

# WHO EUROPE POLICY BRIEF ON MIGRATION AND HEALTH: ENVIRONMENT AND HEALTH ASPECTS

Mobile heating devices driven by gas or solid or liquid fuels should not pose a fire risk or cause indoor pollution. Emissions must be vented to the outside, and sufficient fresh air ventilation must be provided. The same applies to energy sources for cooking.

If tents, halls or other shelter spaces cannot be heated adequately, the provision of heated communal spaces (such as canteens, social areas) is required. Provision of warm food and beverages is also important.

Maximum indoor temperatures should not exceed 32°C, even during heatwaves.

Unless the provision of cooling systems is technically and economically feasible, compensation measures should be taken to reduce indoor temperatures during hot periods, such as shading shelter structures, maximizing ventilation exchange during the night, using fans, providing cool communal and

social spaces, and providing adequate amounts of drinking water.

Locating shelters within existing settlement structures and neighbourhoods can enhance integration and afford opportunities for participation in social activities, as well as for education and potential employment.

A variety of smaller shelters embedded in different city areas (rather than one large site) may facilitate management and integration work and increase well-being among the sheltered population.

With regard to longer-term migrant shelters, a number of social, environmental and health issues need to be considered to ensure that the health and well-being of the shelter population are sustained. Needs are mostly related to better and more efficient infrastructure and expanded needs for, among others, health services, recreation and education.

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## Background

Member States in the WHO European Region are facing a vast influx of refugees, which is having a significant impact on public health. Migration-related environmental impacts on health are affecting the most vulnerable countries. Responding quickly and efficiently to the arrival of large groups of people from abroad requires effective coordination and collaboration between and within sectors, as well as countries. It is crucial that all sectors

involved should receive advice on the necessary public health measures to be taken when dealing with migrating populations. Furthermore, as well as the provision of health services for migrants and refugees in countries of transit and destination, there are several key aspects of migration's environmental impact on health that need to be taken into account.

## Key messages

**Basic water, sanitation and hygiene standards should be met and taken care of, especially at border and arrival points, reception centres and in settings where refugees seek medical assistance (in and around health care facilities).**

Basic water, sanitation and hygiene standards are frequently not met during migrants' journeys, including at border and arrival points, reception centres and in settings where refugees seek medical assistance (in and around health care facilities). Overcrowding at border and arrival points and in reception centres, for example, is a critical determinant of outbreaks of food- and waterborne diseases. Diarrhea is the most common symptom but can be accompanied by nausea, vomiting or fever. Examples of these diseases include salmonellosis, shigellosis, campylobacteriosis and hepatitis A. Infants and young children, pregnant women and elderly and immunocompromised individuals are particularly vulnerable. The basic human physiological requirement to maintain adequate hydration is 2–3 litres of drinking water per person per day. To include personal and food hygiene, as well as water for drinking and cooking, the total basic water need is 15 liters per person.

**Hypothermia can occur at temperatures anywhere below 16°C, especially among the most vulnerable: children, the elderly, those in poor health and alcohol consumers.**

Cold weather, especially extreme temperatures, can threaten health. When refugees and migrants sleep outdoors or in cold shelters it is important to point out that temperatures anywhere below 16°C can have negative impacts on their health, including the risk of hypothermia, frostbite and other health conditions. The risk increases even further if they lack proper clothing, food and medical care. The elderly, children, those in poor health and alcohol consumers are more vulnerable to the consequences of cold weather.

**In improvised shelters, such as large tents or sports halls, privacy is compromised. Crowding and lack of privacy may affect mental well-being and social behaviour, and could increase levels of aggression.**

Shelter conditions are relevant from both an environmental and social perspective. This is especially important with regard to provisional, short-term shelters prepared on ad hoc basis, since, in reality, these structures often become longer term solutions for many people. All social determinants of health and well-being, not just those pertaining to communicable diseases, should be taken into account when considering the health risks related to improvised shelters.

## Areas for intervention

### Water and sanitation

Risk of the spread of waterborne diseases can increase in the poor living conditions associated with migration. When the supply of safe drinking water is uncertain (of unknown origin or the water is untreated) people may turn to unsafe (local) sources of water. Insufficient access to safe drinking water may result in dehydration.

Border and arrival points and reception centres often lack adequate sanitation facilities and washrooms. The limited access to sanitation facilities during the migrant's journey may lead to open defecation practices and pose an increased risk, especially for children, of contact with human waste among

### Interventions

Access to adequate sanitation facilities with sufficient safe water for hydration, food preparation and hygiene are critical for preventing outbreaks of communicable diseases among migrants.

Where necessary, emergency or alternative supplies of drinking water may be established (such as packaged water, trucked water and/or mobile water treatment, disinfection and storage units). Local authorities must monitor microbiological drinking water quality closely; chemical contamination is not typically a priority under emergency conditions. Hand-washing facilities with sufficient soap should always be made available near toilets.

Although one toilet per maximum 20 people is recommended during emergencies, this standard cannot be respected in most circumstances. If the

### Cold weather

Temperatures anywhere below 16°C can cause hypothermia. Hypothermia (body temperature below 35.0 °C) is caused by exposure to cold or immersion in cold water and can compromise human vital functions. Shivering is the first symptom as the body attempts to react to dropping temperature by warming itself.

At very low temperatures, frostbite can occur: the skin and underlying tissues freeze from exposure to cold air, wind and humidity. The severity of frostbite varies depending on contact with cold objects or liquids, the duration of exposure, and inappropriate or wet clothing. Frostbite is most common on the fingers, toes, nose, ears, cheeks and chin.

Low temperatures can increase the risk of fractures, sprains and strains from falls and accidents, as well as cardiovascular, respiratory and mental health problems.

Severe bacterial and viral infections, such as respiratory diseases, are also more common in

migrants and in the local communities through which they transit.

If water supply is insufficient, washing hands with soap, personal hygiene, laundry and food hygiene are compromised.

Where waste disposal and the regular removal of waste from reception centres are inadequate, flies, mosquitoes and rodents – all of which pose additional health threats to migrants - find easy breeding places. Accumulation of waste may also affect local communities.

installation of additional (mobile) on-site sanitation facilities becomes necessary, and these are not connected to a centralized sewer system, safe collection and disposal of human waste is required, with care being taken to ensure that contact between humans and human faeces is prevented.

The specific needs of women and girls require particular attention during large influxes of migrants. Failure to meet the hygiene needs of women and adolescent girls may lead to unnecessary traumatic experiences and poor health outcomes. Simple interventions enabling safe menstrual hygiene management, such as the provision of hygiene packs with sanitary products and waste bins in washrooms, can make a major difference.

the winter and are increasingly associated with exposure to cold.

Ice and snow can severely disrupt transport, compromising access to roads and pavements thus increasing the risk of accidents.

### Interventions

The risks posed by cold weather can be mitigated by providing heated shelters, warm meals and proper clothing.

The risks can be communicated to refugees and migrants, and they could be informed about how to live in changing environments.

Particular care should be taken of the vulnerable.

Provision of sufficient fluids is important, but cold drinks, alcohol and tobacco should be avoided.

Exposed populations should avoid having to stand or sit still for long periods in the cold.

The adverse health effects of hot weather and heatwaves are largely preventable if appropriate measures are taken. It is important that health care authorities are aware of the fact that even during warm periods that are not specifically classed as heat waves by the meteorological service, higher temperatures may affect migrating populations, owing to their considerable exposure to the elements. This causes them to be much more vulnerable to weather conditions than the general population. The most important actions to be taken during a heatwave are to avoid or reduce exposure, provide sufficient hydration, communicate risks effectively, take particular care of vulnerable population groups and manage mild and severe heat-related health conditions.

### Interventions

Health care professionals should be well informed about the mechanisms, clinical manifestations and treatment of heatstroke. Heatstroke constitutes a medical emergency, and it is therefore imperative that the early signs be recognized. In the event of heatstroke, the first steps that should be taken are cooling and resuscitative measures.

Health care workers should be aware of the potential side effects of prescription medicines and should

Large influxes of migrant and refugee groups over an extended period of time pose a challenge to the institutional and infrastructural capacities of most countries. One of the main concerns is providing sufficient accommodation for large population groups in a short timeframe. Although this is outside the remit of the health sector and is mainly an issue to be addressed by stakeholders in civil protection, housing and social services, it has a direct impact on the health and well-being of migrants and their consequent need for health services.

Shelter conditions are relevant from both an environmental and social perspective. This is especially important with regard to provisional, short-term shelters prepared on ad hoc basis, since, in reality, these structures often become longer term solutions for many people. Shelter arrangements should therefore be stable, durable and effective over an extended time period.

### Interventions

People sleeping on beds or mats should have a minimum floor area of 3.5 m<sup>2</sup>. In rooms with high ceilings, double bunk beds may be used. Beds or mats should be separated by a minimum distance of 0.75 metres.

To the extent possible, open-space shelters, such as large tents or sports halls, should be divided into smaller functional units using visual blinds

## Water and sanitation

adjust the dosage, when necessary. Many chronic health conditions require medical treatment with drugs that can increase the risk of adverse health effects through heat exposure. It is advisable to ensure immediate access to cool places for any migrants who rely on such drugs, rather than changing their medication schedule.

Some health conditions, such as renal failure, cerebrovascular disease, heart failure, pneumonia and some communicable diseases impair thermoregulatory response in exposure to high temperatures. Any migrants suffering from such conditions are therefore particularly vulnerable to heat, as are the elderly and children.

During hot weather and heatwaves, it is necessary to provide migrating populations with sufficient water, particularly at places where they will be staying for longer periods, and to explain the importance of drinking adequate amounts of water, even when one does not feel thirsty. This is particularly important for the elderly, who have a reduced perception of thirst.

The contents of medical bags heat up in warm weather, and must therefore be stored in cool places. Drugs should be stored and transported at temperatures below 25°C or in a refrigerator if indicated.

## Shelter

or similar, to allow smaller groups of persons (preferably families) to have a minimum perception of private space and refuge.

Cultural and ethnic background and gender may have to be considered when allocating migrants to shelter units and sleeping places, in order to minimize the risk of social conflicts.

Adequate ventilation is required. Smoking and cooking on fires inside the shelter should be prohibited.

Separate rooms should be provided for specific functions, such as those related to caring for infants and babies (breastfeeding, nappy changing) and religious requirements (prayer room).

Increasing levels of residential density require specific attention to hygiene conditions.

The minimum indoor temperature should not be any lower than 18°C in standard buildings with fixed heating.

When fixed heating is not provided (for example, in tents), alternative heating equipment may be necessary. An ambient temperature above 15°C is desirable, but lower temperatures can be tolerated in short-term situations provided sufficient warm clothing and bedding are available. If generators are used to produce heat, potential noise emissions should be considered and minimized.