

9. THE HEALTH CONSEQUENCES OF ACCIDENTS IN POLAND WITH SPECIAL FOCUS ON THE ADULTS AGED 65 AND OVER

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Methodological introduction

Accidents can be defined as sudden and unintended events that pose a threat to human health as a result of physical forces or chemical substances. According to the current ICD-10 classification system in force in Poland, accidents are covered within the category of codes ranging from V01 to X59. From the perspective of public health, the most significant categories of accidents include transport accidents (codes V01 to V99), falls (codes W00 to W19), poisoning (codes X40 to X49), and drowning (codes W65 to W74). It is worth noting that the ICD-10 classification does not include conditions resulting from intentional acts, such as suicides, violence, , within the category of accidents. Health problems arising from iatrogenic or medical errors are likewise excluded from the definition of accidents.

Accidents present a serious challenge for public health due to the high social and economic costs they incur, as well as their impact on long-term disability and premature mortality. According to the 2019 GBD (Global Burden of Disease) study conducted prior to the COVID-19 pandemic, accidents accounted for 8.6% of all years of life lost in Poland due to disability and premature death (DALY). EUROSTAT and the OECD have categorised deaths resulting from accidents as deaths that could be avoided through preventive measures (preventable mortality), meaning that effective public health interventions can significantly reduce their incidence. It is commonly believed that accidents pose the greatest threat to the health and lives of young people. However, population-based studies and medical registers show that accidents occur with similar frequency both among young people and those aged 65 and over. Injuries

sustained in accidents among older individuals are, however, significantly more severe and more often fatal than those in younger people. In the past two decades, due to the ageing of populations across Europe, there has been an increase in the number of accidents typical of older age groups, alongside improvements in road safety and a reduction in transport accidents, which tend to occur more frequently among younger and middle-aged individuals. Since 2006, Poland has also been undergoing similar changes, and a significant increase can now be observed in the proportion of deaths caused by falls, which are accidents most characteristic of older age groups. Since 2012, falls have been the leading cause of fatal accidents in Poland, accounting for over 39% of deaths caused by accident-related injuries. This fact highlights that accidents among the elderly are becoming an increasingly important public health issue, necessitating new approaches to preventing them.

Frequency of accidents in Poland – results of a population survey conducted in 2025 on a sample of the adult population (20 and over)

A survey conducted in 2025 as part of the National Health Programme (NHP), carried out on a sample of 3,000 adult Poles aged 20 and over (further details on the study and its methodology are provided in Chapter 12), revealed that 24.8% of respondents had experienced at least one accident in the past 12 months. Men reported accidents more frequently (27.6%) than women (22.0%) (Fig. 9.1). This means that in the past year, more than one in four men and one in five women over 20 years old suffered an injury – ranging in severity from minor to life-threatening. After adjusting for age structure differences (standardisation), the rates were 26.6% for men and 21.3% for women, suggesting that the observed difference persisted. The age distribution of reported accidents showed that the highest percentages of injured individuals were found in the middle-aged group of 40–49 years and among the oldest respondents (over 85)–30.3% and 37.0%, respectively. An exceptionally high percentage of injuries was observed in the social group with the lowest level of education, i.e. those with up to lower secondary education, among whom 41% reported sustaining an injury in the past year. The standardised percentages also showed a clear decline in the reported frequency of injuries with increasing education level. The lowest rate was among individuals with tertiary education (21.3%), slightly higher

among those with secondary or post-secondary education (22.5%), and highest among those with vocational education (28.6%). This indicates substantial socio-economic inequalities in the occurrence of accidents. However, the study did not show statistically significant differences in the reported frequency of accidents depending on the type of place of residence. The highest percentage of residents reporting injuries was in medium-sized towns with populations between 50,000 and 200,000 (27.5%), while the lowest was in rural areas (22.6%).

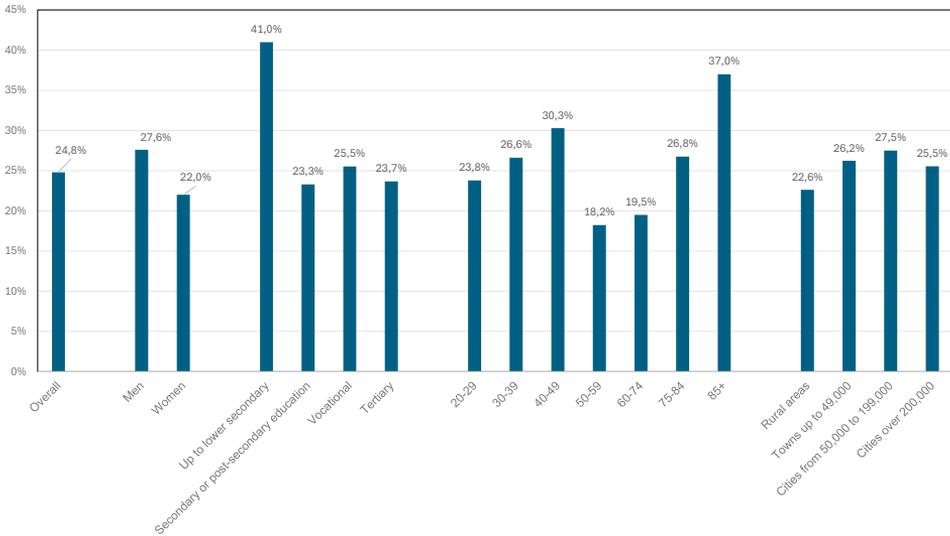


Fig. 9.1. Percentage of people reporting an accident in the last 12 months by selected social groups and place of residence (own estimations based on the NIPH NIH – NRI risk factor study)

The most common setting in which accidents occurred was the home environment, accounting for 34.5% of reported injuries. Slightly less frequent were pedestrian accidents, which made up 26.5%, followed by accidents occurring inside a means of transport at 19.4%, and those at school or work at 11.7%. No statistically significant differences were observed between men and women regarding the place where injuries were sustained; the distribution of accident locations was similar for both sexes. The study showed that people aged 65 and over were the most likely of all age groups to sustain injuries inside their homes and outdoors, with respective shares of 36.2% and 39.9%. The frequency of pedestrian accidents in public spaces also clearly increased with age. This finding may raise

concerns about the safety of public areas for older people in Poland and should prompt a more in-depth analysis of accident rates in public spaces and their consequences (Fig. 9.2).

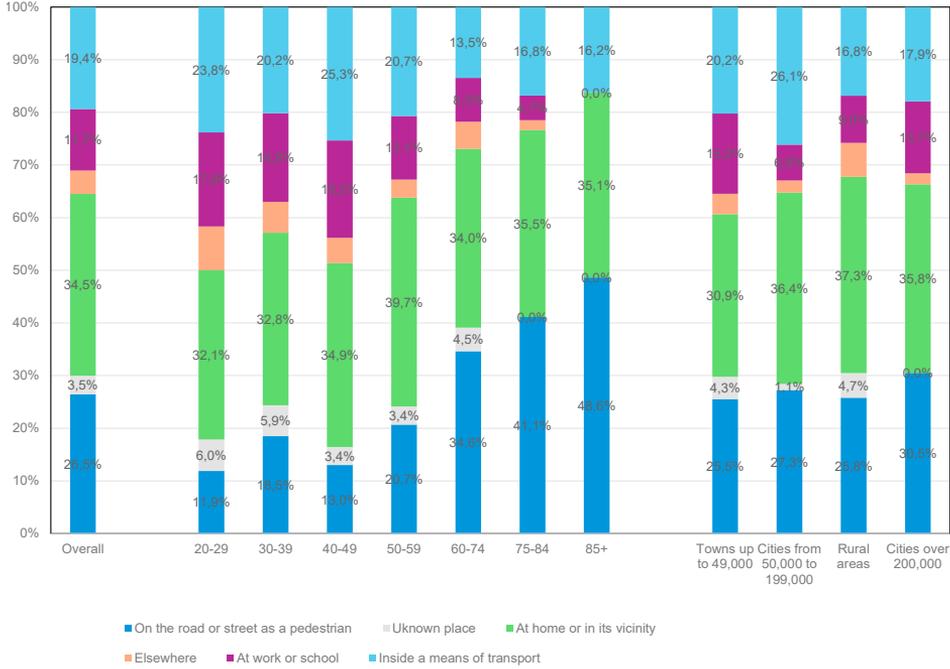


Fig. 9.2. The most frequently reported location/environment of accidents overall, and by age group and place of residence (own estimations based on the NIPH NIH – NRI risk factor study)

Over a year, 10.7% of adult residents of Poland experienced two or more injuries. Distinct differences were observed between sexes: men sustained multiple injuries more than 1.5 times as often as women,- 13.2% and 8.5%, respectively. After standardisation for age, the difference between men and women remained similar , with 12.8% of men and 8.6% of women reporting repeated injuries. Although the age group of 65 and over is typically associated with a higher accident rate, it showed the lowest proportion of people reporting more than two injuries in a year (5.7%). The group most frequently affected by multiple accidents was those aged 20 to 44, with a rate of 13.3%.

The results of survey indicate a much higher frequency of reported accidents compared with the edition of the NHP study conducted in 2018, when 13.8%

of men and 11.5% of women reported having experienced an accident within the past 12 months. However, given certain methodological factors related to the measurement, caution should be exercised when interpreting the high figure recorded in 2025. The first of these is the formulation of the question in the 2025 questionnaire, which does not define any criteria regarding the severity of the accident. This allowed respondents to report even minor injuries or sudden, unexpected events that could cause harm (for example, a minor car collision). Following the COVID-19 pandemic, in some of survey-based studies was experienced an increase in reported health problems, attributable both to objective factors, such as the negative impact of the pandemic on overall health, and to subjective factors, such as greater sensitivity among respondents to reporting concerning signs and symptoms.¹ Even taking into account the above methodological limitations, the reported accident rate should be considered high, particularly among people with lower levels of education and those in the oldest age groups. It is also worth noting that the structure of accident environments or locations in 2025 was similar to that observed in 2018.

Frequency of accidents requiring hospital treatment in Poland

The Nationwide General Hospital Morbidity Study (NGHMS) has a major importance for assessing the actual accident rate. ICD-10 classification requires that an external-cause code has to be provided alongside the diagnosis describing the health consequences, such as wounds, fractures, or poisoning. In the case of the NGHMS, there is still a percentage of reporting units that do not attribute an external cause to the injury, although a systematic improvement in this area are experienced. Between 2021 and 2023, the proportion of hospitalisations due to injuries and poisoning without specified external cause can be estimated at 26.8%. The crude hospitalisation rate due to accident-due to injuries resulting from accidents, as an indicator, shows the actual scale of the frequency of more serious accidents in the population. This indicator remained at a similar level between 2019 and 2023, apart from a slight decrease

¹ Vabba A, Porciello G, Monti A, Panasiti MS, Aglioti SM. A longitudinal study of interoception changes in the times of COVID-19: Effects on psychophysiological health and well-being. *Heliyon*. 2023;9(4):e14951. doi:10.1016/j.heliyon.2023.e14951

during the COVID-19 pandemic. The lowest hospitalisation rate due to accidents was recorded in 2020, at 83.3 per 10,000 population, and by 2023, it had returned to the 2019 level, reaching 114.6 per 10,000. (Fig. 9.3)



Fig. 9.3. Crude hospitalisation rates due to accidents by their main categories (NGHMS, NIPH NIH)

Hospital morbidity rates allow to make estimates, though subject to a certain margin of error due to the aforementioned issues with incomplete diagnosis coding and occasional repeat hospitalisations, that approximately 1% of Polish population experiences an accident each year that requires hospital treatment. The structure of hospital discharges due to accidents contrasts with the widespread stereotype that transport accidents are the predominant cause of hospital admissions. Between 2019 and 2023, falls were the leading cause of hospitalisation, accounting for 56.2% of all admissions resulting from accidents. It is worth noting that these hospital morbidity figures are consistent with the results of the 2025 survey. According to epidemiological observations, falls are the most common cause of accidents both in the home environment and in public spaces. These were also the locations most frequently reported in the survey as the site of the accident. The second most common cause of accident-related hospitalisation was exposure to mechanical forces, making up 17.1% of all hospital admissions due to

accidents. Transport accidents ranked third, accounting for 7.8% of accident-related hospitalisations.

High hospital morbidity rates due to falls are observed both among the youngest age groups and individuals over 65. Among the oldest populations, there are sharp increases in the overall hospitalisation rate for accident-related injuries, along with a growing predominance of falls as the primary cause of hospital stays, which is most characteristic in the case of women. Furthermore, women aged 85 and over show the highest hospital morbidity due to falls. These rising morbidity rates reflect the increasing risk of falls with age. The pattern is most notably observed in women. From the age of 60 and over, women are more likely than men to be affected by injuries caused by falls (Fig. 9.4).

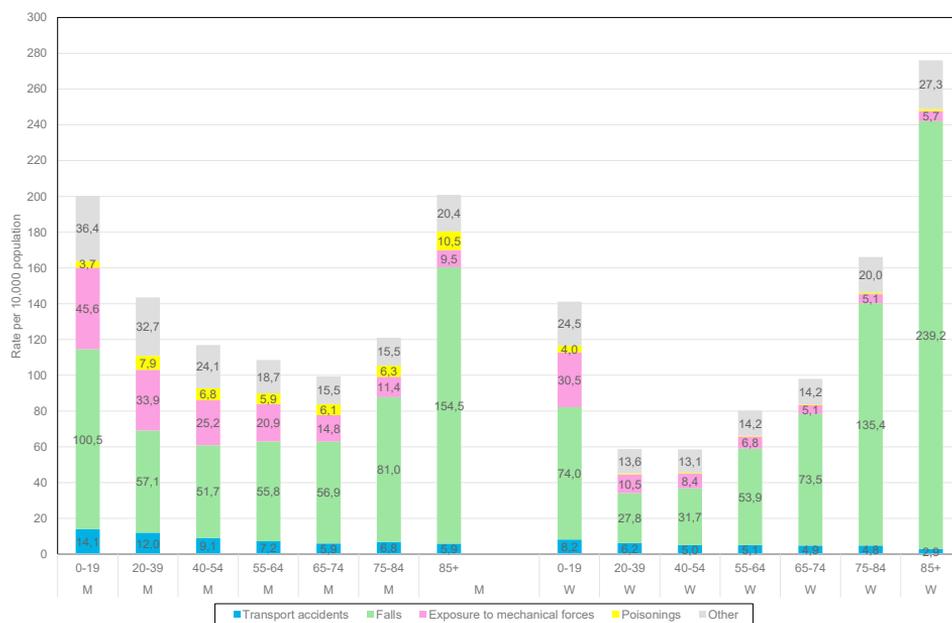


Fig. 9.4. Crude hospitalisation rates due to accidents by main categories and key age groups from the perspective of injury epidemiology, among men (M) and women (W) (NGHMS, NIPH NIH)

Mortality due to accidents in Poland

At the beginning of the 21st century, Poland was characterised by significantly higher mortality due to accidents compared to the average in EU-27 (Fig. 9.5).

In 2010, the standardised mortality rate for these causes in Polish population was nearly 26% higher than in the EU-27. The risk of death due to accidents had been steadily declining until 2015, when the standardised rate in Poland was 9.1% higher than in the EU-27. By 2022, this difference had slightly increased to 9.6%. After 2015, the decline in mortality due to accidents slowed down both in Poland and in the EU-27, and mortality levels have shown little change. In 2021, during the COVID-19 pandemic, an increase in mortality due to injuries due to accidents was observed both in Poland and, in the EU-27. However, in Poland, this increase was sharper by 11%, whereas in the EU-27, the year-on-year increase was 5.9%.

The decrease of mortality due to accidents in Poland between 2010 and 2022 was particularly dynamic among men, who also represent a group at especially high risk of sustaining injuries and facing an increased threat to life from accidents. This improvement was primarily driven by the long-term improvement of road traffic safety in Poland, where male casualties overwhelmingly dominate transport accident statistics. The mortality rate among women due to accidents in Poland has remained close to the EU-27 average since 2010. In this group as well, the downward trend slowed after 2015, followed by a sudden increase in mortality after 2021.

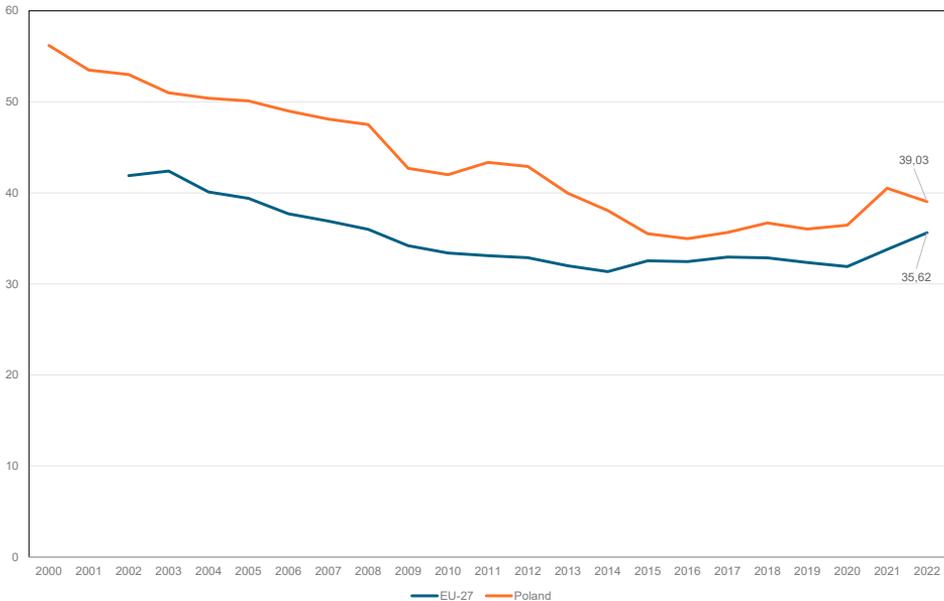


Fig. 9.5. Standardised mortality rates per 100,000 population due to accidents (V01–X59, Y85, Y86) in Poland and the EU-27 average (EUROSTAT)

Among individuals aged 65 and older—the demographic group most vulnerable to fatal accidents—mortality trends followed a distinct trends. . In Poland, the risk of death among older people due to accidents remained for a long time at the same level as in the EU-27 (Fig. 9.6). Between 2010 and 2019, this age group experienced a steady but gradual decline in mortality rates. By 2019, the risk of death from injuries due to accidents among Poland’s oldest age groups was 8.4% lower than the EU-27 average. However, 2021 marked a sharp reversal: accident-related mortality increased significantly year-on-year in both Poland and EU-27 countries, rising by 23.7% in Poland compared to nearly 7% across the EU-27. Some observational studies suggest that the most important factors potentially contributing to the sharp rise in accident-related mortality among older people during the COVID-19 pandemic were changes in lifestyle, such as reduced mobility and isolation, which led to an increase in the frequency of falls. Other contributing factors include limitations of the capacity of healthcare system and emergency assistance services.

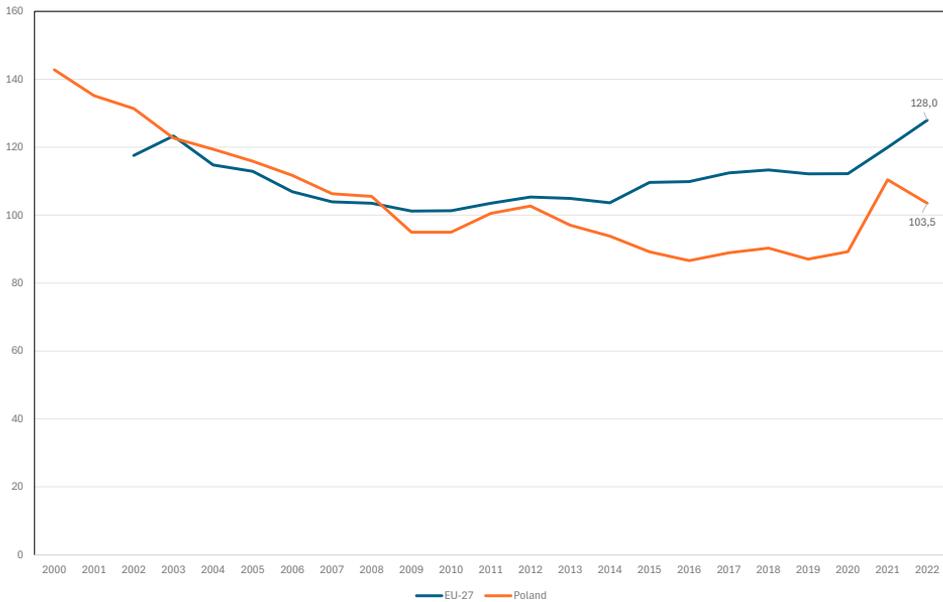


Fig. 9.6 Standardised mortality rates per 100,000 population among people aged over 65 due to accidents (V01–X59, Y85, Y86) in Poland and the EU-27 average (EUROSTAT)

As noted above, recent years have brought significant changes in the types of accidents posing the greatest threat to life in Poland. In 2023, the highest mortality rate was recorded for falls, at 13.3 per 100,000 population, followed by transport

accidents (6.5) and poisonings (4.5). Together, these three categories accounted for over 74% of all accidental deaths in Poland. According to the most recent EUROSTAT estimates available for 2022, the risk of fatal accidents in Poland exceeds the EU-27 average across all major categories. Particularly alarming is the rise in mortality due to accidental poisonings, with the associated risk of death more than twice as high as the EU-27 average (Fig. 9.7).

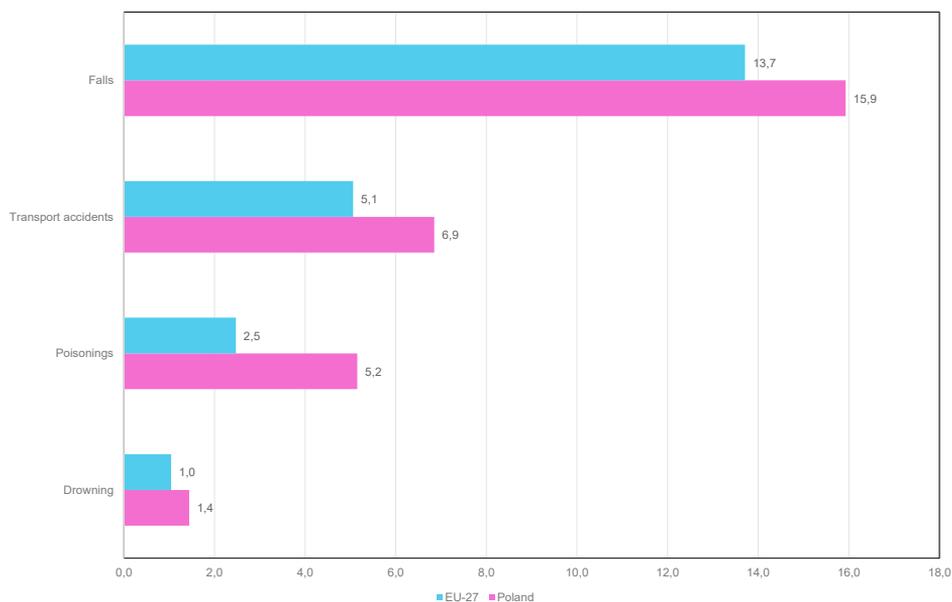


Fig. 9.7. Standardised mortality rates per 100,000 population by major types of accidents in Poland and the EU-27 in 2022 (EUROSTAT)

In Poland, the disparities in the risk of death due to accidents is both substantial and increasingly pronounced. Recent data indicate a marked gender disparity, with men facing a more than 2.5-fold higher risk of death from accidents compared to women. In 2023, the standardised mortality rate was 51.0 per 100,000 population for men, in contrast to 19.6 for women. A similarly significant divergence is observed between urban and rural populations. In 2023, the standardised mortality rate in rural areas reached 38.0, compared to 31.6 in urban areas. It is noteworthy that, since 2019, the excess mortality associated with accidents in rural areas has exhibited a gradual downward trend. Concurrently, the period between 2019 and 2023 was characterised by fluctuations in accident-related mortality across Poland's voivodships, accompanied by a widening of regional disparities in mortality rates (Fig. 9.8).

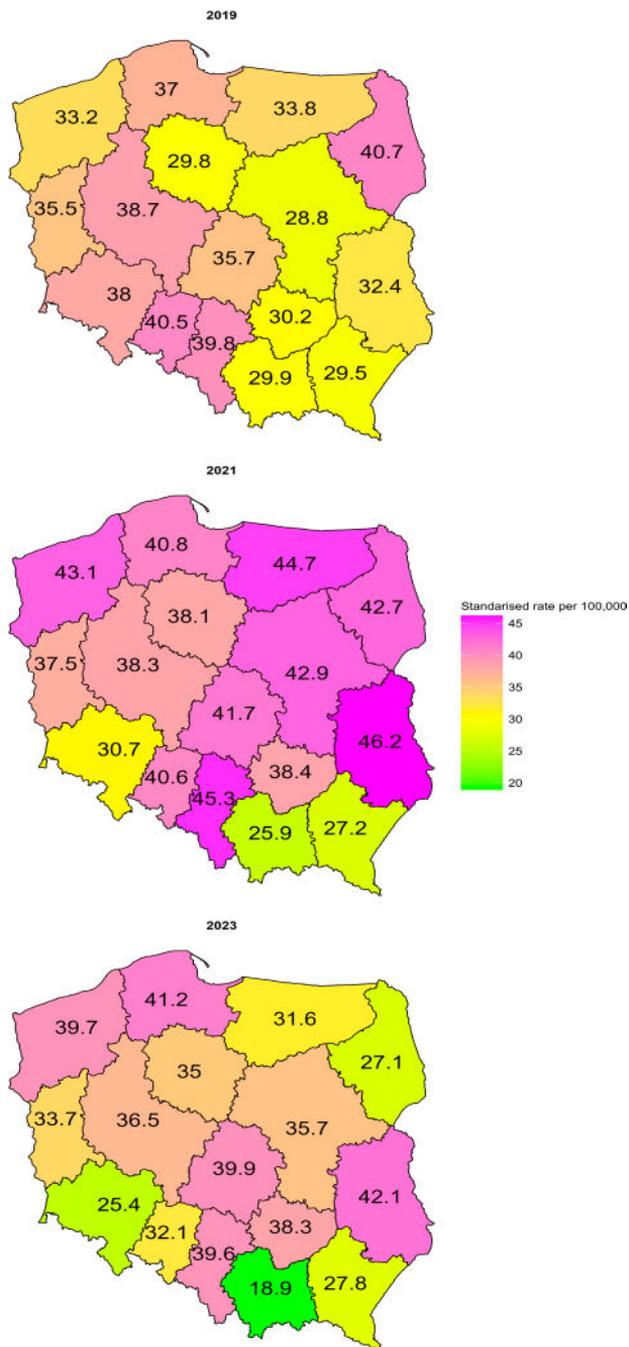


Fig. 9.8. Standardised mortality rates due to accidents per 100,000 population (V01–X59) by voivodship in 2019, 2021, and 2023

Mentioned above phenomena may be related to the impact of the pandemic and the so-called “health debt effect” following the pandemic in some regions of Poland. During the years 2019-2023, the situation especially worsened in Lubelskie and Świętokrzyskie voivodships, while the most pronounced improvements were observed in Dolnośląskie and Podlaskie voivodships. Lubelskie voivodship has recorded the highest mortality rates due to accidents since the beginning of the 21st century.

Situation regarding categories of accidents posing the greatest threat to public health – falls and transport accidents

Falls

Falls are not only the most common cause of accidental deaths in Poland, but they also represent one of the most complex challenges for modern public health. As mentioned above, falls are particularly frequent among the oldest age groups, and the frequency of serious falls resulting in injury increases significantly with age, especially among women. The risk factors for falls are highly complex and include, multimorbidity, polypharmacy (the concurrent use of multiple medications), malnutrition (issues relating to nutritional status are addressed in Chapter 14), and low level of physical activity (discussed in Chapter 13). Falls are also related to physiological processes associated with advanced age, such as loss of muscle mass, osteoporosis, and sensory impairments. Therefore, fall prevention efforts cannot be focused solely on short-term interventions targeting individual risk factors. To be effective, they must address broader processes, be continuous and systematic, and extend over generations. Public health initiatives aimed at reducing morbidity, particularly the prevalence of chronic diseases, play a significant role in this area. Additional measures with well-documented effectiveness include improving the treatment of chronic conditions and ensuring effective organisation and coordination of health care. The problem of fall-related injuries will likely worsen due to the ageing of the Polish population. There has been a marked and sustained upward trend in mortality rates due to falls since 2006. Despite the alarming situation, the current level of understanding regarding the processes contributing to the higher incidence of fatal falls in Poland compared to the EU-27 average remains incomplete. Some insights into the frequency and determinants

of falls are provided by two cross-sectional studies: PolSenior1,² conducted between 2007 and 2012, and PolSenior2,³ carried out between 2018 and 2019 (with results published in 2021). The PolSenior1 study estimated that annually, 23.1% of individuals aged 65 years and older experience a fall (19.7% of men and 26.8% of women), with nearly 41% resulting in injuries. The subsequent PolSenior2 study indicated a certain improvement in the situation, estimating the age-standardised annual incidence of falls among individuals over 60 years old at 16.0% (11% of men and 19.6% of women). This means that 1.5 million people aged 60 and over in Poland experience a fall each year. It is worth noting that PolSenior2 found a higher fall frequency than PolSenior1 among the oldest groups, those aged 80 and over (Fig. 9.9). A concerning phenomenon observed in PolSenior2 was the significant disparities in reported fall frequency by education level, particularly among women. The percentage of women reporting a fall in the past 12 months was 28.7% for those with primary or incomplete primary education, compared to 12.7% for women with tertiary education. When interpreting the findings of both studies, it is important to exercise caution because PolSenior1 results were published using observed values. In contrast, the results of PolSenior2 were reported using age-standardised values.

The severity of health consequences resulting from falls in the PolSenior2 study was comparable to that observed in PolSenior1. According to the PolSenior2 study, 39.2% of falls resulted in an accident, and it is estimated that over 588 thousand people aged 60 and over in Poland experience various types of fall-related injuries each year. Contusions and cuts were the most frequently recorded injuries among older individuals in the PolSenior2 study, reported in 62.2% of cases. Head injuries were the second most common, accounting for 15.8% of incidents. The frequency of these injuries was similar among both men and women. In contrast, fractures of the upper limbs and femoral neck occurred significantly more often in women. Upper limb fractures were reported in 13.9% of women compared to 2.9% of men, while femoral neck fractures occurred in 6.4% of

² Skalska A, Wizner B, Klich-Rączka A, Piotrowicz K, Grodzicki T. Upadki i ich następstwa w populacji osób starszych w Polsce. Złamania bliższego końca kości udowej i endoprotezoplastyka stawów biodrowych. In: Mossakowska M, Błądowski P, Więcek A., ed. *Aspekty medyczne, psychologiczne, socjologiczne i ekonomiczne starzenia się ludzi w Polsce* (pp. 295–306), Termedia Poznań 2012

³ Skalska, A., Hajduk, A., Mossakowska, M., Wizner, B., Wierzbę, K., & Grodzicki, T. (2021). Upadki i ich następstwa. W P. Błądowski, T. Grodzicki, & M. Mossakowska (Ed.), *PolSenior2: badanie poszczególnych obszarów stanu zdrowia osób starszych, w tym jakości życia związanej ze zdrowiem* (pp. 235–251). Gdański Uniwersytet Medyczny 2021

women and only 0.8% of men. It is important to emphasise that, alongside head injuries, femoral neck fractures are among the most serious injuries in the elderly population, often leading to a significant decline in quality of life or even death.

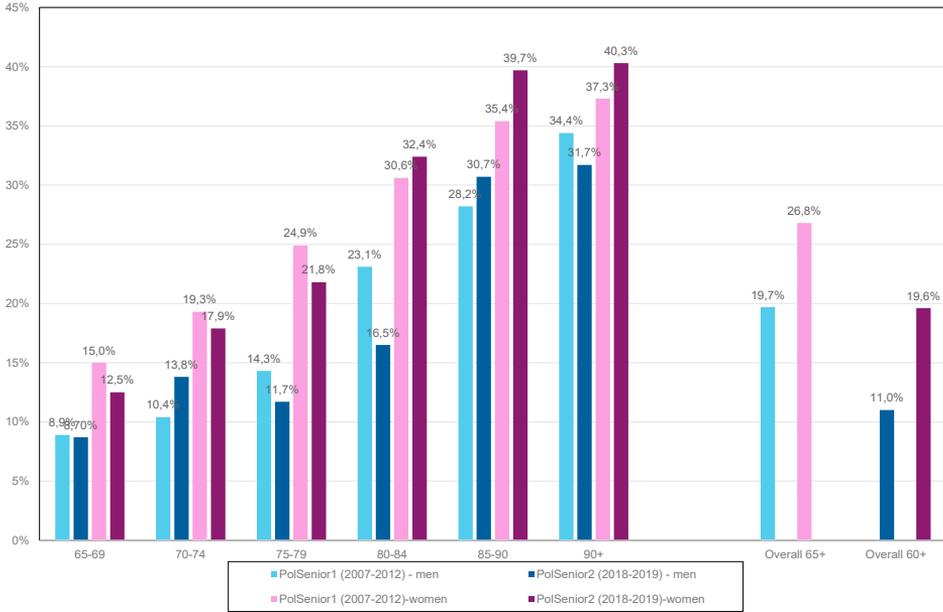


Fig. 9.9. Frequency of falls in demographic groups in the PolSenior1 and PolSenior2 studies. Comparisons between the two studies should be approached with caution due to the age-standardisation of published results in the case of PolSenior2 (PolSenior1 and PolSenior2)

Secondary data collected within public statistics is characterised by variable quality over the years; nevertheless, it presents insight into the prevalence of fall-related injuries and their determinants within certain narrow scopes. In 2023, a total of 5,027 individuals died as a result of fall-induced injuries, the vast majority of whom (3,951) were aged 65 or over (78.6%). Although falls occur more frequently among women, the risk of death among men is slightly higher – standardised mortality rates in 2023 were 14.2 per 100,000 for men and 12.5 per 100,000 for women. In terms of underlying causes of death, the most common fatal falls were classified under the category of “unspecified falls” (W19), accounting for 2,694 deaths or 53.6% of all fatalities due falls. The second most frequently registered category by certifying physicians was “falls on the same level from slipping, tripping and stumbling”, resulting in 1,434 deaths (28.5%). The third most common cause was “falls on and from stairs and steps”, leading to 338 deaths (6.7%). This pattern of

classifications for fall-related mortality has persisted for many years. The high proportion of cases coded as “unspecified falls” may indicate issues with the precision of the descriptions provided by physicians certifying deaths resulting from falls. International analyses concerning the registration of deaths due to falls suggest that public statistical data in this area may be underestimated.⁴

Mortality data from the period 2019–2023 indicate a clear increase in fall-related deaths during the COVID-19 pandemic, particularly among age groups over 65, in which the highest mortality rates due to falls are observed. In 2022 and 2023, mortality rates in these groups declined, although they remained higher than pre-pandemic levels (Fig. 9.10). Possible contributing factors include the direct impact of the COVID-19 pandemic, such as isolation and reduced mobility among older adults, as lower physical activity level increase the risk of falls. Another factor may have been the so-called “health debt” and a decline in the management of multimorbidity in the elderly by the healthcare system. However, mentioned above hypotheses require further epidemiological studies..

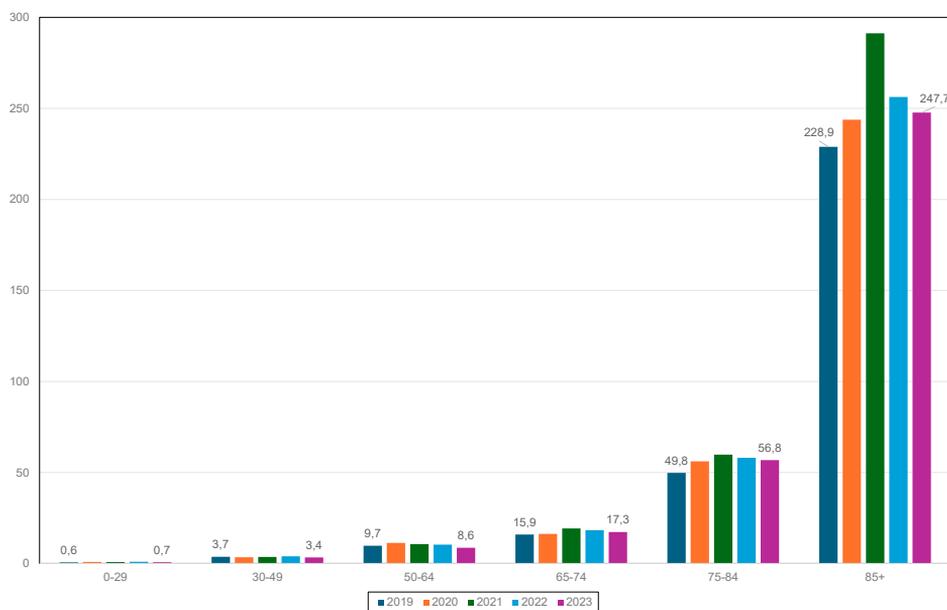


Fig. 9.10 Mortality rates due to falls (W00–W19) per 100,000 population in Poland between 2019 and 2023 by age group (Statistics Poland)

⁴ Hua J, Ning P, Cheng P, et al. Coding quality of deaths and its impact on elderly unintentional fall mortality data from 1990 to 2019: a retrospective analysis of the WHO Mortality Database. *BMC Geriatr.* 2022;22(1):72

Transport accidents

Transport accidents are the second leading cause of accident-related mortality after falls. According to Global Burden of Disease (GBD) estimates, they rank as the seventh cause of lost life years in Poland due to disability and premature mortality. This category of accidents is characterised by an epidemiological profile somewhat contrary to falls. The group at particular risk, which most frequently experiences transport accidents, consists of men from younger and middle-aged groups, and they are also the primary casualties of such accidents. Nevertheless, individuals aged 65 years and over are overrepresented among fatalities in road transport accidents due to the more severe injuries they sustain and generally poorer prognoses for recovery from those injuries. Compared to falls, the scope of preventive measures in relation to road transport accidents is better understood in terms of effective interventions, such as the “Vision Zero” paradigm. The “Vision Zero” approach holds that no level of road traffic fatalities or serious injuries is acceptable; responsibility for safety rests primarily with the road system rather than with individual users alone. It is therefore essential to develop infrastructure and regulations that minimize the impact of human error⁵.

Nevertheless, the underlying conditions and characteristics of transport accidents are evolving in response to broader socio-economic changes. One such change is the ageing of populations across Europe, which has led to an increasing proportion of road users being aged 65 and over.

Despite gradual improvements, Poland is still regarded as one of the countries with the lowest road safety level in the EU-27. Between 2010 and 2023, the number of fatalities in Poland was reduced by 51.5% (from 3,907 to 1,893 deaths). The fatality rate resulting from road transport accidents in Poland was 5.2 per 100,000 population, compared with 4.6 per 100,000 in EU-27 countries (Fig. 9.11).

It is worth noting that in 2024, the number of road fatalities remained nearly unchanged from 2023, amounting to 1,881, according to preliminary data available from National Police Headquarters. The rate of decline across the entire EU was lower, at 31% (a reduction from 29,576 to 20,400 fatalities in 2023). It is also worth noting that after 2020, the pace of decline in EU-27 countries generally slowed and fell off the trajectory outlined in the European Commission’s Road Safety Strategy, which had set a target of a 50% reduction in road fatalities between 2018 and 2030.

⁵ Tingvall C, Haworth N. Vision Zero – An ethical approach to safety and mobility. Presented at: 6th ITE International Conference Road Safety & Traffic Enforcement: Beyond 2000; 1999; Melbourne, Australia

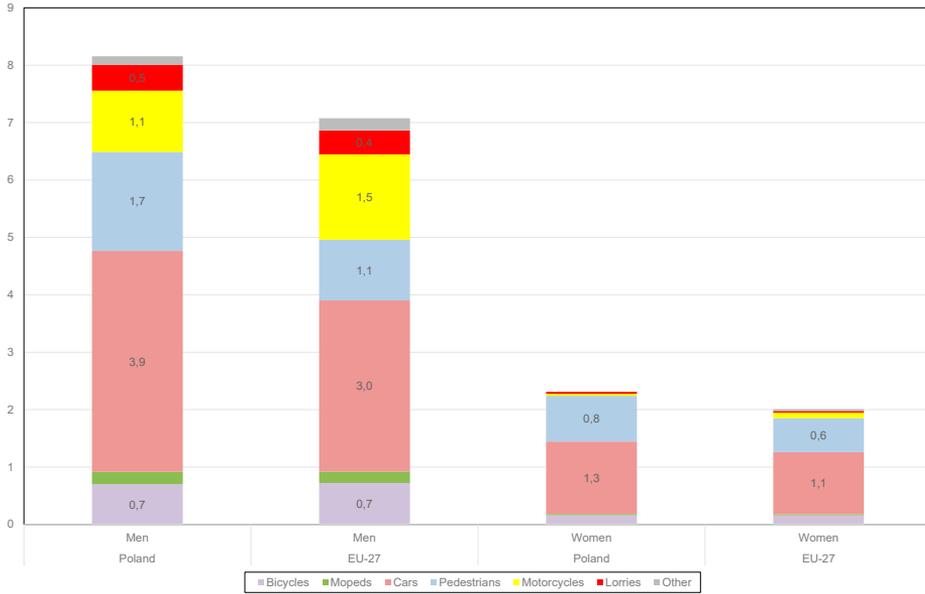


Fig. 9.11. Mortality rates due to road transport accidents per 100,000 population by category of road user in Poland and EU-27, among men and women (EU CARE database and EUROSTAT)

In 2023, male drivers caused 71.9% of all road accidents and accounted for 76.6% of all accident casualties (data from the National Police Headquarters). A particularly high accident rate was observed among individuals aged 18–24, with 115.4 accidents per 100,000 people in this age group. Contrary to widespread stereotypes suggesting that the oldest road users are particularly dangerous for traffic safety, the age group with the lowest accident rate was individuals over 60 years of age, with 36 accidents per 100,000 people. A positive trend was the decline in this rate between 2019 and 2023 across the demographic groups (Fig. 9.12).

It is also worth noting that individuals aged over 65 account for 25% of all road fatalities in Poland, compared with the EU-27 average of 30.5% (data from the EU-27 CARE database). The trends described above concerning road transport accidents have persisted in Poland for many years. The two main causes responsible for half of all accidents are failure to yield the right of way and inappropriate speed.

For over a decade, Poland has been grappling with a particularly high proportion of so-called vulnerable road users among casualties of accidents. These include pedestrians, cyclists, motorcyclists, and users of various transport aids such as power chairs and electric bicycles. The incidence of such accidents is higher than the EU-27 average. A survey conducted as part of this Report also

highlighted the frequent problem of accidents in public spaces, particularly among pedestrians, reported mainly by age groups over 65. Currently, vulnerable road users represent 44.8% of all road fatalities. A positive trend observed since 2010 has been the improvement in pedestrian safety (Table 9.1), with a marked 63% reduction in pedestrian fatalities compared to other road user groups.

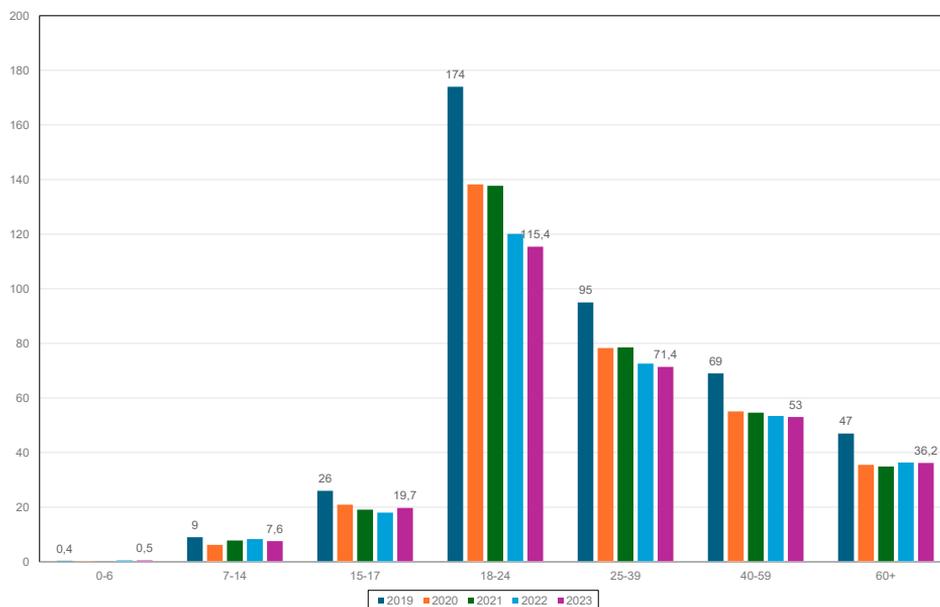


Fig. 9.12. Road transport accident rates per 100,000 population by age group in Poland, 2019–2023 (National Police Headquarters)

Table 9.1. Fatalities in road transport accidents by mode of transport in Poland in 2010, 2020, and 2023 (Polish Road Safety Observatory and National Police Headquarters)

Road users	2010		2020		2023		Change 2023/2010
	%	of total	%	of total	%	of total	
Pedestrians	1,236	31.6%	631	25.3%	457	24.1%	-63.0%
Passengers of cars	1,853	47.4%	1,162	46.6%	962	50.8%	-48.1%
Bicycles	280	7.2%	249	10%	154	8.1%	-45.0%
Motorcycles	259	6.6%	244	9.8%	196	10.4%	-24.3%
Mopeds	83	2.1%	71	2.9%	42	2.2%	-49.4%
Lorries	142	3.6%	104	4.2%	86	4.5%	-39.4%
Buses	14	0.4%	9	0.4%	8	0.4%	-42.9%
Total	3,907	100%	2,491	100%	1,893	100%	-51.5%

The ageing population, particularly noticeable in Europe leads to increasing proportion of road users aged over 65. Age-related health problems , such as multimorbidity and sensory impairments, contribute to a decline in driving ability and are commonly perceived as a particular source of danger posed by older adults on the roads due to their health status. However, survey findings published in 2024 under the acronym ESRA3, comparing the behaviour of older and younger road users, indicate that older individuals report more cautious attitudes and behaviours than younger drivers. In Europe, only 1.3% of people over 65 declared that they accepted talking on the phone while driving, compared with 9.6% among those aged 18–24. Older adults also displayed greater caution regarding speeding – only 4.5% of seniors reported exceeding the speed limit outside built-up areas, compared with 17.6% in the 18–24 age group. The conclusions of the ESRA3⁶ clearly indicate that the youngest drivers tend to exhibit more risk-prone behaviour. Nonetheless, the report recommends introducing a regulation requiring periodic medical examinations for drivers over 65. As the population ages, additional road safety challenges are beginning to emerge. Among them is polypharmacy and the adverse effects of certain medications used to treat chronic conditions, which can impair psychomotor performance. The ESRA2⁷ (an earlier wave of the survey preceding ESRA3), published in 2019, showed that in Europe, 15% of surveyed drivers admitted to driving a vehicle while under the influence of a medication with a clear warning about its negative impact on psychomotor ability. Another trend observed in recent years is the increasing presence of new forms of transport assistance with higher kinetic energy in pedestrian and cycling traffic, such as e-scooters and electric bicycles. It is important to note that individuals with reduced mobility or sensory impairments are more vulnerable to collisions with such vehicles. The survey also revealed that the frequency of pedestrian and street-related accidents increases with age. This finding may suggest the need for monitoring systems to track accident rates in public spaces.

⁶ Delavary, M., Lyon, C., Vanlaar, W.G.M., Robertson, R.D. (2024). Young and Aging Drivers. ESRA3 Thematic report No. 5. ESRA project (E-Survey of Road users' Attitudes). (2024-R-22-EN). Traffic Injury Research Foundation.

⁷ Achermann Stürmer, Y., Meesmann, U. & Berbatovci, H. (2019) Driving under the influence of alcohol and drugs. ESRA2 Thematic report No. 5. ESRA project (E-Survey of Road users' Attitudes). Bern, Switzerland: Swiss Council for Accident Prevention.

Accidents among children and young people (age group 0-19 years)

According to the most up-to-date data from the HBSC survey on the health and health behaviours of school children, conducted by the Institute of Mother and Child in collaboration with the WHO, 38.2% of adolescents in Poland – i.e., more than one in three pupils – had suffered at least one injury requiring medical attention in the past 12 months, and 15.9% reported repeated injuries during the same period (2017/2018 school year). The percentage of injuries was higher among boys (40.0%) than among girls (36.6%). It is worth noting that, compared to results from the previous round of the survey in 2013/2014, the frequency of injuries has remained unchanged. However, a rising trend has been observed in the reported frequency of injuries among pupils since the HBSC survey began in Poland in 1994.

Mortality among children and adolescents due to accidents has been steadily declining since 2000. Despite positive trends, the risk of death among children and adolescents due to accidents is 39% higher in Poland than average mortality in the EU-27. According to WHO Global Health Estimates, in 2021 the mortality rate was 5.2 per 100,000 population in Poland, compared to 3.7 in EU countries. Between 2019 and 2023, a total of 1,669 people under the age of 19 died as a result of accidents (about 3% of all deaths due to accidents). Among the causes of mortality among children and young people, traffic accidents were by far the dominant cause – 61.6% of all fatalities, followed by poisoning (9.5%), the third cause being falls responsible for 7% of fatal accidents. It is worth mentioning that the structure of the causes of fatal traffic accidents among children and young people was similar to that of the adult population. Passenger and car driver fatalities accounted for 46.5% of all traffic accident fatalities, and pedestrians for 22.9%. The mortality rate due to traffic accidents among the youngest children aged 0-4 years fell from 1.3 to 1.0 per 100 and in the age group 5-14 years from 1.4 to 1.3 per 100,000 between 2019 and 2023.

For many years, setting with a particularly high accident risk among the youngest age groups have been rural areas in Poland. The changes observed between 2019 and 2023 indicated a substantial improvement in rural areas, particularly among boys. This was largely the result of improvements of road traffic safety (Fig. 9.13). However there is growing concern regarding the lack of a marked reduction in overall mortality among children and adolescents living in urban areas. This situation highlights the need to initiate and intensify preventive measures in other areas of unintentional injuries affecting children and adolescents,

particularly those related to poisoning as well as the safety of public spaces and educational institutions.

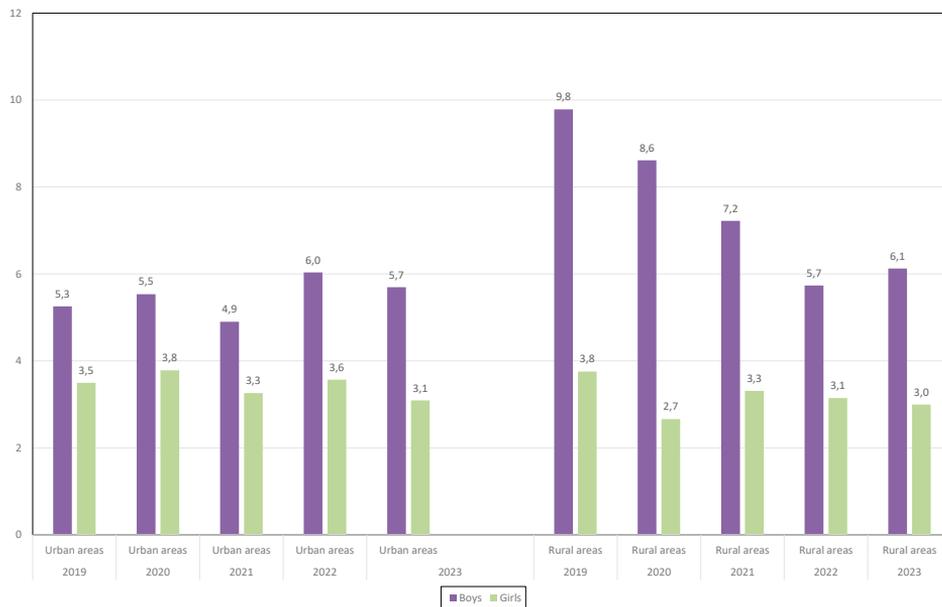


Fig. 9.13. Mortality rates due to accidents among children and adolescents (0-19 years old) per 100,000 population in Poland between 2019 and 2023 by sex and place of residence (Statistics Poland)