

**ROSPA**

*The Royal Society for the  
Prevention of Accidents*

# ***The burden of unintentional injury***

Presented by:

**Errol Taylor**

Deputy Chief Executive



# “The most hazardous thing we could do....”



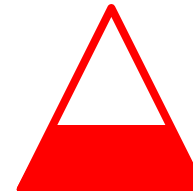
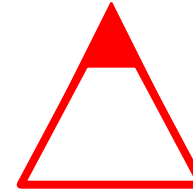
**Dr Clifford Mann**

President of the Royal College of  
Emergency Medicine, delivering the  
2014 Alan St John Holt Lecture



# Pyramids

- **Deaths**
- **Serious injuries leading to hospital admissions**
- **Injuries leading to hospital Emergency Department (A&E) attendances**





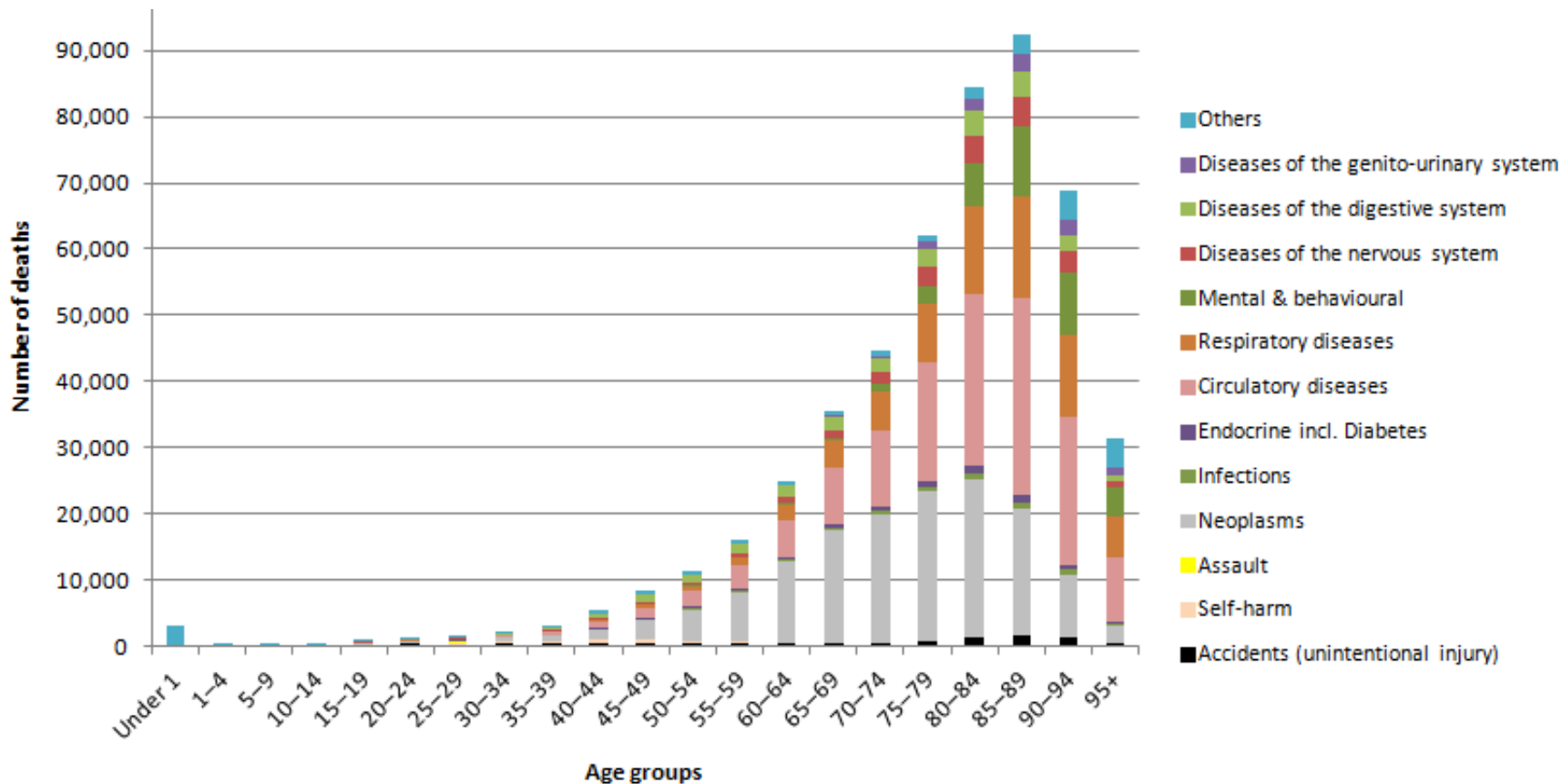
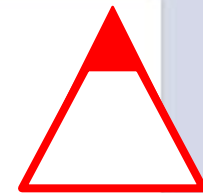
# UK injury pyramids (2012/13 data)



	Workplace	Transport (mainly Road)	Leisure	Home
Scale				
Deaths	167	1,909	5,300	6,100
Admissions	70,000	65,000	220,000	360,000
Attendances	600,000	1.1 million	1.9 million	3.1 million



# Causes of death as a % of all causes of death, by age group, England & Wales, 2012 (ONS data)

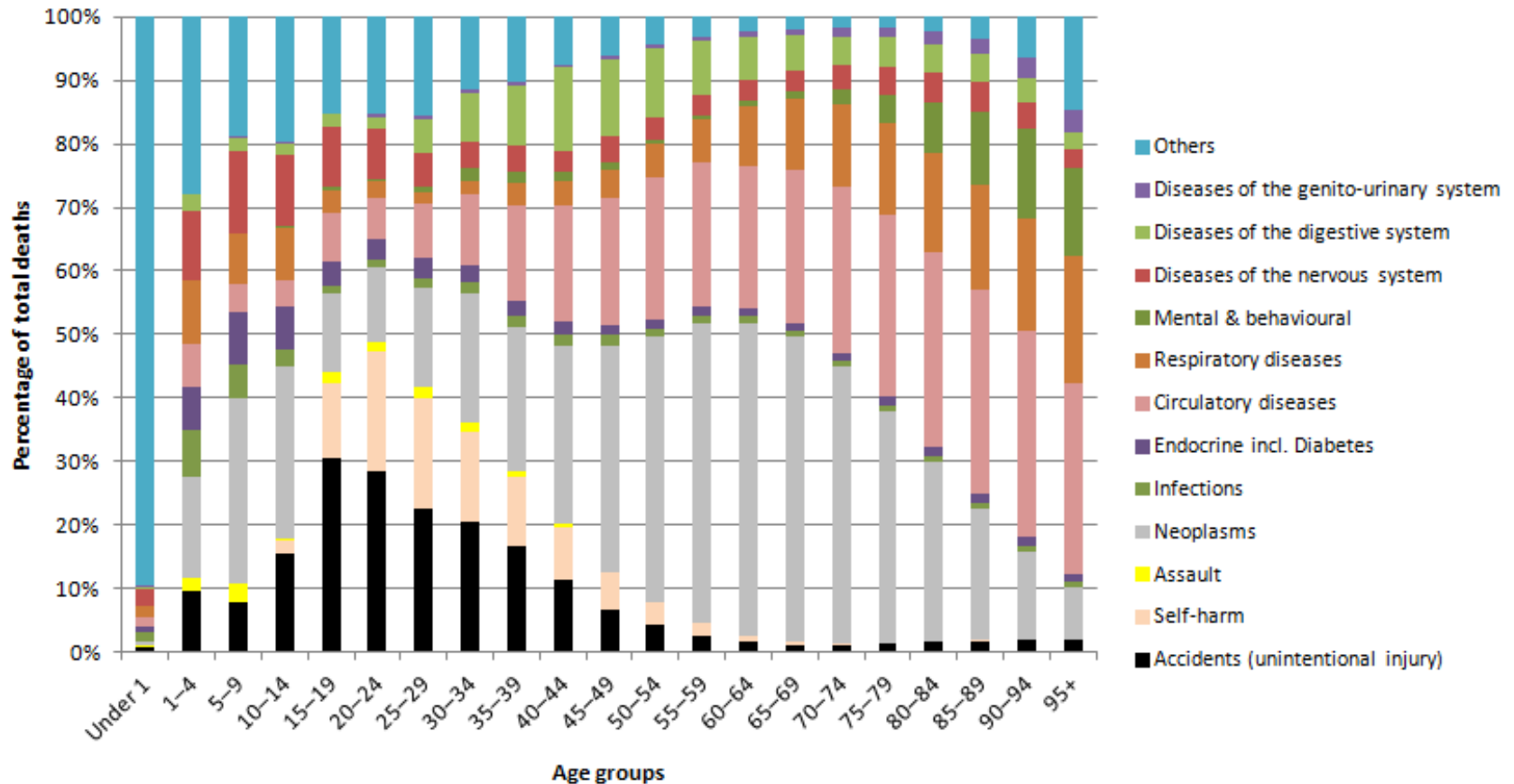
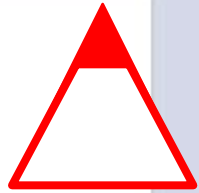


### Fatal accidents (2% of deaths):

England	<b>10,729</b>
Wales	655
England & Wales	<b>11,384</b>

***RoSPA's mission is to save lives and reduce injuries***

## Causes of death as a % of all causes of death, by age group, England & Wales, 2012 (ONS data)



# Definition of preventable mortality

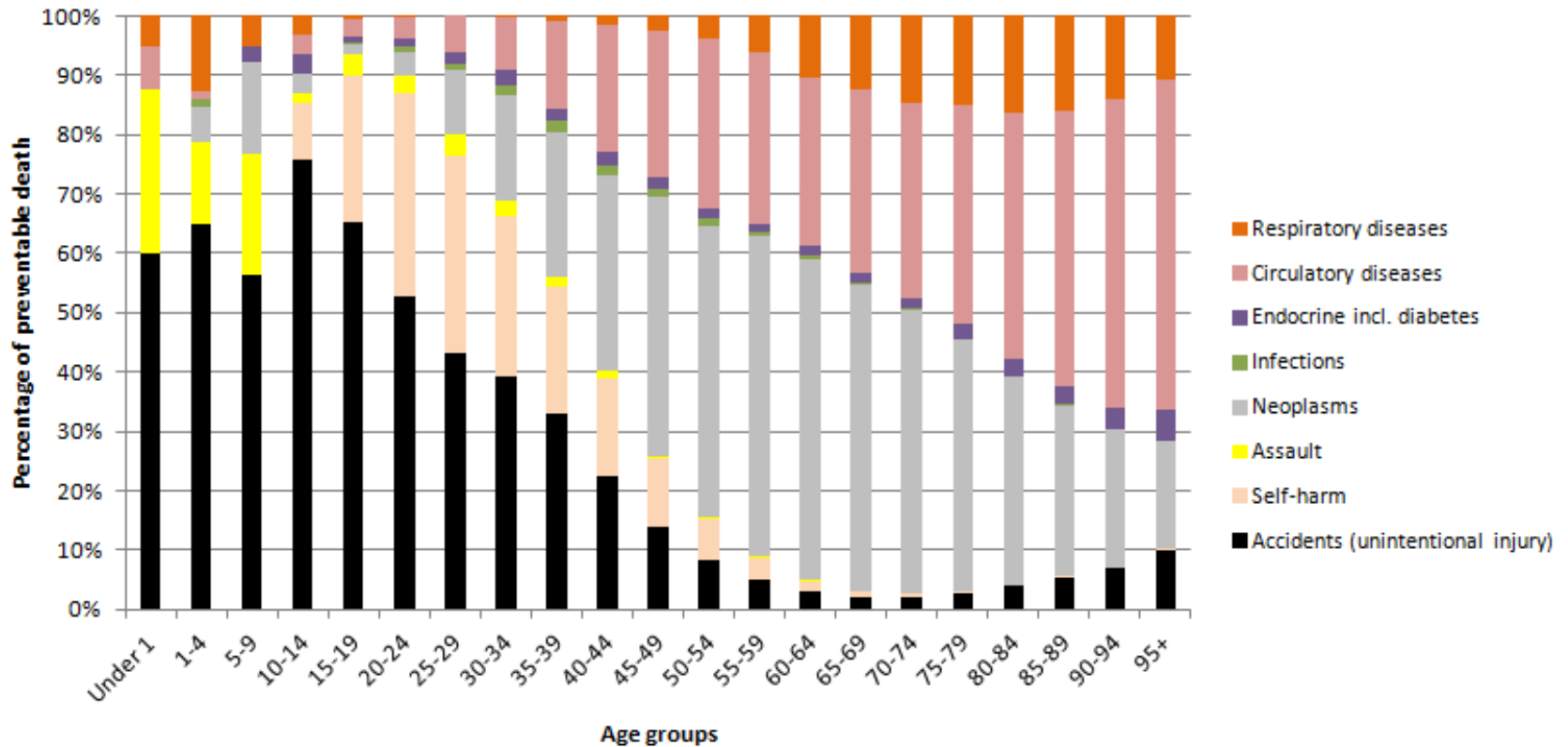
Table 1. Final avoidable mortality cause list

Condition group and cause	ICD-10 codes	Age	Amenable	Preventable
<b>Infectious</b>				
Tuberculosis	A10-A19, B90	0-74	*	*
Selected invasive bacterial and protozoal infections	A48-A41, A44, A46-L, B00-B04, G00, G03, J01, J02	0-74	*	*
Hepatitis C	B17.1, B18.2	0-74	*	*
HIV/AIDS	B20-B24	All	*	*
<b>Neoplasms</b>				
Malignant neoplasm of lip, oral cavity and pharynx	C00-C24	0-74	*	*
Malignant neoplasm of oesophagus	C15	0-74	*	*
Malignant neoplasm of stomach	C16	0-74	*	*
Malignant neoplasm of colon and rectum	C18-C20	0-74	*	*
Malignant neoplasm of liver	C22	0-74	*	*
Malignant neoplasm of trachea, bronchus and lung	C31-C34	0-74	*	*
Malignant melanoma of skin	C43	0-74	*	*
Melanotheloma	C45	0-74	*	*
Malignant neoplasm of breast	C50	0-74	*	*
Malignant neoplasm of cervix uteri	C53	0-74	*	*
Malignant neoplasm of bladder	C57	0-74	*	*
Malignant neoplasm of thyroid gland	C73	0-74	*	*
Hodgkin's disease	C81	0-74	*	*
Leukaemia	C91, C92.0	0-84	*	*
Soft tissue sarcoma	D10-D36	0-74	*	*
<b>Non-infectious, endocrine and metabolic</b>				
Diabetes mellitus	E10-E14	0-89	*	*
<b>Drug use disorders</b>				
Alcohol related diseases, excluding internet causes	F10, G41.2, G62.1, H42.8, H29.2, K70, K73, K74 (exc. K74.3-K74.5), K80.0	0-74	*	*
Illicit drug use disorders	F12-F16, F28-F29	0-74	*	*
<b>Neurological disorders</b>				
Epilepsy and status epilepticus	R40-R43	0-74	*	*

<b>Cardiovascular diseases</b>			
Rheumatic and other valvular heart disease	I00-I09	0-74	*
Ischaemic heart disease	I20-I25	0-74	*
Ischaemic heart disease	I20-I25	0-74	*
CHD with pulmonary embolism	I26, I80.0-180.2, I80.9, I82.9	0-74	*
Cardiomyopathy and dissection	I40-I49	0-74	*
<b>Respiratory diseases</b>			
Influenza (including severe flu)	J09-J11	0-74	*
Pneumonia	J12-J18	0-74	*
Chronic obstructive pulmonary disorder	J40-J44	0-74	*
Asthma	J45-J46	0-74	*
<b>Digestive disorders</b>			
Gastro and duodenal ulcer	K25-K28	0-74	*
Acute abdomen, appendicitis, intestinal obstruction, cholecystitis/cholelithiasis, pancreatitis, haemorrhoids	K50-K56, K58-K60, K61.0-K61.2, K62.0-K62.2, K63.0-K63.2	0-74	*
<b>Genitourinary disorders</b>			
Nephritis and nephrosis	N00-N03, N07-N09, N10-N13	0-74	*
Obstructive uropathy and prostatic hyperplasia	N10, N12-N15, N19, N20, N22	0-74	*
<b>Maternal and infant</b>			
Complications of perinatal period	P00-P96, A22	All	*
<b>Constitutional injuries</b>			
Transport accidents	S70-S89	All	*
Accidental injury	S90-S99	All	*
<b>Intentional injuries</b>			
Self-harm and self-inflicted injuries	T00-T09, Y10-Y14	All	*
Homicide/assault	Y20-Y29, Y30.0	All	*
Misadventures to patients during surgical and medical care	Y40-Y49, Y50-Y59	All	*

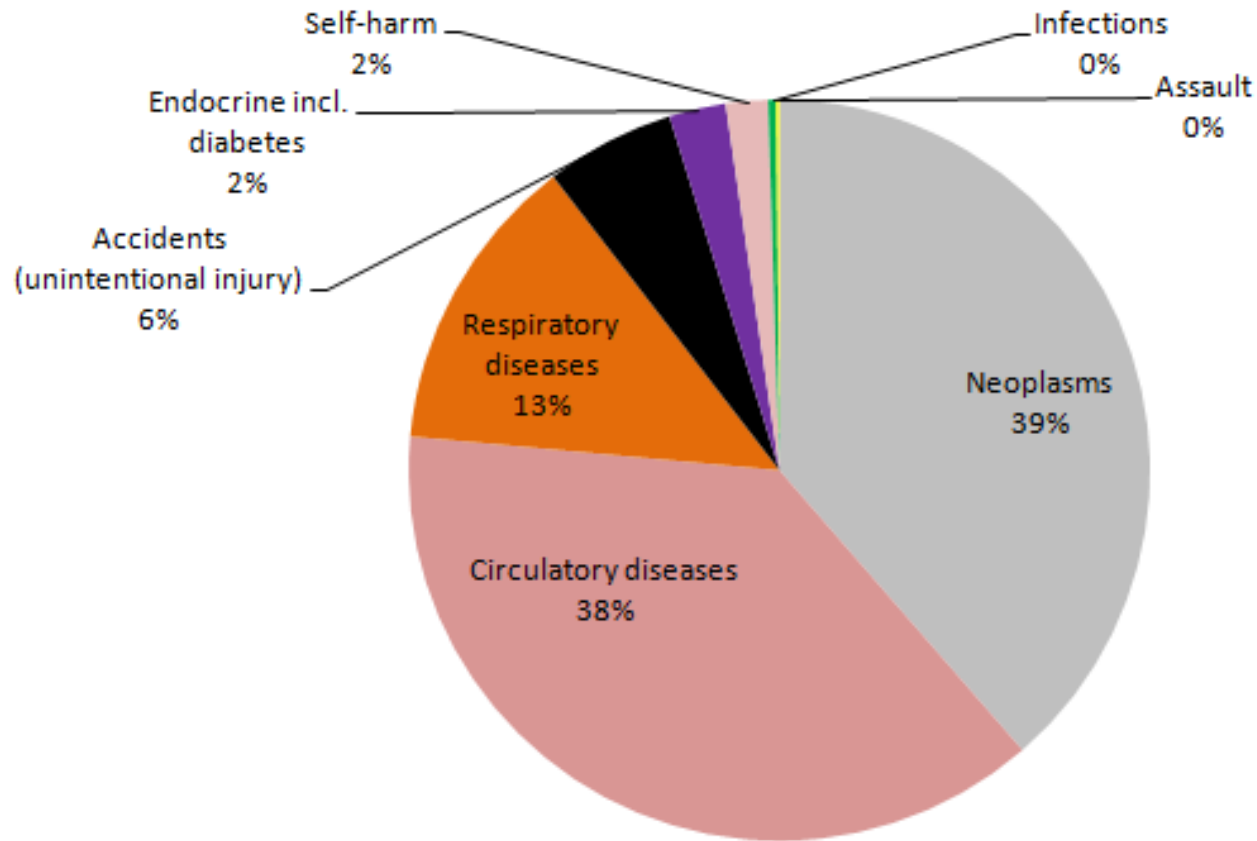
# Preventable causes of death as a % by age group

England & Wales 2012 (ONS data)



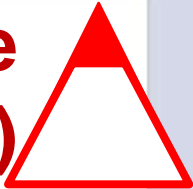


## % of total preventable causes of death England & Wales 2012 (ONS data)



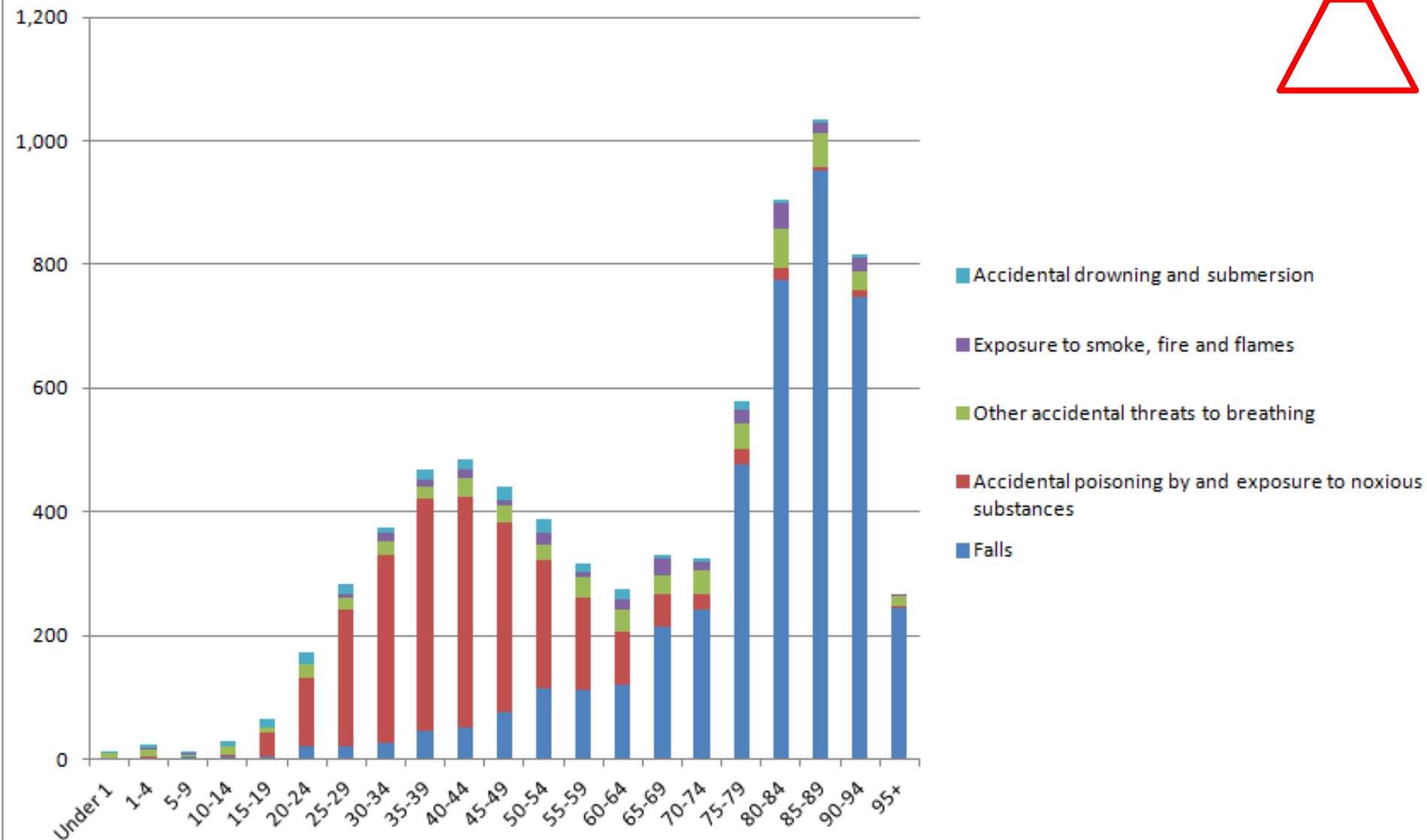
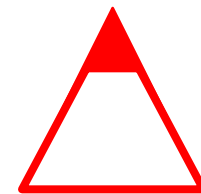


# Top causes of accidental death by age group (excluding Transport accidents)

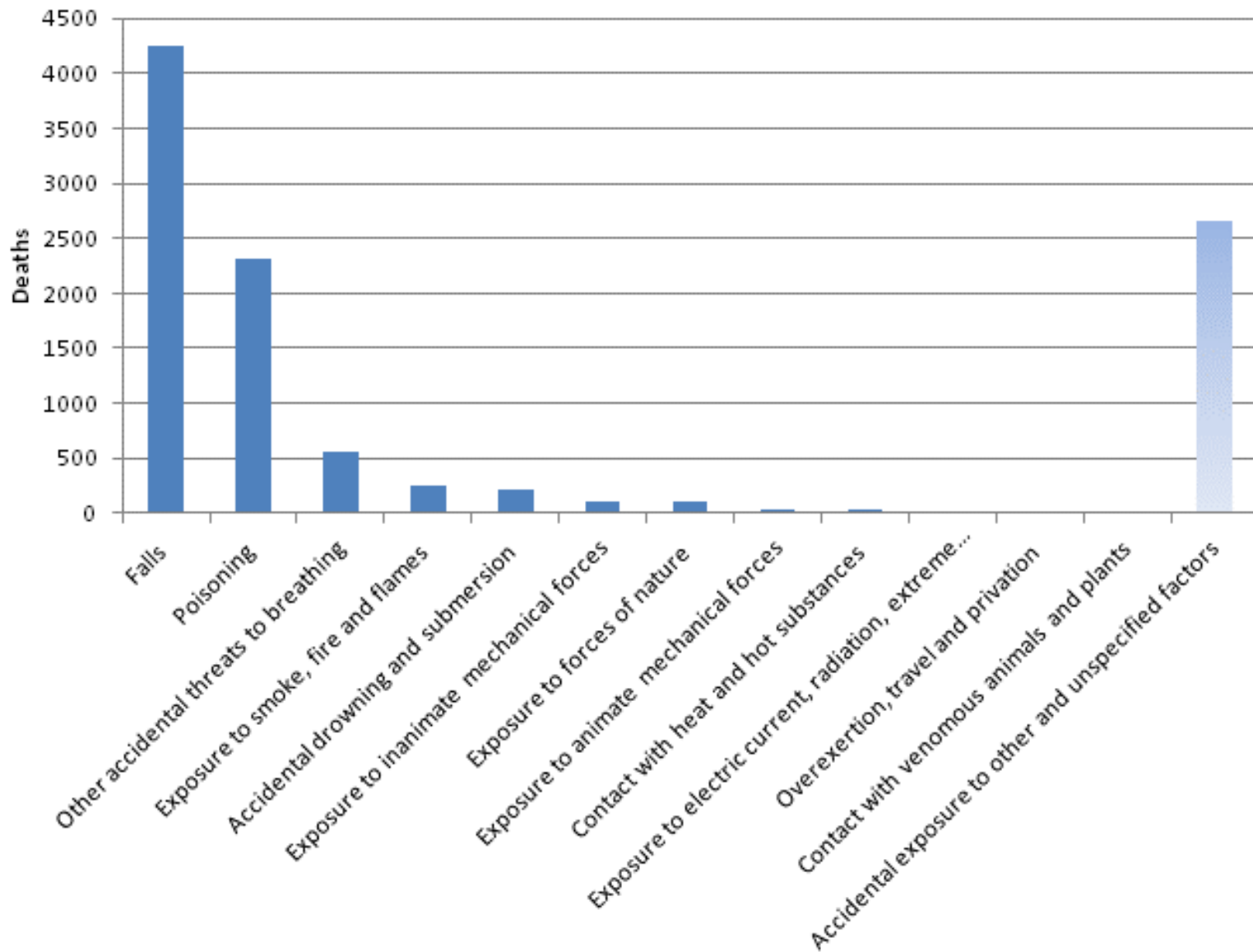


Age group	Leading cause	Second cause	Third cause
0-14	Asphyxiation	Drowning	Falls
15-59	Poisoning	Falls	Asphyxiation
60+	Falls	Asphyxiation	Poisoning

## Top 5 causes of accidental death, both genders (excl transport)

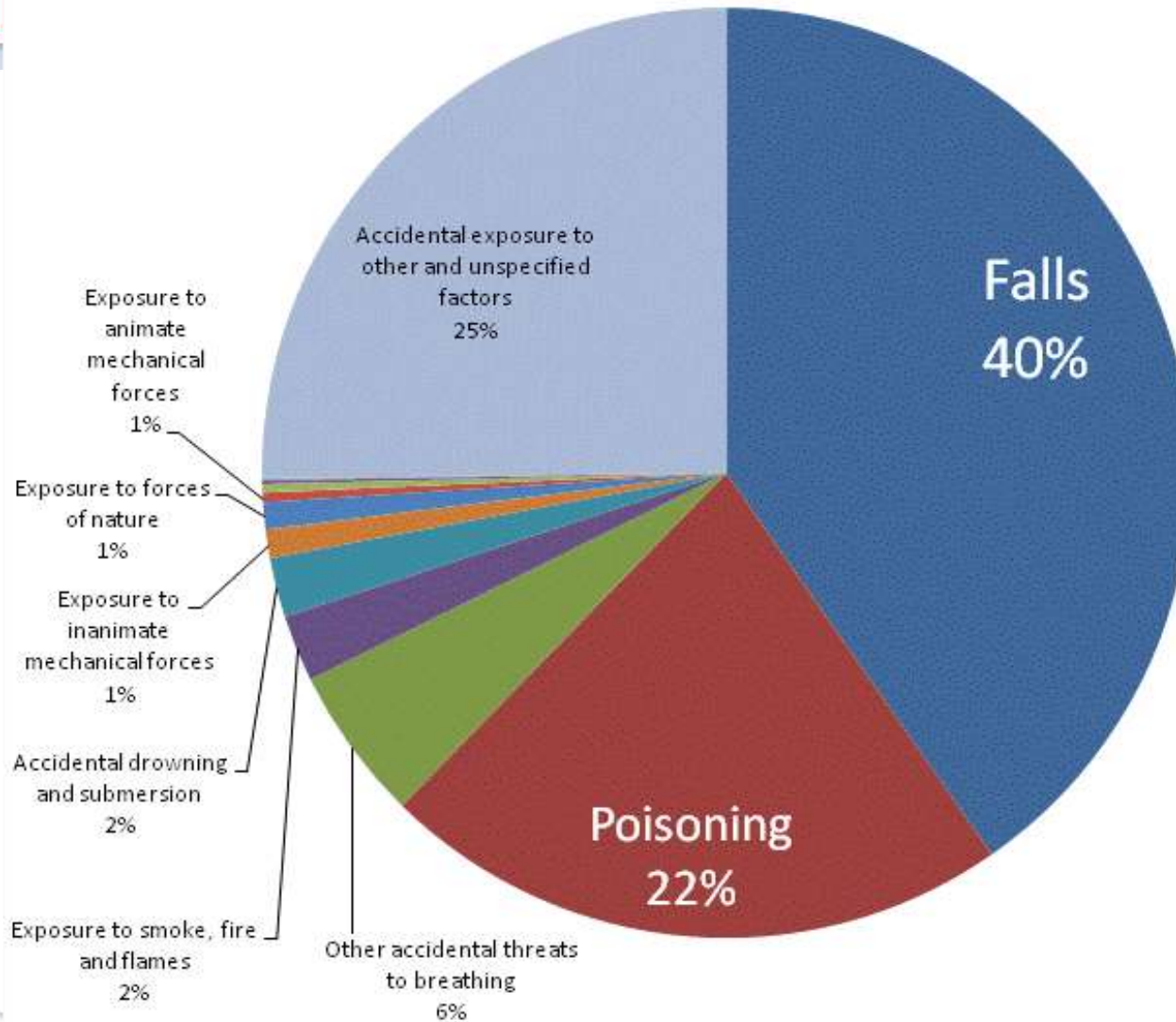


## External causes of death - excluding Transport



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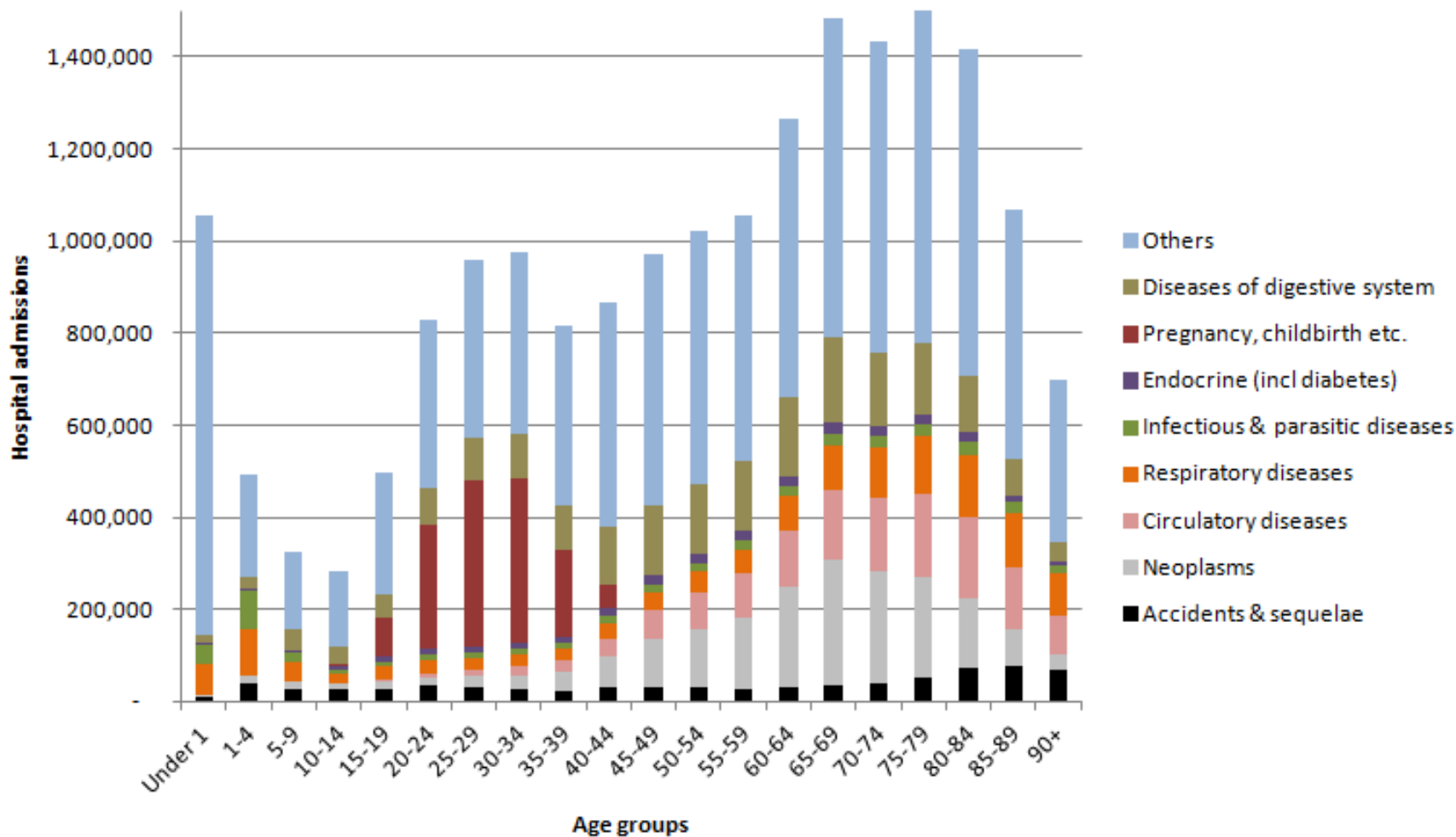
## External causes of death - excluding Transport



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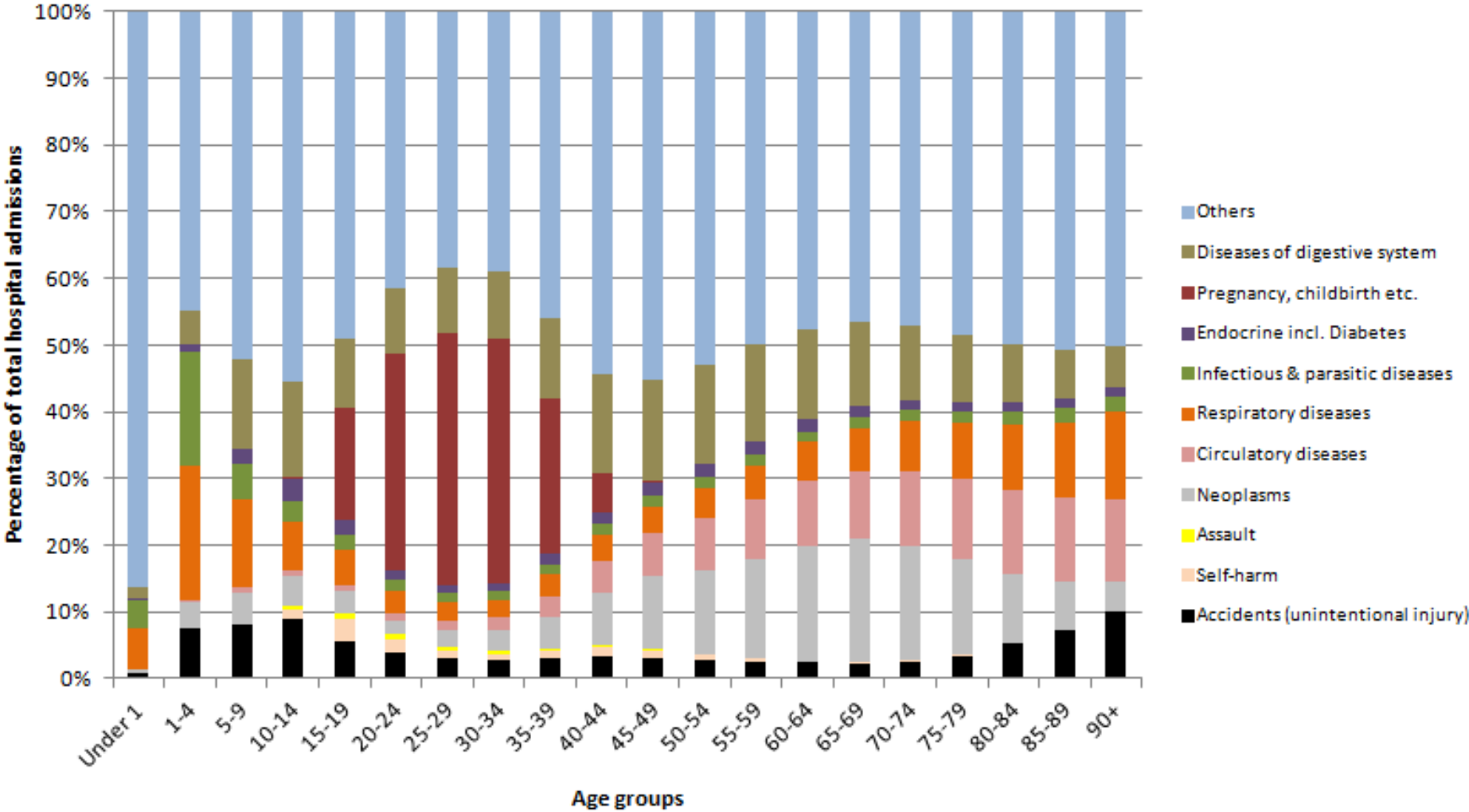
# Hospital admissions – all causes , by age

England 2012/13



# Causes of hospital admissions as a % by age group

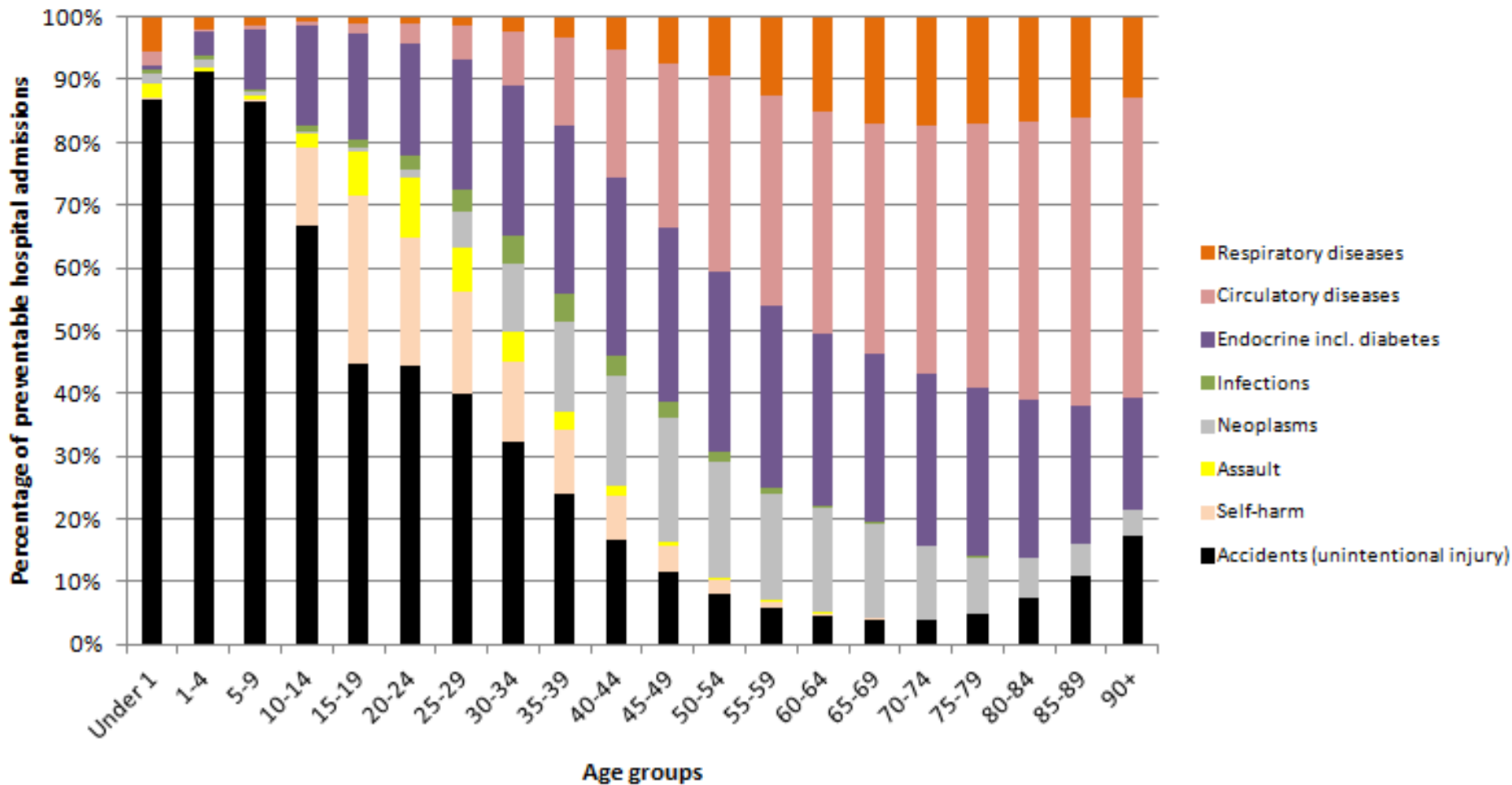
England 2012/13 (HSCIC data)





# Preventable causes of hospital admissions as a % by age

England 2012/13 (RoSPA/HSCIC)



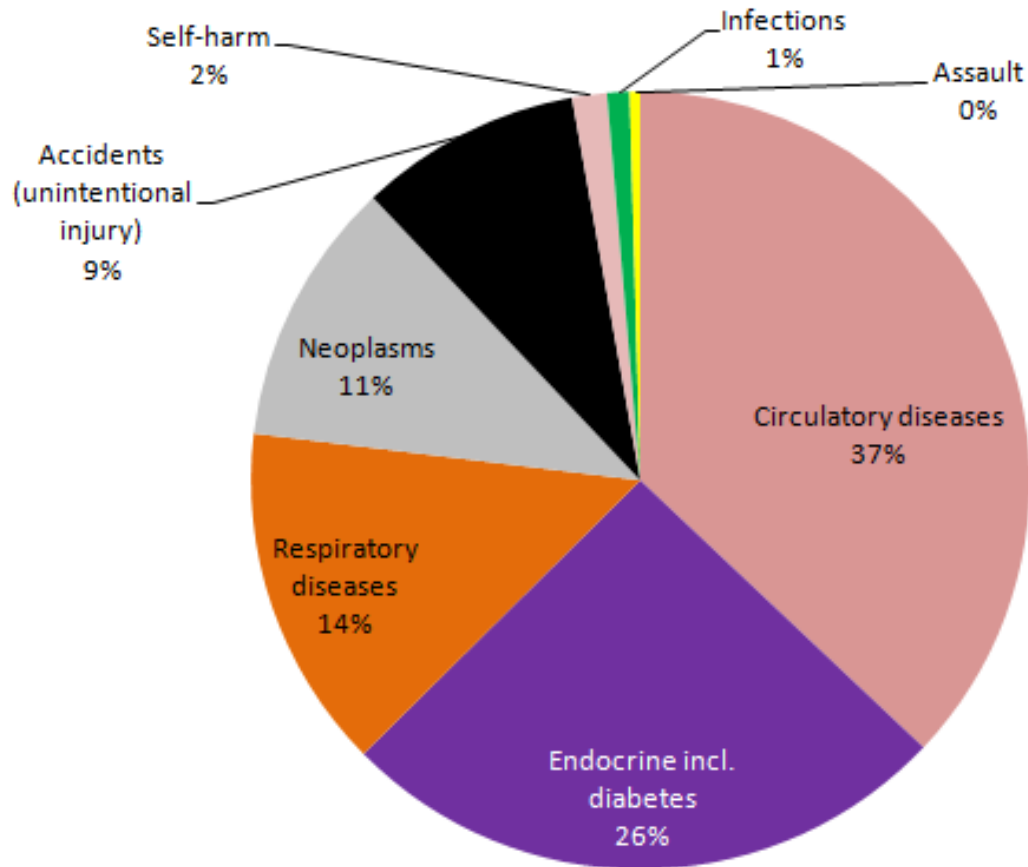
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# % of total preventable causes of hospital admissions

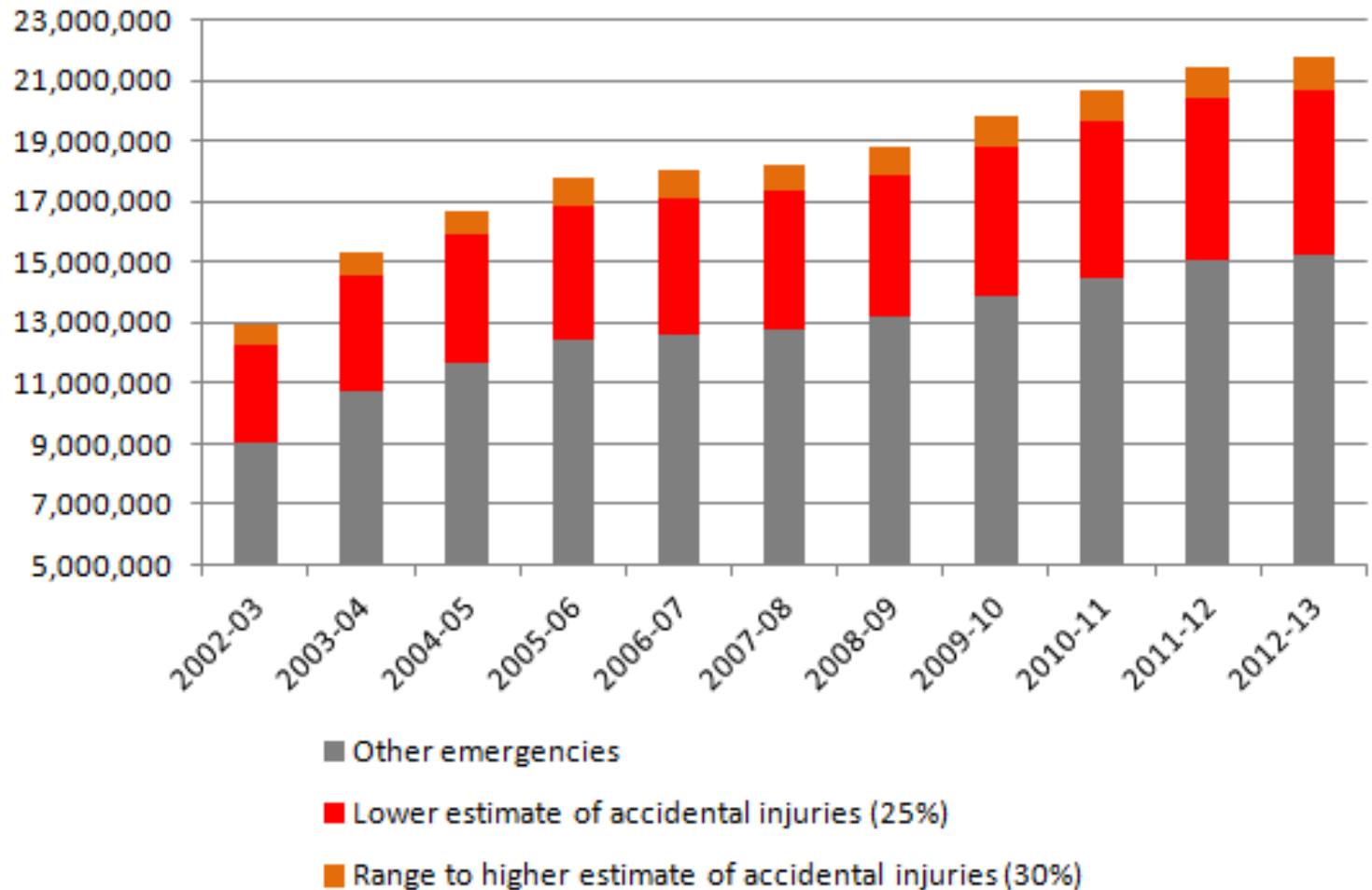
England 2012/13 (RoSPA/HSCIC)



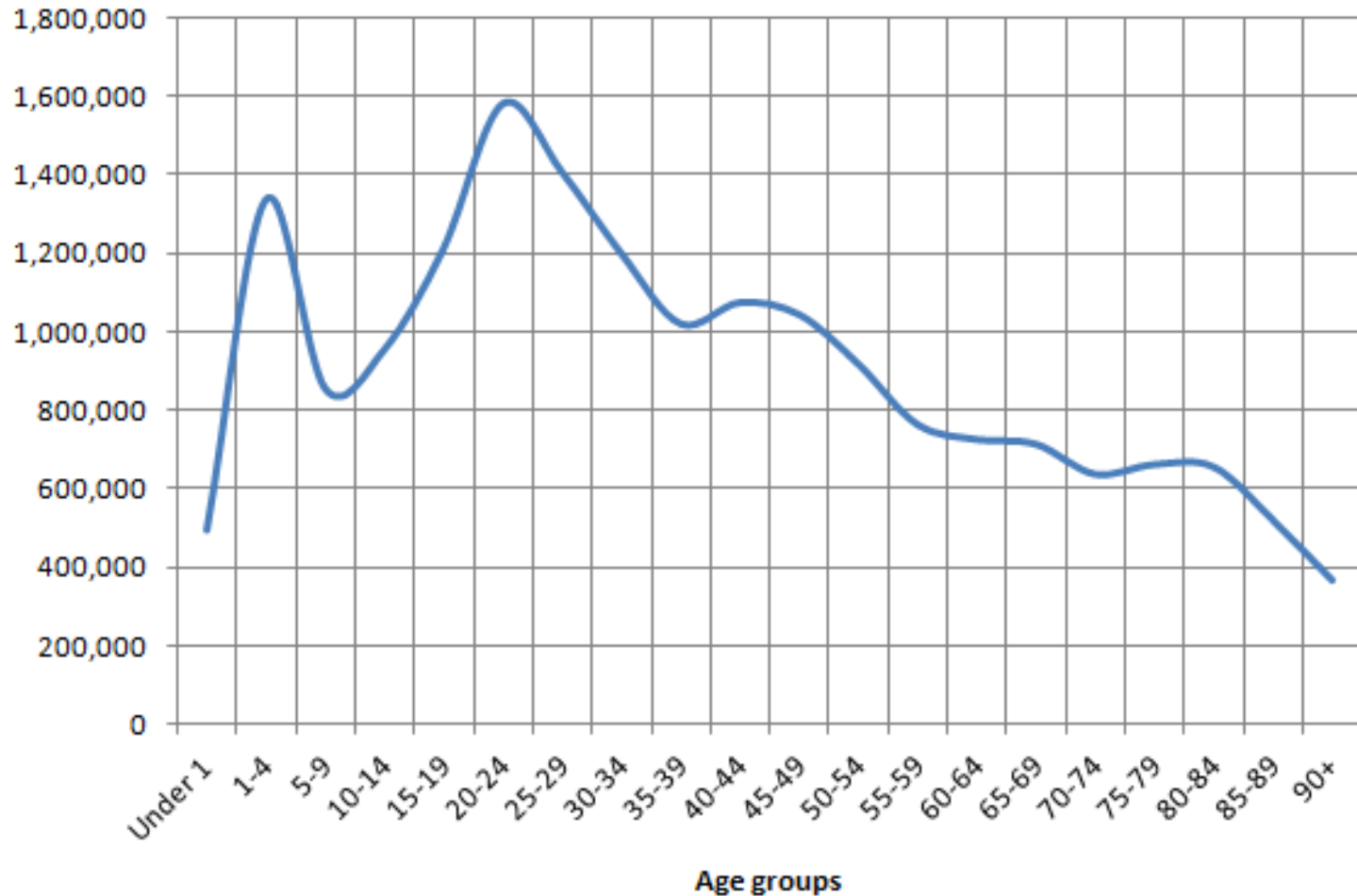
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# Emergency Department first attendances

England 1987-2012 (NHS HSCIC sitreps data)



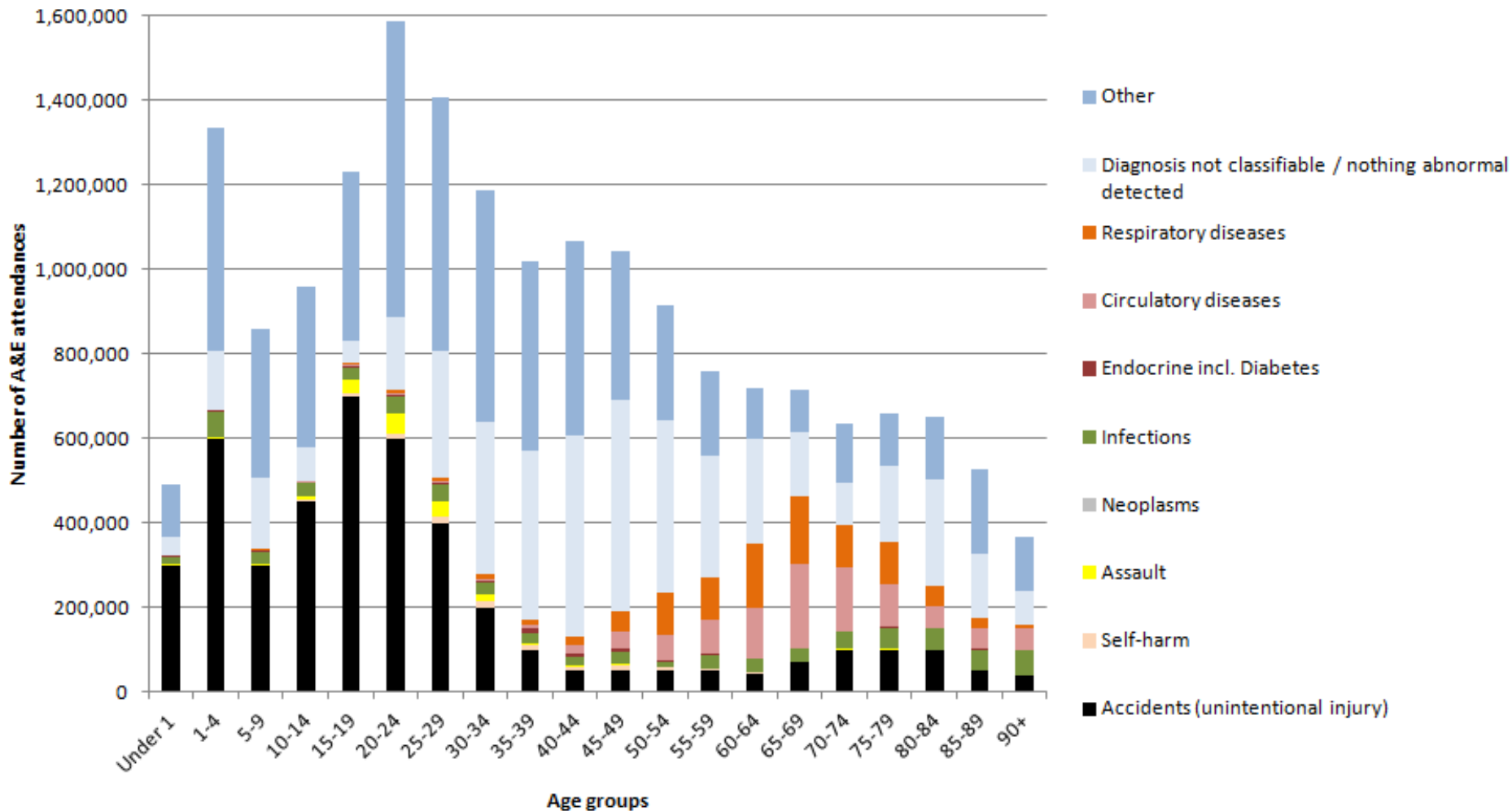
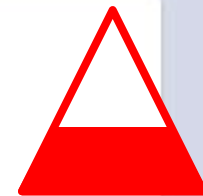
## A&E attendances (all causes) by age, England 2012/13, HSCIC data





# Estimated causes of A&E attendances by age group

England 2012/13, RoSPA estimates using valid HSCIC records

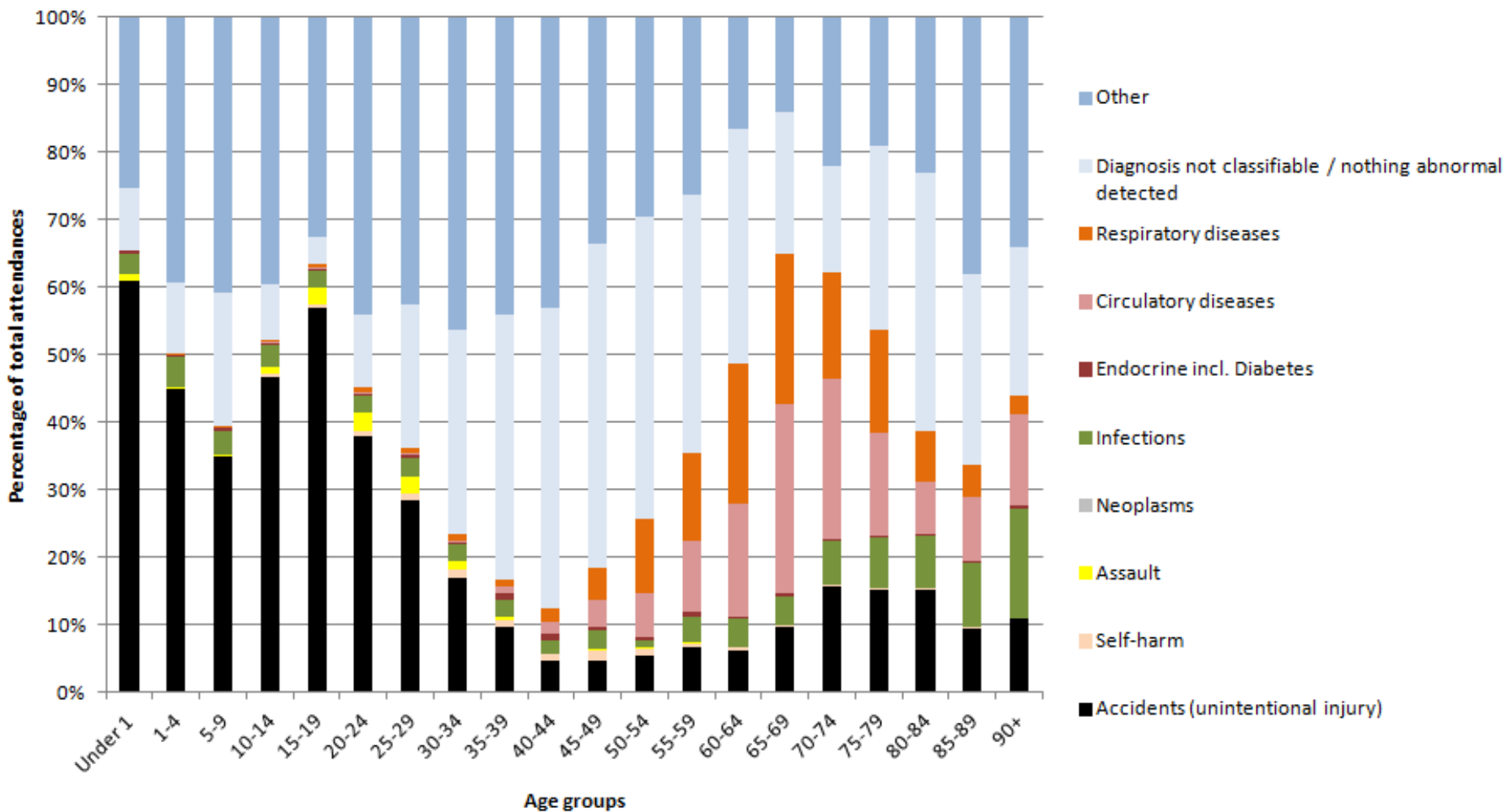
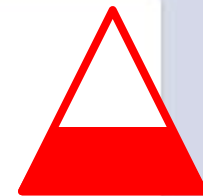


6.5million A&E attendances due to accidents (30% of attendances)

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# Estimated causes of A&E attendances as a % by age group

England 2012/13, RoSPA estimates using valid HSCIC records

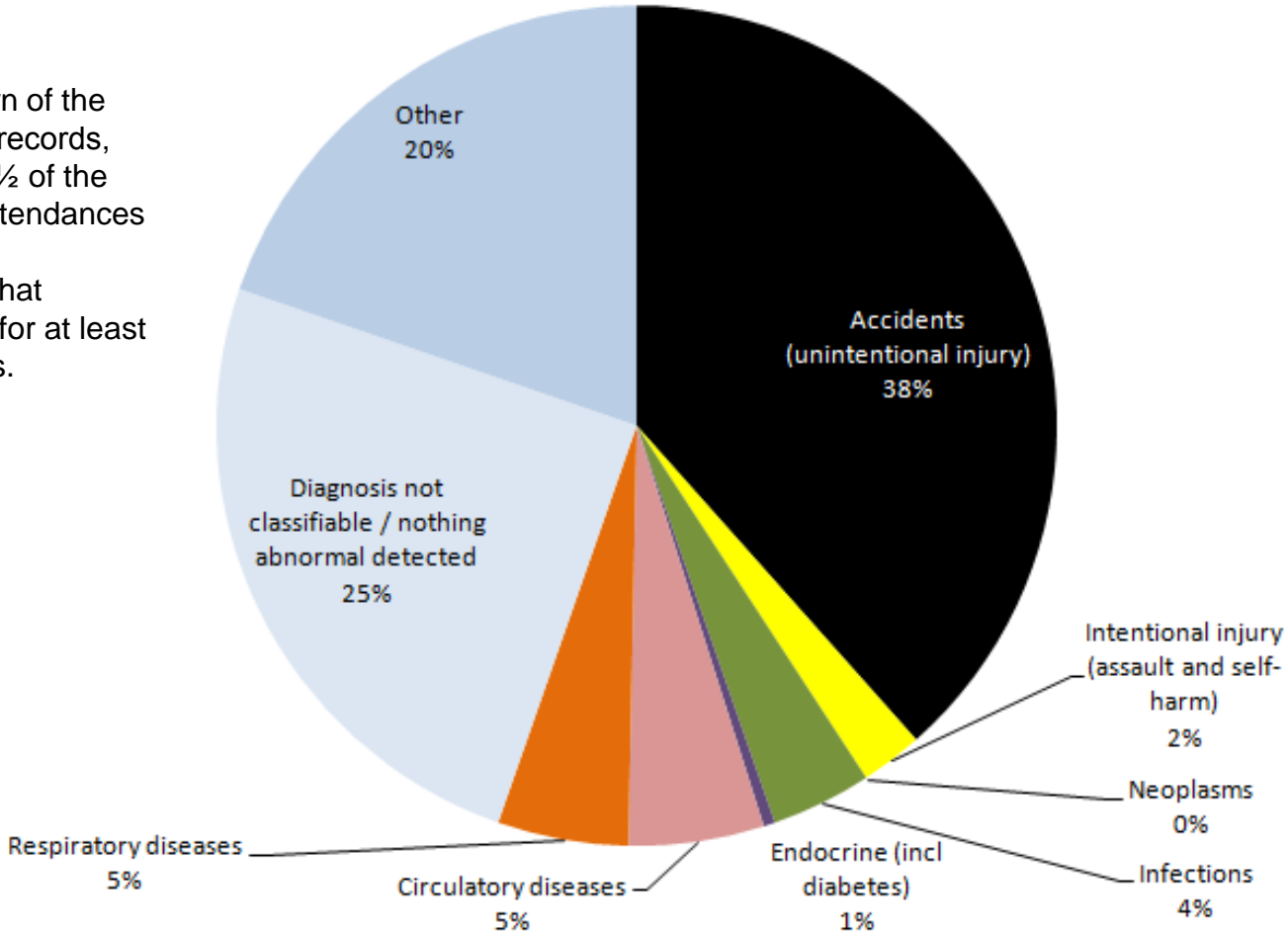




# Percentage split by cause of A&E attendances, England 2012/13, valid records, HSCIC data



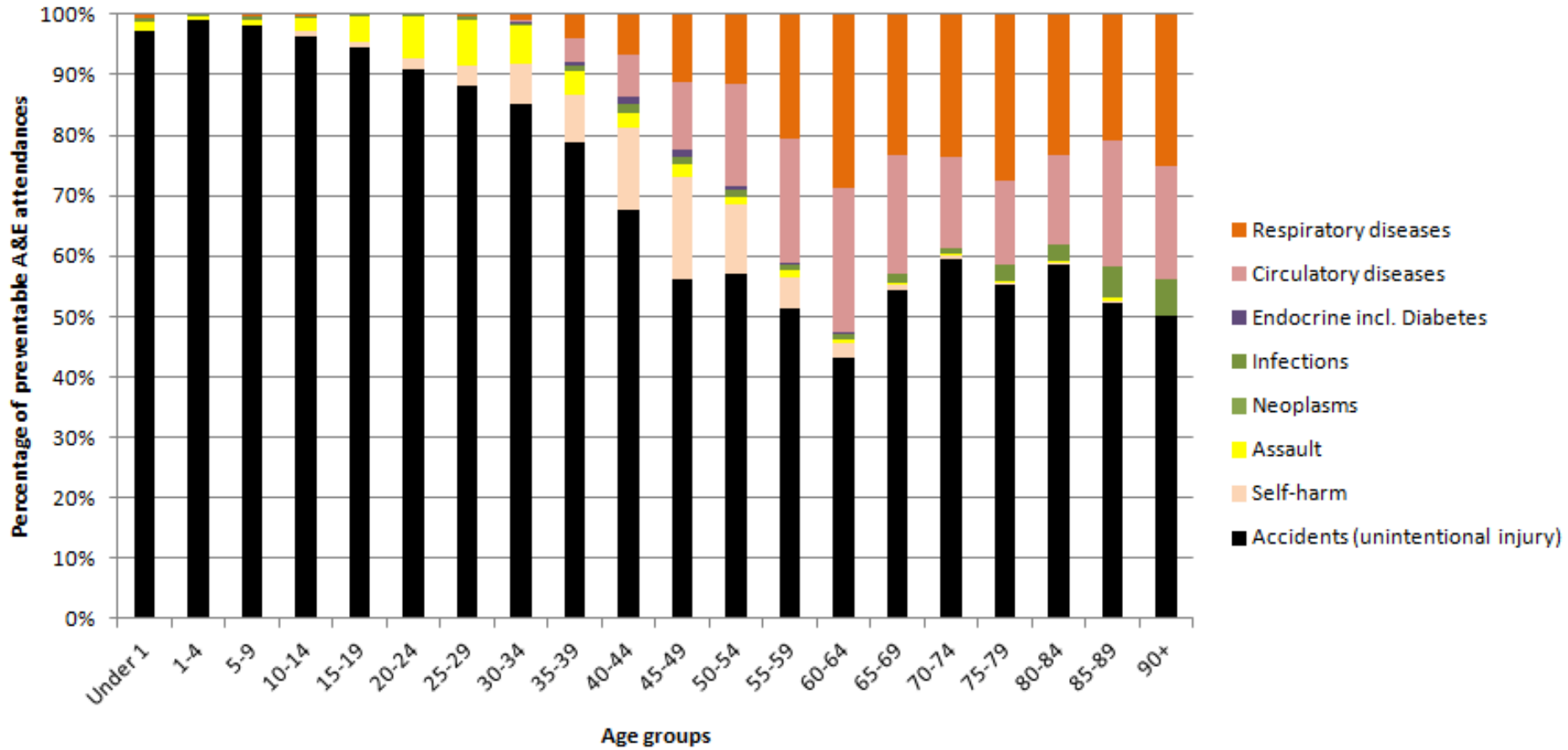
**Note:**  
This is a breakdown of the 11.5m “valid” A&E records, which is less than ½ of the total 21.7m A&E attendances “sitreps”.  
RoSPA estimates that accidents account for at least 30% of total sitreps.





# Estimated preventable causes of A&E attendances as a % by age group

England 2012/13, RoSPA estimates using valid HSCIC records

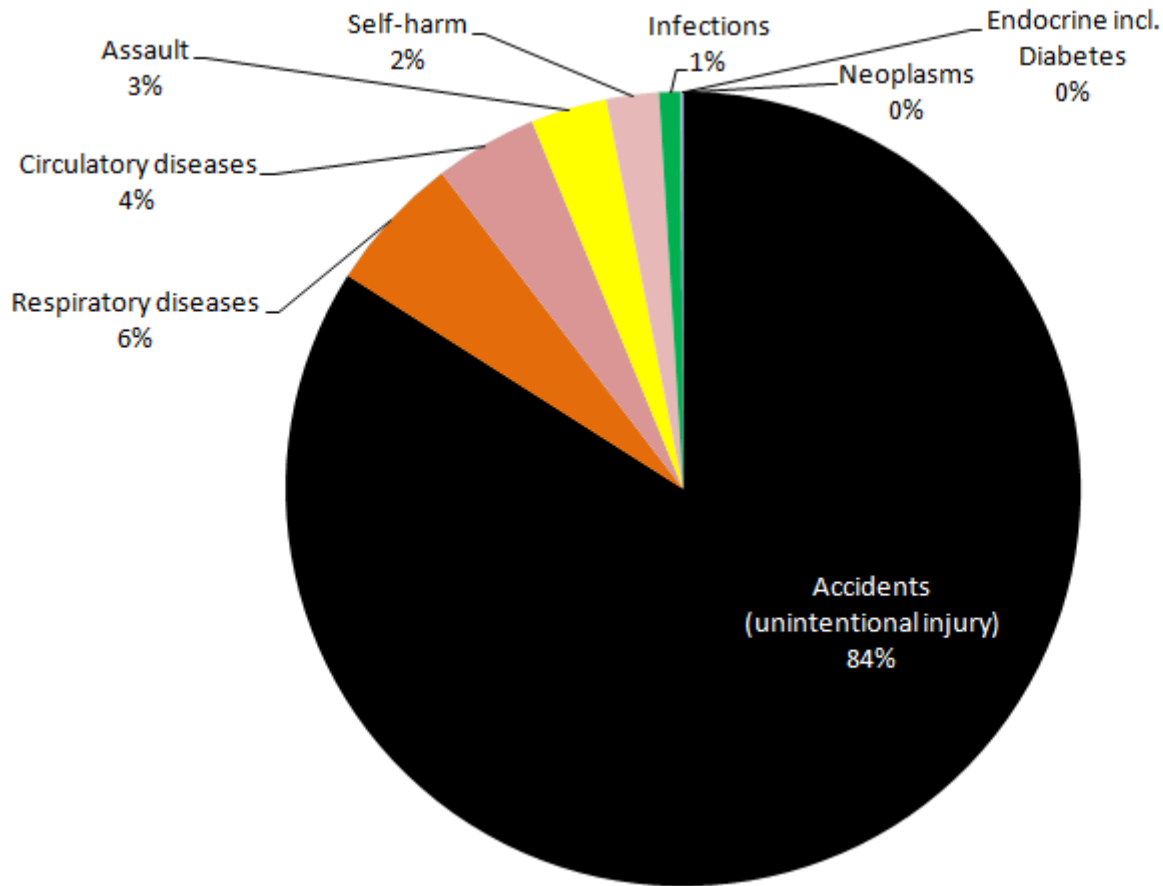


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# % of total preventable causes of A&E attendances

England 2012/13, RoSPA estimates using valid HSCIC records



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# Accidental injury: England's leading preventable health challenge



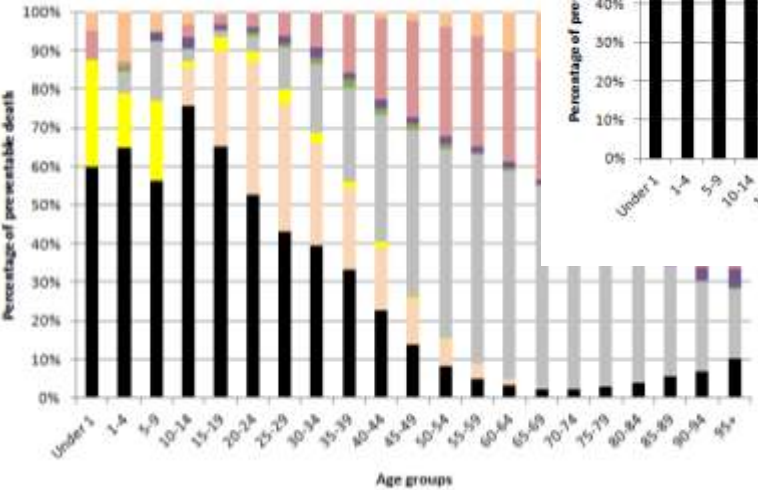
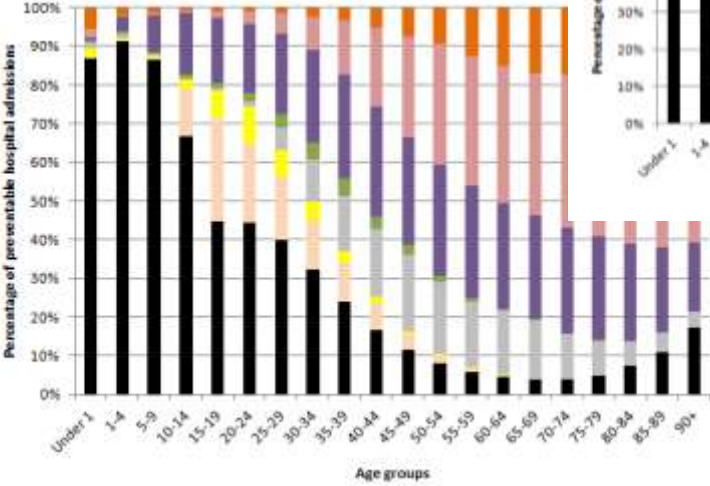
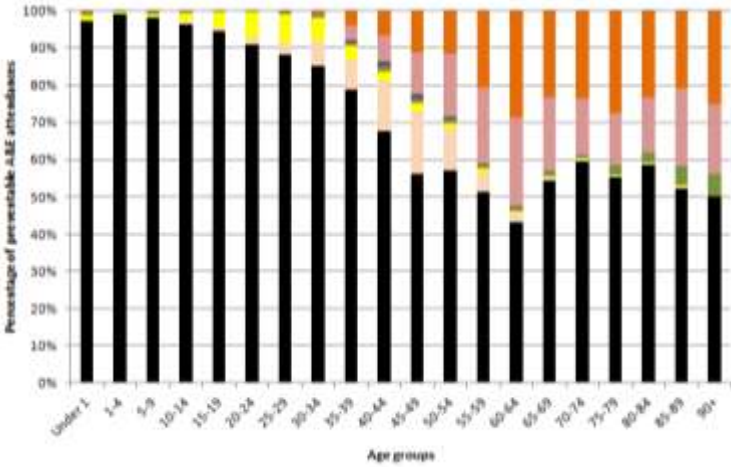
6.5m A&E attendances



683,631 hospital admissions



10,729 deaths



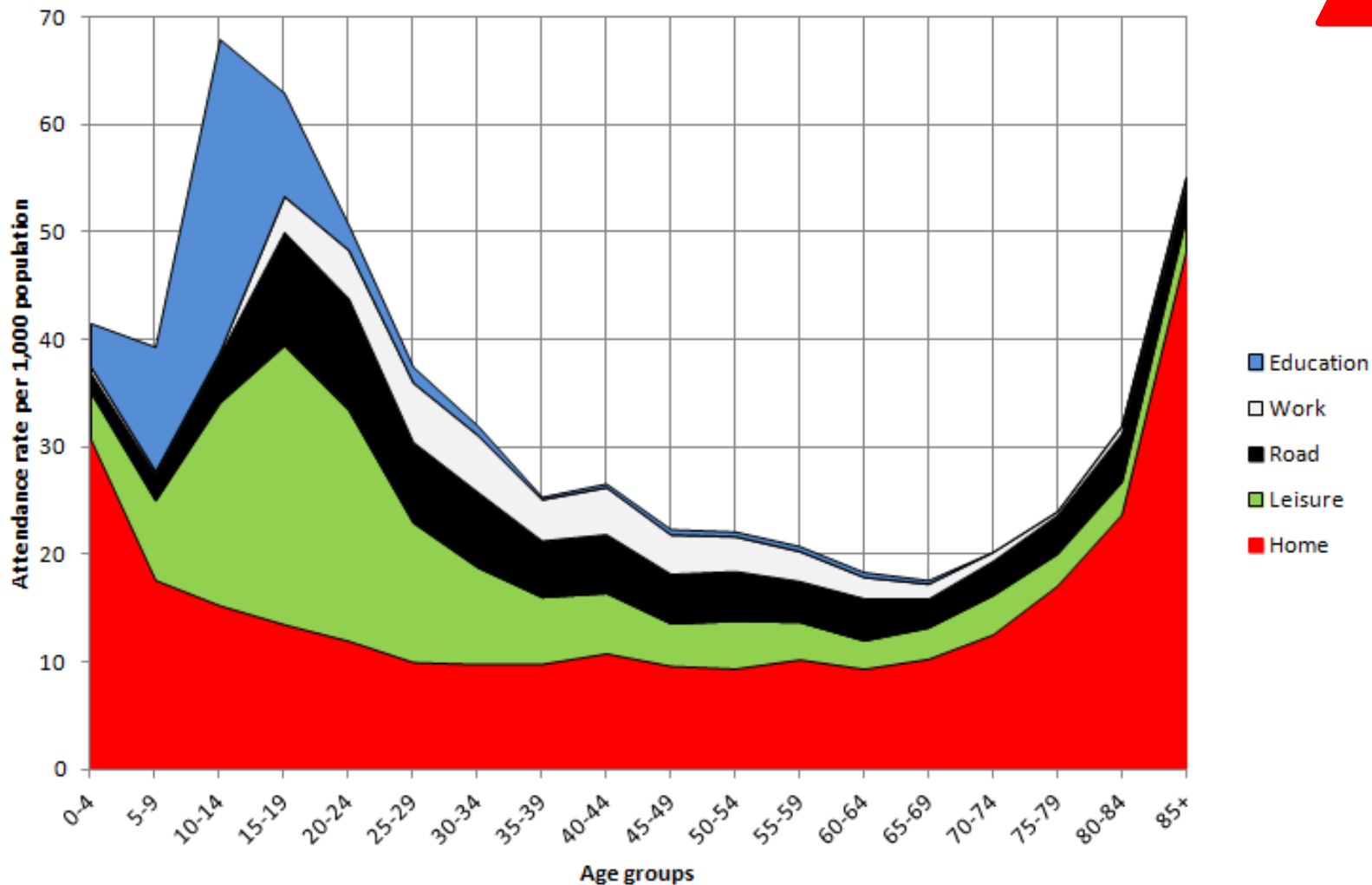
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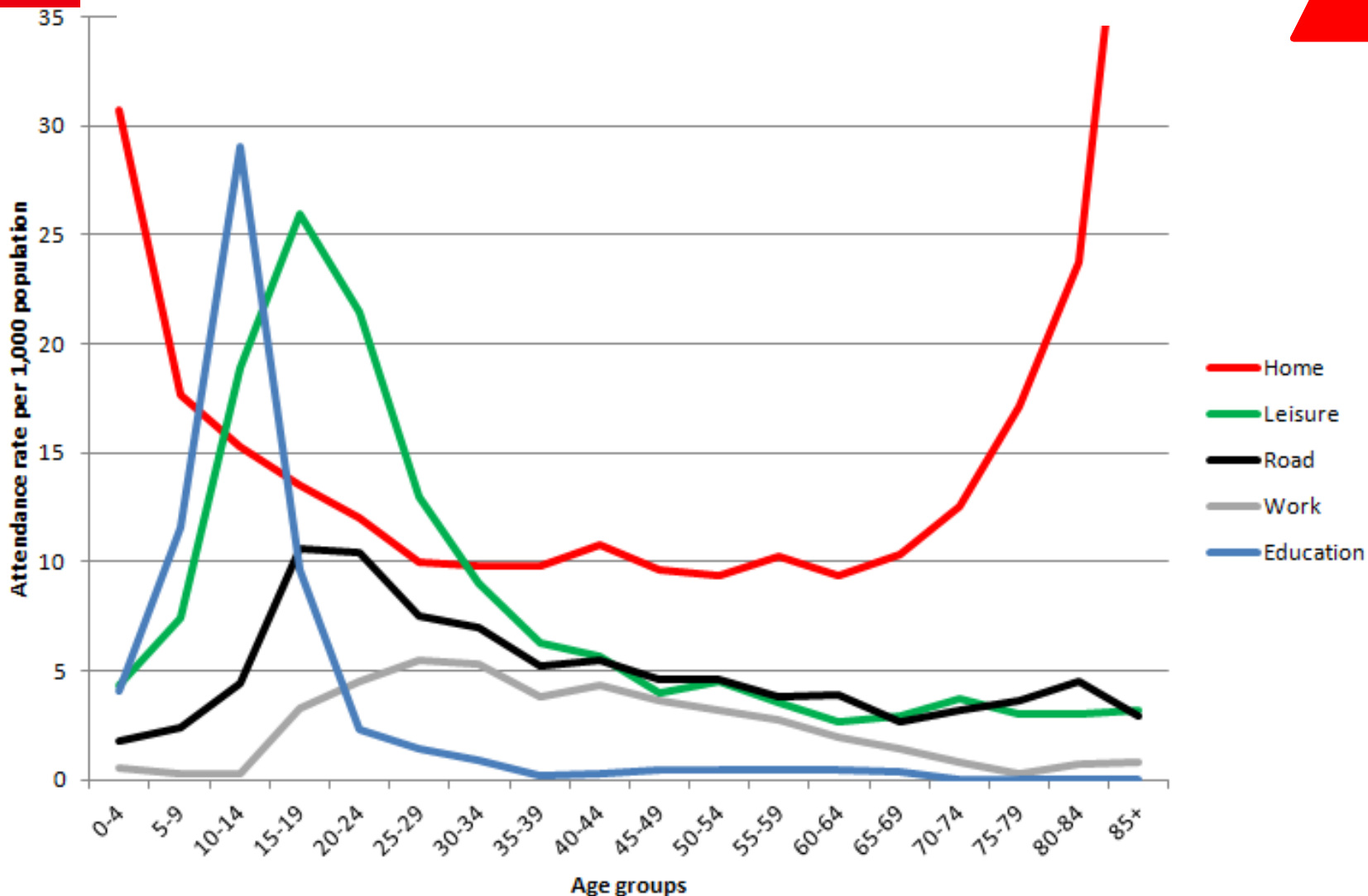
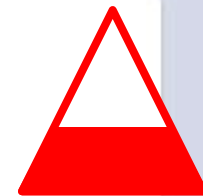
# The new Oxfordshire A&E data set

- **Fruit of the Alliance: RoSPA & RCEM**
  - **63,877 patient records relating to injuries**
  - **1<sup>st</sup> Jan 2012 to 30<sup>th</sup> Mar 2014**
  - **Royal College of Emergency Medicine's Minimum Dataset**
  - **Oxford University Hospitals Trust A&E departments:**
    - John Radcliffe, Oxford
    - Horton General, Banbury
  - **Data recorded by A&E receptionists**
  - **Data analysed by the *Global Health, Policy and Innovation* research group at Queen Mary, University of London**
  - **Factors recorded**
    - Age
    - Gender (55% M, 45% F)
    - Injury & injury mechanism
    - **Severity**
    - **Location of accident**
    - **Activity**
- NEW: Not otherwise routinely recorded by NHS A&E departments**

**Unintentional injury rates from Oxford University Hospitals NHS Trust Emergency  
Departments ('A&E') John Radcliffe and Horton General,  
1st Jan 2012 to 31st Dec 2012**



# Emergency Department attendances in Oxfordshire due to unintentional injuries



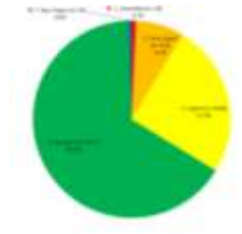


# Severity & numbers by location

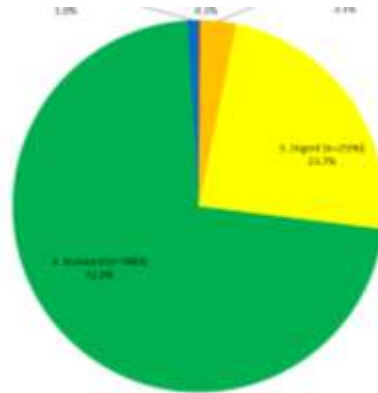
26,310 injuries 1<sup>st</sup> January 2012 to 13<sup>th</sup> August 2013



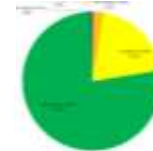
n **Road** n=4,020



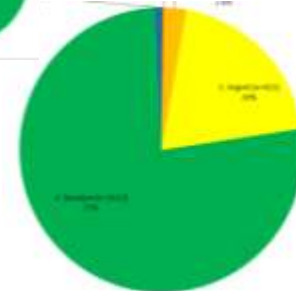
n **Home** n =10,949



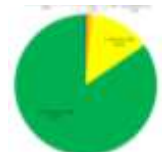
n **Work** n=2,119



n **Leisure** n=6,602



n **Education** n=2,620





# 8 priority areas

(not in order of priority)

Location	Age range	Activities associated with large numbers of A&E attendances and/or resulting in the most severe injuries	Accident prevention
Road	All ages with a peak among 15-29 year olds	Walking (pedestrians) and cycling	Lighter later Hi-viz clothing Face oncoming traffic & green cross code Cycling proficiency
Home	0-4s	Walking - slips, trips & falls Cooking / washing - scalds & burns	Home visits Parental education
Home / Leisure	5-14	Trampolines – large numbers of severe injuries, particularly among girls	Parental supervision Fewer than 3 bouncing. All bouncers similar sizes.
Schools	5-14	Walking – slips, trips & falls	School discipline. Risk assessments Clearing spills and eliminating hazards
Home	Over 70	Walking - slips trips & falls	Home visits and awareness Physical activity and keeping sociable
Leisure	15-24s	Rugby and soccer for males Netball for girls	Coaching & refereeing Warming up Recognising personal limits
Leisure	Over 20	Horse-riding	Training Manageable horse Hi-viz clothing
Workplace	20-64 with a peak among 20-30 year olds	Walking - slips trips & falls	Risk assessments Clearing spills and eliminating trip hazards

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# Current campaigns & initiatives

- **Data**
- **Public Health**
- **Lighter evenings**
- **Family Safety Week**
- **Young drivers**
- **Product safety**
  - Driveway safety
  - Blind cords
  - Domestic poisonings
  - Garden trampolines
  - E-cigarettes
- **Carbon monoxide**
- **LifeForce volunteers**
- **UK drowning prevention strategy**
- **Safe Community**
- **New Vision in Health & Safety**



# Thank you

