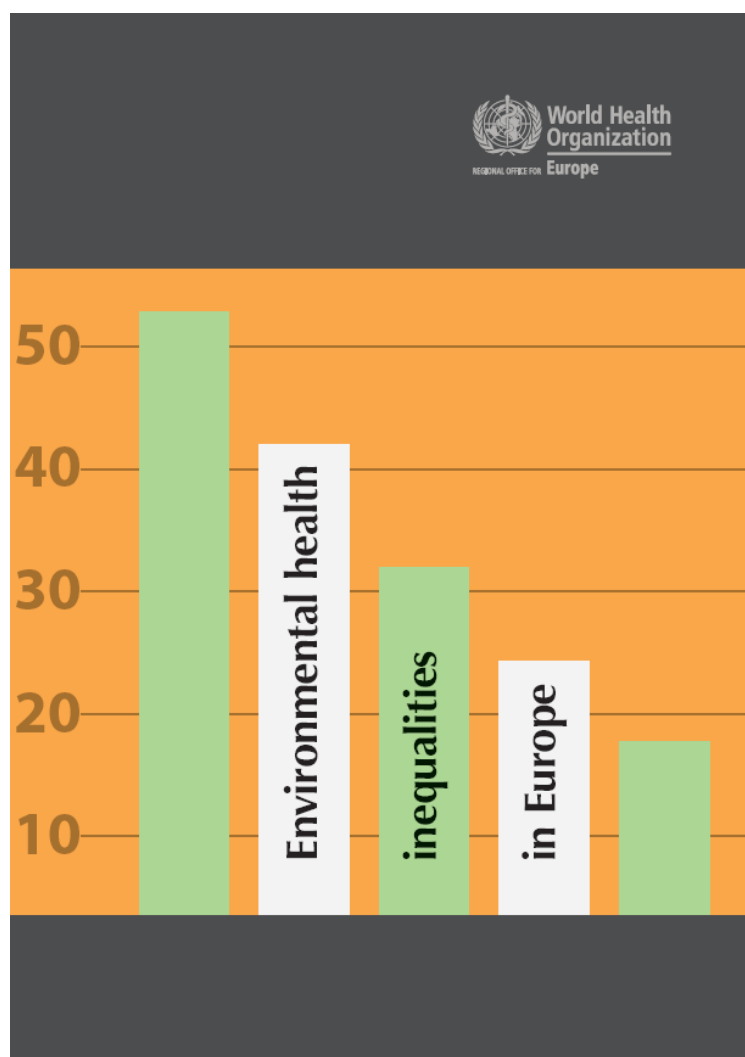


Environmental health inequalities in Europe. Assessment report.

Executive summary



ABSTRACT

This document is a translation of the English executive summary of the WHO report *Environmental health inequalities in Europe*, available on the web site of the WHO Regional Office for Europe (<http://www.euro.who.int/en/what-we-publish/abstracts/environmental-health-inequalities-in-europe.-assessment-report>).

Recent debate on the social determinants of health has indicated that the unequal distribution of health and well-being in national populations is a major challenge for public health governance. This is equally true for environmental health conditions and for exposure to environmental risk, which varies strongly by a range of sociodemographic determinants and thus causes inequalities in exposure to – and potentially in disease resulting from – environmental conditions.

Interventions tackling such environmental health inequalities need to be based on an assessment of their magnitude and on the identification of population groups that are most exposed or most vulnerable to environmental risks. However, data to quantify the environmental health inequality situation are not abundant, making comprehensive assessments difficult at both national and international levels.

Following up on the commitments made by Member States at the Fifth Ministerial Conference on Environment and Health in Parma, Italy (2010), the WHO Regional Office for Europe has carried out a baseline assessment of the magnitude of environmental health inequality in the European Region based on a core set of 14 inequality indicators. The main findings of the assessment report indicate that socioeconomic and demographic inequalities in risk exposure are present in all countries and need to be tackled throughout the Region. However, the report also demonstrates that each country has a specific portfolio of inequalities, documenting the need for country-specific inequality assessments and tailored interventions on the national priorities.

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Executive summary

The concept of environmental health inequalities

Environmental health inequalities refer to general differences in environmental health conditions. Socioeconomic and demographic inequalities in exposure to environmental hazards exist everywhere and can be expressed in relation to factors that may affect the risk of being exposed, such as income, education, employment, age, sex, race/ethnicity and specific locations or settings. In addition to these differences in exposure, environmental health inequalities are also caused by social or demographic differences in vulnerability towards certain risks.

Many of the environmental health inequalities, particularly where they are linked to socioeconomic variables or sex, also represent “inequities” because they are unfair, unjust and avoidable. The root cause of such inequalities is most often a lack of “distributive justice”, indicating that environmental risks are not evenly distributed within societies and populations, and a lack of “procedural justice”, indicating that different population groups may have different opportunities to influence decisions affecting their close environment.

Rationale of the report

The objective of the report is to provide an initial baseline assessment of environmental health inequalities in the WHO European Region. It is based on available statistical data from national or international databases. To undertake the assessment, a set of 14 environmental health inequality indicators was developed, categorized into three inequality dimensions (see Table below).

Environmental health inequality indicators

Housing-related inequalities	Injury-related inequalities	Environment-related inequalities
<ul style="list-style-type: none">• Inadequate water supply• Lack of a flush toilet• Lack of a bath or shower• Overcrowding• Dampness in the home• Inability to keep the home adequately warm	<ul style="list-style-type: none">• Work-related injuries• Fatal road traffic injuries• Fatal poisonings• Fatal falls	<ul style="list-style-type: none">• Noise exposure at home• Lack of access to green/ recreational areas• Second-hand smoke exposure at home• Second-hand smoke exposure at work

For each environmental health inequality indicator, data from international databases were analysed to assess, by country or subregion, the existence and the magnitude of inequalities between different population subgroups.

National data were analysed for the development of national environmental health inequality fact sheets and practice examples (see Annexes 1 and 2 of the full report). These national contributions indicate that more detailed assessments of environmental health inequality can be provided at national and subnational levels and that there are already national experiences with such assessments.

Inequality assessment findings

The assessment of housing-, injury- and environment-related inequalities shows that inequalities exist throughout the WHO European Region. However, there are large differences between countries regarding the magnitude of the inequalities and the most affected population groups. Depending on the available data, inequality assessments were undertaken in relation to differences by sex, age, income, relative poverty, household type, social position, employment, occupation, education and difficulty paying bills. All of these sociodemographic determinants are found to be associated with significant inequalities.

- Income and poverty-related inequalities are identified for noise exposure, exposure to second-hand tobacco smoke at home and at work, and housing-related inequality indicators, where they are most clearly expressed. Compared to the other determinants applied, income- and poverty-related determinants display some of the strongest inequalities at subregional and national levels. Differences in national income levels are also associated with injury-related fatalities, with low/middle income countries reporting higher mortality rates.
- Sex-related inequality is most strongly associated with injury, where male fatality rates are often three times (and beyond) female fatality rates. Sex-related differences also appear in relation to second-hand tobacco smoke exposure, yet play no important role for housing-related risk factors.
- Age-related inequalities are present for injuries (especially falls) but differ in direction, depending on the indicator. Age impacts are less prominent for the other inequality indicators.
- Household type-related inequalities in housing conditions are especially identified for single-parent households, and increase when combined with low income and relative poverty factors.
- Data on inequalities by education, employment/occupation and self-assessed social position are only available for some of the environment-related inequalities, but they show a diverse inequality pattern: high education level is consistently associated with higher reported lack of access to recreational and green areas, while employment/occupation level shows different inequality patterns in exposure to second-hand smoke, with the direction of inequality depending on sex and subregion.

Suggested priorities for national action

Suggested priorities for national action are identified in the report, based on a combined assessment of the absolute magnitude of the respective environmental exposure for the whole population and the relative exposure differences between selected population subgroups. If the respective environmental health risk is greater in one country than in others, and if the distribution of the risk within the population is more unequal in that country than in others, the country thus identified should give priority to national follow-up activities in order to address these inequalities.

Suggested priorities for national action on inequalities are identified for 38 of the 53 countries of the WHO European Region and affect Member States from all subregions and developmental levels (see Annex 1 of this executive summary). However, of the 15 countries where no priority for national action on environmental health inequalities was identified, 12

countries only reported data for 5 or even fewer of the 30 assessed inequality dimensions covered within the 14 environmental health inequality indicators.

Annex 3 of the full report shows the suggested priorities for the individual countries of the WHO European Region. In countries with identified priorities for national action, a more detailed national assessment of the respective inequalities is needed in order to confirm and interpret them in the given national context. However, in countries where no data were available, this lack of information should, in and of itself, be a reason for more detailed investigation.

Constraints and evidence gaps

The assessment report is affected by a range of constraints and gaps in evidence. The most significant constraints are (a) the lack of general data on environmental exposure in many countries, and (b) the limited opportunities for stratification of environmental exposure data by socioeconomic or demographic determinants. Further constraints relate to the quality and reliability of the data, and the lack of methodological consistency between national surveys, restricting the comparison of data collected in different countries. Priority steps to be taken towards the improvement of statistical evidence for environmental health inequality assessments would comprise:

- establishment of surveys covering priority environmental health issues and specific target groups
- increased use of social and demographic variables in environmental surveys
- development of common tools, methods, definitions and criteria
- better access to the available data.

Conclusion

The report conveys four key messages.

- Environmental health inequalities exist in all subregions and in all countries, and are most often suffered by disadvantaged population groups.
- The magnitude of inequalities and the distribution of inequalities between advantaged and disadvantaged population groups can be very diverse between countries and also depends on the socioeconomic or demographic variable used for stratification.
- To allow reliable identification of the most relevant target groups and to understand better the national inequality patterns and their causal mechanisms, more detailed environmental health inequality reporting and assessment are needed at the national level.
- The evidence base for the assessment of environmental health inequalities needs to be strengthened. This is valid for both data quantity (number of countries with data, number of risk factors reported) and data quality (reliability, opportunities for stratification).

Therefore, the results presented in this report provide an initial baseline assessment of selected environmental health inequalities in the WHO European Region. Further work is necessary to expand and further refine the assessment.

Possible actions for tackling environmental health inequalities

Although national priorities and disadvantaged groups vary, action is necessary throughout the WHO European Region to reduce the observed inequalities. The report suggests six general recommendations for action, which can be tailored to the respective national situation:

- action 1: general improvement of environmental conditions, assuring healthy environments for all;
- action 2: mitigation and reduction of risk exposure in the most affected population groups, focusing on the most exposed and/or most vulnerable subpopulations;
- action 3: national environmental health inequality assessments to assess or confirm inequalities based on national, more detailed data;
- action 4: sharing experiences and case studies on successful interventions tackling environmental health inequalities;
- action 5: review and modification of national intersectoral policies in relation to environmental health inequalities;
- action 6: monitoring of environmental health inequalities using a standard set of inequality indicators.

Annex 1. Suggested priorities for national inequality action

Chapter	Indicator	Relative inequality dimension	Countries with suggested priorities for action*	Country coverage
Housing	Lack of flush toilet in dwelling	Below versus above relative poverty level	Bulgaria, Hungary, Latvia, Poland, Slovakia	30
		Single-parent households versus all households	Austria [a], Bulgaria [a], Estonia [a], Greece [a]	30
	Lack of bath or shower in dwelling	Lowest versus highest income quintile	Belgium, Bulgaria, Cyprus, Estonia, Hungary, Latvia, Poland, Portugal, Romania	30
		Single-parent households versus all households with children	Greece [a], Lithuania, Poland, Portugal, Slovenia	30
	Overcrowding	Single-parent households versus all households	Austria, Czech Republic	30
		Lowest versus highest income quintile	---	30
	Dampness in the home	Lowest versus highest income quintile	Bulgaria, Estonia, Latvia, Lithuania, Poland, Romania	30
		Single-parent households versus all households	Cyprus, Poland, Romania	30
	Inability to keep home warm in winter	Below versus above relative poverty level	Greece	30
		Single-parent households versus two other household types	Cyprus, Germany, Poland	30
	Inability to keep home cool in summer	Lowest versus highest income quintile	Cyprus, Greece, Italy, Portugal	27
	Injury	Work-related injuries	Male versus female	Germany, Luxembourg, Portugal, Switzerland
Three age groups			France, Portugal, Spain	15
Mortality rate of all transport injuries		Four age groups	San Marino	10
Mortality rate of road traffic injuries		Four age groups	Croatia, Cyprus	37
		Male versus female	Croatia, Italy, Lithuania, Portugal, Serbia, Slovenia, Uzbekistan	37
Poisoning mortality rate (all causes)		Male versus female	Belarus, Estonia, Finland, Greece, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Poland, Russian Federation, Slovakia, Ukraine	43
Poisoning mortality rate (excluding alcohol poisoning)		Male versus female	Estonia, Ireland, Kyrgyzstan, Latvia, Lithuania, Malta	32
Alcohol poisoning mortality rate		Male versus female	Estonia, Finland, Kyrgyzstan, Latvia, Lithuania, Poland, Slovakia	28
Fall mortality rate	Male versus female	Belarus, Estonia, Finland, Latvia, Lithuania, Romania, Russian Federation	45	

Environment	Complaints about noise exposure at home	Below versus above relative poverty level	Denmark, Germany, Luxembourg, Netherlands, Romania [a]	30
	Complaints about lack of access to recreational or green areas	Female versus male	Poland [a], Portugal, Turkey	31
		Lowest versus highest income quartile	Belgium, Bulgaria [a], Greece [a], Hungary [a], Lithuania [a]	31
		Difficulty paying bills versus no difficulty paying bills most of time	---	31
	Exposure to second-hand smoke at home	Female versus male	Luxembourg, the former Yugoslav Republic of Macedonia, Turkey	30
		Low versus high self-assessed social position	Greece, Poland	30
		Difficulty paying bills versus no difficulty paying bills most of time	---	28
	Exposure to second-hand smoke at work	Male versus female	Austria, Lithuania	30
		Low versus high self-assessed social position	Bulgaria, Turkey [a]	28
		Manual worker versus manager	Cyprus, Italy, Malta, Spain	30

* Priorities for national action on environmental health inequalities have been identified with consideration of both the absolute magnitude of the respective environmental exposure or outcome in the total population and the relative inequalities in exposure or outcome between population subgroups.

The reporting countries were categorized into four quartiles, the first quartile containing the countries with the lowest relative inequalities and the fourth quartile containing those with the highest relative inequalities. The same approach was applied for absolute prevalence of the respective exposure or outcome in the total population of the countries – with the first quartile containing the countries with the lowest prevalence or incidence rates, and the fourth quartile containing those with the highest prevalence or incidence rates.

Countries with a suggested priority for national action are defined as countries being in the fourth quartile for both the absolute exposure dimension and the relative inequality dimension, or in the third quartile for one and in the fourth quartile for the other dimension.

The number of countries identified as having a suggested priority for national action and follow-up is related to the number of countries reporting the required data. The percentile approach is based on a relative comparison of countries; it does therefore not suggest a certain threshold level of absolute exposure or relative inequalities. A change in the number of reporting countries would therefore have a direct impact on the findings.

[a] The disadvantaged population subgroup is mentioned first in the column “Relative inequality dimension”. In case of a reversed national inequality pattern (putting the other subgroup at disadvantage) the countries are marked with an [a].

This table has been taken from the full report, page 128, Table 14. The methodology applied is presented in Chapter 6 of the full report. The detailed country findings are displayed in Annex 3 of the full report.

The full report is available in English on the web site of the WHO Regional Office for Europe (<http://www.euro.who.int/en/what-we-publish/abstracts/environmental-health-inequalities-in-europe.-assessment-report>).