

2. Incident Statistics

- Incident and accidents are reported by the safety officers resp. supervisors or heads of practical lab courses
- Information and reports about injuries and/or property damages sent to sgu-incidents@ethz.ch
- SSHE provides statistical data
- SSHE incident/accident investigations

Aim of the Incident Statistics

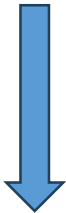
- Reflection of **safety culture** in our chemical building.
- Evaluation of the **performance efficiency** of our safety management in our chemical building.
- Recognition of **type and frequency** of incidents, the **causes** of which must be found and remedied with appropriate **measures**.
- Recognition of **type and frequency** of incidents caused by **external or installation-related influences**.
- Recognition of **deficits** in the safety **infrastructures** and safety facilities.
- Recognition of **deficits** in safety **instructions, safety training and safety inspections**.

HCI Incidents Statistics for January and February 2024

2x Explosion



https://img.freepik.com/premium-vector/schoolboy-with-big-scientific-idea-made-explosion-during-dangerous-experiment-with-chemical-reagents-equipment-chemistry-lesson-school-class-vector-cartoon-illustration_376504-45.jpg?w=2000



<https://i.pinimg.com/736x/50/c0/b7/60c0b7a8c58c344a676d4be6820ee3.jpg>

©DESIGNALIKIE

1x Chemical Spill



Signal Word
DANGER

Hazard pictograms



<https://www.evotab-th.com/images/content/crop-1512565729296.jpg>

2x False Gas Alarm

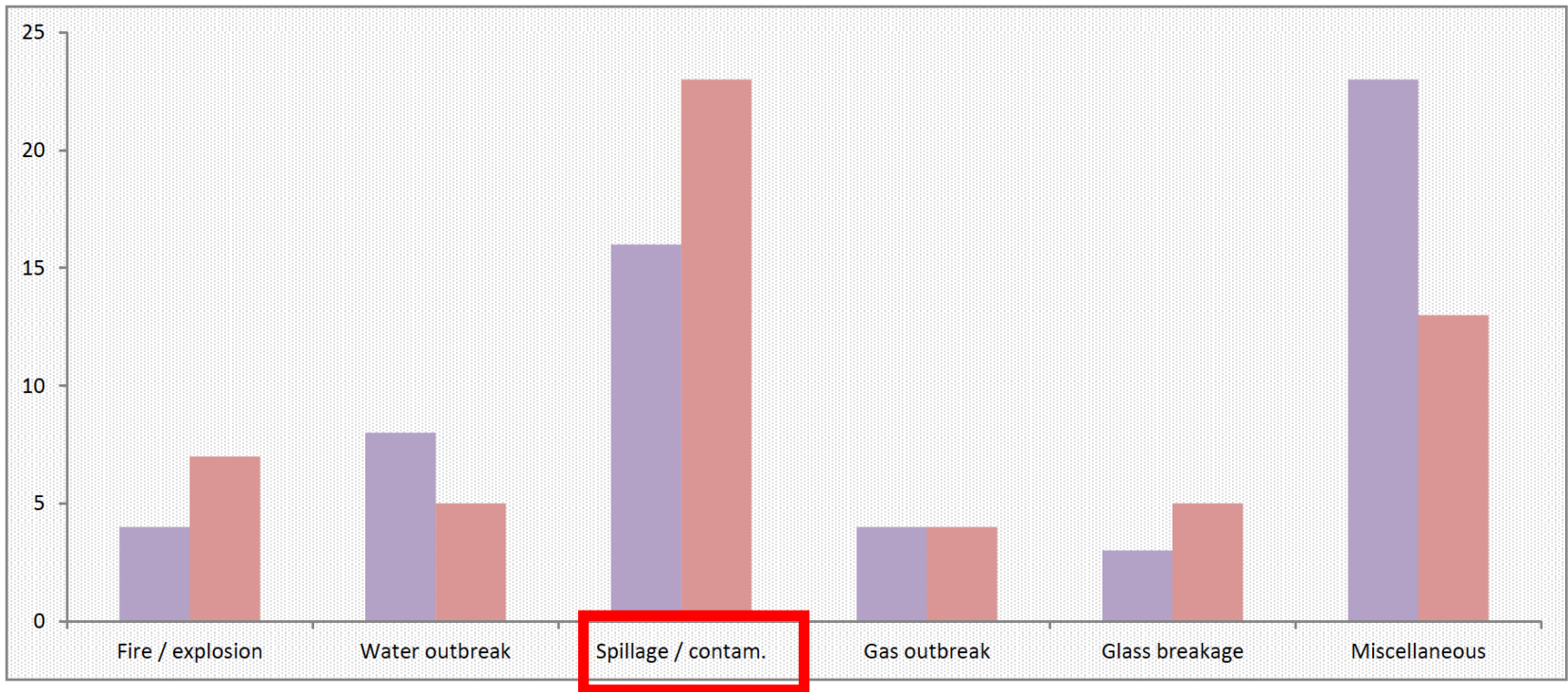


Category of Incidents

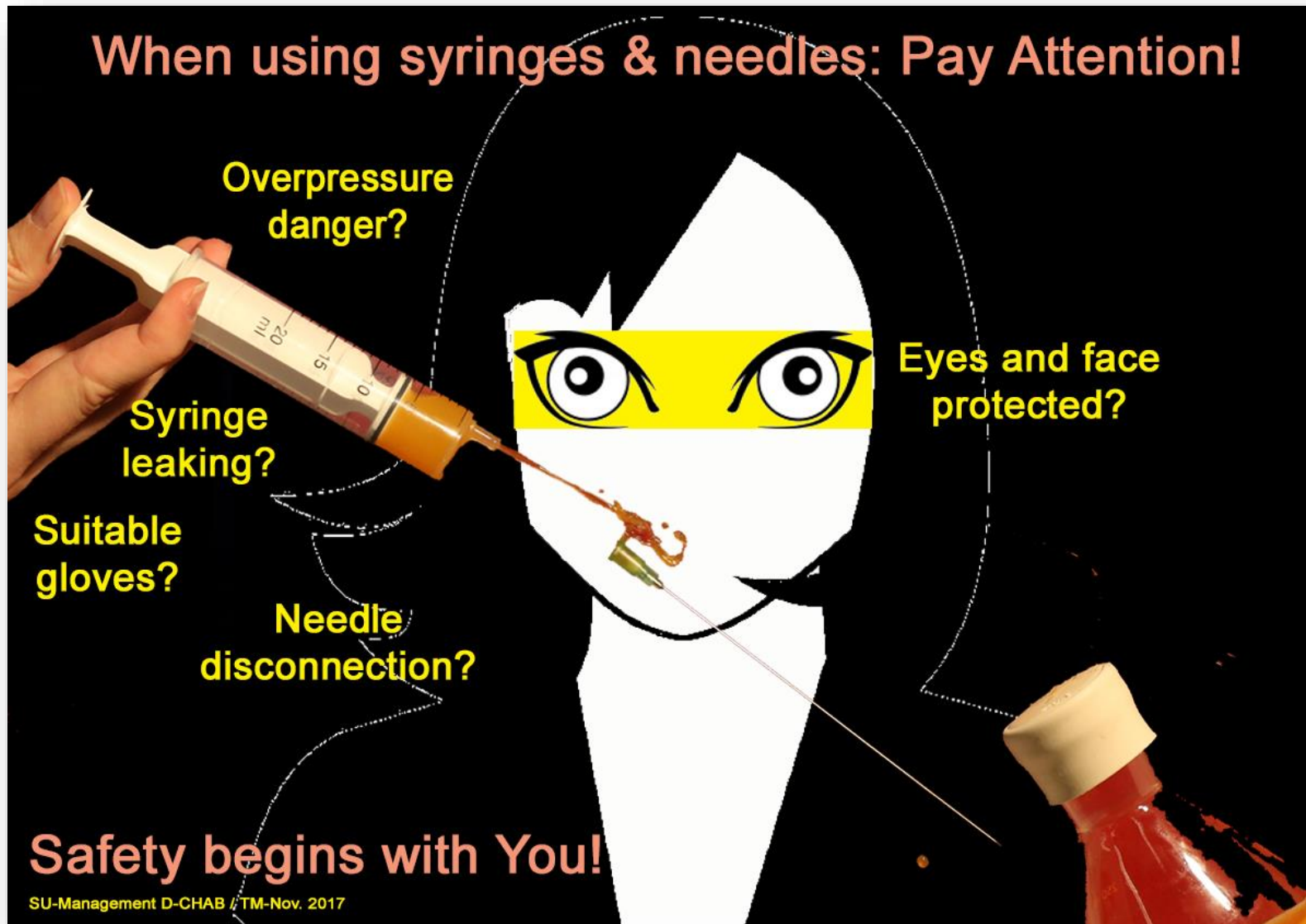
Category	2022	2023
Fire / explosion	4	7
Water outbreak	8	5
Spillage / contam.	16	23
Gas outbreak	4	4
Glass breakage	3	5
Miscellaneous	23	13
Total	58	57



	2022	2023
power failure	3	1



Analysis of accident statistics - Reason for the most common cause of accidents:
Many spills and splashes were caused by careless handling of the disposable syringes.



Analysis of accident statistics - The most common cause of skin and hand injuries is wearing improper gloves.

SAFETY IN THE LABORATORY FIND THE RIGHT GLOVE!



Open the QR code and find all the necessary information there

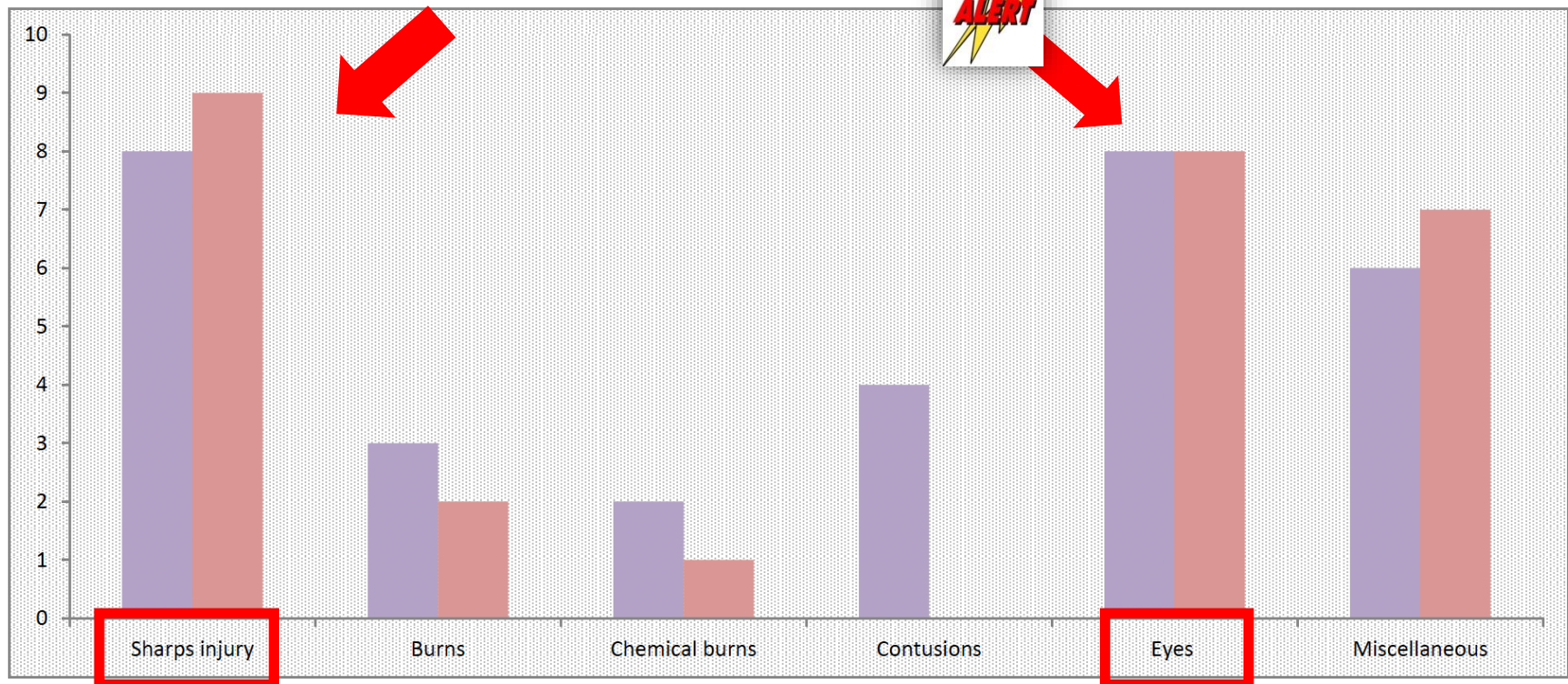


Health Damage

Category	2022	2023
Sharps injury	8	9
Burns	3	2
Chemical burns	2	1
Contusions	4	0
Eyes	8	8
Miscellaneous	6	7
Total	31	27
In lab courses	10	

HCI: Eye injuries are the focus of the health damage.

Date 17.11.2023



Eye Protection



<https://ehs.ucsc.edu/programs/research-safety/ppe/images/face-splash.png>

Chemical labs: Attention!

Not appropriate!



Appropriate!



Insufficient protection....

- Without safety goggles!
- With ill-fitting goggles and open gaps!

Reminder: contact lenses are forbidden in chemical laboratories; reading glasses are not safety goggles.

Sufficient protection!

We are happy to help! Contact:
Safety officers, assistants, HCI-Shop

Analysis of accident statistics - The **most common cause of eye injury's** in the labs are the wearing of not appropriate safety goggles.





Occupational Accidents 2013 – 2017

Age Group

shutterstock.com · 1096030148

Non-fatal

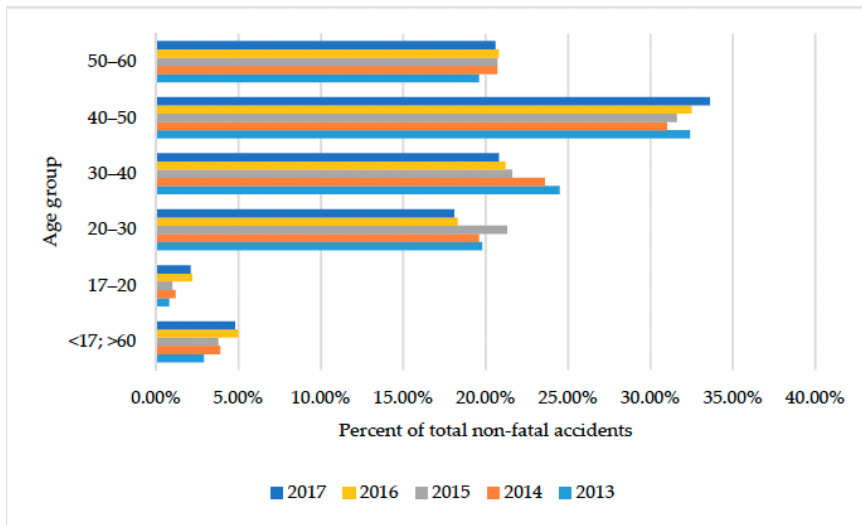


Figure 14. Assessment of non-fatal work accidents by age group [1,2].

Fatal

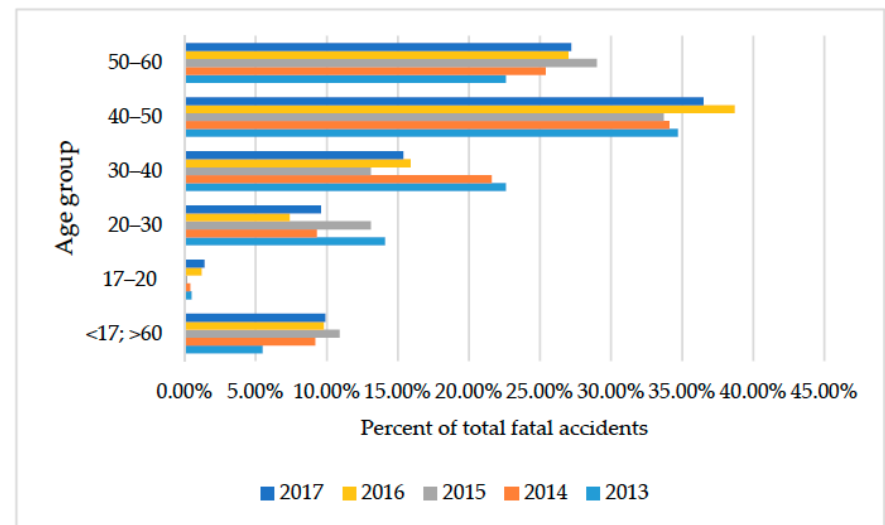
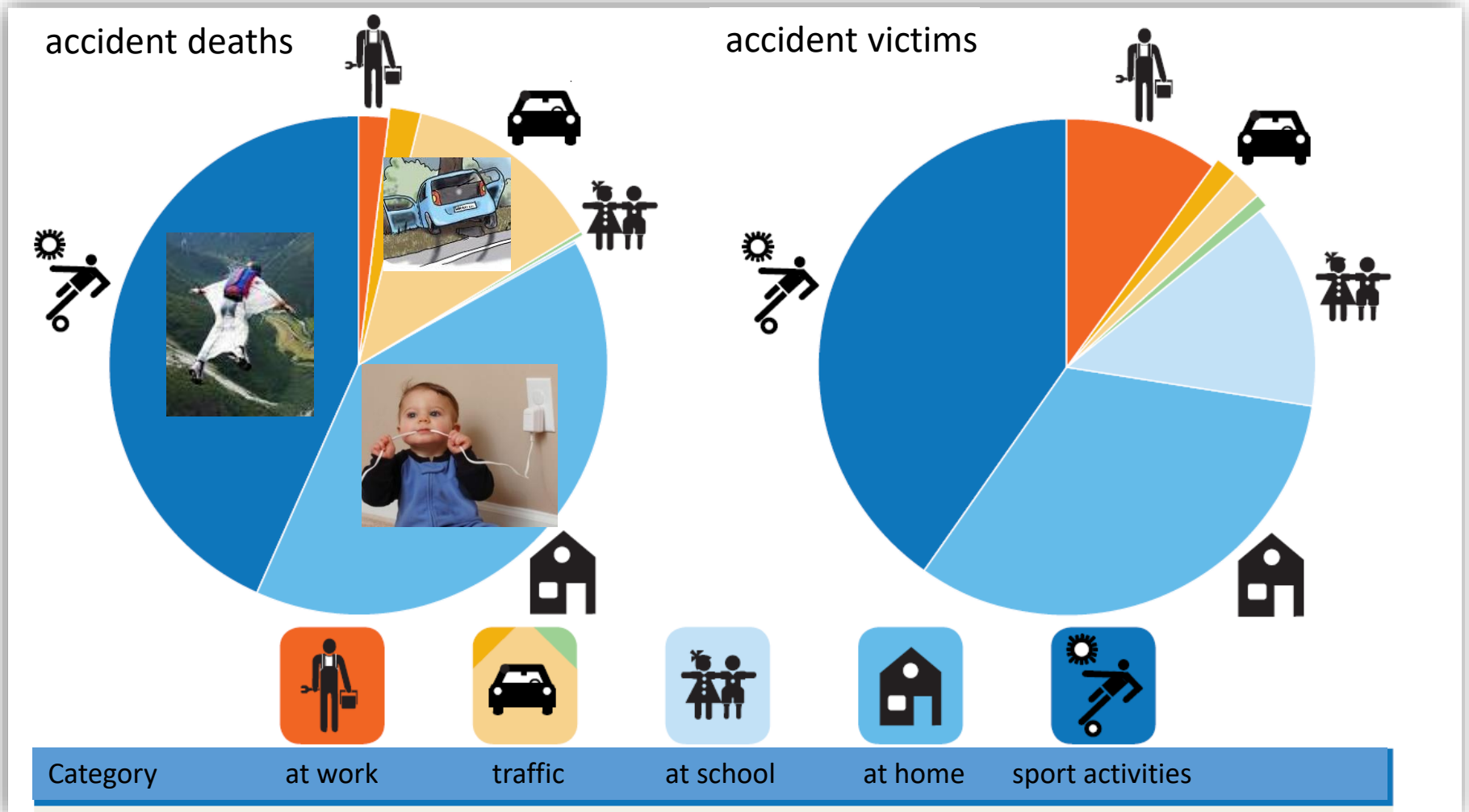


Figure 15. Assessing fatal work accidents by age group [1,2].

Ivascu, L. and L.-I. Cioca (2019) "Occupational Accidents Assessment by Field of Activity and Investigation Model for Prevention and Control." *Safety* 5 DOI: 10.3390/safety5010012.

It is important to know that most accidents happen at home and at sport activities. The reason for this is that, in contrast to leisure and sports, stricter safety regulations must be observed in the workplace and on the road.





Summary Accidents

- Occupational Accidents
 - Most common **causes** are being **hit, slipping or sliding** and being **stabbed or cut**
 - **Slips and falls** cause a large proportion of the **ongoing costs**
 - Slipping, falling, bumping and overexertion increase with age.
 - Being hit, stabbed or cut decreases with age.
- Recreational accidents
 - **Men** most frequently have accidents during leisure time while playing **sport**
 - **Women are** most frequently involved in accidents during their leisure time when staying **indoors and on private property.**