

# ***THE INJURY CHART BOOK***

*A graphical overview of the global burden of injuries*

Department of Injuries and Violence Prevention  
Noncommunicable Diseases and Mental Health Cluster  
World Health Organization

**Geneva**



2002

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## Abbreviations

AFR	African Region
AMR	Region of the Americas
BTL	Basic tabulation list
DALY	Disability-adjusted life year
EMR	Eastern Mediterranean Region
EUR	European Region
GBD	Global burden of disease
HIC	High-income countries
ICD	International Classification of Disease
IPV	Interpersonal violence
LMIC	Low- and middle-income countries
RTI	Road traffic injuries
SEAR	South-East Asia Region
WHO	World Health Organization
WPR	Western Pacific Region

## Acknowledgements

The authors wish to thank staff of the Department of Injuries and Violence Prevention, WHO and the numerous reviewers from around the world for their assistance in the preparation of this document. The contribution of the Evidence and Information for Policy Cluster, WHO which provided the data on which the tables and graphs in this document are based is also gratefully acknowledged.

## Summary of results

- ◆ An estimated 5 million people worldwide died from injuries in 2000 — a mortality rate of 83.7 per 100 000 population.
- ◆ Injuries accounted for 9% of the world's deaths in 2000 and 12% of the world's burden of disease.
- ◆ The burden of disease related to injuries, particularly road traffic injuries, interpersonal violence, war and self-inflicted injuries is expected to rise dramatically by the year 2020.
- ◆ Road traffic injuries are the leading cause of injury-related deaths worldwide.

## Injuries by region

- ◆ More than 90% of the world's deaths from injuries occur in low- and middle-income countries.
- ◆ The low- and middle-income countries of Europe have the highest injury mortality rates.
- ◆ The South-East Asia and Western Pacific Regions account for the highest number of injury deaths worldwide.

## Injuries by sex and age group

- ◆ Globally, injury mortality among men is twice that among women. In some regions, however, mortality rates for suicide and burns in females are as high or even higher than in males.
- ◆ Males in Africa and Europe have the highest injury-related mortality rates.
- ◆ Young people between the ages of 15 and 44 years account for almost 50% of the world's injury-related mortality.
- ◆ Mortality from road traffic injuries and interpersonal violence in males is almost 3 times higher than that in females.
- ◆ Children under 5 years of age account for approximately 25% of drowning deaths and a little over 15% of fire-related deaths worldwide.

# Introduction

## Background

Injuries have traditionally been regarded as random, unavoidable “accidents”. Within the last few decades, however, a better understanding of the nature of injuries has changed these old attitudes, and today both unintentional and intentional injuries are viewed as largely preventable events. As a result of this shift in perception, injuries and their health implications have demanded the attention of decision-makers worldwide and injury policy has been firmly placed in the public health arena. Furthermore, the growing acceptance of injuries as a preventable public health problem over the past decade or so has led to the development of preventative strategies and, consequently, a decrease in the human death toll due to injuries in some countries.

Based on the premise that access to accurate, reliable information is the key to sound policy-making, this publication seeks to provide a global overview of the nature and extent of injury mortality and morbidity in the form of user-friendly tables and charts. It is hoped that the graphical representation of the main patterns of the burden of disease due to injury will raise awareness of the importance of injuries as a public health issue and facilitate the implementation of effective prevention programmes.

## Methods

The data presented here are taken from the Global Burden of Disease 2000 database, version 1 (GBD 2000 project). The GBD 2000 project database combines mortality data derived from national vital registration systems with information obtained from surveys, censuses, epidemiological studies and health service data and as such represents the most comprehensive view of global mortality and morbidity available today (1). The global burden of disease data are disaggregated geographically into six WHO regions, the African Region (AFR), the Region of the Americas (AMR), the South-East Asia Region (SEAR), the European Region (EUR), the Eastern Mediterranean Region (EMR) and the Western Pacific Region (WPR). Countries within each geographical region have been further subdivided by income level, according to the divisions developed by the World Bank (2). The countries comprising each of the WHO regions and economic grouping within these regions are given in Appendix 1.

Deaths and health states are categorically attributed to one underlying cause using the rules and conventions of the International Classification of Diseases (3,4). The cause list used in the GBD 2000 project has four levels of disaggregation and includes 135 specific diseases and injuries. Overall mortality is divided into three broad groups of causes, as follows:

- Group I: communicable diseases, maternal causes, conditions arising in the perinatal period and nutritional deficiencies;
- Group II: noncommunicable diseases;
- Group III: intentional and unintentional injuries.

The two main injury categories, intentional and unintentional injuries, are defined in terms of a series of external cause codes; unintentional injuries are subdivided into road traffic injuries, poisoning, falls, fires, drowning, and “other unintentional injuries”. The latter category includes, for example, exposure to animate and inanimate mechanical forces (including firearms); exposure to electric current, radiation and extreme ambient temperature and pressure, and to forces of nature; and contact with heat and hot substances, and venomous plants and animals. Intentional injuries are subdivided into self-inflicted injuries (i.e. suicide), interpersonal violence (e.g. homicide), war-related injuries, and “other intentional injuries” (Table 1). The latter includes injuries due to legal intervention.

While mortality is an important indicator of the magnitude of a health problem, it is important to realize that for each injury death, there are several thousand injury survivors who are left with permanent disabling sequelae. These non-fatal outcomes must also be measured in order to describe accurately the burden of disease due to injury. The indicator used to quantify the loss of healthy life due to disease is the disability-adjusted life year or DALY, a measure that accounts not only for the years of life lost from premature death but also for the years of life lived with disability.

Table 1  
External causes of injury and their corresponding ICD codes

Type of external cause of injury	ICD-9 code	ICD-9 BTL code	ICD-10 code
All injuries	E800–E999	B47–B56	V01–Y98
Unintentional injuries	E800–E949	B47–B53	V01–X59, Y40–Y86, Y88, Y89
1 Road traffic injuries	E810–E819, E826–E829, E929	B471–B472	V01–V89, V99, Y850
2 Poisoning	E850–E869	B48	X40–X49
3 Falls	E880–E888	B50	W00–W19
4 Fires	E890–E899	B51	X00–X09
5 Drowning	E910	B521	W65–W74
6 Other unintentional injuries	E800–E807, E820–E848, E870–E879, E900–E909, E911–E949	B49, B52 (minus B521), B53, B47 (minus B471)	V90–V98, W20–W64, W75–W99, X10–X39, X50–X59, Y40–Y86, Y88, Y89
Intentional injuries	E950–E978, E990–E999	B54–B55, B56 (minus B560)	X60–Y09, Y35–Y36, Y870–Y871
1 Self-inflicted	E950–E959	B54	X60–X84, Y870
2 Interpersonal violence	E960–E969	B55	X85–Y09, Y871
3 War	E990–E999	B561	Y36
4 Other intentional injuries	E970–E978	B569	Y35

ICD, International Classification of Disease; BTL, basic tabulation list.

One disability-adjusted life year (DALY) is defined as one lost year of healthy life, either due to premature death or disability.

The graphical information presented in this document is organized into eight chapters. The first chapter provides an overview of the global injury problem. The subsequent chapters present data on specific types of injuries: road traffic injuries (RTI), fire-related burns, drowning, fall-related injuries, poisoning, interpersonal violence (IPV) and suicide. War-related injury has been intentionally omitted due to difficulties in estimating this type of injury. For assessing the burden of war, the WHO relies on available vital registration data submitted by Member States. However, health information systems often break down during times of conflict, resulting in a paucity of accurate data that can be used for estimating mortality.

Each chapter contains information on both mortality and disability (measured in terms of DALYs lost) broken down by WHO region, income level, age group and sex. Population counts for each of the six WHO regions are provided as Appendix 2.

### **Limitations of the data**

Although the GBD 2000 project data are the best estimates available at the present time, they do suffer from a number of limitations. The first is missing information. Whereas vital registration systems capture around 17

million deaths annually, this represents just under three-quarters of the total estimated global mortality. Some regions of the world are especially poorly represented in this regard; for example, national vital registration data were only available for 19% of the countries in the African Region. In countries where such data are missing, information from other sources (e.g. survey data) coupled with indirect demographic techniques are used to estimate mortality and disability. However, extrapolations of this type should be interpreted with caution.

Secondly, the GBD estimates for 2000 were extrapolated from information compiled to estimate the burden of disease in 1990. The situation in some countries or whole regions may have changed significantly since 1990. Although adjustments for such changes could be made in some cases, in others, the information needed to perform the necessary adjustments was lacking.

Thirdly, the DALY measure does not reflect all the health consequences associated with injuries. Although DALYs include premature death, injury and physical disability, they do not, for example, account for the mental health consequences of violence and war, nor do they take into consideration conditions such as sexually transmitted diseases resulting from rape or the effects of infectious diseases and malnutrition following war.



## Conclusion

Based on data compiled as part of the GBD 2000 project, it is clear that injuries make a considerable contribution to the disease burden in all countries in all regions of the world. Furthermore, the injury-related disease burden is expected to rise over the next 20 years, particularly in the case of road traffic injuries (RTI), interpersonal violence (IPV), war and self-inflicted injuries. Data also suggest that currently the majority of deaths due to injury take place in the low- and middle-income countries, and almost half occur in young people, i.e. those aged between 15–44 years. Some types of injury, for example, RTI and IPV are more prevalent in men than in women.

Despite recent progress towards understanding the broad patterns, the precise magnitude of injury-related mortality and disability is not known for many individual countries. There is a clear need for better, more reliable data on the nature and extent of injury, particularly in certain parts of the world.

The gathering of data is, however, just the first step towards achieving the ultimate goal of injury prevention. Available data must be used to inform decision- and policy-makers about the nature of the problem and, in turn, to argue for greater attention and the allocation of more resources for prevention efforts. It is with this objective in mind that this chart book, with its clear, accessible graphical representations has been devised.

The content of this publication is available on the WHO web site at: [http://www5.who.int/violence\\_injury\\_prevention](http://www5.who.int/violence_injury_prevention). Users are invited to use the graphs and tables included therein, when and where appropriate, to advocate for more attention to this important public health problem.

## References

1. Begg S, Tomijima N, Vos T, Mathers C. *Global burden of injury in the year 2000: an overview of methods*. Geneva, World Health Organization, 2002.
2. *World development indicators 1998*. Washington DC, The World Bank, 1998.
3. *International classifications of diseases and related health problems*, ninth revision. Geneva, World Health Organization, 1978.
4. *International statistical classification of diseases and related health problems*, tenth revision. *Volume 1: tabular list; Volume 2: instruction manual; Volume 3: index*. Geneva, World Health Organization, 1992–1994.

# I. An overview of the global burden of injury

- An injury is defined as "a bodily lesion at the organic level, resulting from acute exposure to energy (mechanical, thermal, electrical, chemical or radiant) in amounts that exceed the threshold of physiological tolerance. In some cases (e.g. drowning, strangulation, freezing), the injury results from an insufficiency of a vital element"<sup>1</sup>.
- Worldwide, approximately 5 million persons died as a result of an injury in 2000.

<sup>1</sup> Baker SP, O'Neill B, Karpf RS. *The injury fact book*. Lexington, MA, Lexington Books, 1984.

# I. An overview of the global burden of injury

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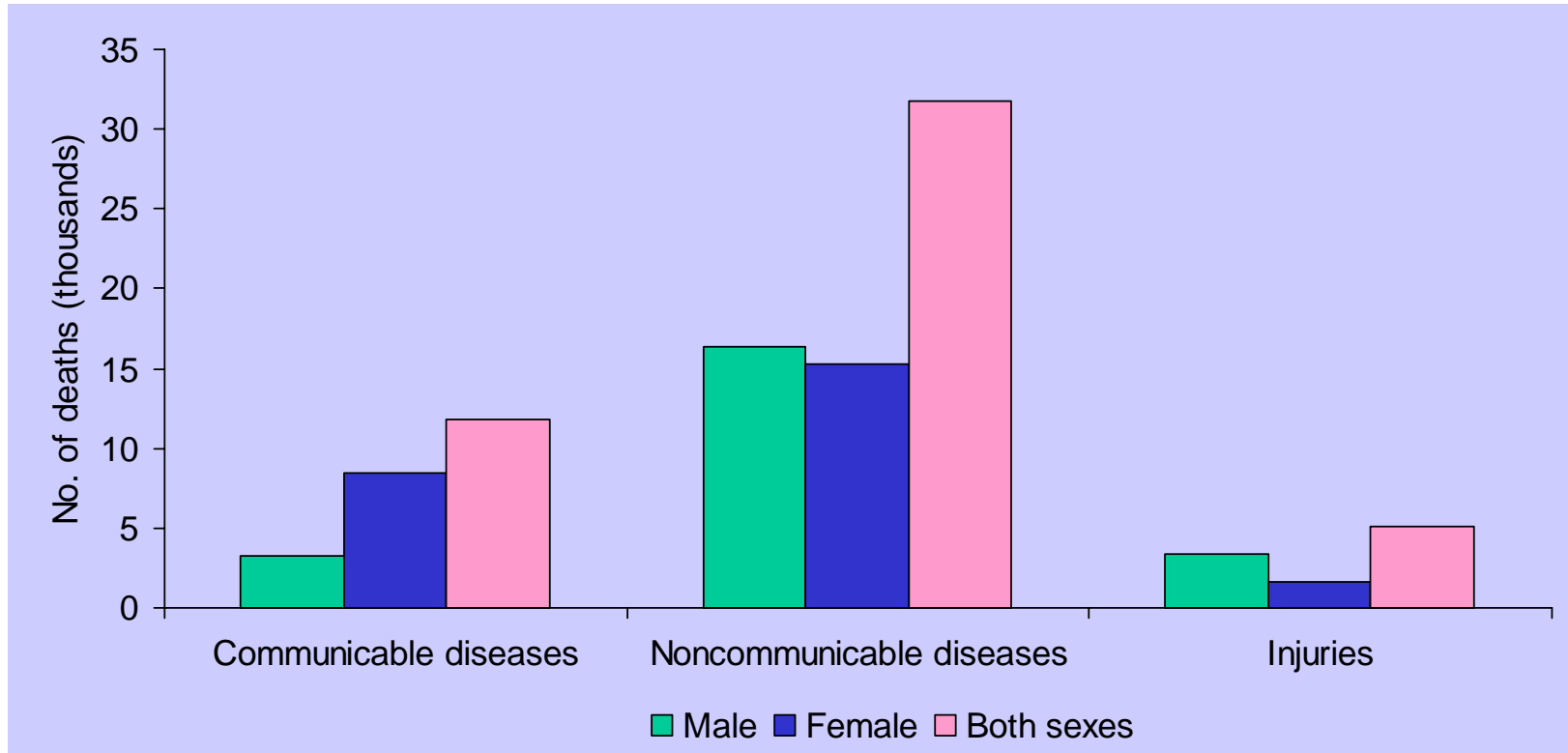
<sup>1</sup> Baker SP, O'Neill B, Karpf RS. *The injury fact book*. Lexington, MA, Lexington Books, 1984.

## World rankings of injury-related mortality and burden of disease (DALYs lost), 1990 and 2020

	No. of deaths		DALYs lost	
	1990	2020	1990	2020
Road traffic injuries	9	6	9	3
Self-inflicted injuries	12	10	17	14
Interpersonal violence	16	14	19	12
War	20	15	16	8

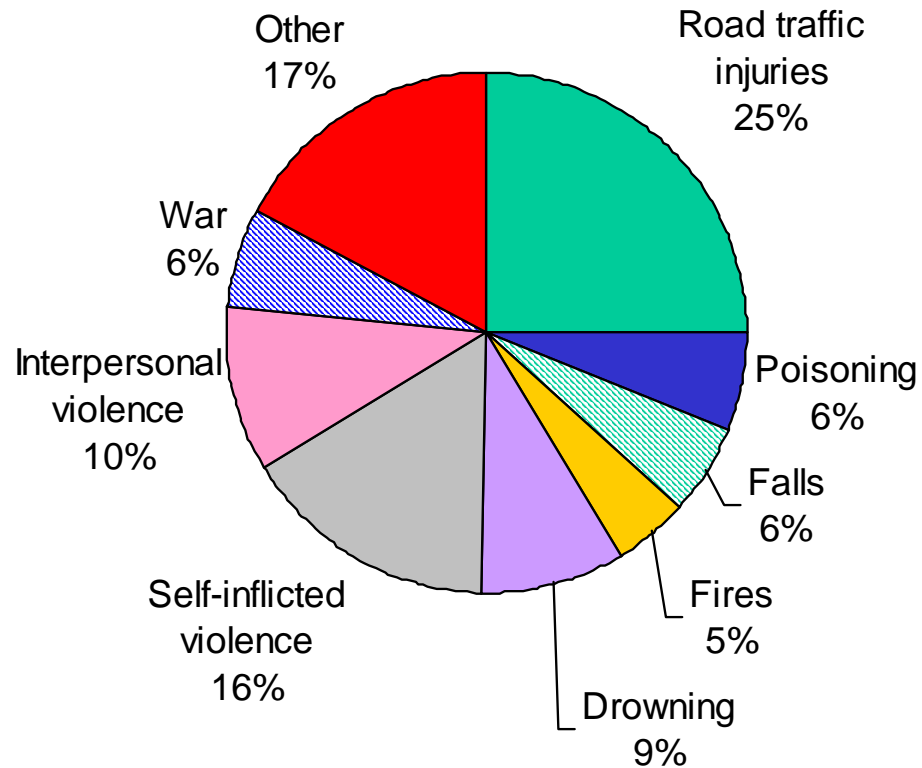
If current trends continue, road traffic and intentional injuries (i.e. self-inflicted injuries, interpersonal violence and war-related injuries) will rank among the 15 leading causes of death and burden of disease.

## Global mortality by cause and sex, 2000



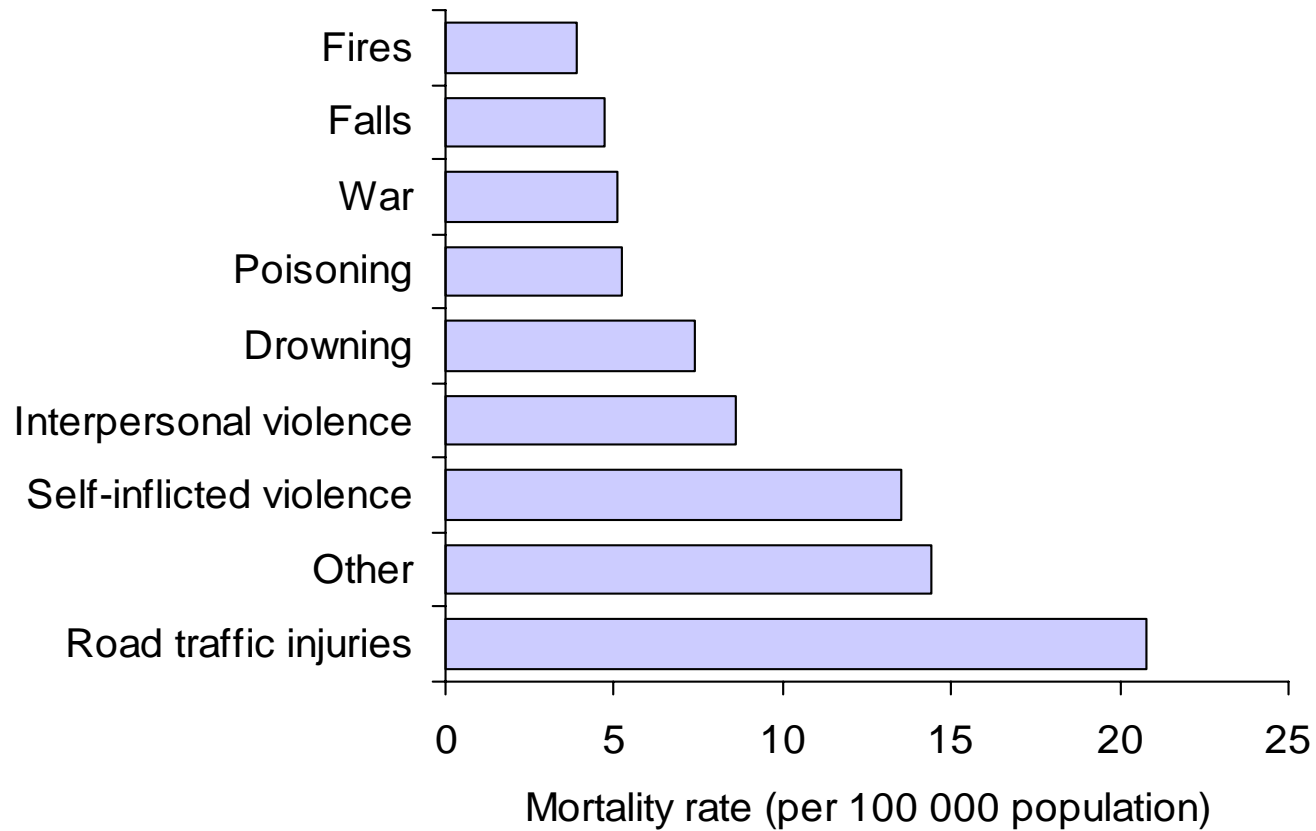
Worldwide, twice as many men die as a result of injury as women.

## Distribution of global injury mortality by cause, 2000



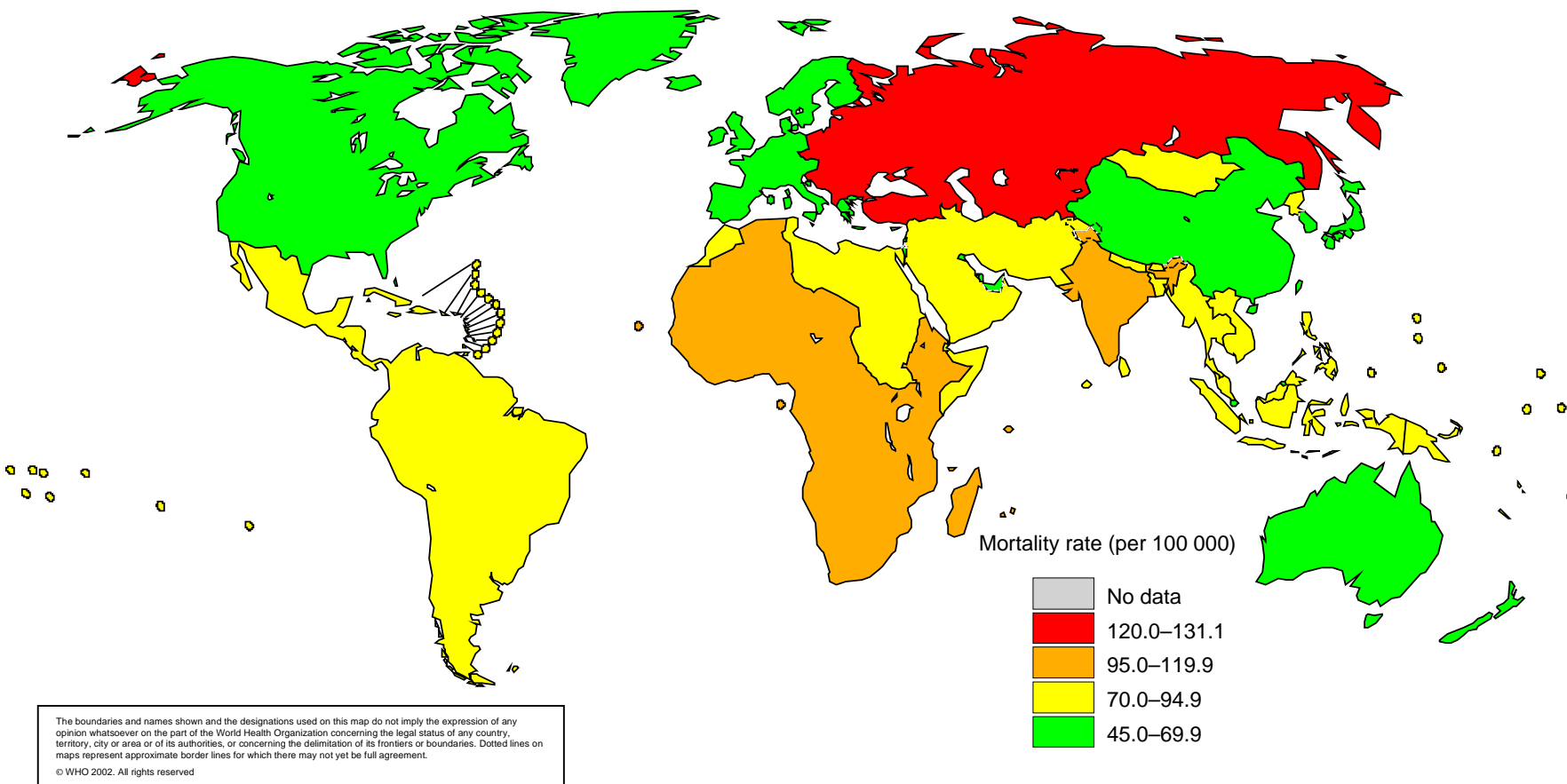
One quarter of all injury deaths are due to road traffic injuries; suicides and interpersonal violence combined account for another quarter of the global total.

## Global injury mortality rates by cause, 2000



Worldwide, road traffic injuries are responsible for the highest injury mortality rates.

# Global Injury-related Mortality



**Injury-related mortality rates (per 100 000 population) in WHO regions, 2000**

Africa		Americas		South-East Asia		Europe		Eastern Mediterranean		Western Pacific		
LMIC	HIC	LMIC	HIC	India	Other LMIC	HIC	LMIC	HIC	LMIC	HIC	China	Other LMIC
118.8	53.8	76.2	53.8	96.9	75.0	47.6	131.5	51.1	70.4	56.2	51.5	78.4

HIC, High-income countries; LMIC, Low- and middle-income countries.



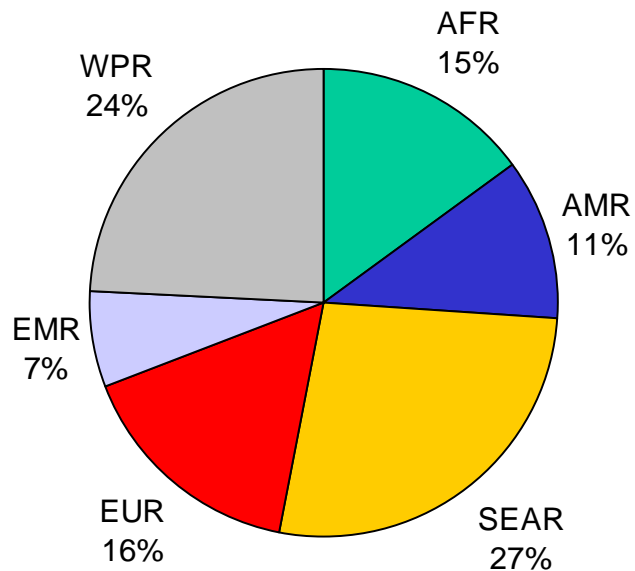
## Injury-related mortality rates (per 100 000 population) in WHO regions by age group and sex, 2000

Age group (years)	World			Africa		Americas		South-East Asia		Europe		Eastern Mediterranean		Western Pacific	
	Both Sexes	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All ages	83.7	112.1	54.9	160.3	75.1	106.8	29.4	112.8	65.8	143.4	46.4	87.0	52.8	88.0	56.2
0–4	80.9	86.6	75.2	132.0	114.8	43.6	28.9	75.6	55.3	42.3	28.0	97.1	109.1	101.4	96.8
5–14	39.9	44.3	35.4	86.9	53.5	19.2	9.3	47.7	56.8	27.4	11.9	41.3	35.0	37.3	23.6
15–29	79.5	110.7	46.9	143.9	59.1	143.8	25.2	112.8	62.4	128.3	28.4	88.2	43.1	77.5	46.6
30–44	87.5	128.6	45.2	221.0	71.4	133.7	24.2	129.4	57.0	184.7	36.1	93.0	37.5	84.8	44.9
45–59	98.7	146.0	51.2	274.4	89.0	117.2	26.2	159.3	60.2	198.6	47.4	116.0	43.5	100.8	52.8
60–69	121.4	174.7	72.9	380.7	140.0	118.2	37.5	214.7	94.6	175.7	55.6	150.0	66.7	140.4	78.8
70–79	161.4	226.0	113.0	522.4	128.0	169.2	70.6	287.5	172.2	168.2	82.9	225.0	150.0	219.2	134.4
≥80	313.6	404.9	263.8	439.6	200.0	380.0	222.2	450.0	300.0	342.9	262.5	400.0	400.0	385.7	308.3

- Males in Africa have the highest injury-related mortality rates worldwide.
- Females in the Americas have the lowest injury-related mortality rates worldwide.

## Regional distribution of global injury-related *mortality*, 2000

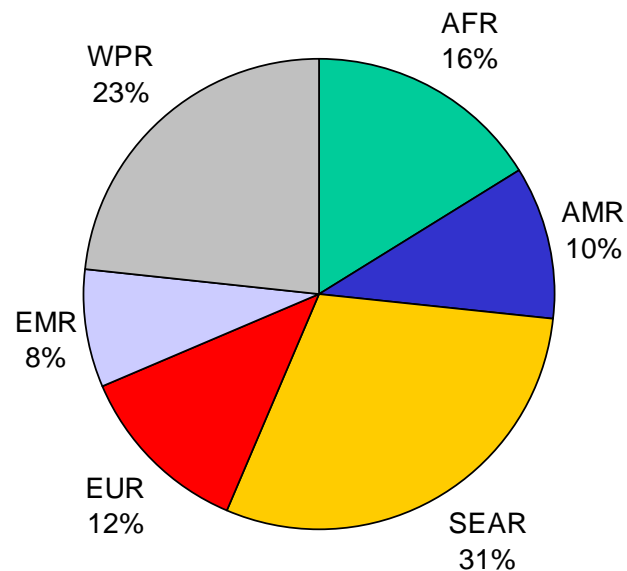
Total no. of deaths = 5 062 000



Taken together, South-East Asia (SEAR) and the Western Pacific (WPR) account for approximately one-half of the total number of injury-related deaths worldwide.

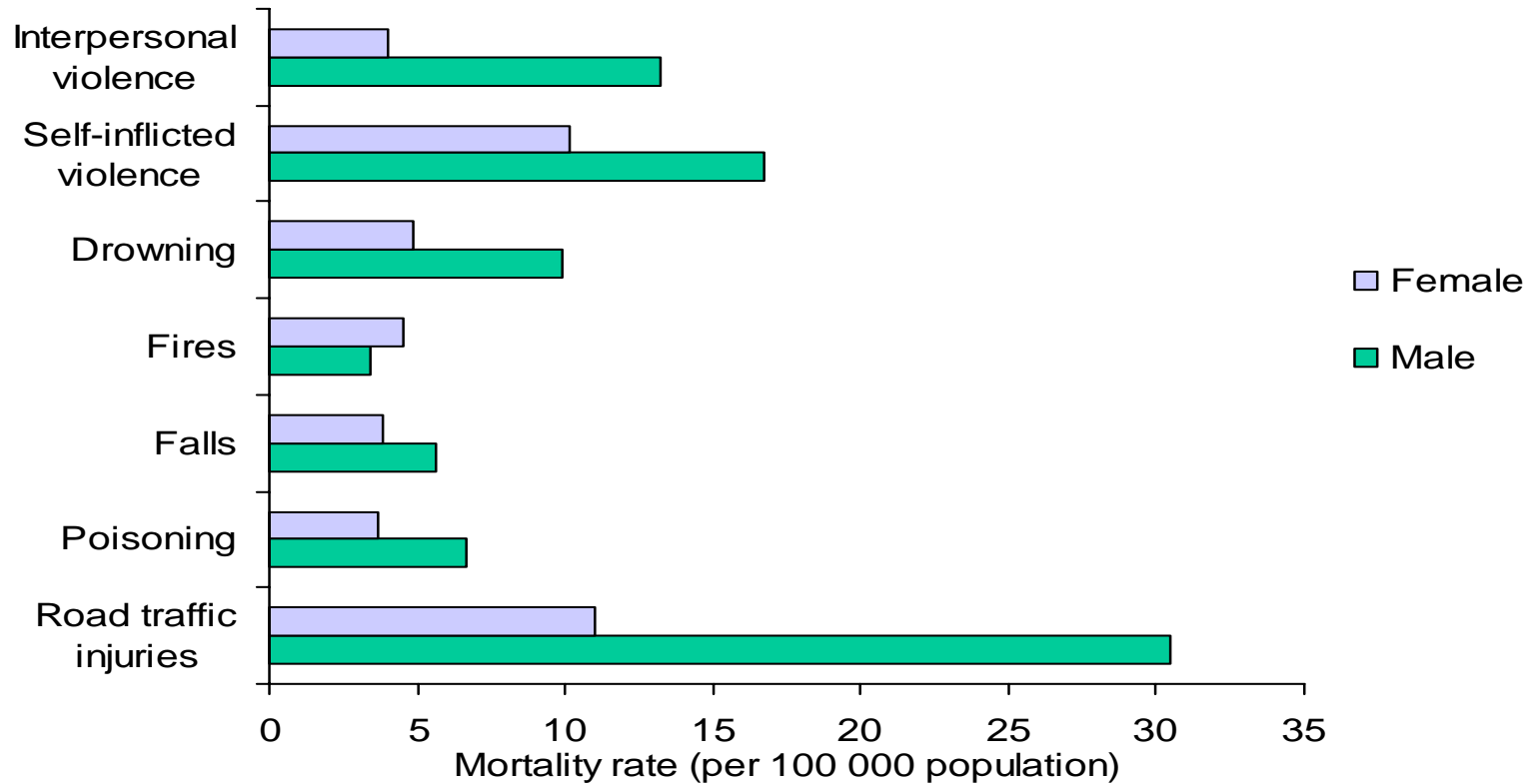
## Regional distribution of the global injury *burden* (DALYs lost), 2000

Total no. of DALYs lost = 182 555 000



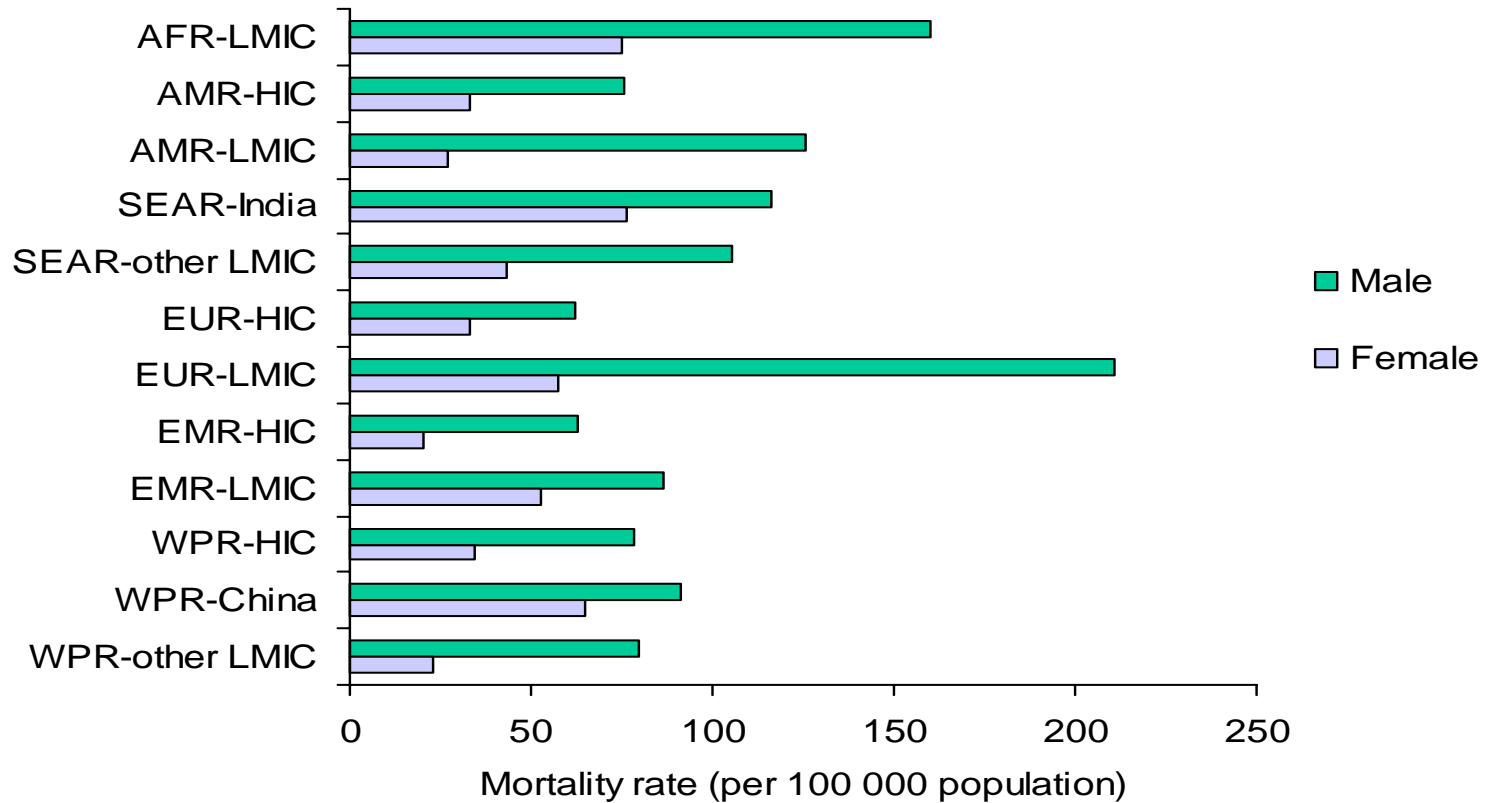
South-East Asia (SEAR) and the Western Pacific (WPR) combined account for more than 50% of the total number of DALYs lost globally to injury.

## Global injury-related mortality rates by cause and sex, 2000



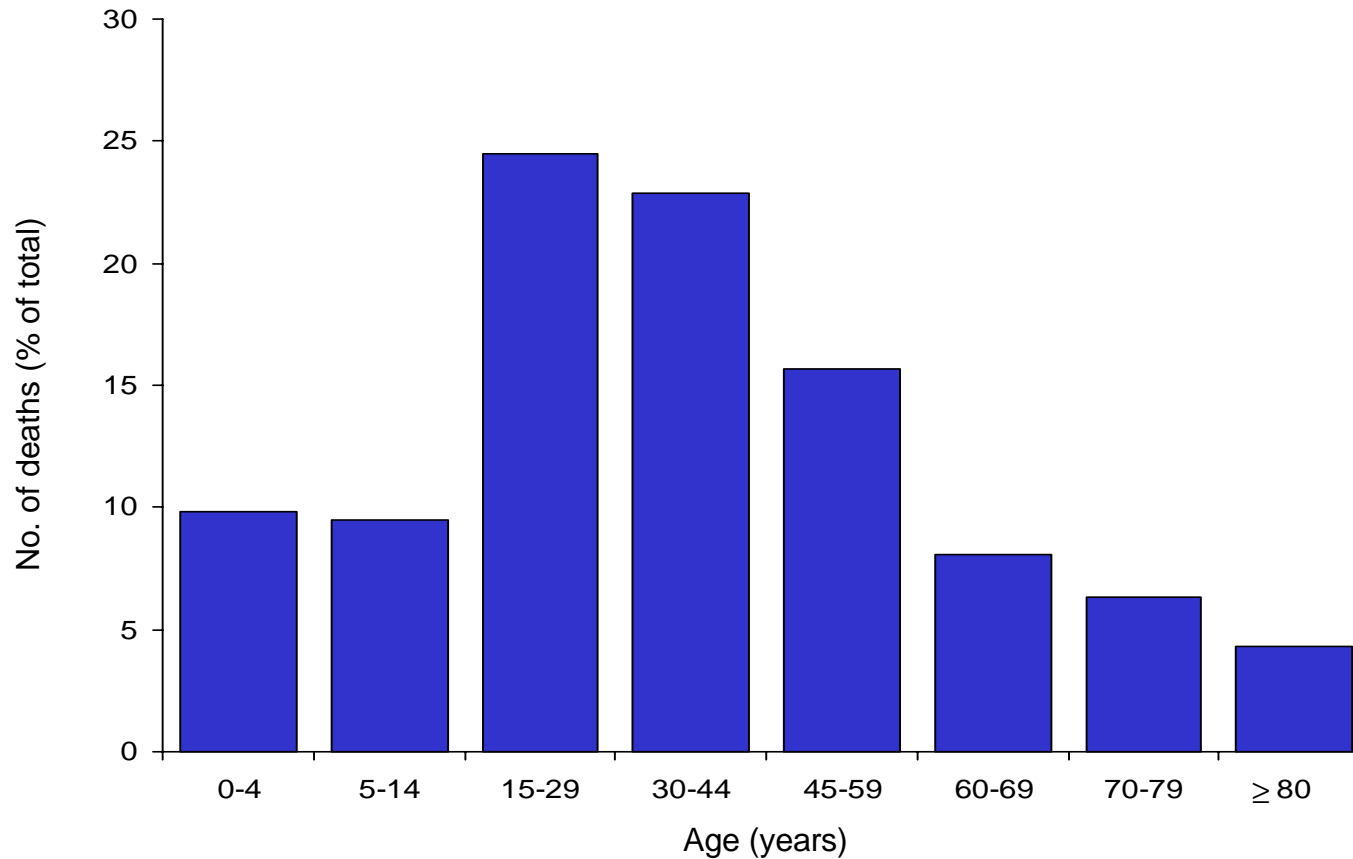
- For most injury-related deaths, males have higher mortality rates than females; fire-related deaths are the notable exception.
- Mortality rates from road traffic injuries and interpersonal violence among men are almost 3 times higher than those among women.

## Global injury-related mortality rates by WHO region, income level and sex, 2000



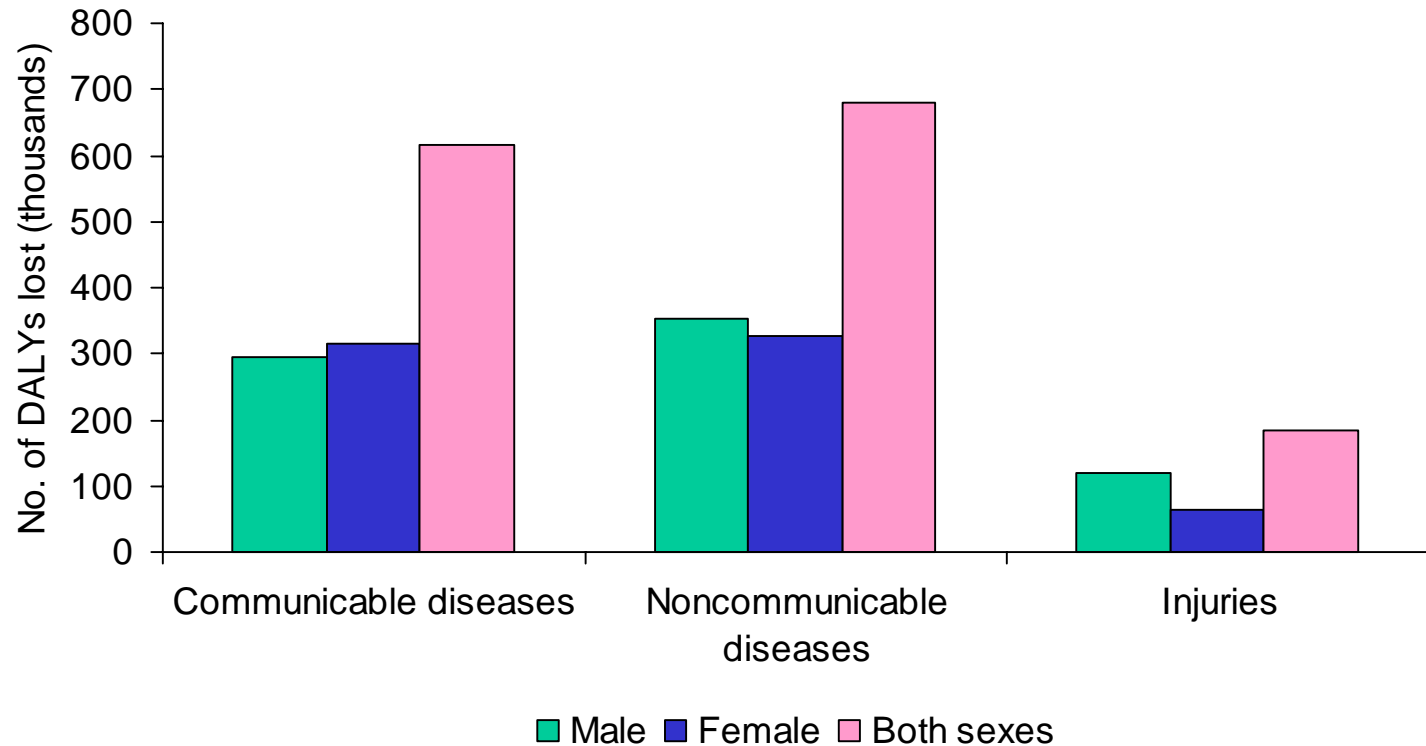
- Males in the low- and middle-income countries of Europe (EUR-LMIC) have highest injury-related mortality rates worldwide.
- Among females, the highest injury-related mortality rates are found in Africa (AFR) and India.

## Age distribution of global injury-related mortality, 2000



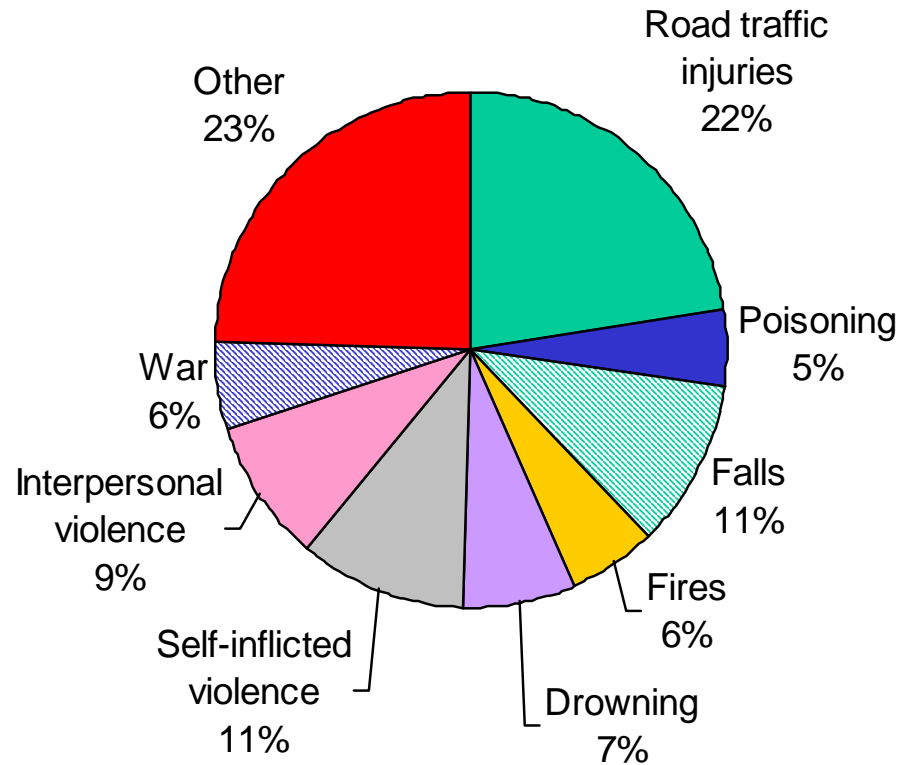
Almost 50% of the world's injury-related mortality occurs in young people aged between 15–44 years, the most economically productive members of the global population.

## Global burden of disease (DALYs lost) by cause and sex, 2000



- Injuries account for 12% of the total burden of disease worldwide.
- Males account for twice the number of DALYs lost due to injury compared with females.

## Distribution of the global burden of injury (DALYs lost) by cause, 2000



Road traffic injuries, falls, self-inflicted violence and other unspecified types of injury are the greatest contributors to the global burden of injury.

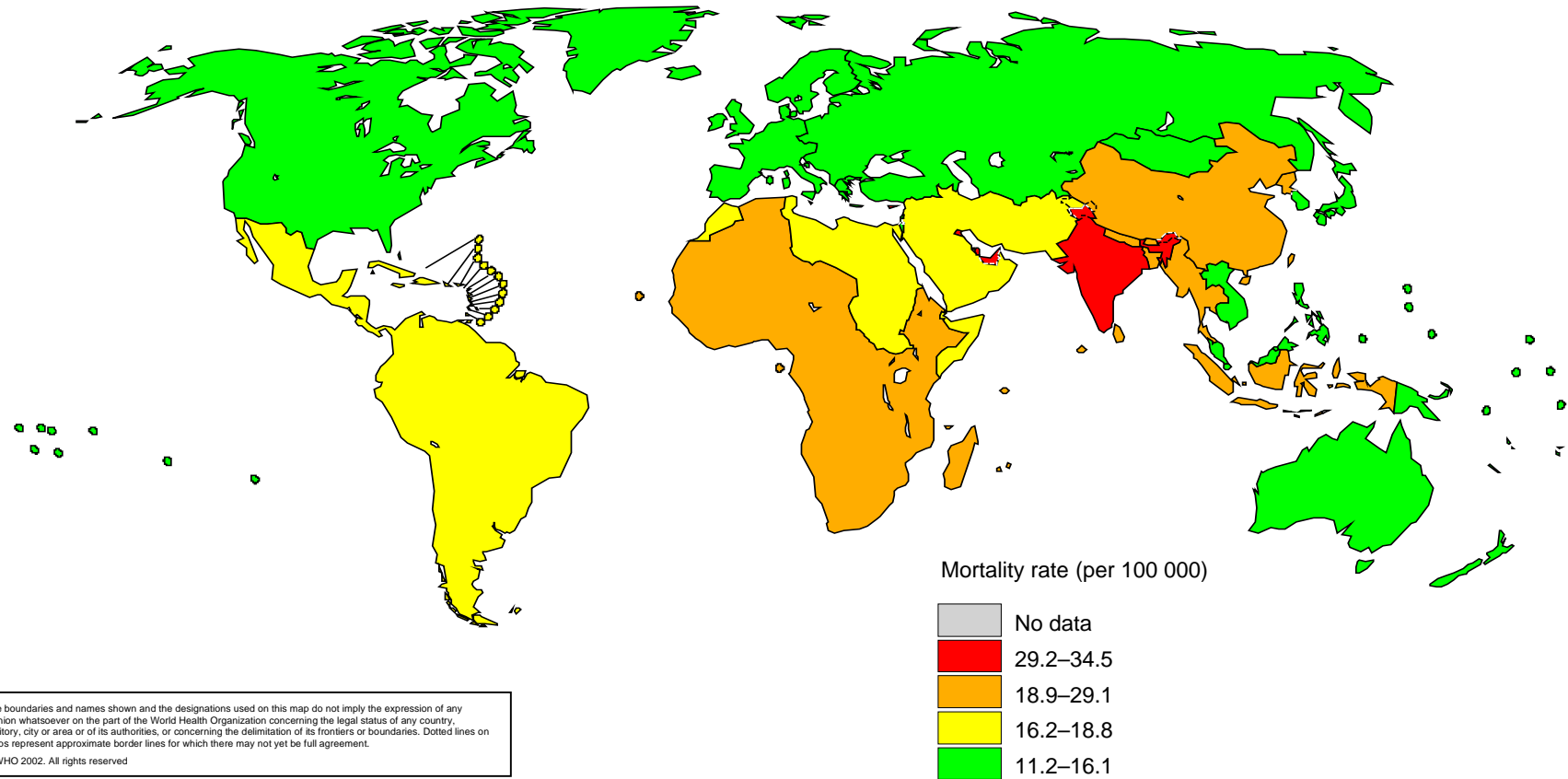
## II. Road traffic injuries

- A road traffic injury (RTI) is any injury due to crashes originating, terminating or involving a vehicle partially or fully on a public highway<sup>1</sup>.
- In 2000, an estimated 1.26 million people worldwide died as a result of road traffic injuries.
- 90% of all road traffic injury deaths occurred in the low- and middle-income countries.

<sup>1</sup> *International statistical classification of diseases and related health problems*, tenth revision. *Volume 1: Tabular list*. Geneva, World Health Organization, 1992.



# Global Road Traffic Injury Mortality



**Road traffic injury mortality rates (per 100 000 population) in WHO regions, 2000**

Africa		Americas		South-East Asia		Europe		Eastern Mediterranean		Western Pacific		
LMIC	HIC	LMIC	India	Other LMIC	HIC	LMIC	HIC	LMIC	HIC	China	Other LMIC	
26.3	15.0	18.1	29.2	26.6	11.2	16.1	34.1	18.7	56.2	51.5	78.4	

HIC, High-income countries; LMIC, Low- and middle-income countries.

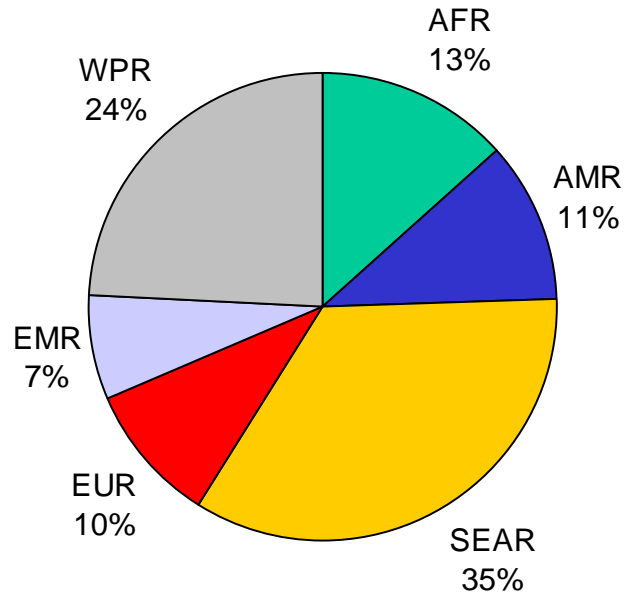
## Road traffic injury mortality rates (per 100 000 population) in WHO regions by age group and sex, 2000

Age group (years)	World		Africa		Americas		South-East Asia		Europe		Eastern Mediterranean		Western Pacific		
	Both sexes	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All ages	20.8	30.8	11.0	35.8	16.8	26.7	8.4	42.4	13.6	21.2	6.9	28.0	9.4	25.3	10.4
0–4	12.4	13.4	11.4	11.0	16.8	7.7	5.3	23.3	13.0	3.8	4.0	11.5	18.1	10.1	7.9
5–14	9.8	11.2	8.4	14.9	15.1	6.4	4.0	15.7	11.7	4.8	3.4	12.7	8.4	8.5	5.0
15–29	22.7	37.8	9.2	33.7	11.3	33.4	8.7	48.9	9.3	29.4	7.4	30.8	4.6	28.5	10.2
30–44	23.9	37.6	9.8	64.0	18.5	32.6	7.7	49.9	12.1	26.5	6.2	39.5	7.4	29.4	9.7
45–59	26.3	39.6	12.9	86.2	25.8	31.0	8.2	55.2	18.1	22.0	6.3	52.9	13.1	31.2	12.8
60–69	29.6	43.8	16.4	89.6	38.6	32.4	12.4	73.0	27.2	20.5	8.0	48.5	11.7	36.4	15.3
70–79	34.3	52.0	21.5	99.5	19.8	57.1	17.2	100.0	44.5	27.6	11.5	53.8	23.9	46.0	21.9
≥ 80	40.6	75.1	22.2	109.9	13.2	58.8	21.2	153.1	61.0	30.1	12.5	112.4	42.8	61.5	24.4

- Males in South-East Asia and Africa have the highest road traffic injury mortality rates worldwide.
- Globally, the road traffic injury mortality rate for males is almost 3 times higher than that for females.

## Regional distribution of global RTI mortality, 2000

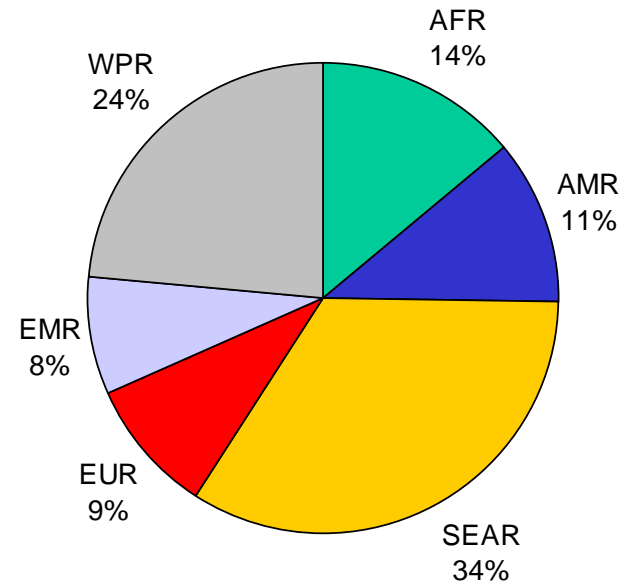
Total no. of deaths = 1 260 000



Of the WHO regions, South-East Asia (SEAR) accounts for the highest proportion of road traffic injury deaths.

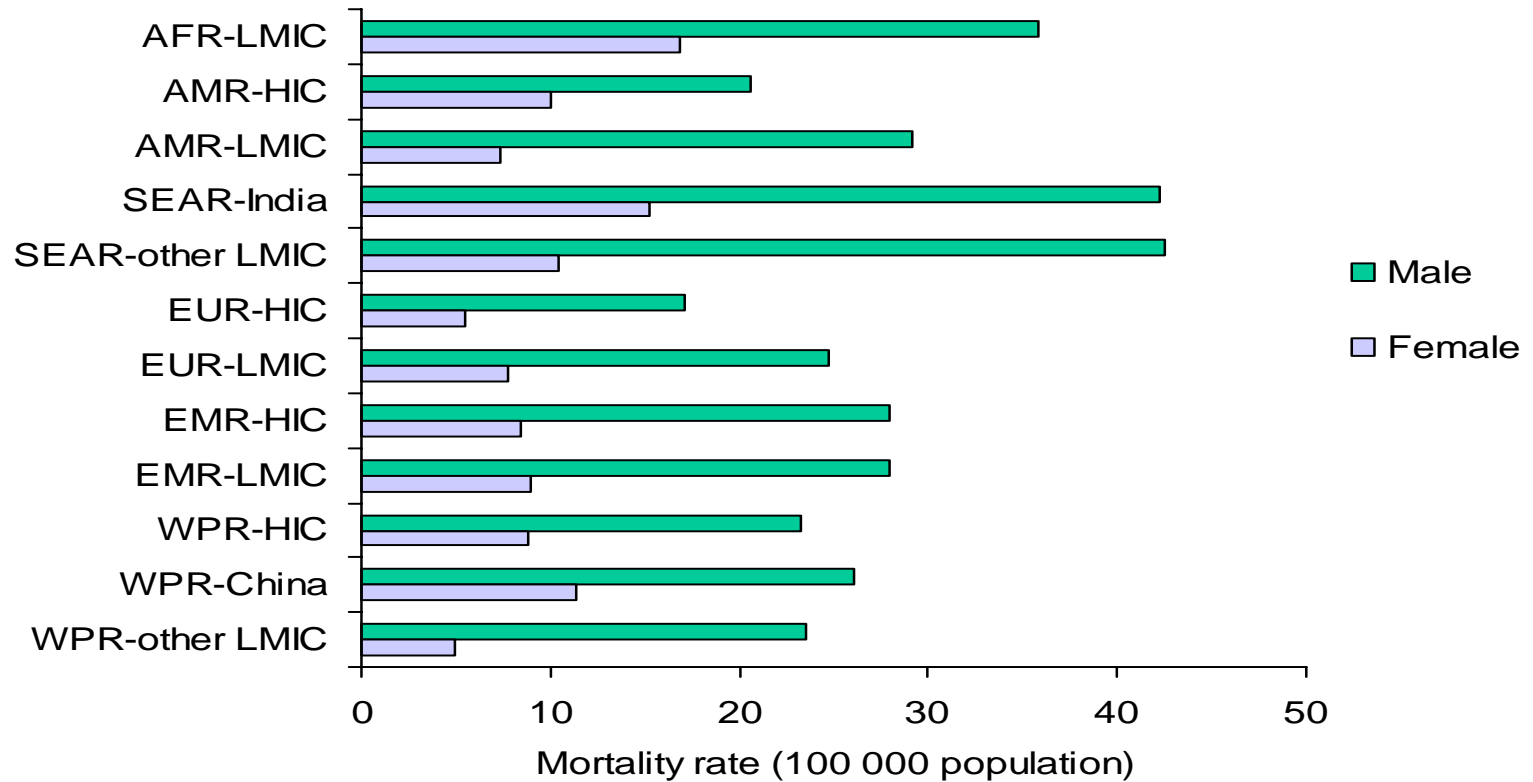
## Regional distribution of the global RTI burden (DALYs lost), 2000

Total no. of DALYs lost = 41 234 000



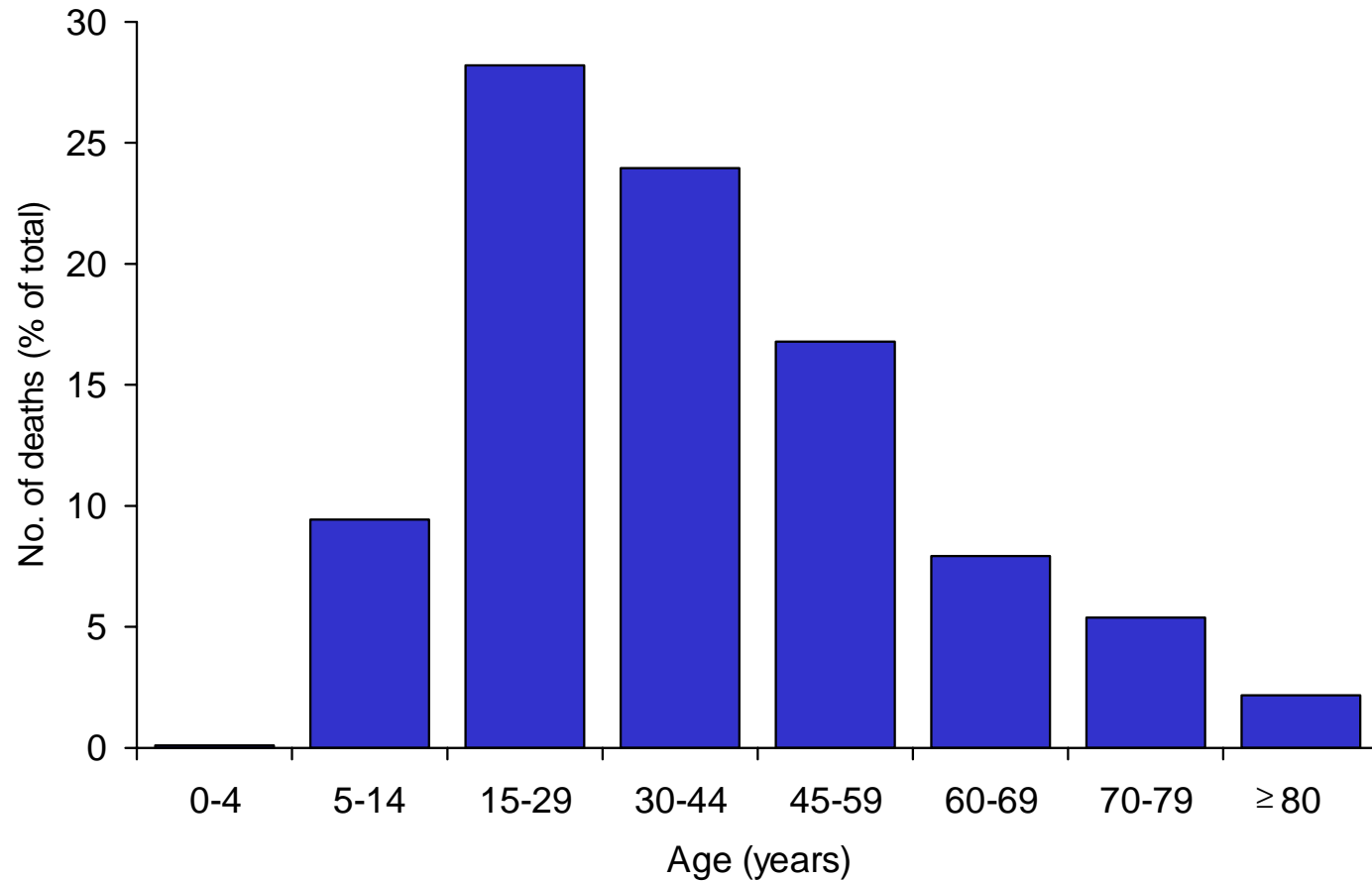
The South-East Asia Region (SEAR) accounts for more than one-third of the total number of DALYs lost globally to road traffic injuries.

## Road traffic injury mortality rates by WHO region, income level and sex, 2000



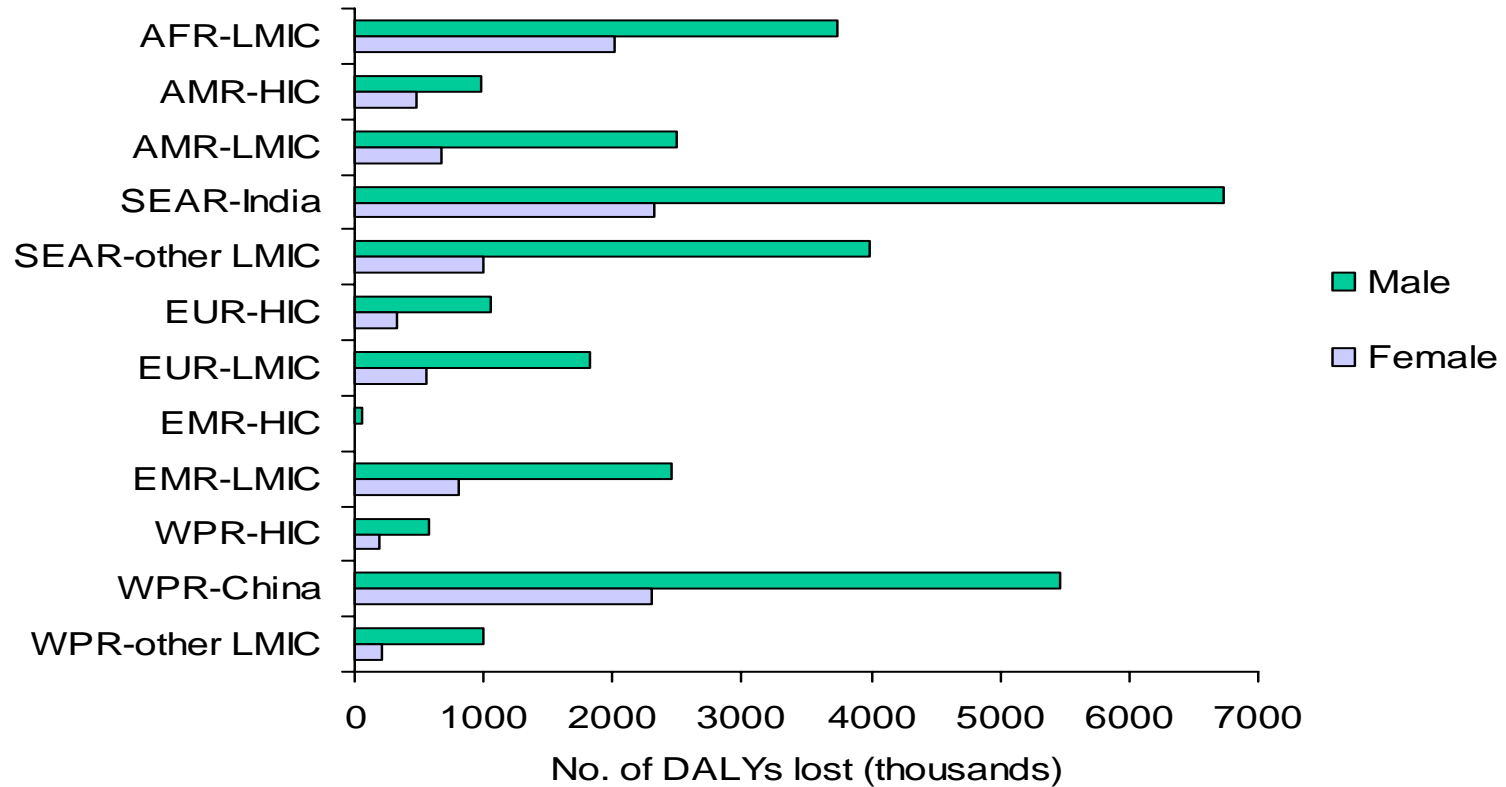
- Males in South-East Asia (SEAR) have the highest road traffic injury mortality rates worldwide.
- The highest road traffic injury mortality rates amongst females are found in Africa (AFR) and India.

## Age distribution of global road traffic injury mortality, 2000



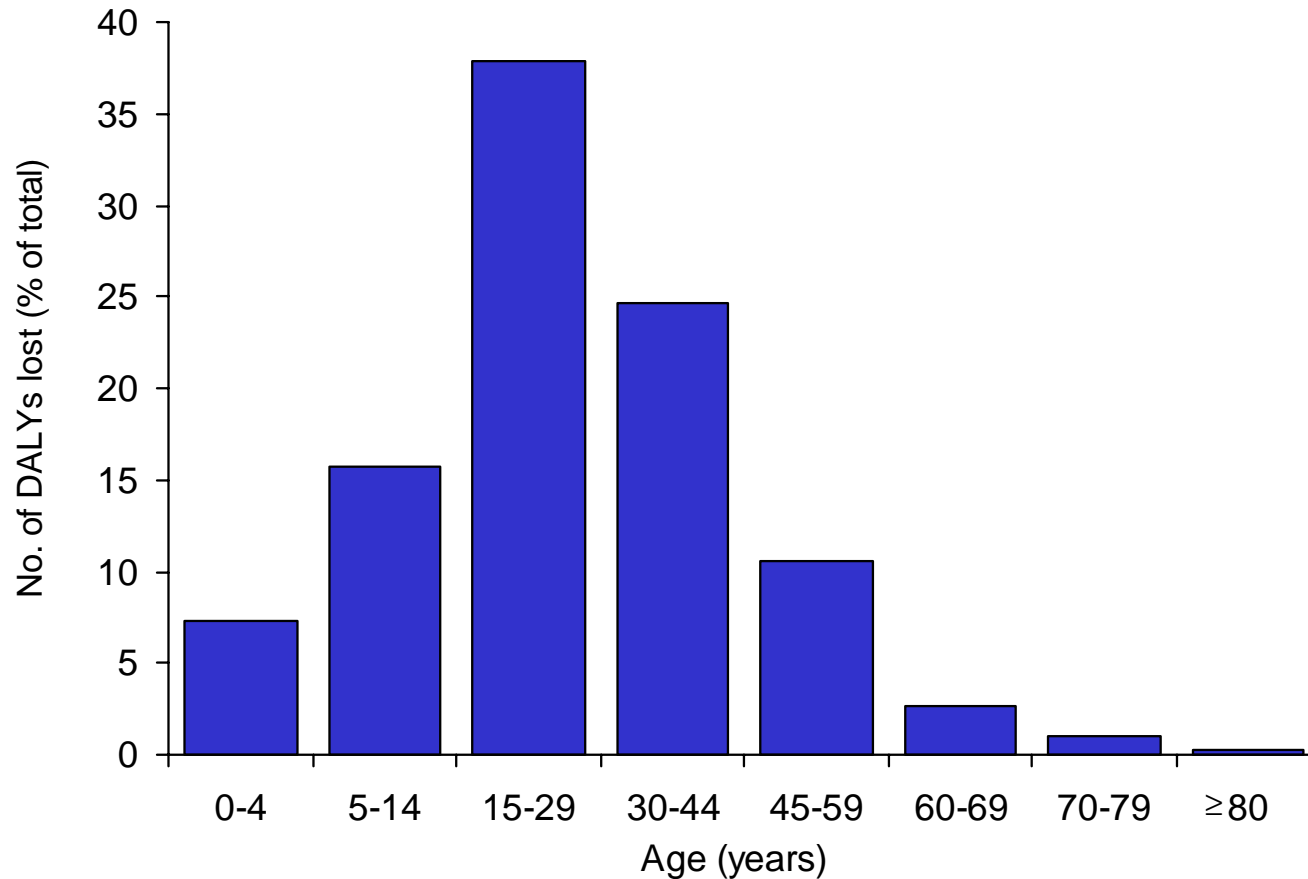
Over 50% of the global mortality due to road traffic injury occurs among young adults aged between 15–44 years.

## RTI burden (DALYs lost) by WHO region, income level and sex, 2000



Males in China and India have the greatest road traffic injury burden, with the number of DALYs lost by men in these countries exceeding those lost in any other world region.

## Age distribution of the global RTI injury burden (DALYs lost), 2000



Around 60% of the total number of DALYs lost globally as a result of road traffic injuries occurs among young adults aged between 15–44 years.

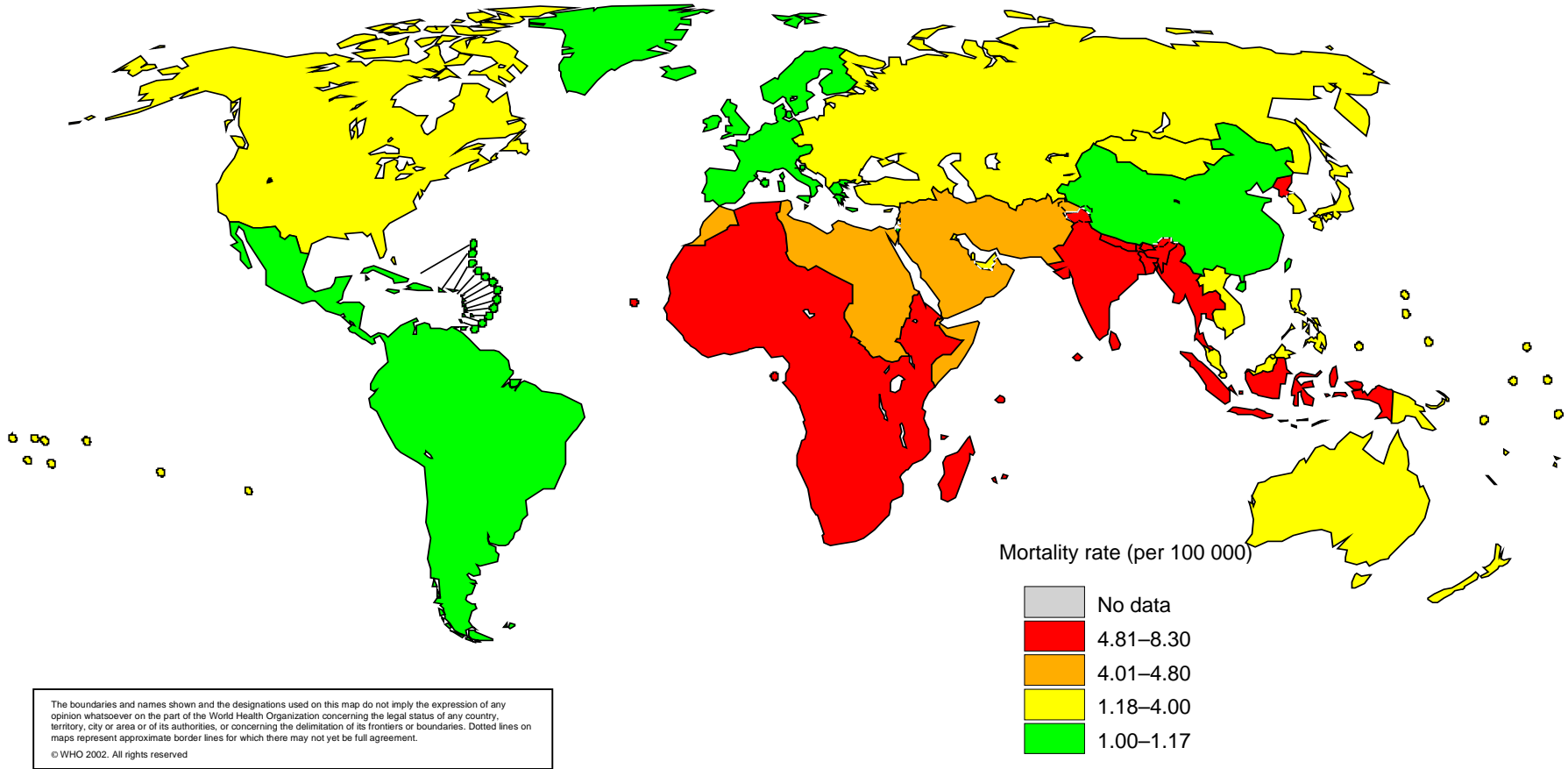
### III. Fire-related burns

- A burn occurs when some or all of the different layers of cells in the skin are destroyed by a hot liquid (scald), a hot solid (contact burns) or a flame (flame burns). Skin injuries due to ultraviolet radiation, radioactivity, electricity or chemicals, as well as respiratory damage resulting from smoke inhalation, are also considered to be burns<sup>1</sup>.
- Data presented here refer to fire-related burns only (i.e. flame burns and respiratory damage due to smoke inhalation) and do not include burns due to contact with hot substances, or skin injuries due to ultraviolet radiation, radioactivity, electricity or chemicals.
- Globally, fire-related burns were responsible for 238 000 deaths in 2000.
- More than 95% of fatal fire-related burns occurred in low- and middle-income countries.

<sup>1</sup> Adapted from: A simple guide to burn treatment. A project of the International Society for Burn Injuries in collaboration with the World Health Organization. June 1994.



# Global Fire-related Burn Mortality



**Fire-related burn mortality rates (per 100 000 population) in WHO regions, 2000**

Africa		Americas		South-East Asia		Europe		Eastern Mediterranean		Western Pacific		
LMIC	HIC	LMIC	HIC	India	Other LMIC	HIC	LMIC	HIC	LMIC	HIC	China	Other LMIC
5.5	1.3	1.17	1.0	8.3	8.2	1.0	4.0	1.5	4.8	1.5	1.1	2.0

HIC, High-income countries; LMIC, Low- and middle-income countries.

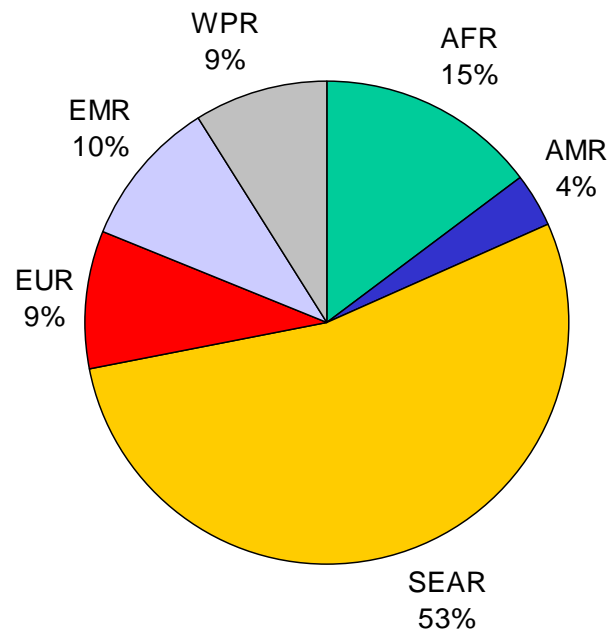
## Fire-related burn mortality rates (per 100 000 population) in WHO regions by age group and sex, 2000

Age group (years)	World			Africa		Americas		South-East Asia		Europe		Eastern Mediterranean		Western Pacific	
	Both sexes	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All ages	3.9	3.4	4.5	6.6	4.4	1.5	1.0	5.5	11.3	3.5	1.8	3.7	6.4	1.3	1.1
0–4	6.6	7.6	5.7	23.6	9.3	2.6	2.6	4.4	7.1	3.8	4.0	11.4	9.1	1.4	1.6
5–14	2.5	1.6	3.6	3.4	2.3	0.5	0.4	2.3	9.3	0.6	0.5	1.6	3.3	0.7	0.7
15–29	3.9	2.4	5.5	1.1	2.3	1.0	0.4	5.5	15.6	1.0	1.1	2.9	7.7	0.9	1.0
30–44	3.5	3.1	3.9	2.1	2.0	1.1	0.5	6.9	12.1	4.1	1.0	2.3	5.0	1.0	0.5
45–59	3.1	3.7	2.5	3.8	3.7	1.7	0.7	6.6	6.8	5.4	1.3	4.0	4.3	1.5	0.8
60–69	4.2	4.3	3.9	11.1	10.0	4.5	1.0	8.8	10.8	5.4	2.2	2.7	4.6	1.9	1.9
70–79	6.9	7.1	6.3	25.0	20.0	7.7	2.4	12.5	16.7	4.5	2.9	6.5	25.0	3.8	3.1
≥ 80	12.5	12.5	13.3	5.1	41.2	8.3	5.4	25.0	40.0	14.3	6.3	5.1	35.6	14.3	8.3

- Females in South-East Asia have the highest fire-related burn mortality rates worldwide, followed by males in Africa and females in the Eastern Mediterranean.
- Among the various age groups, children under 5 years and the elderly (i.e. those aged over 70 years) have the highest fire-related burn mortality rates.

## Regional distribution of global fire-related burn *mortality*, 2000

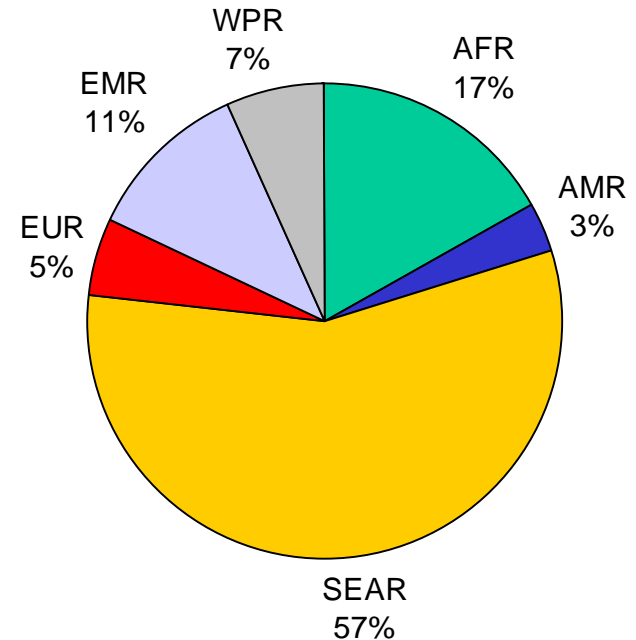
Total no. of deaths = 238 000



South-East Asia (SEAR) alone accounts for just over one-half of the total number of fire-related burn deaths worldwide.

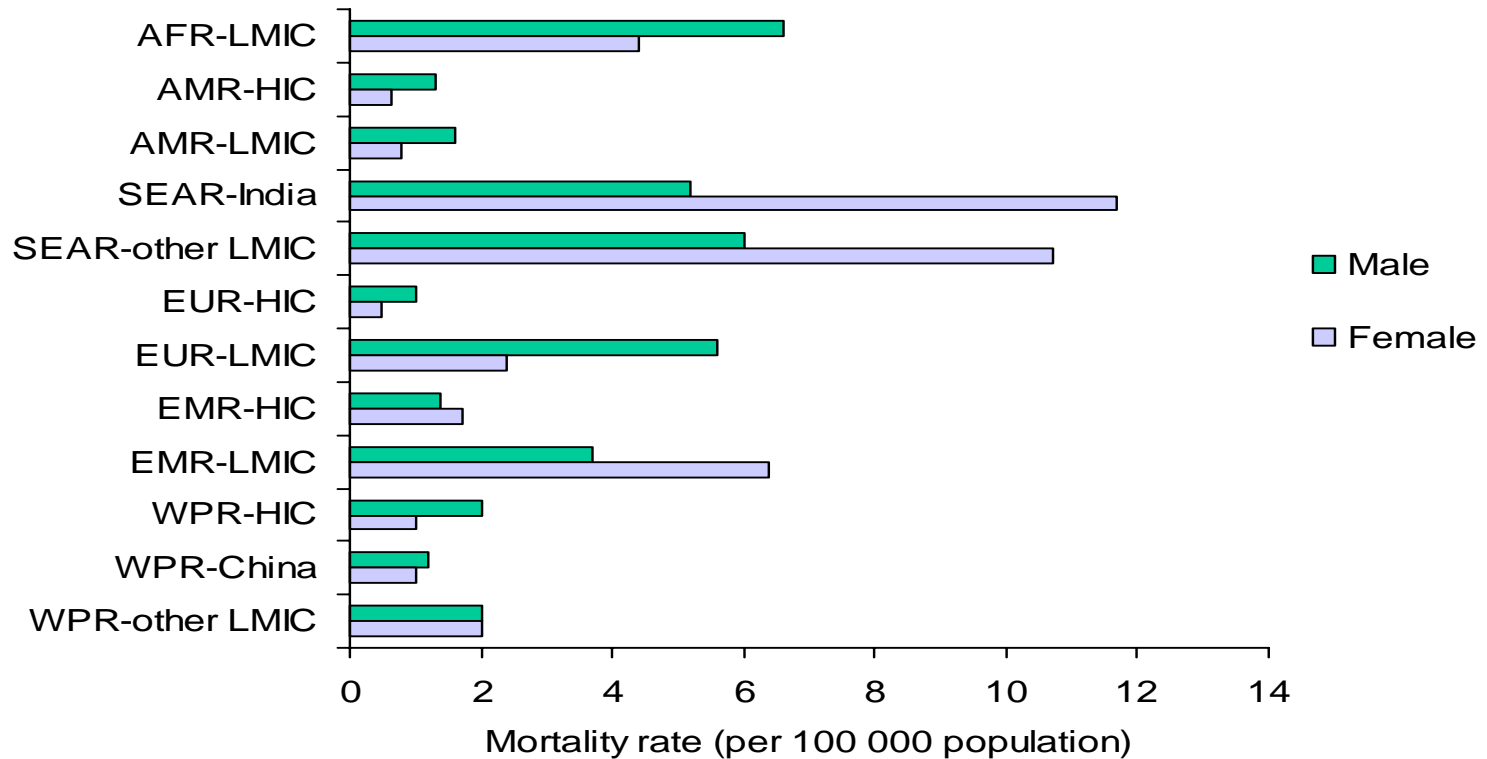
## Regional distribution of the global fire-related burn injury *burden* (DALYs lost), 2000

Total no. of DALYs lost = 9 989 000



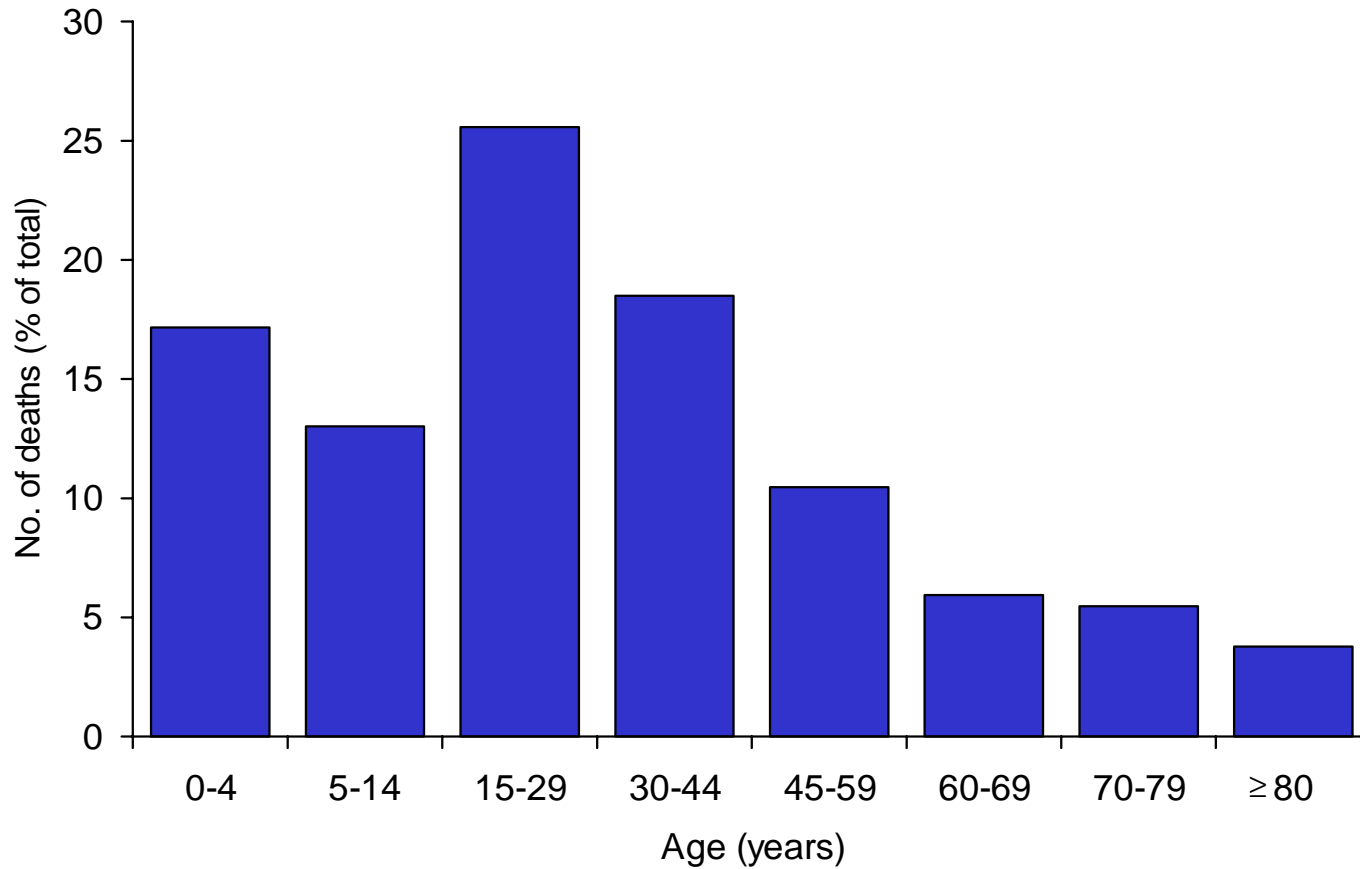
South-East Asia (SEAR) also accounts for more than 50% of the total number of DALYs lost globally to fire-related burns.

## Fire-related burn mortality rates by WHO region, income level and sex, 2000



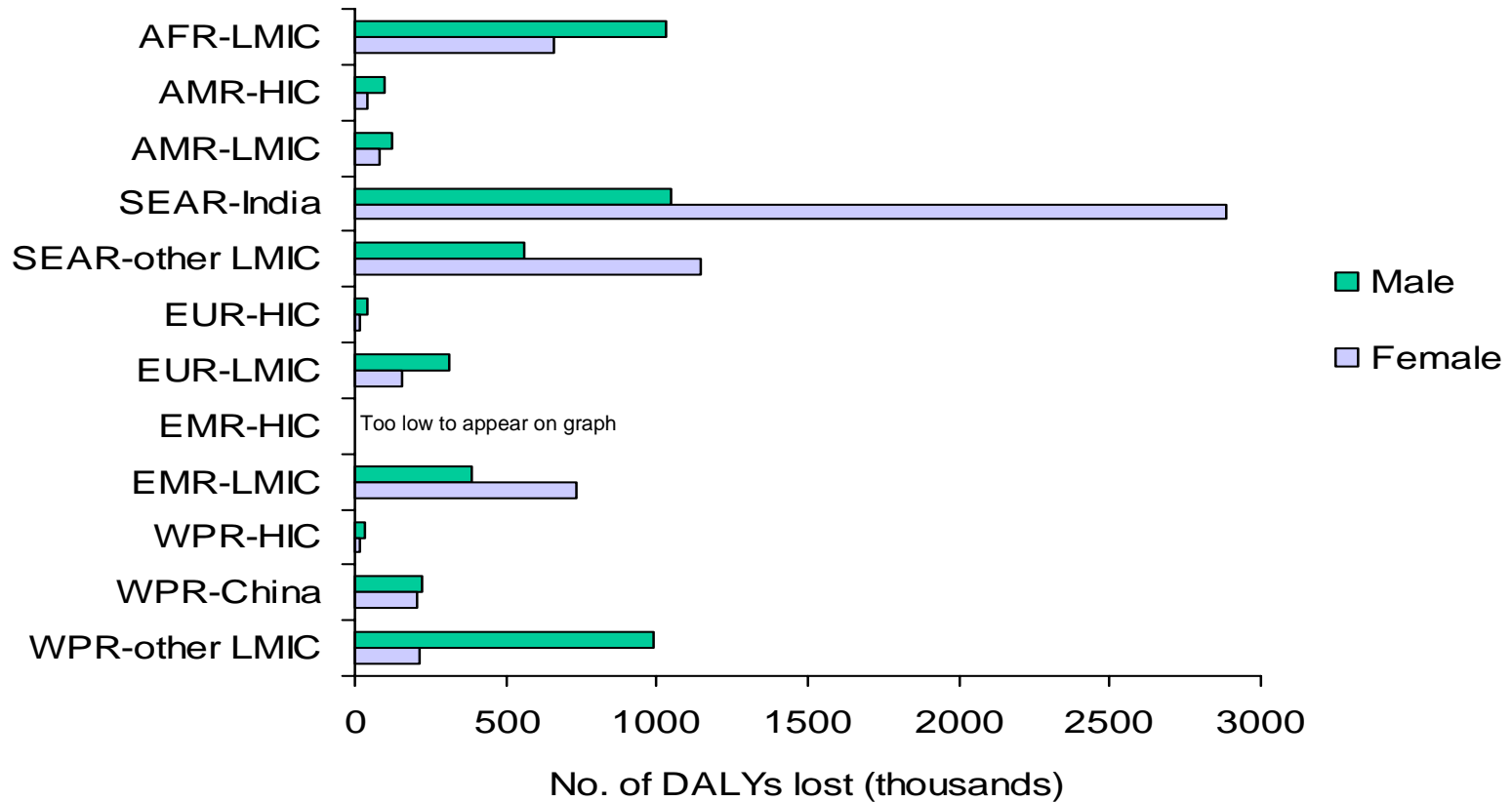
Females in the countries of the South-East Asia Region (SEAR) have the highest fire-related burn mortality rates worldwide.

## Age distribution of global fire-related burn mortality, 2000



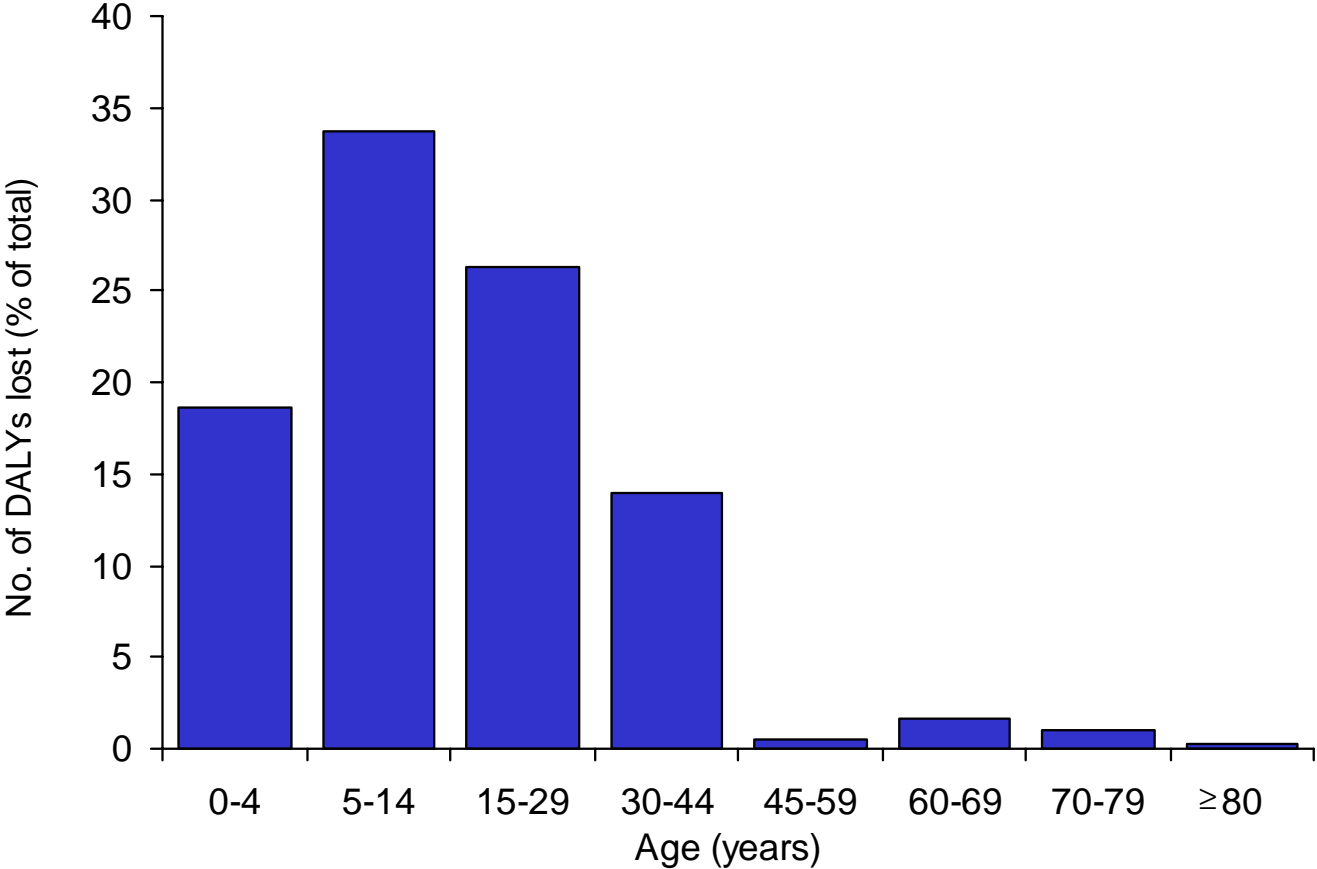
Children and young persons under the age of 44 years account for the highest proportion of the global mortality due to fire-related burns.

## Fire-related burn burden (DALYs lost) by WHO region, income level and sex, 2000



The number of DALYs lost to fire-related burns by females in the low- and middle-income countries of South-East Asia (SEAR) exceeds the number lost by both sexes in any other region.

# Age distribution of the global fire-related burn burden (DALYs lost), 2000



Over 50% of the total number of DALYs lost globally to fire-related burns are among children aged between 0–14 years.

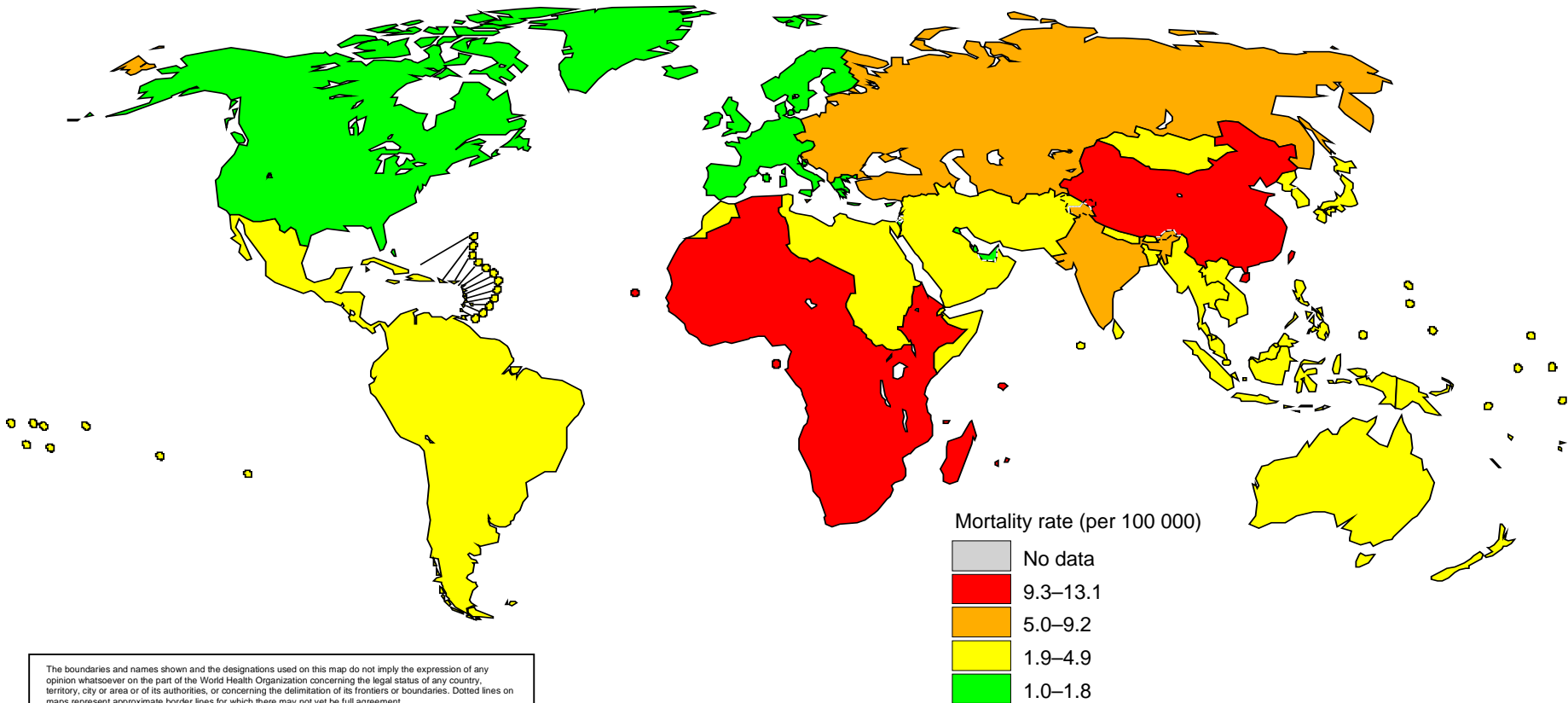
## IV. Drowning

- According to the ICD, all unintentional drowning and submersions (with the exception of those which occur as a result of cataclysms, transport and water transport accidents) are classified as drowning deaths<sup>1</sup>.
- Worldwide, an estimated 450 000 people drowned in 2000.
- 97% of all drowning deaths occurred in the low- and middle-income countries.

<sup>1</sup> *International statistical classification of diseases and related health problems*, tenth revision. *Volume 1: Tabular list*. Geneva, World Health Organization, 1992.



# Global Drowning Mortality



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## Drowning mortality rates (per 100 000 population) in WHO regions, 2000

Africa		Americas		South-East Asia		Europe		Eastern Mediterranean		Western Pacific	
LMIC	HIC	LMIC	India	Other LMIC	HIC	LMIC	HIC	LMIC	HIC	China	Other LMIC
13.1	1.3	4.3	7.6	3.8	1.0	9.2	1.8	4.2	4.0	12.3	4.9

HIC, High-income countries; LMIC, Low- and middle-income countries.

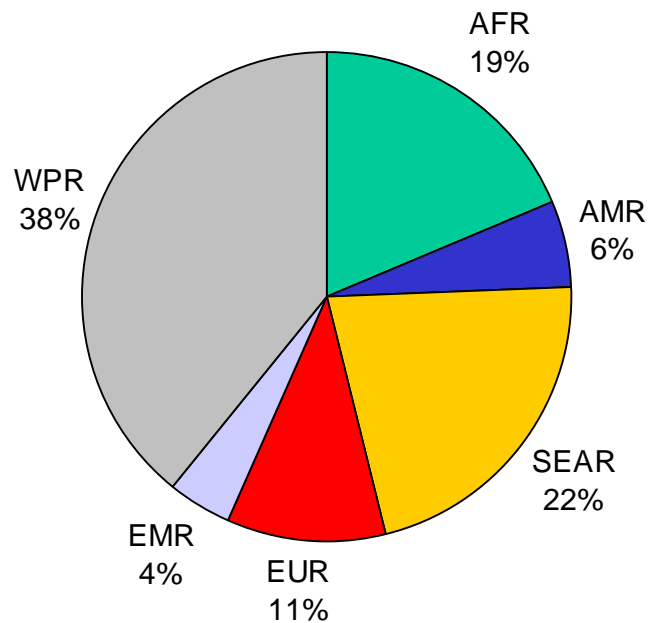
## Drowning mortality rates (per 100 000 population) in WHO regions by age group and sex, 2000

Age group (years)	World			Africa		Americas		South-East Asia		Europe		Eastern Mediterranean		Western Pacific	
	Both Sexes	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All ages	7.4	9.9	4.9	19.2	6.9	5.3	1.1	7.3	5.2	9.0	2.0	5.5	2.6	12.5	8.2
0–4	18.9	21.7	15.8	27.3	13.7	9.2	4.7	12.7	9.3	7.7	4.4	7.1	7.6	49.1	41.6
5–14	9.5	12.0	6.7	28.9	10.2	3.2	1.1	5.9	7.6	5.8	2.4	5.7	2.3	19.2	10.0
15–29	5.0	7.5	2.4	9.8	1.7	6.8	0.8	6.2	2.8	9.1	1.7	5.7	1.0	8.0	3.9
30–44	4.3	6.2	2.1	9.4	4.3	4.9	0.6	6.0	2.8	11.7	1.4	3.5	1.1	4.4	2.5
45–59	4.7	6.9	2.5	15.8	3.3	4.0	0.5	6.4	3.3	9.9	1.5	3.2	1.3	5.8	3.4
60–69	6.2	6.6	4.0	25.6	9.7	3.5	0.6	10.0	5.9	8.1	1.8	5.0	1.5	8.1	5.0
70–79	8.9	11.8	6.8	30.0	4.4	3.7	0.9	14.4	13.3	5.0	2.1	12.0	8.4	16.5	11.6
≥ 80	14.6	16.7	12.0	25.9	<0.1	5.0	1.1	27.5	24.0	5.2	2.6	33.0	17.9	32.8	28.3

- Males in Africa and the Western Pacific have the highest drowning-related mortality rates worldwide.
- Among the various age groups, children under 5 years of age have the highest drowning mortality rates worldwide.

## Regional distribution of global drowning mortality, 2000

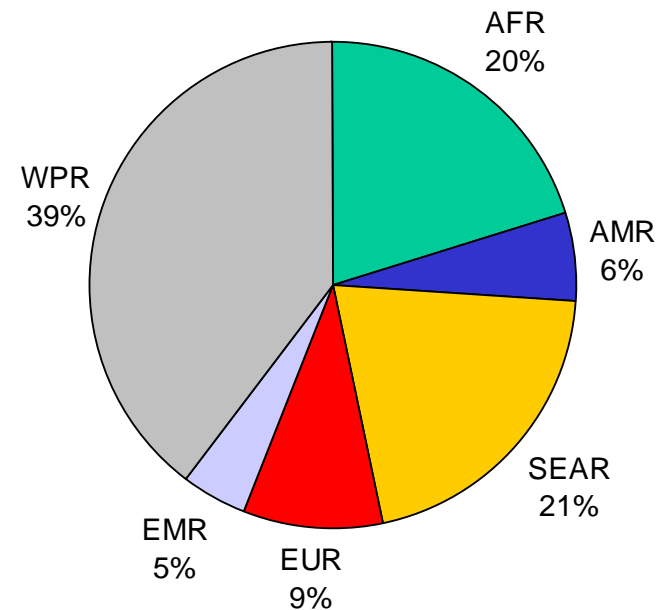
Total no. of deaths = 450 000



Worldwide, the greatest number of drowning deaths occurs in the Western Pacific Region (WPR).

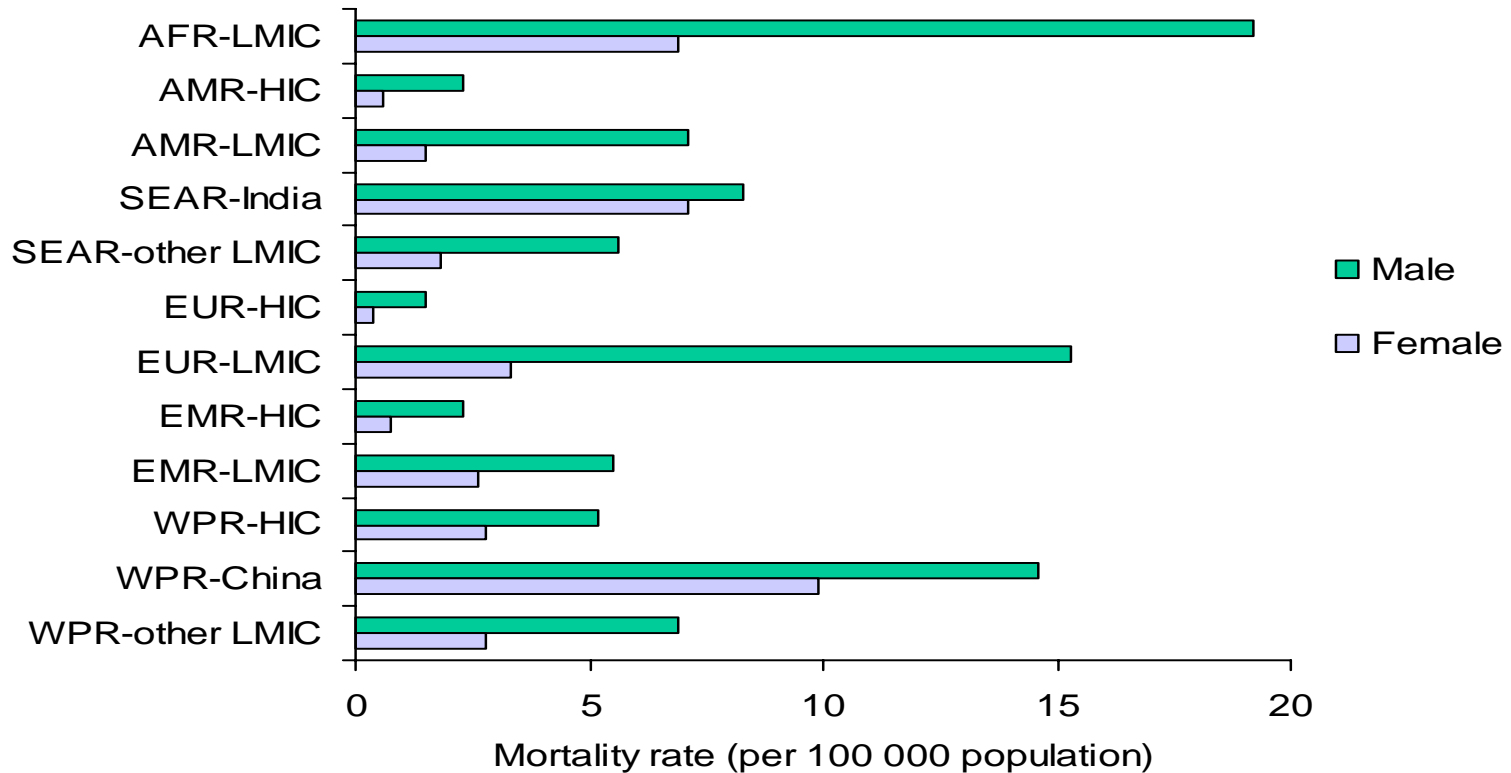
## Regional distribution of the global drowning injury burden (DALYs lost), 2000

Total no. of DALYs lost = 13 263 000



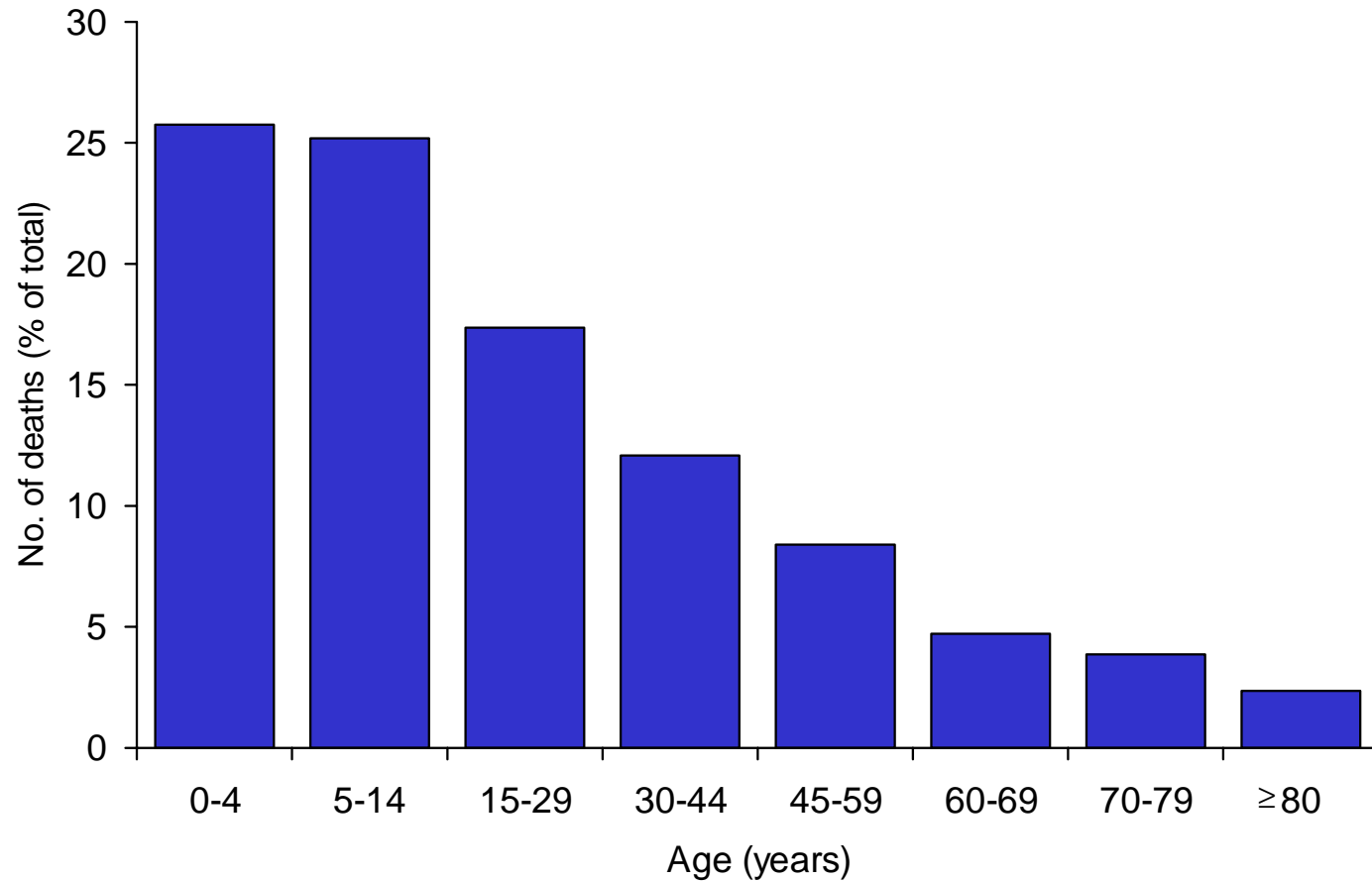
The Western Pacific Region (WPR) accounts for nearly 40% of the total number of DALYs lost globally to drowning.

## Drowning mortality rates by WHO region, income level and sex, 2000



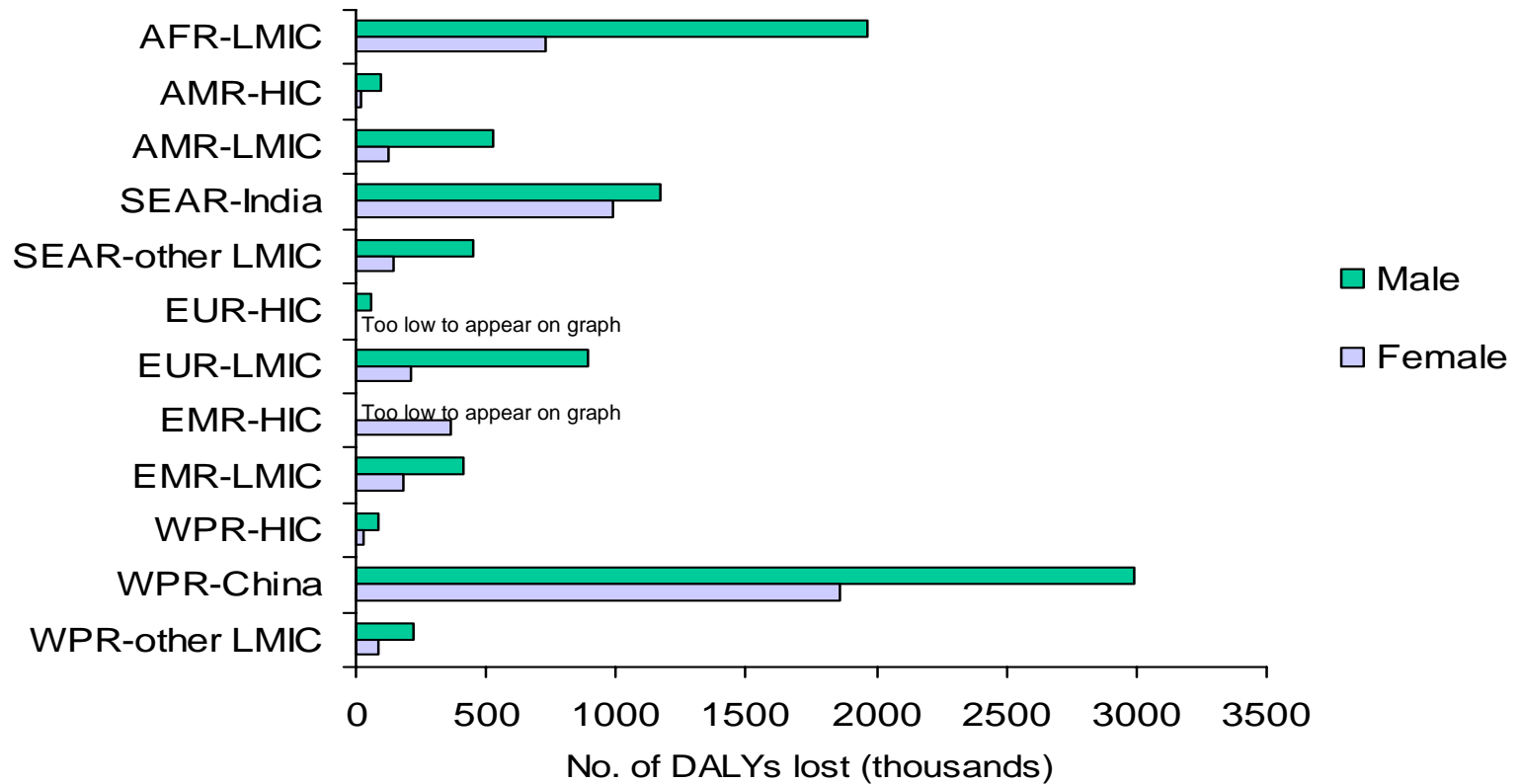
- Males in Africa (AFR), China and the low- and middle-income countries of Europe (EUR-LMIC) have the highest drowning mortality rates worldwide.
- Among females worldwide, those in Africa (AFR), China and India have the highest drowning mortality rates.

## Age distribution of global drowning mortality, 2000



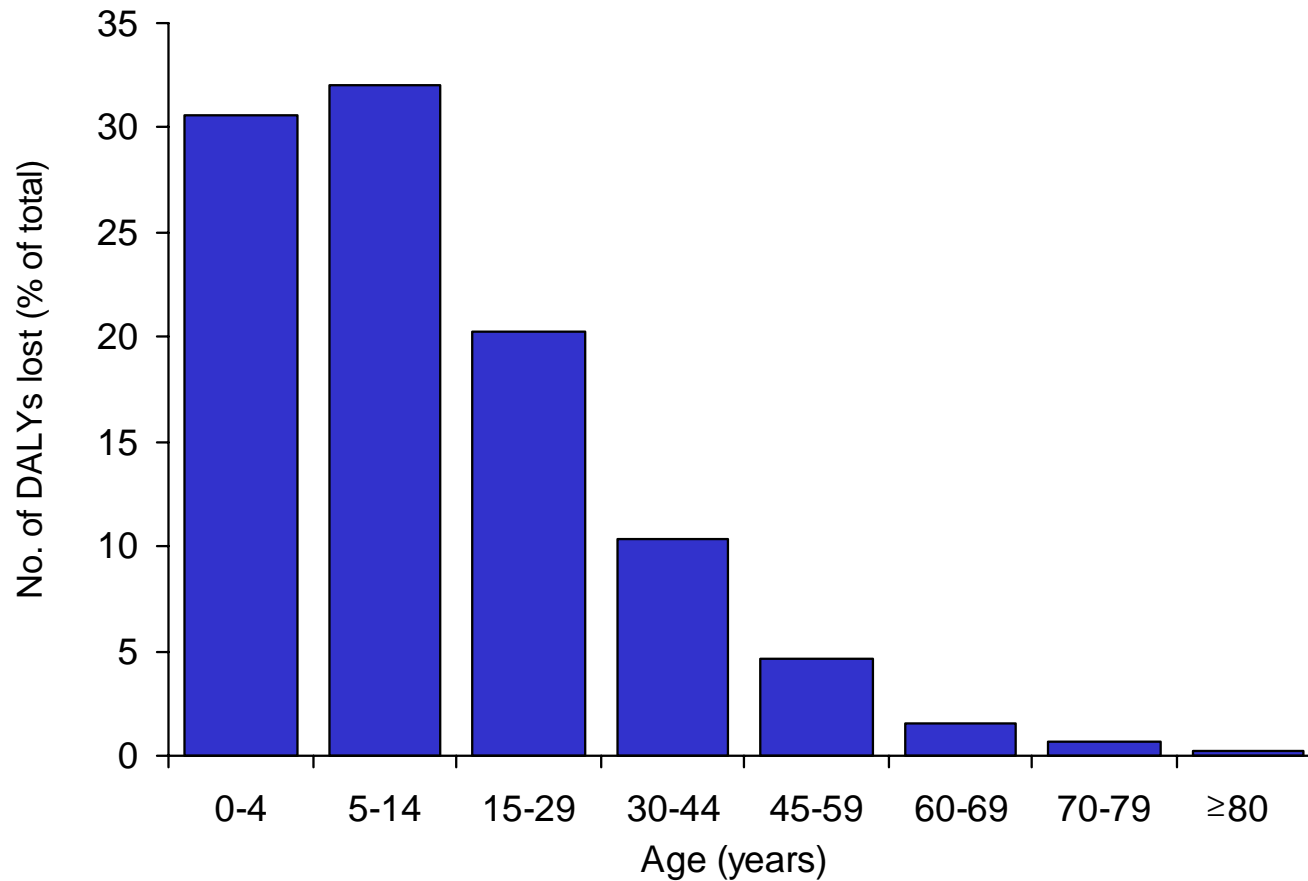
Over one-half of the global mortality due to drowning occurs among children aged between 0–14 years.

## Drowning injury burden (DALYs lost) by WHO region, income level and sex, 2000



Males in China, followed by males in Africa (AFR) and women in China, account for the highest number of DALYs lost to drowning worldwide.

## Age distribution of the global drowning injury burden (DALYs lost), 2000



Over 60% of the total number of DALYs lost globally to drowning occurs among children under 15 years of age.

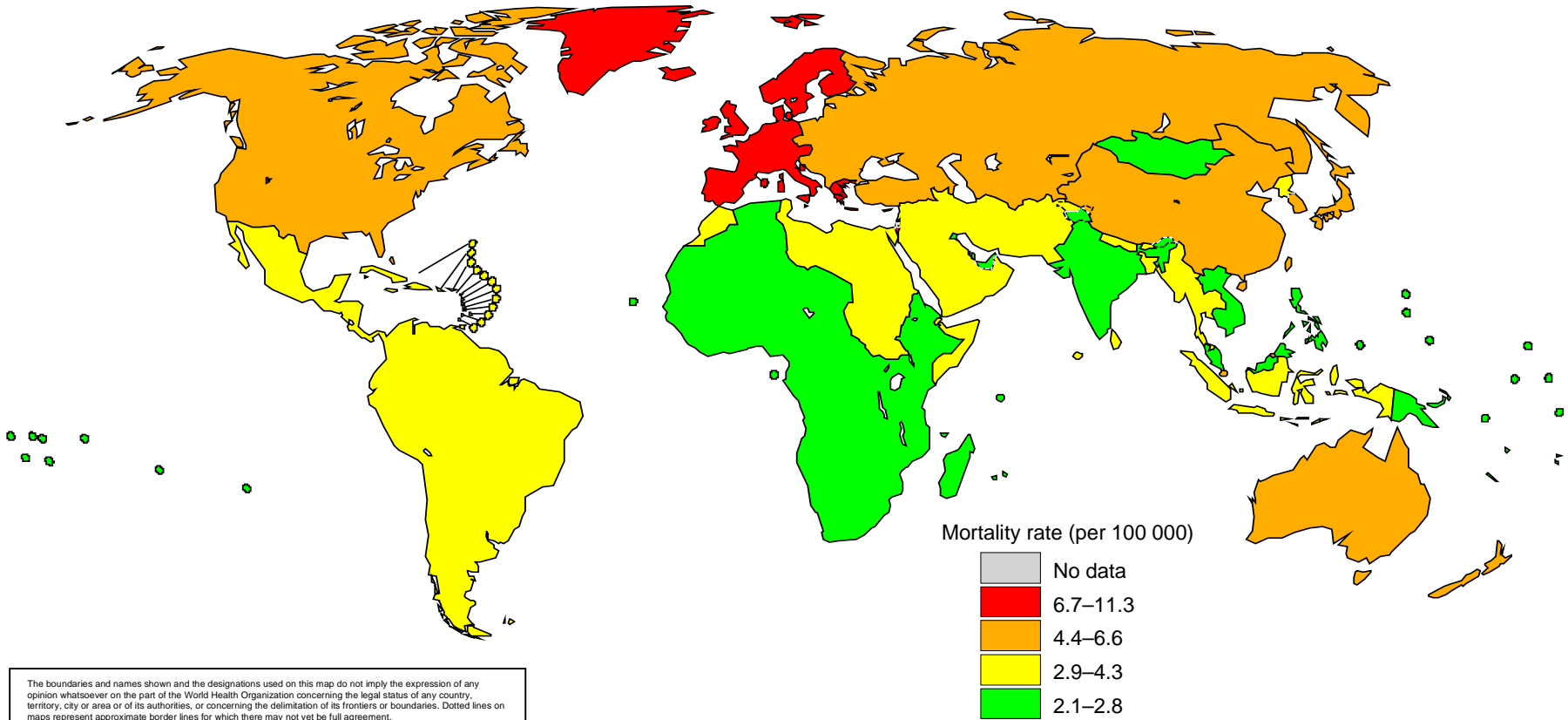
## V. Fall-related injuries

- Fall-related deaths and non-fatal injuries exclude those due to assault and intentional self-harm. Falls from animals, burning buildings and transport vehicles, and falls into fire, water and machinery are also excluded<sup>1</sup>.
- Worldwide, an estimated 283 000 people died due to falls in 2000.
- A quarter of all fatal falls occurred in the high-income countries.

<sup>1</sup> *International statistical classification of diseases and related health problems*, tenth revision. *Volume 1: Tabular list*. Geneva, World Health Organization, 1992.



# Global Fall-related Mortality



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**Fall-related mortality rates (per 100 000 population) in WHO regions, 2000**

Africa		Americas		South-East Asia		Europe		Eastern Mediterranean		Western Pacific		
LMIC	HIC	LMIC	HIC	India	Other LMIC	HIC	LMIC	HIC	LMIC	HIC	China	Other LMIC
2.7	6.5	3.9	6.6	2.1	3.4	11.3	6.6	2.7	4.3	5.3	5.7	2.8

HIC, High-income countries; LMIC, Low- and middle-income countries.

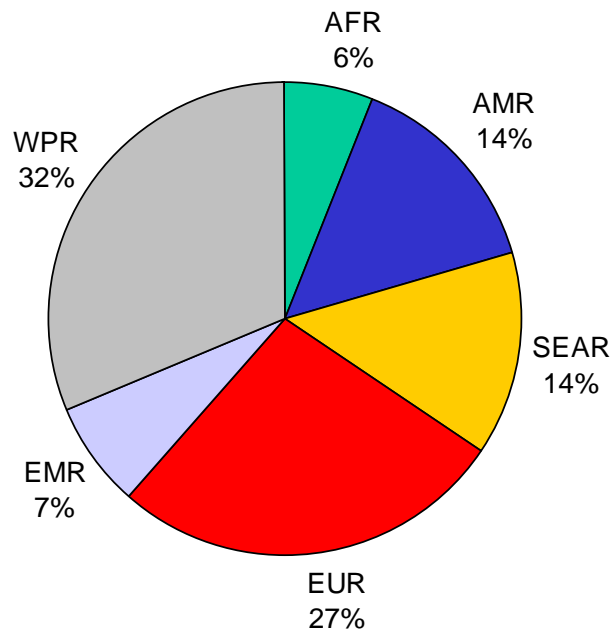
## Fall-related mortality rates (per 100 000 population) in WHO regions by age group and sex, 2000

Age group (years)	World			Africa		Americas		South-East Asia		Europe		Eastern Mediterranean		Western Pacific	
	Both Sexes	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All ages	4.7	5.6	3.8	3.4	2.0	5.7	4.1	3.6	1.4	9.0	8.5	5.0	3.6	6.5	3.9
0–4	2.8	2.9	2.8	1.4	1.9	1.8	0.9	2.3	1.4	1.8	1.2	4.9	8.5	4.5	4.1
5–14	1.2	1.4	1.0	1.1	1.0	0.7	0.3	1.1	1.0	1.0	0.4	2.8	2.2	1.6	1.3
15–29	1.7	2.8	0.7	1.1	0.3	2.3	0.3	2.4	0.5	2.8	0.6	2.9	1.0	4.0	1.0
30–44	2.8	4.4	1.1	3.1	1.3	3.8	0.5	3.4	0.7	5.5	1.0	3.3	1.7	5.3	1.4
45–59	5.0	7.7	2.2	6.5	2.8	6.2	1.2	6.0	1.4	10.0	2.1	7.2	3.0	8.4	2.9
60–69	9.1	13.5	5.1	27.8	6.8	11.4	4.2	10.9	3.8	14.0	4.7	13.8	6.2	13.1	6.0
70–79	21.7	27.3	17.5	47.5	26.0	26.9	17.6	17.5	10.0	28.2	20.0	40.0	25.0	26.5	16.3
≥ 80	107.8	103.8	110.0	52.5	94.6	132.0	122.2	24.3	15.0	142.8	155.6	72.0	65.1	85.7	91.7

In all regions of the world, adults over the age of 70 years, particularly females, have significantly higher fall-related mortality rates than younger persons.

## Regional distribution of global fall-related *mortality*, 2000

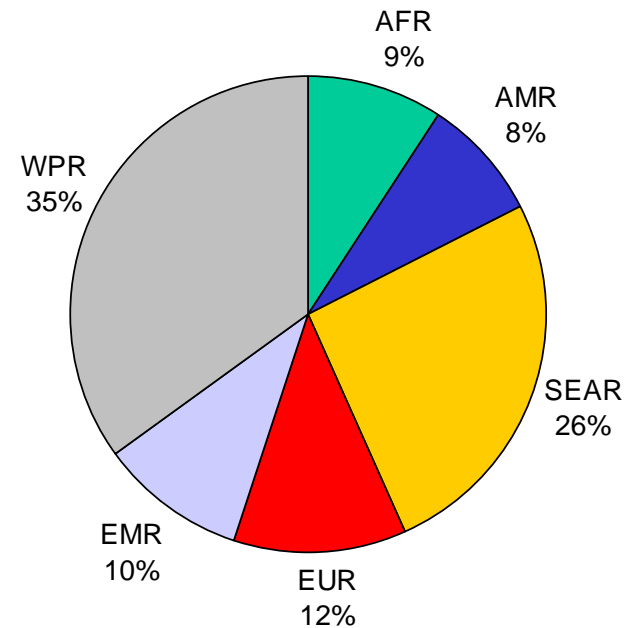
Total no. of deaths = 283 000



Europe (EUR) and the Western Pacific (WPR) combined account for nearly 60% of the total number of fall-related deaths worldwide.

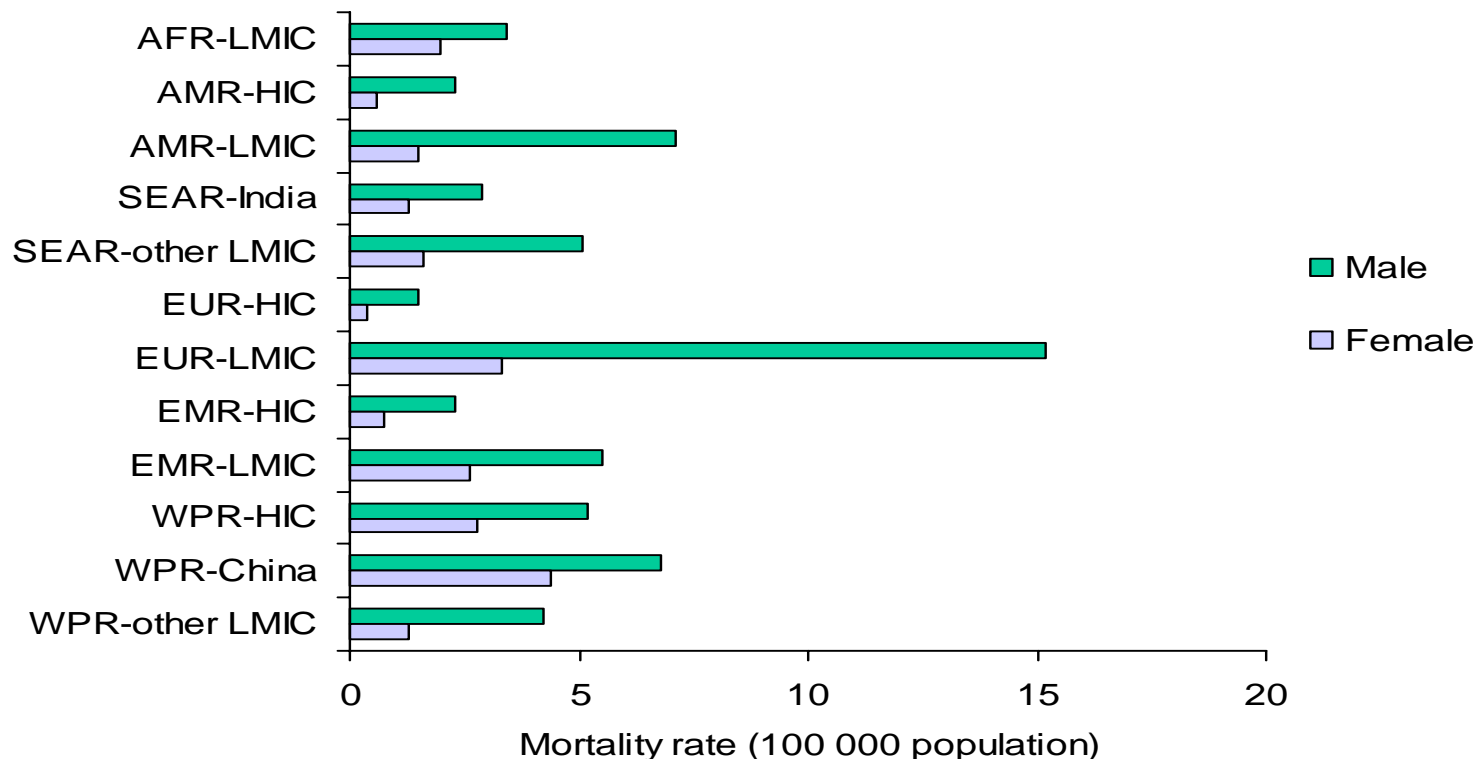
## Regional distribution of the global fall-related injury *burden* (DALYs lost), 2000

Total no. of DALYs lost = 19 518 000



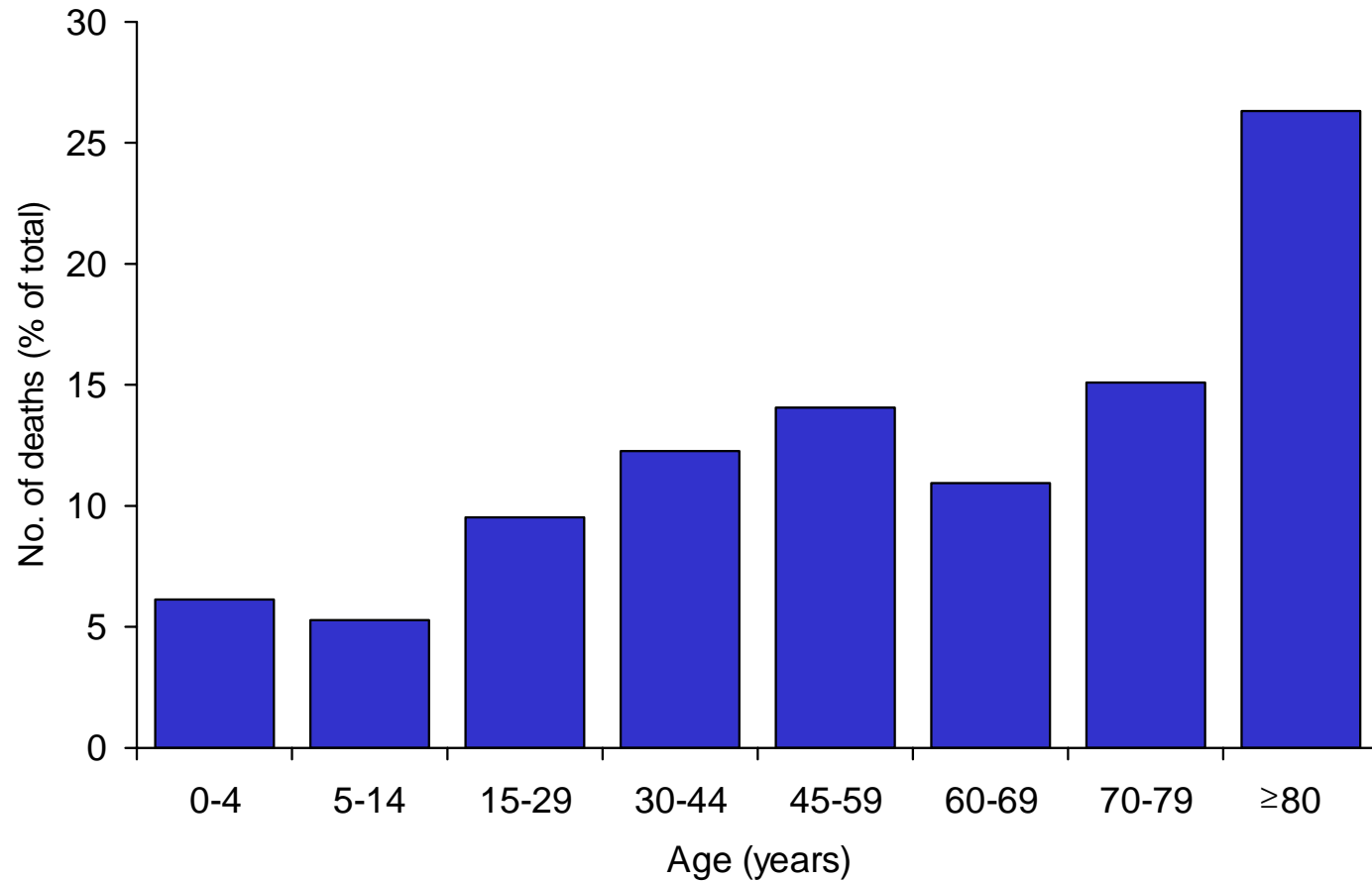
The Western Pacific Region (WPR) alone accounts for 35% of the total number of DALYs lost globally due to fall-related injuries.

## Fall-related mortality rates by WHO region, income level and sex, 2000



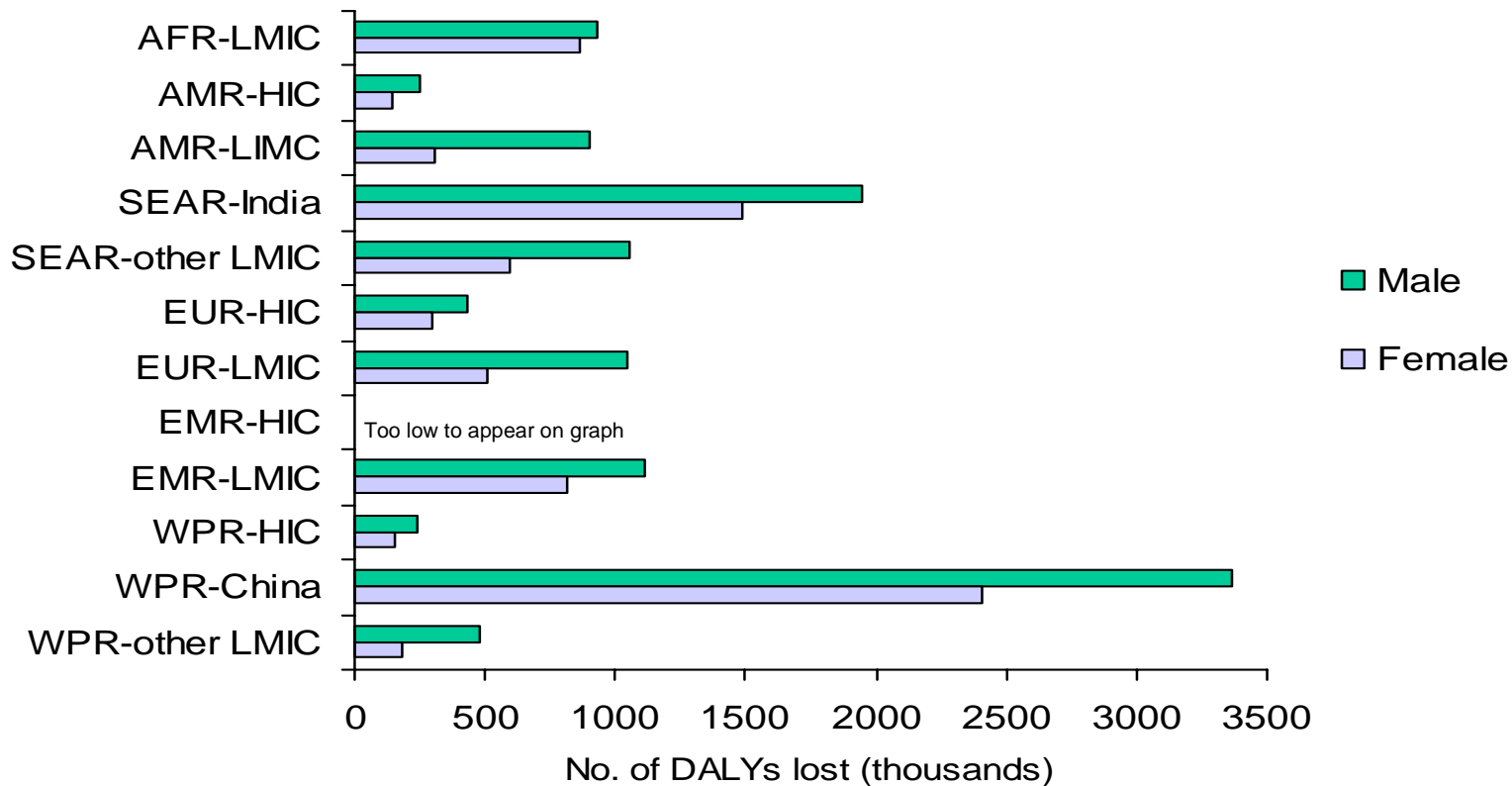
- Males in the low- and middle-income countries of Europe (EUR-LMIC) have by far the highest fall-related mortality rates worldwide.
- Among females worldwide, those in China followed by those of the low- and middle-income countries of Europe (EUR-LMIC) have the highest fall-related mortality rates.

## Age distribution of global fall-related mortality, 2000



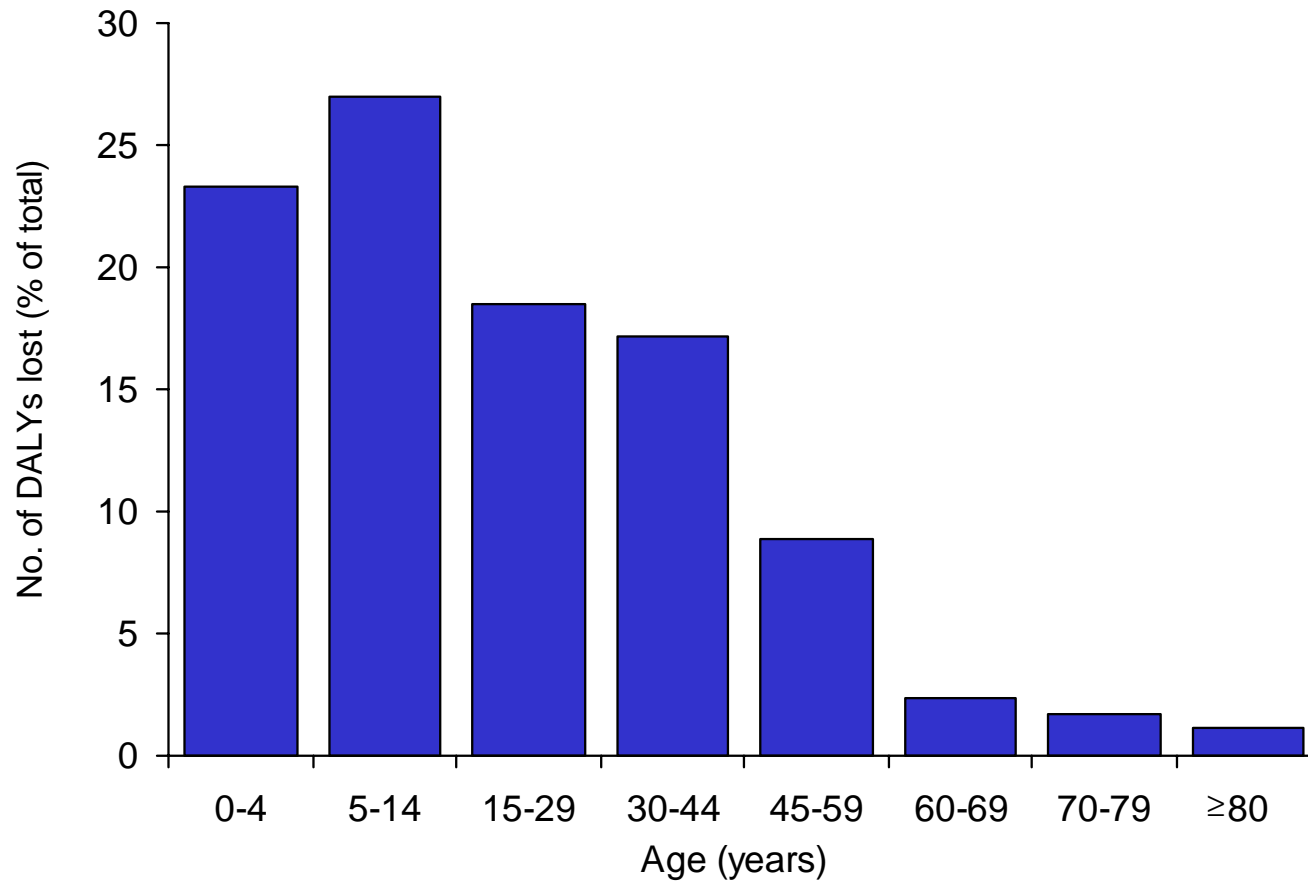
Over 40% of the global mortality due to falls occurs among persons aged 70 years and over.

## Fall-related injury burden (DALYs lost) by WHO region, income level and sex, 2000



China has the greatest fall-related injury burden, with almost twice as many DALYs lost to this type of injury than any other world region.

## Age distribution of the global fall-related injury burden (DALYs lost), 2000



Approximately 50% of the total number of DALYs lost globally to falls occurs in children under 15 years of age.

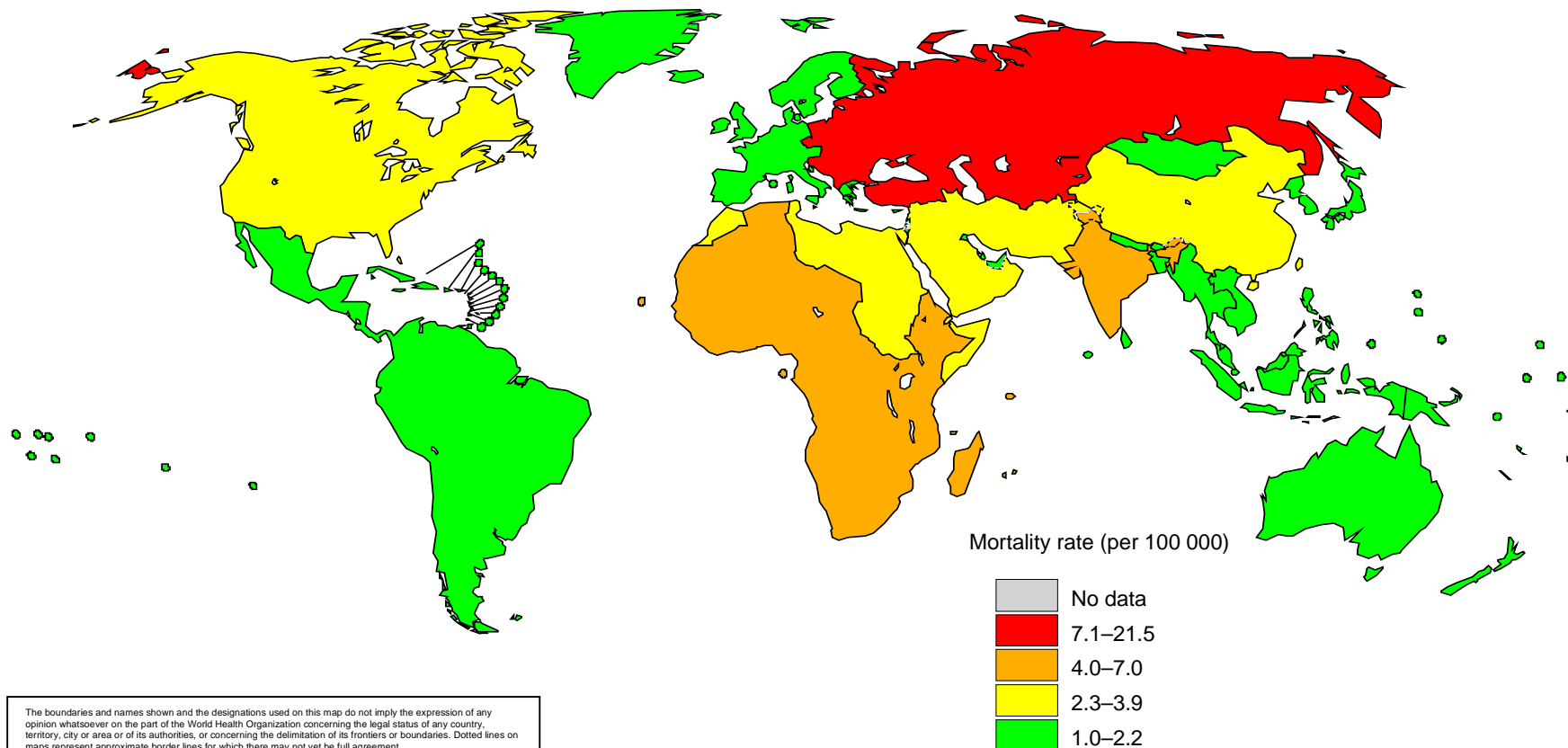
## VI. Poisoning

- The category “poisoning” as used here refers to all unintentional poisoning-related deaths and non-fatal outcomes caused by exposure to noxious substances. Those which are intentional or for which the intent is undetermined as well as those resulting from reactions to drugs are excluded from the definition as used here<sup>1</sup>.
- In 2000, an estimated 315 000 people worldwide died as a result of unintentional poisoning.
- More than 94% of fatal poisonings occurred in low- and middle-income countries.

<sup>1</sup> *International statistical classification of diseases and related health problems*, tenth revision. *Volume 1: Tabular list*. Geneva, World Health Organization, 1992.



# Global Poisoning Mortality



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**Poisoning mortality rates (per 100 000 population) in WHO regions, 2000**

Africa		Americas		South-East Asia		Europe		Eastern Mediterranean		Western Pacific		
LMIC	HIC	LMIC	HIC	India	Other LMIC	HIC	LMIC	HIC	LMIC	HIC	China	Other LMIC
5.6	3.9	1.0	1.3	7.0	2.2	1.3	21.5	2.0	3.8	1.1	3.8	1.2

HIC, High-income countries; LMIC, Low- and middle-income countries.

## Poisoning mortality rates (per 100 000 population) in WHO regions by age group and sex, 2000

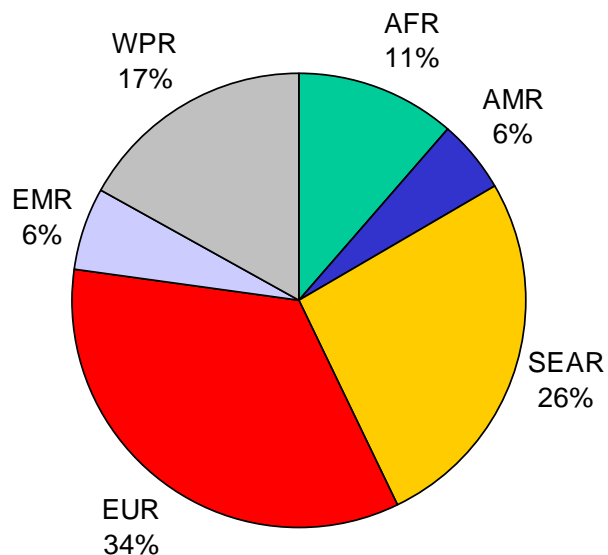
Age group (years)	World		Africa		Americas		South-East Asia		Europe		Eastern Mediterranean		Western Pacific		
	Both sexes	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All ages	5.2	6.7	3.7	5.6	5.5	3.1	1.1	6.0	4.6	19.8	5.4	3.7	3.9	3.8	2.5
0–4	7.6	6.9	8.3	15.6	22.2	1.3	0.8	6.6	4.1	4.6	4.0	5.1	12.4	5.1	5.9
5–14	1.9	1.9	2.0	2.5	1.2	0.2	0.2	2.8	4.0	1.6	1.0	1.7	1.8	1.4	1.5
15–29	4.0	4.9	3.0	1.6	1.4	2.3	0.8	6.0	5.7	13.2	3.1	4.0	2.9	2.8	2.0
30–44	6.2	8.8	3.4	4.2	3.1	6.3	1.9	7.2	5.2	28.8	5.6	3.5	2.3	3.7	1.9
45–59	7.8	11.7	4.0	6.9	4.1	5.0	1.6	7.7	3.6	36.9	9.7	3.6	2.1	5.3	2.0
60–69	7.6	11.4	4.1	14.4	6.8	2.2	1.0	8.5	1.8	26.8	8.4	5.4	2.4	6.2	3.3
70–79	5.5	7.5	3.9	4.1	2.4	2.5	1.3	6.3	2.5	10.5	5.4	5.2	1.9	8.8	5.0
≥ 80	8.3	10.8	6.9	6.7	ND	4.0	2.7	19.5	12.9	8.7	6.3	20.4	9.6	11.1	8.3

ND, no data.

The overall poisoning mortality rate among males in Europe is approximately 3 times higher than the rate in either sex in any other world region.

## Regional distribution of global poisoning *mortality*, 2000

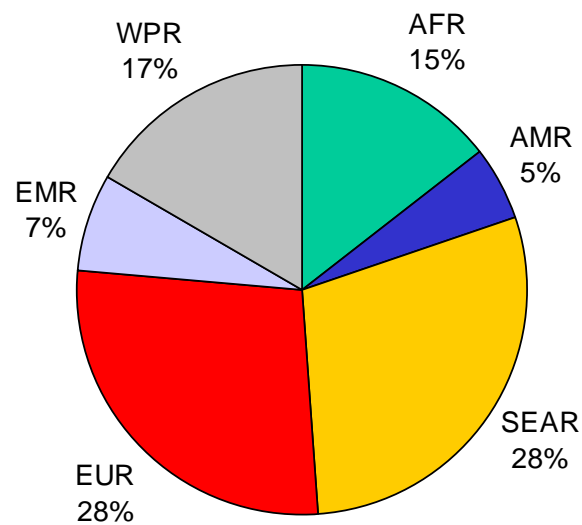
Total no. of deaths = 315 000



The European Region (EUR) alone accounts for around one-third of all poisoning deaths worldwide.

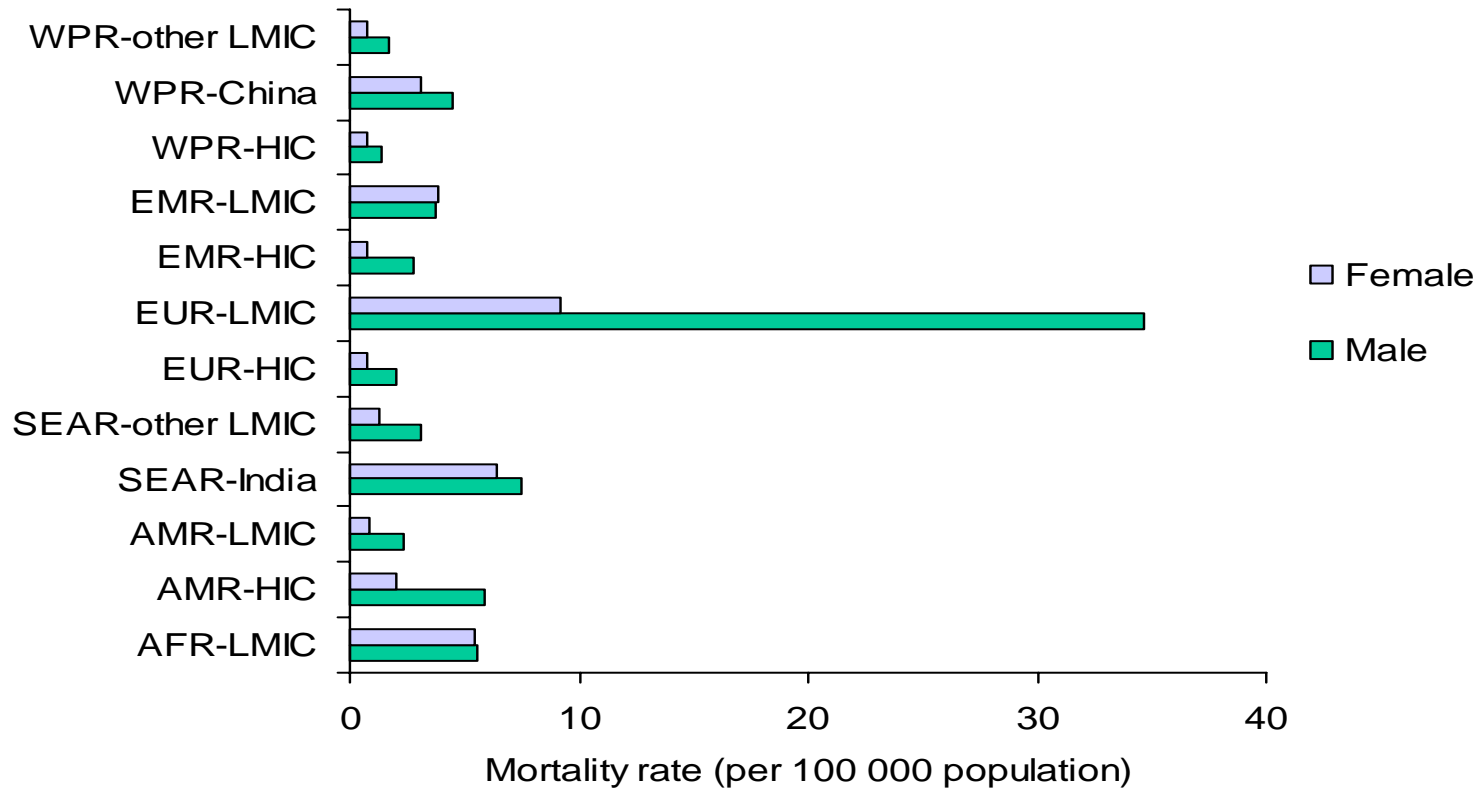
## Regional distribution of the global poisoning injury *burden* (DALYs lost), 2000

Total no. of DALYs lost = 8 235 000



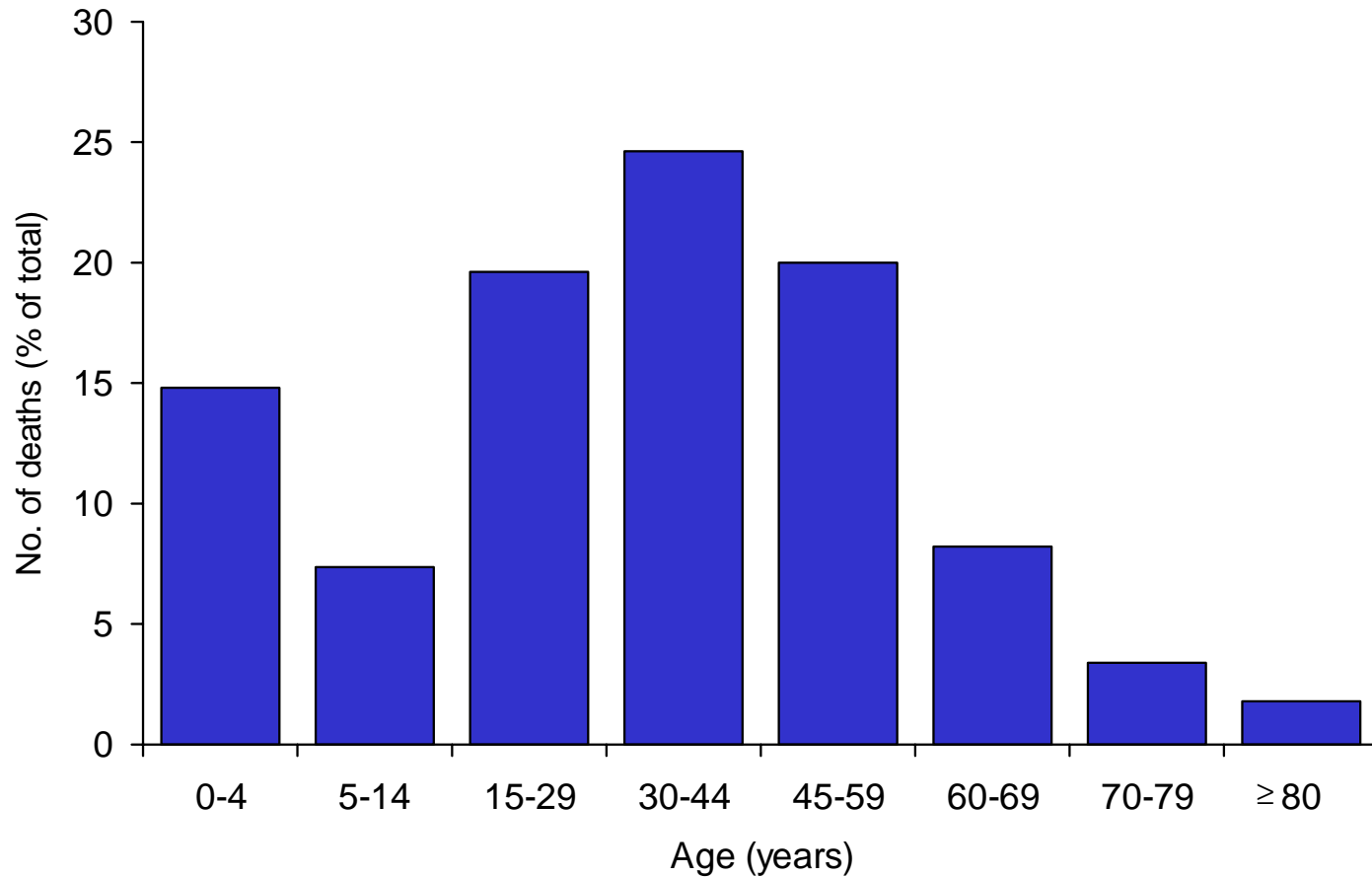
Europe (EUR) and South-East Asia (SEAR) together account for over one-half of the total number of DALYs lost globally to poisoning.

## Poisoning mortality rates by WHO region, income level and sex, 2000



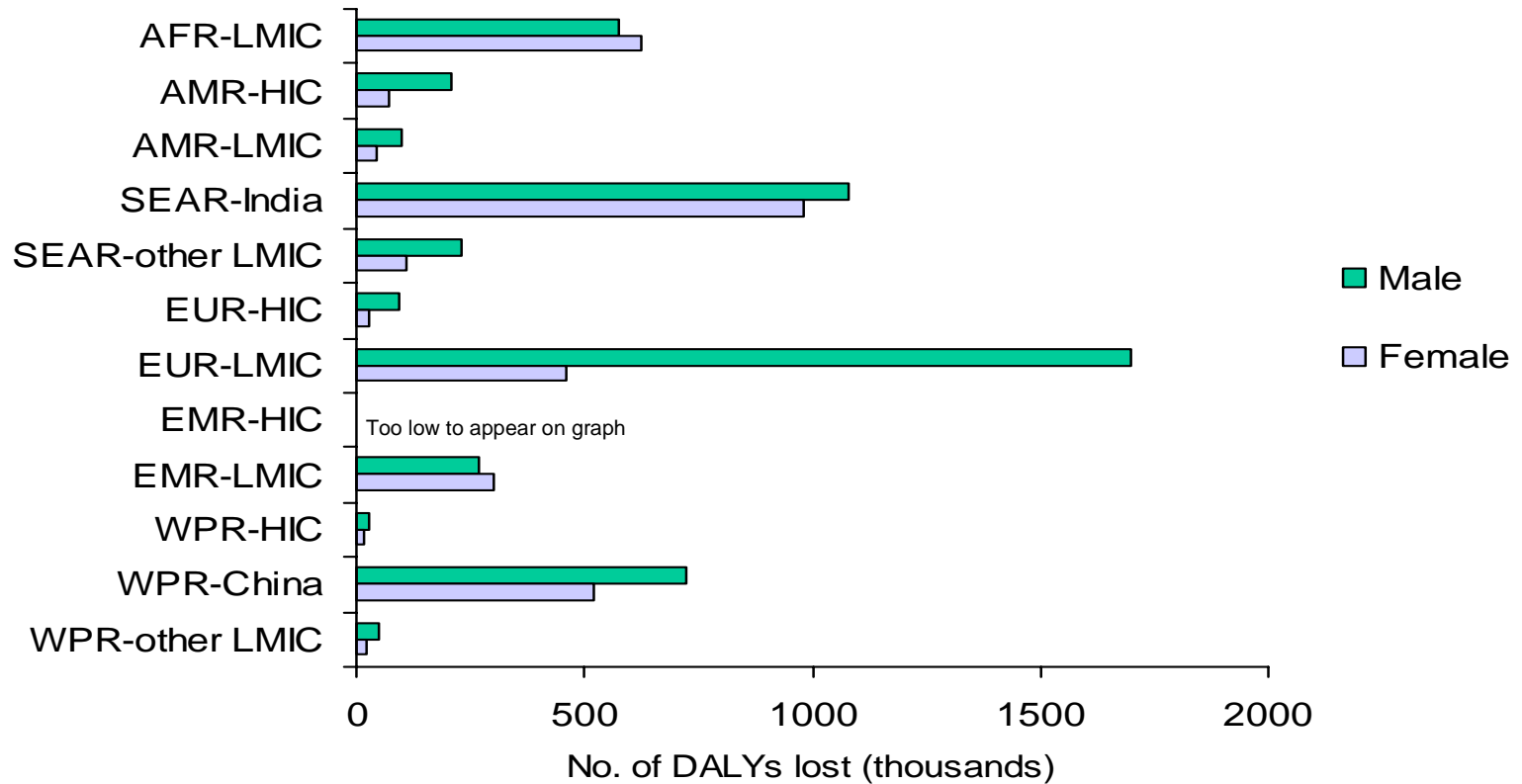
The highest poisoning mortality rates are found in the male populations of the low- and middle-income countries of the European Region (EUR-LMIC).

## Age distribution of global poisoning mortality, 2000



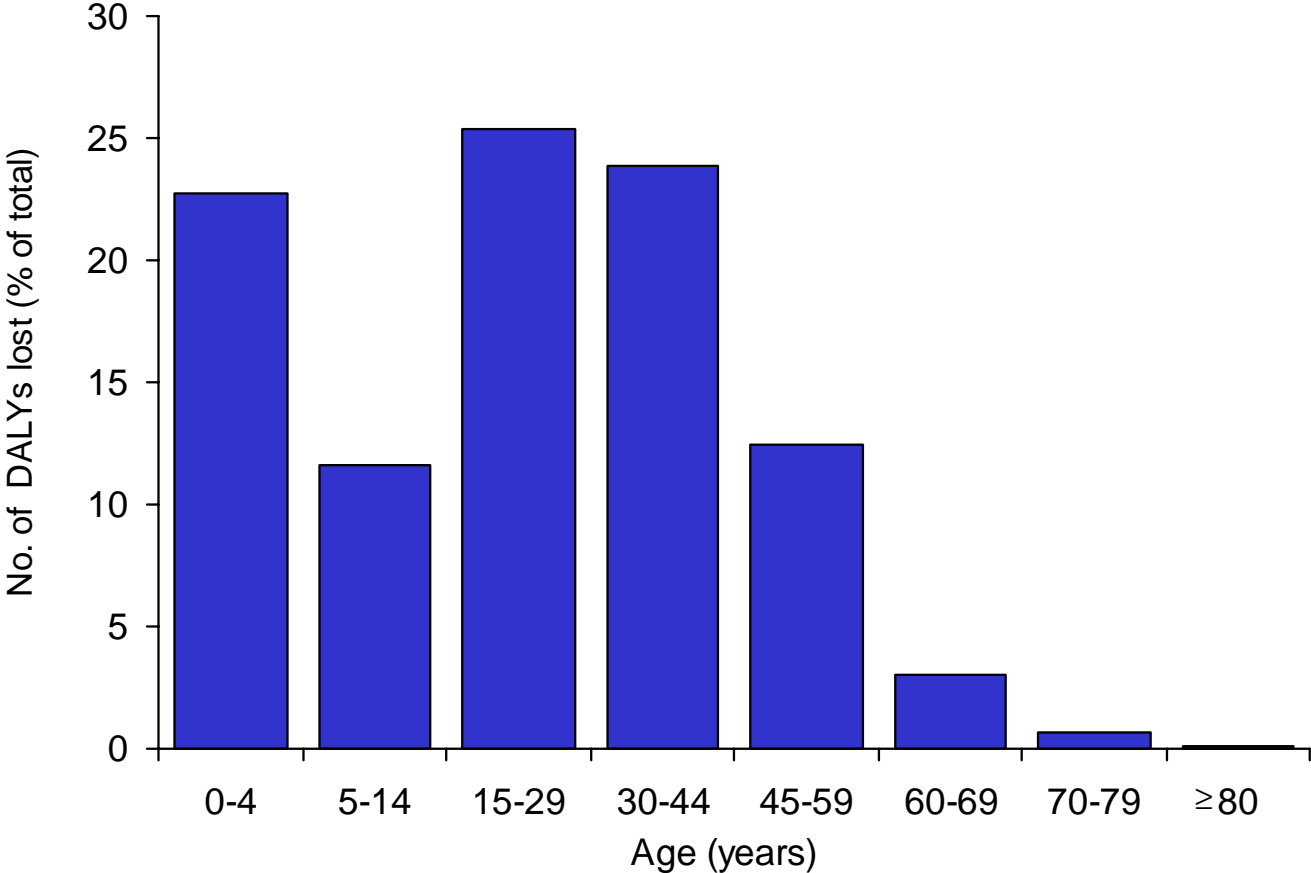
Over 60% of the global mortality due to poisoning occurs among adolescents and adults aged between 15–59 years.

## Poisoning injury burden (DALYs lost) by WHO region, income level and sex, 2000



Males in the low- and middle-income countries of Europe (EUR-LMIC) account for the highest number of DALYs lost to poisoning worldwide.

# Age distribution of the global poisoning injury burden (DALYs lost), 2000



The majority of the number of DALYs lost globally to poisoning are among young children and young adults.

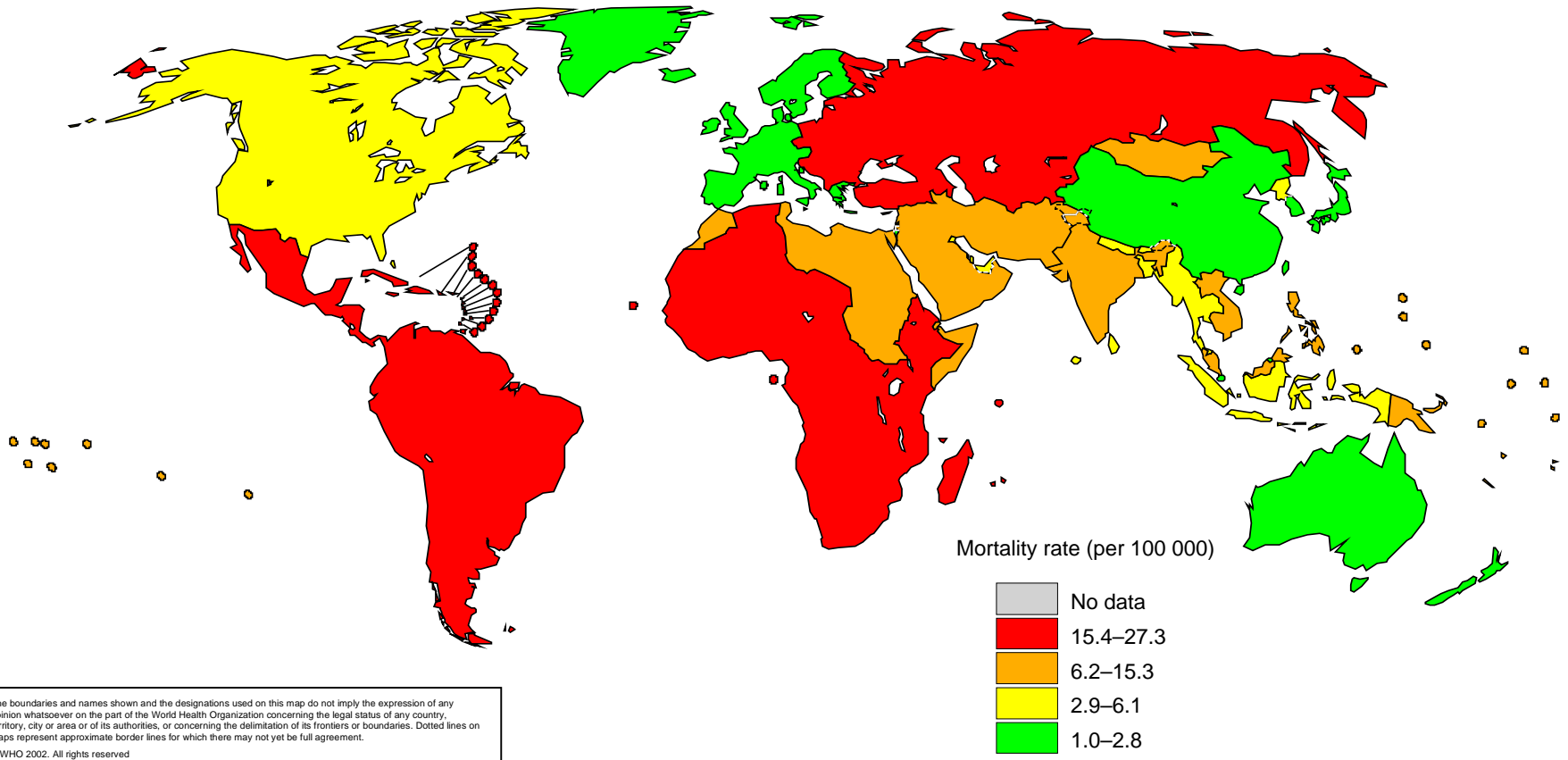
## VII. Interpersonal violence

- Interpersonal violence (IPV) is defined as "the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation"<sup>1</sup>. Interpersonal violence-related mortality includes deaths due to homicide, sexual assault, neglect and abandonment, and other forms of maltreatment.
- In 2000, an estimated 520 000 people worldwide died as a result of interpersonal violence.
- 95% of homicides occurred in the low- and middle-income countries.

<sup>1</sup> *Violence: a public health priority*. Geneva, World Health Organization, 1996 (document EHA/SPI/POA).



# Global Interpersonal Violence Mortality



## Interpersonal violence mortality rates (per 100 000 population) in WHO regions, 2000

Africa		Americas		South-East Asia		Europe		Eastern Mediterranean		Western Pacific		
LMIC	HIC	LMIC	HIC	India	Other LMIC	HIC	LMIC	HIC	LMIC	HIC	China	Other LMIC
18.1	6.1	27.3	6.2	2.9	1.0	15.4	4.1	6.3	1.1	2.3	13.4	

HIC, High-income countries; LMIC, Low- and middle-income countries.

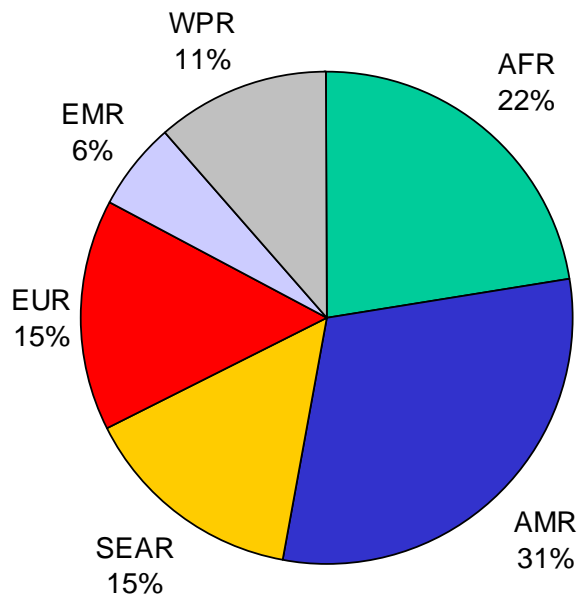
## Interpersonal violence mortality rates (per 100 000 population) in WHO regions by age group and sex, 2000

Age group (years)	World			Africa		Americas		South-East Asia		Europe		Eastern Mediterranean		Western Pacific	
	Both sexes	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All ages	8.6	13.2	4.0	25.6	10.7	34.8	4.0	6.9	3.2	13.8	4.3	8.0	4.6	5.2	1.7
0–4	5.3	5.8	4.8	17.6	12.4	3.3	2.6	3.8	3.5	1.7	1.2	4.9	5.5	1.9	2.1
5–14	2.1	2.1	2.0	4.0	2.8	2.3	1.2	2.2	2.6	0.8	0.7	1.9	3.5	1.4	0.9
15–29	12.1	19.4	4.4	34.0	14.1	68.5	6.3	0.9	1.6	14.9	3.9	11.3	5.4	7.8	1.8
30–44	11.6	18.7	4.3	39.8	13.7	49.1	5.6	8.8	2.4	23.6	5.7	10.9	4.3	7.4	1.9
45–59	9.6	14.8	4.5	38.8	14.4	28.8	3.1	11.5	5.7	18.0	5.5	9.6	3.8	4.9	1.4
60–69	8.3	12.9	4.1	52.2	10.0	19.1	2.4	15.0	6.2	11.4	0.9	11.8	3.7	3.1	1.5
70–79	8.1	12.8	4.6	85.0	14.5	13.1	2.8	17.5	7.2	6.4	5.1	14.9	5.8	3.4	1.6
≥ 80	8.6	13.3	6.0	54.0	25.2	11.4	3.5	27.5	13.8	6.1	6.1	20.7	25.0	5.1	2.2

The highest interpersonal violence mortality rates worldwide are found in the Americas, among males aged between 15–29 years.

## Regional distribution of global IPV mortality, 2000

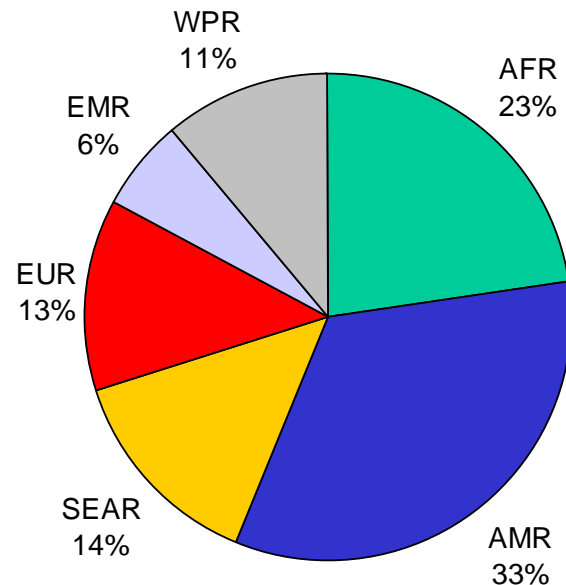
Total no. of deaths = 520 000



Almost one-third of all deaths due to interpersonal violence take place in the Americas (AMR).

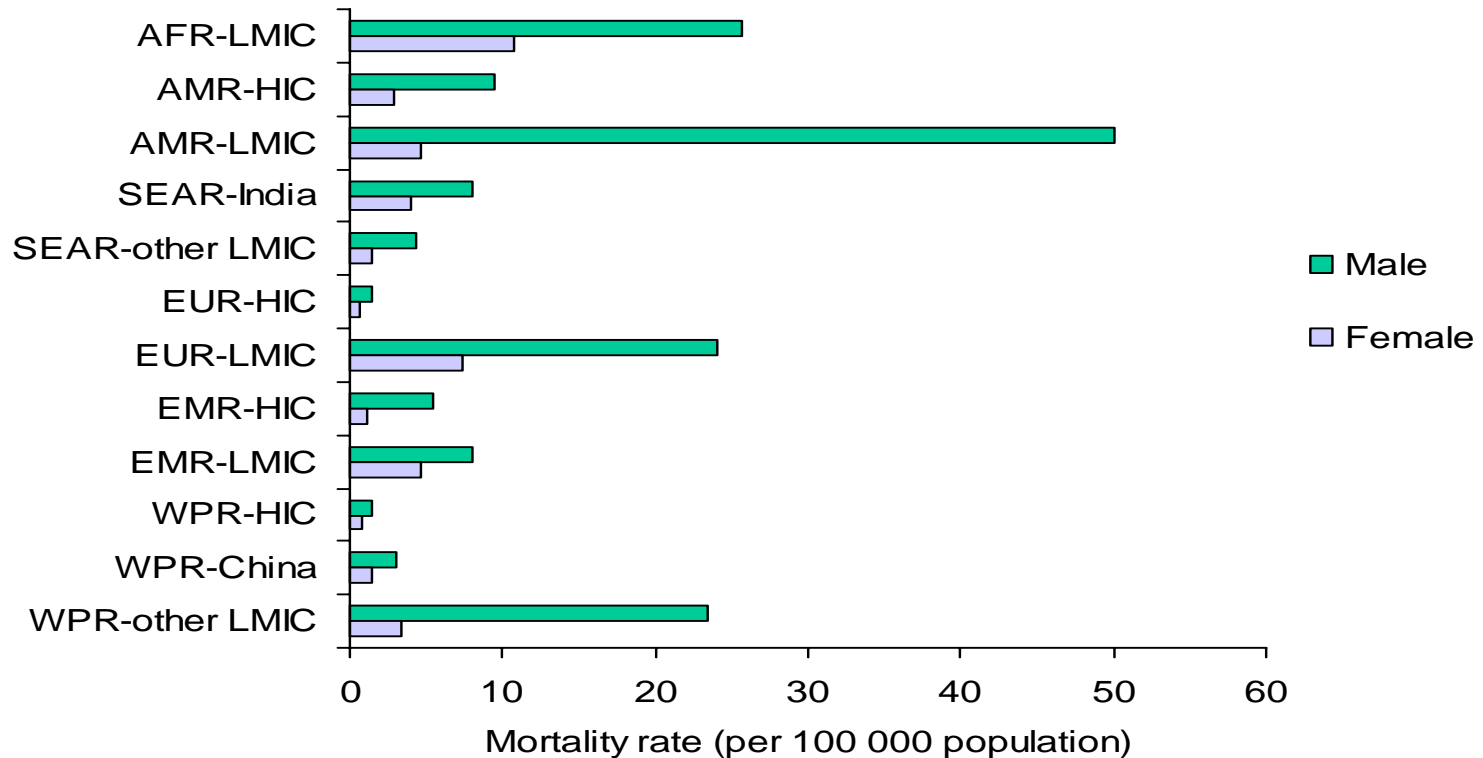
## Regional distribution of the global IPV injury burden (DALYs lost), 2000

Total no. of DALYs lost = 16 122 000



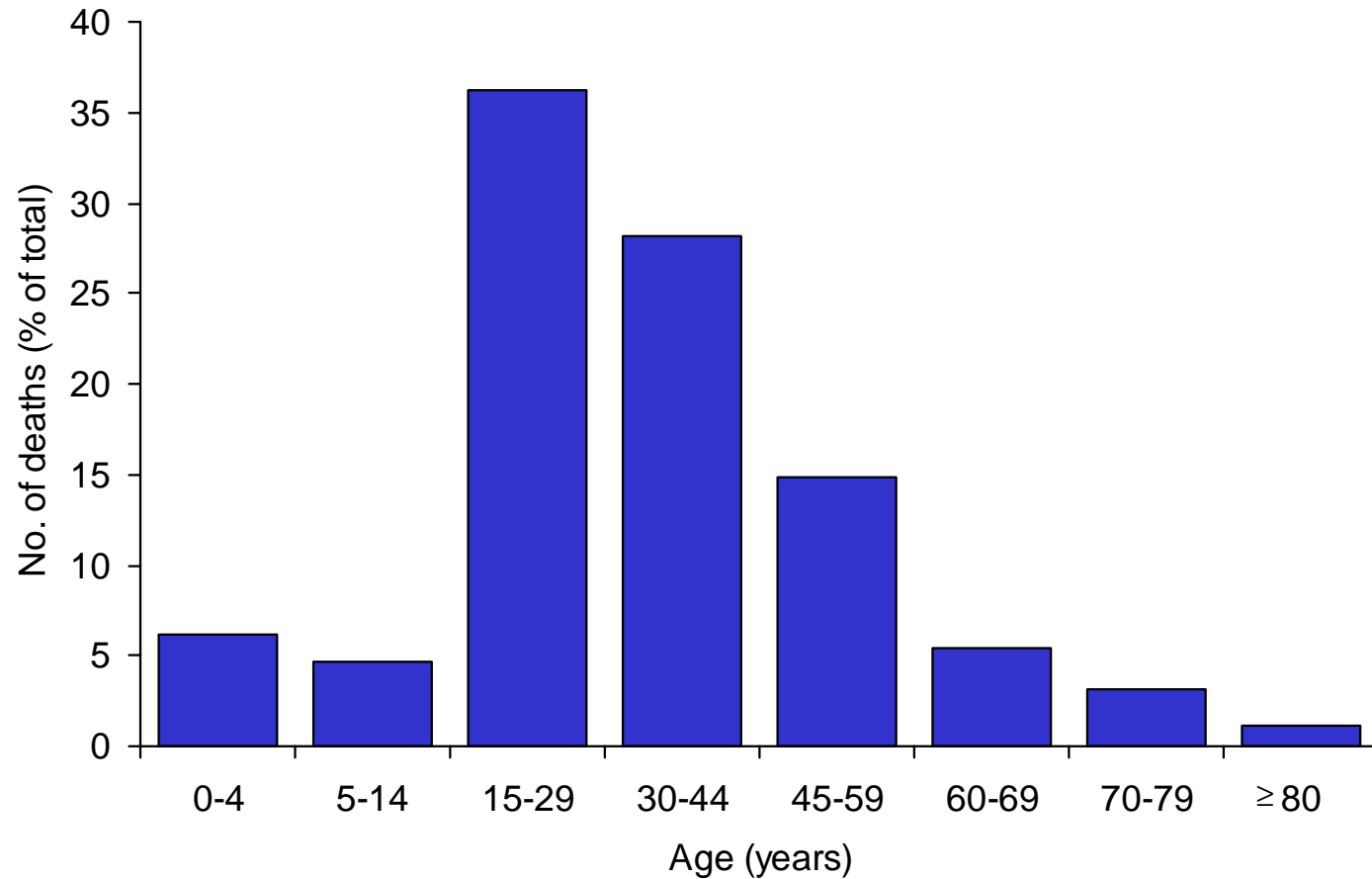
The Americas (AMR) also account for one-third of the total number of DALYs lost globally to interpersonal violence.

## Interpersonal violence mortality rates by WHO region, income level and sex, 2000



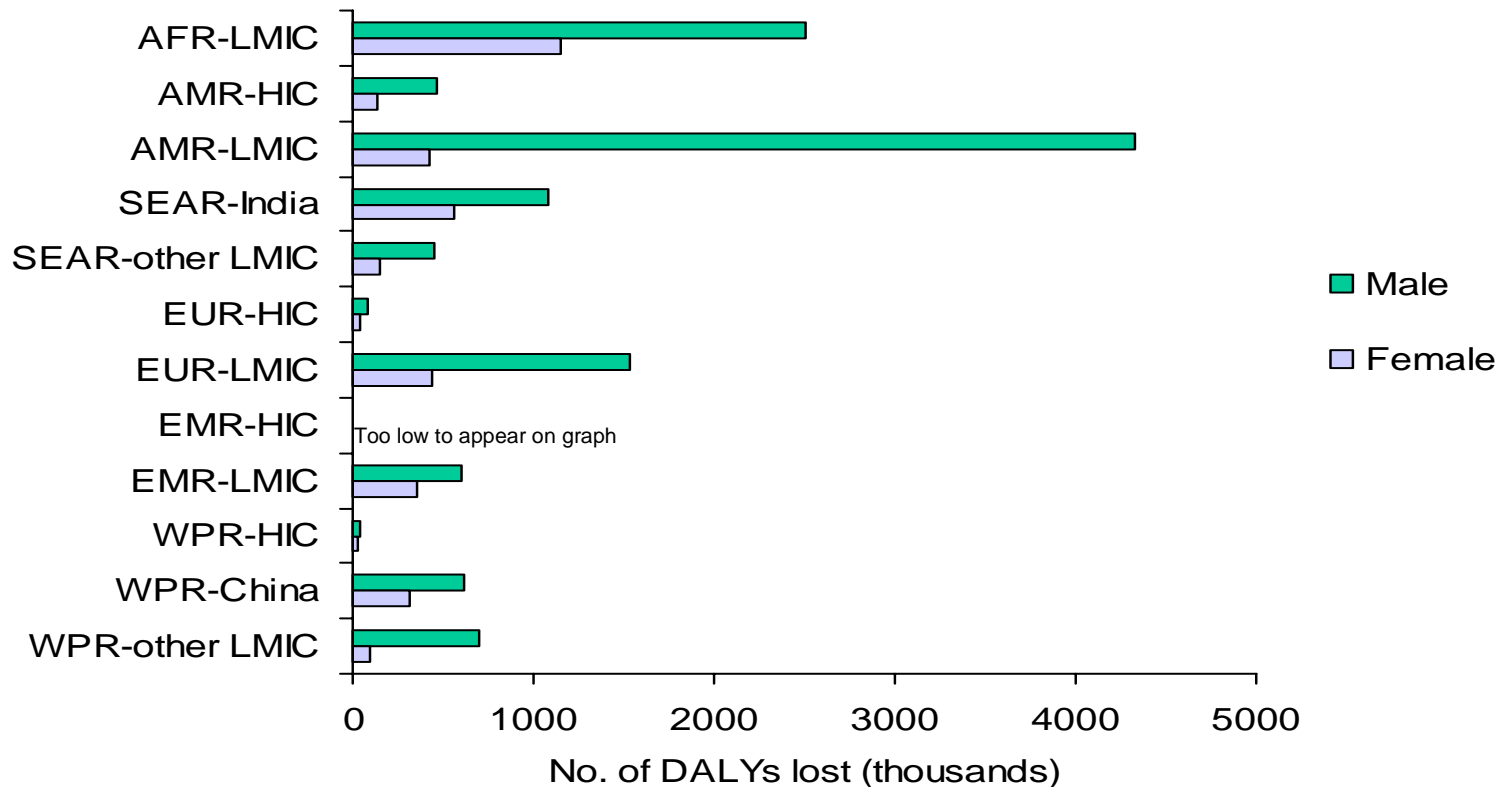
- The interpersonal violence mortality rate in males in the low- and middle-income countries of the Americas (AMR-LMIC) is twice that in any other region.
- Among females worldwide, those in Africa have the highest interpersonal violence mortality rates.

## Age distribution of global interpersonal violence mortality, 2000



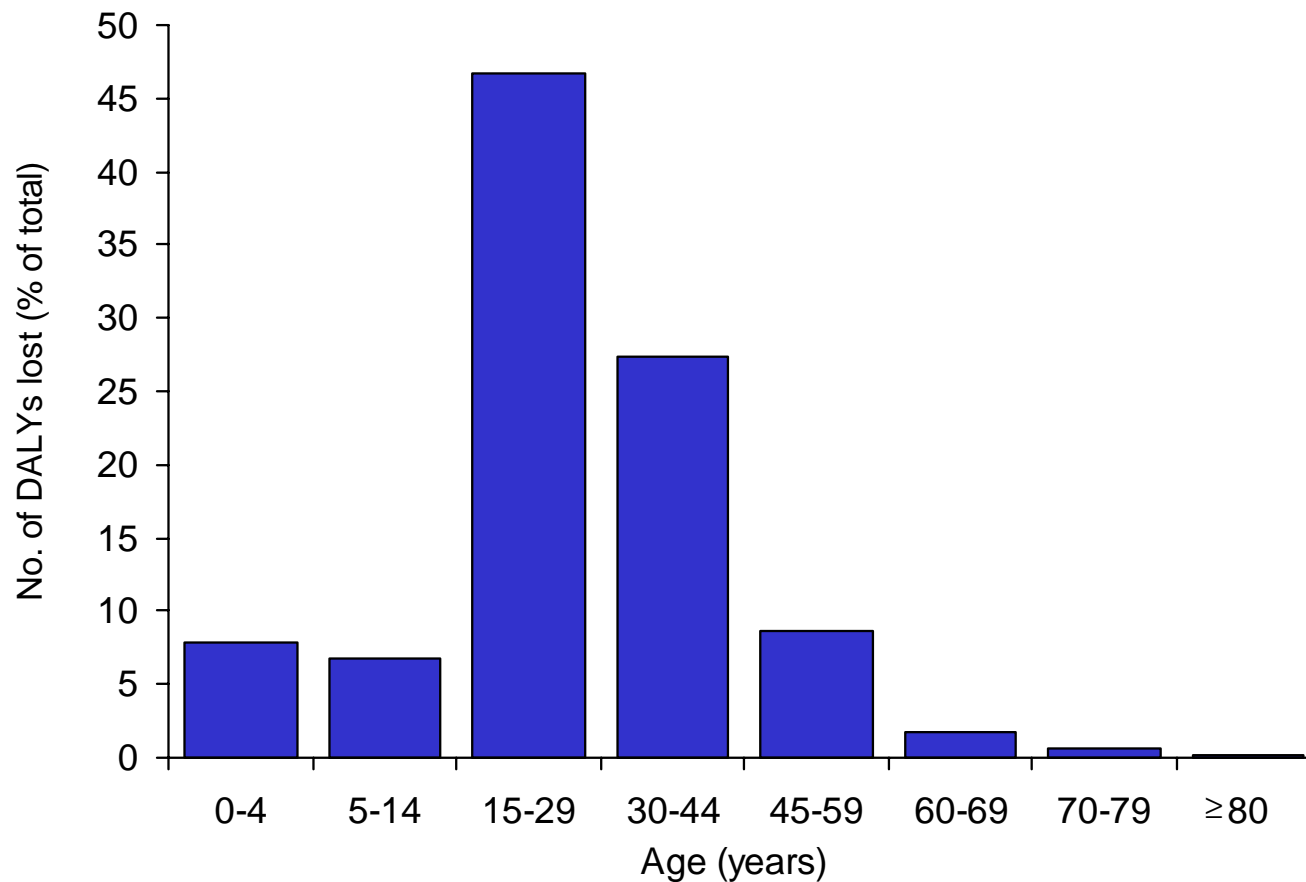
Over 60% of the global mortality due to interpersonal violence occurs among young persons aged between 15–44 years.

## Interpersonal violence injury burden by WHO region, income level and sex, 2000



The greatest number of DALYs are lost to interpersonal violence by men in the low- and middle-income countries of the Americas (AMR-LMIC).

## Age distribution of the global interpersonal violence injury burden (DALYs lost), 2000



Young adults aged between 15–29 years account for over 40% of the total number of DALYs lost globally to interpersonal violence.

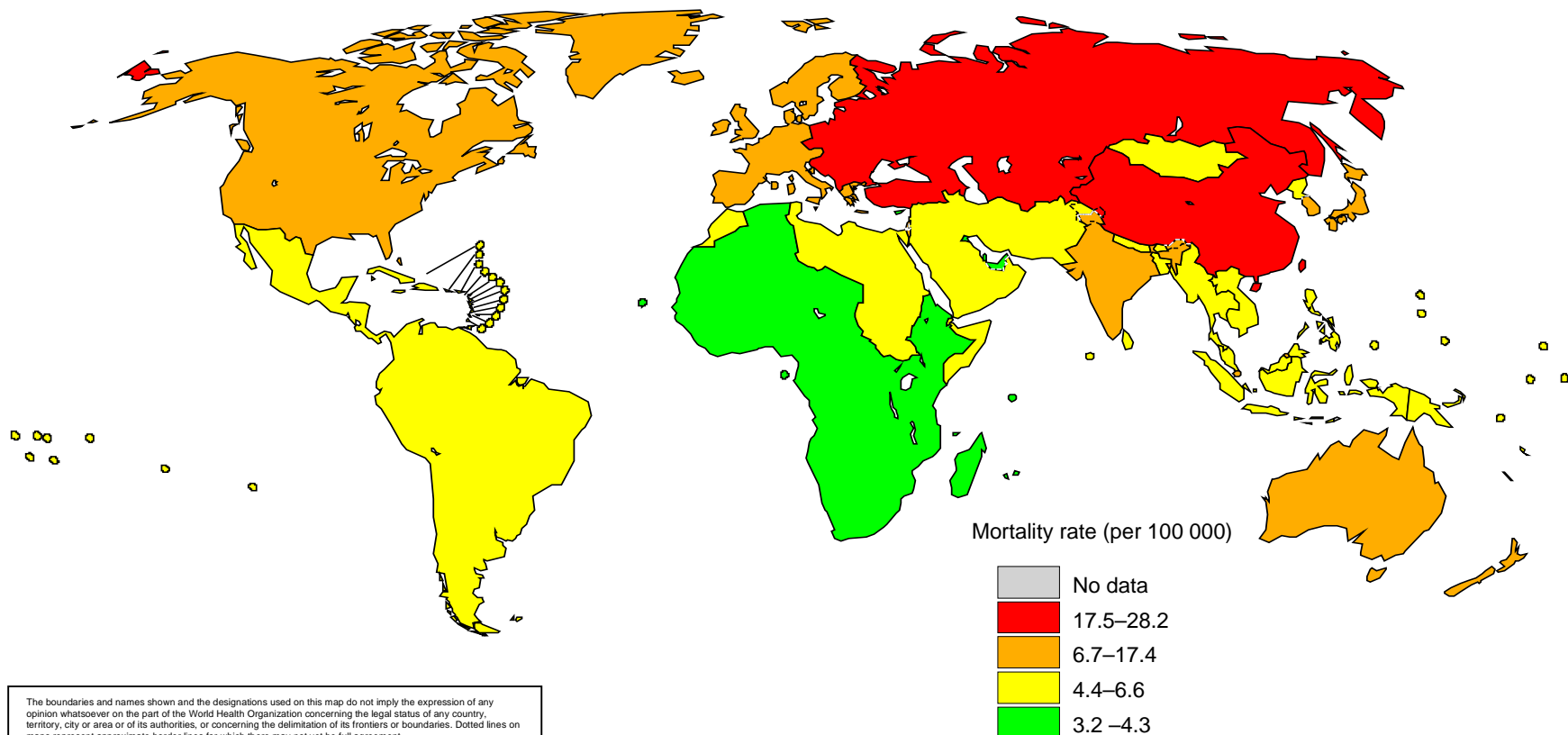
## VIII. Suicide

- Suicide is defined as “a death arising from an act inflicted upon oneself with the intent to kill oneself”<sup>1</sup>.
- In 2000, an estimated 815 000 people worldwide committed suicide.
- 86% of all suicides occurred in the low- and middle-income countries.

<sup>1</sup> Rosenberg ML et al. Operational criteria for the determination of suicide. *Journal of Forensic Sciences*, 1988, **33**(6), 1445–1456.



# Global Suicide Mortality



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.  
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**Suicide mortality rates (per 100 000 population) in WHO regions, 2000**

Africa		Americas		South-East Asia		Europe		Eastern Mediterranean		Western Pacific		
LMIC	HIC	LMIC	India	Other LMIC	HIC	LMIC	HIC	LMIC	HIC	China	Other LMIC	
4.3	11.6	5.6	13.6	5.9	12.9	28.2	3.2	4.9	17.4	23.0	6.6	

HIC, High-income countries; LMIC, Low- and middle-income countries.

## Suicide mortality rates (per 100 000 population) in WHO regions by age group and sex, 2000

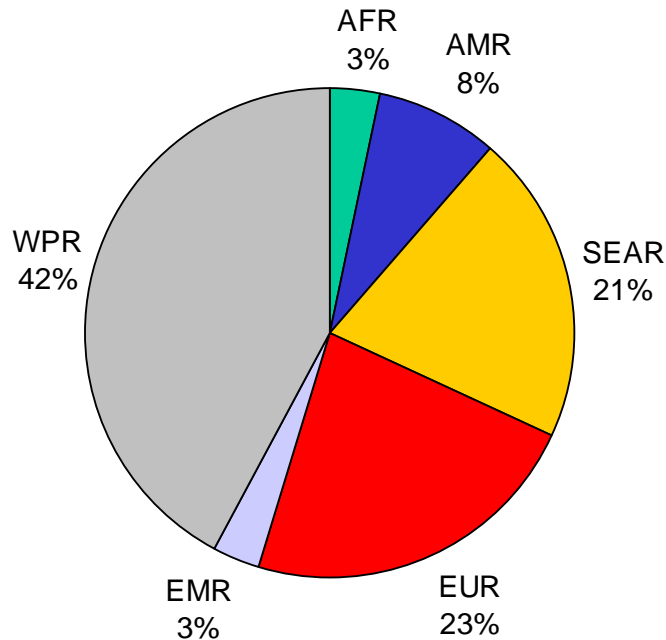
Age group (years)	World		Africa		Americas		South-East Asia		Europe		Eastern Mediterranean		Western Pacific		
	Both sexes	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All ages	13.5	19.6	21.2	6.5	2.1	12.6	3.3	13.6	8.2	35.0	8.3	5.0	4.8	19.6	21.2
0–4	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5–14	1.8	1.1	1.1	1.4	0.7	0.7	0.6	3.1	4.6	1.6	.42	0.8	1.8	1.1	1.1
15–29	13.9	14.6	22.5	6.4	1.7	13.6	4.0	16.8	14.4	30.0	5.7	7.5	8.5	14.6	22.5
30–44	17.0	19.0	23.2	11.3	4.7	17.1	4.3	18.5	10.0	46.8	8.1	7.4	6.0	19.0	23.2
45–59	20.5	28.8	25.1	17.7	3.7	18.8	4.9	23.2	5.7	52.0	11.3	8.0	4.3	28.8	25.1
60–69	26.4	52.7	39.0	22.2	7.9	19.1	4.2	21.5	4.1	47.6	12.9	11.2	5.1	52.7	39.0
70–79	36.6	89.2	61.0	32.5	7.4	28.5	4.4	29.4	8.3	48.2	15.4	9.5	7.5	89.2	61.0
≥ 80	48.6	112.8	84.2	19.9	9.3	50.0	5.7	47.5	22.0	72.9	22.5	11.0	19.8	112.8	84.2

NA, Not applicable.

Worldwide, the highest suicide rates are found among males in the European Region and among both sexes in the Western Pacific Region.

## Regional distribution of global suicide *mortality*, 2000

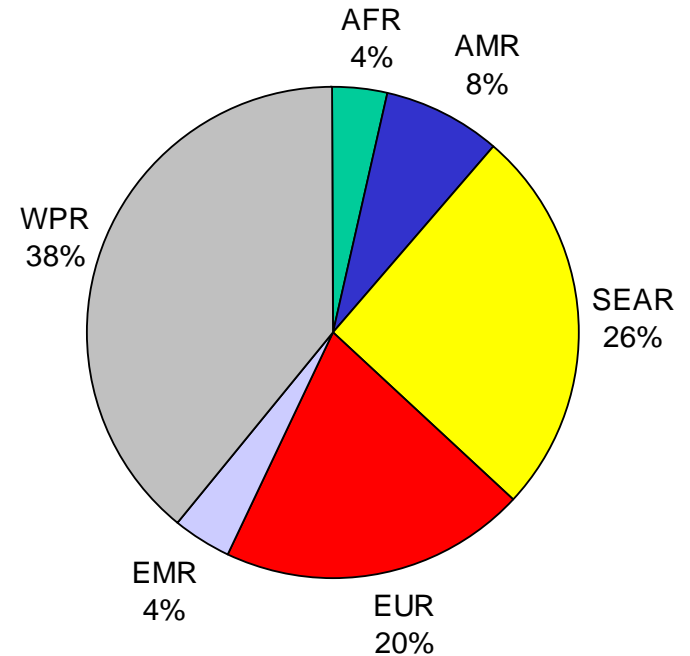
Total no. of deaths = 817 700



The Western Pacific Region (WPR) has the greatest share of suicide deaths relative to the other world regions.

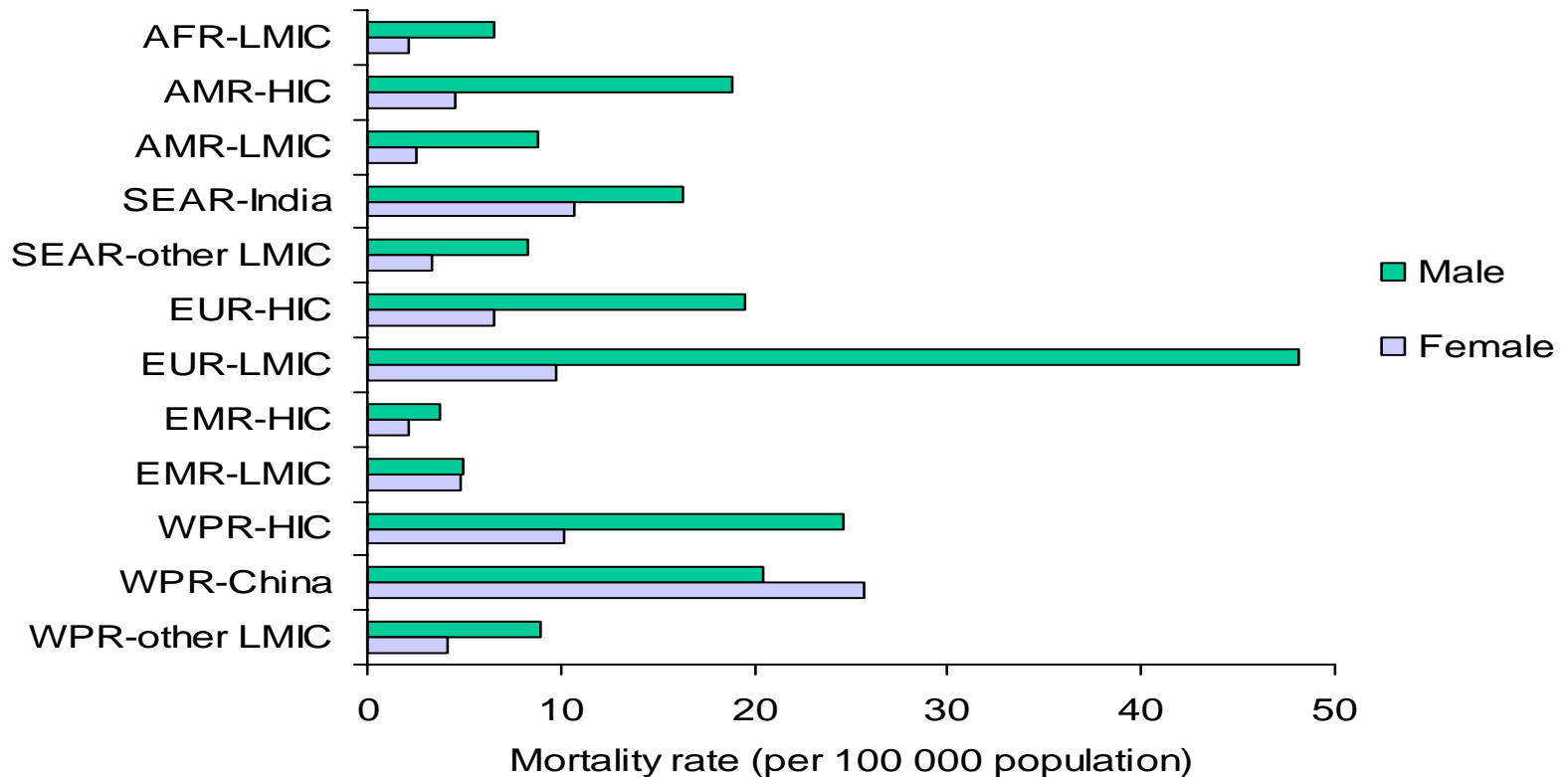
## Regional distribution of the global suicide *burden* (DALYs lost), 2000

Total no. of DALYs lost = 19 257 000



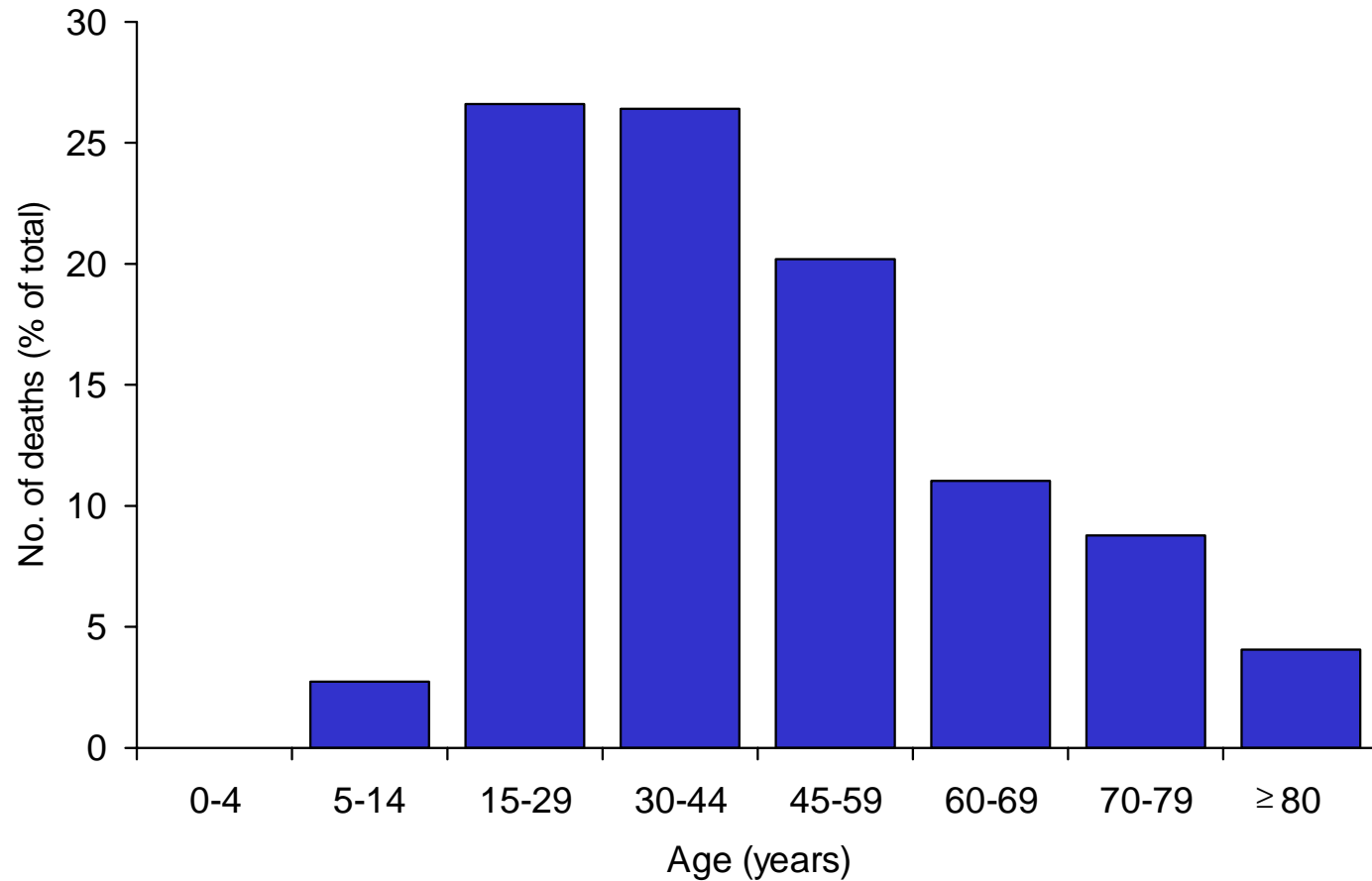
The Western Pacific Region (WPR) accounts for 38% of the total number of DALYs lost globally to suicide.

## Suicide mortality rates by WHO region, income level and sex, 2000



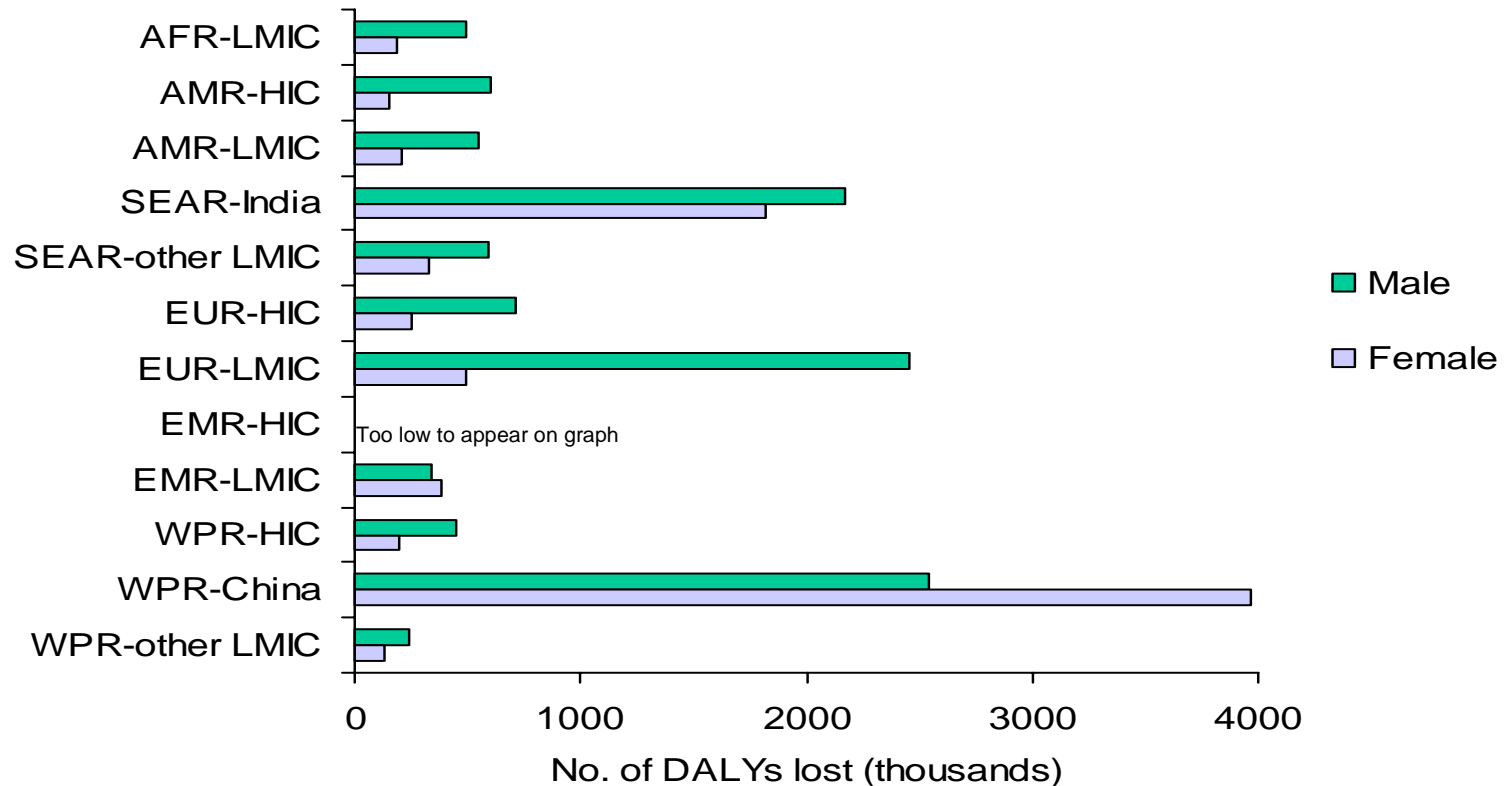
- Males in the low- and middle-income countries of Europe (EUR-LMIC) have a suicide rate that is almost twice those among men in the other regional groupings.
- Similarly, women in China have a suicide rate that is approximately twice that of women in other parts of the world.

## Age distribution of global suicide mortality, 2000



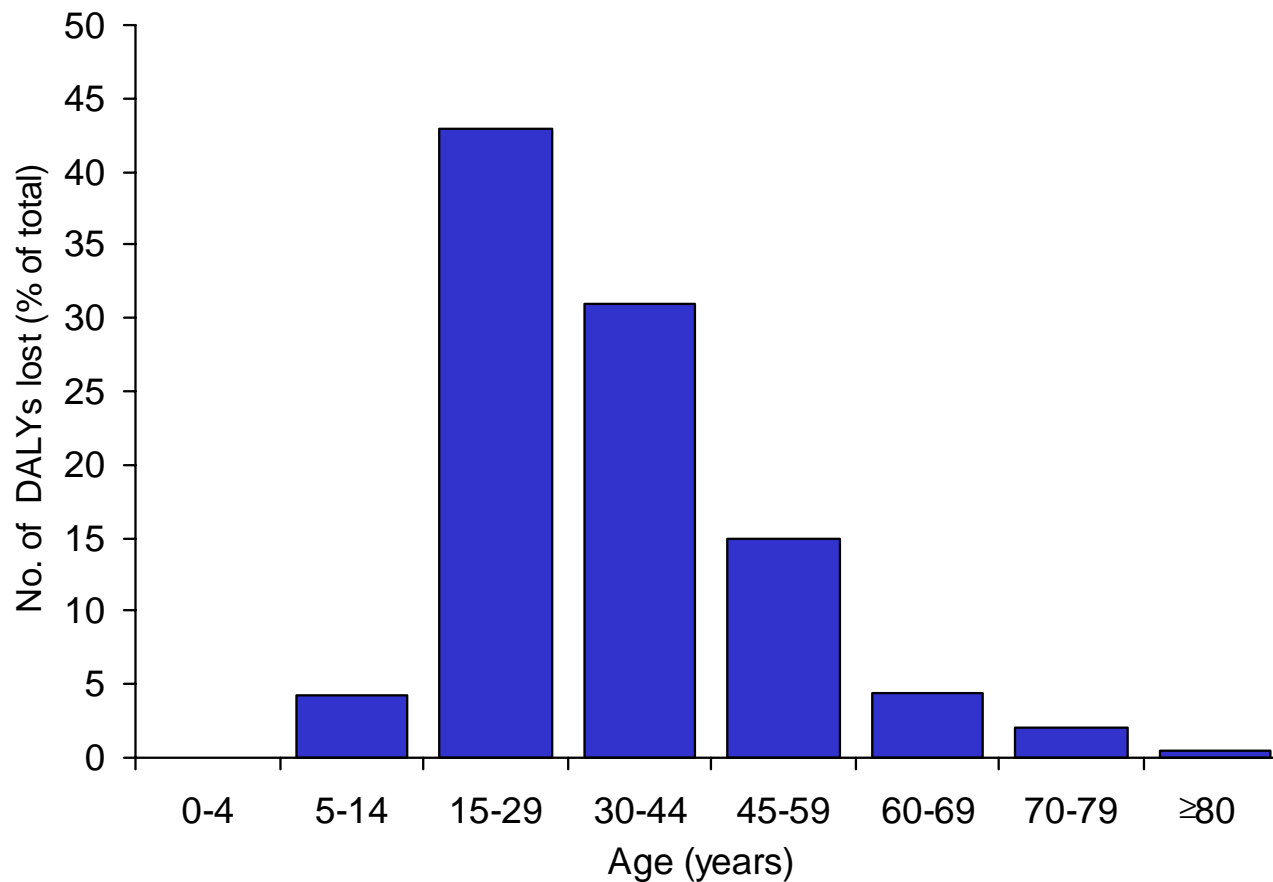
Over 50% of the global mortality due to suicide occurs among young persons aged between 15–44 years.

## Number of DALYs lost to suicidal behaviour by WHO region, income level and sex, 2000



- The greatest number of DALYs are lost to suicidal behaviour by women in China.
- Men in China, India and the low- and middle-income countries of Europe (EUR-LMIC) also account for a significant proportion of the number of DALYs lost globally to suicidal behaviour.

## Age distribution of the number of DALYs lost globally to suicidal behaviour, 2000



Over 40% of the total number of DALYs lost globally to suicidal behaviour occurs in young adults aged between 15–29 years.

## Appendix 1

# WHO Member States by geographical region and income level

African Region 46 Member States	Region of the Americas 35 Member States	South-East Asia Region 10 Member States	European Region 51 Member States	Eastern Mediterranean Region 22 Member States	Western Pacific Region 27 Member States
<b>Low- and middle-income</b>	<b>High-income</b>	<b>Low- and middle-income</b>	<b>High-income</b>	<b>High-income</b>	<b>High-income</b>
Algeria	Bahamas	Bangladesh	Andorra	Cyprus	Australia
Angola	Canada	Bhutan	Austria	Kuwait	Brunei Darussalam
Benin	United States of America	Democratic People's Republic of Korea	Belgium	Qatar	Japan
Botswana	<b>Low- and middle-income</b>	India	Denmark	United Arab Emirates	New Zealand
Burkina Faso	Antigua and Barbuda	Indonesia	Finland	<b>Low- and middle-income</b>	Republic of Korea
Burundi	Argentina	Maldives	France	Afghanistan	Singapore
Cameroon	Barbados	Myanmar	Germany	Bahrain	<b>Low- and middle-income</b>
Cape Verde	Belize	Nepal	Greece	Djibouti	Cambodia
Central African Republic	Bolivia	Sri Lanka	Iceland	Egypt	China
Chad	Brazil	Thailand	Ireland	Iraq	Cook Islands
Comoros	Chile		Israel	Islamic Republic of Iran	Federated States of Micronesia
Congo	Colombia		Italy	Jordan	Fiji
Côte d'Ivoire	Costa Rica		Luxembourg	Lebanon	Kiribati
Democratic Republic of the Congo	Cuba		Monaco	Libyan Arab Jamahiriya	Lao People's Democratic Republic
Equatorial Guinea	Dominica		Netherlands	Morocco	Malaysia
Eritrea	Dominican Republic		Norway	Oman	Marshall Islands
Ethiopia	Ecuador		Portugal	Pakistan	Mongolia
Gabon	El Salvador		San Marino	Saudi Arabia	Nauru
Gambia	Grenada		Spain	Somalia	Niue
Ghana	Guatemala		Sweden	Sudan	Palau
Guinea	Guyana		Switzerland	Syrian Arab Republic	Papua New Guinea
Guinea-Bissau	Haiti		United Kingdom	Tunisia	Philippines
Kenya	Honduras		<b>Low- and middle-income</b>	Yemen	Samoa
Lesotho	Jamaica		Albania		Solomon Islands
Liberia	Mexico		Armenia		Tonga
Madagascar	Nicaragua		Azerbaijan		Tuvalu
Malawi	Panama		Belarus		Vanuatu
Mali	Paraguay		Bosnia and Herzegovina		Viet Nam
Mauritania	Peru		Bulgaria		
Mauritius	Saint Kitts and Nevis		Croatia		
Mozambique	Saint Lucia		Czech Republic		
Namibia	Saint Vincent and the Grenadines		Estonia		
Niger	Suriname		Georgia		
Nigeria	Trinidad and Tobago		Hungary		
Rwanda	Uruguay		Kazakhstan		
Sao Tome and Principe	Venezuela		Kyrgyzstan		
Senegal			Latvia		
Seychelles			Lithuania		
Sierra Leone			Malta		
South Africa			Poland		
Swaziland			Republic of Moldova		
Togo			Romania		
Uganda			Russian Federation		
United Republic of Tanzania			Slovakia		
Zambia			Slovenia		
Zimbabwe			Tajikistan		
			The Former Yugoslav Republic of Macedonia		
			Turkey		
			Turkmenistan		
			Ukraine		
			Uzbekistan		
			Yugoslavia		



## Appendix 2

**Population estimates for WHO regions by sex and age group, 2000 (millions)**

WHO region and income level	Total	Males									Females								
		0-4 years	5-14 years	15-29 years	30-44 years	45-59 years	60-69 years	70-79 years	≥ 80 years	All ages	0-4 years	5-14 years	15-29 years	30-44 years	45-59 years	60-69 years	70-79 years	≥ 80 years	All ages
WORLD	6 045	314	616	797	643	404	162	85	24	3 045	298	583	762	622	402	177	112	45	3 000
African Region <sup>a</sup>																			
Low- and middle-income	640	55	87	89	48	26	9	4	1	319	54	86	88	49	27	10	5	1	321
Region of the Americas																			
High-income	314	11	23	32	38	29	11	8	3	155	11	22	31	37	29	12	10	5	159
Low- and middle-income	513	28	55	72	52	30	11	6	2	254	27	53	72	54	32	12	7	4	259
South-East Asia Region <sup>a</sup>																			
India	1 009	60	115	143	105	61	23	11	3	520	56	107	131	96	59	25	12	3	489
Other low- and middle-income	527	30	58	76	55	30	11	5	1	266	29	55	74	53	30	12	6	2	261
European Region																			
High-income	395	11	23	39	46	37	19	13	5	193	10	22	38	45	37	21	18	10	201
Low- and middle-income	479	15	38	59	52	37	18	9	2	231	15	37	57	52	40	24	17	6	248
Eastern Mediterranean Region																			
High-income	6	<1	1	1	1	1	<1	<1	<1	4	<1	1	1	<1	<1	<1	<1	<1	2
Low- and middle-income	476	35	62	67	42	24	8	4	1	243	33	59	65	40	23	8	4	1	233
Western Pacific Region																			
High-income	201	6	12	23	22	20	10	5	2	99	5	11	21	22	20	10	7	4	102
China <sup>b</sup>	1 282	51	116	166	163	101	39	19	4	659	46	105	156	154	95	38	22	7	623
Other low- and middle-income	204	12	25	29	20	10	4	2	1	102	12	24	29	20	10	4	2	1	102

Numbers are rounded to the nearest million.

<sup>a</sup> There are no high-income countries in the region.

<sup>b</sup> Low- and middle-income.

Source: *World Population Prospects: the 2000 revision*. New York, NY, United Nations, 2001.