

## Safely at All Ages

Programme for the Prevention of Home and Leisure Injuries 2021–2030

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## Safely at All Ages

Programme for the Prevention of Home and Leisure Injuries 2021–2030

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#### **Description sheet**

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#### **Abstract**

The Target Programme for the Prevention of Home and Leisure Injuries 2021–2030 contains a total of 89 measures, with the main emphasis on preventing injuries during different stages of life. Home and leisure injuries refer to accidents that occur at home or during leisure time, but the measures included in the programme are also concerned with injuries that occur at work and in traffic. The targets and measures according to age categories and types of injuries have been developed by a broad-based network of experts.

Injuries and poisonings rank second as a cause of treatment episodes in specialized medical care and third as a cause of inpatient treatment at health centers. Accidents are the fourth most common cause of death in Finland. Every year about 2,600 Finns die in accidents. About 90% of fatal accidents and 80% of accidents that lead to injuries occur at home and during leisure time. Falls are the most common type of accidents in all age categories.

Our safety vision is a zero-injury vision: no one needs to die or be injured as a result of an accident. The aim is to achieve a good safety standard for all environments and reduce by 2030 the number of accidents that lead to loss of health or death by 25% from the level of 2020.

The Ministry of Social Affairs and Health has appointed a coordination group for the prevention of home and leisure injuries to coordinate and monitor the implementation of the programme.

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#### Tiivistelmä

Koti- ja vapaa-ajan tapaturmien ehkäisyn ohjelma vuosille 2021–2030 sisältää 89 toimenpidettä painottaen vammojen ehkäisyä elämänkulun eri vaiheissa. Koti- ja vapaa-ajan tapaturmilla tarkoitetaan kotona ja vapaa-ajalla tapahtuneita tapaturmia, vaikka ohjelman toimenpiteissä käsitellään myös työssä ja liikenteessä sattuneita tapaturmia. Tavoitteet ja toimenpiteet on laadittu ikäryhmittäin ja tapaturmatyypeittäin laajan asiantuntijaverkoston valmistelutyöllä.

Vammojen ja myrkytysten hoidosta aiheutuu toiseksi eniten hoitojaksoja erikoissairaanhoidossa ja kolmanneksi eniten terveyskeskusten vuodeosastohoidossa. Tapaturmat ovat neljänneksi yleisin kuolinsyy. Vuosittain noin 2600 suomalaista kuolee tapaturmaisesti. Tapaturmakuolemista noin 90 prosenttia ja vammaan johtavista tapaturmista noin 80 prosenttia tapahtuu kotona ja vapaa-ajalla. Yleisin tapaturmatyyyppi kaikissa ikäryhmissä on kaatumiset.

Turvallisuusvisionamme on nollavisio: kenenkään ei tarvitse kuolla tai loukkaantua vakavasti tapaturman seurauksena. Tavoitteina ovat hyvän turvallisuustason toteutuminen kaikissa ympäristöissä, vakavien terveydenmenetysten ja kuolemaan johtavien tapaturmien väheneminen 25 prosentilla vuoteen 2030 mennessä vuoden 2020 tasosta.

Ohjelman toimeenpanon koordinoinnista ja seurannasta vastaa STM:n asettama Koti- ja vapaa-ajan tapaturmien ehkäisyn koordinaatioryhmä.

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#### Referat

Målprogrammet för förebyggande av olyckor i hemmen och på fritiden 2021–2030 innehåller 89 åtgärder med tyngdpunkt på förebyggande av skador i olika skeden av livet. Med olycksfall i hemmen och på fritiden avses olycksfall som inträffat i hemmet eller på fritiden, även om åtgärderna i programmet också tangerar olycksfall som inträffat i arbetet och i trafiken. Målen och åtgärderna har beretts av ett omfattande nätverk av sakkunniga och har sammanställts enligt åldersgrupp och olycksfallstyp.

Behandlingen av skador och förgiftningar orsakar näst flest vårdperioder inom den specialiserade sjukvården och tredje flest vårdperioder på hälsocentralernas bäddavdelningar. Olycksfall är den fjärde vanligaste dödsorsaken. Omkring 2 600 finländare dör varje år till följd av olyckor. Cirka 90 procent av dödsfallen i samband med olyckor och cirka 80 procent av de olycksfall som leder till skada sker i hemmet och på fritiden. Fallolyckor är den vanligaste olyckstypen i alla åldersgrupper.

Säkerhetsvisionen är en nollvision: ingen ska behöva dö eller skadas allvarligt till följd av en olycka. Målen syftar till att uppnå en god säkerhetsnivå i alla miljöer och att minska antalet allvarliga hälsoförluster och olycksfall med dödlig utgång med 25 procent fram till 2030 jämfört med 2020 års nivå.

För koordineringen och uppföljningen av genomförandet av programmet ansvarar den koordineringsgrupp för förebyggande av olycksfall i hemmen och på fritiden som tillsatts av social- och hälsovårdsministeriet.

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# **Programme for Injury Prevention for 2021–2030**

### 1 INTRODUCTION

The Programme for the Prevention of Home and Leisure Injuries for 2021–2030, entitled 'Safely at All Ages', was drawn up by a wide range of experts working under the coordination group for the prevention of home and leisure injuries appointed by the Ministry of Social Affairs and Health. The translations (Swe, Eng) of the programme include chapters 1–4 of Part I of the programme and the 89 measures for preventing various injuries (Korpilahti et al. 2020).

Other relevant key programmes, strategies and reports<sup>1</sup> were taken into account when drawing up this programme. The Programme for the Prevention of Home and Leisure Injuries for 2021–2030 complements these by placing emphasis on the prevention of injuries in different stages of the life cycle. The vision also adopted for this programme is 'Vision Zero', aiming to ensure that no-one needs to die or sustain serious injuries as a result of an accident. The programmes share the common goal of improving everyday safety and achieving a crisis-resilient Finland free of accidents and injuries, where people feel it is safe to live, work and spend leisure time. The goal is for Finland to be the world's safest country, where people can feel safe and well. These aspects are also emphasised in the Government Programme for 2019–2023 in Finland.

In the context of this programme, 'home and leisure injuries' mainly refer to those sustained as a result of home and leisure accidents, although we will also discuss injuries occurring at work and in traffic as part of the programme measures. An unintentional injury is an unexpected event resulting in death or injury to a person. Unintentional injuries are characterised by physical trauma of varying degrees.

<sup>1</sup> E.g. Transport safety strategy (under preparation); internal security report and strategy work (coordinated by the Ministry of the Interior, TUOVI internal security portal); action plan for incident prevention for the rescue services (Lepistö & Heliskoski 2019); National Mental Health Strategy and Programme for Suicide Prevention 2020–2030 (Vorma et al. 2020); Patient and Client Safety Strategy 2017–2021: Implementation plan (Ministry of Social Affairs and Health 2020a); Legal basis of the National Child Strategy report (livonen & Pollari 2020); Promotion of wellbeing, health and safety 2030 – Government Resolution 17.6.2020 (Ministry of Social Affairs and Health 2020b); Action Plan on Alcohol, Tobacco, Drugs and Gambling (Ministry of Social Affairs and Health 2015, new version under preparation).

Unintentional injuries constitute a significant public health issue. Injuries and poisonings rank second as a cause of treatment periods in specialised healthcare and third as a cause of inpatient treatment at health centres. Unintentional injuries are the fourth most common cause of death in Finland. About 2,600 Finns die from unintentional injuries every year. About 90% of fatal unintentional injuries and 80% of unintentional injuries leading to trauma take place at home and during leisure time. Falls on the same level or from height constitute the most common type of unintentional injury in all age groups. Unintentional injury deaths are linked to substance use: a good seven per cent of falls and about a third (35%) of other fatal injuries occur under the influence of alcohol. Some positive developments can be seen. People's safety awareness has improved, which is evident in trends such as the clear decrease in the numbers of traffic and occupational accidents, children's unintentional injury deaths and residential building fires over the last few decades.

Injury prevention can be examined at different levels of prevention. 'Primary prevention' refers to proactive efforts. Unintentional injuries can be prevented by identifying their underlying causes and removing or reducing injury risks. Factors causing unintentional injury risks can either be completely eliminated or modified to reduce the risk level. 'Secondary prevention' refers to rescuing injury victims, administering first aid and providing appropriate treatment as needed. 'Tertiary prevention', in turn, involves preventing injury recurrence, providing injured individuals with good rehabilitation and helping them come to terms with the existing situation. It has been established that once a person has been injured, their risk of sustaining new injuries is greater. A sports injury sustained at a young age, for example, may cause problems years later. Having fallen once, an older person runs a higher risk of falling again. This programme will especially focus on primary prevention of accidents and injuries.

Injuries have diverse impacts on all age groups, involving physical trauma, human suffering, sickness absences and costs that have long-lasting effects on the lives of victims and their loved ones. Injuries are typically the result of a wide variety of risk factors. Wideranging preventive action can help identify the causes of unintentional injuries and eliminate or minimise injury risks and inequalities. Safety is achieved through the interplay of many different factors and requires a multidisciplinary approach, cross-sectoral cooperation and citizen involvement. Preventing accidents and injuries is everyone's business. Safety is built upon the action taken, not only by individuals and families, but also by communities, legislators and public authorities, as well as practitioners and nongovernmental organisations (NGOs) from several different sectors. In their actions, it is important for different parties to take account of both individual responsibility and structural, functional and operational safety, as well as the safety of services.

Attention should be paid to promoting and ensuring safety so as to make it equally achievable regardless of socioeconomic background. Safety promotion should focus on the systematic and goal-oriented promotion of safety competence. It is important for injury prevention measures to intervene proactively in the causes of risky behaviour. This highlights the involvement of communities and the significant role of NGOs in prevention efforts. The Safely at All Ages programme 2021-2030 also requires regional and local planning to achieve its goals. Factors with negative effects on health and safety often tend to accumulate for vulnerable groups. Indeed, injuries on the population level occur proportionately more frequently amongst the most vulnerable groups and individuals with various functional limitations

Physical exercise and activity, including incidental movement that promotes functional capacity, can prevent injuries. People are therefore encouraged to exercise in ways that promote their health. Examples of easy ways to promote health include making everyday trips on foot or by bicycle. The Finnish Transport and Communications Agency (Traficom) has a programme for the promotion of walking and cycling, which includes a 'Plus Vision' that highlights the health and climate benefits of physical activity (Jääskeläinen 2018). The benefits of cycling to promoting public health will go to waste if people find cycling too dangerous and opt for using a car instead. Recognising one's personal functional capacity helps avoid risks. Deleterious effects of unintentional injuries can be prevented by using safety equipment.

Effective treatment of chronic and psychiatric illnesses in all age groups is likely to help reduce injuries as well. Substance use, poisonings, and other injuries, as well as risky behaviours may stem from mental health issues and other cumulative challenges in life, such as unemployment or relationship problems. In the case of repeated injuries, it is also advisable to consider any other potentially underlying factors bearing on the situation at different age groups, such as violence or an untreated physical illness.

The key areas of action to prevent home and leisure injuries include increasing people's own responsibility and awareness, building safe residential and living environments, as well as ensuring the safety of products and services. Increasing the population's competence, inclusion and resilience, demands the concerted efforts of all different professional and voluntary parties. Individuals can take personal responsibility for their safety when they have the relevant knowledge and skills as well as the preconditions for safety in place in their living and operating environments. Various organisations should also take responsibility for their own safety and that of their customers. Environmental, product and service safety can be improved by reducing the chance of human error or ensuring that any errors will not cause serious injuries. Legislation (including the Consumer Protection Act 920/2011) plays an essential role in promoting environmental,

product, service and procedural safety. Legislation is also pivotal to improving traffic and occupational safety.

Safety is achieved through the interplay of many different factors and requires strong safety management. Successful injury prevention calls for closer cross-sectoral cooperation, which should also be taken into account in restructuring healthcare and social welfare services. Serious accidents and injuries are rarely caused by one single – human or technical – error or failure. There has been a shift from highlighting individual factors to adopting a systems-thinking approach, which includes the concept of 'safety culture'. 'Safety culture' refers to an entire system's safety-oriented way of operating. Creating a positive, comprehensive safety culture calls for cooperation between different sectors. Advance assessment of the effects of (policy) decisions, methodical prevention of accidents and injuries, and coordination of work should be part of national and local decision-making, safety and security planning and monitoring processes, such as municipal wellbeing reports.

The consequences of unintentional injuries – physical trauma, disabilities and fatalities – have both human and economic impacts on the levels of individuals, communities, and society. Injuries may have a profound impact on the affected individuals and their loved ones for the rest of their lives. Injuries sustained in leisure and traffic accidents cause plenty of sickness absences from studies and workplaces. Likewise, occupational accidents have spillover effects on leisure time.

As home and leisure accidents involve many different types of injuries, the field of action is broad and prevention efforts are distributed across several sectors. Different age groups also face different types of risks in everyday life, while there is plenty of heterogeneity within age groups as well. For example, among older people, there are both very fit individuals still active in working life and those requiring 24-hour care.

The operational targets and measures of the Safely at All Ages programme for 2021–2030 were drawn up by age group and type of injury on the basis of the preparatory work carried out by a wide network of experts. Continued attention should be paid to improving safety culture and preventing injuries involving substance use, as well as to preventing sports and exercise injuries. Falls constitute the most common type of unintentional injury in all age groups.

The programme's implementation is coordinated and monitored by the coordination group for the prevention of home and leisure injuries appointed by the Ministry of Social Affairs and Health. The programme will be supplemented with an action plan, outlining the party/parties with primary responsibility for implementing each measure as well as other responsible parties and schedules for implementation. The coordination group will

assess the status of implementation of the measures laid out in the programme every year and will produce a report on its mid-term review in 2025.

The preparatory work for this programme involved exploring the following background factors, for example, which may influence the trend in the numbers of home and leisure injuries and create both challenges and opportunities for targeting prevention efforts:

- Agency, client orientation, inclusion;
- Varying accident risks, protective factors, and resilience in different age groups;
- Individuals with functional limitations and other vulnerable groups;
- Increasing number of older people, declining birth rate and their effects on the dependency ratio;
- Increasing level of home care and growing demands on informal care;
- Substance use;
- Mental health and prevention of loneliness, social exclusion, and inequality;
- Health and welfare inequalities;
- Opportunities provided by digitalisation, technologies, and artificial intelligence;
- Blurring work/life boundaries, increasing remote work and multilocal living;
- · Physical activity and mobility in different environments;
- Increasing multiculturalism;
- Pandemics and health security.

The World Health Organisation (WHO) divides unintentional injuries into the following six types: road traffic injuries, falls, drowning, poisoning, injuries caused by fire, and other injuries (WHO 2007). This programme's measures focus on the prevention of accidents and injuries falling within the first five categories of unintentional injuries by means of multidisciplinary cooperation.

The WHO classification of injuries also covers intentional injuries, including self-abuse and suicides, violence, and emotional and physical neglect of an individual dependent on the care of another due to age, functional limitations or level of maturity, for example (incl. children, people with disabilities, older people; see WHO 2016, Korpilahti et al. 2020). The Safely at All Ages programme 2021–2030 highlights the perspectives of promoting mental health and preventing the harmful effects of mental health and substance abuse issues as part of accident and injury prevention.

The national mental health promotion and suicide prevention policies and measures are laid out in the National Mental Health Strategy and Programme for Suicide Prevention 2020–2030 (Vorma et al. 2020). The national policies for preventing violence against children, minimising its harmful effects, and helping victims are outlined in the Non-Violent Childhoods - Action Plan for the Prevention of Violence against Children 2020–2025, which was published in 2019 (In English Korpilahti et al. 2020).

In 2016–2020, the coordination group comprised representatives from the Ministry of Social Affairs and Health as well as from the following parties: Ministry of Transport and Communications, Ministry of the Interior, Ministry of the Environment, EHYT Finnish Association for Substance Abuse Prevention, Finance Finland, City of Helsinki, Finnish Association of People with Physical Disabilities, Finnish Transport and Communications Agency (Traficom), Safety Investigation Authority (SIA), Association of Finnish Local and Regional Authorities, Finnish Osteoporosis Association, The Finnish National Rescue Association (SPEK), Finnish Red Cross, Finnish Swimming Teaching and Lifesaving Federation (FSL), Finnish Institute for Health and Welfare (THL), Finnish Safety and Chemicals Agency (Tukes), Finnish Institute of Occupational Health (FIOH), and UKK Institute.

This newly developed programme follows six previous national target programmes for injury prevention published in 1988, 1991, 1996, 2000, 2007 and 2013, as well as a study describing the accident injury situation from 2003. The policies and measures outlined in these programmes have guided practical work and developed cooperation in this field. The majority (95%) of the 92 measures included in the previous target programme for 2014–2020 have been implemented or are making good progress (Råback et al. 2017).

The programme's measures were drawn up by multidisciplinary working groups of experts working under the coordination group for the prevention of home and leisure injuries appointed by the Ministry of Social Affairs and Health. The targets and measures for preventing unintentional injuries among children and young people aged under 25, published in 2018 (see Korpilahti 2018), were updated in cooperation with expert parties during the spring of 2020. The update project was overseen by Development Manager Ulla Korpilahti from the Finnish Institute for Health and Welfare (THL). The expert working groups on working-age people and older people met under THL coordination in 2019–2020. The working-age adults' project and the older adults' projects were coordinated by Senior Researcher Persephone Doupi and Development Manager Riitta Koivula, respectively. The work carried out by the expert working groups, as well as the programme's substantive and commentary work involved experts and public officials from a wide variety of organisations. A large group of experts from different sectors also provided feedback on the programme's contents at different stages of the process.

A draft version of the Safely at All Ages programme for 2021–2030 was open for public consultation from 28 June to 31 August 2020, attracting feedback from a total of 41 bodies (incl. ministries, expert organisations and NGOs). Feedback and consultations with stakeholders made it possible to develop the programme's contents to cater to a wideranging and multi-sectoral target group even more effectively.

No reliable statistical or research data is available either nationally or internationally on the effects the COVID-19 pandemic that broke out in the spring of 2020 has had on the number or incidence of accidents and injuries. The known changes relating to the service system, such as the considerable reduction of preventive services and delays in assessment and treatment, may also have at least indirect effects on the unintentional injury situation due to substance use or other risky behaviours, for example. With regard to violence, the incidence and risk of domestic violence, incl. violence against children, are known to have increased due to the effects of restrictive measures and the surge in the time spent at home and online, for example (see e.g. Gromada et al. 2020, Hietanen-Peltola et al. 2020, Finnish Government 2020).

## **2 VISION AND TARGETS**

The coordination group defined Vision Zero for preventing home and leisure injuries as follows:

No-one needs to die or sustain serious injuries as a result of an accident.

Furthermore, the core targets for preventing home and leisure injuries are defined as follows:

- A good level of safety and security is reached in all environments.
- By 2030, the number of serious and fatal home and leisure injuries will decrease by 25% from the 2020 level.

The Programme for the Prevention of Home and Leisure Injuries 2021–2030 promotes the general goal of making Finland the world's safest country, where people feel that they live in a safe, fair and equitable society, where individuals' competence and resilience to crisis are developed through cooperation and where insecurity caused by multifaceted social exclusion is prevented.

# 3 KEY PACKAGES OF INJURY PREVENTION MEASURES

Home and leisure injuries constitute a significant public health and safety issue. These involve many different types of unintentional injuries and related risk factors that affect all age groups. The key packages of measures to prevent accidents and injuries include improving safety culture and strengthening safety work; preventing accidents and injuries related to the use of medicines, alcohol and drugs while promoting mental health; strengthening equality and promoting the safety of vulnerable groups in particular; improving environmental, product and service safety; and preventing fall injuries, incl. sports and exercise injuries (Figure 1). The sets of measures defined for each age group and organised by type of unintentional injury (Tables 1–16), also include some common themes (see Korpilahti et al. 2020, in Finnish).



Figure 1. Key packages of injury prevention measures, adapted from Ministry of Social Affairs and Health 2013a.

#### Improving safety culture and strengthening safety work

A good safety culture should be extended to all growth and operating environments, including home and leisure time. Preventing injuries is everyone's business. Young and middle-age men are over-represented in home and leisure injuries. Working-age women, in particular, are burdened by informal care responsibilities, which also contribute to susceptibility to injuries. Growing numbers of older people and their independent living arrangements increase challenges for multidisciplinary cooperation and development of a comprehensive safety culture. High alcohol consumption and binge-drinking behaviour heighten the risk of injuries. Home and leisure injuries cause considerably more sickness absences from workplaces than occupational accidents.

Strengthening competence and increasing communications

Information about injury prevention should be included in education and training for different professional fields while also increasing people's safety skills and resilience at the population level. The aim is to raise people's awareness of how to prevent injuries, including anticipation, so as to improve their ability to take responsibility for their own choices and to promote safety as members of their community. Stronger knowledge and skills will also increase the ability to assess risks and hazardous events and to identify and avoid risk-taking behaviours.

Strengthening regional and local cooperation in preventive work

Almost all local authorities have local security plans in place, but the work is still weighed down by its siloed nature. Safety promotion should also be included in statutory municipal wellbeing reports. The structures, cooperation and long-term approach of the work to prevent injuries still needs to be further strengthened as part of the health and social services reform, for example, while ensuring inhabitants' safety in sparsely populated areas as well.

Developing statistical monitoring and increasing research

Due to the wide variety of types of unintentional injuries, monitoring is carried out in several sectors. Many different organisations collect information and interpret background factors. National and regional statistics should be made more quickly available for use by different parties. Municipal and regional accident and injury indicators are available from the Sotkanet information service of the Finnish Institute for Health and Welfare (THL) and from the database of the Finnish Crash Data Institute (OTI). The collected data sets are still being underutilised, and these should be better used in local planning and promotion of health, safety and wellbeing. Developing more automated and real-time injury statistics

(incl. cause of death data) would make it easier to apply local and regional data in support of municipal and regional decision-making processes. The Finnish Institute for Health and Welfare cooperates with the European Injury Database (IDB) at the international level.

Most progress has been made in monitoring road traffic accidents, where statistics on serious accidents and injuries have been published since 2014 in addition to traffic fatalities. The sector's investigation, research and reporting work has progressed in cooperation between the relevant parties (incl. THL, Traficom, OTI, Statistics Finland, the Police), but official injury statistics still only include a fraction of the bicycle accidents. The Finnish Swimming Teaching and Lifesaving Federation (FSL) monitors drownings and water traffic accidents based on media reports and publishes advance data on drowning deaths. The Finnish Transport and Communications Agency (Traficom) also aims to pick out causes of accidents and injuries as well as regional areas for improvement from its statistics.

The Valtava project develops national information production in health and social services and its supporting technologies as part of the Ministry of Social Affairs and Health action programme for management by knowledge, steering and supervision in health and social services (TOIVO programme). Its aim is to improve national information production in health and social services so as to better support official monitoring, assessment, steering and supervision processes. Among other things, the national information resources for prehospital emergency medical services (EMS) will make it possible to merge data from emergency response centres, other field systems and electronic EMS patient care records with other registers and to analyse and improve it. EMS patient care records would make it possible to receive information on actual events from the scene. This would enable spatial and condition data on accidents and injuries to be merged with data on treatment and rehabilitation, producing a full view of the integrated care and service pathways of patients with accident injuries.

Ongoing digitalisation may significantly accelerate and improve the availability and coverage of injury statistics and support more automated and real-time reporting.

# Preventing accidents and injuries related to the use of medicines, alcohol and drugs while promoting mental health

Substance use, especially binge drinking, is the single most significant factor underlying injuries. Alcohol-related accidents are more common in Finland when compared with the European average. Older people's substance use has become commonplace. Medicines, alcohol, and drugs are significant risk factors for falls. Treating substance-related injuries places burdens on the healthcare system. Where the levels of binge-drinking are successfully reduced, the associated risk of unintentional injuries also decreases. The

number of deaths from alcohol poisoning declined up until 2016, at which point the trend took another sharp upturn. Since 2016, deaths from drug poisoning have shown a rising trend, similar to findings of substances in forensic toxicology analyses. Poisoning related to drug use, incl. pharmaceutical drugs and other substances, is the second most common cause of death among people aged under 40 in Finland. The number of illicit drug abusers is also at a record high. It is necessary to improve planning in preventive activities.

Problems with life management and mental health may manifest as risky behaviours while also increasing the risk of suicidal ideation. Problems in close relationships and, in particular, psychiatric disorders and substance use increase the risk of both unintentional injuries and suicides. Deficiencies in social support and networks and potential use of alcohol and other substances should be taken into account in the treatment of mental disorders such as depression, as well as in the prevention of self-harming behaviours and unintentional injuries.

#### Strengthening equality and promoting the safety of vulnerable groups in particular

In relative terms, unintentional injuries occur more frequently among persons with low socioeconomic status than the rest of the population. Based on a safety study on serious accidents among working-age adults published by the Safety Investigation Authority (2016), a very high number of people who had suffered an injury had reduced functional capacity. The groups that are particularly vulnerable to safety risks include individuals whose physical and cognitive capacity is still developing and those whose functional capacity and skills are reduced or limited for one reason or another (e.g. children, older people and people with disabilities), as well as those belonging to various linguistic minorities or ethnic groups from different cultural backgrounds.

#### Improving environmental, product and service safety

Safety of built environments and housing

When attention is paid to ensuring the safety of built environments and housing, the level of special needs groups in institutional housing will go down, while living at home will become more prevalent. The Act on Supporting the Functional Capacity of the Older Population and on Social and Health Services for Older Persons (980/2012), also known as the 'Old-Age Services Act', includes the prevention of injuries as part of advice services and home visits that support wellbeing. Both the above-mentioned Old-Age Services Act and the Rescue Act (379/2011) impose an obligation on healthcare professionals and municipal social welfare services as well as rescue services, emergency response centres or the police to engage in inter-agency cooperation, notwithstanding confidentiality provisions.

Building regulations and building design guidelines relating to the accessibility and safety in use of buildings were reformed during the 2010s. Local authorities also have wider responsibility for environmental safety (e.g. safe mobility, including water transport and water area safety).

Improving product safety and encouraging the use of safety products and technologies

Safety technology products are continuously developed. The population at large already has better capabilities to adopt new technologies. While many older people are also keeping up with this progress, it is nevertheless imperative to take account of individuals who do not have the opportunities or functional capacity to use digital devices or the internet. Technologies have improved safety in many respects, such as in terms of advancements in vehicle safety equipment, offering new tools for preventive work (such as preventing falls with smart mats). At the same time, however, use of new technological devices has also increased certain types of unintentional injuries, such as those caused by electric scooters.

One of the key objectives of product safety legislation is to prevent accidents and injuries. Product regulation is mainly based on the EU regulatory framework while national regulatory responsibilities are distributed across different administrative branches. The administrative branch of the Ministry of Economic Affairs and Employment is responsible for legislative sectors of technical safety, such as general product safety (Consumer Protection Act 920/2011), as well as regulation of the safety of toys, electrical equipment and lifts. The Finnish Safety and Chemicals Agency supervises the safety of these products. Completely new consumer services and their providers are entering the market at a fast pace. European standardisation and other guidance, for example, generally lag a few years behind. The GDP share of services has grown steadily over the last few decades (EK 2020).

Considering climate change impacts in accident injury prevention

Climate change is expected to have an impact on various health risks in Finland, including slip injuries, health hazards due to high temperatures and vector-borne infectious diseases, such as Lyme borreliosis and tick-borne encephalitis (TBE) spread by the castor bean tick. In current winter conditions, several thousands of Finns need healthcare services due to slip injuries every year. The highest adverse economic effects on society come from sickness absences due to unintentional injuries sustained by working-age adults. As a result of climate change, slippery conditions measured in terms of the number of days will probably increase in large parts of the country as temperatures fluctuate more frequently on both sides of zero degrees Celsius. Due to the high prevalence of slip injuries, even minor changes in the risk of injury will have major effects, which means that there is a clear need to pay attention to the situation. The Stay on Your Feet (Pysy

Pystyssä)campaign coordinated by The Accident Prevention Network has made excellent contributions to promoting measures to prevent winter slips and this work also needs to be continued and further intensified.

While research into the impacts of climate change on health and wellbeing has increased in Finland, its results are still insufficient to make any quantitative estimates on the impacts. The Finnish Institute for Health and Welfare is preparing an action plan for 2020–2025 to produce information on the health and socioeconomic effects of climate change and its prevention measures; to increase general awareness of aspects such as the health benefits of combating climate change; and to promote adaptation to climate change based on research.

#### **Preventing fall injuries**

Fall injuries (incl. sports and exercise injuries) are the most common type of unintentional injury. More than half of the injuries treated in hospital result from falls. Falling is the largest cause of accidental death among older people. The Old-Age Services Act imposes an obligation to promote older people's independent living through early intervention in any functional impairment and its risk factors. Falling is also the most common reason for inpatient hospital stays among working-age people's unintentional injuries. Likewise, falls incl. sports and exercise injuries are the cause of the highest number of inpatient stays in specialised healthcare units among children and young people every year.

Physical activity is verifiably the most efficient and primary protective factor against falls in all age groups, improving muscular strength, balance, and coordination. At the same time, it serves the goals of promoting public health and adapting to climate change through the health effects and environmental performance of walking and cycling, for example. Promoting safe physical activity forms an essential part of preventing falls in all age groups. However, a considerable share of the benefits of physical activity may be lost, unless adequate attention is paid to its safety and prevention of sports and exercise injuries. It is important to strengthen cooperation between parties and programmes involved in promoting physical activity and preventing injuries.

## 4 MEASURES

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The measures included in this programme cover accident injuries due to falling, poisoning, road traffic accidents, drowning, water traffic accidents and fire, as well as the role of informal carers (such as family members and friends) in promoting safety among workingage and older adults. The targets and measures are provided in a table format and divided by age group. The tables set out the targets, measures, rationales and responsible parties for preventing accident injuries among children and young people (aged 0 to 24), working-age adults (aged 25 to 64) and older adults (aged 65 and over), as well as monitoring and indicators for assessing implementation.

While some of the measures are relevant to the whole population across age groups in one way or another, these are nevertheless addressed separately for each age group in the tables of measures. This is because details such as the emphasis placed on the content of measures and the means of assessing and monitoring implementation often vary by age group or are only available for some of the age groups. By way of example, cross-administrative cooperation relevant to older adults can be monitored through the number and types of welfare concern reports included in the THL Status of Older People Services Follow-Up Survey (THL 2020a), whereas monitoring of this aspect is more challenging with regard to other age groups.

The tables of measures also provide a concise rationale for each measure under each age group. References to more specific rationales are included in the Rationale columns of the tables as required. The party/parties with primary responsibility for each measure as well as schedules for implementation will be indicated in the action plan due to be prepared during 2021.

#### 4.1 Accidental falls

In the context of this programme, 'accidental falls' refer to injuries covered by codes W00–W19 of the International Classification of Diseases (ICD-10), including falling on the same level from slipping, tripping and stumbling; falling on and from playground equipment; falling from a bed, ladder or higher level; and falling due to ice and snow.

**CURRENT STATUS:** Falling on the same level or from height cause the most inpatient hospital stays due to unintentional injuries among children and young people as well as working-age adults. Falls are also the leading cause of injury death for older people.

**OBJECTIVE:** Health losses and hospitalisations as a result of falling on the same level or from height will decrease among children and young people as well as among workingage adults. Deaths and hospital stays as a result of falling on the same level or from height will decrease among older people. Sports and exercise accidents and resulting injuries will be prevented in a targeted manner, taking the needs of different age groups into account.

Increasing physical activity should form a clear part of preventing fall, sports and exercise injuries in different growth and operating environments. As children and young people are still growing and developing, their bodies will require versatile physical stimuli to develop in areas such as motor skills. In all age groups, it is important to take care not to carry out injury prevention measures at the expense of physical activity. The population-level objective is to encourage people to adopt a physically active lifestyle and use the necessary protective equipment, making diverse use of different communication channels.

# Table 1. CHILDREN AND YOUNG PEOPLE (aged 0 to 24). Targets and measures for preventing accidental falls among children and young people for 2021–2030.

#### **General objectives:**

- The number of serious sports and exercise injuries will decrease.
- Children's injuries due to falling from height will be reduced by means such as improving the knowledge of fall risks in the home and its immediate environments among professionals working with parents and young children.
- The causes of fall injuries and means of prevention will be better known.

Target 1. Safety will be taken into account in development and supervision of operating environments.

Measures	Rationale	Responsible parties
Measure 1.  Child impact assessments relating to fall risks will be systematically conducted as part of planning various operating environments for children and young people (e.g. ensuring that the surface materials used in sports and exercise facilities are sufficiently area-elastic).	Child impact assessments relating to safety considerations and operating environments are carried out to a varying extent while practices vary by region and municipality.  The National Child Strategy includes national recommendations and instructions for child impact assessments (Finnish Government 2021).).  No nationwide data is available on the implementation of child impact assessments in environmental planning. According to UKK Institute experts, safety factors relating to aspects such as preventing sports and exercise injuries have not always been considered in environmental planning.  The properties of surface materials used in sports grounds have an effect on both performance and the safety of sports. The surface material also plays a role in the occurrence of repetitive strain-based injuries as well as sudden injuries. The properties of sports surface materials with considerable effects on performance and strain on the athlete's body include hardness, elasticity, and friction in particular. (UKK Institute, terveurheilija.fi)  The RT Building Information Files for building design concerning daycare centres and educational institutions were revised in 2019, introducing a specific new file for safety, although safety is also taken into account in other files.	Ministry of the Environment, Ministry of Social Affairs and Health, Ministry of Education and Culture Finnish Institute for Health and Welfare (THL) Finnish National Agency for Education/collaborative partnership UKK Institute University Faculties of Medicine and National Centres of Expertise in Sports and Exercise Medicine operating under their auspices NGOs, incl. Finnish Committee for UNICEF/Child-Friendly Municipality Initiative Local authorities, regions

#### Monitoring and indicators for 2021–2030

Municipal and regional implementation of child impact assessments as part of planning various growth and operating
environments for children and young people by the parties indicated above as being responsible for implementing this measure.

#### Measures Rationale **Responsible parties** Measure 2. **Context:** All operators falling under Ministry of Economic Affairs and the Consumer Protection Act (920/2011) Employment: legislative responsibility Service providers will have up-to-date are required to produce a safety Finnish Safety and Chemicals Agency knowledge of consumer safety and document including a comprehensive responsible self-supervision in place. (Tukes): statutory supervision of description of any hazards involved in consumer services Safety management training will be their services and how service safety is organised for service providers. Ministry of Education and Culture ensured. The details to be provided in a Ministry of Social Affairs and Health safety document may also be included in another safety plan, such as an emergency plan. According to the Finnish Safety and Chemicals Agency (Tukes), there is still room for improvement in municipal consumer safety efforts, including selfsupervision. One of the priorities of this work is to step up supervision in the near future while continuing to provide safety management training courses. Monitoring and indicators for 2021-2030

Numbers of Tukes training courses and course participants.

#### Measure 3. Tukes targets supervision based on risks Ministry of Economic Affairs and Employment: legislative responsibility at indoor activity and trampoline parks, Supervision of consumer services related outdoor exercise areas, ski resorts, etc. and guidance to sports and exercise will be arranged One of the purposes of supervision is to appropriately. Tukes: responsibility for supervising legal reduce serious injuries sustained in such compliance services. Besides supervising consumer services, Tukes encourages and reminds consumers to behave safely by means such as active communications about the risks of services. Tukes publishes annual summaries of accidents that have come to its notice. As a specific challenge is to obtain comprehensive information about accidents that have taken place in services, information collection should be developed in cooperation with different parties. Monitoring and indicators for 2021–2030

Numbers of accidents that have taken place in sports and exercise services for consumers.

## Measures

#### Measure 4.

Prevention of falls and sports and exercise injuries as well as the importance of encouraging physical activity will be considered when building new playgrounds and sports and exercise facilities and, in future, when renovating old ones as well.

When putting construction and maintenance contracts of playgrounds and sports and exercise facilities out for competitive tendering, local authorities will take account of safety criteria, such as promoting flexible rinks through the funding criteria issued by the Ministry of Education and Culture for construction of sports and exercise facilities and requiring adequate elasticity in sports surface materials.

#### Rationale

Studies, reports, and design guides relating to construction of sports and exercise facilities are published in the publication series of the Ministry of Education and Culture on sports and exercise facilities by the Building Information Foundation RTS sr.

Information on playground safety considerations is available on the Tukes website (Tukes 2020).

According to UKK Institute experts, safety factors have not always been considered in environmental planning (see Measure 1, Rationale: UKK Institute and terveurheilija.fi).

Creation of living environments conducive to physical activity is promoted through information guidance with the aid of the University of Oulu website on physical activity and land use planning at liikuntakaavoitus.fi, the Ministry of Education and Culture and the Ministry of the Environment.

#### **Responsible parties**

Ministry of the Environment, Ministry of Education and Culture

Finnish National Agency for Education/collaborative partnership

**UKK Institute** 

University Faculties of Medicine and National Centres of Expertise in Sports and Exercise Medicine operating under their auspices

Tukes

Local authorities, regions

- National recommendations and publications concerning construction of sports and exercise facilities published between 2021 and
- Municipal documentation concerning construction of sports and exercise facilities, sample survey.

Target 2. Adopting a physically active lifestyle and preventing falls and sports and exercise injuries will be included in the contents of safety education.

#### Measures Rationale Responsible parties Measure 5. Prevention of falls and sports and Ministry of Education and Culture/ exercise injuries is part of basic work Department for Youth and Sport Policy Children and young people will have at maternity and child health clinic good mobility skills. Topics of preventing Finnish National Agency for Education services, (see Government Degree falls and sports and exercise injuries **UKK Institute** 338/2011; kotitapaturma.fi 2019a, will feature more prominently in safety LIKES Research Centre for Physical 2019b and 2019c), in early childhood instruction and education provided in Activity education and care, schools, educational different operating environments: institutions and sports clubs. Ministry of Social Affairs and Health, THL Maternity and child health clinic → Carrying out basic work in the Local authorities, regions services → extensive health checks, above-mentioned environments, family training, home visits; Sports clubs, sports federations including prevention of falls and sports Early childhood education and care and exercise injuries in keeping with (ECEC) → local ECEC curricula, Early recommendations, will require ensuring Childhood on the Move programme/ adequate human resources. Ministry of Education and Culture, Finnish National Agency for Education, LIKES Research Centre for Physical Activity and Health, Schools on the Move programme; Basic education, upper secondary school level → contents of local curricula and vocational qualification requirements, UKK Institute's LiVE projects (see UKK Institute's Healthy Athlete Program -webpage) Sports clubs → voluntary coaches

#### Monitoring and indicators for 2021–2030

will be provided with training in cooperation with sports federations.

- National studies and reports assessing the work carried out in different sectors, such as maternity and child health clinic services, school and student healthcare services, and expert organisations, such as the UKK Institute;
- Contents of local curricula and vocational qualification requirements;
- National results of Move! measurements for basic education pupils in grades 5 and 8/Finnish National Agency for Education;
- Results of the School Health Promotion Studies: Injuries at school or during school travel over the school year, % (prevalence trend data).

Target 3. Safety-promoting procedures and operating models will form part of a comprehensive operating culture in education,
training, workplaces and leisure time.

Measures	Rationale	Responsible parties
Measure 6.  Provision of training on prevention of falls, incl. sports and exercise injuries, for professionals and students working with children and young people in different sectors will be studied:  Healthcare professionals, incl. public health nurses, registered nurses, practical nurses, physicians;  Trainers and teachers, incl. class teachers, physical education teachers, health education teachers;  A comprehensive safety culture and a Zero Vision mindset developed in cooperation with organisations.	Neither basic nor continuing education for different professionals contains any specific courses on falls on the same level and from height.  According to experts in occupational accident prevention, falls are the most common type of accident injury in workplaces and young workers are more susceptible to accident injuries.  The Finnish Institute of Occupational Health (FIOH) provides training for workplaces and research in support of risk assessment and safety promotion.	Ministry of Social Affairs and Health/ Department for Work and Gender Equality Finnish Institute of Occupational Health (FIOH) Finnish National Agency for Education UKK Institute University of Jyväskylä (JYU), Faculty of Sport and Health Sciences Higher education institutions and other education and training providers

#### Monitoring and indicators for 2021–2030

- Provision of training on prevention of falls, incl. sports and exercise injuries, for professionals and students working with children
  and young people in different sectors studied and developed by the programme's mid-term review in 2025;
- Review of safety-related contents in basic and continuing education for selected professions.

#### Measure 7.

Young workers' safety skills will be ensured:

- → instruction on on-the-job learning periods during education;
- → workplace induction training for new employees.

According to experts on injuries, young workers meet with occupational accidents more frequently than those with longer careers. Moreover, minor occupational injuries may teach young people to minimise the real risk involved. As people become older, the same type of incident that was short-lived at a younger age may lead to a longer recovery period or loss of health.

The Finnish Institute of Occupational Health (FIOH) has provided material and training to promote the topic.

According to the Vocational Education and Training Act (531/2017), young people must be guaranteed a safe learning environment.

Ministry of Education and Culture, Finnish National Agency for Education FIOH

Ministry of Social Affairs and Health/ Department for Work and Gender Equality

Local authorities, regions

- Materials produced by the Finnish Institute of Occupational Health and other parties and information on their use;
- Results of the TEA health promotion data collection and School Health Promotion Studies on safety-promotion efforts at
  educational institutions (e.g. statutory inspections of health, safety and community wellbeing at educational institutions, plans
  on injury prevention and monitoring) and the resulting local corrective measures.

# Table 2. WORKING-AGE PEOPLE (aged 25 to 64). Targets and measures for preventing accidental falls among working-age people for 2021–2030.

#### **General objectives:**

- Fall injuries will be recognised as a cause of working-age adults' morbidity and loss of working and functional capacity, and preventive measures will be enhanced.
- Burdens on specialised healthcare due to working-age adults' fall injuries will decrease.

Target 1. Awareness of the risks of working-age adults' fall injuries will increase. The causes will be known and means of prevention will be utilized better.

will be utilized better.		
Measures	Rationale	Responsible parties
Measure 8. Local authorities will take multidisciplinary action to support residents' safe mobility, preventing fall injuries. The focus will be on promoting safe walking and cycling as climate-friendly modes of mobility.  - Accessible pedestrian and cycle routes will be promoted.  - Cooperation with local sports clubs will be developed to promote the working-age population's safe mobility while increased training will ensure professionals' knowledge of fall injuries prevention.	According to injury prevention experts, support of physical activity, adherence to recommendations for health-enhancing physical exercise, particularly bonestrengthening exercise, and muscle mass training are important means of preventing accidental falls.  In 2018, the Finnish government adopted a resolution to support promotion of walking and cycling. The Ministry of Transport and Communications has prepared a more detailed programme for the promotion of walking and cycling in support of this resolution.  The aforementioned policy documents include 10 packages of measures aiming to increase walking and cycling by 2030.  (Ministry of Transport and Communications 2018, Finnish Government 2018.)  Accident injuries: Eight per cent of Finnish men and three per cent of women have a permanent musculoskeletal disability caused by an injury.  The activities of the Adults on the Move (LAO) programme launched in 2020 (e.g. recommendations and minimum criteria for physical activity counselling) will be used to promote working-age people's safe mobility (LAO 2020). A physical activity counselling website was also launched at liikuntaneuvonta.fi in 2020 to gather in one place information about physical activity counselling for both clients and professionals.	Local authorities and joint municipal authorities, regions Sports clubs, sports federations NGOs, e.g. Finnish Musculoskeletal Association (TULE) THL, Ministry of Social Affairs and Health University Faculties of Medicine and National Centres of Expertise in Sports and Exercise Medicine operating under their auspices

- TEAviisari indicator results:
  - Municipal management's sustainable development goals Sustainable mobility (e.g. promoting public transport, walking and cycling),
  - Physical activity, management:
    - Targets in the operating and financial plan to promote working-age people's physical activity; physical activity counselling,
    - · Resources in the operating and financial plan allocated to promote working-age people's physical activity,
  - Physical activity in municipal functions, commitment:
    - · Municipal plan or development programme for physical activity,
    - · Plan or programme to promote walking and cycling,
    - · Cross-sectoral working group(s) dealing with physical activity promotion,
  - Physical activity in municipal functions, monitoring by gender, working-age people's physical activity,
  - Physical activity counselling for immigrants, unemployed people, those with functional impairments (TEAviisari);
- Adults' exercise sessions available free of charge for sports clubs and exercise classes organised by NGOs (e.g. member associations
  of the Finnish Osteoporosis Association, Finnish Spinal Health Association, Finnish Heart Association, Finnish Rheumatism
  Association, Organisation for Respiratory Health in Finland);
- TEAviisari Physical activity, resources: Exercise class fees for adults;
- Increase in walking and trips made by bicycle (Ministry of Transport and Communications 2020 target of 20% growth; TEAviisari Physical activity);
- Results of the monitoring of national programmes to promote physical activity;
- Number of accessible sports and exercise facilities, and change observed during the programme period.

Target 2. Workplace safety rules and procedures to prevent accidental falls will also be extended to commutes and leisure time, as
applicable.

#### Measures Rationale **Responsible parties** Measure 9. • It would be important for workplaces FIOH, Finnish Vision Zero Forum to encourage workers to increase Workplaces will actively employ physical THL physical activity during both working activity promotion as a means of NGOs and leisure hours. Research suggests preventing falls and relieving strain. Occupational health practitioners that a higher level of physical activity The risks of accidental falls will be is linked to a reduction in the need to identified and their prevention will be recover from work (Kekki 2018). part of workplace safety operations. Falls constitute the most common type of injury in workplaces. The Finnish Institute of Occupational Health (FIOH) provides workplaces with research, training, and materials to support a safety-promoting operating culture. The FIOH has also provided research evidence about the importance of physical activity and recovery. Regular physical activity reduces workers' absences. The City of Orimattila obtained significant benefits and considerable savings during two projects aiming to promote healthenhancing physical activity among its employees. During the monitoring period, absences decreased by 4.3 days of sick leave per employee, amounting to a total of 2,270 fewer sick leave days relative to the pre-project situation. The national strategy for physical activity promoting health and wellbeing 2020, entitled 'On the move', also includes recommendations for consideration at workplaces (Ministry of Social Affairs and Health 2013b).

- Statistics on fall injuries at workplaces, on work-related commutes and during leisure time;
- Studies on the quality and quantity of workplace mobility management projects, monitoring, and assessment to be carried out in cooperation with local actors;
- · Monitoring results of the 'Fitness Counter' self-testing tool,
- · Workplace non-discrimination plans (accessibility of work premises).

Measures	Rationale	Responsible parties
Measure 10.  Efforts will be continued to step up prevention of winter slips and falls on work-related commutes and in leisure time.  • Attention will be paid to footwear safety.	With the progress of climate change, the forecast is that Finland's winters will become warmer, and the risk of slipping will increase (Juhola et al. 2020).  A guide to preventing commuter accident injuries includes operating models and tips for management of safety and environmental risks involved in commuter traffic (TTK & Liikenneturva 2014).  The Finnish Institute of Occupational Health (FIOH) and the Finnish Meteorological Institute (FMI) produce material for preventing slip injuries on commutes.	THL, FIOH, Finnish Vision Zero Forum NGOs, incl. preparatory working group for the Stay on Your Feet campaign/ The Accident Prevention Network (coordinated by Finnish Red Cross)/ Finnish Meteorological Institute (FMI) Local authorities and joint municipal authorities, regions

#### Monitoring and indicators for 2021-2030

- Statistics on working-age adults' winter slips and falls in THL registers and data sets produced by the Centre for Occupational Safety and the Finnish Institute of Occupational Health;
- Monitoring results of the Stay on Your Feet campaigns (The Accident Prevention Network coordinated by Finnish Red Cross).

#### Measure 11.

Healthcare services will make use of selfassessment of fall risk and/or fall risk assessment by healthcare professionals, applying preventive measures for middle-aged adults (aged 50 and older) as required.

- Special attention will be paid to groups at high risk of falling, incl. those with reduced functional or cognitive capacity, impairments (e.g. hearing, vision) or chronic illnesses (see also Section 4.6 about family and friends).
- The measure will be implemented in cooperation with the Health Village (Terveyskylä) portal and the Good Spiral (Hyvä Kierre) project.

It is recommended that a physical activity plan based on consultation with a specialist will be produced for adults aged 65 and over as well as for those aged 50 to 64 with a chronic illness or functional limitation affecting fitness or participation in physical activity (Kaatumisten ja kaatumisvammojen ehkäisyn fysioterapiasuositus [Recommendation for physiotherapy in the prevention of falls and fall injuries, in Finnish] 2017).

According to a recommendation by the Safety Investigation Authority (2016a), efforts to prevent falls among the working-age population could be built on the same principles as those applied to older people.

Guidelines for identifying fall risks in home and living environments (Pajala 2016) could be applied to the needs of this target group, similar to guidance relating to assessment of fall risks due to various diseases (SIA 2016).

#### THL, FIOH

Hospital districts, health centres
Occupational health practitioners,
physiotherapists, occupational therapists
Health Village (Terveyskylä, terveyskyla.
fi)

University Faculties of Medicine and National Centres of Expertise in Sports and Exercise Medicine operating under their auspices

- Statistical data: Periods of care arising from accidental falls per 10,000 inhabitants (Sotkanet id: 3958);
- Various TEAviisari data collection results:
  - · Data collection on primary healthcare:
    - · Resources, other health professionals at health centres: osteoporosis nurse,
    - Other core functions, preventive or self-help-supporting counselling and groups (organised as municipal functions or in cooperation with NGOs, for example): fall prevention, physical activity counselling, counselling for sleep problems;
  - Physical activity in municipal functions: Physical activity counselling and exercise groups for immigrants, unemployed people, those with functional impairments.

Measures	Rationale	Responsible parties
Measure 12.  NGOs and healthcare services will start to apply fall risk assessments and preventive interventions for those aged 60 or over.  Measures will be targeted at men in particular, as men are at greater risk among working-age adults.  Implemented in cooperation with the Good Spiral (Hyvä Kierre) project and Health Village (Terveyskylä) practitioners.	International evidence-based fall prevention guidelines are already recommending that the starting age limit for active fall interventions be lowered to 60 (Stevens & Burns 2015). Working-age adults are provided with evidence-based physical activity interventions with a view to using physical exercises to develop physical properties and functional capacity and, consequently, reduce falls. Widely used forms of exercise include balance training and combination training, which combines e.g. balance and strength training or balance, strength and walk training (THL literature review, in preparation).  The recommendation for physiotherapy to prevent falls and fall injuries (2017) covers prevention of falls among working-age adults.	THL Hospital districts Health centres/health checks, medical practices Occupational health services NGOs University Faculties of Medicine and National Centres of Expertise in Sports and Exercise Medicine operating under their auspices

#### Monitoring and indicators for 2021-2030

- Number of visits to Finnish Red Cross Health Points and estimate of the number of fall risk assessments conducted;
- Safety Coach courses organised by The Accident Prevention Network, numbers of Safety Coaches trained and participants in information sessions held by Safety Coaches, as well as feedback on accidental falls and their prevention;
- Number of participants in Finnish Red Cross peer groups and training courses for informal carers and older people who have received information and guidance on fall prevention;
- Monitoring and assessment of the results of various regional fall prevention projects (e.g. Good Spiral Hyvä Kierre-project, fall prevention).

Target 3. Safety-promoting procedures and operating models will form part of a comprehensive operating culture in healthcare

and social welfare professionals' basic and continuing education and workplaces.

Measures

Rationale

Responsible parties

Measure 13.

Health and social services will assess, identify and discuss with fall injury

Men account for over two thirds of deaths from falls, and alcohol abuse is one of the causes in half of these deaths (THL and Gambling (ATDG programme)

identify and discuss with fall injury patients the underlying and main risk factors affecting falls, including functional capacity and mobility habits, addiction issues, violence, memory disorders and mental health issues.

 Dealing with challenging problem situations will draw on prior experience and develop an operating method equivalent to violence prevention models. Men account for over two thirds of deaths from falls, and alcohol abuse is one of the causes in half of these deaths (THL Hospital Discharge Register, Statistics Finland's statistics on causes of death). Functional capacity, mobility habits and substance use play a role as underlying factors for fall injuries (SIA 2016).

University Faculties of Medicine and National Centres of Expertise in Sports and Exercise Medicine operating under their auspices

Hospital districts, EMS units

Health centres

NGOs

#### Monitoring and indicators for 2021–2030

- Numbers of functional capacity assessments and lifestyle counselling interventions for emergency room fall injury patients;
- Numbers of mini-interventions for emergency room fall injury patients/Drug analyses, breathalyser tests and their results;
- Various TEAviisari data collection results: Data collection on primary healthcare, Common practices: Early detection and
  intervention for alcohol use during patient visits to health centre physicians or nurses; Functional capacity assessment and lifestyle
  counselling intervention for emergency room fall injury patients.

# Table 3. OLDER PEOPLE (aged 65 and over). Targets and measures for preventing accidental falls among older people for 2021–2030.

**General objective:** Mortality from and hospital stays due to accidental falls on the same level or from height will decrease among those aged 65 and over.


Target 1. Professionals are using evidence-based fall prevention practices.					
Measures	Rationale	Responsible parties			
Measure 14.  Top and immediate management of organisations providing old-age services will commit to embedding evidence-based fall prevention practices.  Professional competence in fall prevention will be regularly maintained, developed, and updated in order to embed evidence-based fall prevention practices.  Professionals will be provided with good practices, tools, training, and the latest knowledge on fall prevention.	Obligations from legislation and recommendations:  Act on Supporting the Functional Capacity of the Older Population and on Social and Health Services for Older Persons 980/2012;  Quality recommendation to guarantee a good quality of life and improved services for older persons 2020–2023: The Aim is an Age-friendly Finland (Ministry of Social Affairs and Health 2020c);  National Programme on Ageing 2030: For an age-competent Finland (Ministry of Social Affairs and Health 2020d);  Action plan on housing for older people 2020–2022 (Ministry of the Environment 2020).  Tools are available for evidence-based fall prevention.	Ministry of Social Affairs and Health, THL, Ministry of the Environment Finnish Medicines Agency Fimea Local authorities (incl. wellbeing services, senior health clinic services, service coordination units), joint municipal authorities, regions Hospital districts (e.g. health and wellbeing promotion teams) Private service providers University Faculties of Medicine and National Centres of Expertise in Sports and Exercise Medicine operating under their auspices NGOs			
Measure 15. As careers become longer, workplaces will pay attention to preventing accidental falls among workers aged 65 and over.	Older working-age people's working capacity has improved, and careers have become longer (Huhta & Karppanen 2020, Ministry of Social Affairs and Health 2020d).  The Finnish Institute of Occupational Health (FIOH) provides research on factors that may affect functional capacity among those aged 65 and over and increase accidental falls at work.	FIOH			

Measures	Rationale	Responsible parties
Measure 16.  Safe winter walking conditions will be ensured by improving the safety and accessibility of living environments (such as sanding roads). Slip prevention efforts will take account of footwear, correct materials for soles and top pieces, as well as anti-slip footwear attachments.	Climate change is expected to increase the risk of slipping in Finland (Tuomenvirta et al. 2018, Juhola et al. 2020). Slip hazard alerts via SMS text messages. Slip prevention and methods have been raised in campaigns, communications, and training efforts. Tools are available.	THL Local authorities, joint municipal authorities NGOs, incl. Stay on Your Feet campaign actors and e.g. Finnish Road Safety Council The Accident Prevention Network (coordinated by Finnish Red Cross)

#### Monitoring and indicators for Measures 14-16 for 2021-2030

- Mortality from accidental falls among population aged 65 and over per 100,000 inhabitants of same age (Sotkanet ind. 3971);
- Periods of care arising from accidental falls for those aged 65 and over per 10,000 inhabitants of same age (Hilmo Hospital Discharge Register, Sotkanet ind. 3959);
- Hip fractures in those aged 65 and over, as % of total population of same age (Hilmo, Sotkanet ind. 699);
- Results of the THL Status of Older People Services Follow-Up Survey (e.g. use of IKINÄ indicators for older people's fall risk; use of safety-enhancing technologies incl. fall sensors/alarms, %; staff competence in fall prevention, %);
- Number of participants in the VaKaa fall prevention network, their occupational backgrounds and geographical distribution, as
  well as the number of page loads of the online fall prevention training course provided free of charge;
- TEAviisari results relevant to the measures (e.g. number of osteoporosis/fracture nurses);
- National FinSote Survey results relevant to the measures;
- Stay on Your Feet campaign follow-up data relevant to the measures;
- Materials by the Finnish Institute of Occupational Health (FIOH) concerning accidental falls among working-age people aged 65+;
- The Finnish Road Safety Council's follow-up data relevant to the measures;
- · Annual numbers of participants in the Age Institute's training courses.

Target 2. Older people and their families a	nd friends will know how to prevent falls.		
Measures	Rationale	Responsible parties	
Measure 17.  Older people and their families and friends will be provided with low-threshold expert services to prevent accidental falls.  Guidance, counselling, and rehabilitation services will take account of accessibility and use needsbased methods.	Obligations from legislation and recommendations:  Act on Supporting the Functional Capacity of the Older Population and on Social and Health Services for Older	Ministry of Social Affairs and Health, THL, Ministry of the Interior Rescue departments Local authorities (incl. senior health clinic services and service coordination units),	
	Persons 980/2012 ('Old-Age Services Act');  Quality recommendation to guarantee a good quality of life and improved services for older persons 2020–2023: The Aim is an Age-friendly Finland (Ministry of Social Affairs and Health 2020c);	joint municipal authorities, regions University Faculties of Medicine and National Centres of Expertise in Sports and Exercise Medicine operating under their auspices NGOs	
	Safe and incident-free daily life 2025: Action plan for incident prevention for the rescue services (Lepistö & Heliskoski 2019).		
	Tools are available.		

- Numbers of downloads of the UKK Institute's Fall Risk Assessment self-evaluation form, numbers of electronic Fall Risk Assessments completed, and annual views of/visits to web pages for older people and their families and friends;
- Numbers of participants in the Finnish Osteoporosis Association's community and remote rehabilitation and in peer and physical
  activities organised by its member associations (number of local authorities involved in cooperation on community rehabilitation);
- · Number of visits to Finnish Red Cross Health Points and estimate of the number of fall risk assessments conducted;
- Safety Coach courses organised by The Accident Prevention Network and annual numbers of Safety Coaches trained annually;
- Numbers of participants in information sessions held by Safety Coaches, as well as feedback on accidental falls and their
  prevention annually;
- Number of participants in Finnish Red Cross peer groups and training courses for informal carers and older people who have received information and guidance on fall prevention;
- Annual number of participants in the Finnish Road Safety Council's training courses;
- Number of local authorities organising rehabilitation for people with osteoporosis and numbers of groups/participants, numbers of remote rehabilitation participants, numbers of groups run by associations and their participants;
- · Annual numbers of views of/visits to the fall prevention section of the Health Village portal's Rehabilitation Hub;
- Annual number of contacts to the modification counselling service of the Finnish Association for the Welfare of Older People and numbers of modifications planned.

Target 3. Local authorities will take fall prevention into account in their wellbeing management. Integrated service, care and rehabilitation pathways are equal and of uniform quality across geographical areas.

Measures	Rationale	Responsible parties
Measure 18.  Objectives, measures, responsible parties, and indicators will be determined for fall prevention efforts as part of wellbeing reporting/safety planning and as part of plans under the Old-Age Services Act, which local authorities are required to draw up to support their senior residents.  • Written descriptions will be drawn up of regional integrated service, care, and rehabilitation pathways.	Obligations from legislation and recommendations:  Local Government Act 41/2015;  Health Care Act 1326/2010;  Act on Supporting the Functional Capacity of the Older Population and on Social and Health Services for Older Persons 980/2012.  A specific coefficient is being developed for assessing the performance of municipal health and wellbeing promotion work.  Municipal wellbeing reports and plans should be put to more effective use in promotion of preventive efforts and health, wellbeing, and functional capacity (Huhta & Karppanen 2020).  Turvallisuutta kaikkialla — paikallisen ja alueellisen turvallisuussuunnittelun kansalliset linjaukset [Security everywhere — National guidelines for local and regional security planning, in Finnish] (Ministry of the Interior 2019).	Ministry of Social Affairs and Health, Ministry of the Interior, THL Hospital districts Local authorities, joint municipal authorities, regions

- A study on the objectives, measures, responsible parties, and indicators for fall prevention in municipal/regional wellbeing reports;
- A study on the integrated fall prevention service, care and rehabilitation pathways formed at the regional level (e.g. Hospital District of Helsinki and Uusimaa HUS: Good Spiral/Porvoo).

Measures	Rationale	Responsible parties
Measure 19. Fall prevention will form part of the curricula and instruction in basic and continuing education for healthcare and social services students.	As fall prevention is part of health and social services professionals' basic work, it needs to be included in basic health and social services education.  Training materials are available.	Finnish National Agency for Education Higher education institutions: universities, e.g. Faculties of Medicine universities of applied sciences

Expert evaluation of the educational contents of basic and continuing education for health and social services professionals.

#### **Poisonings** 4.2

In the context of this programme, 'poisoning' refers to accidental poisoning by and exposure to medications, alcohol, drugs, solvents, gases and vapours, pesticides, chemicals and noxious substances and other unspecified substances (ICD-10 codes X20–X29 and X40–X49). The measures explore underlying factors such as substance use separately for different types of accident injuries, including those due to road traffic accidents, poisoning and drowning among young, working-age and older people, as well as the role of family and friends acting as informal carers in promoting safety.

**CURRENT STATUS:** Poisonings have not led to any accidental deaths among under 15-year-olds in Finland for over more than 10 years. Nevertheless, poisoning is still the second largest cause of accidental death among young people aged 15 to 24 every year while also resulting in hospitalisation in different age groups. Alcohol poisoning primarily affects older cohorts of the working-age population, aged 45 to 64, whereas accidental poisoning among young adults aged 25 to 44 is mainly due to drug and polysubstance use. Alcohol use has become commonplace among older people.

**OBJECTIVE:** Accidental poisonings among children and young people will be reduced while also preventing accidental poisoning deaths. Accidental poisonings among working-age adults will be reduced while the trend in alcohol poisonings and poisoning deaths from drug and polysubstance use will turn down. Increasing attention will be paid to the use of alcohol and medication among older people.

## Table 4. CHILDREN AND YOUNG PEOPLE (aged 0 to 24). Targets and measures for preventing poisonings among children and young people for 2021-2030.

## **General objectives:**

- The level of poisoning deaths will remain at zero among under 15-year-olds. The number of poisonings due to substance use and suicidal behaviour will decrease among young people aged 15 to 24.
- Identification of risk factors for poisoning and early identification of problems will be improved for children and young people.
- The level of poisoning incidents requiring hospitalisation will continue to decline.

Target 1. Safety education relevant to poisoning prevention will form part of the work carried out in different operating environments.

Measures	Rationale	Responsible parties
Measure 20.  Safety education relevant to poisoning prevention (incl. addressing substance use, life management, and parenting skills) as well as a sobriety-promoting culture will be enhanced in different operating environments, taking account of children, young people and families from different backgrounds.  Maternity and child health clinic services  Early childhood education and care, schools, and other educational institutions  Child welfare and substitute care  Youth services/leisure-time environments and outreach youth work	It is important to step up and keep up information measures about existing evidence-based working methods and materials as well as the Poison Information Centre's services.  Poisoning prevention and the consequences of substance use are covered in the contents of the National Core Curricula for Basic Education and for General Upper Secondary Schools (Finnish National Agency for Education 2014a, 2019), as well as the requirements for vocational qualifications (Finnish National Agency for Education 2020).	Ministry of Social Affairs and Health, THI Finnish National Agency for Education Poison Information Centre NGOs, e.g. EHYT Finnish Association for Substance Abuse Prevention, Mannerheim League for Child Welfare (MLL) and various youth organisations, such as Finnish Youth Cooperation Allianssi Local authorities, joint municipal authorities, regions

## Monitoring and indicators for 2021–2030

Results of national and other studies about working methods and materials used for poisoning prevention and safety education in the operating environments mentioned in the measure covering children and young people.

Measures	Rationale	Responsible parties
Measure 21.  Professionals' awareness of the links between young people's poisonings and mental health issues, especially depression, will be increased by contributing to the contents of basic and continuing education programmes and through multichannel communications.	Professionals working with children and young people play an important role in disseminating information, changing attitudes, and providing role models.	Ministry of Education and Culture, Finnish National Agency for Education THL Higher education institutions Local authorities, regions

## Monitoring and indicators for 2021–2030

• Contents relevant to poisoning prevention in basic and continuing education in specific professional fields (healthcare and social welfare, class teachers, health education teachers).

Measures	Rationale	Responsible parties
Measure 22.  Psychiatric consultation will be included as part of treating young people's poisonings in emergency rooms, incl. primary emergency services provided by health centres or other such parties.	According to experts, consultation is yet to be implemented systematically and comprehensively.  The issue was raised in the National Mental Health Strategy and Programme for Suicide Prevention 2020—2030 (Vorma et al. 2020, Chapter 4).	Ministry of Social Affairs and Health, THI Local authorities, regions, incl. primary healthcare and specialised healthcare

• National statistics on the numbers of psychiatric consultations in medical record entries made in medical practices.

Measure 23.  Efforts will be made to enhance support for young people and measures to reduce substance-related harms by means such as the Pakka operating model included in the Action Plan on Alcohol, Tobacco, Drugs and Gambling (ATDG programme).	Increased attention to alcohol pricing, advertising, and age limit control in retail and licensed premises is required to prevent substance-related harms.  Community-based holistic operating models are also considered good ways to prevent substance-related harms.	Ministry of Social Affairs and Health, THL NGOs, e.g. EHYT and Finnish Blue Ribbon
	A Finnish example of an effective means of preventing the harmful effects of substance use and gambling is the Pakka operating model, which aims to step up the local regulation of access to alcohol, tobacco, and gambling. (See Fors et al. 2013, THL subsite on alcohol, tobacco and addictions/ATDG programme.)	

## Monitoring and indicators for 2021–2030

• Measures implemented to reduce substance-related harms among children and young people, incl. use of the Pakka model.

## Table 5. WORKING-AGE PEOPLE (aged 25 to 64). Targets and measures for preventing poisonings among working-age people for 2021–2030.

### **General objectives:**

- The number of poisoning incidents requiring emergency and/or hospital treatment will decline among working-age adults.
- The number of accidental deaths and suicides relating to substance use will decline among working-age adults.
- Prevention of injuries, especially poisonings, will be taken into account in early identification of high-risk substance use and support for high-risk users.

Target 1. Awareness of the methods and opportunities to prevent working-age people's alcohol- and drug-related poisonings will increase.

Measures	Rationale	Responsible parties
Measure 24.  The perspective of poisoning prevention will be taken into account in municipal preventive substance abuse work and workplace substance abuse work, leisure activities and working environments, as well as in various campaigns.  This requires local authorities to also commit to preventive substance abuse work in their role as employers and to engage in active cooperation with other local employers and communities.  Injury prevention campaigns: The National Injury Prevention Day (Friday 13th) and Stay on Your Feet campaigns disseminate information about the role of substance use in causing accidents.  The Finnish Red Cross has included a section about poisoning in its Safety Coach courses.	Preventive substance abuse work focusing on working-age people is still scarce in municipalities. Only about a third of local authorities were actively involved in preventive substance abuse work among working-age people. With regard to working-age people, preventive substance abuse work was strongly driven by healthcare services. (Warpenius & Markkula 2018.)  Workplaces: Workplaces still require training on how to prevent alcohol-related harms. While early identification models and substance abuse programmes are widely in place, methods and tools aiming to prevent alcohol-related harms, such as self-assessment tests and theme days, are underutilised (Bennet et. al 2016).	THL, FIOH Local authorities Regional State Administrative Agencies (AVI Agencies) Alko (government-owned alcohol monopoly) Trade unions NGOs and clubs

- TEAviisari data collection on primary healthcare:
  - Health centres have access to expertise (as in-house or purchased services), a substance abuse nurse or some other substance abuse worker,
  - Monitoring of trends in alcohol- and drug-related harm in health centres' local populations: Reporting data by age group to the body of elected officials;
- Planning and implementation of joint measures monitored through content analysis of local or regional mental health and substance abuse work plans, security plans and/or wellbeing strategies and reports;
- Analysis of content relating to working-age adults in the municipal survey on preventive substance abuse work (AVI Agencies & ATDG programme);
- Monitoring of self-supervision at Alko alcohol shops and grocery stores;
- Workplace courses on addressing substance dependency issues: number of courses organised, number of participants, perceived benefits (participant survey) – combined with regional AUDIT figures and data on substance abuse work expenditure (A-Clinics);
- Substance use survey to gauge supply and use at festivals performed by the Finnish Red Cross as part of its festival outreach work, collecting detailed statistics from sobering stations and annual use of the Early Identification model;
- Follow-up surveys on adoption of substance abuse programmes and early intervention models at workplaces (e.g. survey for shop stewards and occupational health and safety representatives by the Central Organisation of Finnish Trade Unions, SAK).

Target 2. High-risk substance use and its harmful effects will be identified in different health and social services, providing support	rt
at an early stage	

Target 2. High-risk substance use and its hat an early stage.	narmful effects will be identified in different h	ealth and social services, providing support
Measures	Rationale	Responsible parties
Measure 25.  Efforts to address substance use will be stepped up in healthcare and social welfare services as part of injury prevention and treatment work. Special attention will be paid to the risk of polysubstance use.  • From the poisoning prevention perspective, it is essential to raise the risk of poisoning related to substance use as part of early identification and support processes as required.  • The package will be promoted in coordination with the Action Plan on Alcohol, Tobacco, Drugs and Gambling (Ministry of Social Affairs and Health 2015) updated in 2020.  • When bringing up substance abuse in discussions with clients, the stigma potentially associated with the issue and the subsequent need to conceal any problems will be taken into account, especially with people from different cultural backgrounds. It may be necessary to strengthen professional competence in discussing substance abuse with clients (see e.g. the THL PALOMA project).	Alcohol is an underlying factor in many injuries and there is a growing trend in high-risk use of illicit drugs and pharmaceuticals. Identification of substance abuse and provision of early support are yet to reach an adequate level:  • Three out of five people who died of alcohol-related causes had been hospitalised 5 to 10 years prior to death. However, less than half of them had been given an alcohol-related diagnosis during the same period. The most common reason for hospitalisation among those who died of alcohol-related causes was 'accidental injury or other'. (Paljärvi & Mäkelä 2019.)  Premature mortality among those with substance abuse problems is high when compared with the rest of the population. The leading causes of death are poisonings and suicides in younger age groups and alcohol-related and other diseases in older age groups.  Unfinished institutional treatment increased the risk of death over the following four years, especially among men (Pitkänen et al. 2017).	Ministry of Social Affairs and Health THL/cooperation with the ATDG programme and parties responsible for maternity and child health clinic services Associations of medical specialists and trade unions of other health and social services professionals Local authorities and joint municipal authorities/parties involved in healthcare, substance abuse work and social work Hospital districts/primary healthcare units, prehospital emergency medical services Health centres Occupational health service providers AVI Agencies NGOs
Maternity and child health clinic services, maternity outpatient clinics for mothers with substance abuse problems (HAL outpatient clinics) and institutional family rehabilitation: taking account of the entire family.	The national recommendations for maternity care services advise practitioners to address the issue of substance use with all client families during pregnancy both in maternity health clinic services and during specialised healthcare appointments (Klemetti & Hakulinen-Viitanen 2013). A THL study on specialised services for substance-abusing pregnant women and families with newborns showed that fathers were often marginalised. Furthermore, there are major regional differences in terms of access and admission to services intended for mothers with substance use issues. (Arponen 2019.)	Ministry of Social Affairs and Health, THL

Measures	Rationale	Responsible parties
Prehospital emergency medical services and emergency rooms:  Efforts to address substance use with injury patients and screening practices (incl. AUDIT-C, motivational interviews) will be promoted.	In support of addressing alcohol use with injury patients, THL has produced a 'Know and Act Card' (THL 11/2017) and a research review (THL 34/2017) on identifying and addressing problematic alcohol use with injury patients and providing support in emergency rooms. The presence of a psychiatric nurse, a social welfare worker and/or an expert by experience in the emergency room has been considered useful (e.g. operating models from Lahti and Kuopio).	Ministry of Social Affairs and Health, THL
Inpatient and outpatient care and health centres:  AUDIT C/AUDIT, motivational interviews, referral to services;  Promoting evidence-based use of medicines in chronic pain relief while minimising opioid abuse;  Health checks for unemployed people (health centres);  AUDIT C/AUDIT, motivational interviews.	It is important for all healthcare units to bear in mind the high prevalence of alcohol problems and make active efforts to screen different patient groups for these problems (Alkoholiongelmaisen hoito [Treatment of alcohol abuse]: Käypä hoito -suositus [Current Care Guideline], 2018.)  Addictive medicines should be prescribed with caution, but not in a way that complicates or hinders treatment (Huumeongelmaisen hoito [Treatment of drug abuse]: Käypä hoito -suositus [Current Care Guideline], 2018.)  In Finland, the number of people who have purchased oxycodone reimbursable under National Health Insurance has increased significantly in recent years. The Social Insurance Institution of Finland (Kela) intends to encourage physicians to only prescribe strong opioids prudently and wants to draw attention to problems associated with long-term use. Feedback provided in 2017 concerned recording of prescriptions for a high number (at least 100 tablets) of combinations of paracetamol and codeine. (Kela 2019.)	Ministry of Social Affairs and Health, THL

Measures	Rationale	Responsible parties
Occupational health services: AUDIT C/AUDIT, motivational interviews: health checks, visits related to (occupational) accidents, challenges of wellbeing at work, signs of burnout (e.g. repeated, prolonged absences).	Occupational health services have a statutory obligation to promote the prevention of disease and inability to work. Preventive substance abuse activities support joint workplace efforts on safety and wellbeing at work. It is important for occupational health services to take an active role in preventing substance abuse problems. Occupational health services should always take up substance use issues during health checks and, where required, as part of hospital treatment. If an occupational health practitioner suspects a substance abuse problem, they should refer the employee concerned to seek treatment. (Akava et al. 2015.)	Ministry of Social Affairs and Health, FIOH
NGOs and volunteers: The Finnish Red Cross trains its volunteers to use the Alcohol Use Disorders Identification Test (AUDIT) and the Finnish Red Cross Early Identification model. The model covers various methods for addressing issues, such as motivational interviews. The methods are used in festival outreach work as well as at Finnish Red Cross Health Points.	Finnish Red Cross volunteers include healthcare professionals with good capabilities to adopt these methods after orientation.	Ministry of Social Affairs and Health, THL NGOs, e.g. Finnish Red Cross

- TEAviisari data collection on primary healthcare:
  - · Programmes and common practices:
    - Health centres' written guidelines for providing support and counselling for family and friends of substance abuse patients.
    - The Alcohol Use Disorders Identification Test (AUDIT), a tool for screening substance use by age group, available for use by health centre physicians, public health nurses and registered nurses,
  - · Varying themes:
    - Preventive or self-help-supporting counselling and groups included in health centres' service provision (organised as municipal functions or in cooperation with NGOs, for example): Reducing high-risk alcohol use;
- · Numbers of intoxicated injury patients in emergency services;
- Numbers of mini-interventions made by occupational health services during health checks or illness appointments, AUDIT/AUDIT-C risk scores, referrals for further treatment;
- · Sotkanet key indicators on alcohol and drugs:
  - Persons who drink too much alcohol (AUDIT-C) (%), age 20-64 (ind. 4412),
  - Persons who engage in binge drinking (AUDIT-1k) (%), age 20-64 (ind. 4419),
  - · Clients of outpatient clinics for substance abusers per 100,000 inhabitants (ind. 5082),
  - Hospital and health centre inpatient care for substance abuse, patients per 1,000 inhabitants (ind. 1278);
- Questions relating to medicines can be included as this programme's indicators in the Medicines Barometer population survey carried out by Fimea every second year;
- · Wastewater monitoring/regional data on drug use trends;
- Monitoring and analysis of the use of medical services due to poisoning (THL data).

Measures	Rationale	Responsible parties
Measure 26.  Psychiatric consultation will be included as part of treating poisonings in emergency rooms, incl. primary emergency services provided by health centres or other such parties.  The measures will be promoted in coordination with implementation of the Action Plan on Alcohol, Tobacco, Drugs and Gambling (Ministry of Social Affairs and Health 2015), updated in 2020, and the National Mental Health Strategy and Programme for Suicide Prevention 2020–2030 (Vorma et al.	People with substance abuse problems are at high risk of premature death: an alcohol-related illness or alcohol poisoning was recorded as the primary cause of death for just over a quarter of the deceased.  Almost a quarter of deaths had resulted from an injury, a violent or otherwise injurious incident, or suicide. More women than men had died by suicide, whereas a larger number of men's deaths were classified as other than a substance-related disease. (Pitkänen et al. 2017.)	Ministry of Social Affairs and Health, THL Local authorities and joint municipal authorities, regions
Programme for Suicide Preve	National Mental Health Strategy and Programme for Suicide Prevention 2020— 2030: Impacting on the means of suicide (Vorma et al. 2020)	
	<ul> <li>Measure 6: Developing regulations on the availability and storage of toxic substances.</li> </ul>	
	Measure 7: Developing regulation of the availability, prescription, and home storage of medications, with particular attention to risk of substance misuse.	
	(See also measures under 'Prehospital emergency medical services and emergency rooms' above.)	

- Analysis of THL data: National statistics on the numbers of psychiatric consultations for patients with injuries (suspected suicide) in medical record entries made in medical practices;
- Monitoring and analysis of statistical data on poisoning deaths;
- Sotkanet key indicators on alcohol and drugs:
  - Alcohol and drug mortality among population aged 15—34 per 100,000 persons of same age (ind. 3101),
  - Alcohol mortality among population aged 35–64 per 100,000 persons of same age (ind. 3104).

Measures	Rationale	Responsible parties
Measure 27.  Drug-related harms will be prevented in keeping with the resolutions on drug policy adopted for each government term. Examples of measures:  Low-threshold services, incl. outpatient clinics and opioid replacement therapy;  Outreach work and support on the streets and public spaces;  Support and advice with a harm-reduction work approach in the encrypted Tor network;  Identifying drug addicts' overdoses and increasing first-aid skills;  Avoiding deaths in police custody by establishing detoxification centres.	Research findings: 'Interviewees identified symptoms of an overdose and generally sought to help the victim. In addition to first aid, help included alternative methods that were harmful to the victim. Calling for help was delayed due to concealment of drugs and drug paraphernalia and to individuals wanted for offences fleeing the scene.' (Kuha & Malm 2019.)  Detoxification centres for intoxicated people are needed in all regions (Finnish Government 2017).  Some municipal detoxification centres are currently operational. Due to the small number of detoxification centres, the police are usually required to place people taken into custody due to intoxication in police detention facilities.	Ministry of Social Affairs and Health, THL Local authorities, regions Police NGOs

- Analysis of THL drug poisoning data;
- Monitoring of the results of drug-related harm prevention projects;
- Substance use survey to gauge supply and use at festivals performed by the Finnish Red Cross as part of its festival outreach work, collecting detailed statistics from sobering stations and annual use of the Early Identification model;
- Sotkanet key indicators on alcohol and drugs:
  - Drug offences recorded by the police per 1,000 inhabitants (ind. 3091),
  - Offences against life and health recorded by the police per 1,000 inhabitants (ind. 3113),
  - Intoxicated persons taken into police custody per 1,000 inhabitants (ind. 3094).

Target 4. The knowledge base for research, monitoring and outreach work relating to accidental poisonings will be developed.		
Measures	Rationale	Responsible parties
Measure 28.  The knowledge base on working-age people's accidental poisonings will be expanded and improved (in cooperation with experts involved in the Action Plan on Alcohol, Tobacco, Drugs and Gambling and the National Mental Health Strategy and Programme for Suicide Prevention). Indicators suitable for poisoning prevention will be explored while producing information for preventive work through research.	The knowledge base on working-age people's unintentional injuries, incl. poisonings, is considerably less extensive when compared with other age groups. Broader knowledge would help assess the prevalence of substance use among working-age adults, the extent of services that they receive, as well as the coverage of existing specialised services and their ability to reach the high-risk group.  Assuring the quality of documentation and data is the prerequisite of a reliable and useful knowledge base. Carefully documented records will ensure a stronger knowledge base of substance abuse work and versatile opportunities for subsequent data use. As comparable data accumulates, the THL as the registration authority will be able to monitor substance use and the appropriateness of services. (Arponen & Gissler 2020.)	THL, FIOH, Ministry of Social Affairs and Health Poison Information Centre NGOs

- Monitoring the prevalence and quality of recording codes for substance use and preventive substance abuse interventions in THL data:
- A study on the needs and development areas of the knowledge base on prevention of poisonings among working-age adults to be published by 2025;
- The Poison Information Centre's data on working-age people's requests for information and support will be analysed and reported no later than by the programme's mid-term review in 2025.

## Table 6. OLDER PEOPLE (aged 65 and over). Targets and measures for preventing poisonings among older people for 2021–2030.

**General objective:** Accidental poisoning deaths and hospital stays due to poisoning will decrease among people aged 65 and over by 2030.

Target 1. Professionals, older people and their families and friends will be aware of the link between medicines and the risk of poisoning.

Measures	Rationale	Responsible parties
Measure 29. Tools and practices will be created for use by healthcare professionals to improve their ability to identify older people who would benefit from medication review. Healthcare professionals will cooperate to carry out medication reviews for these patients to the extent necessary.	Legal obligations: Act on Supporting the Functional Capacity of the Older Population and on Social and Health Services for Older Persons 980/2012. Medication reviews can promote the implementation of safe pharmacotherapy and improve its quality (e.g. Pitkälä & Tilvis 2012, Merikoski et al. 2017, Toivo et al. 2018).	Ministry of Social Affairs and Health, THL Fimea Pharmacies Local authorities, joint municipal authorities, regions Private service providers, third-sector service providers Higher education institutions: universities and universities of applied sciences
Measure 30. Older people and their families and friends will receive information on medication safety and the link between medicines and the risk of poisoning in a comprehensible form (in accessible and easy-to-understand language where necessary).	Legal obligations: Act on Supporting the Functional Capacity of the Older Population and on Social and Health Services for Older Persons 980/2012. Tools are available.	Poison Information Centre Local authorities, joint municipal authorities, regions Pharmacies NGOs

## Monitoring and indicators for Measures 29-30 for 2021-2030

- Results of the THL Status of Older People Services Follow-Up Survey;
- Inquiries made to Poison Information Centre.

**Target 2.** Professionals, older people and their families and friends will be aware of the link between substances and the risk of poisoning. Competence in the means of addressing issues and the methods of preventive work will be strengthened and increased among healthcare and social welfare professionals and those involved in outreach work.

Measures	Rationale	Responsible parties
Measure 31.  Professionals, older people and their families and friends will be provided with training and information on the link between substances and their interactions with medicines and the risk of poisoning.	Action Plan on Alcohol, Tobacco, Drugs and Gambling (Ministry of Social Affairs and Health 2015):  Older people should be targeted more efficiently with communications about the effects of ageing on the risks of alcohol use as well as interactions between alcohol and medicines.  In the worst cases, interactions between medicines and alcohol may lead to poisoning (Soininen et al. 2019).  Tools are available.	Ministry of Social Affairs and Health, THL Alko Local authorities, joint municipal authorities, regions Private service providers NGOs Higher education institutions: universities and universities of applied sciences

- Online training materials developed for use by professionals (Alko Ltd);
- · AddictionLink website visitor statistics (risk assessment);
- Number of visitors to the Finnish Blue Ribbon's website focusing on substance abuse work for older people at ikaantyneidenpaihdetyo.fi, number of followers of its social media account, number of participants in the 'Pilke' groups  $coordinated \ by \ the \ Finnish \ Blue \ Ribbon, \ national \ coverage \ of \ the \ groups, \ number \ of \ professionals \ completing \ the \ 'Pilke' \ instructor$
- Downloads of a brochure on medicines and alcohol by EHYT Finnish Association for Substance Abuse Prevention;
- · Number of visitors on Alko's 'Alcohol and the elderly' subsite;
- Number of visitors to Finnish Red Cross Health Points and the number of AUDITs conducted;
- Annual number of participants in the Finnish Red Cross training course on bringing up issues; Safety Coach courses and number of older participants in information sessions held by Safety Coaches on poisoning prevention during the programme period.

Measures	Rationale	Responsible parties
Measure 32.  The police, rescue services, emergency response centres, and other parties will file welfare concern reports as required when they suspect that an older person's health, wellbeing, and safety may have been affected by problematic use of medicines, alcohol or drugs.	Legal obligations: Act on Supporting the Functional Capacity of the Older Population and on Social and Health Services for Older Persons 980/2012, section 25; Safe and incident-free daily life 2025: Action plan for incident prevention for the rescue services (Lepistö & Heliskoski 2019).	Ministry of Social Affairs and Health, THL Ministry of the Interior Police, rescue departments, emergency response centres Alko Local authorities, joint municipal authorities, regions NGOs

 The THL Status of Older People Services Follow-Up Survey, results of municipal surveys (e.g. 'What issues do welfare concern reports most commonly address?', 'How many welfare concern reports have you received during the year?').

#### Road traffic accidents 4.3

In the context of this programme, 'road traffic accidents' refer to accidents and injuries resulting from driving a motor vehicle (incl. motorcycles, mopeds and light electric mobility devices), cycling and walking (incl. situations also involving a vehicle).

**CURRENT STATUS:** Road traffic accidents are the leading cause of accidental death and the second leading cause of hospitalisation due to injuries among children and young people aged under 25 every year. In this age group, the highest number of accidental health losses in road traffic fall on young men. Over half of all road traffic accidents and almost half of serious road traffic injuries affect working-age adults. Hospital stays resulting from traffic accidents have increased among older men. Efforts to prevent road traffic accidents place special emphasis on influencing risk-taking behaviours, such as speeding, use of alcohol and other substances, and the failure to use safety equipment.

**OBJECTIVE:** Deaths and health losses due to road traffic accidents will decrease. The trend in road traffic accidents will take a permanent turn downwards from the 2019 level among young people. Hospitalisations due to road traffic accidents will decrease in all age groups. Traffic safety education provided for different age groups will progress in various operating environments through multiple channels while the number of substance-related road traffic accidents will decrease. Walking and cycling will be promoted as modes of mobility on commutes and in leisure time, placing emphasis on the safety of mobility. Increasing attention will be paid to older people's driving health. Use of safety equipment will increase in all age groups.

# Table 7. CHILDREN AND YOUNG PEOPLE (aged 0 to 24). Targets and measures for preventing road traffic accidents among children and young people for 2021–2030.

## **General objectives:**

- No child or young person will die nor sustain permanent injuries in road traffic. Special attention will be paid to young men, who have a heightened risk of dying or being injured in road traffic.
- The trend in young people's road traffic accidents should take a permanent turn downwards from the 2019 level.
- Efforts will be made to promote the prerequisites of children's and young people's safe and independent mobility and the growth in public transport, walking and cycling as modes of mobility.
- Accidents caused by speeding will be reduced and the number of young drivers' drink and drug driving cases will be successfully brought down.

Target 1. Safer traffic environments will be developed by paying attention to speeding prevention and systematic safety education.

Measures	Rationale	Responsible parties
Measure 33.  The number of young people driving above the limit by different motor vehicles will take a distinct downward turn by means such as automated and traditional speed control as well as training and awareness-raising measures.	The World Health Organisation (WHO) has adopted a global measure concerning all age groups to halve the number of road users driving above the limit by 2030. The European Union's road safety performance indicators will also include the proportion of drivers complying with speed limits (European Commission 2020).  The Red Chalk events organised by the Finnish Road Safety Council in cooperation with different sectors aim to influence young people's driving behaviour by means of safety education (see Finnish Road Safety Council 2020a).	Finnish Transport Infrastructure Agency (FTIA) Finnish Road Safety Council Ministry of the Interior, rescue departments, National Police Board (POHA), police Local authorities, regions

- Statistics: annual numbers of children and young people aged under 25 who died or sustained injuries in road traffic;
- Annual numbers of traffic offences and infractions relating to driving speed among young people aged between 15 and 24 (Statistics Finland's statistics on offences and coercive measures, police statistics);
- Accident databases of the Finnish Crash Data Institute (OTI): Numbers/proportions of speeding drivers in the road accident investigation team data;
- OTI accident databases: Annual numbers of road users who suffered personal injury in damages paid from motor liability insurance.

Measures	Rationale	Responsible parties
Measure 34.  Efforts will be made to increase the number of urban areas with a speed limit at 30 km/h and to promote measures to support lower speed limits.	Serious road traffic injuries are relatively more common than those resulting in deaths among children and young people. Furthermore, moped and motorcycle drivers stand out with a distinctly higher proportion of seriously injured young people when compared with children and young people injured in other types of road traffic accidents (Finnish Road Safety Council 2020b). Lower driving speeds in urban areas will reduce injuries sustained by pedestrians, cyclists, and moped drivers. Lower speed limits should be supported by means of infrastructure and surveillance. (Malin & Luoma 2020.)	Local authorities and regions Police Regional State Administrative Agencies (AVI Agencies) Centres for Economic Development, Transport and the Environment (ELY Centres), Traficom Finnish Road Safety Council

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• Statistics: Proportions of different speed limits in terms of street length in urban areas and data on compliance with speed limits on streets, if available.

Measures	Rationale	Responsible parties
Measure 35.  Early childhood education and care (ECEC) units and educational institutions will systematically adopt traffic hazard assessments to identify and address risks.  The hazard assessment tool will be promoted among resident and village associations.	There are regional variations in the use of hazard assessments in ECEC units and educational institutions. Local authorities take road safety in ECEC units and schools into account as part of their road safety plans in general terms. No nationwide data is available on the above-mentioned issues.  It is important to continue improving the safety of traffic solutions in the immediate vicinity of daycare centres and schools. In safety work, including cooperating and communicating with children and young people and their parents and other guardians, special attention should be paid to (Sainio 2017):  School run arrangements: taking and collecting children by car;  School transport services;  Parking solutions for bicycles, mopeds, and cars;  Access routes to the street network.  The Finnish National Agency for Education has a school transport guide covering topics such as school runs, which it was updating in 2020.	Finnish National Agency for Education Finnish Road Safety Council Local authorities, regions THL/injury prevention programme experts

Results from data collection projects and questionnaire surveys on the means available to ECEC units and educational institutions
to promote safe mobility, incl. hazard assessments and school runs.

Measures	Rationale	Responsible parties
Measure 36. Contributions will be made to children's and young people's safer modes of mobility by improving public transport and creating safe environments for walking and cycling.	There are considerable regional variations in the opportunities for safe walking and cycling (incl. separate pedestrian/bicycle ways). Cities will be encouraged to provide children and young people with public transport free of charge, of which Mikkeli, for example, already has some experience (Taavitsainen 2017).	Centres for Economic Development, Transport and the Environment (ELY Centres) FTIA Local authorities, regions Finnish Road Safety Council

- Passenger transport studies and mobility mode distributions by age group;
- Trends in the number of passengers using public transport;
- Number of local authorities providing children and young people with public transport free of charge;
- Results from the TEAviisari data collection on promotion of physical activity in municipalities concerning pedestrian and bicycle ways maintained by local authorities (indicator 'Pedestrian and bicycle ways, metres/resident'; data collected every two years in each even-numbered year).

Target 3. Traffic safety education and communications will be systematic. These will support substance-free mobility and use of safety equipment in traffic, including child safety seats, seat belts and bicycle helmets, lights and reflectors.

#### Measures Rationale **Responsible parties** Measure 37. The Finnish Road Safety Council's traffic Finnish Road Safety Council safety education and training materials Various traffic safety education materials Finnish National Agency for Education, for teachers and other professionals in and working methods will be utilised various fields are available on its website: and developed in services for children, **Defence Forces** information about children and traffic, young people and families, educational Rescue departments traffic safety education and cycling, institutions and different channels. Local authorities and ECEC, education complete with plenty of tasks, exercises, Efforts will be made to promote instructions, operational examples and and training providers substance-free mobility. forms. Special attention will be paid to young Traffic safety and the positive health men and the needs of children and effects of walking are covered in families from immigrant backgrounds the National Core Curricula for Early and those with disabilities or otherwise Childhood Education and Care, in need of special support, as well Basic Education and General Upper as the needs of young people not in Secondary Schools, as well as in the education or training. national requirements for vocational qualifications (Finnish National Agency Maternity and child health clinic services for Education 2014a, 2014b, 2018, 2019, Early childhood education and care 2020). Basic education and upper secondary Use of safety and protective equipment school level declines with age. Although the use of bicycle helmets and reflectors when Youth work moving about after dark has become **Defence Forces** slightly more common among young people, there is still plenty of room for improvement. (Results of the 2013 and 2015 School Health Promotion Studies, THL 2020b.) Road traffic accident statistics indicate that young men have a heightened risk of dying while driving a motor vehicle, for example. Finnish Road Safety Council, Defence Forces, Finnish Border Guard and Soldiers' Home Association: use of a specific 'Stay Sharp in Traffic' training model as part of national military service. A study conducted in different European countries suggests that children living in poor families, those with disabilities or other functional limitations, or those whose parents have substance addictions are at heightened accident risk (ECSA

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- Traffic safety campaigns;
- Results of national data collection projects such as the School Health Promotion Studies and subsequent improvements concerning
  the use of safety equipment (as of 2021, a question about the use of safety equipment will be included in every other School
  Health Promotion Study, i.e. every four years);
- Statistics: numbers of children and young people aged under 25 who died or sustained injuries in road traffic.

2014).

Measures	Rationale	Responsible parties
Measure 38.  Awareness-raising materials, training and communications will be available about mobility devices to assist or replace walking and light electric vehicles (e.g. electric scooters and hoverboards) while product safety and safe mobility will be supervised.  Trends will be monitored, responding according to which mobility device becomes popular (cf. the electric kick scooter phenomenon).	Use of light electric vehicles and mobility devices to assist or replace walking has increased alongside related transport and rental services. Not enough awareness-raising material is available on moving about safely on these devices. The Finnish Safety and Chemicals Agency (Tukes) supervises product safety while both Tukes and the Finnish Transport and Communications Agency (Traficom) are involved in market surveillance and marketing supervision within their respective competences (e.g. cautioning businesses marketing and selling these products for any erroneous website information).	Materials and training, communications Finnish Road Safety Council, Finnish Motor Insurers' Centre Monitoring and supervision: Traficom Tukes

- Availability of awareness-raising materials about mobility devices to assist or replace walking and light electric vehicles;
- · Product and transport control statistics and reports;
- Communication campaigns and information measures carried out annually during the programme period.

# Table 8. WORKING-AGE ADULTS (aged 25 to 64). Targets and measures for preventing road traffic accidents among working-age adults for 2021–2030.

## **General objectives:**

- The number of working-age adults dying or sustaining serious injuries in road traffic accidents will decrease.
- The number of substance-related accidents will decrease.

Target 1. Safe driving speeds will be promoted by means such as increasing automated speed control, other technological measures as well as training and awareness-raising efforts.

Measures	Rationale	Responsible parties
Measure 39.  Efforts will be made to increase the number of areas with a speed limit at 30 km/h and to promote measures which support lower speed limits, such as raising awareness by means of communications about the role of speed as a risk factor.  The effects of various conditions (weather, road conditions, elks on the road, personal driving ability) on safe driving speeds should be emphasised by different means, including communications, surveillance, and penalties.	Lower driving speeds in urban areas will reduce injuries sustained by pedestrians, cyclists, and moped drivers.  The World Health Organisation (WHO) has adopted a global measure concerning all age groups to halve the number of road users driving above the limit by 2030 (WHO 2018, Target 6).	AVI Agencies, ELY Centres Traficom Finnish Road Safety Council Finnish Meteorological Institute Police Local authorities, joint municipal authorities, and regions NGOs, e.g. The Accident Prevention Network (coordinated by the Finnish Red Cross)

- · Statistics on accidents and injuries among vulnerable road user groups;
- Data on speeds by age group regarding fatal accidents and injuries from OTI statistics;
- Monitoring of speeding offences recorded by the police (Police traffic safety centre statistics).

Target 2. Local authorities will take working-age adults into account as part of promoting traffic safety (incl. their wellbeing reports and road safety plans).

Measures	Rationale	Responsible parties
Measure 40.  Municipal road safety planning will be promoted, incl. accessible public transport, park-and-ride facilities, and smooth intermodal transfers.  Road safety will be taken into account in municipal purchases and in-house vehicle fleets, incl. vehicles used within health and social services.  Remote working models will be adopted for positions that do not require attendance, thus reducing traffic loads.  Traffic safety among working-age adults will be considered as a theme in future discretionary government grants to road safety projects.	Safety is a factor contributing to health and wellbeing. Local traffic safety efforts in municipalities play a key role in enhancing the traffic safety situation across the country.  Instructions for municipal traffic safety work are available from a guide published by the Association of Finnish Local and Regional Authorities (Heltimo & Korhonen 2016) and the Finnish Road Safety Council's portal for municipal traffic safety work.	Local authorities and joint municipal authorities FTIA ELY Centres Traficom Finnish Crash Data Institute (OTI) Ministry of the Interior/TUOVI internal security portal NGOs Finnish Road Safety Council

- Data from OTI's road accident service about the distribution of accidents and injuries by major region and region, as well as statistics by municipality;
- Indicators for minimum data content in wellbeing reports: 'Traffic accidents Victims per 1,000 inhabitants';
- Studies about municipal wellbeing reports and road safety plans during the programme period;
- Quantity of accessible fleet and regional coverage of public transport.

Target 3. Use of safety equipment will increase among working-age adults in all groups of road users.		
Measures	Rationale	Responsible parties
Measure 41.  Efforts will be made to promote the use of safety and protective equipment, such as seat belts for car passengers, bicycle helmets and reflectors for cyclists and reflectors for pedestrians, as well as appropriate safety equipment for motorcycle and moped drivers.	Road traffic accident investigation teams have estimated that the use of a seat belt would have saved approximately onethird of the victims of fatal road traffic accidents between 2016 and 2018. OTI annual reports also indicate that using a seat belt would have prevented or mitigated injuries in every second case.	Local authorities and joint municipal authorities, regions Finnish Road Safety Council NGOs
Campaigns and other measures will be carried out in cooperation with various organisations.	In 2018, 94% of front-seat occupants in passenger cars used a seat belt in urban areas (95% outside urban areas), whereas 88% of back-seat passengers wore a seat belt. In vans, 77% used a seat belt in urban areas (83% outside urban areas; Finnish Road Safety Council's traffic behaviour monitoring).  The World Health Organisation (WHO) has adopted the following measures for the global level:  By 2030, increase the proportion of motor vehicle occupants using safety belts or standard child restraint systems to close to 100% (WHO 2018, Target 8).  Target 7: By 2030, increase the proportion of motorcycle riders correctly using standard helmets to close to 100% (WHO 2018, Target 7).	

- Results from FinSote population surveys on safety equipment used in road traffic;
- Finnish Road Safety Council's traffic behaviour monitoring studies and surveys;
  - Percentage shares of users of seat belts and children's safety equipment;
  - Percentage share of cyclists using a helmet;
- OTI reports on serious accidents and injuries during the programme period.

Target 4. Support will be provided to improve understanding of the importance and role of driving health and alertness as part of
road safety.

### Measures Rationale **Responsible parties** Ministry of Social Affairs and Health, Measure 42a. The prevalence of sudden attacks of illness in road traffic increases as early Traficom, FIOH, THL Health and social services professionals as in middle age. In most cases, the will pay attention to driving health as Safety Investigation Authority (SIA) underlying cause is cardiovascular part of situations such as health checks, Higher education institutions: disease, especially among people with medication planning, especially in universities, universities of applied comorbidities. Many people who have comorbidity-polypharmacy cases, as sciences suffered an attack of illness have a long well as interactions with substance Finnish Road Safety Council medical history. Driving health is not addicts. always considered. (OTI 2016.) Instructions for driving health assessment for healthcare professionals provide guidance on assessing and making decisions about the health status of individual drivers. These also include operational instructions for cases where a driver's health status has deteriorated to the extent that it may endanger road safety and give reason to restrict driving. (Traficom 2020a.) University faculties providing medical training ensure that the basic, professional specialisation and continuing training programmes for medical doctors include an introduction to driving health. A particular aim should be for physicians to be familiar with the special characteristics of the driver's occupation, driving health requirements and its effects on safety (SIA 2019). Working-age adults with memory disorders and their families should also be considered when assessing individual persons' driving health and safety in traffic. It is important to raise the issue of driving safety because a family member may have a clear idea of the effects of the loved one's memory disorder on driving

Measures	Rationale	Responsible parties
Measure 42b.  Road users' awareness about the importance and assessment of driving health and alertness will grow and contribute to safe traffic behaviour.  Support for self-supervision: motorists will be guided to recognise their own level of ability and fatigue and to adjust these to their driving style and journey.  Special attention will be paid to:	In addition to careful professional assessment, it is necessary to improve road users' understanding of the importance of health status and level of alertness and their effects on driving ability.	Ministry of Social Affairs and Health, FIOH NGOs, e.g. communication campaigns such as the National Injury Prevention Day (coordinated by the Finnish Red Cross) Finnish Road Safety Council Sports clubs, incl. transport for club members Occupational health practitioners
<ul> <li>The effects of pharmaceutical drugs and health conditions on driving alertness;</li> </ul>		
<ul> <li>The effects of hurrying, inattention and fatigue on driving ability and alertness.</li> </ul>		
The safety of professional transport will be monitored and promoted, resulting in a positive effect on traffic safety for other road users.		

- OTI reports on serious accidents and injuries relating to driving health;
- Monitoring of campaigns relating to driving health.

Target 5. Efforts will be made to support substance-free traffic and seeking appropriate treatment. The number of working age adults' drink and drug driving cases will be successfully brought down.

Measures	Rationale	Responsible parties
Measure 43.  Coordination of communications and surveillance by different parties will be enhanced.	Drink driving is still a major problem in traffic. Almost 18,500 drink drivers are caught every year. Alcohol is an underlying cause in about a fifth of fatal accidents. Drug use is also increasingly visible in traffic.  The World Health Organisation (WHO) has adopted a global measure to halve the number of road traffic injuries and	Ministry of Social Affairs and Health, THI Police Finnish Road Safety Council NGOs, e.g. The Accident Prevention Network Criminal Sanctions Agency (RISE)
	fatalities related to drivers using alcohol, and/or achieve a reduction in those	
	related to other psychoactive substances	
	by 2030 (WHO 2018, Target 9).	

Measures	Rationale	Responsible parties
Measure 44.  Substance addiction and its effects on traffic safety will be addressed at the earliest possible stage. Help and support will be offered to people with addictions and their families and friends while referring them for appropriate treatment.  • Efforts will be made to support and develop police personnel's competence and readiness to refer drink-driving suspects or other road users with reduced driving ability for low-threshold services or assessment.  • Opportunities to develop a new integrated care pathway will be explored: The role and opportunities of forensic medicine units to refer drink and drug drivers for treatment will be studied;  • A collaborative operating model will be built in cooperation with care services and NGOs (use of low-threshold services and referral practices).	Early identification of high-risk substance use is one of the most important ways to reduce substance-related harms.  The growing prevalence of drug use has increased the number of drug drivers.	Ministry of Social Affairs and Health, THL Ministry of the Interior, police Finnish Road Safety Council NGOs, e.g. Finnish Red Cross
Measure 45. Use of alcohol interlocks will be promoted/supported. The possibility of raising the duration of driving disqualifications to the same level with other Nordic countries will be established to make alcohol interlocks (alcolocks) a viable alternative to disqualification.	Alcohol is an underlying cause in about a fifth of fatal accidents.  In addition to preventing drink driving, use of the alcolock also supports regaining life management. Among other things, alcolock users are required to have a discussion with a physician or healthcare professional about the effects of substances and treatment options.  One of the measures included in the Government Resolution on Improving Road Safety was drafting new legislation on alcohol interlocks, which entered into force on 30 December 2016. At the time, the requirement to calibrate and extract data every 60 days was dropped, decreasing costs. However, alcolock manipulation was criminalised.	Ministry of Transport and Communications, Traficom, Ministry of Social Affairs and Health, THL, Ministry of Justice Finnish Road Safety Council NGOs

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- · Monitoring of traffic sobriety campaigns;
- · Police drink-driving statistics;
- · Finnish Road Safety Council's statistical overviews on drink driving;
- Proportion of drink drivers in traffic flows in annual nationwide sobriety checkpoint tests (breathalysing about 100,000 drivers annually);
- Road traffic accidents with substance use as a direct or underlying risk (OTI Driving Under Influence Reports);
- A study on using drink-driving situations for referral to low-threshold services published by 2025;
- A study on alcolock use and its results published by 2030;
- Monitoring the numbers of alcolock users, both in terms of conditional driving disqualification and voluntary use;
- Numbers of drink-driving recidivists in accidents investigated by road traffic accident investigation teams.

Measures	Rationale	Responsible parties
Measure 46.  Synergies will be sought among efforts to prevent intentional, as well as unintentional road traffic accidents and other incidents.  Improving the knowledge base and enhancing the monitoring of intentional road traffic accidents;  Identifying risk factors, incl. substance addiction/drink driving, mental health issues, prior intentional road traffic accidents.	National Mental Health Strategy and Programme for Suicide Prevention 2020—2030 (Vorma et al. 2020); see the section entitled 'Impacting the means of suicide':  • Measure 3: Accounting for suicide risk in the context of traffic safety promotion.  The process of drafting the road safety strategy, coordinated by the Ministry of Transport and Communications, deals with suicides in road traffic and their prevention. The purpose of the strategy is to identify interfaces of safety problems and their prevention between different modes of transport.	Ministry of Social Affairs and Health, THL Ministry of Transport and Communications Traficom NGOs

- A study on opportunities and synergies between measures to prevent unintentional and intentional road traffic accidents will be published by 2030;
- OTI accident databases and reports.

Target 7. Monitoring and statistics compil management. Extensive data sets will be p	ation of road traffic will be up to date, reliable ut to use in research in the field.	and supportive of evidence-based
Measures	Rationale	Responsible parties
Measure 47.  Road safety monitoring and statistics compilation will be developed by exploiting the opportunities provided by digitalisation.  • Different parties will continue to cooperate to improve statistics compilation.  Multidisciplinary research data is a prerequisite for promoting effective, evidence-based traffic safety.	Official statistics are very deficient and fragmented (Lehtonen 2020), e.g. in terms of cycling accidents. International research provides examples of road safety monitoring systems (Kweon 2011).	THL, OTI, FTIA, Traficom Statistics Finland Police Rescue departments, prehospital EMS Trauma register; e.g. studies on quality of life and disabilities Tukes Higher education institutions: universities and universities of applied sciences NGOs Finnish Road Safety Council

- Monitoring the coverage and quality of road safety statistics;
- Volume of research resources and number of projects to monitor and promote road safety.

# Table 9. OLDER PEOPLE (aged 65 and over). Targets and measures for preventing road traffic accidents among older people for 2021–2030.

**General objective:** Older people's road traffic accidents by car, bicycle and on foot will decrease by 2030.

Target 1. It will be safe for older people to drive. Health and social services professionals, older people and their families and friends will receive up-to-date information about traffic safety.

Measures	Rationale	Responsible parties
Measure 48.  Driving health and associated health status and treatment (e.g. changes in medication) will be monitored and addressed as part of regular checks among older people.  Healthcare and social welfare professionals (e.g. nurses with limited prescription rights) and older people will be provided with training, communications and materials on factors affecting safe motoring, driving ability and driving health (e.g. changes in vision, effects of medication, substances and illnesses).	Legal obligations: Driving Licence Act (386/2011); Act amending the Driving Licence Act (938/2018). The Government Resolution on Improving Road Safety (2016) aims to reduce the risk of accidents and injuries resulting from reduced driving abilities. A National Road Safety Strategy for 2022—2026 is being drafted under the leadership of the Ministry of Transport and Communications. The strategy will also take account of older road users. Guidelines for assessing driver health are available for healthcare professionals (Traficom 2020a). Tools are available.	Ministry of Social Affairs and Health, Ministry of Transport and Communications Traficom Finnish Road Safety Council Local authorities, joint municipal authorities, regions Police Fimea Pharmacies

- OTI accident databases;
- Finnish Road Safety Council's accident statistics;
- · Fimea's population surveys;
- Finnish Road Safety Council's training courses.

Measures	Rationale	Responsible parties
Measure 49. A study will be conducted to establish the concept of safe cycling among older beople. Dider people will be provided with advice and training on safe cycling (incl. use of bicycle helmet).	Obligations from legislation and recommendations:  The Road Traffic Act (729/2018) requires cyclists to use a red rear light when riding after dark.  Quality recommendation to guarantee a good quality of life and improved services for older persons 2020–2023: The Aim is an Age-friendly Finland (Ministry of Social Affairs and Health 2020c): The needs of older people will be considered in the organisation of transport environments, including pedestrian and bicycle paths, public transport and services supporting mobility.	Local authorities, joint municipa authorities Police Finnish Road Safety Council
Monitoring and indicators for 20	•	
<ul> <li>A study to be conducted on cycling safety</li> </ul>	among older people;	
<ul> <li>OTI accident database;</li> </ul>		

• Bicycle helmet usage rate, monitoring studies and surveys.

Measures	Rationale	Responsible parties
Measure 50. Older pedestrians' safety will be ensured, especially at pedestrian crossings.	Quality recommendation to guarantee a good quality of life and improved services for older persons 2020–2023: The Aim is an Age-friendly Finland (Ministry of Social Affairs and Health 2020c): The needs of older people will be considered in the organisation of transport environments, including pedestrian and bicycle paths, public transport and services supporting mobility.  United Nations 2030 Agenda for Sustainable Development (UN 2015): 'By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.'  Promoting age-friendly residential environments and urban areas (Rajaniemi & Rappe 2020). Tools are available.	Ministry of the Environment, Ministry of Social Affairs and Health Local authorities, joint municipal authorities Finnish Road Safety Council

#### Target 4. Road safety for older people will be improved through cross-administrative cooperation. Measures Rationale **Responsible parties** Measure 51. Legal obligations: Ministry of Social Affairs and Health, THL, Ministry of the Interior The police, rescue services or emergency Act on Supporting the Functional response centres will file welfare concern Capacity of the Older Population and Police reports as required when noticing on Social and Health Services for Older Police, rescue services and emergency individuals in traffic whose health, Persons 980/2012. response centres wellbeing and safety they suspect may Safe and incident-free daily life 2025: Local authorities, joint municipal have deteriorated from the perspective Action plan for incident prevention for authorities of road safety. the rescue services (Lepistö & Heliskoski Monitoring and indicators for 2021–2030 • Results of the THL Status of Older People Services Follow-Up Survey (welfare concern reports: content and number).

• Results of the FinSote Survey (incl. dangerous crossings and/or routes, slippery walking conditions in winter, poor lighting of

routes).

## 4.4 Drowning and water traffic accidents

In the context of this programme, 'drowning and water traffic accident prevention' refers to promoting the safety of moving about in, near and on water and preventing drownings.

**CURRENT STATUS:** While drownings among children and young people have clearly decreased over the last few decades, they are still one of the most common causes of accidental death among young children under primary school age. Moreover, submersion in water results in health losses and hospitalisations among children under primary school age in particular. Most of the working-age drowning fatalities were intoxicated at the time of drowning. Over the last fifteen years, the majority (86%) of drowning fatalities were men. Drowning deaths among older people have increased in recent years. No reliable research evidence is currently available on the means of drowning prevention intended for older people.

**OBJECTIVE:** Drowning deaths and health losses as a result of submersion in water will decrease among children and young people from the levels of the early 2010s. Support will be provided for working-age people's sobriety in water traffic. Up-to-date information will be obtained on older people's drowning deaths and their drowning deaths will decrease. Use of life jackets will become an established practice in all age groups.

Table 10. CHILDREN AND YOUNG PEOPLE (aged 0 to 24). Targets and measures for preventing drownings among children and young people for 2021–2030.

General objective: Drowning deaths and health losses due to submersion in water will decrease among children and young
people from the levels of the early 2010s.

Target 1. Awareness-raising and education relating to water safety as well as cooperation between different parties will be enhanced and supported in various operating environments.

Measures	Rationale	Responsible parties
Measure 52.  Maternity and child health clinic services will have discussions as part of health counselling, especially extensive health checks, about water safety, the importance of supervising young children and swimming skills, making use of existing materials, such as the material produced by the Finnish Swimming Teaching and Lifesaving Federation (FSL) and LocalTapiola Group.	Safety promotion and injury prevention are included in national recommendations guiding the work (e.g. Maternity and child healthcare clinic services' manuals (Klemetti & Hakulinen-Viitanen 2013, THL 2020c), guide to extensive health checks (Hakulinen-Viitanen et al. 2012 and We're expecting a baby —guide (Hakulinen et al. 2020)) as part of maternity and child health clinic services' health counselling for parents. The contents of these recommendations are due to be updated in 2021.	Ministry of Social Affairs and Health, THL NGOs, e.g. FSL

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 Addressing water safety contents and use of materials in maternity and child health clinic services assessed on the basis of national studies.

## Measure 53.

Swimming skills will be included in civic skills

A study will be conducted to establish the amount of swimming instruction regularly provided in pre-primary and basic education (primary level) and any possible support measures for children with poor swimming skills (e.g. those from immigrant backgrounds).

→Based on the results, locally targeted necessary measures will be taken to increase swimming instruction.

Swimming instruction is provided to a varying extent in primary-level basic education, according to a 2016 study conducted for basic education pupils in grade 6 by the Finnish Swimming Teaching and Lifesaving Federation (FSL), the Finnish National Agency for Education and LIKES Research Centre for Physical Activity and Health.

Children's swimming skills are clearly weaker (63%) in municipalities providing no curricular swimming instruction when compared with those where swimming instruction is provided in all school years (79%). (LIKES et al. 2017.)

Ministry of Social Affairs and Health, THL, Finnish National Agency for Education NGOs, e.g. FSL LIKES

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Data based on national surveys on the number of units providing swimming instruction in basic education and at other levels
where data is available, such as pre-schools and upper secondary school level educational institutions.

Measures	Rationale	Responsible parties
Measure 54.  Measures to raise water safety awareness about the importance of swimming skills, the effects of substance use when moving about in and on water, as well as survival and rescue skills will be carried out through network cooperation in different operating environments.  Target groups:  parents of young children;  young people.  Special attention will be paid to children and young people with disabilities or from immigrant backgrounds and their parents.	National water safety campaigns (e.g. 'Wisely on Waters') will be organised regularly.  The National Core Curriculum for Basic Education (Finnish National Agency for Education 2014a) includes specific objectives for swimming and water rescue skills.  Continuous awareness-raising efforts are required to embed water safety skills and safe operating models effectively at the population level. It should be noted that activities such as baby swimming lessons also support rehabilitation of children with disabilities and their parents.  Among children aged under 18, the risk of drowning may be increased by immigrant or single-parent family background, deficient swimming skills and, in young people's age group, alcohol use (Schyllander et al. 2013).  Efficient use of existing good materials and operating models will improve effectiveness (see FSL material Everyone should know how to swim and Welcome to the swimming hall!).	Ministry of Social Affairs and Health, THL, Finnish National Agency for Education Tukes Traficom NGOs, e.g. FSL, The Accident Prevention Network Rescue departments

- Implementation of various national water safety campaigns and numbers of people reached through these;
- · Number of special needs children participating in baby swimming lessons;

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• Materials targeted at those from immigrant backgrounds (e.g. different language versions).

Measure 55.	Risk assessment is a statutory obligation	Tukes
Operators of swimming beaches, indoor swimming pools and spas will be provided with training on the responsibility of service providers and risk assessment of beaches.	consumer Protection Act (920/2011).  New tools have been prepared for risk identification, such as checklists and analysis forms.	NGOs, e.g. FSL
	Training is required on a continuous basis.	

# Table 11. WORKING-AGE PEOPLE (aged 25 to 64). Targets and measures for preventing drownings and water traffic accidents among working-age adults for 2021–2030

• Implementation of training courses and annual number of participants.

Target 1. National coordination of and str	ategy work on drowning prevention will be sto	epped up.
Measures	Rationale	Responsible parties
Measure 56.  National quantitative targets for reducing drowning deaths will be prepared in cooperation between public authorities and organisations involved in water safety work.	The WHO (2014) suggests that a national water safety strategy/programme implemented in broad cooperation is an important means of preventing drowning deaths.  Regarding water traffic, the transport safety strategy that is currently being drafted takes account of prevention of drowning deaths among different age groups.	Ministry of Social Affairs and Health, THL Finnish National Agency for Education, Ministry of the Interior, Ministry of Transport and Communications Traficom Tukes Police Finnish Border Guard FTIA NGOs, e.g. FSL
Monitoring and indicators for 2	021–2030	
<ul> <li>National objectives/strategy in place, wi</li> </ul>	th implementation monitored by 2030;	

Target 2. Local authorities and regions wo	'k systematically towards the safety of water t	transport and traffic areas while continuing
to develop cooperation with NGOs.		
	_	

Measures	Rationale	Responsible parties
Measure 57.  Local authorities will promote the safety of water transport and traffic areas as part of their planning work, monitoring its development.	Safe environments (Water Traffic Act 782/2019):  Bringing together the regulatory framework governing the marking of waterways and water traffic control (navigational aids, water traffic signs, light signals);  Modernising the regulatory framework governing regional and watercraft-type-specific prohibitions and restrictions (reforming the division of work between public authorities).	Local authorities, regions ELY Centres Traficom NGOs and water sports clubs
Measure 58.  Efforts will be made to raise working-age adults' awareness of the Water Traffic Act that entered into force in June 2020. Support will be provided for adoption of safe behavioural models.	A study commissioned by the Finnish Transport and Communications Agency (Traficom 2020b) indicates that there is little awareness of the Water Traffic Act and the changes brought about by the Act.	Traficom, NGOs

## Monitoring and indicators for Measures 57–58 for 2021–2030

- A study on municipal planning and monitoring of water traffic safety carried out by 2030;
- Studies and population surveys carried out relating to changes introduced by the Water Traffic Act during the programme period.

Target 3. Efforts will be made to support substance-free water traffic and seeking appropriate treatment. The levels of working-age
adults' drownings and water traffic accidents occurring while intoxicated will be successfully brought down.

Measures	Rationale	Responsible parties
Measure 59.  Coordination of communications of sobriety campaigns and water traffic surveillance will be enhanced between different parties.	On average, more than half of drowning fatalities are under the influence of alcohol at the time of drowning.  One of the main objectives of the Wisely on Waters campaign is to achieve a cultural change in attitudes towards substance use when moving in water areas.  The police monitor waterway traffic in inland waterways and in sea areas near harbours. The aim is to promote good boating practice, reduce waterway traffic intoxication and improve the use of safety devices. (poliisi.fi.)  In road traffic, surveillance has improved the impact of campaigns.  Mass communications, surveillance and training cooperation should be enhanced regarding water safety.	Police NGOs and clubs Local entrepreneurs

- Results on the number of intoxicated people from police water traffic surveillance and monitoring;
- Implementation of the Wisely on Waters campaign and other water safety campaigns and numbers of various types of materials produced, incl. numbers of event participants and materials downloaded from websites.

Measures	Rationale	Responsible parties
Measure 60.  Communications on safely moving about in water areas will be promoted in different channels and environments in cooperation between public authorities and organisations:  • water safety campaigns (e.g. Wisely on Waters);  • workplaces;  • occupational health services, maternity and child health clinic services, family centres and family cafés;  • local entrepreneurs.	A study commissioned by the Finnish Transport and Communications Agency (Traficom 2020b) indicates that only just over half (58%) use life jackets whenever moving about on water, whereas one in ten (10%) never use them. The number of drowning victims is highest in inland waters, where life jackets are worn less frequently than in sea areas.  Typical case: A man with normal or slightly reduced functional capacity falls into the water in a boating-related situation. He is not wearing a life jacket. He has not thought it likely to fall into the water or has imagined that he would manage without a life jacket. (SIA 2016.)  The Action plan for incident prevention for the rescue services highlights multisectoral and multichannel cooperation in safety communications (Lepistö & Heliskoski 2019).	Traficom, THL Finnish Border Guard, police, rescue departments NGOs

- Reach and download numbers of materials and guides of the Wisely on Waters campaign and other water safety campaigns;
- A study on the use of life jackets during the programme period.

Measures	Rationale	Responsible parties
Measure 61.  Awareness of the importance of functional capacity will be raised among working-age adults while providing guidance on how to assess and develop factors influencing functional capacity such as physical condition, alertness and, overall health status (incl. effects of medicines, alcohol and drugs).	The Wisely on Waters campaign and guidelines provided by different water sports clubs will help people recognise their own physical condition, functional capacity, and level of fatigue.  Examples from an investigation report by the Safety Investigation Authority (SIA 2016a):  Typical case 2: A man with reduced functional capacity goes onto thin ice on his own, however, while being aware of the weak ice cover. He falls through the ice. There is no-one else around and he is unable to rescue himself on his own.  Typical case 3: A person with reduced functional capacity or understanding falls into shallow water.	THL, Traficom  Health centres/health checks for unemployed people  Occupational health services  NGOs and water sports clubs

• Results from statistical monitoring of deaths from drowning and submersion.

Measures	Rationale	Responsible parties
Measure 62. Public authorities responsible for water raffic surveillance will monitor the ituation in terms of new water traffic phenomena: Personal watercraft, standup paddleboards (SUP boards), others.	The number of personal watercraft has increased in Finland to almost ten thousand (2018 statistics).  Legislation does not require any training nor a driving licence for operating personal watercraft. Registered motordriven watercraft may be operated by any individual aged 15 or over.  Potential introduction of unmanned automated boats into the market may undermine safety as a result of the 'remote command' associated with such craft.	Traficom, Tukes Police SIA
Measure 63.  Monitoring and statistics compilation of drowning deaths will be developed with a view to making up-to-date and eliable information available for public outhorities and NGOs to target their preventive measures and resources.	NGOs involved in preventive work do not receive enough up-to-date data on drowning deaths and their underlying factors to support management by knowledge.  In its global report on drowning, the WHO (2014) recommends that countries develop up-to-date statistics compilation and monitoring of drownings as one of the starting points for preventing drowning deaths.  Good practices for combining and harnessing a wide variety of information sources for drowning prevention can be found in several countries, such as the United Kingdom (WAter Incident Database, WAID).	THL, Traficom NGOs, e.g. FSL

- Statistics on watercraft in Traficom's register by region and municipality;
- Traficom's water traffic accident statistics;
- Annual results from statistical monitoring of deaths from drowning and submersion.

Measures	Rationale	Responsible parties
Measure 64.  Synergies will be sought in efforts to prevent intentional and unintentional drownings and water traffic accidents and other incidents or injuries.	Self-drowning is the method in about five per cent of suicides at the population level, being particularly prevalent among women and the 50–54 and 60–74 age groups (Partonen et al. 2020).	Ministry of Social Affairs and Health, THL NGOs, e.g. FSL
	Policies of the National Programme for Suicide Prevention (Vorma et al. 2020): Healthcare registers are used to establish the number of suicide attempts and means of suicide in different population groups and different geographical regions in Finland.	
	International cooperation between water safety promotion and suicide prevention has progressed in many places, such as Scotland (McAvoy et al. 2018).	

- A study on opportunities for synergies between measures to prevent intentional and unintentional drownings and water traffic
  accidents completed by 2030;
- Monitoring results from statistics on suicide methods by gender.

# Table 12. OLDER PEOPLE (aged 65 and over). Targets and measures for preventing drownings among older people for 2021–2030.

General objective: Older people's dro	owning accidents will decrease.	
Target 1. Older people's swimming skills a	nd safe water mobility skills will be stre	engthened.
Measures	Rationale	Responsible parties
Measure 65.  Older people will be provided with advice, instruction, and training on good swimming skills and how to stay safe while moving about on water.  The role of individual ageing alterations, illnesses, medication and substance use in drowning accidents and first-aid skills will be addressed to prevent drownings.	Legal obligations: Health Care Act (1326/2010); Water Traffic Act (782/2019). Tools are available.	Local authorities, joint municipal authorities Pharmacies Rescue departments, police NGOs, e.g. FSL and The Accident Prevention Network

#### Monitoring and indicators for 2021–2030

- · Visibility of contents produced in the Wisely on Waters water safety campaign and number of materials distributed annually;
- Annual numbers of participants in Safety Coach courses organised by The Accident Prevention Network and in information sessions held by Safety Coaches;
- Annual number of training courses organised by the Finnish Swimming Teaching and Lifesaving Federation (FSL).

Target 2. Older boaters' safety skills will be	e strengthened and they will wear life jackets	
Measures	Rationale	Responsible parties
Measure 66. Older people will be provided with advice and guidance on safe boating, especially including the use of life jackets.	Under the Water Traffic Act (782/2019), the master of a watercraft is responsible for ensuring that people onboard the watercraft are wearing flotation devices when the weather, waves, the condition of the watercraft or other circumstances so require.  Tools are available.	THL, Traficom Local authorities, joint municipal authorities Police Finnish Border Guard NGOs, e.g. FSL and The Accident Prevention Network

- FinSote Survey results (Questions: Do you use the following protective or safety equipment? Flotation devices and life jackets on a boat.);
- Data from annual water traffic accident statistics (Traficom, Statistics Finland);
- Annual numbers of participants in Safety Coach courses organised by The Accident Prevention Network and in information sessions held by Safety Coaches.

Target 3. It will be safe for older people to move about on ice-covered water. Use of safety equipment (such as buoyancy jackets,
flotation devices and ice picks) will increase.

Measures	Rationale	Responsible parties
Measure 67.  Older people will be provided with advice and instruction on first aid and how to stay safe while moving about on ice.	Tools are available.	Finnish Border Guard Rescue departments NGOs, e.g. FSL, Finnish Red Cross

- Materials produced by the Finnish Border Guard and FSL and number of downloads of guides and other such materials from their websites;
- Numbers of Finnish Red Cross first-aid training courses and participants.

Target 4. New information will be obtained on preventing drownings among older people.		
Measures	Rationale	Responsible parties
Measure 68.  New information will be obtained on preventing drownings among older people.	No information is available on prevention strategies intended for older people (Peden et al. 2017, Pearn et al. 2019).	THL NGOs, e.g. FSL

#### Monitoring and indicators for 2021-2030

- A study on older people's drownings completed by 2030;
- Results from statistical monitoring of deaths and hospital stays due to drowning and submersion.

# 4.5 Fire safety

In the context of this programme, 'fire injuries' refer to burns and scalds from flames and gas fumes caused by fires. In addition, burns and scalds come from contact with hot surfaces or liquids and inhalation of hot steam. Most of the fire deaths are caused by inhaling fumes, while injuries from flames account for a smaller share of the fatalities. In serious cases, flames and heat cause four fifths of the injuries, while inhaling fumes accounts for another one fifth.

'Fire safety' means structural and technical solutions, tactical and strategic action, as well as human activity to prevent uncontrollable fires and improve safety culture. Fire safety can be examined from the perspectives of building, organisational or individual performance.

**CURRENT STATUS:** Fire deaths have decreased significantly in recent years. This is due to several structural safety measures, improvements in evacuation safety, safety technologies

such as installation of fire alarms and automatic fire-extinguishing systems, and introduction of self-extinguishing – i.e. reduced ignition propensity (RIP) – cigarettes into the market. Information provided by fire investigations carried out by rescue departments, targeted safety communications and supervision activities, such as fire inspections, have contributed to the reduction in the number of fire deaths.

Fire safety has been improved through cooperation between the Ministry of the Interior, the Ministry of Social Affairs and Health and the Ministry of the Environment, rescue departments, healthcare and social welfare professionals, as well as the third and fourth sectors (e.g. research and development projects STEP, IKAT, PaloRAI, EVAC, OTE and KAT). Nevertheless, there is still a need to develop fire safety competence.

Fire safety management work places emphasis on the need to reduce smoking and substance use, which increase the risk of fire death. Further key development areas include improving hob safety, developing fire safety competence, and ensuring safe evacuation.

**OBJECTIVE:** The number of fire deaths and serious fire injuries will be successfully brought down in keeping with the programme. The objective will be achieved by developing structural solutions, reducing smoking and improving hob safety. These development measures will also reduce the overall adverse impact of fires.

Fire safety competence will develop positively among people of all ages. Fire safety competence will increase among healthcare and social welfare staff and NGOs and will form part of their basic work. Fire safety training will reach all age groups, including those outside the labour market. Fire safety competence will be developed among people with reduced functional capacity in cooperation between the individuals themselves, their families and friends, as well as stakeholders. User-oriented fire safety techniques will be developed.

The Programme for the Prevention of Home and Leisure Injuries 2021–2030 and the Ministry of the Interior action plan for incident prevention for the rescue services (Lepistö & Heliskoski 2019) will support each other and their respective measures will be carried out through cross-administrative cooperation.

# Table 13. CHILDREN AND YOUNG PEOPLE (aged 0 to 24). Targets and measures for preventing fire injuries among children and young people for 2021–2030.

## **General objectives:**

- · No child or young person will die nor sustain serious injuries in fires or incidents resulting from handling fire-making equipment.
- Children and young people will possess sufficient fire safety knowledge and skills and the ability to rescue themselves and other
  people in the event of a fire.

Target 1. Fire safety will be considered in all children's and young people's operating environments, activities and cooperation.

Measures	Rationale	Responsible parties
Measure 69.  Fire safety competence will be promoted and developed among children and young people (especially basic education pupils) by means of regularly repeated training in different operating environments while making use of existing learning and reference materials and developing new ones.  • Early childhood education and care: fire safety theme days;  • Basic education: fire safety theme days and participation in the NouHätä! campaign;  • Upper secondary schools and higher education: fire safety as part of orientation studies.	Legislation and recommendations: Rescue Act (379/2011, sections 1 and 3–6); Basic Education Act (628/1998, section 29): right to a safe learning environment; Act on Early Childhood Education and Care (540/2018); Safety Investigation Authority recommendation B1/2009Y/S2, instructions on how to act in case of a fire (SIA 2009, 53); Fire safety competence will improve by teaching (Lindfors et al. 2020, Somerkoski et al. 2019). National Core Curriculum for Basic Education (Finnish National Agency for Education 2014a). The safety contents in the National Core Curriculum are supplemented by external safety experts. As attitudes change slowly, safety communications should be continuous (Somerkoski et al. 2019). Materials are available, including:  NouHätä! campaign materials (2020); Use of gamified safety education at primary level (Harinen 2020).	Rescue departments, Ministry of the Interior, THL Local authorities/education services NGOs, e.g. The Finnish National Rescue Association (SPEK) Finnish National Agency for Education

- Data from the PRONTO resource and accident database of Finnish rescue services (annual statistics, data available on safety
  communications for children and young people and on fire deaths among children and young people, Emergency Services
  Academy Finland);
- Implementation of statutory inspections of health, safety, and school community at educational institutions (THL TEAviisari
  results on basic education and upper secondary school level, data collection every second year);
- Number of educational institutions participating in NouHätä! campaign activities for basic education pupils in grade 8 (SPEK, implemented annually).

# Table 14. WORKING-AGE PEOPLE (aged 25 to 64). Targets and measures for preventing fire injuries among working-age adults for 2021–2030.

#### **General objectives:**

- The number of fire deaths and people injured in fires will decrease by at least a quarter from the 2015–2019 average by 2030 and injuries will be less serious among working-age adults injured in fires.
- Working-age adults will have capabilities to assess fire risks, prevent fires and take action in the event of fire.

Target 1. The number of fires caused by smoking, as well as the numbers of working-age adults' fire deaths and injuries will decrease.

Measures	Rationale	Responsible parties
Measure 70.  Efforts will be made to reduce smoking and substance use as well as residential fires and fire injuries resulting from their combined effects of these.  The target groups include both middleaged smokers, as well as providers of social services for high-risk groups and substance abuse workers.  Alongside smoking risk management and reduction, various means of smoking cessation will also be promoted (e.g. nicotine replacement therapies/cessation medicines).	The Safety Investigation Authority's investigation report on residential fires (D1/2003Y) and the recommendation (D1/2003Y/S4) to promote safe smoking habits based on the report (SIA 2003a, 2003b).  Research indicates that substance users who smoke constitute a particularly high-risk group in terms of fire safety (Kokki 2011, 22 and 78; Kokki 2014, 10).  Fire deaths decreased with the introduction of self-extinguishing cigarettes into the market. Nevertheless, smoking still causes approximately 15 fire deaths every year. (Kokki 2011, Kokki 2014, Haikonen & Kokki 2020.)  → Smoking cessation should be promoted. Smokers should be guided towards more fire-safe smoking habits.	Ministry of Social Affairs and Health, THL/ Alcohol, Drugs and Addictions, ATDG programme Local authorities/social welfare services Ministry of the Interior NGOs, e.g. EHYT and SPEK

- Data from the PRONTO resource and accident statistics of Finnish rescue services (annual statistics, data available on the number of fires caused by smoking, Emergency Services Academy Finland);
- Monitoring data on fire deaths: working-age adults' fire deaths resulting from smoking;
- Implementation of the recommendation concerning smoking fire safety (results from the Safety Investigation Authority's monitoring study);
- Data obtained from fire investigations and potential accident investigations and separate studies on fire deaths and injuries among smokers;
- Target groups' first-aid fire-fighting skills, fire-fighting equipment at home (a survey on Finnish attitudes to rescue services, safety and emergencies by the Emergency Services Academy Finland and a survey on self-motivated preparedness by SPEK).

Measures	Rationale	Responsible parties
Measure 71.  Efforts will be made to increase fire safety training for working-age adults , incl. unemployed and disabled people outside the labour market (e.g. open online training courses and work-related continuing training courses) while also training people working in health and social services and NGOs.  Training contents:  risk assessment and management	Rescue Act (379/2011); Safety Investigation Authority recommendations (A2/1999Y/S09 and A2/1999Y/S10) on fire safety of interior decoration materials in housing for the elderly and on developing collaboration between social and health authorities and rescue authorities, as well as investigation report A2/1999Y (SIA 1999, SIA 2002a and 2002b).	Ministry of the Interior, rescue departments, THL, FIOH NGOs, e.g. SPEK and Finnish Red Cross The Accident Prevention Network (coordinated by Finnish Red Cross)
skills;  anticipation skills;	Fire safety competence will raise awareness of fire risks.	
<ul> <li>crisis procedures;</li> <li>measures under Rescue Act section 42;</li> <li>introduction to fire safety.</li> </ul>	Ready-to-use fire safety materials are available and should utilized (THL 2016, SPEK 2019a,2019b and 2019c, rescue departments' materials).	

- Data from the PRONTO resource and accident statistics of Finnish rescue services (annual statistics, safety communications by target group, Emergency Services Academy Finland);
- Fire safety training courses for health and social services and NGOs, training courses provided by rescue departments and NGOs (Emergency Services Academy Finland and rescue departments);
- Fire safety projects for working-age adults implemented during the period and their implementation;
- Studies and surveys on fire safety training courses organised annually during the period of the Safety at All Ages programme 2021–2030 and on their impact.

# Table 15. OLDER PEOPLE (aged 65 and over). Targets and measures for preventing fire injuries among older people for 2021–2030.

#### **General objectives:**

- · Residential fire safety will be ensured regardless of the form of housing.
- The number of older people dying and injured in fires will decrease by at least a quarter from the 2015–2019 average by 2030 and injuries will be less serious among older people injured in fires.
- The numbers of fires and fire injuries caused by smoking will decrease as smoking declines and fire safety measures are enhanced.
- Older people will have better capabilities to identify fire risks and act in the event of fire.
- Evacuation safety problems among older people will be identified while fire safety risks will be addressed proactively by their
  families and friends as well as healthcare and social welfare services, care services providers and, where necessary, rescue services.
- · Hob safety will improve with the introduction of safer stoves or stove safety technologies.

Target 1. The number of fire deaths and injuries will decrease among older people and those with memory disorders.

Measures	Rationale	Responsible parties
Measure 72.  Smoking and substance use among older people will decrease, as will residential fires resulting from the combined effects of these.  • Alongside efforts to reduce smoking, various means of smoking cessation will also be promoted.	Safety Investigation Authority recommendation D1/2003Y/S4 to promote smoking methods that pose a lesser fire hazard based on the report (SIA 2003b).  Fire safety risks may accumulate in older smokers' everyday lives (substance use, memory disorders, medication). Reduced mobility and functional capacity complicates evacuation in the event of fire. (See SIA 2010.)  Substance use among older people has become more common (Koivula et al. 2015) and, combined with smoking, this will increase fire risks.  Alternatives to replace traditional cigarettes should be considered to improve older smokers' safety in situations where an individual's functional capacity has significantly deteriorated and smoking cannot be addressed in any other way.  • NB! Smoking cessation, use of a safe smoking place or outside supervision is the primary measure whenever possible.	Local authorities/home care and health and social services providers Ministry of Social Affairs and Health THL/Alcohol, Drugs and Addictions, ATDG programme Ministry of the Interior, rescue departments NGOs, e.g. EHYT and SPEK

- Data from the PRONTO resource and accident statistics of Finnish rescue services (see annual statistics, data available on the number of fires caused by older people's smoking, Emergency Services Academy Finland);
- Statistics Finland's cause of death statistics (older people's fire deaths, smoking as a cause of ignition);
- Data obtained from fire investigations and potential accident investigations and results of separate studies (e.g. theses by rescue services students).

Target 2. Older people will be better prepared to identify fire risks and take independent action in the event of fire. The numbers of fire deaths and injuries among older people will decrease.

Measures	Rationale	Responsible parties
Measure 73.  More fire safety training will be provided for older people and their families and friends.  Training contents:  - risk assessment and management skills;  - anticipation skills;  - crisis procedures;  - measures under Rescue Act sections 3, 4 and 42;  - introduction to fire safety;  - knowledge of safety technology;  - financing options for safety technology.	Rescue Act (379/2011); Act on Supporting the Functional Capacity of the Older Population and on Social and Health Services for Older Persons 980/2012, section 6 ('Old-Age Services Act'). In its 2017—2019 Inclusive Safety and Security for Special Groups (OTE) project, The Finnish National Rescue Association (SPEK) found that people in special groups were interested in everyday and housing safety, including fire safety, and they were willing to take personal action to promote safety (Ojala 2017). The Safety at Home (KAT) projects have developed common operating models for home care and rescue services to promote safety (Huuskonen et al. 2020). There are 1.2 million older people, and their proportion of the population will continue to grow. Some older people have reduced functional capacity. However, a significant proportion of older people function independently and can mostly look after their own fire safety. They can make use of information available. Safety competence and knowledge of safety technologies improve safety. Ready-to-use materials are available on both fire safety in general and stove safety in particular. Older people's functional capacity must be considered and their safety must be ensured, where necessary, through cooperation between health and social	Ministry of the Interior, rescue departments Ministry of Social Affairs and Health NGOs, e.g. SPEK and Finnish Red Cross Alzheimer Society of Finland, Carers Finland The Accident Prevention Network (coordinated by Finnish Red Cross)

- Data from the PRONTO resource and accident statistics of Finnish rescue services (see annual statistics, available data on safety communications for older people, Emergency Services Academy Finland);
- Number of fire safety training courses organised annually for health and social services providers, older people and their stakeholders (monitoring data on training courses provided by rescue departments and NGOs; Emergency Services Academy Finland, rescue departments, NGOs as responsible bodies);
- · Monitoring data and reports from training projects to support fire safety for older people;
- · Studies and surveys on fire safety training courses organised during the period and on their impact.

Target 3. Housing for older people, those with memory disorders and those belonging to special groups will be required to meet the

standard of institutional care in terms of fire safety and evacuation safety.

Measures	Rationale	Responsible parties
Measure 74.  Social welfare services will be required to assess the service needs of older people and those with memory disorders from the perspective of fire safety as well.  Risks arising from reduced functional capacity will be managed by means of service needs assessments and measures taken on the basis of these.	<ul> <li>The Old-Age Services Act (980/2012, section 6) requires older people's service needs to be assessed.</li> <li>Service needs are linked to functional capacity.</li> <li>Should functional capacity not be adequate to evacuate in the event of emergency, evacuation safety or housing fire safety should be improved.</li> </ul>	Local authorities/home care Rescue departments Ministry of the Interior, Ministry of Social Affairs and Health
	Rescue departments and healthcare and social welfare services have developed the EVAC measuring tool to assess older people's ability to evacuate (Björkgren et al. 2017). The tool is based on the Resident Assessment Instrument (RAI)	

system used to assess older people's

Use of the system is included in an amendment to the Old-Age Services Act, which entered into force on 1 October 2020 (Government Proposal No. 4/2020, 2.2.2, Act amending the Act on Supporting the Functional Capacity of the Older Population and on Social and Health Services for Older Persons

 The EVAC tool is also available as a mobile application for Android devices

(situation as of 2020).

functional capacity.

565/2020).

#### Measures

#### Measure 75.

Evacuation safety problems among older people will be identified and addressed proactively by their families and friends as well as healthcare and social welfare services staff, care services providers and, where necessary, rescue services.

- Identification of fire safety risks requires healthcare and social services providers to have fire safety training and competence and to cooperate with rescue services.
- If evacuation safety is not adequate, fire safety should be improved by means such as an automatic fireextinguishing system. Alternatively, the older person concerned should be moved to housing with better fire safety.

#### Rationale

Sections 18 and 19 of the Rescue Act (379/2011) require ensuring evacuation safety and drawing up an evacuation safety report in institutional care and service and supported housing units, but not in private homes. Older people are also entitled to housing fire safety when living at home.

The amendment to the Old-Age Services Act outlines more versatile forms of housing for older people. These must not compromise evacuation safety. Should housing arrangements not correspond to an individual's functional capacity, Rescue Act section 42 requires public authorities to report fire risks, cooperate with each other and address any factors endangering fire safety.

 In such cases, fire safety can be improved either by installing an automatic fire-extinguishing system or by moving to housing with better fire safety.

Families and friends and any other civilians are obliged and entitled to report any factors endangering older people's fire or evacuation safety under Rescue Act sections 3 and 4.

The benefits of an automatic fireextinguishing system to preventing fire deaths have been recognised (Stén & Lehto 2020).

#### **Responsible parties**

Local authorities/healthcare and social welfare services, especially home care Rescue departments

Ministry of the Interior, Ministry of Social Affairs and Health, Ministry of the Environment

#### Monitoring and indicators for Measures 74–75 for 2021–2030

- Data from the PRONTO resource and accident statistics of Finnish rescue services (see annual statistics, data available on evacuation safety sites and automatic fire-extinguishing systems; Emergency Services Academy Finland);
- Fire death data on sites equipped with an automatic fire-extinguishing system (annual monitoring data, Pirkanmaa Rescue Department);
- Annual number of fire risk notifications (rescue departments).

Target 4. Stove safety will improve with th	e introduction of safe stoves or stove safety to	echnologies.
Measures	Rationale	Responsible parties
Measure 76.  Purchases and use of safe hobs and hob safety features such as hob guards will be promoted among older people based on evidence while providing guidance for their families and friends as well as health and social services and NGOs.  Research will be conducted to collect information relating to the actual safety of hobs and hob safety features.  Hob safety training materials will be developed further.  Older people, their families and friends, health and social services practitioners, property owners, and housing services and rental providers will be provided with training on risks associated with hobs.  New buildings will be required to have fire-safe hobs installed.	Safety Investigation Authority recommendation 2015-527 on modernisation of the standards governing the safety requirements of electric stoves (SIA 2015). The aim is that only safe stoves are manufactured for sale.  Because people may make mistakes, safety should be promoted by developing the hob standard, improving hob safety and using safer hobs. Hob safety features should be used to supplement existing, outdated stove technologies.  Most of the hob-related fires are caused by user error (Nurmi 2001, 47).	Ministry of the Interior, rescue departments NGOs, e.g. SPEK and Finnish Red Cross The Accident Prevention Network (coordinated by Finnish Red Cross) Ministry of Social Affairs and Health Local authorities/healthcare and social welfare services Hob safety study: Aalto University, Emergency Services Academy Finland, Tukes, SPEK (joint project to launch at the turn of 2020 and 2021)

- Data from the PRONTO resource and accident statistics of Finnish rescue services (see annual statistics, data available on stove-related fires and resulting fire deaths and injuries, Emergency Services Academy Finland);
- Trends in the numbers and shares of hobs with different types of technological solutions, and trends in the number of hob safety features (surveys, sales monitoring as part of the stove safety study);
- Fire investigation data (rescue departments, data relating to hob use);
- · Potential accident investigation data on hob-related fires;
- Research results from the hob safety project.

Target 5. Fire safety competence will increase among individuals working with older people while the amount of fire deaths and
injuries among older people will decrease while the numbers of older people's fire deaths and injuries will decrease.

Measures	Rationale	Responsible parties
Measure 77.  More fire safety training will be provided for older people and for everyone interacting with them (family members and friends, informal carers, health and social services professionals, incl. professional and continuing training).  Training contents:  - risk assessment and management skills;  - anticipation skills;  - crisis procedures;  - measures under Rescue Act section 42;  - introduction to fire safety;  - training contents tailored for each specific group.	The Rescue Act (379/2011, section 42) requires cooperation and intervention in any factors endangering fire safety. Intervention requires fire safety competence. Such knowledge and skills will make it possible to reduce fires, fire deaths and injuries.  Safety Investigation Authority recommendations A2/1999Y/S09 and A2/1999Y/S10 on collaboration between social and health authorities and rescue authorities and investigation report A2/1999Y (SIA 1999, SIA 2002a and 2002b).  Training and other materials are available for fire safety training. In addition, each rescue department has its own training materials for fire safety promotion.	Ministry of the Interior, rescue departments  NGOs, e.g. SPEK and Finnish Red Cross THL/injury prevention experts FIOH, Finnish National Agency for Education, Ministry of Education and Culture

- Data from the PRONTO resource and accident statistics of Finnish rescue services (see annual statistics, data available on rescue
  departments' safety communications by age group, Emergency Services Academy Finland as responsible body);
- Fire safety training courses, monitoring data on training courses provided by rescue departments and NGOs;
- Annual monitoring data from training projects during the programme period.

# 4.6 Role of family and friends in promoting safety

In the context of this programme, 'family and friends' refer to both formally recognised informal carers who have signed an informal care contract with their local authority ('contractual informal carers') and any other family members, friends and volunteers who help people requiring assistance to ensure a safe everyday life.

**CURRENT STATUS:** Family members and friends play a key role in promoting safety in everyday life. Only some of the individuals caring for a loved one have signed a specific informal care contract with their local authority. Informal carers and their patients are predominantly older people.

This programme does not outline any specific measures for children's and young people's informal care or their families and friends, as the age group's targets and measures are

based on an update of the 2018 publication performed in the spring of 2020 (Korpilahti 2018). The 2018 publication did not include any targeted contents for informal care concerning children and young people and, due to scheduling reasons, there was no opportunity at this time for the expert work required to specify new measures in this domain. If necessary, this subject can be revisited as part of the Programme's mid-term review in 2025. A specific challenge for working-age informal carers is to reconcile informal care and working life. Not enough data is available on the safety of informal carers, incl. incidence of unintentional injuries.

**OBJECTIVE:** The safety knowledge and skills of family members, friends and relatives and all those acting as informal or family carers will be strengthened to ensure the safety of those in need of assistance and to support the carers' own ability to cope.

# Table 16. WORKING-AGE ADULTS (aged 25 to 64). Targets and measures for working-age adults' informal carers for 2021–2030.

#### **General objectives:**

- Receiving and providing informal care at home will be safe for all involved parties.
- Better support will be provided for working-age informal carers to reconcile their role and working life.

Target 1. The safety knowledge and skills of informal carers will be strengthened to ensure the safety of their patients.

Measures	Rationale	Responsible parties
Measure 78.  Safety promotion, especially prevention of injuries from falling, poisoning and suffocation, will be included as part of coaching, counselling and training for informal carers provided by local authorities and voluntary parties.  Provision of coaching will be extended to cover non-contractual informal carers.  Municipal employees (such as client assistance coordinators and physiotherapists) will address safety issues from the perspectives of both informal carers and patients during home visits with informal care families.  The THL handbook on disability services will be updated and supplemented with a section concerning safety and injury prevention.	Reduced functional capacity is typical of informal care patients and has been identified as a risk factor for different types of injuries (e.g. falling, suffocation, drowning) (SIA 2016).  Due to polypharmacy, informal care patients have a heightened risk for poisoning. Likewise, mental health issues and/or substance addiction (affecting about 7% of patients) increase susceptibility to poisoning.  Under section 3a of the Act on Support for Informal Care (937/2005, the 'Informal Care Act'), local authorities are required to provide contractual informal carers with coaching and training for their role as carers, where necessary. A proposal to also make these coaching courses available to other informal carers has recently been put forward in a Ministry of Social Affairs and Health study (Noro & Karppanen 2019).	Ministry of Social Affairs and Health, THL Hospital districts Local authorities and joint municipal authorities, regions NGOs, e.g. Carers Finland, Union for Senior Services (Valli), Finnish Red Cross, SPEK, Age Institute

- · Annual numbers of working-age participants in municipal coaching courses;
- Annual numbers of participants in courses organised by NGOs:
  - Finnish Association of People with Physical Disabilities sponsorship of assistive devices,
  - Carers Finland's OVET coaching/working-age participants,
  - Number of visitors to Finnish Red Cross Health Points, participants in Safety Coach training and in courses on providing care at home,
- Annual usage volumes of materials produced in the SPEK Inclusive Safety and Security for Special Groups (OTE) project,
- Utilisation of impact indicators of projects funded by the Funding Centre for Social Welfare and Health Organisations (STEA),
- The THL handbook on disability services updated by 2021.

Measures	Rationale	Responsible parties
Measure 79.  Promoting the safety of informal carers will be included as part of coaching, counselling, and training for informal carers provided by local authorities and NGOs.	Informal care situations are strenuous, especially for working-age adults when simultaneously combined with paid employment. Working-age informal carers should have the opportunity to receive adequate and appropriate information, training (incl. on ergonomics, kinaesthetics, correct lifting techniques) and other support relating to time off, for example, to ensure and maintain their own safety and ability to care for their patients (Noro & Karppanen 2019).	Ministry of Social Affairs and Health, TH Hospital districts Local authorities and joint municipal authorities, regions NGOs, e.g. Age Institute, Carers Finland, Valli, Finnish Red Cross, SPEK

- Numbers of municipal coaching courses for working-age adults (THL OMPE questionnaire survey on informal and family care: municipal coaching courses);
- A study on the use of support measures for working-age informal carers in municipalities and joint municipal authorities carried out by 2030.

Measures	Rationale	Responsible parties
Healthcare and social welfare services will support working-age informal carers, ensuring that informal carers and professionals receive training on the subject.  The effects of acting as an informal carer on coping, health and wellbeing will be considered and assessed regularly in healthcare and occupational health services using appropriate tools, such as the Carers of Older People in Europe (COPE) Index.  Injury prevention and safety risk assessment will be taken more effectively and systematically into account as part of informal carers' wellbeing assessments and health checks (incl. health checks for unemployed people), home visits and occupational health services.  The safe use of medical equipment will be ensured.	Adults caring for their loved ones are estimated to be at high risk of becoming overburdened or burnt out, or even developing a physical or mental illness. Informal care consumes time and energy, which may make it more difficult to concentrate on work. Due to care duties, informal carers and family members may also have to take time off work or shift to part-time work, which in turn may affect their financial circumstances.  A loved one's sudden illness or injury may require care and arrangements that affect an informal carer's work. Similarly, a loved one's impending death will often affect the informal carer's working capacity and ability to continue to work. For the aforementioned reasons, an employee's decision to become an informal carer may also create costs for the employer. (See e.g. Kauppinen & Silfver-Kuhalampi 2015, Shemeikka et al. 2017.)	Ministry of Social Affairs and Health, THL, FIOH NGOs

- Results of the TEAviisari questions on informal carers' health and wellbeing checks;
- Use of the COPE Index in healthcare services.

Measures	Rationale	Responsible parties
Measure 81.  The needs of special groups such as working-age adults with memory disorders will be identified and they and their families and friends will be provided with information to promote safety (see the Alzheimer Society of Finland's website).	There are approximately 7,000 individuals aged under 65 with a progressive memory disorder in Finland. Individuals who have developed a memory disorder at working age and their families and friends require support and help tailored to meet their needs in order to cope with the altered situation and continue living their lives as before for as long as possible.	FIOH, THL, Ministry of Social Affairs and Health NGOs, e.g. Alzheimer Society of Finland
	With correct support measures, individuals with memory disorders may well be able to continue working. Immediate retirement on disability pension should not be the only option available when a memory disorder is diagnosed.	

• Numbers of visitors to and material downloads from the web pages of the Alzheimer Society of Finland intended for working-age people.

Target 3. The knowledge base on unintentional injuries among informal carers and their patients will be consolidated in support of planning and implementing preventive work. Statistical and research data on informal carers' safety and injuries will increase by drawing on different materials.

Measures	Rationale	Responsible parties
Measure 82. The results and data on unintentional injuries among informal carers and their patients obtained from the population surveys and registers of the Finnish Institute for Health and Welfare (THL) will be utilised while looking into the suitability of other materials (e.g. Helsinki Health Study) as well as materials of the Finnish Institute of Occupational Health.  Research needs:  • a. Development of an impact indicator for training events and counselling;  • b. Monitoring of qualitative indicators;  • c. Injury statistics for informal care patients.	Occupational accidents and injuries are common for people working in longterm care.  Intense work pressures, dissatisfaction and psychological strain are prevalent among healthcare staff and should be prevented (Ruotsalainen et al. 2015).  The reform of home care for older people and informal care for all age groups 2016—2018 (Noro & Karppanen 2019) included experimental projects that harmonised informal care operating models, processes and services, improving informal carers' perceived ability to cope. The projects also strengthened informal carers' involvement and partnership.  The projects used tools such as an informal carer card, allowing emergency room and other such staff to identify patients responsible for informal care patients, whose safety should also be ensured. The projects also gauged informal carers' awareness of how to act and prevent sudden changes in informal care (contingency plans).	THL, FIOH Rehabilitation Foundation Higher education institutions
	The experimental projects produced good material for wide distribution.  While no data is available on injuries among informal carers in Finland, it is fair to assume that working without appropriate training and assistive devices may lead to a heightened risk of injury.  The THL FinSote Survey is a samplebased, regularly conducted population survey. Its data collection includes questions about both contractual and non-contractual informal care.	

## Monitoring and indicators for 2021–2030

• I Injuries sustained by informal carers from 2020 and earlier FinSote data collection projects reported by 2030.

Target 4. Health and social services professionals will possess sufficient safety promotion knowledge and skills to be able to also
guide family members and friends.

Measures	Rationale	Responsible parties
Measure 83.  A stronger emphasis will be placed on the promotion of the safety of informal carers and their patients (incl. identification of informal carers) at different levels of training provided for health and social services professionals.	The strain and risks of informal care situations and their effective prevention require specialised multidisciplinary competence.	Finnish National Agency for Education Higher education institutions and vocational training: e.g. practical nurses, registered nurses, public health nurses, physiotherapists Social welfare workers — multidisciplinary education, continuing professional training Occupational health services: Health centre staff
Measure 84.  A study will be conducted to explore the conditions and opportunities for increasing the visibility of information relating to informal care in client and patient record systems.  Systematic recording of informal and family care situations in client and patient record systems will be developed, making use of the entries for assessing risks of unintentional injury(strain), etc.	Expert assessments suggest that entries about the role of informal carers (incl. data on conclusion of informal care situations) in client and patient record systems would make it possible to:  - assess strain and need of support for coping, as well as provide safety promotion functions in health and social services;  - ensure support and safety particularly in acute situations (e.g. an informal care patient's safety is seriously jeopardised as a result of the informal carer's own attack of illness or injury).	Ministry of Social Affairs and Health, THL NGOs

## Monitoring and indicators for Measures 83–84 for 2021–2030

• A report on the definitions of entries in patient record systems for recording guidance and their utilisation in safety promotion carried out by 2030.

# Table 17. OLDER PEOPLE (aged 65 and over). Targets and measures for older people's families and friends for 2021–2030.

General objective: It will be safe to live and work at home.

**Target 1.** Family members with informal care contracts, family carers of older people and other older people regularly assisting their loved ones, as well as volunteers and the older patients themselves will possess sufficient knowledge and skills to promote safety.

Measures	Rationale	Responsible parties
Measure 85.  Safety promotion will be included as part of coaching, counselling, and training for informal and family carers provided by local authorities, and NGOs.  Additional material suitable for informal care will be developed about fall prevention, correct nutrition, addressing substance use, correct medication administration, assistive devices, use of technologies, etc.  Materials will be accessible, available through multiple channels, in easy-to-understand language and in different languages.  Special efforts will be made to ensure the safety of independent living for individuals with memory disorders living at home as well as the safety of informal carers (incl. burnout and resulting dangerous situations).	Legal obligations:  Act on Supporting the Functional Capacity of the Older Population and on Social and Health Services for Older Persons 980/2012; Act on Support for Informal Care 937/2005; Family Care Act 263/2015. In addition, a provision (section 3a) has been added to the Informal Care Act on coaching, training and health and wellbeing checks for informal carers, which local authorities must provide as required (Noro 2019). The public sector identifies and enables voluntary activities in a way that benefits society and volunteers. Participation in assisting loved ones and voluntary work has increased older people's inclusion and opportunities for influence. (Ministry of Social Affairs and Health 2020d.) Tools are available	Ministry of Social Affairs and Health, THL Local authorities, joint municipal authorities, regions NGOs

- · Additional material suitable for informal care developed during the programme period;
- Material on safety promotion for informal carers added to the contents of the Health Village portal by 2030;
- Annual numbers of coaching and training courses organised by different parties and course participants:
  - Municipal coaching courses for working-age people (OMPE survey: municipal coaching courses),
  - · Carers Finland's OVET coaching courses,
  - Finnish Red Cross care training courses,
  - The Accident Prevention Network's Safety Coach training courses,
  - MuistiOVET coaching for informal carers of patients with memory disorders,
  - Finnish Red Cross training courses;
- · Annual number of calls to the peer support line of the Alzheimer Society of Finland concerning informal care;
- Annual downloads of materials offered by different parties, e.g. mental wellbeing materials produced by the Age Institute's Strength in Old Age Programme and Age School;
- Annual number of visitors to the Alzheimer Society of Finland website pages concerning informal care.

Target 2. Informal care will be safe for in	formal carers themselves.	
Measures	Rationale	Responsible parties
Measure 86. Injuries among informal carers will be reported from the THL FinSote Survey.	No prior reported data is available on informal carers' injuries. Such data is available from the FinSote Survey.	THL Rehabilitation Foundation
Monitoring and indicators for 2  FinSote Survey results on unintentional		

Target 3. Professionals will possess sufficient safety promotion knowledge and skills to be able to also provide guidance for family members and friends.

Measures	Rationale	Responsible parties
Measure 87.  Healthcare and social welfare professionals will receive training that provides sufficient knowledge and skills in promoting older people's safety. Elderly care professionals and students supplementing their studies, in particular, will also be guided to obtain training on safety contents.	Legal obligations:  Act on Supporting the Functional Capacity of the Older Population and on Social and Health Services for Older Persons 980/2012.  Turvallisuutta kaikkialla — paikallisen ja alueellisen turvallisuussuunnittelun kansalliset linjaukset [Security everywhere — National guidelines for local and regional security planning] (Ministry of the Interior 2019).  Tools are available.	THL, Ministry of the Interior Higher education institutions: universities, universities of applied sciences Local authorities, joint municipal authorities Private service providers NGOs

Target 4. Safety issues will be addressed as part of informal carers' health and wellbeing checks.			
Measures	Rationale	Responsible parties	
Measure 88.  Injury prevention issues will be considered as part of informal carers' health and wellbeing checks when assessing the situation and offering help and support.	THL OMPE questionnaire survey on informal and family care, incl. support services for informal care:  - Conditions in home and other living environments, home alteration needs, as well as needs for assistive devices and related user instruction.	Ministry of Social Affairs and Health, THL Local authorities, joint municipal authorities, regions	

### Monitoring and indicators for 2021-2030

• Expert evaluation of the training contents for health and social services professionals.

• Number and contents of health and wellbeing checks organised by local authorities; results from the OMPE questionnaire survey on informal and family care.

Target 5. Family and friends will promote safety in old-age services.				
Measures	Rationale	Responsible parties		
Measure 89.  By 2030, units providing old-age services will have in place a hazardous incident reporting procedure that is known to patients and their loved ones and an annual self-supervision evaluation and reporting procedure that also involves family members.	Legal obligations: Social Welfare Act (1301/2014). National Supervisory Authority for Welfare and Health (Valvira): Template for self-supervision in social services Patient and Client Safety Strategy 2017—2021: Implementation plan (Ministry of Social Affairs and Health 2020a).	Ministry of Social Affairs and Health, local authorities, joint municipal authorities, regions		

• Expert evaluation of the involvement of patients and their families and friends in developing self-supervision and reporting on hazardous incidents during the programme period.

#### SOURCES

- Act amending the Act on Supporting the Functional Capacity of the Older Population and on Social and Health Services for Older Persons 565/2020. Available in Finnish at: https://www.finlex.fi/fi/laki/alkup/2020/20200565
- Act amending the Driving Licence Act 938/2018. Available in Finnish at: https://www.finlex.fi/fi/laki/alkup/2018/20180938
- Act amending the Road Traffic Act 260/2020. Available in Finnish at: https://www.finlex.fi/fi/laki/alkup/2020/20200360
- Act on Early Childhood Education and Care 540/2018. Available in English at: https://finlex.fi/en/laki/kaannokset/2018/en20180540
- Act on Support for Informal Care 937/2005. Available in English at: https://finlex.fi/en/laki/kaannokset/2005/20050937
- Act on Supporting the Functional Capacity of the Older Population and on Social and Health Services for Older Persons 980/2012. Available in English at: https://finlex.fi/en/laki/kaannokset/2012/20120980
- Arponen A. & Gissler M. 2020. Rekisteritiedot kertovat huonosti raskaudenaikaisesta päihteiden käytöstä [Register data reveals little about substance use during pregnancy]. Finnish Institute for Health and Welfare Blog post of 23 January 2020. Available in Finnish at: https://blogi.thl.fi/rekisteritiedot-kertovat-huonosti-raskaudenaikaisesta-paihteiden-kaytosta/
- Arponen A. 2019. Päihteitä käyttävien raskaana olevien naisten ja vauvaperheiden palvelut vuonna 2018: Nykytila ja kehittämisehdotukset [Services for substance abusing pregnant women and families with infants in 2018: Current situation and development proposals]. Finnish Institute for Health and Welfare Discussion Papers 31/2019. Available in Finnish (English abstract) at: http://urn.fi/URN:ISBN:978-952-343-411-0
- Basic Education Act 628/1998. Available in English at: https://www.finlex.fi/en/laki/kaannokset/1998/19980628
- Bennet H, Hakkarainen P, Tourunen J. 2016. Työelämä ja alkoholin haitat Kyselytutkimus Päihdehaitat hallintaan -suositusten toteutumisesta työpaikoilla [Working life and alcohol-related harms Questionnaire survey on the implementation of the recommendations for taking control of substance-related harms in workplaces]. A-Clinic Foundation Report Series 64. Available in Finnish at: https://a-klinikkasaatio.fi/ammattilaiselle/materiaalit-ja-julkaisut
- Björkgren M, Borg F, Kokki E, Mäkinen L, Männikkö S, Oksanen T, Suoja J. 2017. PaloRAI ja EVAC-mittari [PaloRAI project and EVAC measuring tool]. Publications of the Emergency Services College, B Series. Research Report 3/2017. Available in Finnish at: http://info.smedu.fi/kirjasto/Sarja\_B/B3\_2017.pdf
- Centre for Occupational Safety (TTK) and Finnish Road Safety Council. 2014. Turvallisesti työliikenteessä Toimintamalleja ja vinkkejä työyhteisöille [Safe commuting Operating models and tips for working communities]. Available in Finnish at: https://www.liikenneturva.fi/fi/eri-ikaisena/tyoliikenne-0#086bec35
- Confederation of Finnish Industries (EK). 2020. Tuotanto ja investoinnit [Production and investment]. Available in Finnish at: https://ek.fi/mita-teemme/talous/perustietoja-suomen-taloudesta/3998-2/
- Confederation of Unions for Professional and Managerial Staff in Finland (Akava), Confederation of Finnish Industries (EK), Commission for Church Employers (KiT), KT Local Government Employers, Central Organisation of Finnish Trade Unions (SAK), Finnish Confederation of Professionals (STTK), Office for the Government as Employer (VTML). 2015. Päihdehaitat hallintaan [Take control of substance-related harms]! Suositus päihdeongelmien ennaltaehkäisystä, päihdeasioiden käsittelystä ja hoitoonohjauksesta työpaikoilla [Recommendation for preventing substance abuse problems, addressing substance-related issues and referral for treatment at the workplace]. Centre for Occupational Safety and Working Group of Working Life Experts on Substance Abuse. Available in Finnish at: https://ttk.fi/oppaat\_ja\_ohjeet/ladattavat\_julkaisut/paihdehaitat\_hallintaan%21
- Consumer Protection Act 920/2011. Available in Finnish at: https://www.finlex.fi/fi/laki/ajantasa/2011/20110920
- Driving Licence Act 386/2011. Available in Finnish at: https://www.finlex.fi/fi/laki/ajantasa/2011/20110386. European Child Safety Alliance (ECSA). 2014. TACTICS. Children's Right to Safety: inequity in child injury in Europe. Available at: http://www.childsafetyeurope.org/tactics/deliverables.html
- European Commission. 2020. Road safety: European Commission sets out next steps towards "Vision Zero" including key performance indicators. Available in English at: https://ec.europa.eu/transport/themes/strategies/news/2019-06-19-vision-zero\_en
- Family Care Act 263/2015. Available in Finnish at: https://www.finlex.fi/fi/laki/alkup/2015/20150263

- Finnish Crash Data Institute (OTI). 2016. OTI's accident reports. Theme reports. Ajoterveysraportti 2016 [Driving health report 2016]. Available in Finnish at: https://www.lvk.fi/tilastot-ja-raportit/otin-onnettomuusraportit/teemaraportit/
- Finnish Crash Data Institute (OTI). 2018. Liikenneonnettomuuksien tutkijalautakuntien tutkimat kuolemaan johtaneet tieliikenneonnettomuudet [Fatal road accidents investigated by road accident investigation teams]. OTI-Vuosiraportti [OTI's Annual Report]. Available in Finnish (English preface) at: https://www.lvk.fi/en/statistics/otis-accident-reports/annual-reports/
- Finnish Government. 2016. Data-driven Road Safety: Government Resolution on Improving Road Safety. Available in English at: https://julkaisut.valtioneuvosto.fi/handle/10024/79192
- Finnish Government. 2017. Kaikkiin maakuntiin tarvitaan selviämisasemia päihtyneille [Detoxification centres for intoxicated people are needed in all regions]. Press Release 240/2017. Available in Finnish at: https://vnk.fi/-/kaikkiin-maakuntiin-tarvitaan-selviamisasemia-paihtyneille
- Finnish Government. 2018. Valtioneuvoston periaatepäätös [Government Resolution] LVM/2018/18. Valtioneuvoston periaatepäätös kävelyn ja pyöräilyn edistämisestä [Government Resolution to promote walking and cycling]. Available in Finnish at: https://valtioneuvosto.fi/paatokset/paatos?derisionId=0900908f8059d525
- Finnish Government. 2019. Liikenneturvallisuusstrategia [Transport safety strategy]. LVM054:00/2019. Available in Finnish at: https://valtioneuvosto.fi/hanke?tunnus=LVM054:00/2019
- Finnish Government. 2020. Lasten ja nuorten hyvinvointi koronakriisin jälkihoidossa [Wellbeing of children and young people in post-crisis measures related to COVID-19]. Lapsistrategian koronatyöryhmän raportti lapsen oikeuksien toteutumisesta [Report on the realisation of the rights of the child, coronavirus working group linked to the National Child Strategy]. Finnish Government publication series 2020:21. Available in Finnish (English abstract) at: http://urn.fi/URN:ISBN:978-952-287-883-0
- Finnish Government. 2021. Kansallinen lapsistrategia: Komiteamietintö [National Child Strategy Committee report]. Publications of the Finnish Government 2021:8, in Finnish (English abstract). http://urn.fi/URN:ISBN:978-952-383-777-5
- Finnish Institute for Health and Welfare (THL). 2016. STEP-hanke [The STEP project]. STEP training material. Available in Finnish at: <a href="https://www.thl.fi/step">www.thl.fi/step</a>
- Finnish Institute for Health and Welfare (THL). 2019. Pakka-toimintamalli ehkäisevään päihdetyöhön [PAKKA operating model for preventive substance abuse work]. Available in Finnish at: https://thl.fi/fi/web/alkoholi-tupakka-ja-riippuvuudet/ehkaiseva-paihdetyo/ehkaisevan-paihdetyon-menetelmat/verkko-pakka-ehkaisevan-paihdetyohon.
- Finnish Institute for Health and Welfare (THL). 2020a. Previous follow-up surveys. Research data of the Status of Older People Services Follow-Up Survey 2018. Available in Finnish at: https://thl.fi/fi/tutkimus-ja-kehittaminen/tutkimukset-ja-hankkeet/vanhuspalvelujen-tila-vanpal-/aiemmat-seurantatutkimukset
- Finnish Institute for Health and Welfare (THL). 2020b. School Health Promotion Study.
- Available in English at: https://thl.fi/en/web/thlfi-en/research-and-expertwork/population-studies/school-health-promotion-study
- Finnish Institute for Health and Welfare (THL). 2020c. Lastenneuvolakäsikirja. [Handbook for child welfare clinics]. Available in Finnish at: https://thl.fi/fi/web/lastenneuvolakasikirja
- Finnish National Agency for Education. 2014a. Perusopetuksen opetussuunnitelman perusteet [National Core Curriculum for Basic Education 2014]. Available in Finnish at: https://www.oph.fi/fi/koulutus-ja-tutkinnot/perusopetuksen-opetussuunnitelman-perusteet
- Finnish National Agency for Education. 2014b. Esiopetuksen opetussuunnitelmien perusteet. [National Core Curriculum for Pre-primary Education]. Available in Finnish at: https://www.oph.fi/fi/koulutus-ja-tutkinnot/esiopetuksen-opetussuunnitelmien-perusteet
- Finnish National Agency for Education. 2018. National core curriculum for early childhood education and care 2018. Regulations and guidelines 2018:3a. Available in English at: https://www.oph.fi/en/statistics-and-publications/publications/national-core-curriculum-early-childhood-education-and
- Finnish National Agency for Education. 2019. Lukion opetussuunnitelmien perusteet [National Core Curriculum for General Upper Secondary Education 2019]. Available in Finnish at: https://www.oph.fi/fi/koulutus-ja-tutkinnot/lukion-opetussuunnitelmien-perusteet
- Finnish National Agency for Education. 2020a. Requirements for vocational qualifications. Available in English at: https://eperusteet.opintopolku.fi/#/en/selaus/kooste/ammatillinenkoulutus?hakutyyppi=perusteet
- Finnish Road Safety Council website (liikenneturva.fi). Särmänä liikenteessä Osana varusmieskoulutusta [Stay Sharp in Traffic As part of conscript training]. Available in Finnish at: https://www.liikenneturva.fi/fi/eri-ikaisena/sarmana-liikenteessa-osana-varusmieskoulutusta
- Finnish Road Safety Council. 2020a. Punainen Liitu [Red Chalk]. Available in Finnish at: https://www.liikenneturva.fi/fi/eri-ikaisena/punainen-liitu#2068b610
- Finnish Road Safety Council. 2020b. Moottoripyöräilijöiden henkilövahingot tieliikenteessä [Personal injuries among motorcycle drivers in road traffic]. Available in Finnish at: https://www.liikenneturva.fi/fi/tutkittua/ajankohtaiset-tilastot#086bec35

- Finnish Safety and Chemicals Agency (Tukes). 2020. Playgrounds. Available in English at: https://tukes.fi/en/products-and-services/services-for-consumers/play-parks-and-amusement-parks/playgrounds
- Finnish Swimming Teaching and Lifesaving Federation (FSL) & LocalTapiola. Lapsesta veden ystävä [Teaching a child to love water]. Available in Finnish at: http://www.suh.fi/lapsesta\_veden\_ystava
- Finnish Swimming Teaching and Lifesaving Federation (FSL). Everyone should know how to swim. Available in English and several other languages at: https://www.suh.fi/toiminta/uimataito\_kuuluu\_kaikille\_-hanke/uimataito\_kuuluu\_kaikille\_-esite
- Finnish Swimming Teaching and Lifesaving Federation (FSL). Welcome to the swimming hall! A guide for visitors to swimming halls. Available in English and several other languages at: <a href="http://www.suh.fi/oppaat\_ja\_vinkit/tule\_uimahalliin\_-opas">http://www.suh.fi/oppaat\_ja\_vinkit/tule\_uimahalliin\_-opas</a>
- Fors R, Heimala H, Holmila M, Ilvonen S, Kesänen M, Markkula J, Saunio A, Strand T, Tamminen I, Tenkanen T, Warpenius K. 2013. Paikallinen alkoholi-, tupakka- ja rahapelihaittojen ehkäisy Käsikirja yhdessä toteutettavaan Pakka-toimintamalliin [Local prevention of alcohol, tobacco and gambling harms A guide to joint implementation of the Pakka operating model]. Finnish Institute for Health and Welfare Kide Series 23/2013. Available in Finnish at: http://urn.fi/URN:ISBN:978-952-302-044-3
- Government Decree on maternity and child health clinic services, school and student health services and preventive oral health services for children and youth 338/2011. Available in English at: https://www.finlex.fi/en/laki/kaannokset/2011/20110338
- Government Proposal No. 4/2020. Hallituksen esitys eduskunnalle laiksi ikääntyneen väestön toimintakyvyn tukemisesta sekä iäkkäiden sosiaali- ja terveyspalveluista annetun lain muuttamisesta [Government Proposal to Parliament for an Act amending the Act on Supporting the Functional Capacity of the Older Population and on Social and Health]. Available in Finnish at: https://finlex.fi/fi/esitykset/he/2020/20200004
- Gromada A, Richardson D, Rees G. 2020. Childcare in a Global Crisis: The Impact of COVID-19 on work and family life. Innocenti Research Briefs no. 2020-18, UNICEF Office of Research Innocenti, Florence. Available in English at: https://www.unicef-irc.org/publications/1109-childcare-in-a-global-crisis-the-impact-of-covid-19-on-work-and-family-life.html
- Haikonen K. & Kokki E. 2020. Liekkivammojen ja palokuolemien epidemiologia Suomessa [Epidemiology of flame injuries and fire-related deaths in Finland]. In: Puustinen A (ed.). Pelastus- ja turvallisuustutkimuksen vuosikirja 2020 [Annual Publication of Emergency Services, Safety and Security Studies 2020]. Publications of the Emergency Services Academy Finland, D Series. Other 2/2020, 8–21. Available in Finnish at: https://www.pelastusopisto.fi/wp-content/uploads/Pelastus-ja-turvallisuustutkimuksen-vuosikirja-2020 final.pdf
- Hakulinen T, Pelkonen M, Salo J, Kuronen M (eds.). 2020. We're having a baby: A guidebook for expecting and looking after a baby. Available in English at: http://urn.fi/URN:ISBN:978-952-343-575-9
- Hakulinen-Viitanen T, Hietanen-Peltola M, Hastrup A, Wallin M, Pelkonen M. 2012. Laaja terveystarkastus Ohjeistus äitiys- ja lastenneuvolatoimintaan sekä kouluterveydenhuoltoon [Extensive health check Guidelines for maternity and child health clinics and school healthcare]. Finnish Institute for Health and Welfare Handbooks 22/2012. Available in Finnish at: http://urn.fi/URN:ISBN:978-952-245-708-0
- Harinen A. (ed.) 2020. Käyttäjien näköistä, toiminnallista ja pelillistä turvallisuuskasvatusta alakoululaisille [User-centred, functional and gamified safety education for primary school pupils]. Kohti tuloksellisempaa turvallisuusviestintää -hankkeen yhteenvetoraportti [Final report of the Towards more successful safety communication project]. Publications of the Emergency Services Academy Finland, B Series. Research Report 3/2020. Available in Finnish (English abstract) at: http://info.smedu.fi/kirjasto/Sarja\_B/B3\_2020.pdf Health Care Act 1326/2010. Available in English at: https://www.finlex.fi/en/laki/kaannokset/2010/20101326
- Heltimo J. & Korhonen A. 2016. Käsikirja kunnan liikenneturvallisuustyöhön [Guide to municipal traffic safety work]. Online publication of the Association of Finnish Local and Regional Authorities. Available in Finnish at: https://www.kuntaliitto.fi/julkaisut/2016/1750-kasikirja-kunnan-liikenneturvallisuustyohon

Health Village -webpage (Terveyskylä). Welcome to Health Village. https://www.terveyskyla.fi/en

- Hietanen-Peltola M, Vaara S, Hakulinen T, Hastrup A. 2020. Lasten, nuorten ja perheiden peruspalvelut koronakeväänä 2020: Tuloksia kouluterveydenhuollon verkoston ja perhekeskusverkoston tiedonkeruista [Basic services for children, young people and families during the coronavirus pandemic in the spring of 2020: Results from data collections by the school health services network and the network of family centres]. Finnish Institute for Health and Welfare Discussion Papers 26/2020. Available in Finnish at:
- Huhta J. & Karppanen S. 2020. Kohti ikäystävällistä yhteiskuntaa [Towards Age-Friendly Society]. läkkäiden henkilöiden palvelujen uudistamistyöryhmän raportti [Working group report on reforming the services for older people]. Reports and Memorandums of the Ministry of Social Affairs and Health 2020:16. Available in Finnish (English abstract) at: http://urn.fi/URN:ISBN:978-952-00-9997-8
- Hospital District of Helsinki and Uusimaa HUS. HUS as a promoter of wellbeing. Good Spiral Project. https://www.hus.fi/en/about-us/development/hus-promoter-health-and-wellbeing
- Huumeongelmaisen hoito [Treatment of drug abuse]. Käypä hoito -suositus [Current Care Guideline]. Working group appointed by the Finnish Medical Society Duodecim and the Finnish Society of Addiction Medicine. Helsinki: Finnish Medical Society Duodecim, 2018. Available in Finnish (English abstract) at: <a href="https://www.kaypahoito.fi/hoi50041">https://www.kaypahoito.fi/hoi50041</a>; <a href="https://www.kaypahoito.fi/hoi50041">www.kaypahoito.fi/hoi50041</a>; <a href="https://www.kaypahoito.fi/hoi50041">www.kaypahoito.fi/hoi50041</a>; <a href="https://www.kaypahoito.fi/hoi50041">www.kaypahoito.fi/hoi50041</a>; <a href="https://www.kaypahoito.fi/hoi50041">www.kaypahoito.fi/hoi50041</a>; <a href="https://www.kaypahoito.fi/hoi50041">https://www.kaypahoito.fi/hoi50041</a>; <a href="https://www.kaypahoito.fi/hoi50041">www.kaypahoito.fi/hoi50041</a>; <a href="https://www.kaypahoito.fi/hoi50041">https://www.kaypahoito.fi/hoi50041</a>; <a href="https://www.kaypahoito.fi/hoi50041">https://www.kaypahoito.fi/hoi50041</a>; <a href="https://

- Huuskonen H, Immonen M, Koivuniemi J, Kapulainen K, Kanerva J, Kokki E. 2020. Kotona asumisen turvallisuuteen liittyvän ennakoivan analytiikan kehittäminen KAT3-hankkeessa [The development of preventive analysis in the Safety at Home 3-project]. Publications of the Emergency Services Academy Finland, B Series. Research Report 2/2020. Available in Finnish (English abstract) at: http://info.smedu.fi/kirjasto/Sarja\_B/B2\_2020.pdf
- livonen E. & Pollari K. 2020. Kansallisen lapsistrategian oikeudellinen perusta [Legal basis of the National Child Strategy]. Reports and Memorandums of the Ministry of Social Affairs and Health 2020:20. Available in Finnish (English abstract) at: http://urn.fi/URN:ISBN:978-952-00-5417-5
- Jääskeläinen S (ed.). 2018. Kävelyn ja pyöräilyn edistämisohjelma [Programme for the promotion of walking and cycling]. Publications of the Ministry of the Transport and Communications 5/2018. Available in Finnish (English abstract) at: http://urn.fi/URN:ISBN:978-952-243-549-1
- Juhola S, Lanki T, Meriläinen P, Kollanus V, Groundstroem F, Käyhkö J & Järvelä M. 2020. Sopeutumisen suuntaviivat ilmastopolitiikassa [Guidelines for adaptation in climate policy]. Finnish Climate Change Panel Report 2/2020. Available in Finnish at: https://www.ilmastopaneeli.si/wp-content/uploads/2020/08/llmastopaneeli.sopeutumismuistio.pdf
- Kaatumisten ja kaatumisvammojen ehkäisyn fysioterapiasuositus [Recommendation for physiotherapy to prevent falls and fall injuries]. 2017. Hyvä fysioterapiakäytäntö [Good physiotherapy practice]. Working group appointed by the Finnish Association of Physiotherapists. Available in Finnish at: https://www.terveysportti.fi/dtk/sfs/avaa?p\_artikkeli=sfs00003
- Kauppinen K. & Silfver-Kuhalampi M (ed.). 2015. Työssäkäynti ja läheis- ja omaishoiva: Työssä jaksamisen ja jatkamisen tukeminen [Paid employment and contractual and non-contractual informal care: Support for coping and continuing at work]. Publications of the Department of Social Sciences 2015:12. Available in Finnish at: http://hdl.handle.net/10138/158347
- Kekki K. 2018. Liikunnan yhteys palautumisen tarpeeseen työkuormituksesta [Associations between physical activity and need for recovery from work]. Master's thesis. University of Jyväskylä. Available in Finnish (English abstract) at: https://jyx.jyu.fi/handle/123456789/58769
- Klemetti R. & Hakulinen-Viitanen T. (eds.). 2013. Äitiysneuvolaopas Suosituksia äitiysneuvolatoimintaan [Maternity clinic manual Recommendations for maternity clinic services]. Available in Finnish at: http://urn.fi/URN:ISBN:978-952-245-972-5
- Koivula R, Vilkko A, Tigerstedt C, Kuussaari K, Pajala S. 2015. Miten ikääntyneiden alkoholiongelmat näkyvät kotihoidon työntekijöiden työssä [How are older people's alcohol problems reflected in home care work]? Yhteiskuntapolitiikka [Journal of Social and Public Policies] 80(5): 482–489. Available in Finnish at: http://urn.fi/URN:NBN:fi-fe2015102215028
- Kokki E. 2011. Palokuolemat ja ihmisen pelastamiset tulipaloissa 2007–2010 [Fire deaths and rescuing of people in fires in 2007–2010]. Research publications. Emergency Services College. Available in Finnish (English abstract) at: http://info.smedu.fi/kirjasto/Sarja\_B/B3\_2011.pdf
- Kokki E. 2014. Palokuolemat vähentyneet [Fire fatalities decreased]. Suomen palokuolematilasto 2007–2013 [Fire fatalities in 2007–2013 in Finland]. Publications of the Emergency Services College, B Series. Research Report 2/2014. Available in Finnish (English abstract) at: https://www.pelastusopisto.fi/wp-content/uploads/2016/12/52749\_B2\_2014.pdf
- Korpilahti U, Kettunen H, Nuotio E, Jokela S, Nummi VM. & Lillsunde P. 2020. Non-Violent Childhoods Action Plan for the Prevention of Violence against Children 2020–2025. Publications of the Ministry of Social Affairs and Health 2020:34. Available in English at: http://urn.fi/URN:ISBN:978-952-00-8351-9
- Korpilahti U. (ed.). 2018. Kansallisen lasten ja nuorten turvallisuuden edistämisen ohjelman tavoiteja toimenpidesuunnitelma vuosille 2018–2025: Osa I [National Action Plan for Safety Promotion among Children and Youth – Target and Action Plan 2018–2025: Part I]. Finnish Institute for Health and Welfare Discussion Papers 11/2018. Available in Finnish (English summary) at: http://urn.fi/ URN:ISBN:978-952-343-082-2
- Kotitapaturma.fi -webpage. 2019a. Safety checklist for children under 1 year. Available in English at: https://frantic.s3.eu-west-1.amazonaws.com/kotitapaturma/2019/09/20125200/Alle-1v\_tarkistuslista-2019\_UUSI-eng-GB.pdf
- Kotitapaturma.fi -webpage. 2019b. Safety checklist for children 1–3 years. Available in English at: https://frantic.s3.eu-west-1.amazonaws.com/kotitapaturma/2019/09/20124919/1-3v\_tarkistuslista-2019\_UUSI-eng-GB.pdf
- Kotitapaturma.fi -webpage. 2019c. Safety checklist for children 4–6 years. Available in English at: https://frantic.s3.eu-west-1.amazonaws.com/kotitapaturma/2019/09/20124248/4-6v\_tarkistuslista-2019\_UUSI-eng-GB.pdf
- Kuha M. & Malm S. 2019. Huumeita käyttävien henkilöiden kokemat esteet avun hälyttämiseen yliannostustilanteessa [Obstacles experienced by drug users in seeking help in the event of an overdose]. Bachelor's thesis. Diaconia University of Applied Sciences. Available in Finnish (English abstract) at: http://urn.fi/URN:NBN:fi:amk-2019112522203

- Kweon Y-J. 2011. Crash Data Sets and Analysis. In: Porter BE (ed.). Handbook of Traffic Psychology, 97-105. Available at: https://doi.org/10.1016/B978-0-12-381984-0.10008-6
- Lehtonen, H. 2020. Tieliikenneonnettomuustilastointi Suomessa [Statistics on road traffic accidents in Finland]. Traficom Research Reports 2/2020. Available in Finnish (English abstract) at: https://cris.vtt.fi/en/publications/statistics-on-road-traffic-accidents-in-finland
- Lepistö J. & Heliskoski J. 2019. Safe and incident-free daily life 2025: Action plan for incident prevention for the rescue services. Publications of the Ministry of the Interior 2019:36. Available in English at: http://urn.fi/URN:ISBN:978-952-324-308-8
- Liikkuva aikuinen -ohjelma [Adults on the Move programme] (LAO). 2020. Työikäisten liikuntaneuvonnan tila 2019 [Status of working-age people's physical activity counselling]. Available in Finnish at: https://liikkuvaaikuinen.fi/wp-content/uploads/2020/11/Tyoikaisten-liikuntaneuvonnan-tila-2019-selvitys.pdf
- LIKES Research Centre for Physical Activity and Health, Finnish Swimming Teaching and Lifesaving Federation (FSL), Finnish National Agency for Education. 2017. Kuudesluokkalaisten uimataito Suomessa [Swimming skills among sixth-graders in Finland]. Liikunnan ja kansanterveyden julkaisuja [Publications on Physical Activity and Public Health] 323. Available in Finnish at: https://www.likes.fi/wp-content/uploads/2020/03/2575-likes\_uimataitoesite\_210x210\_web\_01.pdf
- Lindfors E, Somerkoski B, Waitinen M, Jyrhämä R, Sormunen K, Seppälä T. 2020. Opettajankoulutuksen omatoimisen varautumisen tilannekuva ja kehittämissuuntia [Current status and development trends of self-motivated preparedness in teacher education]. In: Puustinen A (ed.). Pelastus- ja turvallisuustutkimuksen vuosikirja 2020 [Annual Publication of Emergency Services, Safety and Security Studies], 55–82. Available in Finnish at: https://www.pelastusopisto.fi/wp-content/uploads/Pelastus-jaturvallisuustutkimuksen-vuosikirja-2020\_final.pdf
- Local Government Act 410/2015. Available in English at: https://finlex.fi/en/laki/kaannokset/2015/20150410 Malin F. & Luoma J. 2020. Nopeusrajoituksen 30km/h turvallisuusvaikutukset ja kaupunkien kokemukset rajoitusten käytöstä [Effects of 30 km/h speed limits on traffic safety and cities' experiences of the limits]. Association of Finnish Local and Regional Authorities and Central Union for Child Welfare. Available in Finnish (English summary) at: http://shop.kuntaliitto.fi/product\_details.php?p=3634
- McAvoy C, MacDermid K, Avril M, Barclay G, Lumdsen E. 2018. Scotland's Drowning Prevention Strategy. Water safety Scotland. Available at: https://www.watersafetyscotland.org.uk/media/1213/scotlands-drowning-prevention-strategy.pdf
- Merikoski M, Jyrkkä J, Auvinen K, Enlund H, Kumpusalo-Vauhkonen A, Liukkonen T, Lämsä E, Lönnroos E, Mäntylä A, Räisänen J, Mäntyselkä P. 2017. läkkäiden Lääkehoidon Moniammatillinen Arviointi (ILMA) [The Finnish Interprofessional Medication Assessment (FIMA) for Older People]. Vaikutukset kotihoidon asiakkaiden lääkitykseen, toimintakykyyn ja elämänlaatuun sekä terveys- ja hoivapalveluiden käyttöön. [Effects on medication, functional capacity, quality of life and use of health and home care services in home care patients]. Reports and Memorandums of the Ministry of Social Affairs and Health 34/2017. Available in Finnish (English summary) at: http://urn.fi/URN:ISBN:978-952-00-3884-7
- Ministry of Social Affairs and Health. 2013a. Target Programme for the Prevention of Home and Leisure Accident Injuries 2014–2020. Publications of the Ministry of Social Affairs and Health 2013:16. Available in English at: http://urn.fi/URN:ISBN:978-952-00-3473-3
- Ministry of Social Affairs and Health. 2013b. On the move National strategy for physical activity promoting health and wellbeing 2020. Publications of the Ministry of Social Affairs and Health 2013:10. Available in English at: http://urn.fi/URN:ISBN:978-952-00-3417-7
- Ministry of Social Affairs and Health. 2015. Ehkäisevän päihdetyön toimintaohjelma Alkoholi-, huumeja rahapelihaittojen sekä tupakoinnin vähentäminen [The Action Plan on Alcohol, Tobacco, Drugs and Gambling]. Publications of the Ministry of Social Affairs and Health 2015:19. Available in Finnish (English summary) at: http://urn.fi/URN:ISBN:978-952-00-3746-8
- Ministry of Social Affairs and Health. 2020a. Potilas- ja asiakasturvallisuusstrategia 2017–2021: Toimeenpanosuunnitelma [Patient and Client Safety Strategy 2017–2021: Implementation plan]. Publications of the Ministry of Social Affairs and Health 2020:1. Available in Finnish (English abstract) at: http://urn.fi/URN:ISBN:978-952-00-4133-5
- Ministry of Social Affairs and Health. 2020b. Government: determined action required to guarantee sustainable wellbeing at all stages of life by 2030. Ministry of Social Affairs and Health press release 17.6.2020. Available in English at: https://stm.fi/en/-/hallitus-maaratietoiset-toimet-turvaavat-kestavan-hyvinvoinnin-kaikissa-elamanvaiheissa-vuoteen-2030-mennessa
- Ministry of Social Affairs and Health. 2020c. Quality recommendation to guarantee a good quality of life and improved services for older persons 2020–2023: The Aim is an Age-friendly Finland. Publications of the Ministry of Social Affairs and Health 2020:29. Available in English at: http://urn.fi/URN:ISBN:978-952-00-8427-1

- Ministry of Social Affairs and Health. 2020d. National Programme on Ageing 2030: For an age-competent Finland. Publications of the Ministry of Social Affairs and Health 2020:31. Available in English at: http://urn.fi/URN:ISBN:978-952-00-8431-8
- Ministry of the Environment. 2020. Ikääntyneiden asumisen toimenpideohjelma 2020-2022 [Action plan on housing for older people 2020–2022]. Available in Finnish at: https://ym.fi/ikaantyneiden-asuminen
- Ministry of the Interior. 2019. Turvallisuutta kaikkialla paikallisen ja alueellisen turvallisuussuunnittelun kansalliset linjaukset [Security everywhere National guidelines for local and regional security planning]. Publications of the Ministry of the Interior 2019:2. Available in Finnish at: http://urn.fi/URN:ISBN:978-952-324-241-8.
- Ministry of the Interior. 2020a. TUOVI Sisäisen turvallisuuden portaali [TUOVI Internal security portal]. Available in Finnish (some contents in English) at: https://sisainenturvallisuus.fi/etusivu
- Ministry of Transport and Communications. 2018. Programme and government resolution to promote walking and cycling. Press release 23.03.2018. Available in English at: https://www.lvm.fi/en/-/programme-and-government-resolution-to-promote-walking-and-cycling-970101
- Noro A. & Karppanen S. 2019. Ikäihmisten kotihoidon ja kaikenikäisten omaishoidon uudistus 2016–2018: Tuloksia ja toimintamalleja [Reform of home care for older people and informal care for all age groups 2016–2018: Results and operational frameworks]. Reports and Memorandums of the Ministry of Social Affairs and Health 2019:29. Available in Finnish (English abstract) at: http://urn.fi/URN:ISBN:978-952-00-4060-4
- Nouhätä. 2020. Training materials for teachers and instructors. Available in English at: https://nouhata.fi/en/Nurmi V-P. 2001. Sähköpalojen riskienhallinta [Risk management of electrical fires]. Doctoral dissertation. Safety Technology Authority. Finnish Safety and Chemicals Agency (Tukes). Tukes publications 3/2001. Available in Finnish (English abstract) at: https://docplayer.fi/5780341-Tukes-julkaisu-3-2001-sahkopalojen-riskienhallinta-veli-pekka-nurmi-turvatekniikan-keskus.html
- Ojala T. 2017. läkkäiden ja muistisairaiden arjen turvallisuus [Everyday safety and security for the elderly and for people with memory disorders]. OTE Osallistava Turvallisuus Erityisryhmille [Inclusive Safety and Security for Special Groups (OTE)]. Finnish National Rescue Association (SPEK).
- Pajala S. 2016. läkkäiden kaatumisten ehkäisy (IKINÄ-opas) [Preventing older people's falls (IKINÄ Guide)]. Finnish Institute for Health and Welfare Handbooks 16/2016. 4th edition. Available in Finnish at: http://urn.fi/URN:NBN:fi-fe201205085108
- Paljärvi T. & Mäkelä P. 2019. Työikäisten alkoholin ongelmakäyttöön tulee puuttua terveydenhuollon kaikilla tasoilla [Working-age people's alcohol use should be addressed at all levels of healthcare services]. Finnish Institute for Health and Welfare Research Overviews 7/2019. Available in Finnish at: http://urn.fi/URN:ISBN:978-952-343-294-9
- Partonen T, Eklin A, Grainger M, Kauppila R, Suvisaari J, Virtanen A. 2020. Itsemurhakuolemat Suomessa 2016-2018: Oikeuslääketieteellinen tutkimus [Deaths from suicide in Finland 2016–2018: A forensic medicine study]. Finnish Institute for Health and Welfare Reports 3/2020. Available in Finnish (English summary) at: http://urn.fi/URN:ISBN:978-952-343-446-2
- Pearn JH, Peden AE, Richard C. Franklin RC. 2019. The Influence of Alcohol and Drugs on Drowning among Victims of Senior Years. Safety 5(1): 8. doi: 10.3390/safety5010008.
- Peden AE, Franklin RC, Queiroga, AC. 2017. Epidemiology, risk factors and strategies for the prevention of global unintentional fatal drowning in people aged 50 years and older: a systematic review. Inj Prev. 24(3): 240-247. doi:10.1136/injuryprev-2017-042351.
- Pitkälä K. & Tilvis R. 2012. Geriatrinen asiantuntemus vähentää vanhusten avuntarvetta [Geriatric expertise reduces older people's need for help]. Suom Lääkäril [Finnish Medical Journal] 67 (8), 564.
- Pitkänen T, Kaskela T, Tourunen J. 2017. Päihdehoidon asiakaskunta ja päihdeongelmaan liittyvä ennenaikaisen kuoleman riski: hoito- ja rekisteritietoihin perustuva seurantatutkimus [Substance abuse care clientele and risk of premature death associated with substance abuse problems: monitoring study based on treatment and register data]. A-Clinic Foundation Report Series 66. ISBN 978-952-5587-75-3. Available in Finnish at: https://a-klinikkasaatio.fi/sites/default/files/2019-12/julkaisu\_paihdehoidon\_asiakaskunta\_0.pdf
- Råback M, Korpilahti U, Lillsunde P (eds.). 2017. Koti- ja vapaa-ajan tapaturmien ehkäisyn tavoiteohjelma vuosille 2014–2020: Turvallisuutta kaikille kotona, vapaa-ajalla ja liikunnassa [Progress Report on the Target Programme for the Prevention of Home and Leisure Injuries 2014–2020: Safe home, leisure and physical activity environments for all]. Väliarviointi [Mid-term review] 2017. Reports and Memorandums of the Ministry of Social Affairs and Health 2017:46. Available in Finnish (English summary) at: http://urn.fi/URN:ISBN:978-952-00-3898-4
- Rajaniemi J. & Rappe E. 2020. Ikäystävällisyyden edistäminen asuinalueilla ja taajamissa [Promoting agefriendly residential environments and urban areas]. Publications of the Ministry of the Environment 2020:2. Available in Finnish (English abstract) at: http://urn.fi/URN:ISBN:978-952-361-042-2
- Rescue Act 379/2011. Available in English at: https://finlex.fi/en/laki/kaannokset/2011/20110379

- Ruotsalainen JH, Verbeek JH, Mariné A, Serra C. 2015. Preventing occupational stress in healthcare workers. Cochrane Database Syst Rev. 4: CD002892.
- Safety Investigation Authority (SIA). 1999. Vanhusten palvelutalon palo Maaningalla 4.12.1999 ja 17 muuta paloa vastaavissa taloissa 1.12.1999–29.2.2000 [Fire at senior citizen service house Viljami at Maaninka on 4 December, 1999 and 17 other fires at corresponding homes during December 1999–February 2000]. Investigation report A2/1999Y. Available in Finnish at: https://turvallisuustutkinta.fi/material/attachments/otkes/tutkintaselostukset/fi/muutonnettomuudet/1999/a21999y\_tutkintaselostus/a21999y\_tutkintaselostus.pdf
- Safety Investigation Authority (SIA). 2002a Fire safety of interior decoration materials in housing for the elderly. Safety recommendation A2/1999Y/S09. Available in English at: https://www.turvallisuustutkinta.fi/en/index/turvallisuussuositukset/suositukset/1517506712155.html..
- Safety Investigation Authority (SIA). 2002b. Developing the collaboration between social and health authorities and rescue authorities. Safety recommendation A2/1999Y/S10. Available in English at: https://www.turvallisuustutkinta.fi/en/index/turvallisuussuositukset/suositukset/1517506715366.html
- Safety Investigation Authority (SIA). 2003a. Asumiskäytössä olleen koulurakennuksen palo Jyväskylän maalaiskunnassa ja viisi muuta paloa 20.4.-20.5.2003 [School building in residential use catches fire in Jyväskylä rural municipality; Five Other Fires Over The Period From April 20 To May 20, 2003]. Investigation report D1/2003Y. Available in Finnish (English summary) at: https://turvallisuustutkinta.fi/fi/index/tutkintaselostukset/muutonnettomuudet/tutkintaselostuksetaihealueittain/tulipalotjarajahdykset.html
- Safety Investigation Authority (SIA). 2003b. Campaign on smoking methods that pose a lesser fire hazard. Safety recommendation D1/2003Y/S4. Available in English at: https://turvallisuustutkinta.fi/en/index/turvallisuussuositukset/suositukset/1517506638474.html
- Safety Investigation Authority (SIA). 2009. Instructions on how to act in case of a fire. Safety Investigation Authority recommendation B1/2009Y/S2. Available in English at: https://turvallisuustutkinta.fi/en/index/turvallisuussuositukset/suositukset/1517506743047.html
- Safety Investigation Authority (SIA). 2010. Tulipalo ja asukkaiden evakuointi eläkeläisten asuttamassa kerrostalossa [Fire in a block of flats for retirees]. Investigation report D1/2010Y. Available in Finnish at: https://turvallisuustutkinta.fi/fi/index/tutkintaselostukset/muutonnettomuudet/tutkintaselostuksetvuosittain/muutonnettomuudet2010/d12010ytulipaloelakelaistenasuinkerrosta.html
- Safety Investigation Authority (SIA). 2015. Modernisation of the standards governing the safety requirements of electric stoves. Safety Investigation Authority recommendation 2015-S27. Available in English at: <a href="https://turvallisuustutkinta.fi/en/index/turvallisuussuositukset/suositukset/1517506785757.html">https://turvallisuustutkinta.fi/en/index/turvallisuussuositukset/suositukset/1517506785757.html</a>
- Safety Investigation Authority (SIA). 2016. Työikäisten vakavat tapaturmat [Safety study on serious accidents among working age adults]. Investigation report Y2015-S1. Available in Finnish at: http://www.turvallisuustutkinta.fi/fi/index/tutkintaselostukset/muutonnettomuudet/tutkintaselostuksetvuosittain/2015/y2015-s1tyoikaistenvakavattapaturmat.html
- Safety Investigation Authority (SIA). 2019. Neljän ihmisen kuolemaan johtanut linja-auto-onnettomuus Kuopiossa 24.8.2018 [Bus accident leading to four people losing their lives in Kuopio on 24 August 2018]. Investigation report Y2018-04. Available in Finnish at: https://turvallisuustutkinta.fi/fi/index/tutkintaselostukset/muutonnettomuudet/tutkintaselostuksetvuosittain/2018/y2018-04neljanihmisenkuolemaanjohtanutlinja-auto-onnettomuuskuopiossa 24.8.2018.html
- Sainio T. 2017. Koulujen toimivat saattoliikennejärjestelyt ja aktiivisen liikkumisen lisääminen koulumatkoilla [Well working school run arrangements and increasing active commuting to school]. Master of Science Thesis, Civil Engineering. Tampere University of Technology. Available in Finnish (English abstract) at: <a href="http://URN.fi/URN:hlbN:fi:tty-201703091131">http://URN.fi/URN:hlbN:fi:tty-201703091131</a>
- Schyllander J, Janson S, Nyberg C, Eriksson UB, Stark Ekman D. 2013. Case analyses of all children's drowning deaths occurring in Sweden 1998–2007. Scand J Public Health 41(2): 174–179.
- Shemeikka R, Buchert U, Pitkänen S, Pehkonen-Elmi T, Kettunen A. 2017. Omaishoitajien tarvitsemat tukitoimet tehtävässä selviämiseen [Forms of support needed for informal caregivers' ability to cope]. Publications of the Government's analysis, assessment and research activities 37/2017. Available in Finnish (English abstract) at: http://urn.fi/URN:ISBN:978-952-287-384-2
- Social Insurance Institution of Finland (Kela). 2019. Kela lähettää lääkäreille palautetta vahvojen opioidien määräämisestä [Kela sends feedback to physicians on prescribing strong opioids]. Available in Finnish at: https://www.kela.fi/-/kela-lahettaa-laakareille-palautetta-vahvojen-opioidien-maaraamisesta
- Social Welfare Act 1301/2014. Available in Finnish at: https://www.finlex.fi/fi/laki/ajantasa/2014/20141301
  Soininen L, Karlsson S, Parviainen I, Valli J (eds.). 2019. Myrkytysten hoito [Poisoning treatment]. Terveysportti health portal, Duodecim Medical Publications Ltd.
- Somerkoski B, Kärki T, Lindfors E. 2019. Koulun ulkopuoliset turvallisuusasiantuntijat opetustyön tukena [External experts as safety educators at school]. In: Rautiainen M. & Tarnanen M (eds.). Tutkimuksesta luokkahuoneisiin [From research to classrooms]. Publications of the Finnish Research Association for Subject Didactics. Subject Didactics Studies 15: 265–281. Available in Finnish (English abstract) at: http://hdl.handle.net/10138/298542

- Statistics: original sources Statistics Finland's statistics on causes of death and Care Register for Health Care maintained by the Finnish Institute for Health and Welfare.
- Stén T. & Lehto L. 2020. Fires that activated automatic water extinguishing system at housing where support and assistance are needed from 2012–2019. The Finnish National Rescue Association (SPEK). Available in English at: https://issuu.com/spek\_ry/docs/spek\_talks\_7\_2020?fr=sMDFkMzlwNTc4ODQ
- Stevens JA. & Burns ER. 2015. A CDC Compendium of Effective Fall Interventions: What Works for Community-Dwelling Older Adults. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. 3rd edition. Available at: https://www.cdc.gov/homeandrecreationalsafety/falls/compendium.html
- Taavitsainen S. 2017. Puheenvuoro: Maksuton joukkoliikenne lapsille ja nuorille on mahtava [Commentary: Free public transport for children and young people is great]! Contribution by an MP and member of the Parliamentary Transport and Communications Committee in the Itä-Savo newspaper on 22 August 2017. Available in Finnish at: https://puheenvuoro.uusisuomi.fi/satutaavitsainen/241703-maksuton-joukkoliikenne-lapsille-ja-nuorille-on-mahtava-juttu/
- The Finnish National Rescue Association (SPEK). 2019a. Home safety checklist. Available in English at: https://www.spek.fi/en/safety/housing-safety-for-special-groups/
- The Finnish National Rescue Association (SPEK). 2019b. Safety cards. Available in English at: https://issuu.com/spek\_ry/docs/turvakortit\_english
- The Finnish National Rescue Association (SPEK). 2019c. Housing Safety for Special Groups. Available in English at: https://www.spek.fi/en/safety/housing-safety-for-special-groups/
- Toivo T, Dimitrow MS, Puustinen J, Savela E, Pelkonen K, Kiuru V, Suominen T, Kinnunen S, Uunimäki M, Kivelä SL, Leikola S, Airaksinen M. 2018. Coordinating resources for prospective medication risk management of older home care clients in primary care: procedure development and RCT study design for demonstrating its effectiveness. BMC Geriatrics 18(1): 74. doi: 10.1186/s12877-018-0737-z.
- Traficom. 2020a. Guidelines for assessing driver health are available for healthcare professionals. Available in English at: https://www.traficom.fi/en/transport/road/driver-health-guidelines-healthcare-professionals
- Traficom. 2020b. Veneilyturvallisuus [Boating safety]. Research report. Taloustutkimus Oy. Available in Finnish at: https://www.traficom.fi/sites/default/files/media/file/Kysely%20veneilyturvallisuudesta%202020.pdf
- Tuomenvirta H, Haavisto R, Hildén M, Lanki T, Luhtala S, Meriläinen P, Mäkinen K, Parjanne A, Peltonen-Sainio P, Pilli-Sihvola K, Pöyry J, Sorvali J, Veijalainen N. 2018. Sää- ja ilmastoriskit Suomessa Kansallinen arvio [Weather and Climate Risks in Finland National Assessment]. Publication series of the Government's analysis, assessment and research activities 2018:43.
- UKK Institute. Terve urheilija -verkkosivusto [Healthy Athlete website]. Olosuhteet ja varusteet [Conditions and equipment]. Available in Finnish at: https://terveurheilija.fi/harjoittelu/olosuhteet-ja-varusteet/
- UKK Institute. The Sports and Exercise Safety in Finland Program (LiVE). Available in English at: https://www.tervekoululainen.fi/in-english/
- United Nations (UN). 2015. Transforming our World: The 2030 Agenda for Sustainable Development. Available in English at: https://sustainabledevelopment.un.org/post2015/transformingourworld.
- University of Oulu, Ministry of Education and Culture, Ministry of the Environment. Liikuntakaavoitus.fi. Suosituksia liikuntaa suosivan elinympäristön suunnitteluun [Recommendations for planning living environments to promote physical activity]. Available in Finnish at: http://liikuntakaavoitus.fi/
- Vocational Education and Training Act 531/2017. Available in Finnish at: https://www.finlex.fi/fi/laki/alkup/2017/20170531
- Vorma H, Rotko T, Larivaara M, Kosloff A. 2020. National Mental Health Strategy and Programme for Suicide Prevention 2020–2030. Publications of the Ministry of Social Affairs and Health 2020:6. Available in English at: http://urn.fi/URN:ISBN:978-952-00-5401-4
- Warpenius K. & Markkula J. 2018. Ehkäisevän päihdetyön nykytila ja tulevaisuus kunnissa: Vuoden 2016 kuntakyselyn tuloksia [The current state and future prospects of municipal preventive substance abuse work: Results of the 2016 municipal survey]. Finnish Institute for Health and Welfare Reports 9/2018. Available in Finnish (English abstract) at: http://urn.fi/URN:ISBN:978-952-343-162-1
- WAter Incident Database (WAID). Available at: https://www.nationalwatersafety.org.uk/waid/
- Water Traffic Act 782/2019. Available in English at: https://finlex.fi/en/laki/kaannokset/2019/20190782
- World Health Organization (WHO). 2007. Preventing injuries and violence: a guide for ministries of health. Available in English at: https://www.who.int/violence\_injury\_prevention/publications/injury\_policy\_planning/prevention\_moh/en/
- World Health Organization (WHO). 2014. Global report on drowning: preventing a leading killer. Available in English at: https://www.who.int/publications/i/item/global-report-on-drowning-preventing-a-leading-killer.
- World Health Organization (WHO). 2016. INSPIRE: Seven strategies for Ending Violence Against Children. Available in English at: https://www.who.int/publications/i/item/inspire-seven-strategies-for-ending-violence-against-children
- World Health Organization (WHO). 2018. Global status report on road safety 2018. Summary. Available in English at: https://www.who.int/violence\_injury\_prevention/road\_safety\_status/2018/en/



Injuries and poisonings rank second as a cause of treatment periods in specialised healthcare and third as a cause of inpatient treatment at health centres. Unintentional injuries are the fourth most common cause of death in Finland. About 2,600 Finns die from unintentional injuries every year. About 90% of fatal unintentional injuries and 80% of unintentional injuries leading to trauma take place at home and during leisure time. Falls on the same level or from height constitute the most common type of unintentional injury in all age groups.

Our safety vision is Vision Zero: no-one needs to die or sustain serious injuries as a result of an acci-dent. The aim is to achieve a good level of safety and security in all environments and reduce the number of serious and fatal home and leisure injuries by 25% from the 2020 level by 2030.

The Programme for the Prevention of Home and Leisure Injuries for 2021–2030 includes 89 measures, placing emphasis on the prevention of injuries in different stages of the life cycle. 'Home and leisure injuries' mainly refer to those sustained as a result of home and leisure accidents, alt-hough the programme's measures will also discuss injuries occurring at work and in traffic.

The targets and measures were drawn up by age group and type of injury in a preparatory process involving a wide range of experts. The translations (Swe, Eng) of the programme include chapters 1–4 of Part I of the original programme in Finnish(Korpilahti et al. 2020) and the 89 measures for preventing various injuries.

Internet: stm.fi/en/publications