EUROPEAN FIRE SAFETY WEEK 2024

Enhancing domestic life safety: strategies and technologies for a secure home environment

18-22 NOVEMBER
WWW.FIRESAFETYWEEK

Introduction

Paul van der Zanden, General Director Euralarm

Program

- **Opening European Fire Safety Week**
  Krzysztof Biskup, European Fire Safety Alliance
- **Key note speech**
  MEP Billy Kelleher
- **The importance of creating awareness around domestic life safety**
  Michela Vuerich and Tania Vandenberghe, Consumer organization ANEC
- **The impact of domestic fires for vulnerable and elderly people**
  Koen Maertens, Organisation for burns, scar after-care & research – Oscare
- **How technology can support making homes safer in a changing world**
  Thorsten Teichert, Chair Euralarm Task Group ‘Domestic Life Safety’
- **Panel discussion**

Opening European Fire Safety Week 2024

Krzysztof Biskup, Chair European Fire Safety Alliance

Raising standards for consumers

The importance of creating awareness around domestic life safety

18 November 2024, EUFSW24

Michela Vuerich, mvu@anec.eu
Tania Vandenberghe, tva@anec.eu

Who we are

- ANEC was established in 1995 to provide collective European consumer voice in standardisation.
- ANEC is an independent, private and not-for-profit association (AISBL), supported by funding from the EU (95%) and EFTA (5%).
- We work with our members, experts and Secretariat, in order to achieve optimal levels of consumer protection, welfare and sustainability.

ANEC is an Annex III organisation

Standardisation Regulation (EU) 1025/2012

- Membership is open to 34 countries
- 160 experts from the countries of its membership
- Participation in over 225 technical bodies of CEN, CENELEC & ETSI, and in over 30 technical bodies of ISO & IEC

Who we are

- Aims to represent and defend the European consumer interest in a **continuum** of consumer protection and welfare

  - ✓ **From European policies & laws** related to standards, consumer protection & welfare
  - ✓ **To standardisation,** governance and technical levels CEN, CLC, ETSI, ISO, IEC, UNECE
  - ✓ **the use of standards:** conformity assessment, market surveillance, enforcement

ANEC priority areas

Accessibility
Child Safety
Domestic Appliances
Digital Society
Services
Sustainability
Traffic & Mobility

ANEC's Role in Fire Safety and Carbon Monoxide Poisoning

Fire Safety Initiatives

Hotel Fire Safety - we advocated for EU-wide requirements on fire safety in hotels, including:

- Emergency planning and staff training.
- Disability awareness and accessibility for safe evacuation.
- Participation in revising Council Recommendation 86/666/EEC on hotel fire safety.

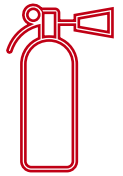
Challenges: Limited EU legislative support since 2014.

ANEC Call for Enhanced Fire Safety Data

- Need for EU-wide accident and injury database.
- Role of European Fire Information Exchange Platform (FIEP).
- Support to EUFireStat Pilot Project for harmonizing fire safety data.

EU Fire Safety Strategy:

- Campaign for consistent EU fire safety strategy across Member States.
- Focus on existing and emerging fire risks in all buildings.



ANEC's Role in Fire Safety and Carbon Monoxide Poisoning

CO Safety initiatives

- ***Activities in standardisation***

  CEN/TC 281: safe use of charcoal barbecue grills (safety pictogram)

  CENELEC/TC 216: updating standards for CO detectors

- ***Awareness raising campaigns***

  'Be safe this summer'

  Safe use of barbecues during wintertime: ‘CO kills! Stay aware!’

  > In partnership with Consumer Safety International (CSI)

Survey of ANEC members about public fire safety awareness

Consultation focus:

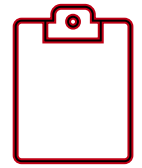
I. Perception of how fire safety is addressed at national level

II. Awareness of who is responsible for fire safety

III. Existence of community-based fire safety programmes

IV. Consumer problems identified

V. Use of electrical safety checklists (such as FEEDS initiatives) for consumers



Respondents: Feedback from 10 ANEC members across 7 countries: Denmark, France, Germany, Malta, Portugal, Spain, and the United Kingdom.

Survey of ANEC members about public fire safety awareness

I. Perception of Fire Safety at National Level

- **General Concerns:**
  - Insufficient public awareness and training on fire safety.
  - Many see lack of knowledge on responding to fire emergencies.
- **Mixed Responses by Country:**
  - Positive: Germany and the UK report good regulatory compliance.
  - Gaps: Spain and Malta cite outdated regulations and lack of national strategy.
  - Country-Specific Issues:
    - Spain faces a lack of mandatory fire protection in older buildings and increasing deaths due to fires.
    - France and Portugal highlight public safety focus, with gaps in residential sectors.
    - France: some insurance companies launch awareness campaigns

Survey of ANEC members about public fire safety awareness

Fire-Related Fatalities in Spain

Alarming Statistics (2022 Data):

- **Total Fire-Related Deaths:** 235 (steady increase compared to 165 in 2019)
    - **Deaths in Residential Fires:** 176
- **Most Affected Age Group:** People **over 65 years**
    - **Highest Fatality Risk:** People **over 94 years**

(Source: Fundación MAPFRE & Professional Association of Firefighter Technicians APTB - https://tinyurl.com/4evubj8x)

Survey of ANEC members about public fire safety awareness

II. Who is responsible for fire safety?

Shared Responsibility:

- Government, businesses, and individuals are seen to share responsibility.

Government's Role:

- Primary responsible for creating and enforcing laws (noted in Germany, France, Malta, Spain, Denmark).
- Financial help for citizens in vulnerable situations.
- Need to provide for public training and creating prevention strategies (Spain)

Survey of ANEC members about public fire safety awareness

III. Community-based programmes

Limited awareness of community-based fire safety programmes across countries.

Exceptions:

- **UK**: Local fire brigades offer home checks for vulnerable residents.
- **Spain**: Occasional awareness campaigns by firefighters.
- **Germany**: Fire departments often lead community efforts.

Survey of ANEC members about public fire safety awareness

IV. consumer issues

- **Consumer Challenges:**
  - **Lack of Awareness**: Low awareness of fire hazards and preventive measures.
  - **Regulatory Gaps**: Missing smoke alarms in older homes (Denmark, Spain).
  - Consumers' **difficulty in assessing fire safety** in products and public places.

Need for Public Training & education:

- Consensus that more public training and awareness are needed.
- Use of tech (e.g. QR codes on tickets) to improve consumer advice in the event of a fire.
- **Education**: Calls for integration of fire safety in school curricula.

Survey of ANEC members about public fire safety awareness

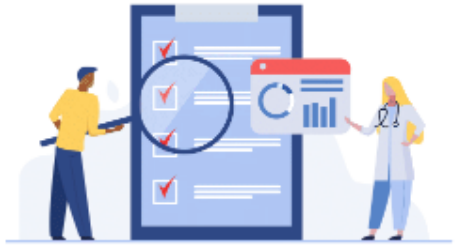
V. Awareness and Use of FEEDS Electrical Safety Checklists

- **Positive Reception**:
  - Checklists seen as valuable for consumer awareness, with some members planning national promotion.
- **Challenges**:
  - Complexity: Some find checklists too technical for general public use.
  - Language: Request for translations to make checklists more accessible.
- **Need for Training**:
  - Emphasis on providing training to help consumers understand and apply the safety guidance. Checklists like those from FEEDS are useful examples.

Importance of harmonised data collection

ANEC Call:

European consumer safety needs solid injury data



ANEC
Raising standards for consumers

EuroSafe
European Association for Injury Prevention and Safety Promotion

- Key: follow up EUFireStat and go beyond Fire safety
- first step: European Commission to set up a pan-European accident and injury database

  that also addresses fire accidents,

  with the data collected and shared in a consistent manner.

Reliable and up-to-date data are of huge importance to a range of stakeholders including governments, businesses, consumers, standards developers, enforcement authorities and prevention agencies.

- need to standardize and consolidate EU fire statistics, ensuring reliability and comparability, and drawing insights from the EUFireStat pilot project.
- push for a common framework allowing better exchange of information.

Role of standards

- **Fire Safety**

ANEC participated in CEN/CLC/JTC 4 "Services for fire safety and security systems" in development of EN 16763:2017 'Services for fire safety systems and security systems'

We welcomed the change this standard brought.

Before:

- large difference between the requirements for fire safety and those for security systems > adverse effect and cost implications for the consumer.

- large difference in the installation and service standards for different countries in the EU.

EN 16763:2017 removed much confusion and misunderstanding that existed in the EU.

Role of standards

- **Child-resistant cigarette lighters**

In the past:

many fires were attributed to children under five years of age playing with cigarette lighters that were not fitted with childproof devices.

ANEC was instrumental:

in drafting the standard that ensures child-resistant mechanisms on lighters are fitted to prevent fires: EN 13869 'Lighters – Child resistance for lighters – Safety requirements and test methods'.

Following our work and campaigning, the European Commission and Member States decided in 2008 to ban the sale of most types of lighters that did not comply with this standard.

Role of standards

- **Flammability of toys**

ANEC participates in the work of CEN/TC 52/WG 13 which is developing an amendment to EN 71-2 'Safety of toys – Part 2: Flammability'.

The amendment focusses specifically on fire safety of

- soft filled toys,
- toy disguise costumes
- toys intended to be worn by a child in play (also on the head, e.g. face masks).

The rate of spread of flame on the surface of the toy is an important factor.

We are satisfied with the development of this amendment.

Role of standards

- **Fire safety of household appliances**

Serious accidents and fatalities (e.g. Grenfell Tower in the UK) due to fires caused by faulty electrical household appliances

ANEC welcomed the determination of IEC/TC 61 to create robust fire prevention requirements for household appliances in the standards series IEC EN 60335 'Safety of household and similar electrical appliances'

ANEC, under the umbrella of Consumers International, participates in IEC TC 61 AG 4 which deals with surface temperature limits of household appliances and resistance to heat and fire.

Role of standards

- **Safety pictogram to prevent indoor use of barbecues**

Indoor use of charcoal barbecue grills (e.g. in tents, boats, caravans, …, as a heating source) can create an accumulation of carbon monoxide if there is insufficient ventilation inside, which can lead to fatal accidents.

Consumers are not aware of the dangers!

Following ANEC pressure, European Standard EN 1860-1 introduced a safety symbol on barbecues to warn of the risks.

Role of standards

- **Updating of standards for CO alarms**

ANEC's main concern: CO activation levels in EN 50291-1 and EN 50291-2 are far too high and above the human safe levels of exposure as recommended by the WHO.

The standards do not sufficiently protect consumers against CO poisoning in relation to instructions and warnings: in case the alarm goes off, the most important for a consumer is to know what to do.

  - dwelling should be evacuated in case of an alarm: critical information which needs to be put on the apparatus.
  - Putting the number of the European Standard on the detector will not save lives in case of an emergency. It can easily be put in the instruction manual.

We applaud the recent initiative of CENELEC TC 216 to look into the issue and to update the standards.

Examples of ANEC successful CO safety campaigns

"Be safe this summer!"

Leaflet to help educate children and young adults, about the danger of CO poisoning and to warn that the

'Misuse of a BBQ grill, can kill!'

available in 10 languages
English, French, Romanian, Spanish, Italian, Polish, Russian, German, Arabic and Portuguese

All versions of this leaflet are free to download, print and share, see
https://www.leanonus.co/bbq

Examples of ANEC successful CO safety campaigns

Safe use of barbecues during wintertime

'CO kills! Stay aware!'

Accidents involving carbon monoxide are more frequent in colder months

ANEC returns to social media each year to remind consumers:

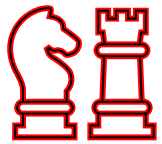
never use a charcoal barbecue indoors because of the high risk of CO poisoning

Conclusions and recommendations

Actions needed to prioritise prevention and awareness

We call on EU Institutions and Member States to:

- Build on the insights from the EUFireStat pilot project to create a **pan-European accidents & injuries database**.
- Promote **fire safety education** for citizens and professionals.
    - **Personal Emergency Evacuation Plans (PEEPs**) are crucial for individuals with disabilities or mobility impairments
    - Raise awareness of risks like fires caused by **lithium batteries** in vehicles and increased electrification of homes (See FEEDS work).
- Ensure active **participation of civil society** from the planning phase to execution of fire safety strategies at all levels.



Raising standards for consumers

Thank you !

www.anec.eu

ANEC is supported financially
by the European Union & EFTA

@anectweet

The impact of domestic fires for vulnerable and elderly people

Koen Maertens, Antwerp, Belgium

Managing Director

OSCARE, Organisation for Burns, Scar Aftercare & Research

Honorary Kurt Lewin Fellow Vrije Universiteit Brussels, Belgium

Member EBA Prevention Committee

@vzwOscare
@koenmaertens

www.oscare.be

Introduction

- 6 million people seek medical help for burns annually.
- Yearly 180.000 deaths worldwide following burns.
- Most incidents in low- or middle-income countries.
- In Europe each year about 5.000 fatal casualties due to dwelling fires.

(*WHO, 2018*)

EPIDEMIOLOGY

- 180 000 deaths / year

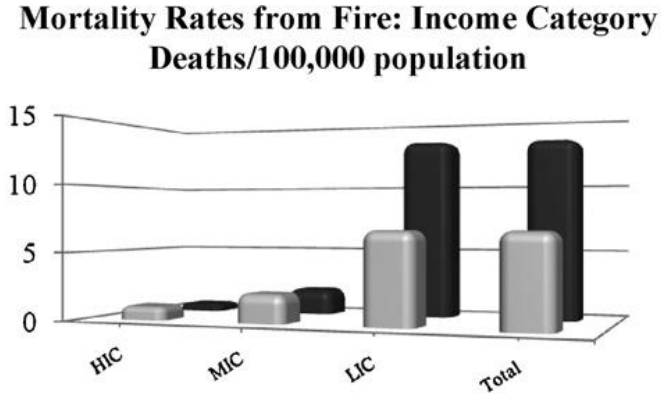
REGION	Africa	The Americas		South-East Asia	Europe		Eastern Mediterranean		Western Pacific		WORLD
Income group	low/ middle	high	low/ middle	low/ middle	high	low/ middle	high	low/ middle	high	low/ middle	
Number of burn deaths (thousands)	43	4	4	184	3	21	0.1	32	2	18	312
Death rate (per 100 000 population)	6.1	1.2	0.8	11.6	0.7	4.5	0.9	6.4	1.2	1.2	5.0
Proportion global mortality due to fires (%)	13.8	1.3	1.3	59.0	1.0	6.7	0.02	10.3	0.6	5.8	100

*Countries within each geographical region have been further subdivided by income level, according to the divisions developed by the World Bank.

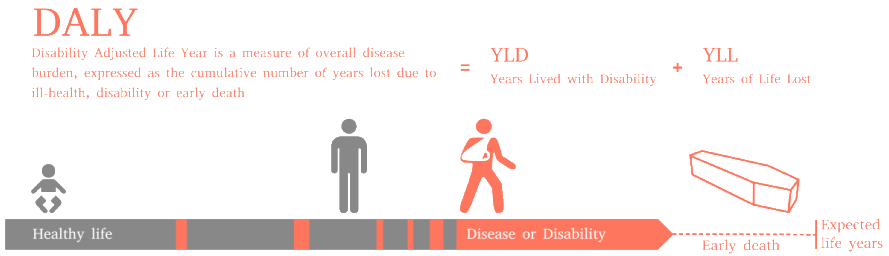
Source: *WHO Global Burden of Disease Database, 2002 (version 5).*

EPIDEMIOLOGY

- 180 000 deaths / year
- ~ 95% in LMICs
- 7x higher risk of death in LMICs > HICs
- Epi-center = South-East Asia



- Burn incidence higher than Malaria + HIV/AIDS + TBC combined!
- 1/15.38 household injuries in LICs = burns
- Year 2004: 11 million burns worldwide required medical attention
- 10 million disability adjusted life years (DALYs) lost globally each year
- Non-fatal burns:
  - prolonged hospitalization
  - disfigurement, disability
  - often stigma + rejection



Peck, *Bulletin of the World Health Organization* **2009**, *87*, 802.; WHO Factsheet **2018**; Davé, *Burns* **2018**, *44*, 1228.; Peck, Burns 2011, 37, 1087.; Smolle, Burns 2017, 43, 249.

EPIDEMIOLOGY

Demographics:

- Males > Females (depends on region…)
- Children + Elderly
- Lowest socio-economic class

Where? LMICs, War zones, Home (women + children), Work (men)

Other risk factors:

- Dangerous occupations (increased exposure to fire);
- Poverty, overcrowding;
- Inadequate safety measures (standards, enforcement)
- Young girls in household roles (e.g. cooking)
- Medical conditions (epilepsy, peripheral neuropathy, cognitive disabilities, …);
- Substance abuse (alcohol, smoking, …);
- Easy access to chemicals used for assault (e.g. acid violence attacks);
- Use of kerosene (paraffin) as a fuel source for non-electric domestic appliances;

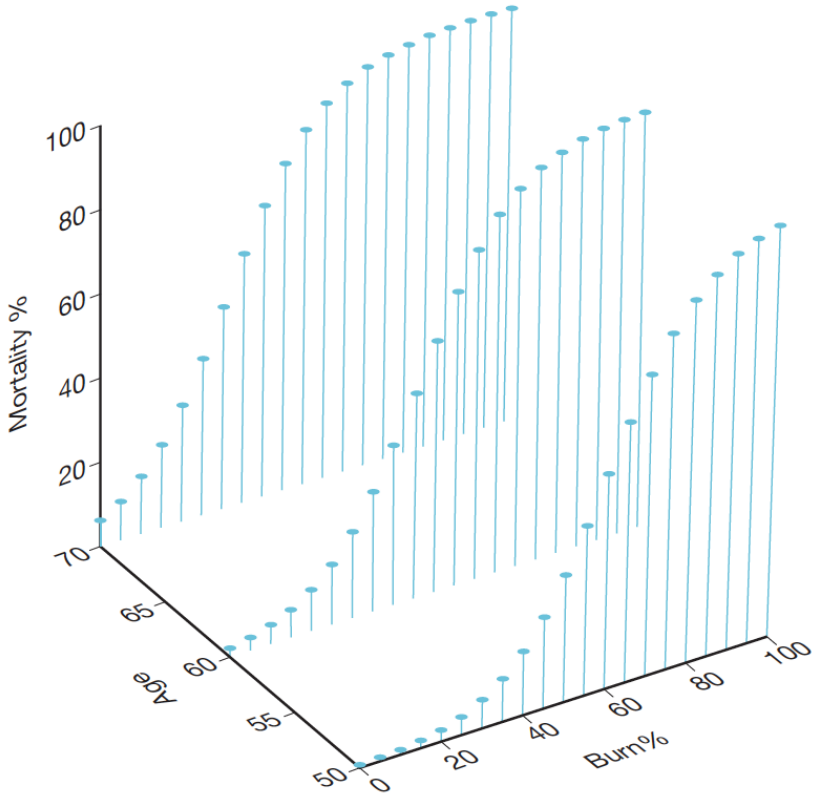


Figure 3.10 Effect of burn size on percent mortality at three discrete ages (1987–1991).

WHO Factsheet 2018; Herndon, Ed. , Total Burn Care, Saunders Elsevier, Edinburgh ; New York, 2012.

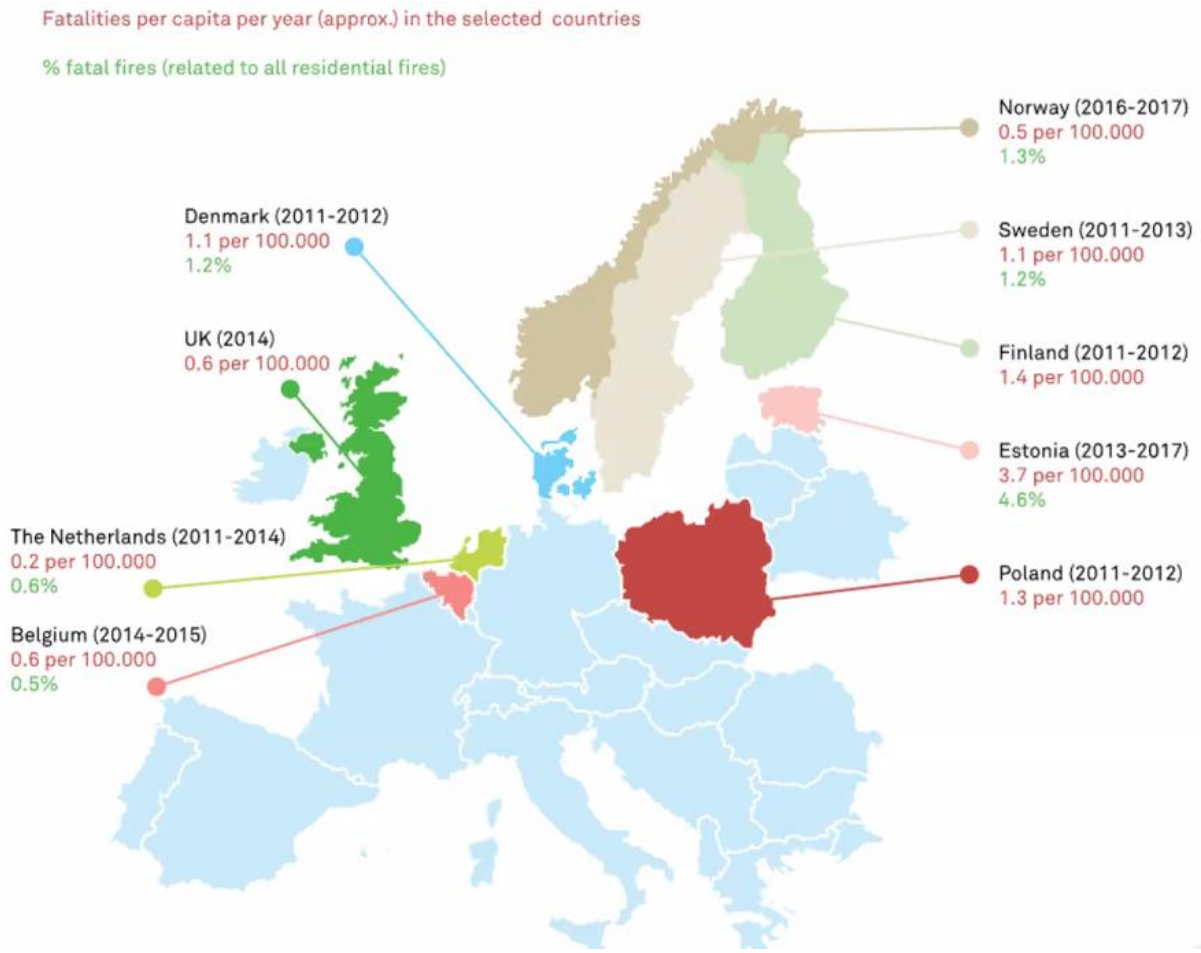
Vulnerabilities of the Elderly Population

- **Physical Limitations**: Reduced mobility and dexterity, making it difficult to escape.
- **Cognitive Impairments**: Dementia or memory loss impair the ability to react or use fire safety equipment effectively.
- **Health Issues**: Chronic conditions like respiratory problems increase susceptibility to smoke inhalation.
- **Living Conditions**: Older housing stock may lack essential fire safety features such as smoke alarms or fire-resistant materials.

European Statistics on Fire-Related Fatalities

Table 10 Population, fatalities per capita per year and percentage of fatal fires in selected European countries.

Country	Population (million)	Fatalities per capita per year (approx.)	% fatal fires (related to all residential fires)
Belgium (2014-2015)	11,4	0,6 per 100.000	0,5%
Denmark (2011-2012)	5,8	1,1 per 100.000	1,2%
Estonia (2013-2017)	1,3	3,7 per 100.000	4,6%
Finland (2011-2012)	5,5	1,4 per 100.000	
Netherlands (2011-2014)	17	0,2 per 100.000	0,6%
Norway (2016-2017)	5,3	0,5 per 100.000	1,3%
Poland (2011-2012)	38	1,3 per 100.000	
Sweden (2011-2013)	10	1,1 per 100.000	1,2%
UK (2014)	66	0,6 per 100.000	
Total	160,3		
Total Europe	742,9		



Fire Service Academy (2018). Fatal residential fires in Europe. A preliminary assessment of risk profiles in nine European countries. Arnhem: Institute for Safety.

Fatalities in the Elderly Population 65+ in Belgium

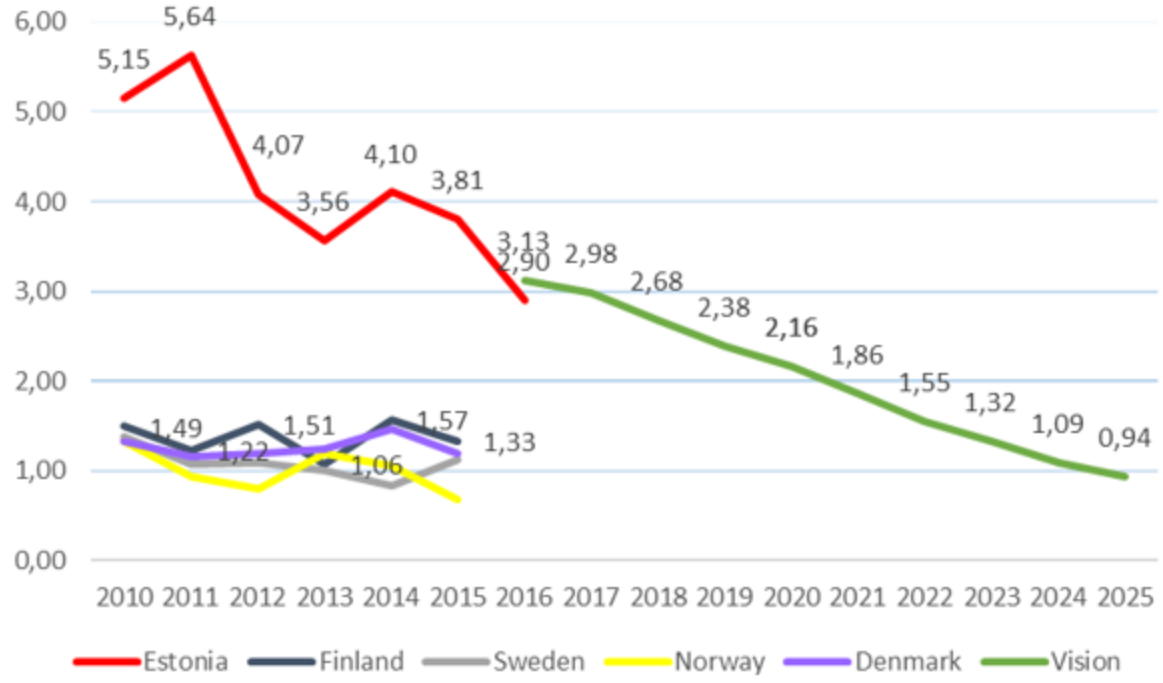
- 2009: fire in elderly home (Melle, Belgium): 9 deaths (cause: electric)

- 2023: 29 deaths
  - 2 deaths (cause: 1 sigarette, 1 unknown) in elderly home

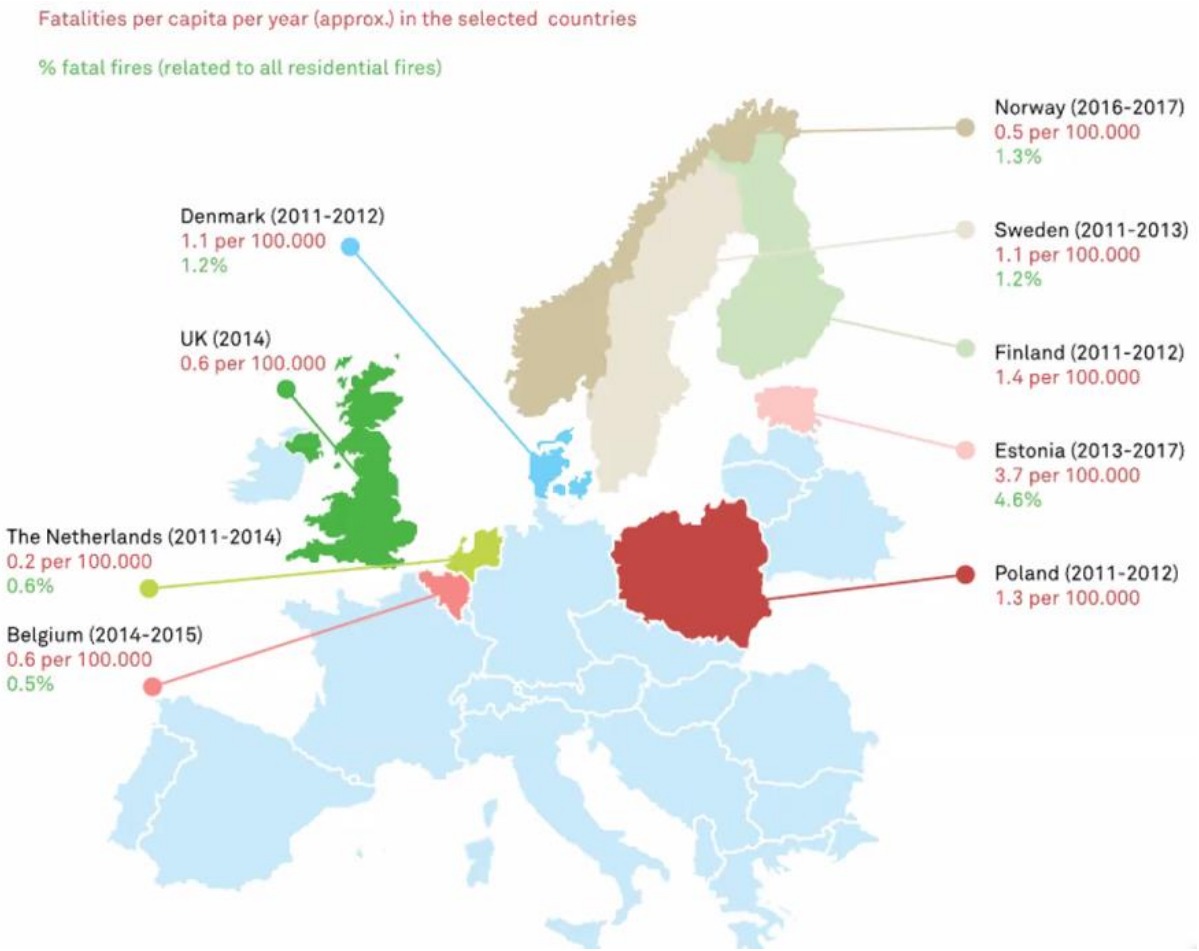
- 2024: 41 deaths
  - 1 death (cause: electric blanket) in elderly home

- *Mostly in the evening or at night; men = women; causes: electric, sigarette, kitchen; home (58%) or appartment (34%)*

Estonia - Increasing awareness – Holistic approach



The number of fire deaths per 100,000 population in Estonia and comparison countries



EVAPREM (Estonia, Latvia, Lithuania, Denmark and Finland)

http://www.evaprem.eu

Common Causes of Fires in Elderly Households

- **Cooking Fires**: Faulty cooking equipment, unattended stoves, or carelessness.
  - UK statistics show that cooking causes 47% of household fires.
- **Heating Equipment**: Space heaters and electrical appliances are common triggers.
  - In Germany, heating-related fires contribute to a significant portion of elderly deaths.
- **Smoking**: Careless smoking is a leading cause of fire in homes of elderly people.
  - France has seen a rise in smoking-related fires, particularly in households where the resident has dementia.

Health and Emotional Impact of burns

- **Physical Injuries**:
  - Burns, smoke inhalation, and fractures from falls during fire evacuation.
  - Example: UK Fire Services report that elderly people are more likely to sustain serious injuries, including fractures and severe burns.
- **Psychological Trauma**:
  - Post-traumatic stress disorder (PTSD) and anxiety.
  - Loss of home, personal belongings, and even pets can lead to depression.
- **Financial Burden**:
  - High medical expenses and potential loss of income due to disability.
  - Property damage leads to long-term financial strain.

Barriers to Fire Safety for the Elderly

- **Lack of Awareness**: Many elderly people are unaware of fire hazards or safety protocols.
  - In Italy, surveys show that 38% of elderly people had never received fire safety education.
- **Social Isolation**: Elderly individuals living alone are less likely to have immediate assistance during an emergency.
  - In Finland, isolated elderly individuals in rural areas face delayed emergency response times.
- **Inaccessibility to Fire Safety Resources**: Financial and physical barriers can prevent the installation of smoke alarms or fire extinguishers.

Preventive Measures and Recommendations

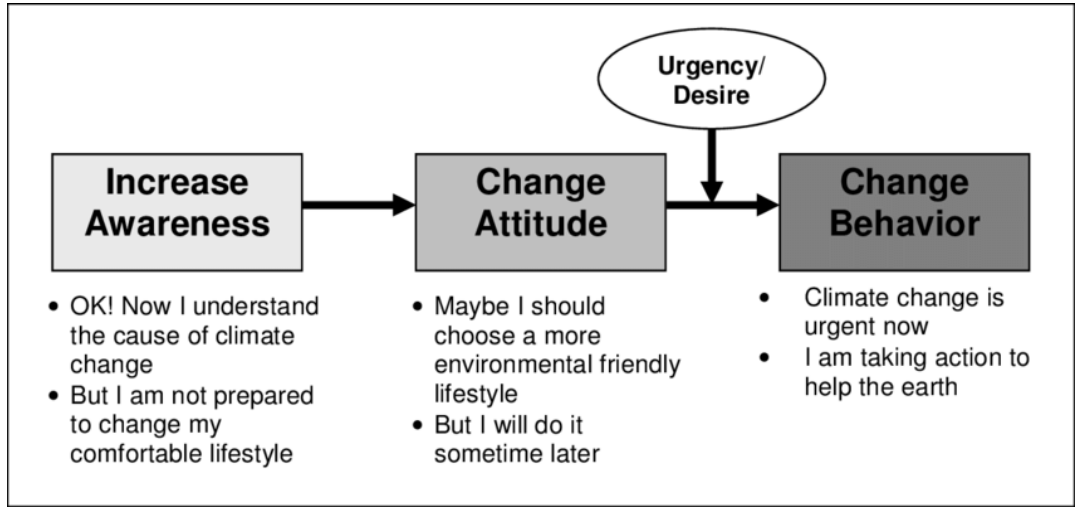
- **Install Smoke Alarms and Fire Extinguishers:**
  - In Sweden, national initiatives to distribute smoke alarms to elderly citizens have reduced fire fatalities.
- **Fire Safety Education:**
  - Community programs and outreach initiatives targeting the elderly can reduce fire risks.
  - Fire safety awareness campaigns have been successful in educating older citizens about fire risks.
- **Social Support Networks:**
  - Regular check-ins by family or community organizations can ensure elderly people are aware of fire risks.
  - Social fire safety initiatives involve local fire departments conducting home inspections for elderly citizens.
- **Create Escape Plans:** Personalized fire escape routes should be designed, considering mobility aids or health conditions.
- ....

Case Study: Fire Safety Initiatives in the UK

- **The "Safer Homes" Program:**
  - Provides free fire safety checks for elderly and vulnerable people, including the installation of smoke alarms.
  - Example: After the introduction of this program, fire deaths among seniors in the UK have decreased by 15% over the past five years.
- **Community-Based Fire Safety Education:**
  - Local fire brigades conduct fire safety workshops in care homes and community centers.

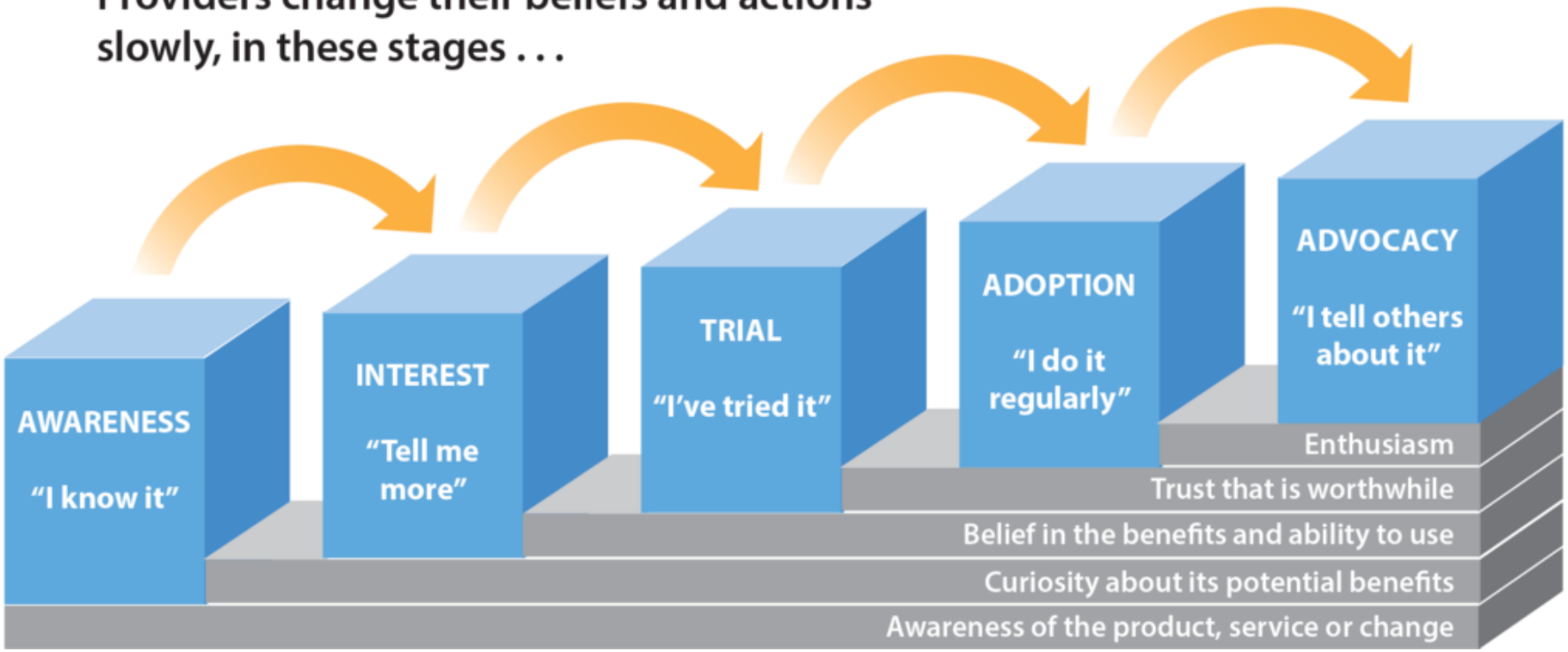
https://www.britishburnassociation.org/bba-national-burns-awareness-days

Towards behavior change

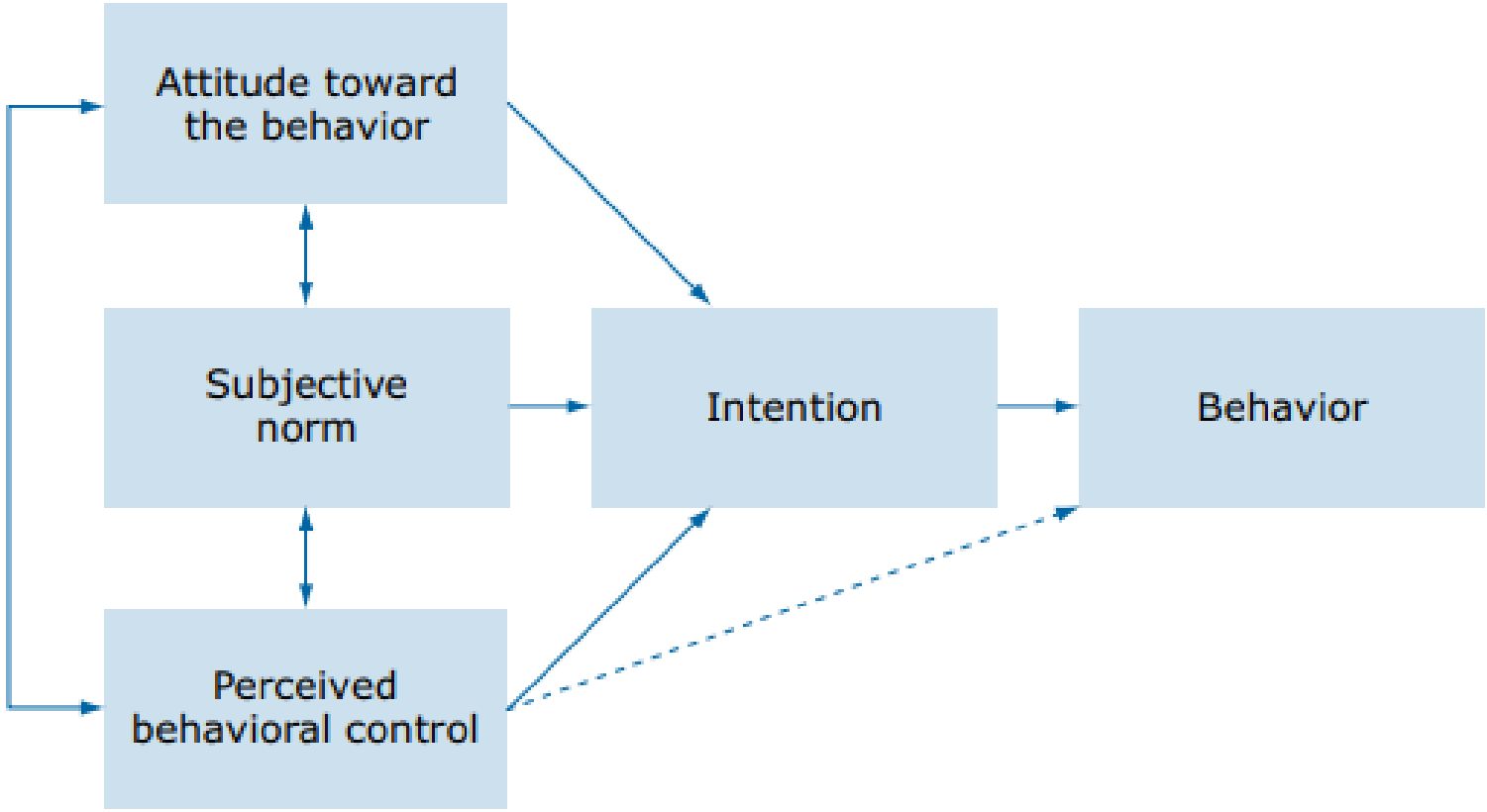


Adoption Ladder
Provider Behavior Change

Providers change their beliefs and actions slowly, in these stages . . .



Theory of planned behavior



Ajzen, I. (1991). The Theory of Planned Behavior.

Behavioural influence among the elderly

Margo Karemaker

Researcher, PhD

Dutch Institute for Public Safety

[Never too old to learn: developing a home fire-safety intervention for older adults using Intervention Mapping — Maastricht University]

PhD-study ‘Never too old to learn’ into fire safety among elderly

- Statistics show that elderly are at greater risk of becoming a victim in domestic fires
- This risk group is going to grow due to the ageing of the population

- **Objective of this study**: develop an intervention to change behaviour of elderly to improve their fire-safe behaviour

- Intervention will be developed using Intervention-Mapping

  (Bartholomew et al., 2016)

Different studies

- **Study 1 and 2**: Needs assessment (4400 participants) to determine which behavioural factors influence fire safety among elderly
  - Results: 1) attitude, 2) self-efficacy and 3) social norms
- These results are input for **study 3**: the development of the Fire Safety at Home programme
- **Study 4**: Effect measurement

The Fire Safety at Home programme

Lessons learned (1)

- Involve target group and relevant stakeholders in programme development and recruitment of participants
- Focus on influencing most important predictors of behaviour in fire safety programs: attitude, self-efficacy and social norms
- Focus on active learning
- Behaviour change requires choices: the more specific you target behaviours and predictors in interventions, the more effective these will be
- To effectively change behaviour, a different focus in fire safety programs is required. Shift from raising awareness to behaviour change

Dissertation of this study can be found at:
https://cris.maastrichtuniversity.nl/en/publications/never-too-old-to-learn-developing-a-home-fire-safety-intervention

Lessons learned (2)

- Behaviour change is a complex, long-term process
- Determinants are very important → take time for research
- Sharing knowledge is not enough > influence behaviour (intentions and attitude)
- Focus on quality, not quantity
- Firesafety at Home prevention programme more effective than traditional firesfatey programmes

"For every complex problem there is an answer that is clear, simple, and wrong."
H.L. Mencken

Target groups

- Children
- Elderly
- Vulnerable people
- *Everyone*
- …

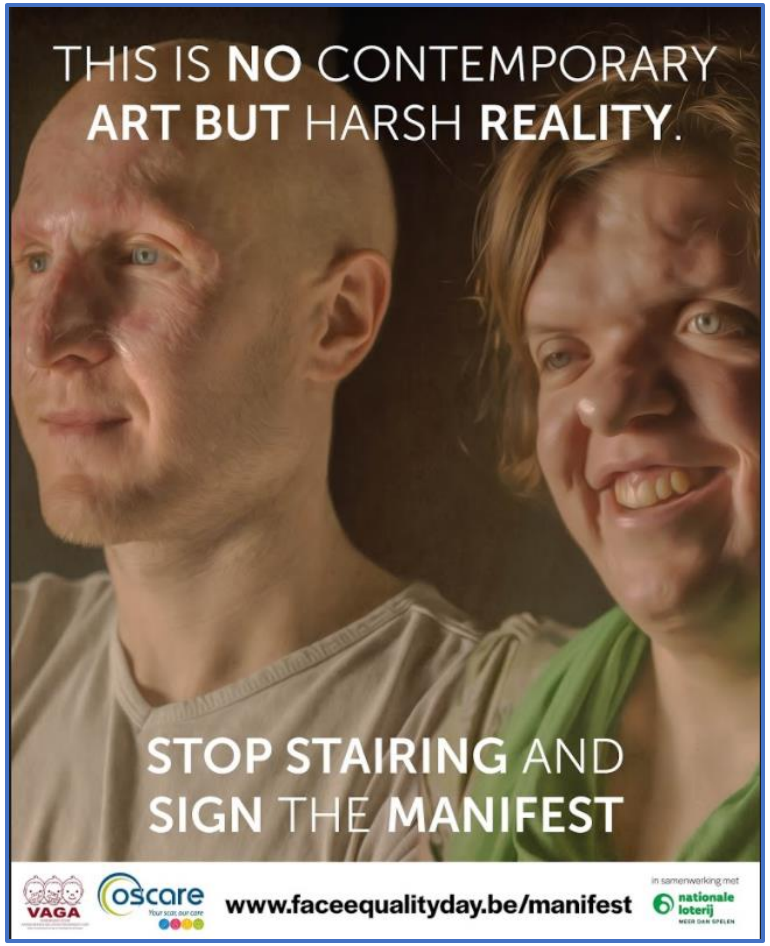
Increasing awareness
different methods

- Websites
- Educational materials: leaflets, brochures, booklets, posters,…
- National media campaigns
- Exhibitions
- School programs (i.e. BFireSafe@School)
- (Social) media
- Holistic approach
- …

Hautstigma (CH)
www.hautstigma.ch

Paulinchen (D)
www.paulinchen.eu

(UK) www.faceequalityinternational.org



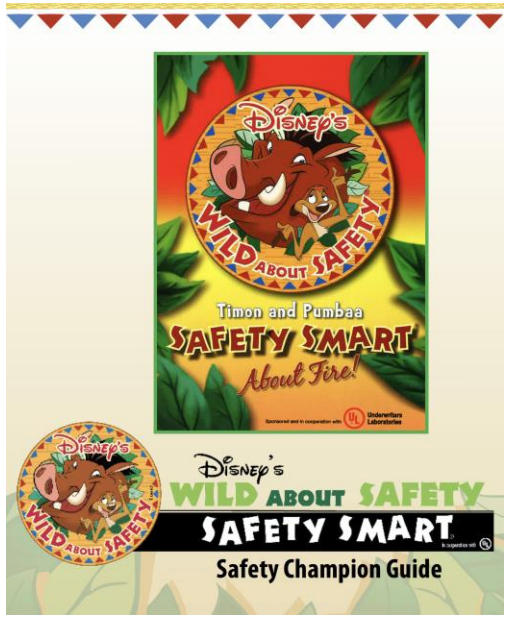
Face Equality Day (B)
www.faceequalityday.be

Marks of Pride and Beauty (NL)

https://www.facebook.com/marksofprideandbeauty

Dutch Burns Foundation

Rewritten. About living with scars (B)
www.oscare.be/herschreven



www.disneywildaboutsafety.com

(France)

Take home messages (1)

- (At least 50% of all) BURNS accidents ARE PREVENTABLE
- Severe burn injuries (requiring hospitalization) still occur often and have a high impact on morbidity and mortality.
- Flame burns and scalds are the most frequent causes of burns among all age groups.
- Focus on vulnerable groups!
- National and international registration of epidemiologic data of populations with burn injuries should be promoted.
- Lack of effective (interventional) prevention programs.
- Lack of coordination.
- Burns- and fire-prevention DOES matter!

Take home messages (2)

- The elderly are disproportionately affected by domestic fires due to physical, cognitive, and environmental vulnerabilities.
- A combination of proactive measures such as fire safety education, social outreach, and home safety modifications can help reduce the risk.
- Through community initiatives, government programs, and family support, we can ensure a safer living environment for the elderly across Europe.

"Tell me and I forget.

Teach me and I remember.

Involve me and I learn."

(Benjamin Franklin)

Thanks!

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European
Smoke Alarm Day

22th November 2024

#smokealarmssavelives

This Campaign is part of European Fire Safety Week

How technology can support making homes safer in a changing world

Thorsten Teichert, Chair Task Group ‘Domestic Life Safety’

People spend up to 90% of their day indoors and most of that time at home.

Peace of Mind

Everyone associates something with the term *home* and whenever I ask people what it is, I hear this particularly often:

I feel very comfortable at home, and I feel safe there.

Comfort & Safety

While comfort is based on very individual requirements, safety at home can be measured somewhat more objectively.

For most people, a safe home seems to mean:

- It is as safe as possible from fire;
- It is secure against unauthorised access, intrusion or robbery;
- The electrical installations and gas are installed and maintained correctly;
- The Internet access and thus also any smart home applications are secure against cyber-attacks.

Please think a few years ahead.

What will it be like when you are one of the elderly or if things happen and you are harmed with any kind of physical or mental handicap?

Will comfort then still mean the same to you as it does today, or will you have to change your priorities?

Let us be honest with ourselves and acknowledge that life can be more difficult in old age … especially if you live alone.

This also includes that it becomes more difficult to deal with dangerous situations and react appropriately as we get older.

We have known for years that there is neither enough staff nor enough money for a sufficient number of retirement homes and nursing homes.

Logical consequence is that the ageing generation and people with disabilities must live independently in their homes for as long as possible and assisted by technology.

Question

But can technology today already provide assistance?

And if so, can technology also reduce the risk of an incident occurring and, in an emergency, help people to deal with the dangerous situation?

Image by intographics @Pexels

The answer is YES !

Because e.g. driver-assisting technology is completely normal in today's cars.

- Light and rain sensors
- Lane assistant
- Traffic sign recognition
- Parking assistant
- Air quality sensors
- Tire pressure sensors
- Dynamic navigation etc.

Why should comparable assistance not be possible for people in buildings?

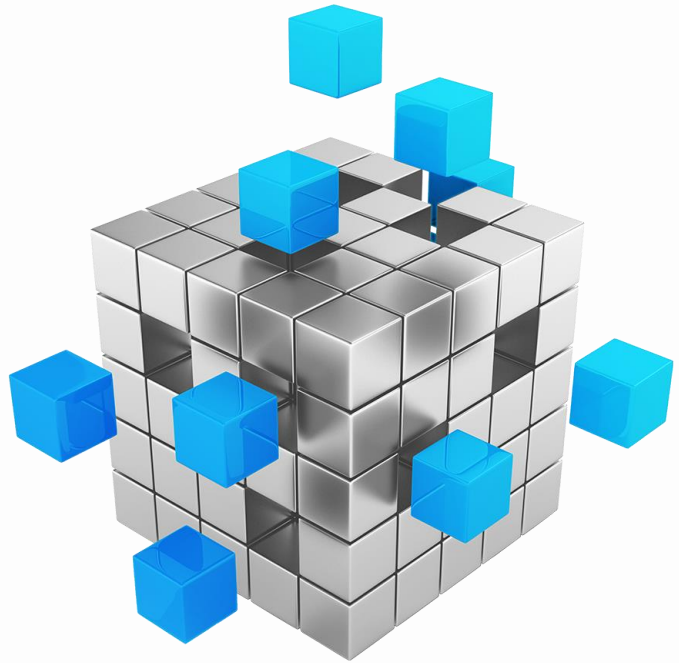
It is actually available!

Solutions like ***Domestic Hazard Warning Systems*** and

Active Assisted Living Systems add a next level to

Social Alarm Systems which are already deployed in many European countries and enable mostly elderly people to call an operator in an emergency and request help.

All three systems can build on each other and are if combined perfect to create comprehensive safety, security and comfort at the same time.



Domestic Hazard Warning Systems (HWS)

… are nothing more than a meaningful combination of four well-known and established system types that remain autonomous but now work very closely together:

- ➔ interconnected smoke alarms
- ➔ Intrusion-/hold-up alarm systems
- ➔ Social alarm systems
- ➔ Building services (electricity, gas, water, heating)

Even your smart home system - which may be today an important part of your idea of comfort - can become part of the hazard warning system and thus contribute to a safe and secure home environment.

Active Assisted Living Systems (AAL)

An Active Assisted Living System can be described as an upgrade to the foundation you may have laid in your younger years with a smart home system.

For some, it is a system that simply helps with the little things in everyday life, such as reminding you to take your medicine as it knows that you have not yet opened the medicine cabinet today.

For others, it is a service robot that brings food, vacuums the home and entertains on request.

For still others, it is a surveillance system that can warn you of medical emergencies significantly earlier than you can.

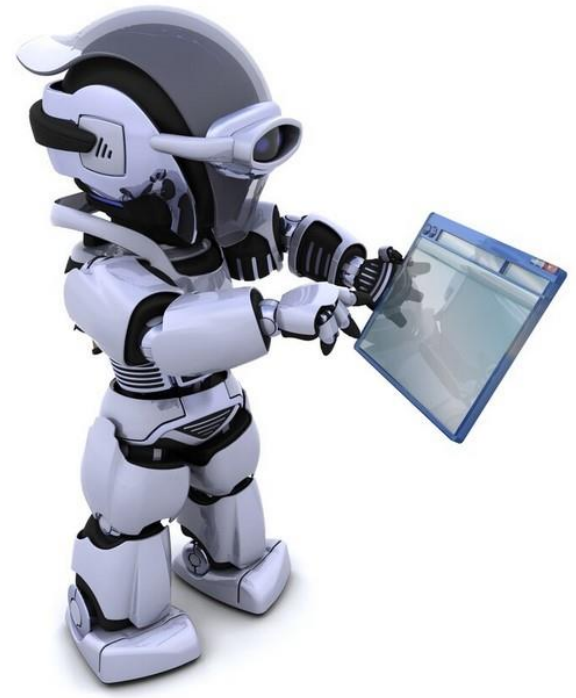
AAL

There are no exact and always identical requirements for an AAL system.

This is because it has to be planned and set up with components and services that are precisely tailored to the current needs of the user in order to compensate for their limitations!

For example… an AAL system can ask you via your smartwatch whether you are really okay if the heart rate sensor has detected an unusually high or low value.

If you do not respond, the system will make sure that help is called for and will also transmit your current location and the actual heart rate values to the helpers.



Another example

Imagine that a person regularly comes and helps you with the housework. This person is allowed to enter your home because it is difficult for you to get up to open the door.

However, the person should not be able to do so every day and not around the clock, because you want privacy!

An AAL system could solve this problem.

It could send automatically a QR code to the person's smartphone a few minutes before the agreed arrival time.

The person uses this QR code to authenticate themselves at the camera-based peephole and can enter your home because the AAL system will unlock the door while informing you via your smart speaker who's coming.

Active Assisted Living Systems (AAL)

But can an AAL system also prevent its users from getting into dangerous situations?

Imagine that an elderly occupant is sometimes a little confused - perhaps the onset of dementia.

Quick reaction to certain situations is here needed!

If the motion detector in the hallway (which also switches on the light) detects the presence of the resident in the middle of the night and notices that the entry door is opened next instead of, for example, the bathroom door the AAL system can get immediately active by informing relatives or carers to prevent the occupant from getting lost.

AAL Systems in dangerous situations

If a fire breaks out in your dwelling, your smoke alarms will trigger an audible alarm.

You have now been warned and should actually leave your home.

But you are eventually only able to save yourself to a very limited extent due to illness or disability.

You need help from outside, but the front door is locked .. helpers cannot get in.

AAL Systems in dangerous situations

In this situation an AAL system can use the same QR-code solution as with the household assistant but acts automatically, time triggered by your smoke alarms.

While it switches on all the lights in your home and switches off all the ventilation/air conditioning, it will at the same time inform you in a reassuring voice that help is already on the way.

Thanks to the QR code helpers can enter your home and support you in rescuing yourself.

Many forms of assistance can already today be provided technology-based locally or remotely for the elderly, the disabled or sick people to continue living independently, comfortable and safe in their familiar surroundings

... and the numbers are continually growing both in terms of the number of people who need assistance and the number of possible technical solutions.

It is this what I wanted to show in this presentation. It is possible to make a home at the same time safe, comfortable and assistive.

The more restricted you are the less able you are to deal with sudden dangerous situations. Thus, the safety aspect should play a central role in your thoughts about an assistive home. To ensure that your safety and security needs are adequately addressed, please consult experts.

They will make sure that everything comes together in an overall concept to ensure that you are reliably assisted **and** protected at home.

Thorsten Teichert
Chair of Task Group Domestic Life Safety, Euralarm

AI-generated image by freepik

Panel discussion

Koen Maertens, Michela Vuerich,
Tania Vandenberghe, Thorsten Teichert

Thank you!

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