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STATUS OF HOME AND LEISURE INJURY PREVENTION IN WESTERN EUROPE

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STATUS OF HOME AND LEISURE INJURY PREVENTION IN WESTERN EUROPE (Report in English with German summary)

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EXECUTIVE SUMMARY

Accidents are the fifth biggest cause of death in the EU, accounting for more than 3% of all fatalities, and even higher is the share of health care cost. While much attention is quite rightly being paid to road or workplace safety (and with demonstrable success), significantly less has been given to the prevention of domestic and leisure accidents (HLAs) – despite the fact that these account for half of all fatal and non-fatal accidents. Consequently, the share of road traffic and workplace accidents in the total burden of injury is decreasing, while that of HLAs is increasing.

In 2005, the WHO Regional Committee for Europe urged Member States to take countermeasures to reduce the health burden of injuries. It recommended that they implement interdepartmental national action plans, operate a surveillance system which delivers information on the external causes of injuries to guide targeted prevention efforts, and ensure that they have sufficient capacities available for effective, evidence-based prevention approaches and research on intervention measures. In 2007, the Council of the EU issued a list of similar recommendations.

The study described in this report examines the extent to which these recommendations have been taken into account by the Member States and how this is reflected both in their current policies and in any potential decreasing trends in injuries due to home and leisure accidents. The main objectives thereby were to gain information on key infrastructure elements and actions to prevent HLAs and compare the corresponding accident rates in 33 European countries. The 'quick scan' study sought to identify good practices as well as any gaps in policies and actions with a view to finding opportunities to reinforce efforts to raise safety in the home and during leisure activities.

The study was based on a quick scan tool that was developed in a previous study. This tool comprises 18 elements: 6 statistical indicators for the injury risk and 12 indicators for the national organisation of effective prevention efforts. Data for the draft country reports were collected by means of a systematic online search (based on the assumption that details of any actions of noteworthy impact would be found on the internet). Potential national respondents were identified in all countries studied and contacted with a request to amend and correct their respective draft country reports.

The preliminary results show that home and leisure safety is still not a clearly profiled topic on national public health agendas. Only three of the countries studied have a comprehensive national action plan in place for home and leisure safety (Finland, the Netherlands and Switzerland). Home and leisure safety is mentioned specifically only in national funding programmes of the same three countries. Seven of the countries have, however, established sustainable centres (or networks) of expertise for home and leisure accident prevention and research.

Hardly any of the countries studied have a national prevention network of stakeholders in place. Indeed, a more flexible approach in which partnerships are sought depending on the

specific nature of a topic (e.g. safety in sports or schools) would appear to work more efficiently and effectively here as it ties in better with the particular interests of potential partners and taps better on the knowledge of the professionals involved. Nonetheless, a dedicated agency (or centre of expertise), which is sufficiently equipped and systematically promotes actions that have been proven to be effective, can give a stronger lead and direction to such initiatives. Moreover, the sustained driving force of such an agency has a greater impact than temporary and theme-based activities by single organisations.

At present, 20 of the countries studied monitor non-fatal accidents; 18 of these share data at European level. Some of these countries seem nonetheless to make little other use of these data, since no corresponding analytical publication(s) could be found. All 30 countries exchange surveillance expertise through the European Injury Database (EU-IDB) network, either as full members or observers.

Some key national prevention actions were identified in 23 countries. Most of these address child safety, with 18 countries running corresponding campaigns in recent years. Efforts to prevent falls among the elderly are far less common, and similarly rare like safety campaigns targeted at popular sports. It is also surprising to note that most such actions follow the "soft approach", i.e. seek to raise awareness among risk groups and carers, instead of using the "leg-islation approach" to make sure that vulnerable groups enjoy a safe environment in which to live and have access to safer products. The establishment of dedicated national programmes for comprehensive product safety regulation, monitoring and enforcement would thus constitute an important and highly effective opportunity to reduce HLA injuries significantly and relatively quickly.

In conclusion, our study reveals that only very modest progress has been made with regard to HLA prevention, while the burden of HLA injuries is actually on the rise. Given these findings, it would seem timely to relaunch the recommendations of the World Health Organization and the Council of the EU and to stress more clearly the fact that – in addition to road and work-place accidents – a more systematic approach and lasting infrastructure is also required to prevent accidents among children, senior citizens and other vulnerable groups, accidents related to consumer products and services as well as sport accidents.

Countries should make use of available opportunities to establish and operate dedicated centres of expertise for home and leisure safety, which share their expertise internationally. All countries should implement and sustain surveillance systems to monitor the external causes of non-fatal injuries and share their data through joint knowledge platforms. Existing funding opportunities for the prevention of diseases and prevention research should always explicitly include accidents and injuries.

Given the immense health burden of HLA injuries, there is also much to be gained in financial terms through targeted prevention. A preliminary analysis of our data suggests that countries which have a superior infrastructure for steering HLA prevention initiatives are also better at

controlling the rising trends in injury rates observed across Europe. The forthcoming European Conference on Injury Prevention will serve as an excellent forum for national policy makers and injury prevention researchers across Europe as well as representatives of European institutions, the World Health Organization (WHO), the European Public Health Association (EUPHA) and the International Safe Community Certifying Centre (ISCCC) to discuss the results of this quick scan study and propose a realistic action plan for assigning the prevention of domestic and leisure injuries a clear profile and position within national and European health and consumer protection policies.

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ZUSAMMENFASSUNG

Unfälle sind die fünftgrößte Todesursache in der EU und machen mehr als 3% aller Todesfälle aus, wobei der Anteil an den Gesundheitskosten noch höher ist. Während der Sicherheit im Straßenverkehr oder am Arbeitsplatz zu Recht (und mit nachweislichem Erfolg) viel Aufmerksamkeit geschenkt wird, wurde der Verhütung von Unfällen im Haushalt und in der Freizeit (HLAs) vernachlässigt - trotz der Tatsache, dass diese die Hälfte aller tödlichen und nicht-tödlichen Unfälle ausmachen. Infolgedessen nimmt der Anteil des Straßenverkehrs und der Arbeitsunfälle an der Gesamtverletzungslast ab, während der Anteil der HLAs zunimmt.

Im Jahr 2005 forderte das WHO-Regionalkomitee für Europa die Mitgliedstaaten auf, Gegenmaßnahmen zu ergreifen, um die Gesundheitsbelastung durch Verletzungen zu verringern. Es wurde empfohlen, intersektorale nationale Aktionspläne umzusetzen, ein Überwachungssystem zu betreiben, das Informationen über die externen Ursachen von Verletzungen liefert, um gezielte Präventionsbemühungen zu leiten, und sicherzustellen, dass ausreichende Kapazitäten für wirksame, evidenzbasierte Präventionsmaßnahmen und die Erforschung von Interventionsmaßnahmen zur Verfügung stehen. 2007 gab der Rat der EU eine Liste ähnlicher Empfehlungen heraus.

In der vorliegenden Studie wird untersucht, inwieweit diese Empfehlungen von den Mitgliedstaaten berücksichtigt wurden und wie sich dies sowohl in ihrer derzeitigen Politik als auch in potenziell abnehmenden Trends bei Verletzungen aufgrund von Unfällen zu Hause und in der Freizeit widerspiegelt. Hauptziel dabei war es, Informationen über wichtige Maßnahmen zur Verhinderung von HLAs zu erhalten und die entsprechenden Unfallraten in 33 europäischen Ländern zu vergleichen.

Die Studie basierte auf einem Quick-Scan-Tool, das in einer früheren Studie entwickelt wurde. Dieses Instrument umfasst 18 Elemente: 6 statistische Indikatoren für das Verletzungsrisiko und 12 Indikatoren für die nationale Organisation wirksamer Präventionsbemühungen. Die Daten für die Entwürfe der Länderberichte wurden mittels einer systematischen Online-Suche gesammelt (unter der Annahme, dass Einzelheiten zu Maßnahmen mit nennenswerten Auswirkungen im Internet zu finden sind). Potenzielle nationale Kontaktpersonen wurden in allen untersuchten Ländern identifiziert und mit der Bitte um Änderung und Korrektur der jeweiligen Länderberichte kontaktiert.

Die vorläufigen Ergebnisse zeigen, dass die Sicherheit zu Hause und in der Freizeit immer noch kein klares Thema auf den nationalen Agenden für die öffentliche Gesundheit ist. Nur drei der untersuchten Länder (Finnland, die Niederlande und die Schweiz) verfügen über einen umfassenden nationalen Aktionsplan für die Sicherheit zu Hause und in der Freizeit. Die Sicherheit zu Hause und in der Freizeit wird nur in nationalen Finanzierungsmechanismen (Budgets) derselben drei Länder ausdrücklich erwähnt. Sieben der Länder haben dennoch dauerhafte Kompetenzzentren (oder Netzwerke von Zentren) für die Verhütung und Forschung von Unfällen zu Hause und in der Freizeit eingerichtet. Kaum eines der untersuchten Länder verfügt über ein nationales Netzwerk von Interessengruppen für die Prävention dieser Unfälle. In der Tat scheint ein flexiblerer Ansatz, bei dem Partnerschaften in Abhängigkeit von der spezifischen Art eines Themas angestrebt werden (z. B. Sicherheit im Sport oder in der Schule), effizienter und effektiver zu funktionieren, da diese besser mit den besonderen Interessen potenzieller Partner und Nutzer und dem speziellen Wissen der beteiligten Fachkräfte in Einklang stehen. Dennoch kann eine engagierte Agentur (oder ein Kompetenzzentrum), die ausreichend ausgestattet ist und systematisch Maßnahmen propagiert, die sich als wirksam erwiesen haben, solchen Initiativen eine stärkere Führung und Richtung geben. Darüber hinaus hat die anhaltende treibende Kraft einer solchen Agentur einen größeren Einfluss als vorübergehende und themenbezogene Aktivitäten einzelner Organisationen.

Derzeit haben 20 der untersuchten Länder ein statistisches Monitoring für nicht-tödliche Unfälle. 18 davon teilen Daten auf europäischer Ebene. Einige dieser Länder scheinen diese Daten jedoch kaum anderweitig zu nutzen, da keine entsprechenden analytischen Veröffentlichungen gefunden werden konnten. 30 Länder tauschen über das Netzwerk der Europäischen Verletzungsdatenbank (EU-IDB) Überwachungskompetenz aus, entweder als Vollmitglieder oder als Beobachter.

In 23 Ländern wurden einige wichtige nationale Präventionsmaßnahmen ermittelt. Die meisten davon befassen sich mit der Sicherheit von Kindern, wobei 18 Länder in den letzten Jahren entsprechende Kampagnen durchgeführt haben. Bemühungen, Stürze bei älteren Menschen zu verhindern, sind weitaus seltener, und ähnlich selten waren Sicherheitskampagnen für den Breitensport. Es ist auch überraschend festzustellen, dass die meisten dieser Maßnahmen dem "weichen Ansatz" folgen, d.h. darauf abzielen, das Bewusstsein von Risikogruppen und ihren Betreuern zu schärfen, anstatt den "regulativen Ansatz" zu nutzen, um sicherzustellen, dass schutzbedürftige Gruppen ein sicheres Lebensumfeld und einen Zugang zu sichereren Produkten haben. Die Einrichtung spezieller nationaler Programme für eine umfassende Regulierung, Überwachung und Durchsetzung der Produktsicherheit wäre daher eine wichtige und hochwirksame Möglichkeit, HLA-Verletzungen signifikant und relativ schnell zu reduzieren.

Zusammenfassend zeigt unsere Studie, dass in Bezug auf die HLA-Prävention nur sehr bescheidene Fortschritte erzielt wurden, während die Belastung durch HLA-Verletzungen tatsächlich zunimmt. Angesichts dieser Ergebnisse erscheint es an der Zeit, die Empfehlungen der Weltgesundheitsorganisation und des Rates der EU wieder ins Bewusstsein zu bringen und deutlicher zu betonen, dass neben Verkehrs- und Arbeitsunfällen auch ein systematischer Ansatz und eine dauerhafte Infrastruktur erforderlich sind, um Unfälle von Kindern, Senioren und anderen schutzbedürftigen Gruppen, Unfälle im Zusammenhang mit Konsumgütern und Dienstleistungen sowie Sportunfälle zu verhindern.

Die Länder sollten verfügbaren Möglichkeiten nutzen, um spezielle Kompetenzzentren für die Sicherheit zu Hause und in der Freizeit einzurichten und zu betreiben, die ihre Fachkennt-

nisse international teilen. Alle Länder sollten Unfall-Überwachungssysteme implementieren, um die externen Ursachen nicht tödlicher Verletzungen zu erheben und ihre Daten über gemeinsame Wissensplattformen auszutauschen. Bestehende Finanzierungsmöglichkeiten für die Prävention von Krankheiten und die Präventionsforschung sollten Unfälle und Verletzungen immer explizit miteinschließen.

Angesichts der immensen Gesundheitsbelastung durch HLA-Verletzungen kann durch gezielte Prävention auch finanziell viel gewonnen werden. Eine vorläufige Analyse unserer Daten legt nahe, dass Länder mit einer funktionierenden Infrastruktur zur Steuerung von HLA-Präventionsmaßnahmen die in ganz Europa beobachteten steigenden Trends bei den HLA-Verletzungsraten besser kontrollieren können.

Die bevorstehende Europäische Konferenz zur Verhütung von Verletzungen wird ein hervorragendes Forum für nationale politische Entscheidungsträger und Forscher zur Verhütung von Verletzungen in ganz Europa sowie für Vertreter europäischer Institutionen wie der Weltgesundheitsorganisation (WHO), der Europäischen Vereinigung für öffentliche Gesundheit (EUPHA) und der Internationalen Zertifizierungsstelle für Sichere Gemeinden (ISCCC) sein, um die Ergebnisse dieser Quick-Scan-Studie zu diskutieren und um einen realistischen Aktionsplan vorzuschlagen, wie der Prävention von Verletzungen zu Hause und in der Freizeit ein klares Profil und eine klare Position innerhalb der nationalen und europäischen Gesundheits- und Verbraucherschutzpolitik zugewiesen werden kann.

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1 BACKGROUND AND PURPOSE

Home and leisure accidents (HLAs), e.g. child accidents, falls, accidents with tools and appliances, sports accidents or drownings, account for more than 50% of all injuries, both intentional and unintentional. The prevention of such "private" accidents does not, however, seem to be accorded adequately high priority. Figure 1 shows the "injury pyramids" for the EU-27 countries based on the average rates for EU Member States for the years 2013 to 2017, as available at the end of 2020. Data on fatal home and leisure accidents cannot be retrieved exactly from the Eurostat portal; figures for non-traffic accidents are the best available approximation to domestic, leisure and sports accidents, but also contain some fatal workplace accidents.



Compared to the situation for road traffic and workplaces, where considerable efforts are made to prevent accidents and injuries, the injury risks in private life seem to be neglected. The WHO and the EU have already drawn attention to this disbalance, e.g. with the WHO Regional Committee for Europe's 2005 Resolution [1] and the EU Council's Recommendation of 2007 [2], and called upon Member States to take action. They have urged them in particular to (summarised by authors):

- a) Develop and implement (interdepartmental) national action plans on injury prevention and safety promotion.
- b) Implement and operate a surveillance system which delivers information on external causes of injuries to guide targeted prevention.
- c) Ensure sufficient capacities (make use of funding opportunities) for effective, evidence-based approaches to prevention.
- d) Promote research on effective intervention measures.

- e) Pay particular attention to gender aspects, vulnerable groups like children, the elderly, people with disabilities or vulnerable road users, sports and leisure injuries as well as injuries caused by consumer products, violence and self-harm.
- f) Make (interdepartmental and international) use of and share experiences in developing and implementing policies and actions.
- g) Encourage the introduction of injury prevention and safety promotion in schools and training for health professionals.

It appears that most of these recommendations have been followed in the case of road accidents. When it comes to road safety, all of the countries studied already have national action plans, surveillance systems, specialist organisations, funding opportunities for prevention and prevention research, a vibrant exchange of data and experiences, priority programmes for vulnerable road users (children, bicyclists) and school curricula. The WHO and EU recommendations have clearly given new impetus to these activities, and the UN Decade of Action for Road Safety [3] has provided an additional boost to international collaboration and national programmes.

In the area of home, leisure and sport accidents (also referred to as accidents in private life), noteworthy attention has really only been paid in the past few decades to child safety [4]. Accordingly, the impact of the WHO and EU recommendations on the broader spectrum of HLA still remains unclear. A better understanding of the level of take-up of these recommendations in Europe for accidents affecting children, the elderly or people with disabilities as well as those due to consumer products and sports injuries is thus required. As the recommendations explicitly state, the prevention of HLA should have its appropriate place on the health policy agendas of European countries. While safety levels in Europe are relatively high compared to other WHO regions, substantial improvements can still be achieved here through targeted and innovative injury prevention measures.

Internationally comparable injury statistics and reporting systems help to compare the quality and outcome of national programmes, as is common practice in many EU public health policy areas. Europe-wide statistics are available for road traffic accidents (RTAs) and workplace accidents (WPAs) [5] (for RTAs, see the European Road Safety Observatory (ERSO) [6]; for WPAs see the European Agency for Safety and Health at Work (EU OSHA) [7]), but there are currently no Eurostat statistics, no standardized monitoring system and no agency for home and leisure accidents.

Attempts to develop a policy monitoring system have been made in the past by the WHO Regional Committee for Europe (e.g. the report on "Preventing injuries in Europe" [8]) and Euro-Safe's Child Safety Alliance (e.g. the report on "How safety conscious are European countries towards children?" [9]). Both of the aforementioned reports used lengthy yet nonetheless incomplete lists of specific actions for falls, drowning, poisoning, etc., whose level of effective implementation could not really be assessed with sufficient accuracy – an aspect that hampered valid international comparisons. The collection of data for these reports was likewise a fairly labour-intensive endeavour. Consequently, these approaches did not lead to the emergence of a sustained monitoring system. One reason for this might be the fact that HLA is a broad field in which there are numerous specific risks and safety measures to be considered (e.g. legislative measures, improvements to product designs, introduction of specific elements into professional curricula for many occupational groups, changes of rules for different types of sports, etc.) and which involves various policy sectors, administrative units and a wide array of stakeholders. Any attempt to list specific actions results in incomplete questionnaires, the completion and annual updating of which constitutes a huge burden for the reporting countries. Moreover, since it is often difficult to give unambiguous and clear definitions of the specific safety measures and criteria to be met, the answers provided frequently do not provide clarity on the real nature and impact of the actions taken.

A recent approach that was adopted in 2018 by the Austrian Road Safety Board (KFV) began with the compilation of a short list of policy actions and infrastructural measures which facilitate the prevention of HLA and whose implementation can be verified using well-defined indicators. This list was then applied in an explorative study – likewise initiated and sponsored by KFV in 2018 – and used to develop a practical tool for monitoring such general efforts at a national level to prevent HLA [10]. A pilot test in 2019, the findings of which were presented at the European Safety Conference in Luxembourg, demonstrated the usefulness of this tool for providing a snapshot of what countries really invest [11]. When utilized in a multi-country survey, the tool provides a Europe-wide snapshot of the basic HLA prevention infrastructure without (over-)burdening national informants. If used at regular intervals, it can also serve as a monitoring system.

The goals of the present study, which was again sponsored by KFV, are to:

- 1. Compare the HLA injury risk (deaths and non-fatal injuries) in European countries (EU Member States and candidate countries, EEA countries, the United Kingdom and Switzerland).
- 2. Gain information on key infrastructure elements and actions for safety in the home and during leisure activities (prevention of HLAs) that reflects the status quo in 2019/2020.
- 3. Identify gaps in and opportunities for the prevention of HLAs, particularly those involving children, the elderly, consumers and sports participants.
- 4. Identify national HLA prevention experts who are able to assess the potential of innovative approaches, e.g. digitalisation, university-based safety and injury prevention research.
- 5. Identify opportunities to reinforce efforts to implement evidence-based interventions, including those identified in the WHO's 2005 Resolution and the EU Council's 2007 Recommendation.
- 6. Provide evidence-based information for a possible "Vienna Declaration on Action on Injuries in the EU", which could be launched at upcoming meetings of government and WHO experts for injury prevention.

With a view to the limited resources, we could not cover the entire WHO European region of 53 countries but had to restrict this study to 33 Western European countries, which have ties to EuroSafe. The next EU Safety Conference will be held in Vienna in June 2022 [12] and will provide an excellent opportunity to present and discuss results of this survey with European safety experts with a view to triggering new collaborative initiatives.

2 METHOD AND DATA COLLECTION

Data for the present study were collected using a specially prepared questionnaire (national report template) that is divided into five sections (see Table 1):

- 1. Six questions relate to mortality and morbidity of home and leisure injuries.
- 2. Four questions concern political leadership at national level.
- 3. Three questions target injury surveillance and research.
- 4. Five questions focus on prevention actions and campaigns.
- 5. Two questions on innovative (digital) approaches in injury prevention.

INDICATOR			
CODE	INDICATOR	JUSTIFICATION	DEFINITION
R1.	Estimated HLA death rate per 100,000	Fatalities are the most severe injuries; the number of deaths is the most important indicator of the injury risk.	Approximation: No traffic acci- dents (W00-X59, Y86);
R2.	5-year average 2013-2017; retrieved from Eurostat.	Upward trend indicates a need for action; downward trend indicates the positive effect of action.	Approximation: No traffic accidents (W00-X59, Y86); difference 2013-2017; retrieved from Eurostat.
R3.	(Estimated crude) rate of HLA hospital admissions per 1,000	Hospitalisation indicates severe non-fatal injuries; hospital care is the most important cost bearer in the health system.	Admissions (for at least one night) due to an accident which did not occur on the roads or in the workplace (IDB definitions); retrieved from EU-IDB.
R4.	Change in HLA admission rate in the past five years	Upward trend indicates a need for action; downward trend indicates the positive effect of action.	For most recent available year (currently 2017); retrieved from EU-IDB.
R5.	Rate of HLA ED cases (not admitted) per 1,000	The vast majority of injuries only require ED treatment. However, most instances of minor injuries are not presented to EDs.	All HLA-related ED presen- tations minus admitted cases; retrieved from EU-IDB.
R6.	Change in HLA ED rate in the past five years	Upward trend indicates a need for action; downward trend indicates the positive effect of action.	For most recent available year (currently 2017); retrieved from EU-IDB.
S1.	Competent authority for home & leisure safety	Every country has a Ministry of Health (MoH) or ministerial department with a public health authority implicitly responsible for HLA prevention. An explicit mention indicates a priority.	Governmental unit with defined responsibility for HLA safety; mentioned in the organisational chart of the respective ministries and provided with dedicated resources.

 TABLE 1: Short list of indicators for the HLA injury risk and prevention policy.

INDICATOR	INDICATOR	JUSTIFICATION	DEFINITION
CODE			
S2.	National action plan, explicitly including HLA	Injury prevention is a typical cross-cutting public health issue. The WHO considers a cross-sec- toral, target-oriented national action plan a prerequisite for effective prevention.	Governmental or govern- ment-endorsed plan of action with defined goals and actions; published on relevant websites.
S3.	National stakeholder network dealing with the prevention of HLA	Injury prevention is a typical cross-cutting public health issue. The WHO considers cross-sectoral national collabo- ration a prerequisite for effective prevention.	Functioning platform for the most relevant national stake- holders (formal structure, meet- ing reports, list of members); published on relevant websites.
S4.	Centre of expertise for the prevention of HLA	In addition to political support, the implementation of diverse actions (including information campaigns) and accompanying research requires expert organ- isations.	Functioning (governmental or non-governmental) organisation unit with at least three FTE HLA experts (name, organisation, description of services) and suffi- cient resources to coordinate and generate actions.
S5.	HLA surveillance system	An injury surveillance system which monitors the external causes of injuries is a prerequisite for targeted prevention and evaluation.	Ongoing surveillance of external causes of non-fatal HLAs; na- tional data or reports published regularly on relevant websites.
S6.	Participation in European ex- change of data on HLA	Participation in an international data exchange indicates the will to face comparison and optimize injury monitoring and prevention at the national level.	Ongoing exchange of data on external causes of HLA; delivery of national data to the EU-IDB database and active participation in EU-IDB meetings.
S7.	Mechanism to subsidise safety research in the field of HLA	An explicit funding mechanism is a strong indicator for the politi- cal will to target an issue.	Funding programme which explicitly invites HLA safety research-projects; published on relevant websites.
S8.	Noteworthy national HLA pre- vention actions (safety services) in the past two years	Effective prevention needs targeted actions (with defined risks, safety measures, target groups, safety goals). This can also include a consumer product safety regulation programme, improved standards for products or services, training programmes, etc.	Regulating and/or safety promotion programmes in action; adequate regulatory and enforcement vigilance and/or continued safety communica- tions on relevant websites.

TABLE 1: Short list of indicators for the HLA injury risk and prevention policy.

INDICATOR			DEFINITION						
CODE	INDICATOR .								
S9.	Participation in European ex- change of experiences on topical safety spearheads in the field of HLA prevention	Participation in international data exchange indicates the will to face comparison, optimize the national injury monitoring and prevention efforts and share good practices in actions target- ed at the safety of children, the elderly, etc.	Active member(s) in EuroSafe, the EU-IDB network, the European Child Safety Alliance, the European Safe Community Network or the WHO Europe's NFP network; presentation(s) at European conferences in 2017 and 2019.						
S10.	Mechanism to subsidise HLA safety promotion	A funding mechanism is a strong indicator for the political will to target an issue.	Funding programme for health and safety promotion that encourages the submission of HLA education and awareness projects; published on relevant websites.						
S11.	International liaison officer in competent authority or centre of expertise	The support of a proven expert indicates capacities for prevention and the will to face comparison.	At least one person familiar with HLA injury research and prevention who helped with the completion of the report (or at least endorsed the survey).						
S12.	Task force for innovations in the prevention of HLA	The existence of expert(s) for innovative prevention approach- es (smart solutions) indicates sustained and future-oriented efforts.	At least one person working with innovative prevention approach- es (artificial intelligence) in the HLA field.						
S13.	Innovative approaches for injury data processing and injury prevention	An expert assessment of innovative approaches (smart solutions) indicates sustained and future-oriented efforts.	Assessment of the potential of digitalisation and artificial intelligence.						
TABLE 1: Short li	TABLE 1: Short list of indicators for the HLA injury risk and prevention policy.								

The six statistical questions (R1-R6) were answered using searches in the Eurostat database (public statistical web portal; for mortalities) and analyses of EU-IDB data (for hospital admissions and ambulatory treatments). Details of the actual searches used are provided below in the section on results. The 13 organisational questions (S1-S13) were answered using internet searches and with the help of the national respondents.

- In the first phase, contact persons in 33 (Western) European countries were identified and contacted with a request to review their draft national reports when these became available (October 2020).
- In the second phase, draft national reports were completed as far as possible for these countries, mainly using internet searches (November 2020).
- In the third phase, the draft study reports were finalized and sent to the contact persons in the respective countries for verification, comment and with a request to supply any

missing additional information (December 2020).

- In the fourth phase (January 2021), additional information from personal interviews was incorporated into the final national reports and the full study report.
- In the fifth and final project phase, an attempt will be made to develop a "Vienna Declaration" for discussion at the next EU Safety Conference, which will be held in Vienna in June 2022 [12].

(Potential) respondents for amending the draft country reports were identified (in the following order) among members of EuroSafe [13], the EU-IDB data provider network [14], the (former) European Child Safety Alliance [15] and the (former) European Safe Community Network (ESCON) [16], speakers at the last two European Conferences for Injury Prevention (held in 2017 in Amsterdam [17] and 2019 in Luxembourg [18]), and – if nobody could be identified among these groups – the WHO's European network of national focal persons for injury prevention (unintentional injuries) as listed in its last meeting report [19] or the national focal persons for the EU Health Programme 2014-2020 as listed on the Consumers, Health, Agriculture and Food Executive Agency (CHAFEA) website [20].

In October 2020, 33 (potential) contact persons were identified and approached with the request to check their respective draft country reports. Around two thirds of them responded and expressed their willingness to help. In some cases, other persons and/or institutions were recommended and approached. For eight countries, no response had been obtained at the time of writing of this report.

The second phase (November 2020) was dedicated to internet research with the goal of finding evidence of organisational structures for the prevention of HLAs and/or corresponding activities. The following keywords and phrases were used as search terms: home and leisure injury/accidents; prevention of home and leisure injuries/accidents; safety at home and during leisure time/home and leisure safety; prevention of falls/burns/poisoning/drowning; child safety; elderly safety, safety of the elderly, safety of seniors; domestic safety, consumer safety, consumer product safety. All keywords and phrases were entered in combination with the country name. Since most of the potentially relevant information on the internet (if such information is available at all) is published in the national language of the country in question, the searches were carried out in the 24 official languages of the European Union as well as in Icelandic, Macedonian, Norwegian, Serbian and Turkish (a total of 29 languages) using publicly available Google online services (search engine and the Google Translate app provided by Google LLC) [21].

In the third phase of the project, this report and the preliminary country reports were drafted based on the results of the internet searches. The draft country reports were then forwarded to the national contact persons with the request to check, comment, amend and augment the information. Due to the current COVID-19 pandemic, many of the identified respondents are occupied with other more urgent work such as contact tracing or epidemiological analyses. Accordingly, the present report is based on the information that had been collected up to the end of January 2021. With the consent of the project sponsor, further attempts to have the

country reports verified and updated by all respondents will be made in the course of 2021.

Finally, an attempt will be made in conjunction with the organizers of the EU Safety Conference 2022 in Vienna [12] to develop a kind of "Vienna Declaration" with a view to providing new impetus to the topic, strengthening the prevention of home, leisure and sport injuries in Europe and reinforcing the corresponding recommendations of WHO/Europe and the Council of the EU.

Status of Home and Leisure Injury Prevention in Western Europe \mid 21

3 RESULTS

3.1 HLA INJURY RISK: FATALITIES AND HOSPITAL CASES

In order to iron out random variations between years, a five-year-period was considered (2013-2017). Five-year average rates were taken as indicators for the actual injury risk, and the differences between the rates for 2013 and 2017 were used as trend indicators. More recent data (2018) for deaths, hospital admissions (discharges) and ambulatory treatments in emergency departments were not yet available for many countries. The results are summarised in Table 2. Only a rough approximation could be achieved with regard to fatalities. The Eurostat web portal [22] only allows the selection of all accidents (unintentional injuries) excluding road traffic injuries based on ICD-10 codes for external causes (V01-Y98). These figures overestimate fatal HLAs because they include work-related accidents which do not occur on the roads. An alternative approach would be to deduct fatal work-related accidents. However, since the respective Eurostat data do not distinguish between road traffic and other fatalities, subtracting these figures would lead to an underestimation of fatal home and leisure accidents. For reasons of simplicity, we opted for the first approach. The average age-standardized death rate is 28.9 per 100,000 persons, and the average change between 2013 and 2017 is +4.0%.

With regard to hospital discharges, Eurostat does not even provide a rough approximation for HLAs. The accessible hospital discharge data are coded using the ICD-10 Chapter XIX codes S00-T98 (injuries, poisoning and certain other consequences of external causes) [23]. This group comprises all injuries, i.e. road traffic and workplace accidents as well as injuries due to interpersonal violence (assault) and intentional self-harm. Even if we assume that HLAs account for the biggest share, the Eurostat figures for hospital discharges are not helpful for our particular purpose. The same applies for the WHO database: the European Health Information Gateway also only provides hospital discharge data by ICD-10 Chapter XIX codes S00-T98 [24].

Hospital discharge data are, however, available for some countries in the EU-IDB database [25]. While these data were publicly accessible in the past through the EU-IDB web portal operated by DG SANTE, this service has since been terminated [26]. The European Core Health Indicators (ECHI) website – also operated by DG SANTE – could be considered here as alternative information source, as ECHI-29(b) ("Injuries: Home, leisure, school: register based incidence") is equivalent to HLAs [27]. However, ECHI-29(b) does not distinguish between hospital admissions (or discharges) and cases which were only treated using ambulatory care (ED cases).

The only available information source which distinguishes between HLA cases admitted to hospital and those treated using ambulatory care is the EU-IDB database. This was hosted by Swansea University (HDRUK - Health Data Research UK) until July 2020, when it was transferred to Istituto Superiore di Sanità (ISS; the Italian National Institute of Health) in Rome. ISS is currently preparing a new EU-IDB website, which is not yet fully operational [28]. Due to increasing data protection concerns, microdata will no longer be accessible by third parties,

but EuroSafe will still be able to run queries. The available data for the years 2013-2017 show a rather incomplete picture with many gaps, some outstandingly high rates and inexplicable jumps between years. Portugal and Germany both operate surveillance systems, but the available data do not allow the calculation of distinct rates for admissions and pure ED cases. Data from Latvia had to be excluded from our study due to a large percentage of cases with unspecified hospital treatment. Data from Switzerland can likewise not be included as the Swiss statistics on non-fatal injuries are calculated using a different methodology. More information on the results of analyses of EU-IDB data can be found in the EuroSafe reports on injuries in Europe [29, 30].

(Crude) EU-IDB rates are only available for 20 of the 33 countries in our study. The average injury-induced admission rate lies at 4.9 per 1,000 persons. The HLA rate for Austria (15.8) is considerably above the average, while that for Cyprus (0.5) lies considerably below the average and is probably skewed due to biased sampling in hospitals. Rates for all five years (2013-2017) are only available for eight countries; for others the trend is calculated using a shorter time span. For four countries, the only rate available is for 2013, so no trend could be established in these cases. While there is almost no change in the average hospital admission rate between 2013 and 2017 (-0.4%), there are great discrepancies here between countries. For some (e.g. Malta, Slovenia, Turkey), the admission rate jumps between years, which is more an indication of methodological issues than true changes in injury morbidity. The figures for all years considered (2013-2017) are provided in the annex.

The situation for non-admitted HLA patients (ED cases) is similar, with big differences between countries, rates ranging from 10.7 (Finland) to 73.9 (Italy) and, again, some jumps between years. The average rate for ED cases is 41.4, and the average trend shows an increase of +19.1%, also with large differences between countries (from a decrease of -53.9% in Cyprus to an increase of +156.7% in Turkey). The most important shortcoming is the rudimentary geographic coverage and incomplete time series for many EU-IDB countries. The trend figures for some countries are based on fewer than five years, some data are quite old, and jumps between years indicate changes in data collection methods (for further details, see the tables provided in the annex). These results show that the comparability of EU-IDB rates at international level is limited, but that the figures can be very reliable at national level if the respective country operates a stable surveillance system.

Table 2 also shows the overall EU-IDB rate, i.e. the rate for all ED presentations due to HLAs (both hospital admissions as well as ambulatory treatments). The average is 46.9 per 1,000 persons, and the average increase from 2013 to 2017 is +22.8%. The IDB-figures for Germany stem from just one federal state (Brandenburg) and for the United Kingdom from just one constituent country (Wales).

	AGE STA IZED DEA PER 10	NDARD- ATH RATE 00,000	CRUDE RATE OF IDB ADMISSIONS PER 1,000		CRUDE RATE OF (AMBULATORY TREATED) ED CASES PER 1,000		CRUDE RATE OF ALL EU-IDB CASES PER 1,000	
	AVERAGE 2013-2017	CHANGE 2013-2017	AVERAGE 2013-2017	CHANGE 2013-2017	AVERAGE 2013-2017	CHANGE 2013-2017	AVERAGE 2013-2017	CHANGE 2013-2017
Austria	25.2	-7.1%	15.8	-9.6%	52.9	-12.5%	68.6	-11.8%
Belgium	32.9	-4.5%						
Bulgaria	16.5	1.3%						
Croatia	44.2	-7.5%						
Cyprus	28.7	4.9%	0.5	-23.4%	17.0	-53.9%	19.7	-57.8%
Czechia	34.2	1.1%						
Denmark	22.1	-5.5%	4.8	-7.2%	47.6	-2.5%	50.5	9.8%
Estonia	40.9	-12.7%	4.7	-10.2%	64.4	66.7%	58.0	90.9%
Finland	39.9	-4.8%	3.6	-16.1%	10.7	19.6%	15.6	7.9%
France	33.6	1.2%						
Germany	22.7	25.0%					37.7	1.0%
Greece	14.6	39.9%						
Hungary	32.4	-2.3%						
Iceland	29.4	32.2%	2.7		53.3		60.8	
Ireland	20.2	-1.0%	4.4		26.8		31.2	
Italy	20.9	7.7%	5.2	15.4%	73.9	13.4%	79.2	14.0%
Latvia	45.4	-6.5%					51.2	26.5%
Lithuania	54.6	-13.7%	4.7	-0.8%	20.8	81.2%	25.5	60.6%
Luxembourg	29.9	-35.4%	4.3	-27.1%	62.0	-7.6%	66.4	-9.0%
Malta	17.5	7.9%	2.8	-0.6%	13.4	-10.4%	16.2	-8.7%
Netherlands	32.1	27.4%	5.5	8.4%	28.9	0.2%	35.2	4.4%
Norway	38	-4.9%	5.4	-28.1%	36.4	9.8%	41.8	4.4%
Poland	26.9	-9.7%						
Portugal	16.7	80.9%	3.0	8.4%	56.5	102.9%	60.3	92.9%
Romania	25.2	2.7%	4.1		18.0		22.3	
Slovenia	38.6	11.5%	3.0	26.4%	25.2	24.9%	28.2	25.1%
Slovakia	34.2	-38.0%						
Spain	17.6	10.8%	3.6		32.9		37.1	

TABLE 2: Standardized death rates for "No-transport accidents" per 100 000. Source: Eurostat "Causes of death -standardized death rate" (HLTH_CD_ASDR2). Abbreviations: AC = All accidents (ICD-10 V01-X59, Y85, Y86), TR =Transport accidents (V01-V99, Y85), NT = No transport accidents (W00-X59, Y86). AV = Average 2013-2017, CH = Trend2013-2017 in %. TOP 7 = AT, FI, GE, NE, NO, CH, UK. Figure in red indicates implausible trend figures.

	AGE STANDARD- IZED DEATH RATE PER 100,000		CRUDE RATE OF IDB ADMISSIONS PER 1,000		CRUDE RATE OF (AMBULATORY TREATED) ED CASES PER 1,000		CRUDE RATE OF ALL EU-IDB CASES PER 1,000	
	AVERAGE 2013-2017	CHANGE 2013-2017	AVERAGE 2013-2017	CHANGE 2013-2017	AVERAGE 2013-2017	CHANGE 2013-2017	AVERAGE 2013-2017	CHANGE 2013-2017
Sweden	29.4	4.7%	6.1	-11.7%	34.8	9.9%	40.9	6.4%
Switzerland	29.7	-9.1%						
Serbia	13.8	20.8%						
Turkey	21.7	-4.8%	2.1	-0.9%	62.1	156.7%	64.2	147.6%
United King- dom	23.7	20.30%	4.5	3.5%	64.8	6.8%	69.3	6.6%
ALL	28.9	4.0%	4.9	-0.4%	41.7	19.1%	46.9	22.8%
TARI F 2. Stan	dardized death	rates for "No	-transport ac	ridents" per 10	0000 Sour	e Furostat (Causes of deat	h -

TABLE 2: Standardized death rates for "No-transport accidents" per 100 000. Source: Eurostat "Causes of death -standardized death rate" (HLTH_CD_ASDR2). Abbreviations: AC = All accidents (ICD-10 V01-X59, Y85, Y86), TR =Transport accidents (V01-V99, Y85), NT = No transport accidents (W00-X59, Y86). AV = Average 2013-2017, CH = Trend2013-2017 in %. TOP 7 = AT, FI, GE, NE, NO, CH, UK. Figure in red indicates implausible trend figures.

3.2 HLA INJURY PREVENTION: ORGANISATION AND PREVENTION PROGRAMMES

One general finding of our study is that the overarching terms "home and leisure safety", "home and leisure accident prevention" or "home and leisure accidents" are rarely used as categories within public health policies and/or actions. The following terms were found to be more common (and therefore more productive for our purpose): "home/domestic safety", "child safety/child accident prevention", "sport safety/sport injury prevention", "senior (citizen) safety/fall prevention" and "consumer (product) safety".

All of the countries studied have a government department (usually within the Ministry of Health) responsible for public health policies, health promotion and/or the prevention of disease and thus, implicitly, also the prevention of injuries and accidents. In Austria, for example, these topics are handled by the Department for Health Promotion and Prevention. In some instances, injury prevention is explicitly mentioned in the internal descriptions of the department's responsibilities.

Almost every Ministry of Health (MoH) in the countries studied has subsidiary institutions, most frequently a national institute for public health (which goes by various names in the different countries), that are responsible for epidemiology, needs analyses, health technology assessment, quality management, evaluation, strategic planning, etc. In Austria, these tasks fall under the remit of a limited, not-for-profit company called Gesundheit Österreich ("Health Austria"). Many of the countries also have a special unit or institute for health promotion and

health education, which in the case of Austria is a branch of "Gesundheit Österreich" known as Fond Gesundes Österreich ("Austrian Health Promotion Fund"). While injury prevention and safety promotion are implicit responsibilities of these organisations, their priorities generally lie on other topics such as nutrition, exercise and vaccinations.

Every one of the 33 countries also has government departments responsible for administering the safety of products like chemical substances, machinery, electric appliances, building components or personal protective equipment. Many mandatory and voluntary standards are likewise in place to control the risks connected with (consumer) products, buildings and services. In the European single market, these generally represent measures to implement the corresponding EU regulations.

Almost all of the countries studied have specialized centres of expertise for the prevention of poisoning (poison information centres), drowning (life-saving associations) or fires (fire prevention agencies). It was not, however, the intent of our survey to catalogue these authorities and agencies; our focus lay on identifying multi-theme programmes and organisations explicitly responsible for and active in the field of home and leisure safety (i.e. in the prevention of HLAs).

To support national implementations of its 2005 resolution [1], the WHO Regional Office for Europe published several fact sheets, studies and handbooks [31], e.g. on the health burden of injuries [32], instructions for Ministries of Health [33], compilations of good practices, policy briefings and training material for health professionals. However, the clear priorities lie thereby on road safety and the prevention of injuries to children, interpersonal violence and, in particular, the maltreatment of children. To guide and facilitate communication with Member States, WHO/Europe has created a "Network of Ministry of Health Focal Points for Violence and Injury Prevention". The last meeting of this group was held in 2019 in Luxembourg [34] but the most recent report available covers its 2015 meeting in Chisinau [35].

Aside from road safety and the prevention of violence, only a few (older) WHO publications deal with "other injury topics", which are categorized by the injury cause (mechanism): falls, drownings, burns, poisonings, strangulations, etc. [36]. To tackle the injury problem, the WHO recommends the following general strategic instruments, which have already proven their worth in other health policy areas: operating a surveillance system, forming a coalition of stakeholders, developing a national action plan (with measurable goals), designating a lead agency, ensuring the financing of implementation activities and accompanying research (particularly for evaluation purposes). The questionnaire used in the present study follows these WHO recommendations.

Unfortunately, our study clearly reveals that the prevention of HLAs is not a (health policy) priority for Member States. Indeed, only a few European countries actually have a dedicated national action plan, functioning network of stakeholders for the prevention of HLA and/or financing mechanisms to explicitly target HLAs (see Table 3).

	INDICATOR	SPECIFICATION	RESULTS OF INTERNET SEARCH	# YES
S1.	Competent au- thority for home & leisure safety	Governmental unit with defined responsibility for safety other than road and workplace safety	Netherlands: the Dept. for Consumer Safety at the MoH has a regular budget for prevention (financing of the Dutch Consumer Safety Institute). Finland: HLA prevention is an explicit task of the national public health institute. Switzerland: Directorate for Health and Accident insurance (MoH).	3 (CH, NL, FI)
S2.	National action plan explicitly including HLAs	Governmental or government- en- dorsed NGO plan of action with defined goals and actions	A government action programme is in place in Finland for 2021 to 2030. Semi-gov- ernmental action plans (strategies) exist in the Netherlands, Switzerland and the UK. A previous WHO/Europe website with an inventory of national action plans is no longer available.	4 (CH, FI, NL, UK)
S3.	National stake- holder network dealing with the prevention of HLAs	Functioning plat- form of the most relevant national stakeholders	Finland has an intersectoral steering group for the implementation of its national action programme. Switzerland, the Netherlands and the UK have comprehensive networks of partners on particular themes (e.g. water safety). No other currently active national stakeholder networks (in WHO terms) could be found.	4 (CH, FI, NL, UK)
S4.	Centre of expertise for the prevention of HLAs	Functioning (governmental or non-governmental) unit with at least two FTE HLA experts	Several countries have active centres of expertise with dedicated HLA departments (Austria, Finland, Germany, Netherlands, Norway, Switzerland, UK). Some more countries have (additional) dedicated units for child safety. A few also have dedicated centres for the prevention of falls and/or sports injuries. A number of countries also have specialized centres of expertise for the prevention of poisoning (poison information centres), drowning (life-saving, water rescue feder- ations) or electrical accidents (technical safety agencies).	7 (AT, CH, DE, FI, NL, NO, UK)

At least seven countries have active centres of expertise for injury prevention with dedicated HLA activities. These include four EU Member States (Austria, Germany, Finland, the Netherlands) as well as Norway, Switzerland and the United Kingdom. While many countries also have dedicated focal centres or working parties for child safety, it is less clear how active and influential they actually remain (since most of the activities and publications found date back a number of years). So-called designated "Safe Communities" are active to a varying extent in quite a few countries, where they serve as rather fragmented and isolated examples of local

and regional prevention programmes. A couple of countries also have dedicated centres for the prevention of falls (safety of senior citizens) and/or sports injuries (sport safety).

The aforementioned national centres of expertise are organised in different ways. Only two of them are primarily government-funded. In Finland, the corresponding team is part of the Welfare and Health Promotion Unit at the Finnish Institute for Health and Welfare (THL; the country's national institute for health) and receives most of its funding from the state [37]. In the Netherlands, VeiligheidNL (CSI; the Dutch Consumer Safety Institute) is a foundation dedicated to the prevention of all injuries and is also funded mainly by the state [38]. The Beratungsstelle für Unfallverhütung (BFU; "Swiss Council for Accident Prevention") is also a foundation dedicated to the prevention of all non-work-related injuries. Its funding is secured by a law [39] which obliges employers to insure their employees not only against the risk of work-related injuries but also against the risk of private accidents (HLAs). The benefitting insurers are required to spend a certain percentage of their respective income from premiums for the prevention of private accidents and jointly operate two centres of expertise specifically for this purpose: the Swiss National Accident Insurance Fund (SUVA) for the prevention of work-related injuries and the aforementioned BFU for the prevention of non-work-related injuries (road traffic, home, leisure, sports, consumer products) [39]. In Austria, Norway and the United Kingdom, the HLA centres are organized as private associations. In Austria, it takes the form of a dedicated department at the Austrian Road Safety Board (KFV; Kuratorium für Verkehrssicherheit), which is constituted as an association of private insurers [40]. The Norwegian Safety Forum is an association with many public and private members, businesses and research institutions [43]. In the United Kingdom, the Royal Society for Accident Prevention (RoSPA) is an association of individuals or organisations of any size or from any professional sector under royal patronage [44], while the British Child Accident Prevention Trust (CAPT) is likewise constituted as an association [45]. In Germany, there are three specialised centres active at federal level: one association funded by insurers that deals with domestic safety [46], another that focuses on child safety [47], and one that handles safety in sports (serving mainly sports clubs) [48].

Four of these seven expert centres operate as so-called brick-and-mortar institutions, i.e. agencies with substantial resources and in-house staff to implement their research and prevention plans (Austria, Finland, the Netherlands, Switzerland). The others, in contrast, serve as the nucleus in a virtual network of agencies and partner organisations which are expected to provide the necessary input and resources for joint actions (Germany, Norway, the United Kingdom). In the UK, for most HLAs, prevention is the responsibility of the four constituent countries. Actually, the mentioned national action plan (Safe and active in all ages) covers just England, while the national drowning prevention strategy covers the entire kingdom.

3.3 HLA INJURY MONITORING AND RESEARCH

At least 19 countries have injury surveillance systems in place which deliver information on the magnitude of HLA injuries and the corresponding external circumstances (causes) (see

Table 4). All of these monitoring systems apply the EU-IDB methodology [25].

	INDICATOR	SPECIFICATION	RESULTS OF INTERNET SEARCH	# YES
			20 countries have sustained HLA injury monitoring systems which also cover exter- nal circumstances.	
S5.	HLA surveillance system	Ongoing surveil- lance of external causes of non-fatal HLAs	19 of these use EU-IDB or compatible standards. 11 of these systems (AT, FR, DE, IT, LV, LU, MT, NL, PT, SI, TR) collect com- prehensive data, i.e. the so-called Full Data Set (IDB-FDS), while 8 only collect data for the rudimentary IDB-MDS data set (CY, DK, EE, FI, LT, NO, SE, UK). Swiss data are based on another methodology.	20
S6.	Participation in European exchange of data on HLAs	Ongoing exchange of data on external causes of HLAs (not just fatalities)	18 of these countries participate in the EU- IDB data exchange. France does not share its IDB-compatible data, while the Swiss data are based on another methodology.	18
S7.	Mechanism to subsidise safety research in the field of HLAs	Funding programme which explicitly includes HLA safety research	No specific programmes for HLA found.	0
TABLE 4: Result	s regarding HLA mo	nitoring and research.		

Most valuable in this respect are EU-IDB implementations based on the IDB-FDS (Full Data Set), which provides detailed information on the activity, place of occurrence, mechanism of injury and even the products involved in the events [49]. 11 countries collect FDS data, and 7 gather data for the so-called Minimum Data Set (MDS), which provide details of the magnitude of the problem (incidence rates) but only limited information for guiding targeted prevention activities [50]. Table 5 shows which injury data are collected in each country: FDS>MDS indicates that only FDS data are collected, from which MDS data are then extracted; FDS+MDS indicates that two separate and potentially overlapping samples are collected; MDS-AGG indicates that only aggregated MDS data (incidence rates) are submitted to the EU-IDB. France is the sole country to refrain from calculating national rates and sharing its data with others.

COUNTRY	2013	2014	2015	2016	2017	
Austria	FDS>MDS	FDS>MDS	FDS>MDS	FDS>MDS	FDS>MDS	
Cyprus	FDS+MDS	MDS	MDS	MDS	MDS	
Denmark	FDS+MDS	FDS+MDS	FDS+MDS	FDS+MDS	MDS-AGG	
Estonia	MDS	MDS	MDS	MDS	MDS	
France	FDS	FDS	FDS	FDS	FDS	
Finland	MDS	MDS	MDS	MDS	MDS	
Germany	FDS>MDS	FDS>MDS	FDS>MDS	FDS>MDS	FDS>MDS	
Ireland	MDS	MDS		No data		
Italy	FDS+MDS	FDS+MDS	FDS+MDS	FDS+MDS	FDS+MDS	
Latvia	FDS>MDS	FDS>MDS	FDS>MDS	FDS>MDS	FDS>MDS	
Lithuania	MDS	MDS	MDS	MDS	MDS	
Luxembourg	FDS+MDS	FDS+MDS	FDS+MDS	FDS+MDS	FDS+MDS	
Malta	FDS>MDS	FDS>MDS	FDS>MDS	FDS>MDS	FDS>MDS	
Netherlands	FDS+MDS	FDS+MDS	FDS+MDS	FDS+MDS	FDS+MDS	
Norway	MDS	MDS	MDS	MDS	MDS	
Portugal	FDS>MDS	FDS>MDS	FDS>MDS	FDS>MDS	FDS>MDS	
Romania	FDS+MDS		No	data		
Slovenia	FDS+MDS	FDS+MDS	FDS+MDS	FDS+MDS	FDS+MDS	
Spain	FDS>MDS		No	data		
Sweden	FDS>MDS	FDS>MDS	FDS>MDS	FDS>MDS	MDS	
Turkey	FDS>MDS	FDS>MDS	FDS>MDS	FDS>MDS	FDS>MDS	
United Kingdom	MDS	MDS	MDS-AGG	MDS-AGG	MDS-AGG	
Only MDS	6	7	6	6	8	
FDS and MDS	15	12	12	12	10	
Only FDS	1	1	1	1	1	
Total	22	20	19	19	19	
Table 5: Quality of HLA-related injury surveillance systems: green indicates EU-IDB Full Data Set; blue indicates EU-IDB						

None of the other countries studied have dedicated injury surveillance systems in place besides the usual health statistics on causes of death (EU-ICD-10, Chapter XX codes), hospital discharges by diagnosis (type of injury; EU-ICD-10, Chapter XIX codes) and special registers for road traffic and workplace accidents, which are not relevant in our context.

Potentially more relevant than international comparisons is the use of data at national level to initiate, guide and evaluate safety activities [60]. It would seem that some countries collect but do not analyse their data. Some EU-IDB data might be published in general national health

reports, but this scenario was not systematically explored in our study. A few countries publish reports on injuries in their countries. Austria, for instance, provides annual reports [51], Luxembourg publishes reports at intermittent intervals [52], and the Netherlands produces analyses on various topics (e.g. specific age-groups) [53]. At a European level, EuroSafe publishes bi-annual reports on injuries in Europe [29]. While EU-IDB data are frequently analysed for use in European reports on various injury risks such as accidents involving children [54], sport injuries [55], product-related injuries [56] or methodological issues [57], the corresponding number of publications in scientific journals is rather small in comparison to the diverse range of relevant questions which could be analysed using EU-IDB data.

None of the countries studied has a specific financing mechanism for HLA research, and the term "home and leisure accidents" (or similar terms like "consumer safety", "prevention of domestic accidents") does not feature in any existing research funding programmes. There are also no specific scientific journals on the topic of HLAs. Research on HLA prevention tends to be published in more general journals on public health, epidemiology or injury prevention as well as in age-specific medical journals on paediatrics or ageing.

3.4 HLA PREVENTION ACTIVITIES

Sustained activities (research and prevention) across the entire field of HLA were only detected in some countries (see Table 6), where they had strong ties to centres of expertise.

	INDICATOR	SPECIFICATION	RESULTS OF INTERNET SEARCH	# YES
S8.	Noteworthy national HLA prevention ac- tions in the past two years	Legal action, improved standards for products or services, informa- tion programme or campaign with controlled impact	Noteworthy national prevention activities (or campaigns) are almost always bound to centres of expertise (AT, CH, FI, NL, NO, UK). Geographically limited yet thematically broad "Safe Community" programmes are mainly implemented in Scandinavian countries. Some specific activities (carried out by char- ities) deal with child safety, fall prevention among the elderly and the prevention of sports injuries. Only a few countries (AT, CH, NL) explicitly mention consumer product safety activities as one of their spearheads by carrying out risk assessments and supporting	12
			the development of technical standards and enforcement practices.	
TABLE 6: Results	s regarding HLA prev	vention.		

	INDICATOR	SPECIFICATION	RESULTS OF INTERNET SEARCH	# YES
S9.	Participation in European exchange of experience with safety actions in the field of HLA	Effective exchange of HLA safety expertise	Individual experts from all countries studied participated in the past two European Conferences for Injury Prevention. Func- tionaries of the main European international organisations (EuroSafe, EUPHA injury section) stem almost exclusively from the aforementioned centres of expertise and some university institutes.	22
S10.	Mechanism to subsidise HLA safety promotion	Funding programme which explicitly includes HLA safety promotion projects	Three brick and mortar centres of expertise have annual government budgets and workplans but information on their resources is rarely published. The other agencies seem to depend on voluntary membership fees. Other than these centres, no sustained programmes for supporting HLA prevention could be found.	3 (CH, Fl, NL)
S11.	Respondent in competent au- thority or centre of expertise	Person familiar with HLA injury research and/or prevention who helped with the completion of the report.	While contact persons were identified and approached in all the countries studied, some of them did not respond. Others passed the request on to other persons/ institutions.	33
TABLE 6: Results	s regarding HLA prev	vention.		

Explicit inclusion of all aspects of domestic and leisure safety is found in the various regional and municipal "Safe Community" network programmes [16]. The guidelines for such Safe Communities demand that they in principle tackle all preventable injuries [58]. Certified Safe Communities have implemented action programmes on various kinds of injuries (unintentional and sometimes also intentional). Effective programmes can obtain certification from the International Safe Communities Certification Centre (ISCCC). The Safe Community programme has been endorsed by the WHO in recent decades and seems to be most successful in the Scandinavian region [59].

Many of the safety activities encountered in the broad field of HLA prevention are targeted at children and focus primarily on safety in the home and surrounding environment (e.g. precautions against poisoning, falls, burns, scalds; promotion of safety products like drawer/ window locks, stove guards, smoke detectors, etc.). Most activities relating to unsafe products likewise address child-related products. Drowning prevention is also a frequent issue (e.g. pool fencing, swimming and life-saving courses). Commonly encountered activities for the prevention of falls include those designed to improve safety in the home (elimination of trip hazards, better lighting, walking aids) as well as courses on how to fall safely. Activities relating to safety in sports are generally addressed at specific types of sports and are targeted mainly at sports clubs (e.g. soccer, handball, basketball), although some activities directed at popular individual sports (e.g. running, hiking, skiing) were also identified. Several child safety campaigns (e.g. "giant house" exhibitions [house interior in large-size as seen by small children], pool fencing) and some fall prevention campaigns (e.g. training programmes for seniors) or activities to prevent sports injuries (e.g. training programmes for soccer clubs) seem to be initiated independently by national centres. However, it is difficult to find these using an internet search since they are frequently carried out by organisations with different primary focus (e.g. rescue, first-aid, child welfare, sports or medical associations; insurance companies). Many of these organisations do not promote these activities – which are often temporary in nature – prominently on their websites. The most common activity found is the production of posters and brochures, but their distribution outreach almost always remains unknown and it must be assumed that some of them have only a rather limited impact.

Another promising category of interventions addresses the design and technical quality of consumer products, since the safety – or lack thereof – of consumer products plays an important role in the frequency and severity of injuries. In the EU, about 11 million product-related injuries occur each year (three quarters of all HLAs). This does not necessarily mean that the products involved in these accidents are unsafe in terms of the EU's General Product Safety Directive (2001/95/EC), but it does demonstrate the benefits that could be gained from enhancing the safety of products, e.g. through better design, maintenance or use. The prevention of just 10% of consumer product related injuries would reduce the number of injury cases by around 1.5 million each year. The savings in costs for medical treatment alone has been estimated to be 8 billion euros [60].

At EU level, EU-IDB data, in particular the IDB-FDS data, have helped to shape many consumer safety initiatives. As a result of the efforts by EuroSafe and the European Association for the Co-ordination of Consumer Representation in Standardisation (ANEC), EU-IDB data have been used to support the implementation of the General Product Safety Directive [61] and to improve the safety of childcare articles, children's furniture, toys, construction products, and much more [62].

Nonetheless, only three countries (Austria, the Netherlands, Switzerland) explicitly mention product safety in their action plans and web-based communications as a spearhead in their approach to enhancing HLA safety. This suggests that a very effective method of preventing injuries by systematically reducing the inherent risks of consumer products and/or buildings though strict regulation and enforcement is currently being massively underutilised. Such an approach goes far beyond the usual approaches of seeking to change behaviour through health education and safety promotion efforts. The underutilization of HLA product-related injury data also results in serious flaws in national and local enforcement practices since it leaves an important source of information for priority setting and risk assessment out of the equation.

Just three countries studied (CH, FI, NL) mentions a specific financing mechanism for HLA safety promotion. The term "home and leisure injuries or accidents" (or similar terms like

"consumer safety", "prevention of domestic accidents") is not used in of the existing funding programmes for health promotion or health education, if injury or accident prevention is actually mentioned at all.

Smart products, micro-sensors, robotics, the analysis of big data, self-learning systems and artificial intelligence all offer new opportunities for the prevention of HLA. However, the corresponding research and innovation seem at present to be focused on road traffic and work-place safety. Opportunities in the field of home and leisure safety have, as yet, hardly been explored (see Table 7).

	INDICATOR	SPECIFICATION	RESULTS OF INTERNET SEARCH	# YES				
S12.	Expert(s) for innovations in the prevention of HLA	Institution or person possibly working with innovative pre- vention approaches (AI)	Most respondents were not able to identify an expert. Some countries have focal centres dealing with AAL (ambient assisted living). There are several international projects on fairly specific safety issues. The project groups are affiliated to technical universities.	7 (AT, CH, DK, FI, IT, NL, UK)				
S13.	Innovative approaches for injury data pro- cessing and injury prevention	Assessment of the potential of digital- isation and Al	The findings in this respect are rudimentary (due to the rather incomplete responses). At least a few answers express the expectation that smart solutions for homes, sport, appli- ances and tools will increase safety. Better understanding of injury mechanisms is expected through improved data collection systems and analysis methods.	7 (AT, CH, DK, FI, IT, NL, UK)				
TABLE 7: Results	TABLE 7: Results regarding smart solutions (digitalisation and artificial intelligence (AI)).							

Hardly any experts could be found who deal specifically with the opportunities of digitalisation and artificial intelligence in the field of home and leisure safety. While two experts mentioned initial trials with voice recognition and automatic coding to facilitate data gathering in hospitals, this is not considered to be specifically relevant for HLA prevention.

Table 8 provides a summary of the results regarding key elements of an explicit policy targeted at preventing domestic and leisure accidents and increasing safety in the home and during leisure activities.

INDICATOR CODE	INDICATOR	DEFINITION	# YES		
S1.	Competent authority for home and leisure safety	Governmental unit with defined responsibility for safety other than road and workplace safety; mentioned in the organisational chart of the relevant ministries.	3 (CH, FI, NL)		
S2.	National action plan explicitly including HLA	Governmental or govern- ment-endorsed NGO plan of action with defined goals and actions; published on relevant websites.	4 (CH, CZ, FI, NL)		
S3.	National stakeholder network deal- ing with the prevention of HLA	Functioning platform of the most relevant national stakeholders (by-laws, meeting reports, list of members); published on relevant websites.	4 (CH, FI, NL, UK)		
S4.	Centre of expertise for the preven- tion of HLA	Functioning (governmental or non-governmental) unit with at least two FTE HLA experts (name, organisation, description of services); own website.	7 (AT, CH, DE, FI, NL, NO, UK)		
S5.	HLA surveillance system	Ongoing surveillance of external causes of non-fatal HLA; nation- al data or data reports regularly published on relevant websites.	20 (CH + 19 IDB-MDS AT, CY, DE, DK, EE, FI, FR, IT, LT, LU, LV, MT, NL, NO, PT, SE, SI, TR, UK, of which 11 also IDB-FDS)		
S6.	Participation in European ex- change of data on HLA	Ongoing exchange of data on external causes of HLA (not just fatalities); national data or data reports regularly published on relevant websites.	18 in EU-IDB and ECHI (all in S5. except CH, FR)		
S7.	Mechanism to subsidise safety research in the field of HLA	Funding programme which actu- ally and explicitly includes HLA safety research; explicit entry in tender conditions, published on relevant websites.	0		
S8.	Noteworthy national HLA preven- tion activities (safety services) in past two years	"Noteworthy" are actions which are communicated or promoted through relevant websites.	Total: 23 Child safety: 18 Sport safety: 6 Falls by senior citizens: 4 Safe Communities: 6 Drownings: 6		

ber States, EU candidate countries, EEA countries, Switzerland and the United Kingdom).

	INDICATOR	DEFINITION	# YES		
S9.	Participation in European ex- change of experiences with safety activities in the field of HLA	Active member(s) in EuroSafe, EU-IDB-Network, European Child Safety Alliance, European Safe Community Network or WHO/Europe NFP Network; presentation(s) at European conferences (2017, 2019).	30		
S10.	Mechanism to subsidise HLA safety promotion	Funding programme (also) for the promotion of HLA safety (projects); explicit entry in tender conditions, published on relevant websites.	3 (CH, FI, NL)		
S11.	International liaison officer in competent authority or centre of expertise	At least one person familiar with HLA injury research and prevention who helped complete the report (or at least endorsed the survey).	33 contacts (24 responses by 31 March 2021)		
S12.	Task force for innovations in the prevention of HLA	At least one person working with innovative prevention approaches (AI) in the field of HLA.	7 (AT, CH, DK, FI, IT, NL, UK)		

TABLE 8: Key elements of a policy for the prevention of domestic and leisure accidents in 33 European countries (EU Member States, EU candidate countries, EEA countries, Switzerland and the United Kingdom).

3.5 IMPACT OF MEASURES ON HLA INJURY RATES AND/OR TRENDS

Given the limited and fragmented actions that countries have initiated in response to the WHO and EU recommendations raises the question of whether citizens of countries with a more robust structure and action plan are less at of risk of suffering domestic injuries than their counterparts in other countries. Rough indicators of this risk are the rate of fatal non-work-related injuries (mortality statistics) and the rate of ED presentations for HLA (based on EU-IDB-data).

Table 9 again shows the rates for fatalities, hospital admissions, ED cases and all cases (cf. Table 2), this time aggregated for two groups of countries, one comprising the seven countries with dedicated centres of excellence and the other made up of those countries without such agencies.

	AGE STAN- DARDISED DEATH RATE PER 100,000		CRUDI OF EU-ID SIONS P	E RATE B ADMIS- ER 1,000	CRUDE R/ CASES P	ATE OF ED ER 1,000	CRUDE RATE OF ALL EU-IDB CASES PER 1,000			
	AVERAGE 2013-2017	CHANGE 2013-2017	AVERAGE 2013-2017	CHANGE 2013-2017	AVERAGE 2013-2017	CHANGE 2013-2017	AVERAGE 2013-2017	CHANGE 2013-2017		
Seven countries with HLA prevention agencies	30.2	6.7%	7.0	-8.4%	38.7	4.8%	44.7	2.1%		
Countries without HLA prevention agencies	28.5	3.3%	3.7	-2.9%	40.6	34.7%	44.5	33.2%		
ALL	28.9	4.0%	4.9	-0.4%	41.7	19.1%	46.9	22.8%		
TABLE 9: Rates for deaths, hospital admissions, ambulatory treatments and all ED cases due to HLAs for the period 2013- 2017 by groups of countries. Sources: Deaths (ICD-10 W00-X59, Y86 "No traffic accidents"), Eurostat; non-fatal injuries (ECH1-29b "Home, leisure and school accidents"). EU-IDB.										

If we only consider fatalities, our results do not support the notion that the continued work of national prevention agencies correlates with a lower death rate for non-traffic-related accidents and/or with a more favourable development in this death rate. In fact, the average rates for both groups of countries are similar (30.2 vs. 28.5). However, we have to take into consideration here that the procedures for reporting "unnatural deaths" vary significantly from country to country, thus also resulting in huge variations in reported injury rates. Furthermore, the fatal injury figures predominantly relate to injuries sustained by older people in falls and therefore do not offer a good reflection of the potential impact of prevention for HLA injuries on the broader scale. Moreover, programmes for preventing falls by older people have only recently begun to be developed, and measures like improving housing and balance and fitness in new generations of older people only pay off only in the longer term.

The existence of national prevention agencies also does not correlate with significantly lower rates of non-fatal domestic and leisure injuries. The general EU-IDB rate for countries with prevention agencies is almost the same as that for countries without such agencies (44.7 vs. 44.5). The average hospital admission rate for countries with prevention agencies is even slightly higher (7.0 vs. 3.7), while the average rate of ambulatory ED treatment cases is slightly lower (38.7 vs. 40.6). All these differences in rates may be due to divergencies in national health structures and the way the EU-IDB methodology is implemented in different countries. It is therefore more important to monitor the trends within each individual country and to compare those in countries without robust HLA prevention infrastructures with those that do have such infrastructures in place. These trends show a number of differences. The decrease in the hospital admission rate is slightly stronger for those countries with such infrastructure (-8.4%) than for those without (-2.9). The difference is even greater for the rate of ED cases: countries with prevention agencies show a moderate average increase of +4.8%, while this rises to +34.7% for the those that do not.

4 DISCUSSION

Our finding that only a few countries (7 out of 33) actually have dedicated organisations working permanently for home and leisure safety is striking, especially given the fact that more than 50% of all injuries occur in the private domain. A better understanding of the reasons for the limited attention given to the HLA problem is therefore required. There are several possible reasons for this lack of attention: the high level of safety already achieved in Europe compared to other WHO regions, the lack of awareness of the health burden of HLA injuries, the multitude of risk factors involved and complexity of addressing them (e.g. for the prevention of falls by frail persons), the private nature of activities in and around home ('My home is my castle.') and/or conflicting interests between the safety aspirations and the attraction of adventure or self-affirmation.

In the case of the latter, the apparent challenge lies in finding the right balance between the health and welfare benefits of an activity that has a significant share in the injury burden (e.g. physical exercise, adventure sports, leisure activities in general) and the need for risk control. Interest groups should play a full part in weighing up the pros and cons based on shared evidence of the benefits for health and well-being, the risks and societal burden involved and available good practices in preventing avoidable risks. However, the decision on what constitutes the right and affordable balance cannot simply be left to interest groups alone. The final decision must ultimately be made and approved at national government level, since it is the government that is ultimately responsible for securing the safety of its citizens.

The WHO recommends that the following key elements be considered in a systematic approach and infrastructure:

- a) Political leadership (explicit item on the governmental public health agenda).
- b) Formation and operation of a national network of stakeholders.
- c) Development and implementation of a national action plan.
- d) Implementation and operation of a surveillance system which delivers information on external circumstances of injuries to guide targeted prevention.
- e) Sufficient resources for the sustained operation of the responsible agency.

The leading role of the MoH, as advised by the WHO, may be not as crucial as expected. More important is the actual existence of one (or more) leading agencies or centres of expertise, which continuously provide information on HLA prevention to relevant stakeholders and function as clearing houses for data on HLA injuries and evidence-based good practices. Such organisations can be set up as subordinate agencies of a ministry (e.g. the ministry of health but also of welfare, consumer affairs or family policy) or as NGOs (association or foundation) with a varying membership, preferably financially and/or politically strong stakeholder groups (regional communities, private or social insurances, medical associations). Government endorsement and financial support seem to be crucial in the long run for their sustained operation and noteworthy impact. They should also ideally be set up as 'brick-and-mortar' operations equipped with sustainable resources, including in-house staff and experts. In the event that the decision is taken to opt for a more decentralised virtual network structure, it is

still essential that a government nucleus is formally designated and provided with the necessary resources.

Several attempts have been made in the past to establish national all-injury networks of stakeholders for HLA prevention. However, our research was only able to identify a few such formal and permanent networks. It would seem that the special interests of the various stakeholders (rescue organisations, child welfare charities, medical associations, senior citizens organisations, insurance companies, standardisation bodies, producers of sports equipment, sports clubs, etc.) are too diverging and the overlapping zones of interest too small to create a sufficiently strong partnership on an issue which, at the end of the day, is only of peripheral interest to most of these organisations.

National all-injury action plans have suffered a similar fate. The number of potentially effective measures is almost infinite, and many of these target very specific and rather small risks (such as the safety of various products, building regulations, behaviour in specific situations, information units in numerous professional training programmes or curricula, etc.). Accordingly, such national action plans tend, by necessity, to become extremely complex.

A more flexible approach of seeking partnerships that suit the specific nature of the topic (e.g. safety in sports or schools) is more efficient and effective than a broad all-injury approach as it links in with the specific interests of potential partners and taps on the knowledge of the professionals involved. A sufficiently equipped dedicated agency (or centre of expertise), which systematically promotes actions that have been proven to be effective, offers more flexibility. The sustained driving force of such an agency has also more impact than temporary and theme-based activities by single organisations. While few in number, some countries have been operating such centres of expertise for many years, namely Austria, Finland, Germany, the Netherlands, Norway, Switzerland and the United Kingdom. Such an agency can be defined through its mission, expert capacities, sustainable funding, public support, political backing and evidence-based safety measures that are supported by the operation of a dedicated surveillance system or systematic use of injury data.

An interesting model is that provided by the Swiss Council for Accident Prevention (BFU), a foundation dedicated to the prevention of all non-work-related injuries, whose funding by the national insurance industry in Switzerland is secured by law. Although the BFU has no regulatory powers, its funding allows it to create a knowledge base and gives it the coordinative capacity to identify key priority areas, including HLA topics. For each priority area addressed by the BFU, it selects the key stakeholders to be involved and works with them to identify the major risk factors and promising measures and develop an evidence-based action plan.

It is remarkable that there are still a number of countries which do not continuously monitor the magnitude of HLAs and the population groups at risk. Only 19 of the 33 countries studied in the present research have an EU-IDB-compatible injury monitoring system. Only 12 of these countries collect detailed data on external circumstances like the place of occurrence, activities or products involved in the accident. Such details are indispensable for the analysis of accident causes, the development of targeted actions and the subsequent evaluation of such actions. In contrast to other big market economies like the United States [65] or China [66], the EU does not yet have a representative surveillance system of product and service-related injuries for evidence-based risk assessment. However, the existing IDB-FDS system does provide a sound basis for such an system [56].

There are also several countries which have an injury surveillance system in place but apparently hardly analyse and use these data. While they might be expected to at least publish annual reports on injuries, their causes, circumstances and consequences as basic information for raising awareness of the HLA injury burden, this does not seem to be the case for a number of countries. The situation is different for countries that operate a dedicated agency, which cannot work efficiently without data.

It would also appear that EU-IDB-data are underutilised in scientific studies at national and EU level. Besides the limited quality, one possible reason for this might be the poor accessibility of data at European level. At present, there is no web portal to the EU-IDB database: the DG SANTE portal that was previously available has been shut down. Access is only possible through queries to the database operator, EuroSafe, which is not yet well known among scientists. In this context, it is worth noting that the individual EU-IDB countries use different names for their national surveillance systems (e.g. EPAC in France, SINIACA in Italy, RETRACE in Luxembourg, LIS in the Netherlands, ADELIA in Portugal, AWISS in the UK), although they all feed the joint EU-IDB database. This severely hampers brand recognition, and much could be gained by a common national and EU marketing effort to present these systems as national IDB hubs of the EU-IDB.

As far as specific HLA activities are concerned (if explicitly advertised and mentioned by the respondents), these seem to address a broad range of risk groups such as children, people who participate in sports and older people. The prevention of drowning prevention is one issue that is frequently addressed. Activities to raise the safety of homes and promote courses on how to fall correctly were likewise identified in the field of fall prevention. Activities relating to safety in sport tend to address specific types of sports and are primarily targeted at sport clubs (e.g. soccer, handball, basketball) as well as some popular individual sports (e.g. running, hiking, skiing).

It is surprising to note that most activities follow the "soft approach", i.e. seek to raise awareness among risk groups and carers and provide advice on safety measures instead of using the "legal approach" to make sure that vulnerable groups live in safe environments and have access to safer products. Three quarters of all HLA injuries and fatalities are related to consumer products. Estimates suggest that in around 15% of incidents related to consumer products, the injury could have been prevented by improved user instructions and/or better product design, and that in half of these cases, the injury was due to product malfunction. This creates an important and effective opportunity to reduce HLA injuries significantly and relatively quickly through a dedicated national programme for comprehensive product safety regulation, monitoring and enforcement.

Overall, there is also the question of the extent to which the levels of current investment in national infrastructures and activities differ from those at time of publication of the recommendations by the WHO and the Council of the EU [1, 2] some fifteen years ago. First of all, it should be noted in this regard that seven national centres of expertise were already in place in 2005 and that HLA activities and research initiatives were also being carried out in other countries, albeit fragmented. Unfortunately, the majority of countries did not follow suit and continued to deal with the issue of HLA by supporting a few fragmented initiatives and actions without a longer-term vision and guidance.

Secondly, at the time of publication of these recommendations there was also an active informal network in place comprising seven HLA data-collecting countries (Austria, Denmark, France, the Netherlands, Portugal, Sweden and the United Kingdom) that delivered annual data files to the EU [67]. In the period from 2003 to 2015, considerable research investments were made in quantifying the burden of HLA injuries, including the development of a tool to calculate the national burdens [68]. EU-funded projects raised the number of HLA data-collecting countries from 7 to 25 (in 2013). Unfortunately, it has now dropped again to 19 (see Table 5) but still appears to be a fairly stable and functioning network, even without central (EU) funding since 2013. Thirdly, the creation of the European Child Safety Alliance in 2000 [69] facilitated the exchange of expertise between child safety practitioners and led to the establishment of a network with active participants from 30 countries across Europe. Most of these initiatives were co-sponsored by the European Commission with active contributions by the 33 countries that participated in our study. Many of the national child safety activities have been quite successful in terms of reducing fatal childhood injuries in recent years. While many of these activities are still carried out at national level, the international collaboration and intensive exchange of experiences seem to have largely dried up.

Fourthly, our preliminary data analysis suggests that countries that have a better infrastructure for steering HLA prevention initiatives also manage to better control the rising trends in injury rates that are being observed across Europe.

All things considered, most of the investments at national and EU level in the last decade have been made in injury data collection. At present, the EU-IDB Network is one of the strongest EU-level networks in the field of health indicators that is still functioning.

5 CONCLUSIONS AND RECOMMENDATIONS

Despite all efforts, accidents remain the fifth biggest "killer" in the EU after ischaemic heart diseases, cerebrovascular diseases, malignant neoplasms and chronic lower respiratory diseases [58]. About 50% of all fatal injuries are suffered in home, leisure and sport accidents, and this figure is even higher for non-fatal injuries which result in admissions to hospital. HLAs are a major health problem, which is still waiting to be properly and appropriately addressed. The WHO/Europe's resolution of 2005 [1] and the EU Council's recommendation of 2007 [2] urged Member States to give high priority to the prevention of violence and unintentional injury. Over the past 15 years, many countries have successfully intensified their efforts to reduce accidents (unintentional injuries). In most countries, priorities have been set in the fields of road safety, workplace safety and – to a certain extent – child safety. Home and leisure accidents (such as falls by senior citizens, injuries to persons with disabilities, accidents during DIY activities or housework, sports injuries) have been addressed to a much lesser extent.

The risks of domestic and leisure accidents tend to get neglected because most of the corresponding activities that lead to injury are private in nature, and the persons at risk are rarely aware of the need to protect themselves better while participating in such activities. These injury events and the circumstances in which they occur are also extremely diverse, and any corresponding government action plans would require long lists of specific actions that involve multiple policy areas and stakeholder groups. Central government planning does not work well in an environment in which the diversity of circumstances and responsible actors is overwhelming. Furthermore, the competencies for specific actions stretch beyond the responsibility of the ministries of health.

Nevertheless, it remains both appropriate and feasible to address this complex issue. A few countries tackle the issue using national centres of expertise, i.e. organisations or organisational units with capacities for research and safety activities. These dedicated centres operate with systematic work plans which are endorsed or even funded by governments. When working with private sector interest groups, the apparent challenge always lies in finding the right balance between the health and welfare benefits of an activity that accounts for a significant share of the injury burden (e.g. physical exercise, adventure sports and leisure activities in general) and the need for risk control. Interest groups should be invited to play a full part in weighing up the pro and cons based on shared evidence regarding the benefits for health and well-being, the risks and societal burden involved and the available good practices in preventing avoidable risks. But it is ultimately the national government that is responsible for securing the safety of its citizens and choosing the best strategy based on the proposals that are jointly produced by the centres of excellence and the relevant interest groups.

Accordingly, European countries should be encouraged to create and finance national centres of expertise for the prevention of domestic and leisure accidents, thereby making better use of existing organisations and funding opportunities. For reasons of efficiency, such centres could be set up as dedicated departments within other larger, well-established organisations for road safety, workplace safety, family health or health promotion and operate as the nucleus in a wider network of expert organisations. A prerequisite here, of course, is that national gov-

ernments ensure sufficient basic funding based on a multi-year programme of work. It is also evident that there is much to be gained in financial terms by targeted prevention, since the health burden of HLA injuries is immense. Our preliminary data analysis suggests that countries that have a better infrastructure for steering HLA prevention initiatives are also better at controlling the rising trends in injury rates that can be observed across Europe.

Home and leisure accidents should be explicitly identified as a national policy opportunity and prioritised on the public health agenda. National governments should ensure that their general health policies and programmes – which are intended to cover the entire spectrum of causes of mortality and morbidity among the population – always explicitly address diseases and injuries. Unfortunately, the common understanding of the word "disease" does not include injuries, as demonstrated by current WHO/Europe Action Plan on Noncommunicable Diseases [63] or the related action plans of the European Commission [64], none of which address the injury issue.

Existing funding opportunities for prevention and prevention research need be explicitly opened for this issue. To a large extent, this can be done by earmarking existing funding mechanisms. The general financing (co-funding) mechanisms for health promotion and consumer education should also be explicitly opened for the prevention of home and leisure injuries. The same should apply to general financing (co-funding) mechanisms for health information and consumer policy research. Such systems should likewise be explicitly opened up for monitoring home and leisure injuries and enhancing the evidence base for HLA injury prevention.

Over the past decades, data on the external causes of home and leisure accidents have become available in a slowly but steadily growing number of countries, but not yet in all countries. The EU and WHO recommendations remain unchangeably valid, i.e. to implement and maintain an injury surveillance system in order to obtain a better understanding and raise awareness of the burden, causes and consequences of injuries, so that prevention, care and rehabilitation programmes and investments can be better targeted, monitored and evaluated. However, it should be stressed that such monitoring systems for HLA should not be restricted simply to counting numbers (IDB-MDS) – they should also collect comprehensive information on external causes and circumstances of injury events, including the nature of the products involved (IDB-FDS). For valid risk assessment and conclusions on targeted prevention, high-quality data from selected reference hospitals are often more useful than healthcare registers, which primarily serve administrative purposes rather than policy and research needs. In this respect, enhanced collaboration between health and product safety authorities is indispensable for increasing the informative value of existing registers and sharing the burden of a dedicated (FDS) monitoring system for both health information and consumer safety policies.

The limited use of information contained in death certificates is currently not satisfactory. Accordingly, countries are urgently invited to enhance their coding and statistical reporting on the external circumstances of fatal accidents, e.g. with regard to the place of occurrence,

activity and products involved. A rather unexpensive but extremely helpful improvement would be for Eurostat to provide the option to select HLAs in its existing cause of death and hospital discharge statistics. At present, it is not possible to separate HLAs from workplace or road traffic injuries.

The main recommendations to governments from our findings are listed in Table 12. The forthcoming European Conference on Injury Prevention offers an excellent opportunity for national policy makers, injury prevention researchers from across Europe and representatives of European institutions, the WHO, EUPHA and ISCCC to discuss the results of our quick scan study and propose a realistic action plan for according a clear profile and position to HLA prevention in national and European health and consumer protection policies.

G1	Competent authority for home and leisure safety	A governmental unit/person with explicit respon- sibility for HLA safety beyond road and workplace safety who represents the national government in WHO and EU advisory groups.
G2	Centre of expertise for the prevention of HLAs	A functioning (governmental or non-govern- mental) organisation (or unit within an existing organisation) provided with adequate resources for coordinating and implementing HLA activities.
G3	Surveillance system for HLAs	Better statistical use of information on external causes in death certificates. Ongoing surveillance of external causes of non-fatal HLAs in compliance with the IDB-FDS standard.
G4	Participation in the European HLA data exchange	Ongoing exchange of data on external causes of HLAs, active involvement in EU-level data analysis and branding of national IDB in partnership with EU-IDB.
G5	Mechanism to subsidise safety research in the field of HLAs	A national research programme which explicitly invites submissions of HLA projects.
G6	Noteworthy national HLA prevention activities	Annual work programmes for the national centre of expertise in close collaboration with the respective stakeholders, including a dedicated programme for better product safety regulation and enforcement.
G7	Participation in the European exchange of experi- ences with safety activities in the field of HLAs	Active contribution to the work of relevant organ- isations and networks (EuroSafe, European Child Safety Alliance, EUPHA injury section, Safe Com- munity network, WHO Network of Injury NFPs), publications of experiences in relevant journals, presentations at relevant conferences.
G8	Mechanism to subsidize HLA safety promotion	National health and consumer education pro- grammes which explicitly invite submissions of HLA safety promotion projects.
G9	Expert(s) for innovation in the prevention of HLA	Task force on innovative prevention approaches (AI).

TABLE 10: Draft health policy goals regarding domestic and leisure accident prevention: By 2030, all EU Member States, all EEC countries, all EU candidate countries, Switzerland and the United Kingdom should have

In short:

- National governments should put HLA injury prevention explicitly on their public health agendas and decide on the best manner to create an effective infrastructure for coordinating it either in the form of a national centre of expertise or by creating a nucleus that coordinates a network of expert organisations.
- The centre (or network) of expertise should develop a multi-year plan for HLA injury monitoring and research and an agenda for HLA prevention priorities, which should be implemented in close consultation with relevant stakeholder organisations.
- The centre (or network) of expertise should build partnerships with relevant stakeholders by sharing data and evidence on HLA injuries as well as good practices for HLA spearheads such as safety in childcare centres, school safety, safety in sports or falls in the home by older people.
- National governments should support the centre (or network) of expertise and provide it with sufficient resources for its work by securing core funding, opening up existing national funding programmes for research and health and consumer policy, and by securing a functioning injury surveillance system which provides the necessary data for targeted prevention.
- Since three quarters of all HLA injuries and fatalities are related to consumer products, a window of opportunity is afforded by making sure that vulnerable groups enjoy a safe living environment and have access to safer products. Accordingly, all governments should develop a dedicated national programme for comprehensive product safety regulation, monitoring and enforcement.

6 REFERENCES

- [1] WHO Regional Office for Europe (2005): Resolution EUR/RC55/R9 on the Prevention of Injuries in the WHO European Region. https://www.euro.who.int/en/about-us/governance/ regional-committee-for-europe/past-sessions/fifty-fifth-session/resolutions/eurrc55r9
- [2] Council of the EU (2007): Recommendation of 31 May 2007 on the prevention of injury and the promotion of safety. OJ C164/1. http://eur-lex.europa.eu/legal-content/EN/TXT/ PDF/?uri=CELEX:32007H0718(01)&from=EN
- [3] WHO (2020): United Nations Road Safety Collaboration. https://www.who.int/teams/ social-determinants-of-health/safety-and-mobility/decade-of-action-for-road-safety-2021-2030
- [4] WHO Regional Office for Europe (2020): Results of internet search for the term "injury". https://www.euro.who.int/en/search?q=injury
- [6] European Commission, DG Mobility and Transport (2020): European Road Safety Observatory. https://ec.europa.eu/transport/road_safety/specialist/erso_en
- [7] European Agency for Safety and Health at Work OSHA (2020): Themes. https://osha. europa.eu/en/themes
- [5] European Commission, Eurostat (2020): Your key to European statistics. https://ec.europa. eu/eurostat/web/main/data/browse-statistics-by-theme
- [8] WHO Regional Office for Europe (2010): Preventing injuries in Europe: from international collaboration to local implementation. https://www.euro.who.int/en/publications/abstracts/ preventing-injuries-in-europe-from-international-collaboration-to-local-implementation. For (outdated) national progress reports see https://www.euro.who.int/en/health-topics/disease-prevention/violence-and-injuries/publications/national-assessments
- [9] EuroSafe, European Child Safety Alliance (2012): How conscious are European countries towards children. https://www.childsafetyeurope.org/publications/info/child-safety-report-cards-europe-summary-2012.pdf
- [11] Kisser R et al. (2019): Feasibility of standardized reporting schemes on home and leisure injury risks and relevant safety measures for EU countries. Presentation OP9.5 at the EU Safety Conference 2019 in Luxembourg. https://sites.lih.lu/media/3449/eusafety-abstract-book_web.pdf
- [10] EuroSafe (2019): Heim- und Freizeitverletzungen und deren Prävention in Österreich und in der EU. ["Home and leisure injuries and their prevention in Austria and in the EU."] Unpublished project report for the Austrian Road Safety Board (in German).
- [12] Austrian Road Safety Board (2020): EU Safety Conference 2021, 7-8 October 2021 in Vienna. https://www.eu-safety2021.com)
- [13] EuroSafe (2020): Partners. https://www.eurosafe.eu.com/partners
- [14] EuroSafe (2020): Injury Data, Aims & Network. https://www.eurosafe.eu.com/key-actions/ injury-data/aims-network

- [15] EuroSafe (2020): Children & Adolescents, Aims & Network. https://www.eurosafe.eu.com/ key-actions/children-adolescents/aims-network. See also: European Child Safety Alliance: Member List (out of date). https://www.childsafetyeurope.org/aboutus/member-list.html
- [16] International Safe Community Certifying Centre (2020): European Network of Safe Communities (ESCON). https://isccc.global/regional-organizations
- [17] Dutch Consumer Safety Institute (VeiligheidNL) (2017): European Conference on Injury Prevention and Safety Promotion (EU-Safety Conference 2017), 21-22 September 2017 in Amsterdam. https://www.veiligheid.nl/organisatie/actueel/eurosafe-conference
- [18] Luxembourg Institute of Health (2019): EU Safety Conference 2019, 3-4 October 2019 in Luxembourg. https://sites.lih.lu/eu-safety-2019/media/
- [19] WHO Regional Office for Europe (2016): Report on the eighth network meeting of national technical focal points on violence and injury prevention in Chisinau, 11-12 November 2015. https://www.euro.who.int/en/health-topics/disease-prevention/violence-and-injuries/ publications/2016/the-eighth-network-meeting-of-national-technical-focal-points-on-violence-and-injury-prevention.-report-2016. See also (without list of participants) https:// www.euro.who.int/en/media-centre/events/events/2019/10/ninth-meeting-of-the-european-network-of-ministry-of-health-focal-points-for-violence-and-injury-prevention
- [20] European Commission, Consumers, Health, Agriculture and Food Executive Agency (2020): National Focal Points for the Third Programme of the Union's action in the field of health (2014-2020). https://ec.europa.eu/chafea/health/national-focal-points/documents/ national-focal-points-2020_en.pdf
- [21] Google translator web service (2020). https://translate.google.at/
- [22] Eurostat (2020): Database by themes, population and social conditions, health, causes of death, general mortality, standardised death rate. https://ec.europa.eu/eurostat/data/data-base
- [23] Eurostat (2020): Database by themes, population and social conditions, health, healthcare activities, hospital discharges - national data, hospital discharges by diagnosis per 100,000 inhabitants. https://ec.europa.eu/eurostat/data/database
- [24] WHO Regional Office for Europe (2020): European Health Information Gateway, European Health for All Database (HFA-DB), Morbidity, disability and hospital discharges, injury and poisoning per 100,000 inhabitants. https://gateway.euro.who.int/en/datasets/europe-an-health-for-all-database/#morbidity-disability-and-hospital-discharges
- [25] EuroSafe (2020): IDB Manual, IDB-FDS data dictionary, IDB-MDS data dictionary and other documents. https://www.eurosafe.eu.com/key-actions/injury-data/toolbox
- [26] European Commission, DG Health and Consumers: Injury database. https://ec.europa.eu/ health/indicators_data/idb_en
- [27] European Commission, DG Health & Consumers: ECHI European Core Health Indi-

cators (2020), ECHI-29(b) "Injuries: home, leisure, school: register-based incidence (per 1,000 inhabitants). https://ec.europa.eu/health/indicators/echi/list_en

- [28] Instituto di Sanità (ISS) (2020): SINIACA IDB: Injuries Data Base. European Surveillance System on the external causes of injuries. https://www.siniaca-idb.eu/
- [29] EuroSafe (2016): Injuries in the European Union 2012-2014. Amsterdam: EuroSafe. An updated report will be available soon: Kisser R, Turner S, Rogmans W (2021): Injuries in the European Union 2009-2018. Amsterdam: European Association for Injury Prevention and Safety Promotion (EuroSafe). To be published in Q2/2021. https://www.eurosafe.eu.com/ key-actions/injury-data/reports
- [30] EuroSafe (2016): Look at the figures: Home and Leisure Accidents in the EU. http://www. eurosafe.eu.com/look-at-the-figures
- [31] WHO Regional Office for Europe (2020): Violence and Injury Prevention. https://www. euro.who.int/en/health-topics/disease-prevention/violence-and-injuries/areas-of-work).
- [32] WHO Regional Office for Europe (2020): Violence and injuries in Europe: burden, prevention and priorities for action. Copenhagen: WHO Regional Office for Europe. https://www. euro.who.int/en/health-topics/disease-prevention/violence-and-injuries/publications/2020/ violence-and-injuries-in-europe-burden,-prevention-and-priorities-for-action-2020
- [33] WHO Headquarters (2007): Preventing injuries and violence. A guide for ministries of health. Geneva: WHO. https://www.who.int/violence_injury_prevention/publications/injury_policy_planning/prevention_moh/en/
- [34] WHO Regional Office for Europe (2020): Ninth meeting of the European network of ministry of health focal points for violence and injury prevention. 1-2 October 2019, Luxembourg. https://www.euro.who.int/en/media-centre/events/events/2019/10/ninth-meeting-ofthe-european-network-of-ministry-of-health-focal-points-for-violence-and-injury-prevention
- [35] WHO Regional Office for Europe (2016): The eighth network meeting of national technical focal points on violence and injury prevention. Chisinau, Republic of Moldova, 11-12 November 2015. https://www.euro.who.int/__data/assets/pdf_file/0015/302505/8th-report-National-MoH-VIP-focal-points-mtg.pdf
- [36] WHO Regional Office for Europe (2020): Other injury topics. https://www.euro.who.int/ en/health-topics/disease-prevention/violence-and-injuries/areas-of-work/other-injury-topics
- [37] Finnish institute for health and welfare (THL), Welfare and Health Promotion Unit (2020). https://thl.fi/en/web/management-of-health-and-wellbeing-promotion/safety-promotion
- [38] VeiligheidNL (2020). https://www.veiligheid.nl/
- [39] Beratungsstelle für Unfallverhütung (2020). https://www.bfu.ch/en/the-bfu/about-the-bfu
- [40] Austrian Road Safety Board (2020). https://www.kfv.at/

- [41] Grosse Schützen Kleine ("Adults Protect Kids Austria") (2020). https://grosse-schuetzenkleine.at/gsk/ueber-uns/
- [42] Sicheres Vorarlberg ("Vorarlberg Safety Council") (2020). https://www.sicheresvorarlberg. at/
- [43] Skadeforebyggende Forum (Norwegian Safety Forum) (2020). https://www.skafor.org/ norwegian-safety-forum/
- [44] Royal Society for the Prevention of Accidents (RoSPA) (2020). https://www.rospa.com/
- [45] Child Accident Prevention Trust (CAPT) (2020). https://www.capt.org.uk/
- [46] Deutsches Kuratorium für Sicherheit in Heim und Freizeit: "Das sichere Haus" ("German Council for Home and Leisure Safety. "The Safe House"). https://das-sichere-haus.de/
- [47] Bundesarbeitsgemeinschaft "Mehr Sicherheit für Kinder" e.V. (Federal working group for more Safety for Children"). https://www.kindersicherheit.de/
- [48] Stiftung Sicherheit im Sport (Foundation for Safety in Sport). https://www.sicherheit.sport/
- [49] EuroSafe (2017): IDB-Full Data Set (IDB-FDS) Data Dictionary. Version 1.4. of May 2017. https://www.eurosafe.eu.com/uploads/inline-files/IDB%20FDS%20Data%20Dictionary%20May%202017_0.pdf
- [50] EuroSafe (2020): IDB-Minimum Data Set (IDB-MDS) Data Dictionary. https://www. eurosafe.eu.com/uploads/inline-files/IDB_MDS_Data_Dictionary_JAN%202017.pdf
- [51] Donabauer M, Bauer R (2019): Injury Database (IDB) Austria Jahresbericht 2018 ("IDB Annual Report 2018"). https://www.kfv.at/forschung/sport-und-freizeitsicherheit/fachpublikationen/ (in German).
- [52] Bejko D et al. (2017): Traumatismes au Luxembourg ("Injuries in Luxembourg"). https:// sante.public.lu/fr/publications/r/rapport-retrace-2014/rapport-retrace-2014.pdf (in French).
- [53] Draisma C, Stam Ch (2018): Letsels ouderen 65 jaar en ouder (Injuries of the elderly 65+, in Dutch). https://www.veiligheid.nl/valpreventie/feiten-cijfers
- [54] Sengoelge M, Bauer R, Laflamme L (2008): Unintentional child home injury incidence and patterns in six countries in Europe. Injury Control and Safety Promotion 15(3):129-39. https://www.researchgate.net/publication/23288602_Unintentional_child_home_injury_incidence_and_patterns_in_six_countries_in_Europe
- [55] Kisser R, Bauer R (2012): The burden of sport injuries in the European Union. Research report of the EU project "Safety in sports". Vienna: Kuratorium Austrian Road Safety Board. https://www.sicherheitimsport.de/wp-content/uploads/2014/12/burden_report.pdf
- [56] Radovnikovic A et al. (2020): Assessment of the opportunities for increasing the availability of EU data on consumer product-related injuries. Injury Prevention. 05 May 2020.

doi: 10.1136/injuryprev-2020-043677. https://injuryprevention.bmj.com/content/ear-ly/2020/09/28/injuryprev-2020-043677

- [57] Bejko D et al. (2018): "To survey or to register" is that the question for estimating population incidence of injuries? Arch Public Health 76. https://link.springer.com/article/10.1186/ s13690-018-0322-0
- [58] International Safe Community Certifying Centre (2020): Indicators that must be fulfilled. https://isccc.global/indicators-that-must-be-fulfilled. See also: Application Form "Becoming certified as a Safe Community". https://isccc.global/how-to-become-an-international-safe-community
- [59] International Safe Community Certifying Centre (2020): Communities. https://isccc. global/communities-under-process-to-became-an-international-safe-community-
- [60] EuroSafe: Injury data collection an effective tool for helping to cut societal costs of injuries. Amsterdam: EuroSafe (2013). https://www.EuroSafe.eu.com/uploads/inline-files/ IDB%20as%20effective%20tool%20for%20cost%20saving%20measures.pdf
- [61] European Parliament and Council (2001): Directive 2001/95/EC of 3 December 2001 on general product safety. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX-:32001L0095&from=EN
- [62] ANEC (2020): Position paper "European consumer safety needs solid injury data". https:// www.anec.eu/images/Publications/position-papers/Horizontal/ANEC-WP1-2020-G-047. pdf See also: ANEC (2013) Joint call "The need for a pan-European accident and injury data system" https://www.anec.eu/images/Publications/position-papers/Horizontal/ANEC-WP1-

system". https://www.anec.eu/images/Publications/position-papers/Horizontal/ANEC-WP1-2020-G-047.pdf

- [63] WHO Regional Office for Europe (2016): Action Plan for the Prevention and Control of Noncommunicable Diseases in the WHO European Region. https://www.euro.who.int/__ data/assets/pdf_file/0008/346328/NCD-ActionPlan-GB.pdf
- [64] European Commission, DG Health (2020): Steering Group on Health Promotion, Disease Prevention and Management of Non-Communicable Diseases. https://ec.europa.eu/health/ non_communicable_diseases/steeringgroup_promotionprevention_en
- [65] Consumer Product Safety Commission (2020): National Electronic Injury Surveillance System NEISS. https://www.cpsc.gov/Research--Statistics/NEISS-Injury-Data
- [66] Chinese Center for Disease Control and Prevention (2020): The China National Injury Surveillance System NISS. http://www.chinacdc.cn/en/aboutus/orc_9341/201810/ t20181008_194505.html
- [67] Austrian Road Safety Board and EuroSafe (2007): Injuries in the European Union Summary of Statistics 2003-2005. Vienna: KFV. Injuries in the European Union: Summary 2003-2005 Portail Santé // Grand-Duché de Luxembourg (public.lu). See also: Austrian Road Safety Board and EuroSafe (2006): Injuries in the European Union Summary 2002-

2004. https://ec.europa.eu/health/archive/ph_determinants/environment/ipp/documents/ injurieseu_sum_en.pdf

- [68] Rogmans WHJ (2012): Joint action on monitoring injuries in Europe (JAMIE). Archives of Public Health 70(1):19. DOI: 10.1186/0778-7367-70-19. https://www.researchgate.net/ publication/230835843_Joint_action_on_monitoring_injuries_in_Europe_JAMIE
- [69] European Child Safety Alliance (2020): Homepage. https://childsafetyeurope.org/aboutus/ index.html. See also Vincenten J (2001): European Child Safety Alliance. Injury Prevention 2001; 7 81-82. DOI: 10.1136/ip.7.2.166.

7 ABBREVIATIONS

AAL: Ambient (Active) Assisted Living.

- ADELIA: Acidentes Domésticos e de Lazer Informação Adequada (the former Portuguese surveillance system for home and leisure accidents, now known as EVITA). Compatible with EU-IDB.
- ANEC: Association Européenne pour la coordination de la représentation des Consommateurs pour la normalisation (European Association for the Co-ordination of Consumer Representation in Standardisation, informally "the European consumer voice in standardisation").
- AWISS: All-Wales Injury Surveillance System, operated by HDRUK, United Kingdom. Compatible with EU-IDB.
- BFU: Beratungsstelle für Unfallverhütung (Swiss Council for Accident Prevention), Switzerland.
- CAPT: Child Accident Prevention Trust, United Kingdom.
- CHAFEA: Consumers, Health, Agriculture and Food Executive Agency, an agency of the European Commission, Directorate General for Health and Food Safety (DG SANTE).
- CSI: Consumer Safety Institute, now VeiligheidNL, the Dutch institute for the prevention of home and leisure accidents, the Netherlands.
- DSH: Das Sichere Haus (Safe Home), Germany.
- ECHI: European Core Health Indicators, a service of the European Commission, Directorate General for Health and Food Safety (DG SANTE).
- ECSA: European Child Safety Alliance, a network of EuroSafe.
- ED: Emergency Department.
- EEA: European Economic Area.
- EPAC: Enquête permanente sur les accidents de la vie courante (the French surveillance system for home and leisure time injuries), operated by Santé Public France (Public Health France). Compatible with EU-IDB.
- ERSO: European Road Safety Observatory, a service of the European Commission, Directorate General for Mobility and Transport (DG TRANS).
- ESCON: European Safe Community Network, a regional network of the ISCCC.
- EU: European Union
- EU-IDB: European Injury Database, operated by EuroSafe.
- EU-OSHA: European Agency for Safety and Health at Work (Occupational Safety and Health Administration), an agency of the European Commission, Directorate General for Employment, Social Affairs and Inclusion (DG EMPL).

EUPHA: European Public Health Association.

- EuroSafe: European Association for Injury Prevention and Safety Promotion.
- EVITA: Epidemiologia e Vigilância dos Traumatismo e Acidentes (the Portuguese surveillance system for home and leisure injuries), operated by INSA. Compatible with EU-IDB.
- FDS: Full Data Set of the EU-IDB (IDB-FDS).
- FTE: Full-Time Equivalent.
- GDPR: General Data Protection Regulation (2016/679).
- GPSD: General Product Safety Directive (2001/95).
- HDRUK: Health Data Research UK at Swansea University Medical School, United Kingdom.
- HLA: Home and Leisure Accident.
- ICD-10: International Classification of Diseases and related Health Problems of the WHO, Version 10.
- INSA: National Health Institute Dr. Ricardo Jorge, Portugal.
- ISCCC: International Safe Community Certifying Centre.
- ISS: Istituto Superiore di Sanità (National Institute for Health, Italy.
- KFV: Kuratorium für Verkehrssicherheit (Austrian Road Safety Board), Austria.
- LIH: Luxembourg Institute for Health.
- LIS: Letsel Informatie System (the Dutch injury surveillance system), operated by CSI. Compatible with EU-IDB.
- MDS: Minimum Data Set of the EU-IDB (IDB-MDS).
- MoH: Ministry of Health.
- NEISS: National Electronic Injury Surveillance System (the US injury surveillance system), operated by the US Consumer Product Safety Commission (CPSC).
- NISS: National Injury Surveillance System of China, operated by the Chinese Center for Disease Control and Prevention.
- NGO: Non-Governmental Organisation.
- NFP: National Focal Point (or Person).
- RETRACE: Recueil de données sur les Traumatismes et Accidents (the Luxembourg injury surveillance system), operated by LIH. Compatible with EU-IDB.

RTA: Road Transport Accident.

- RoSPA: Royal Society for the Prevention of Accidents, United Kingdom.
- SINIACA: Sistema Informativo Nazionale Incidenti in Ambienti di Civile Abitazione (the Italian surveillance system for injuries), operated by ISS. Compatible with EU-IDB.
- SUVA: Schweizerische Unfallverhütungs-Anstalt (Swiss National Accident Insurance Fund).
- THL: Terveyden ja Hyvinvoinnin Laitos (Finnish institute for health and welfare).
- WHO: World Health Organisation.

WPA: Workplace Accident.

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9 ANNEXES

		2013			2014			2015		2016 2017		2013- 2017	2013- 2017				
	AC	TR	NT	AC	TR	NT	AC	TR	NT	AC	TR	NT	AC	TR	NT	AV	TREND
AT	32.3	5.9	26.4	30.7	5.8	25.0	32.1	5.9	26.3	29.0	5.3	23.7	29.7	5.2	24.5	25.2	-7.1%
BE	40.6	7.2	33.4	38.8	6.7	32.1	41.2	6.6	34.6	38.4	6.1	32.3	37.4	5.5	31.9	32.9	-4.5%
BG	24.4	8.3	16.2	26.3	9.0	17.3	26.8	9.6	17.2	25.1	9.5	15.6	24.6	8.2	16.4	16.5	1.3%
HR	53.9	10.1	43.8	53.9	8.9	45.1	56.8	10.4	46.3	54.5	9.3	45.2	50.4	9.9	40.5	44.2	-7.5%
CY	35.8	6.2	29.6	35.8	6.5	29.3	34.2	8.5	25.8	34.5	6.9	27.6	38.2	7.1	31.1	28.7	4.9%
CZ	40.8	7.7	33.1	42.5	7.8	34.7	44.5	8.1	36.4	40.5	7.1	33.3	40.3	6.9	33.5	34.2	1.1%
DK	27.4	4.1	23.3	27.2	4.0	23.1	25.1	4.0	21.1	24.9	3.7	21.2	25.5	3.6	22.0	22.1	-5.5%
EE	51.0	7.3	43.7	50.1	7.5	42.7	46.1	6.6	39.5	46.2	5.8	40.4	43.2	5.0	38.2	40.9	-12.7%
FI	47.9	6.1	41.8	45.9	5.7	40.2	44.0	5.5	38.5	44.6	5.2	39.3	44.9	5.2	39.8	39.9	-4.8%
FR	38.3	5.1	33.2	37.3	5.1	32.2	40.4	5.0	35.3	38.8	5.0	33.8	38.7	5.1	33.6	33.6	1.2%
DE	25.2	4.7	20.5	25.5	4.6	20.9	26.9	4.6	22.3	28.5	4.3	24.2	29.8	4.2	25.6	22.7	25.0%
EL	22.7	9.5	13.2	19.3	8.6	10.7	23.6	8.4	15.2	24.5	9.0	15.5	26.5	8.1	18.5	14.6	39.9%
HU	41.1	7.7	33.5	40.4	8.1	32.3	41.3	8.6	32.7	39.2	8.6	30.7	41.2	8.5	32.7	32.4	-2.3%
IS	32.3	5.5	26.8	28.1	1.7	26.3	29.6	4.6	25.0	40.9	7.2	33.7	38.2	2.7	35.5	29.4	32.2%
IE	24.3	3.9	20.5	26.6	3.9	22.7	22.2	3.0	19.2	21.9	3.4	18.5	23.3	3.1	20.2	20.2	-1.0%
IT	26.3	5.8	20.5	25.4	5.6	19.8	26.6	5.7	20.9	26.8	5.6	21.2	27.8	5.7	22.1	20.9	7.7%
LV	58.1	9.9	48.2	60.0	12.4	47.7	55.2	11.3	43.9	52.8	10.5	42.3	53.3	8.2	45.1	45.4	-6.5%
LT	69.5	11.0	58.6	66.0	10.7	55.3	64.8	10.5	54.3	62.9	8.7	54.2	59.3	8.7	50.5	54.6	-13.7%
LU	43.6	7.8	35.9	34.0	6.0	28.0	36.7	6.6	30.2	39.0	6.5	32.6	26.6	3.4	23.2	29.9	-35.4%
MT	22.1	5.1	17.0	19.5	2.5	17.0	19.5	3.0	16.4	24.5	5.9	18.6	22.9	4.6	18.4	17.5	7.9%
NL	32.4	4.2	28.2	33.2	4.2	29.1	37.0	4.5	32.5	39.1	4.4	34.7	40.2	4.2	35.9	32.1	27.4%
NO	43.7	4.8	39.0	44.0	4.0	40.0	39.6	3.5	36.1	41.8	3.9	37.9	40.1	3.0	37.0	38.0	-4.9%
PL	40.0	10.7	29.3	38.1	10.3	27.7	35.5	9.5	26.0	35.0	9.9	25.1	35.8	9.4	26.4	26.9	-9.7%
PT	19.3	7.3	12.0	22.2	7.8	14.5	23.9	7.6	16.3	26.2	7.0	19.2	29.5	7.8	21.7	16.7	80.9%
RO	37.3	12.1	25.2	36.8	11.9	24.9	36.1	11.9	24.2	37.8	12.3	25.5	38.4	12.5	25.9	25.2	2.7%
SI	48.1	8.1	40.0	41.9	6.7	35.2	44.3	7.9	36.5	44.3	7.6	36.8	51.3	6.7	44.6	38.6	11.5%
SK	54.9	7.4	47.5	40.8	8.5	32.2	40.7	9.1	31.6	37.5	7.2	30.3	36.9	7.5	29.5	34.2	-38.0%
SP	20.9	4.4	16.4	21.2	4.3	16.9	22.1	4.5	17.6	22.9	4.3	18.6	22.6	4.4	18.2	17.6	10.8%
SE	31.8	3.3	28.5	32.4	3.4	29.0	33.9	3.2	30.7	32.3	3.1	29.3	32.7	2.9	29.8	29.4	4.7%
СН	35.4	4.3	31.1	33.7	3.6	30.1	34.0	4.0	29.9	32.8	3.5	29.3	31.9	3.7	28.3	29.7	-9.1%
SR	20.9	8.2	12.7	21.5	7.6	14.0	21.9	7.8	14.1	20.4	7.3	13.1	23.6	8.3	15.3	13.8	20.8%
TR	33.2	11.4	21.8	32.9	10.2	22.7	31.7	10.3	21.4	32.2	10.6	21.5	31.3	10.5	20.8	21.7	-4.8%
UK	24.4	2.7	21.7	24.7	2.8	21.9	27.0	2.8	24.3	27.3	2.7	24.6	28.6	2.5	26.1	23.7	20.3%
ALL	36,4	6,9	29,5	35,1	6,6	28,5	35,3	6,8	28,6	35,4	6,6	28,8	35,3	6,1	29,2	28,9	1,0%

ANNEX 1: Age-standardised death rates for "non-traffic accidents" per 100,000. Source: Eurostat "Causes of death - standardised death rate" (HLTH_CD_ASDR2). Abbreviations: AC = All accidents (ICD-10 V01-X59, Y85, Y86), TR = Traffic accidents (V01-V99, Y85), NT = Non-traffic accidents (W00-X59, Y86). AV = Average 2013-2017, TREND = Change 2013-2017 in %.

	2013	2014	2015	2016	2017	AV	TREND
Austria	17.0	15.5	15.3	15.7	15.4	15.8	-9.6%
Cyprus			0.5	0.5	0.4	0.5	-23.4%
Denmark			5.0	4.7		4.8	-7.2%
Estonia			5.0	4.5	4.5	4.7	-10.2%
Finland	4.0	3.5		3.4	3.4	3.6	-16.1%
Iceland	2.7					2.7	
Ireland	4.4					4.4	
Italy	4.6	5.1	5.3	5.5	5.3	5.2	15.4%
Lithuania	4.6	4.8	4.7	4.8	4.6	4.7	-0.8%
Luxembourg	4.9	4.4	4.6	3.8	3.6	4.3	-27.1%
Malta	4.0	1.5	1.6	4.0		2.8	-0.6%
Netherlands	4.6	4.5	6.6	6.6	5.0	5.5	8.4%
Norway	5.9	5.7	5.6	5.8	4.2	5.4	-28.1%
Portugal	2.8	5.1	2.5	1.8	3.0	3.0	8.4%
Romania	4.1					4.1	
Slovenia	3.3	3.9	2.3	1.3	4.1	3.0	26.4%
Spain	3.6					3.6	
Sweden	6.6	6.1	5.8			6.1	-11.7%
Turkey	1.7	1.9	3.1	1.7		2.1	-0.9%
United Kingdom	4.3	4.9	4.5	4.4		4.5	3.5%
ALL	4.9	5.1	4.8	4.6	4.9	4.9	-0.4%
ANNEX 2: IDB rate f	for admitted Hl	As (admission	s) per 1,000. S	ource: EuroSaf	e IDB-MDS da	ta.	
	2013	2014	2015	2016	2017	AV	TREND
Austria	56.5	58.3	50.7	49.4	49.5	52.9	-12.5%
Cyprus			23.6	16.3	10.9	17.0	-53.9%
Denmark			48.2	47.1		47.6	-2.5%
Estonia			44.0	75.7	73.4	64.4	66.7%
Finland	10.0	9.5		11.4	12.0	10.7	19.6%
Iceland	53.3					53.3	
Ireland	26.8					26.8	
Italy	68.3	72.5	72.9	78.6	77.4	73.9	13.4%
Lithuania	13.8	18.4	22.2	24.9	25.0	20.8	81.2%
Luxembourg	62.0	61.1	67.9	62.0	57.3	62.0	-7.6%
Malta	18.3	8.3	10.5	16.4		13.4	-10.4%
ANNEX 3: IDB rate f	for ambulatorv-	treated HLA (ED cases) per 1	.000. Source:	EuroSafe IDB-	MDS data.	

	2013	2014	2015	2016	2017	AV	TREND
Netherlands	26.3	26.4	33.9	31.6	26.4	28.9	0.2%
Norway	35.7	36.3	35.3	35.4	39.2	36.4	9.8%
Portugal	32.0	67.2	65.1	53.2	64.9	56.5	102.9%
Romania	18.0					18.0	
Slovenia	22.1	25.1	26.6	24.8	27.6	25.2	24.9%
Spain	32.9					32.9	
Sweden	33.4	34.3	36.7			34.8	9.9%
Turkey	30.5	45.5	94.0	78.3		62.1	156.7%
United Kingdom	61.6	65.1	66.7	65.7		64.8	6.8%
ALL	35.4	40.6	46.6	44.7	42.1	41.7	19.1%
ANNEX 3: IDB rate f	for ambulatory-	treated HLA (ED cases) per 1	,000. Source:	EuroSafe IDB-	MDS data.	
	2013	2014	2015	2016	2017	AV	TREND
Austria	73.5	73.8	66.0	65.1	64.8	68.6	-11.8%
Cyprus			28.6	18.6	12.1	19.7	-57.8%
Denmark	47.2	48.5	53.3	51.7		50.2	9.8%
Estonia	40.8	41.9	49.1	80.1	77.9	58.0	90.9%
Finland	15.3	14.3		16.4	16.5	15.6	7.9%
Germany	37.6	37.9				37.7	1.0%
Iceland	60.8					60.8	
Ireland	31.2					31.2	
Italy	72.9	77.6	78.1	84.3	83.1	79.2	14.0%
Latvia	49.2	45.2	46.8	52.6	62.3	51.2	26.5%
Lithuania	18.4	23.2	26.8	29.6	29.6	25.5	60.6%
Luxembourg	67.0	65.5	72.5	65.9	61.0	66.4	-9.0%
Malta	22.3	9.8	12.1	20.4		16.2	-8.7%
Netherlands	31.2	31.3	41.1	39.9	32.6	35.2	4.4%
Norway	41.6	42.0	40.9	41.2	43.5	41.8	4.4%
Portugal	35.3	75.2	67.6	55.0	68.1	60.3	92.9%
Romania	22.3					22.3	
Slovenia	25.3	29.0	28.8	26.1	31.7	28.2	25.1%
Spain	37.1					37.1	
Sweden	40.0	40.3	42.5			40.9	6.4%
Turkey	32.3	47.4	97.1	80.0		64.2	147.6%
United Kingdom	65.8	70.0	71.2	70.2		69.3	6.6%
ALL	41.3	45.5	51.4	49.8	48.6	44.5	22.8%
ANNEX 4: IDB rate	for all non-fatal	HLA per 1,00	0. Source: Euro	oSafe IDB-MD	S data.		

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