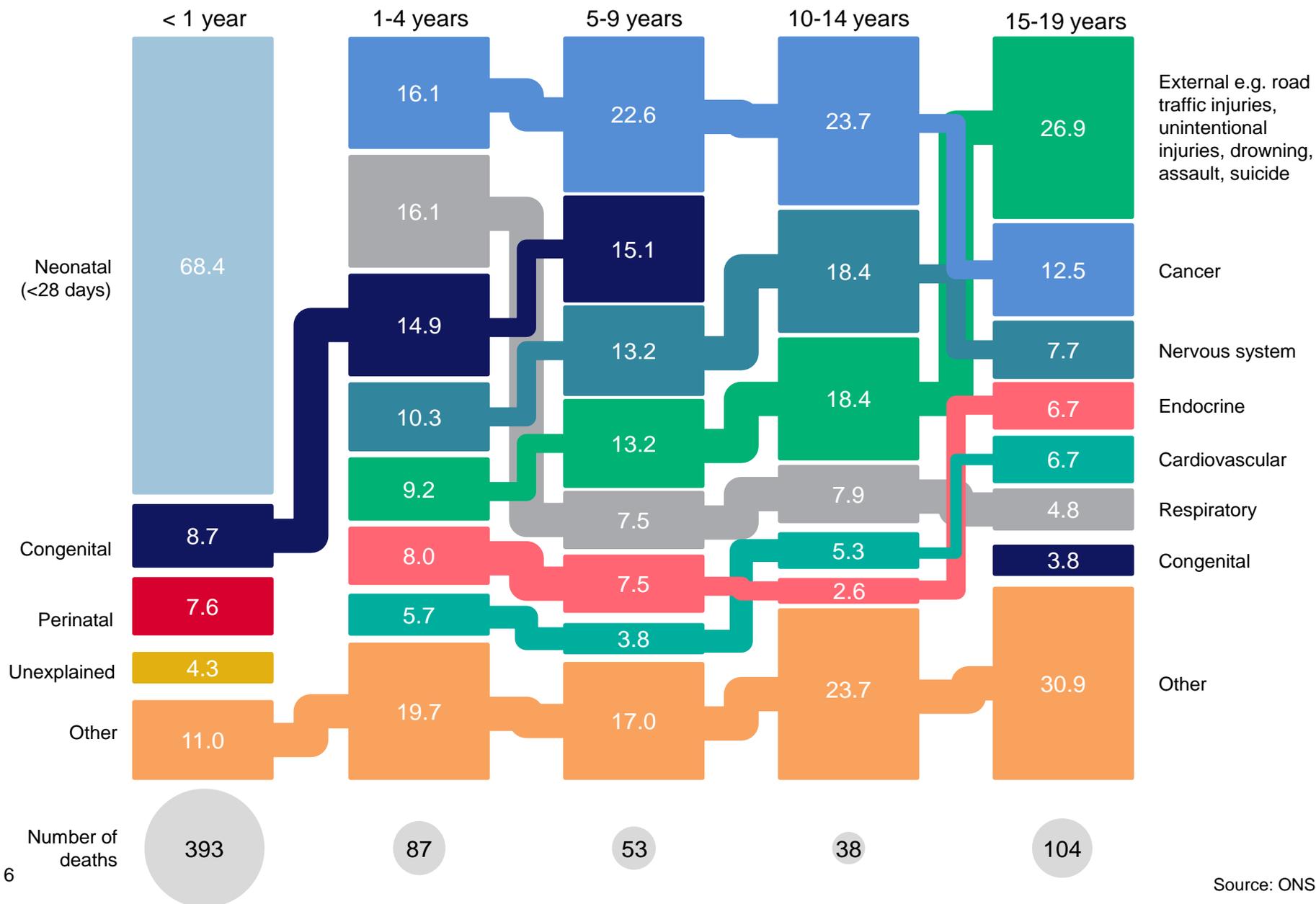
Compared to England

Better

Similar

Worse

# Causes of deaths (%) of CYP in London (2014)



# Avoidable child deaths in England and Wales in 2014

In 2014 almost  
**1 in 3**



child deaths in England  
and Wales was  
**avoidable\***

**72 years**  
of potential life is lost  
on average for each  
person aged 0 to 19  
who died from  
avoidable\* causes

## Top **six** causes of **avoidable\*** deaths in children and young people (aged 0 to 19 years)



Accidental injuries  
**13.5%**



Complications of  
perinatal period  
**13.3%**



Suicide and self-inflicted  
injuries  
**12.6%**



Transport accidents  
**12.2%**



Infectious diseases  
**11.2%**



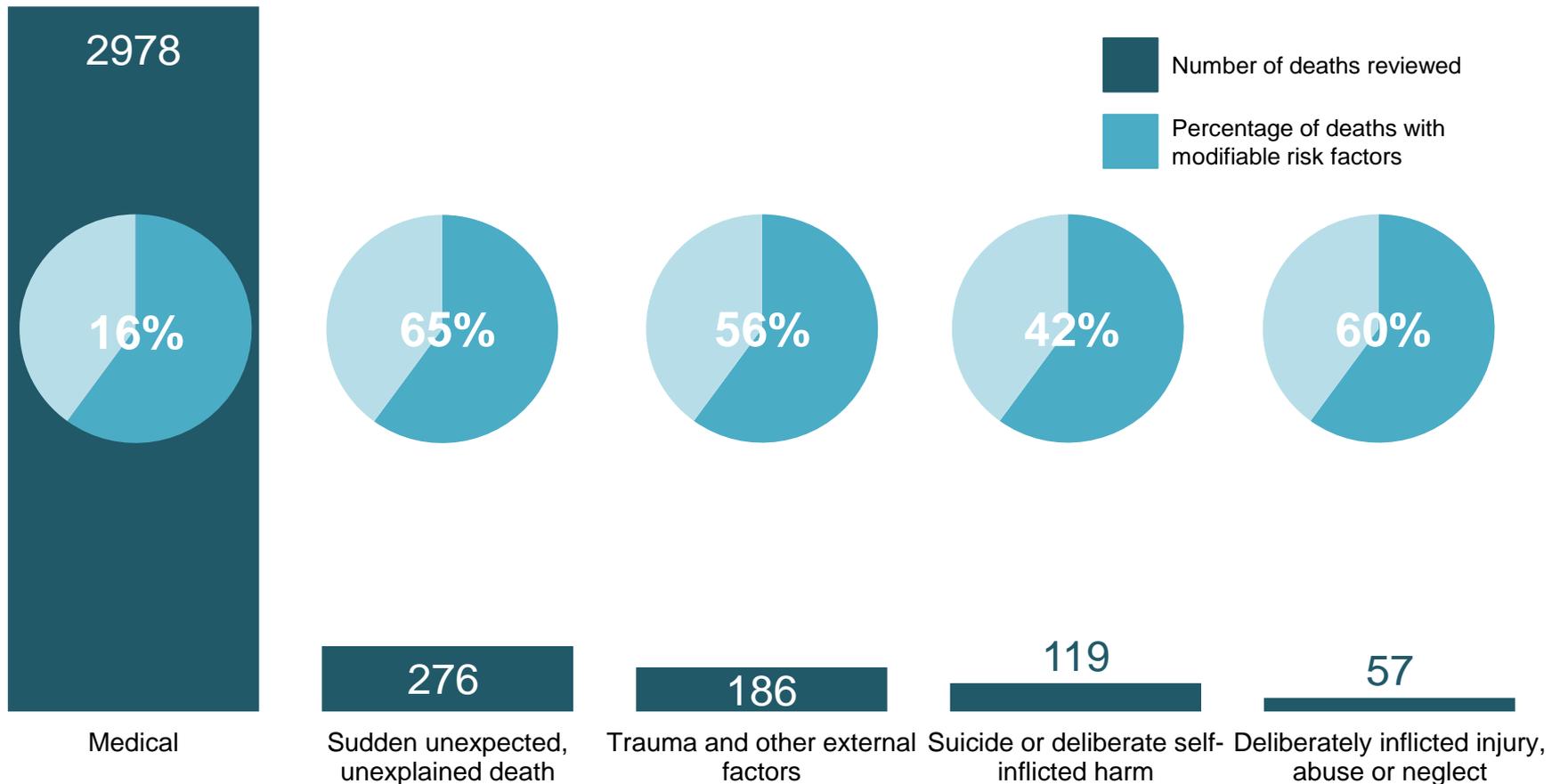
Congenital malformations  
of the circulatory system  
**9.9%**

The leading causes of **avoidable** deaths in children  
and young people were **non-chronic conditions**

7 \*Avoidable deaths are all those defined as preventable (could be avoided by public health interventions), amenable (could be avoided through good quality healthcare) or both, where each death is counted only once

# National CDOP data - year ending 31 March 2016

- The following chart shows the number of reviews for each category of death together with the proportion of these deaths with modifiable risk factors
- Medical** causes accounted for **82%** of all deaths, **16%** of these deaths had modifiable risk factors compared to **non-medical** causes, which accounted for **18%** of all deaths but **57%** of these deaths had modifiable risk factors



# Actions to reduce child death - overview

Risk factors for child deaths include:



## Factors intrinsic to the child

- Prematurity
- Chronic illness



## Factors around parental care

- Basic care of child
- Responding to health needs
- Parental smoking



## Environmental factors

- Parental age
- Social class
- Housing



## Service need and provision

- Unmet medical needs
- Inadequate health care
- Lack of support services

Actions to reduce child deaths



## Reduce health inequalities



Provide **safe environments** for children and young people inside and outside their homes



**Optimise maternal physical and mental health** before, during and after pregnancy



**Increase uptake** of child immunisations



**Better training** of healthcare staff to improve the recognition of serious illnesses



**Communication** with families to spot the signs of illness or failing health



## Useful resources

- ✓ Fraser J, Sidebotham P, Covington T et al The Lancet 2014;384;894-902 Learning from child death review in the USA, England, Australia and New Zealand
- ✓ Sidebotham P, Fraser J, Fleming P et al The Lancet 2014;384; 904-914 Patterns of child death in England and Wales
- ✓ Sidebotham P, Fraser J, Covington T et al The Lancet 2014: 384;915-927 Understanding why children die in high income countries
- ✓ Wolfe I, Marcfarlane A, Donkin A et al on behalf of RCPCH, NCB, BACPH (2014) Why children die: death in infants, children and young people in the UK
- ✓ Local authority child health profiles: [atlas.chimat.org.uk/IAS/dataviews/childhealthprofile](http://atlas.chimat.org.uk/IAS/dataviews/childhealthprofile)



## References

- Department for Children, Schools and Families (2007) Patterns and causes of child deaths: Information sheet
- Department of Health (2007) Review of the Health Inequalities PSA Target
- Korkodilos M, Cole M (2016) The health and wellbeing of children and young people in Barking & Dagenham, Havering and Redbridge

# Actions to reduce child death - reducing infant mortality

## Risk factors for infant mortality include:



In 2014, the infant mortality rate (IMR) was **28x higher** for **low birth weight** babies than for babies of normal birth weight



The IMR for babies born to **teenage mothers** is **44% higher** than mothers aged 20-39



In 2014, the IMR was **2.5x higher** in babies in families in the **routine and manual** group compared with those in higher managerial and professional groups



In 2014, the IMR of babies of mothers born in **Pakistan** was **2.1x higher** than babies of mothers born inside the UK

## Actions to reduce infant mortality



### Co-ordination and leadership

Vital for an effective cross-agency approach



### Commissioning

Integrated commissioning to ensure a whole systems approach



### Communication

Understand the preferences and needs of the local population



### Care pathway development

Vital to support sustained improvements in service delivery and quality



## Useful resources

- ✓ University of Oxford, National Perinatal Epidemiology Unit (2015) Inequalities in Infant Mortality Work Programme
- ✓ Royal College of Paediatrics and Child Health and National Children's Bureau (2014) Why children die: death in infants, children and young people in the UK Part B
- ✓ National Institute for Health and Care Excellence (2014) clinical guideline 37 Postnatal care
- ✓ National Institute for Health and Care Excellence (2014) NICE guideline PH26 Quitting smoking in pregnancy and following childbirth



## References

- ONS (2016) Statistical Bulletin. Childhood mortality in England and Wales: 2014
- PHE London (2015) Reducing infant mortality in London: an evidence-based resource

# Actions to reduce child death - improving communication

Good communication with families and between professionals is an **essential** component of high-quality care

Factors contributing to poor communication include:



## Individual ability

Human factors that influence the effectiveness of communication include skills and ability, attitude, stress, distractions



## Team behaviours

Role confusion and professional conflict



## Organisational

- Working arrangements creating barriers to effective communication
- A lack of staff and inadequate resources

Actions to improve communication



## Families

Clear information given to families in a manner they can understand

A clearly documented information 'passport' for children with long-term conditions



## Organisational

Make effective communication an organisational priority



## Tools

These include:

- The 'SBAR' (Situation, Background, Assessment, Recommendation) tool
- Clinical handover routines
- Safety briefings



## Useful resources

- ✓ [patientsafety.health.org.uk/resources?f\[0\]=field\\_tags:58&f\[1\]=field\\_area\\_of\\_care:22](https://patientsafety.health.org.uk/resources?f[0]=field_tags:58&f[1]=field_area_of_care:22)
- ✓ [www.institute.nhs.uk/safer\\_care/safer\\_care/Situation\\_Background\\_Assessment\\_Recommendation.html](https://www.institute.nhs.uk/safer_care/safer_care/Situation_Background_Assessment_Recommendation.html)

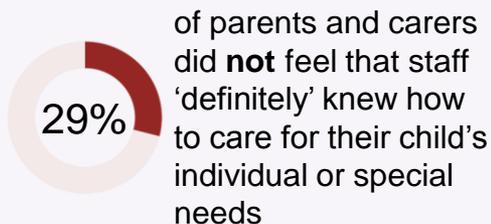
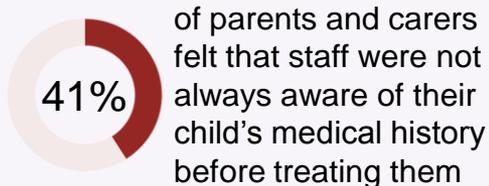
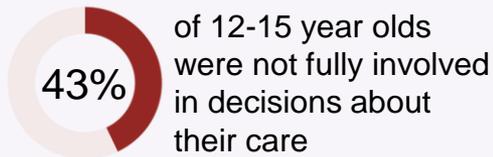
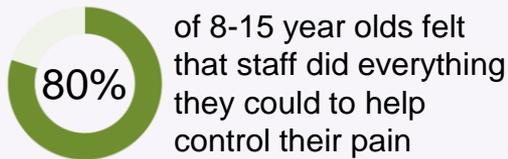


## References

- Child Health Reviews UK (2013) Co-ordinating Epilepsy Care: a UK-wide review of healthcare in cases of mortality and prolonged seizures in children and young people with epilepsies
- National Children's Bureau (2008): a shared responsibility safeguarding arrangements between hospitals and children's social services
- Lim I (2014): effective communication among healthcare workers to improve patient safety and quality
- RCOG (2010): improving patient handover

# Actions to reduce child death - Improving quality

All CYP are entitled to receive **appropriate** healthcare wherever they access it. In a national survey of CYP and their families:



## The six domains to improve quality

- 1 Safe care** through training, continued education, strong leadership and sharing good, safe practice
- 2 Effective care** through evidence-based practice
- 3 Person-centred care** to ensure the person and their family are involved in decisions about their care
- 4 Timely care** delivered at the right time, by the right person, with minimal delays
- 5 Efficient care** to allow redistribution of resources to get greater value of the resources committed to delivering care
- 6 Equitable care** to maintain the same quality of care regardless of the varying personal characteristics of patients



## Useful resources

- ✓ [www.improvement.nhs.uk](http://www.improvement.nhs.uk)
- ✓ [www.rcpch.ac.uk/improving-child-health/quality-improvement-and-clinical-audit/quality-improvement-and-clinical-audit](http://www.rcpch.ac.uk/improving-child-health/quality-improvement-and-clinical-audit/quality-improvement-and-clinical-audit)



## References

- Care Quality Commission (2015) Children and young people's inpatient and day case survey 2014
- RCPCH (2015) Quality improvement in child health: strategic framework

# Actions to reduce child death - reducing SUDI

Every 11 days in London a baby dies from SUDI\* risk factors include:



**Low birth weight**  
5x higher risk



**Smoking**  
5x higher risk



**Deprivation**  
3.5x higher risk



**Bed sharing**  
2.7x higher risk



**Mothers <20 years**  
2.5x higher risk

## Actions to reduce SUDI



Ensure safer sleeping practice for babies



Reduce parental smoking



Encourage and support mothers to breastfeed



Change knowledge and behaviour through clear communication of risk factors



## Useful resources

- ✓ [www.bestbeginnings.org.uk/baby-buddy](http://www.bestbeginnings.org.uk/baby-buddy)
- ✓ [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/431396/London\\_sudden\\_deaths\\_in\\_infancy\\_update\\_factsheet.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/431396/London_sudden_deaths_in_infancy_update_factsheet.pdf)
- ✓ [www.lullabytrust.org.uk](http://www.lullabytrust.org.uk)
- ✓ National Institute for Health and Care Excellence (2014) NICE guideline PH26 Quitting smoking in pregnancy and following childbirth
- ✓ Public Health England London (2014) The health and wellbeing of children and young people in London: an evidence-based resource



## References

- PHE London (2015) Reducing infant mortality in London: an evidence-based resource

\*SUDI: Sudden Unexpected Death in Infancy

# Actions to reduce child death - reducing suicides



**149** children aged 10-19 years in England committed suicide in 2014, almost **three** children every week

Risk factors include:



## Biological

- Family factors eg mental illness or history of suicide
- Physical illness and long-term conditions



## Psychological

- Alcohol or drug abuse
- Bereavement and experience of suicide
- Mental ill health, self-harm and suicidal ideas
- Social isolation or withdrawal



## Environmental

- Abuse and neglect
- Bullying
- Suicide-related internet use
- Academic pressures related to exams

## Actions to reduce suicide



Tailor approaches to improvements in mental health



Reduce access to the means of suicide



Support the media in delivering sensitive approaches to suicide



Support research, data collection and monitoring



Provide better information and support to those bereaved or affected by suicide



## Useful resources

- ✓ [www.gov.uk/government/collections/suicide-prevention-resources-and-guidance](http://www.gov.uk/government/collections/suicide-prevention-resources-and-guidance)
- ✓ [www.supportaftersuicide.org.uk/](http://www.supportaftersuicide.org.uk/)
- ✓ [www.samaritans.org/about-us/our-organisation/national-suicide-prevention-alliance-nspa](http://www.samaritans.org/about-us/our-organisation/national-suicide-prevention-alliance-nspa)
- ✓ [www.beatbullying.org/dox/resources/resources.html](http://www.beatbullying.org/dox/resources/resources.html)
- ✓ [www.stonewall.org.uk/at\\_school/education\\_for\\_all/default.asp](http://www.stonewall.org.uk/at_school/education_for_all/default.asp)



## References

- Butterworth S, Suicide and self-harm in young people: risk factors and interventions
- Department of Health (2012) Preventing suicide in England: a cross-government outcomes strategy to save lives
- National Confidential Inquiry into Suicides and Homicides by People with Mental Illness (2016) Suicide by children and young people in England

# Actions to reduce child death - home safety

Unintentional injuries in and around the home are a **leading** cause of **preventable** death and a **major** cause of ill health and disability



Every year over **62** children under 14 die as a result of an accident in the home



Over **76,000** children under the age of 14 are admitted for treatment



Each year about **two million** children under the age of 15 are taken to A&E after being injured in or around the home



Risk factors for unintentional injuries include age < 5 years, boys and deprivation



**£15.5-87 million**  
Estimated annual hospital costs of severe, unintentional injuries to children

## Actions to improve home safety



### Environment

Improvement in planning and design results in safer homes and leisure areas



### Education

Increasing the awareness of the risk of accidents in a variety of settings and providing information on ways of minimising these risks



### Empowerment

Accident prevention initiatives, which have been influenced by the community, are more likely to reflect local need and therefore encourage greater commitment



### Enforcement

Child safety legislation. Local councils assess hazards to privately rented homes



## Useful resources

- ✓ [www.chimat.org.uk/earlyyears/injuries](http://www.chimat.org.uk/earlyyears/injuries)
- ✓ [www.gov.uk/government/publications/reducing-unintentional-injuries-among-children-and-young-people](http://www.gov.uk/government/publications/reducing-unintentional-injuries-among-children-and-young-people)
- ✓ [www.capt.org.uk/](http://www.capt.org.uk/)
- ✓ [www.rospa.com/](http://www.rospa.com/)



## References

- Department of Health (2012) Our children deserve better: prevention pays
- [www.rospa.com/home-safety/advice/general/facts-and-figures/](http://www.rospa.com/home-safety/advice/general/facts-and-figures/)
- [www.rospa.com/home-safety/advice/child-safety/accidents-to-children/#who](http://www.rospa.com/home-safety/advice/child-safety/accidents-to-children/#who)

# Actions to reduce child death - reducing road traffic injuries (RTIs)

**7** children are killed or seriously injured on Britain's roads every day

**15** people are seriously injured for every 1 person aged < 25 years who dies in a RTI

**16** deaths or serious injuries to children under 16 years **each week** occur between 8am to 9am and 3pm to 7pm

**547** million pounds is the estimated annual cost of child road deaths and injuries

**936** fewer serious or fatal injuries to child pedestrians and child cyclists annually would occur if all children had a risk of injury as low as children in the least deprived areas

## Actions to reduce RTIs



### Improve safety for children travelling to and from school

Including developing school travel plans, education and engineering measures to physically change the road environment



### Introduce 20mph limits in priority areas as part of a safe system approach to road safety

Supported by providing publicity, information and community engagement



### Co-ordinate action to prevent traffic injury

Within local authorities to encourage active travel and create liveable streets



## Useful resources

- ✓ [www.capt.org.uk/resources/road-safety](http://www.capt.org.uk/resources/road-safety)



## References

- [www.makingthelink.net/tools/costs-child-accidents/costs-road-accidents](http://www.makingthelink.net/tools/costs-child-accidents/costs-road-accidents)
- PHE (2014) Reducing unintentional injuries on the roads among children and young people under 25 years

# Actions to reduce child death - reducing domestic abuse



About **one in five** children aged 11-17 years has been exposed to domestic abuse



About **130,000 children** live in households with **high-risk** domestic abuse



**62%** of children exposed to domestic abuse are directly harmed



**80%** of children exposed to domestic abuse are known to at least one public agency



Children suffer multiple **physical** and **mental health** consequences because of living with domestic violence

## Actions to reduce domestic abuse



Educating and challenging young people about healthy relationships, abuse and consent



Earlier identification and intervention to prevent abuse



Improving access to parenting programmes which specifically address domestic abuse



Moving to an integrated model of family support



Strengthening the role of health services and providing effective help through specialist children's services



Changing perpetrators' behaviours to prevent abuse and reduce offending



Building the evidence base in what works in early intervention and tackling perpetrators



## Useful resources

- ✓ [www.caada.org.uk](http://www.caada.org.uk)
- ✓ [www.nspcc.org.uk](http://www.nspcc.org.uk)
- ✓ [www.ncdv.org.uk](http://www.ncdv.org.uk)
- ✓ [www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/337615/evidence-review-interventions-F.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/337615/evidence-review-interventions-F.pdf)



## References

- CAADA (2014) In plain sight: effective help for children exposed to domestic abuse
- Home Office (2016) Ending violence against women and girls Strategy 2016-2020
- Radford L et al (2011): child abuse and neglect in the UK today
- Safe Lives (2015) Getting it right the first time

# Bereavement support

**1 in 20**

children in England has been bereaved of a parent or sibling by the time they are 16 years old. In 2015, that was about **33,210** children aged five to 16 years in London



Children from disadvantaged backgrounds are **more likely** to be bereaved of a parent or sibling



Childhood bereavement may have both **short** and **long-term** impacts on children's wellbeing and educational achievement



Bereaved children are **1.5x more likely** than other children to be diagnosed with 'any' mental disorder



The death of a parent is associated with **lower** employment rates at the age 30

## Actions to support bereaved children



### Support for families

Providing information about how children grieve, what can help and what services there are



### Support in schools

Developing a co-ordinated school approach such as staff training, school counselling services and peer support



### Specialist support

Providing outreach and specialist support for those who are vulnerable or traumatised



## Useful resources

- ✓ [www.childhoodbereavementnetwork.org.uk](http://www.childhoodbereavementnetwork.org.uk)
- ✓ [www.cruse.org.uk](http://www.cruse.org.uk)
- ✓ [www.griefencounter.org.uk](http://www.griefencounter.org.uk)
- ✓ [www.hopeagain.org.uk](http://www.hopeagain.org.uk)
- ✓ [www.tcf.org.uk](http://www.tcf.org.uk)
- ✓ [www.winstonswish.org.uk](http://www.winstonswish.org.uk)
- ✓ [www.nhs.uk/Livewell/bereavement/Pages/children-bereavement.aspx](http://www.nhs.uk/Livewell/bereavement/Pages/children-bereavement.aspx)



## References

- Aynsley-Green A, Penny A, Richardson S BMJ Supportive and Palliative Care (2011) Bereavement in childhood: risks, consequences and responses
- Parsons S (2011) Long-term impact of childhood bereavement. Preliminary analysis of the 1970 British Cohort Study (BCS70): London, Child wellbeing research centre
- Penny and Stubbs (2014) Childhood Bereavement: what do we know in 2015? London: National Children's Bureau
- [www.childhoodbereavementnetwork.org.uk/research/local-statistics.aspx](http://www.childhoodbereavementnetwork.org.uk/research/local-statistics.aspx)

# Image credits

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