National Centre for Social Research

SocialLife
Science · Humanity · Enlightenment

GUIDANCE TOOLKIT · 2026

HEALTH PROTECTION

for outdoor workers

In the context of extreme weather and climate change

Vu Ngoc Anh, Nguyen Duc Loc, Pham Da Uyen, Le Quang Huy



Funded by Wellcome

VIETNAM WOMEN'S PUBLISHING HOUSE

GUIDANCE TOOLKIT · 2026

HEALTH PROTECTION

for outdoor workers

In the context of extreme weather and climate change

Vu Ngoc Anh, Nguyen Duc Loc, Pham Da Uyen, Le Quang Huy

VIETNAM WOMEN'S PUBLISHING HOUSE
2026

HEALTH PROTECTION FOR OUTDOOR WORKERS

In the context of extreme weather and climate change. Guidance toolkit. Online edition.

Joint lead authors: Vu Ngoc Anh and Nguyen Duc Loc
Contributing authors: Pham Da Uyen and Le Quang Huy
Photographs: Hong Dao, Huyen Tran, Nguyen Hanh, Hoang Trieu (details on the Photo credits page)
Cover photograph: Nguyen Hanh

This toolkit was developed as part of the research programme "The Health Impacts of Climate Change on Precarious Outdoor Workers in Urban Vietnam", led by the National Centre for Social Research (NatCen), United Kingdom, and funded by Wellcome Trust (grant number 227993/Z/23/Z). It is delivered by the SocialLife Research Institute (SocialLife) in collaboration with NatCen, with input from health and medical specialists.

Medical review: The health content was reviewed by Dr Do Manh Cuong (Ministry of Health), Dr Vu Ngoc Dan (Deputy Director, Ho Chi Minh City Centre for Disease Control) and Dr Nguyen Minh Nhut (President, Ho Chi Minh City Red Cross Society). Version and date reviewed: [to be confirmed].

This publication is distributed free of charge for community and non-profit purposes. It may be copied, cited and redistributed in whole or in part, provided that the source is acknowledged and it is not used for commercial purposes. Photographs remain the property of the credited photographers.

How to cite: Vu, A. N., Nguyen, D. L., Pham, D. U., & Le, Q. H. (2026). *Health protection for outdoor workers in the context of extreme weather and climate change: Guidance toolkit*. National Centre for Social Research (NatCen), United Kingdom. Available at: https://climate-health-vietnam.org. DOI: [to be registered via NatCen]

Version history: Version 1: 10 August 2024; Expert and worker consultation: 13 September 2025; Version 2: 15 October 2025; Version 3: 24 October 2025, updated with data from local partners; Version 4: 12 December 2025, revised in response to expert feedback; Version 5: 06 February 2026; Version 6: 20 April 2026; Version 7: 11 May 2026; Version 8: 10 August 2026; Version 9: 26 October 2026, revised after medical and editorial review.

Publisher: Vietnam Women's Publishing House (Nhà xuất bản Phụ nữ Việt Nam)
Publication registration no.: 4412-2026/CXBTV/19-106/PN
ISBN: 978-632-05-2407-5

SocialLife Research Institute (SocialLife)
Head office: 71/62e Dien Bien Phu Street, Gia Dinh Ward, Ho Chi Minh City
Office: Room C21, 51 Quoc Huong Street, An Khanh Ward, Ho Chi Minh City
Email: lienhe@sociallife.vn

Contents

Acknowledgements 6

Foreword 7

Part I. Introduction 9

Why This Toolkit Is Needed 10
Integrated Approach and Implementation Framework 11
How to Use This Toolkit 20

Part II. Toolkit Content 23

01 Understanding Weather and Health 25

1.1. How to Read Weather Indicators 28
1.2. Recognising Warning Signs from the Body 35
1.3. Practical Protective Measures in Urban Environments 44

02 Identifying and Responding to Dangerous Situations 53

2.1. Heat Exhaustion and Heatstroke 54
2.2. Air Pollution-Related health problems 63
2.3. Common Workplace Accidents 67
2.4. Preventing Occupational Accidents 74

03 Protective Equipment 77

3.1. Occupation-Specific Protective Gear 78
3.2. DIY Simple Protective Equipment 85
3.3. Basic First-Aid Kits 90

04 Technology-Based Support Applications 94

4.1. Health Support Applications for Workers 95
4.2. Key Features Supporting Outdoor Workers 96

05 Accessing Healthcare Services 108

5.1. How to Visit a Doctor Effectively 110
5.2. Health Insurance and Support 116

06 Self-Assessment and Health Monitoring 120

6.1. Daily Health Diary 121
6.2. Quick Risk Assessment 126
6.3. Daily Safety Checklist 132

07 Community Support Networks 137

7.1. Peer Support System, The Buddy System 138
7.2. Community Experiences and Initiatives 141
7.3. How to Establish and Operate a Community Support Group 158
7.4. Community Amenities Map 164

08 Emergency Situations 169

8.1. Emergency Contact Numbers 170
8.2. How to Call Emergency Services Effectively 173

09 Protecting Health During Severe Cold and Extreme Cold Weather 176

10 Protecting Health During the Flood Season 184

11 Occupational Safety and Hygiene for Waste Collectors 191

12 Mental Health Care 204

12.1. Stress management 206
12.2. Nurturing Positive Mindset & Emotions 211
12.3. Responding to Discrimination or Verbal Abuse 212
12.4. Sleep and Mental Recovery 214
12.5. Seeking Help During a Mental Health Crisis 219

Conclusion 221

Appendix. Methodology 224

References 230

Photo credits 234

Acknowledgements

This toolkit was developed as part of the research project *The Health Impacts of Climate Change on Precarious Outdoor Workers in Urban Vietnam*, funded by the Wellcome Trust [Grant number 227993/Z/23/Z]. We are grateful to Wellcome for their generous support, without which this work would not have been possible.

We also wish to thank the National Centre for Social Research (NatCen), UK, for their technical expertise and support throughout the development of this toolkit.

We extend our particular thanks to three experts who provided critical review and constructive feedback on the technical content of this toolkit: Dr. Do Manh Cuong (Ministry of Health), Dr. Vu Ngoc Dan (Deputy Director, Ho Chi Minh City Centre for Disease Control, HCDC), and Dr. Nguyen Minh Nhut (President of the Ho Chi Minh City Red Cross Society and former Vice Chair of the Cultural and Social Affairs Committee, People's Council of Ho Chi Minh City). Their insights significantly strengthened the scientific rigour and practical relevance of this work.

We would like to express our sincere gratitude to the outdoor workers who generously shared their experiences, knowledge, and time. Their voices are at the heart of this toolkit. We are also grateful to Phan Thi My Nhung and Pham Truong Son (local NGOs, *SDRC* & *Tinh Than Foundation*), Le Thi Ngan (community-based organisation, *Thao Dan Centre*), Huynh Thi Ngoc Tuyet and Luong Thien Nhan (academics), Le Nguyen Thu Thuy (local expert), and Tung Nguyen and Le Thi Tuyet (journalists, *Dan Tri Newspaper* & *VnExpress*), as well as participants of the consultation and feedback sessions, including environmental experts, social workers, and sociologists with extensive experience working with labour groups, whose dedication, practical insights, and interdisciplinary perspectives helped shape and refine this work.

Foreword

This toolkit is built upon the real-life experiences of outdoor workers, those who earn their living daily under the sun, in the rain, and in polluted urban environments.

Through consultation sessions with hundreds of workers in Hanoi, Da Nang, Ho Chi Minh City, and Can Tho, we listened deeply. We heard about episodes of heat exhaustion that nearly caused workers to collapse by the roadside, sleepless nights filled with worry, and the constant strain of working through harsh weather day after day. We also heard about their resilience: the damp cloths used to cool the body, the shaded routes chosen instinctively, the adjusted working hours, the quiet reminders among colleagues to drink water.

These experiences have been brought together with guidance from health and occupational safety experts. The toolkit consists of three complementary components: a collection of short educational videos available on TikTok; an AI-powered chatbot integrated into the ICAN (Intelligent Climate Alert Network) application, providing weather alerts and 24/7 support; and this comprehensive toolkit, which offers detailed information and the essential skills workers need to protect their health.

This toolkit has been developed for outdoor workers, including street vendors, construction workers, app-based motorbike taxi drivers, waste collectors, delivery riders, security guards, and traffic wardens, as well as all those who work regularly in outdoor environments. It is also intended for trade union officers, business managers, community health workers, and workers' families, all those who care about the health and safety of the people they work alongside or love.

We believe every outdoor worker deserves the tools to protect themselves. We hope this toolkit becomes a trusted companion, helping workers stay safe through each working day and return home healthy to their families.

The Authors



We believe every one of them deserves the tools to protect themselves.

The Editorial Team, Foreword



Part I

Introduction

Why this toolkit was created, the principles behind it, and how to use it.

1 Why This Toolkit Is Needed

Outdoor workers, including construction workers, traditional motorbike taxi drivers and app-based motorbike taxi drivers, street vendors, and porters, are increasingly exposed to extreme weather conditions caused by climate change. These include prolonged heatwaves, sudden storms, flooding, severe cold spells, and rising air pollution.

Common challenges faced by workers include

- Extreme heat, particularly in urban areas, where temperatures can be 3-5°C higher than in surrounding areas
- Air pollution caused by dust and traffic emissions
- Limited access to shelter from sun and rain while working
- Lack of timely and work-related weather warnings
- Difficulty accessing healthcare and emergency services during work hours

This toolkit has been developed to

- Help workers identify weather-related risks at an early stage
- Provide simple, practical guidance on protecting health
- Build skills for responding to emergency situations
- Introduce available support points and ways to access healthcare services

All content in this toolkit is based on expert advice and the real-life experiences of workers themselves and is presented in a clear, accessible manner to enable immediate application in daily work.



Construction workers building formwork on a site under the midday sun.

Integrated Approach and Implementation Framework 2

The toolkit is built on key principles that ensure it is practical, inclusive, and effective for protecting the health of outdoor workers under increasingly extreme weather conditions.

- **Rights-based approach:** Health and safety at work are fundamental rights of all workers, including those in the informal economy. The toolkit affirms the right to work in safe conditions, the right to access climate-health information, and the right to participate in decisions that affect workers' livelihoods.
- **Mobilising community strengths:** Outdoor workers often rely heavily on peer support and local networks. The toolkit builds on these existing networks by encouraging

information-sharing, mutual support during weather-related risks, and stronger linkages with health stations, local neighbourhood groups and civil society organisations. This approach enhances workers' safety without relying solely on external assistance.

- **Worker-centred approach:** Workers are not only beneficiaries, but also active contributors to the development and refinement of the toolkit. Their lived experiences, priorities and feedback constitute a valuable source of real-world evidence, ensuring that proposed solutions respond to actual needs rather than external assumptions. This process also strengthens workers' voice and sense of ownership over initiatives that affect them.
- **Recognising and strengthening local knowledge:** Over years of working in harsh conditions, workers have developed their own adaptive strategies. The toolkit recognises and builds upon this local knowledge, combining it with scientific evidence to create solutions that are culturally appropriate, easy to apply and grounded in local experience.
- **Ensuring practicality and accessibility:** All content is designed to be simple, easy to understand and appropriate for workers with diverse financial means, educational backgrounds and levels of digital literacy. Guidance prioritises the use of readily available, low-cost materials and straightforward techniques that can be adopted by all workers.
- **Paying attention to vulnerable groups:** Women, older workers, migrants and other vulnerable groups often face greater barriers in accessing information and healthcare. The toolkit integrates gender-responsive, age-appropriate and culturally sensitive solutions to ensure that no one is left behind.
- **Linking with existing urban and health systems:** Rather than creating parallel structures, the toolkit is integrated

into existing healthcare systems, urban planning processes and development programmes. This approach embeds the toolkit within broader efforts to strengthen climate resilience and protect public health, while also enabling long-term sustainability and scalability.

Together, these principles ensure that the toolkit not only supports workers in responding to immediate risks but also contributes to the development of more climate-resilient urban systems, where the health of outdoor workers is recognised as a vital component of overall climate resilience.

The implementation of this toolkit follows an integrated framework comprising three main phases, as illustrated in Figure 1. The first phase focuses on planning and preparing through the establishment of interdisciplinary working groups. Following this, the second phase emphasises community dialogue and training, including organising dialogue sessions with workers and forming worker advisory groups. The final phase centres on development and evaluation, whereby draft toolkits are developed and comprehensive pilot programmes are implemented. This structured approach ensures that the toolkit is grounded in workers' lived experiences while being informed by expert knowledge and tested through practical application.

To effectively address the diverse needs of different outdoor worker groups, the toolkit has been designed with specific considerations for each occupational category. As detailed in Table 1, construction workers, porters, street vendors, and motorbike taxi drivers each face distinct job characteristics, health risks, and barriers to protection. For instance, construction workers experience high rates of heat-related conditions (95%) and are particularly vulnerable to occupational accidents due to physical strain and reduced concentration in hot environments. Meanwhile, street vendors, who represent the group with the lowest average income, face severe income loss during adverse weather condi-

tions alongside significant cardiovascular health risks. Recognising these variations, the toolkit provides tailored components and mechanisms for each group, working in collaboration with relevant stakeholders such as employers, trade unions, local authorities, and technology companies to ensure comprehensive coverage and appropriate institutional support.

To ensure that the toolkit accurately reflected workers' lived experiences, its development involved extensive engagement with outdoor workers across four cities: Hanoi, Da Nang, Ho Chi Minh City, and Can Tho. A total of 800 workers from a range of occupational groups, including construction workers, motorbike taxi drivers, street vendors, and porters, participated in the research through quantitative surveys, in-depth interviews, focus group discussions, participatory observation, and co-creation activities. Workers played an active role throughout the process by sharing their experiences, identifying risks and practical needs, providing feedback on draft materials, and contributing to the refinement of the toolkit. Pilot testing was subsequently conducted specifically in Ho Chi Minh City, involving workers in the testing and evaluation of the toolkit under real-world conditions. Policymakers, healthcare providers, occupational health experts, practitioners, and civil society organisations also contributed throughout the development process to strengthen the toolkit's technical accuracy and practical relevance. The Appendix provides further details on the research methodology and implementation.

Figure 1. Integrated implementation framework for the toolkit supporting vulnerable outdoor workers

Implementation process

Phase 1
Planning & Preparing

Activities
- Establishing interdisciplinary working groups
- Analysing the needs of each labour group
- Building a risk database
- Identifying stakeholders
- Developing an engagement strategy

Phase 2
Community Dialogue & Training

Activities
- Organising dialogue with workers
- Forming a worker advisory group
- Testing the initial tool
- Conducting capacity-building workshops
- Training community facilitators
- Organising feedback workshops

Phase 3
Development & Evaluation

Activities
- Developing the draft toolkit
- Implementing comprehensive training
- Conducting train-the-trainer sessions
- Field testing at locations
- Evaluating effectiveness and refining

Beneficiaries and stakeholders

Construction workers

Stakeholders
- Construction Trade Union
- Employers, site owners
- Department of Health
- Department of Labour

Porters

Stakeholders
- Market associations
- Ward and commune authorities
- Health stations
- Labour organisations

Street vendors

Stakeholders
- Women's Union
- Ward People's Committee
- Youth Union
- Local non-profit organisations

Motorbike taxi drivers
app-based and traditional

Stakeholders
- Ride-hailing companies
- Transport Association
- Department of Transport
- Cooperative Alliance

Source: SocialLife, data from the worker survey conducted in Hanoi, Da Nang, Ho Chi Minh City and Can Tho, July 2024.

▸ Table 1. Job characteristics, health risks, and institutions responsible for ensuring the safety of outdoor workers

Construction workers

Job characteristics

- Diverse tasks: carrying construction materials, mixing mortar, bricklaying, and working at height
- Direct exposure to heat, cement dust and noise

Common health risks:

- 95% experience heat-related conditions (heat exhaustion, dehydration)
- 15% experience skin problems (sunburn, contact dermatitis)
- Occupational accidents: prolonged work in hot environments leads to physical strain, fatigue and stress, resulting in reduced concentration and an increased risk of accidents (falls, collisions, being struck by falling materials)

Key barriers

- Limited access to personal protective equipment (PPE) and cooling devices
- Pressure to meet construction deadlines
- Insufficient recognition of weather-related health risks

Key stakeholders

- Employers / construction site owners (primary responsibility for ensuring occupational safety)
- Construction sector trade unions (representing and protecting workers' rights)

Toolkit components and mechanisms

- Guidance materials on self-protection while working outdoors
- Daily weather risk identification tools
- Practical guidance on health protection at construction sites
- Maps indicating locations of cooling and shaded rest points

Porters

Job characteristics

- High physical workload
- 28.4% experience respiratory illnesses
- 30.8% experience significant income loss during adverse weather conditions
- High risk of stroke due to working late at night or early in the morning

Key barriers

- Lack of transport aids
- Unstable working environments
- Limited access to healthcare services

Key stakeholders

- Wholesale markets
- Ward /commune authorities
- Local health centres

Toolkit components and mechanisms

- Maps of existing on-site rest areas
- Information on access to healthcare services
- Practical self-protection guidance
- Weather alert registration tools
- Guidance on peer support networks

Street vendors

Job characteristics

- Continuous work under sun and rain
- Lowest average income (VND 5.5 million per month)
- 64.2% experience severe income loss during adverse weather conditions
- 24% report poor health status
- 23% experience cardiovascular disease and hypertension

Key barriers

- Highly mobile and unstable working spaces
- Lack of support networks
- Unstable income
- Limited access to information

Key stakeholders

- Women's Union
- Ward People's Committee
- Youth Union
- Local non-profit organisations

Toolkit components and mechanisms

- Maps of available shelters and cooling spaces
- Guidance on mutual support networks
- Information on the health protection toolkit
- Mobile registration for weather alerts
- Financial planning guidance for weather-related disruptions

Motorbike taxi drivers (traditional and app-based ride-hailing drivers)

Job characteristics

- Continuous exposure to vehicle emissions, air pollution and extreme weather conditions (heat, rain, cold, etc.)
- High risk of traffic accidents
- 31% experience respiratory diseases
- 18% experience mental health problems
- Work continues even under extreme weather conditions

Key barriers

- Pressure to complete orders/ deliveries
- Lack of shelter during adverse weather conditions
- Lack of accident and health insurance

Key stakeholders

- Transport technology companies (ride-hailing platforms)
- Transport sector associations
- Department of Construction
- Cooperative Alliance

Toolkit components and mechanisms

- Integration of weather alerts into ride-hailing applications
- Maps of existing covered rest areas
- Practical health protection guidance
- Extreme weather work-planning tools
- Information on accessing insurance

Waste collectors (formal employees and independent collectors)

Job characteristics

- Daily collection of household, market and street waste, often during early morning or night shifts
- Continuous exposure to dust, vehicle exhaust fumes, foul odours, decomposing waste, chemicals and microorganisms
- Risk of injury from sharp objects, broken glass and used needles
- Risk of traffic accidents while working on busy roads, especially in poor visibility
- Long-term exposure to bacteria, hazardous waste and extreme weather (heat, cold, rain)
- High risk of musculoskeletal disorders and injuries from repetitive lifting and carrying and waste compactor operations

Key barriers

- Limited access to standard personal protective equipment (gloves, masks, reflective clothing, safety footwear)
- Insufficient occupational safety training, particularly for independent collectors
- Unstable income and absence of formal employment contracts for independent collectors
- Limited access to social and health insurance
- Stigma and lack of social recognition for the occupation

Key stakeholders

- Urban environment companies (URENCO and equivalent municipal enterprises)
- Department of Construction (urban environment management)
- Department of Health (occupational health monitoring)
- Ward and commune authorities (coordination of independent collectors)
- Trade unions and women's unions (representation of workers' rights)

Toolkit components and mechanisms

- Practical guidance on hazard identification and personal protective equipment use
- First aid procedures for sharps injuries and chemical exposure
- Information on accessing healthcare services and occupational health monitoring
- Guidance on registering for social and health insurance
- Mutual support networks and peer learning frameworks

Source: SocialLife Research Institute (2024). Survey data collected from workers in Hanoi, Da Nang, Ho Chi Minh City and Can Tho.

3 How to Use This Toolkit

Where does this toolkit come from?

This toolkit is based on the real-life experiences of hundreds of outdoor workers in Hanoi, Da Nang, Ho Chi Minh City and Can Tho, combined with input from environmental and climate change experts, healthcare professionals and occupational health experts. The content has been tested and refined through multiple rounds to ensure it is clear, practical, and relevant.

How to use this toolkit

Use the toolkit according to your needs. You do not need to read it from start to finish.

	See section...
Understand weather conditions and how to read environmental indicators	Section 1
Respond to hazardous situations (heat exhaustion, poisoning, accidents)	Section 2
Choose appropriate personal protective equipment	Section 3
Use the ICAN application and mobile phone-based health support	Section 4
Access medical care and use health insurance	Section 5
Monitor your health on a daily basis	Section 6
Build peer support groups with co-workers	Section 7
Respond to emergency situations	Section 8
Protect your health during cold weather	Section 9
Protect your health during floods	Section 10
For waste collectors	Section 11
Take care of mental health	Section 12

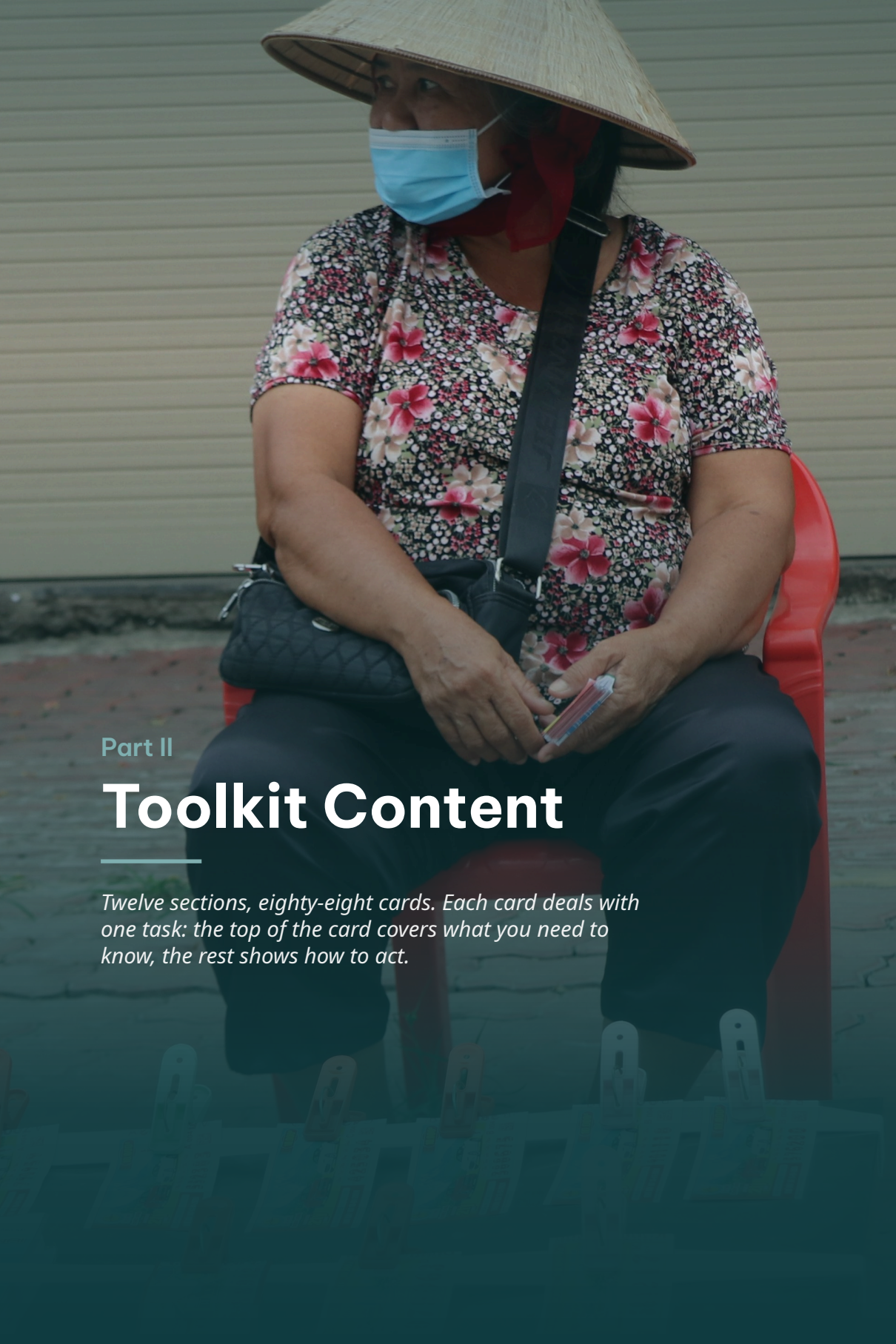
Tips for using this toolkit effectively

- You do not need to read it all at once, simply refer to the sections that are relevant to your work and current situation
- Install the ICAN application, to receive weather alerts and access 24/7 support
- Share the toolkit with your co-workers to improve collective safety



Luckily, a co-worker spotted the signs of heatstroke straight away. He moved me into the shade, took off my shirt and applied cold towels to my forehead and neck [...].

Construction worker, Ho Chi Minh City (Card 44)



Part II

Toolkit Content

Twelve sections, eighty-eight cards. Each card deals with one task: the top of the card covers what you need to know, the rest shows how to act.

Twelve sections of the toolkit

You do not need to read it from start to finish. Whatever the task, turn to that section; the colour tabs on the page edge, numbered 1 to 12, help you find it quickly.

01 p. 25
Understanding Weather and Health
11 cards

02 p. 53
Identifying and Responding to Dangerous Situations
10 cards

03 p. 77
Protective Equipment
5 cards

04 p. 94
Technology-Based Support Applications
5 cards

05 p. 108
Accessing Healthcare Services
5 cards

06 p. 120
Self-Assessment and Health Monitoring
6 cards

07 p. 137
Community Support Networks
14 cards

08 p. 169
Emergency Situations
2 cards

09 p. 176
Protecting Health During Severe Cold and Extreme Cold Weather
4 cards

10 p. 184
Protecting Health During the Flood Season
5 cards

11 p. 191
Occupational Safety and Hygiene for Waste Collectors
10 cards

12 p. 204
Mental Health Care
11 cards



01

Understanding Weather and Health

11 cards in this section

1	Reading the VN_AQI (Air Quality Index)	28
2	Understanding the UV Index (Ultraviolet Radiation)	32
3	What Is “Feels-Like Temperature”? (Heat Index)	33
4	Body Warning Signs	35
5	Self-checking Hydration Status	39
6	Working Outdoors During Pregnancy	42
7	Choosing Safe Working Hours	45
8	How to Drink Water According to the Environment	46
9	Protecting the Lungs in Polluted Air	48
10	Cooling the Body Quickly	50
11	Eating and Daily Routines Adapted to Weather Conditions	51

Outdoor workers are exposed to far more severe weather conditions than those working indoors. As climate change makes weather hotter, more erratic and more unpredictable, it also increases health risks for those who work outside every day (ILO, 2021; WHO, 2026).

Understanding how weather affects the body is the first step in protecting health. When workers can recognise danger signs early, they can adjust their work, rest in time, and prevent serious illness or injury.

This section explains

- Common weather-related hazards and their health impacts,
- Why monitoring weather conditions is important,
- How to read key weather and environmental indicators,
- Early warning signs from the body,
- Practical protective measures for urban environments.

Weather-Related Hazards and Associated Health Impacts

Weather-related hazard	Potential health impacts
Extreme heat and high temperatures (especially in urban areas, where actual temperatures can be 3-5°C higher than forecast due to heat retention by concrete and asphalt)	Heat exhaustion, heatstroke, exhaustion, dehydration, muscle cramps, dizziness, fainting, reduced concentration leading to occupational accidents
High ultraviolet (UV) radiation (particularly between 10:00 and 15:00)	Sunburn, skin burns, eye damage (including cataracts), premature skin ageing, increased risk of skin cancer with long-term exposure
Air pollution (fine particulate matter PM2.5, vehicle emissions, construction dust)	Persistent cough, shortness of breath, headaches, respiratory infections, worsening of asthma and pre-existing lung disease, fatigue, reduced immunity

Weather-related hazard	Potential health impacts
Heavy rain and storms (sudden onset, rapid changes)	Traffic accidents due to slippery roads, falls, injuries from flying objects, colds, pneumonia from prolonged exposure to rain
Flooding and tidal inundation (common in Ho Chi Minh City and southern provinces)	Traffic accidents (motorcycle falls, engine failure in flooded streets), electric shock, skin infections from contaminated water, gastrointestinal diseases, dengue fever following floods
Severe cold and cold spells (particularly in the North and North Central regions)	Colds, pneumonia, joint and muscle pain, sudden increases in blood pressure, increased risk of stroke, carbon monoxide poisoning from charcoal heating in enclosed spaces
Strong winds and whirlwinds	Injuries from flying debris, falling trees, slips and falls, being blown over while moving

Why is it important to understand the weather?

Understanding weather conditions helps workers to

- Identify health risks at an early stage
- Adjust working hours, rest breaks and water intake appropriately
- Find shade or shelter from rain in a timely manner
- Prepare appropriate protective equipment (such as masks, sun-protective clothing and rainwear)
- Respond promptly when your body shows warning signs

Proactively monitor the weather every day

As weather conditions can change rapidly, workers are encouraged to

- Check the weather forecast before leaving for work
- Monitor temperature, UV index and air quality (AQI)

- Install the ICAN application to receive extreme weather alerts
- Ask co-workers about weather conditions at the work location

The following sections provide practical guidance on how to read weather and environmental indicators, along with concrete steps to protect your health while working outdoors.

1.1 How to Read Weather Indicators

To work safely in extreme weather conditions, it is important to understand several key environmental indicators. These indicators show how hot or cold it is, the level of UV radiation and the level of air pollution during the day, helping workers adjust their working hours and protect their health.

This section explains how to read and understand four commonly used indicators: Temperature, Heat Index, Ultraviolet (UV) Index, and the Air Quality Index (AQI).

Card 1 · 01 · Understanding Weather and Health

Reading the VN_AQI (Air Quality Index)

Quick guide **Check every morning**

The VN_AQI (Vietnam Air Quality Index) shows how polluted the air is on a scale from 0 to 500.

The higher the number, the more polluted the air and the greater the health risk, especially for people working outdoors.

- **Above 100:** Wear a mask and limit prolonged outdoor work

- **Above 200:** Reduce outdoor activities as much as possible, if feasible

> *I don't know why the weather has become so strange lately, rain, then sun, then rain again, changing all the time. There is so much dust and traffic smoke, but I still must go out and work.*
>
> **Worker's account** · Street vendor (vegetables, roots and fruit), Da Nang

What does the VN_AQI mean?

The VN_AQI shows the level of air pollution for the day. However, we understand that for many workers, taking time off on polluted days means losing income. Therefore, the table below gives not only ideal recommendations but also practical solutions so that you can still work more safely when you have to go out.

VN_AQI	Level	If possible	If you must work
0-50	**Good**	Work as usual	No special measures required
51-100	**Moderate**	Wear a mask if you feel discomfort	Wear a cloth or medical mask and drink plenty of water
101-150	**Poor**	Limit time spent outdoors	Wear an N95 respirator, take indoor breaks every 1-2 hours, avoid heavily trafficked roads
151-200	**Very poor**	Reduce working time by half	Wear an N95 respirator correctly, choose early morning (5:00-7:00) or evening (after 19:00) working hours, take indoor or shop breaks every 45 minutes
201-300	**Extremely poor**	Work only for essential tasks for less than 4 hours	Wear an N95 respirator, work in short shifts (maximum 2 hours per shift), rinse your mouth and wash your face after each shift, choose routes with less traffic
301+	**Hazardous**	Avoid going outdoors	If unavoidable: wear an N95 respirator, protect your eyes (safety goggles), limit exposure to under 1 hour, return home immediately if you experience shortness of breath or headaches

Health protection tips when you must work on polluted days

- Choose your working hours: Air quality is usually better in the early morning (5:00-7:00) and in the evening (after 19:00)
- Choose your routes: Avoid busy intersections, roads with heavy truck traffic, and construction areas
- Wear a mask correctly: An N95 respirator should fit tightly against the face, with no gaps around the cheeks
- Take indoor breaks: Rest in cafés, convenience stores, or covered bus stops whenever possible

- Clean up after work: Wash your face, rinse your mouth and blow your nose when you get home to remove dust and pollutants
- Listen to your body: If you experience shortness of breath, headaches or dizziness, stop working immediately and move to a well-ventilated area

How to Check the VN_AQI?

- Official source: Monitoring station network of the Vietnam Environment Agency (VEA)
- "AirVisual" application (free, available in Vietnamese)
- Website: aqicn.org
- ICAN application
- Facebook page: "Chất lượng không khí Việt Nam" (Vietnam Air Quality)

Tip: Check the VN_AQI at Three Key Times

- 6:00 a.m. before going to work
- 12:00 noon to decide whether to take longer breaks
- 6:00 p.m. to prepare for the next working day

Remember

VN_AQI above 100: wear a mask; VN_AQI above 200: limit going outdoors as much as possible.

My notes

Card 2

01 · Understanding Weather and Health

Understanding the UV Index (Ultraviolet Radiation)

1

Quick guide **UV above 6 = proper sun protection is required; UV above 8 = avoid being outdoors at midday; UV is highest between 10:00 and 15:00.**

The UV Index shows the level of ultraviolet radiation that can harm the skin and eyes.

The scale ranges from 0 to 11+. The higher the UV level, the greater the risk of sunburn and eye damage.

> *I used to get sunburnt too. To protect myself from the salty air, I wrap a cloth around my head and neck, then wear a wide-brimmed hat on top.*
>
> **Worker's account** · Female porter at a fish market, Da Nang

What Different UV Levels Mean?

- 0-2: Low, normal outdoor work is safe
- 3-5: Moderate, seek shade at midday
- 6-7: High, cover up fully
- 8-10: Very high, reduce time in the sun
- 11+: Extreme, avoid midday sun

Remember

UV levels are highest between 10:00 and 15:00. Avoid going outdoors at midday.

Card 3

01 · Understanding Weather and Health

What Is "Feels-Like Temperature"? (Heat Index)

What is feels-like temperature (heat index)?

The feels-like temperature is how hot your body actually feels, not the number shown on a thermometer or on your phone.

Why is it different?

When the weather is hot and humid, sweat evaporates more slowly. This means your body cannot cool itself properly, so you feel much hotter than the actual air temperature.

Real-life examples

- Air temperature: 35°C, humidity: 70% → Feels like 41°C
- Air temperature: 38°C, humidity: 80% → Feels like 52°C *(dangerous)*

You should remember

High humidity can turn "normal heat" into a serious health risk, especially for outdoor workers.

Feels-like Temperature	Risk Level	What to Do
Below 32°C	🟢 **Safe**	Work as usual, drink water regularly
32-40°C	🟡 **Caution**	Take breaks every 30-45 minutes, drink more water
40-54°C	🟠 **Dangerous**	Reduce working time, seek shade, rest frequently
Above 54°C	🔴 **Very dangerous**	Avoid outdoor work if possible, closely monitor your body

Quick check

Check the ICAN app or search “today’s feels-like temperature” on your phone before going to work.

1

Rule of thumb: Below 32°C = Safe, 32-40°C = Caution, Above 40°C = Dangerous

> *Last year, around March and April, the heat was unbearable. I just wanted to stay indoors all the time, didn’t even want to go to work. The heat was too much to handle. But because of making a living, I still had to try and keep working.*
>
> **Worker’s account** · Construction worker, Ho Chi Minh City

Danger levels based on feel-like temperature

- Below 32°C: Safe, Normal
- 32-40°C: Caution, Fatigue with prolonged activity
- Above 40°C: Minimise heavy activities

Use the ICAN app

- Open the ICAN app → Check the “Feels-like temperature” section on the home screen
- The app automatically updates based on your location

My notes

Recognising Warning Signs from the Body 1.2

This section helps you recognise the signs your body uses to indicate that something needs adjusting, and the timely actions you can take to ensure your health remains stable and well cared for.

Card 4 · 01 · Understanding Weather and Health

Body Warning Signs

Body warning signs when working outdoors

When working in hot weather, the body sends out warning signals. Recognising these signs early helps you respond in time and avoid danger.

General principle

- Stage 1: Pay attention, Rest and drink water
- Stage 2: Stop working, Cool the body immediately
- Stage 3: Emergency, Call 115 immediately

> *When it's sunny, sometimes my vision goes blurry and I can't stand for long. At those times, I sit down to recover and go inside to rest.*
>
> **Worker's account** · Lottery ticket seller, Ho Chi Minh City

Warning stages and how to respond

Stage	Signs	What to do
🟡 **1. Early warning**	Excessive thirst; heavy sweating; mild dizziness; rapid heartbeat while resting	Stop and rest immediately; drink water; move to a shaded area
🟠 **2. Serious**	Persistent headache; nausea; dizziness when standing up; hot skin, which may be dry or sweaty	Stop working; go home or to a health station; cool the body
🔴 **3. Emergency**	Confusion; slurred or unclear speech; seizures; purplish or extremely flushed skin; collapse or loss of consciousness; very high body temperature (you may or may not still be sweating)	CALL 115 IMMEDIATELY, Cool the body with cold water while waiting for emergency services

Special notes for vulnerable groups

Some groups of workers have a lower tolerance and need to act one stage earlier than the general guidance.

Group	Characteristics	What to do
People over 50 years old	Reduced ability to regulate body temperature; more prone to dehydration; slower reactions	Take breaks more frequently (every 20-30 minutes); drink water even if not thirsty; act immediately when Stage 1 signs appear
People with cardiovascular disease or high blood pressure	Heart works harder in hot conditions; higher risk of stroke	Avoid heavy work during peak heat (10:00-15:00); carry prescribed medication; call emergency services immediately if chest pain or shortness of breath occurs
People with diabetes	Higher risk of dehydration; difficulty recognising signs of low blood sugar	Carry light snacks; check blood sugar regularly; do not skip meals when working outdoors
People with respiratory conditions (asthma, COPD)	Heat and air pollution worsen symptoms	Wear a mask; carry inhalers; avoid working when AQI > 100
Pregnant women	Higher risk of exhaustion and dehydration affecting the foetus	Rest more frequently; drink water regularly; ask a doctor or midwife how long you can safely work outdoors; this depends on your health, rest breaks, sun exposure, workload, weather and any warning symptoms
People who are overweight	Reduced ability to release body heat	Wear loose, breathable clothing; take more frequent breaks; drink water regularly following the guidance in this toolkit (do not force extra water)

Golden rules for vulnerable groups

If you belong to any of the above groups, act one step earlier than the general guidance

- Stage 1 signs → respond as Stage 2 (stop work and cool the body)
- Stage 2 signs → respond as Stage 3 (seek immediate help)
- Some medications for blood pressure, allergies, mental health, and bladder control can reduce sweating, increase dehydration, or lower awareness of thirst, all of which raise heatstroke risk.
- Workers on regular medication should ask their doctor or pharmacist: "Does any of my medication affect how my body handles heat?"
- Do not stop taking prescribed medication without medical advice, but do tell your doctor if you work outdoors in hot conditions.

My notes

Card 5

01 · Understanding Weather and Health

Self-checking Hydration Status

Self-check: is your body dehydrated?

Dehydration when working outdoors is dangerous but can be easily prevented if you know how to check yourself. Below are three simple methods you can use immediately.

Three quick checks

- Check urine colour, a useful sign
- Pinch the skin on the back of your hand, to check skin elasticity
- Check your mouth, see if it feels dry

> *After working for a while, you really need to drink some water. If you don't drink water, your whole body feels exhausted.*
>
> **Worker's account** · Porter, Ho Chi Minh City

Detailed checking methods

1. Checking urine colour

Urine colour	Condition	What to do
Clear / very pale yellow	🟢 **Well hydrated**	Continue drinking water regularly
Light yellow	🟡 **Normal**	Maintain regular water intake
Dark yellow	🟠 **Mild dehydration**	Drink 1-2 cups of water immediately
Orange / brown	🔴 **Severe dehydration**	Rest, drink water slowly, find shade; if urine stays dark and you also have muscle pain or severe weakness, go to a health facility
No urination for more than 4 hours	🟣 **Dangerous**	Go to a health station immediately

2. Skin pinch test (skin elasticity test)

- Gently pinch the skin on the back of your hand, hold for 2 seconds, then release
- Observe how long it takes for the skin to return to normal

How fast the skin returns	What it may mean
Goes back immediately	Usually a good sign, but it does not prove you are well hydrated
Goes back within a second or two	Often normal, but age, weight changes, swelling and some health conditions can change skin elasticity
Goes back slowly	May be a sign of dehydration: drink water and check the other signs
Stays pinched up for a long time	May be a sign of more serious dehydration: rest, sip water, and get medical advice, especially if you also feel weak, dizzy or confused

3. Mouth check

Mouth condition	Meaning
Moist mouth, plenty of saliva	Well hydrated
Slightly dry mouth	Mild dehydration, drink water
Dry mouth, sticky tongue	Severe dehydration, rest and rehydrate immediately

Urine colour and skin elasticity can give useful signs, but they should be read together with your symptoms (thirst, dizziness, dry mouth, weakness or tiredness), how much urine you pass, how much fluid you have lost recently, any medicines you take and any existing health conditions.

Notes for vulnerable groups

Group	Special notes
People over 50 years old	Sense of thirst decreases with age → drink water on a schedule (every 20-30 minutes) even if not thirsty
People with kidney disease	Consult a doctor about appropriate fluid intake; monitor urine colour more frequently
People with heart disease	Drink small sips; avoid drinking large amounts at once
People with diabetes	Ask your doctor how to monitor your urine and how much fluid is right for you → use all three checking methods together

My notes

1

Working Outdoors During Pregnancy

Heat, dehydration, and overexertion can affect both the mother and the baby. Pregnant workers need more frequent rest, more water, and must stop working earlier when warning signs appear.

Stop working immediately if you experience

- Dizziness or feeling faint
- Severe fatigue
- Abdominal pain or cramps
- Reduced baby movement
- Heavy sweating or no sweating
- Headache or blurred vision

Safety guidelines for pregnant workers

- Drink water every 15-20 minutes, even if not thirsty
- Rest in the shade every 30-45 minutes
- Avoid working during peak heat (10:00-15:00)
- Do not lift heavy objects
- Do not stand in the sun for long periods
- Always inform your employer, team leader, or work partner that you are pregnant
- Attend regular prenatal check-ups
- Ask your doctor or midwife how long and how hard you can work outdoors in your own situation

Emergency, seek medical help immediately if

- Fainting
- Vaginal bleeding
- Severe abdominal pain
- Baby stops moving

Remember

If symptoms do not improve after resting and drinking water → Seek medical care immediately.

My notes



An app-based motorbike taxi driver waiting for customers under the awning of a roadside shop.

1.3 Practical Protective Measures in Urban Environments

Below are specific measures to protect health, tailored for workers operating in urban environments.

Card 7

01 · Understanding Weather and Health

Choosing Safe Working Hours

1

Quick guide **Prioritise heavy work during cooler hours, early morning and late afternoon/evening.**

Smart work scheduling is a way of organising work based on daily fluctuations in weather factors (temperature, UV levels, humidity) to optimise productivity and minimise health risks for outdoor workers.

> *Around 6 a.m. I carry my trays of cakes out to sell, and by about 10 a.m. I pack up and go home. With the recent heat, I get tired easily. When it's too hot or when it rains, I go inside to take shelter.*
>
> **Worker's account** · Cake vendor, Can Tho

Safe time slots

(UV 0-5, Temperature below 32°C)

- **5:30-9:30:** Work as normal
- **16:30-18:30:** Heavy work can be carried out

Caution time slots

(UV 6-8, Temperature 32-38°C)

- **9:30-10:30:** Reduce work intensity, take a 15-minute break every hour
- **15:30-16:30:** Light work only, drink water frequently

Dangerous time slots

(UV 9+, Temperature above 38°C)

- **10:30-15:30:** Emergency work only, rest 20 minutes per hour
- Prioritise work in shaded areas or places with shelter

How to Drink Water According to the Environment

Quick guide **Drink before you feel thirsty; adjust intake based on fluid loss, drink regularly, do not drink too much at once.**

An environment-based hydration strategy is a method of determining the amount and frequency of water intake based on three main factors: ambient temperature, air humidity, and physical activity intensity. This helps maintain fluid and electrolyte balance in the body.

> *During the first phase, the group gave out water bottles. Now whenever I go to work, I bring a bottle to carry drinking water. Today it's rainy and cold, so I brought warm water and ginger to keep warm.*
>
> **Worker's account** · Street vendor (vegetables, roots and fruit), Da Nang

Water Intake by Temperature

- Below 30°C: 1 small cup per hour, approximately 200 ml
- 30-35°C: 1 large cup per hour, approximately 300 ml
- 35-40°C: 2 cups per hour, approximately 400-500 ml
- Above 40°C: 3 cups per hour, approximately 600 ml

Adjustments Based on Humidity

- Humidity above 80%: Drink an additional half small cup per hour, approximately 100 ml

Safe limits

- Do not drink more than about 1 litre (5 small cups) in one hour in total, even after adding the adjustments above
- Do not force yourself to drink more than you need: drinking too much water in a short time can cause dangerously low blood sodium (hyponatraemia)

- Plain drinking water is usually enough for workers who eat regular meals. Use ORS or electrolyte products only when needed and exactly as directed on the packaging
- If you have heart or kidney disease, or a doctor has told you to limit fluids, ask your doctor how much you should drink

Adjustments Based on AQI

AQI above 100: When air pollution is high, the respiratory tract becomes dry and easily irritated. You should drink water more frequently than usual (take small sips every 20-30 minutes) to keep the nose and throat moist, helping the body filter dust more effectively. In addition, wear an N95 respirator correctly, limit talking while outdoors, and rinse your mouth with saline after work to remove dust.

> **Note** Drinking water helps maintain health but cannot "detoxify" air pollution. The most effective measures remain reducing exposure by wearing a mask and limiting time spent outdoors.

Recommended Types of Drinks

- Clean drinking water (top priority)
- Fresh coconut water
- ORS (oral rehydration salts): a powder sachet that already contains salt and sugar in a standard formula; dissolve it in exactly the amount of clean water stated on the packet, and use it only when needed (for example after heavy sweating, vomiting or diarrhoea). Do not add extra salt or sugar

Avoid

- Gulping large amounts of very cold water at once (take small sips of cool water instead)
- Sugary fizzy drinks
- Excessive caffeine (strong coffee, strong tea, caffeinated energy drinks): water is the best choice
- Alcoholic beverages (cause severe dehydration)

Protecting the Lungs in Polluted Air

Quick guide **Choose a mask appropriate to the pollution level, wear it correctly, replace it regularly.**

Respiratory protection in polluted air refers to a set of measures using personal air-filtering equipment (face masks) that are appropriate to specific filtration standards and pollution levels, to prevent fine dust particles and toxic gases from entering the respiratory system.

> *I ride my motorbike all day, and there's a lot of exhaust fumes. But wearing a mask feels very uncomfortable, so I often take it off.*
>
> **Worker's account** · Delivery driver, Da Nang

General principle

The higher the AQI, the better the filtration required. However, you may adapt flexibly according to your actual conditions.

AQI	Recommended mask	If unavailable, can be replaced with
50-100	Standard cloth mask	Clean face covering/scarf
101-150	N95 respirator	No equivalent substitute for an N95: a medical mask or a thick two- or three-layer cloth mask only partly reduces larger dust particles; limit time outdoors
151-200	N95 respirator	No equivalent substitute for an N95: limit time outdoors and wear the best-fitting mask you have
Above 200	N95 respirator	No equivalent substitute for an N95: avoid going outdoors, or keep time outdoors as short as possible

Cost-saving tips

- Cloth masks: Wash daily, dry thoroughly, reusable
- Medical masks: replace when damp, dirty or damaged, and after 4-6 hours of use
- N95 respirators: follow the manufacturer's instructions on reuse. Store in a dry, well-ventilated place after use, and replace if damp, dirty, damaged, hard to breathe through, or no longer fitting snugly
- Homemade masks: Use thick cotton fabric folded into 2-3 layers with ties around the head, not as effective as N95, but still reduces larger dust particles

Most important note: both filtration and fit matter. A mask must fit snugly over the nose and mouth with no gaps at the cheeks, and it must also filter well enough for the pollution level (see the table above). A snug fit cannot make up for poor filtration.

Cooling the Body Quickly

Quick guide **Cool the forehead, neck, wrists and ankles quickly.**

Creating temporary cooling points is a technique to rapidly lower body temperature by cooling areas with large blood vessels close to the skin surface (neck, wrists, ankles) or by finding shaded spaces, helping to effectively reduce core body temperature.

> *During the early stages of construction, we work outdoors 100%. On very hot days, you get exhausted from the heat. Wearing many layers makes it hotter and more stifling, so I learned to use a fan-cooled jacket (air-conditioned jacket), they work very well.*
>
> **Worker's account** · Construction worker, Da Nang

Using available items

- Cold, wet towels placed on the forehead, neck, wrists or ankles
- Ice bottles rolled over the forearms and calves (Note: Always wrap ice or frozen bottles in a cloth before applying on skin. Direct contact for more than a few minutes can injure the skin.)
- Old newspapers or leaflets used as hand fans

Creating natural airflow

- Open car doors or windows to create airflow
- Stand at building corners where wind passes through
- Make use of air-conditioning airflow from shops

Cooling with water

- Sprinkle water on the pavement before working
- Spray misted water onto the body (if available)
- Soak feet or hands in cold water for 5-10 minutes

Card 11

01 · Understanding Weather and Health

Eating and Daily Routines Adapted to Weather Conditions

1

Quick guide **On hot days, prioritise foods with high water content and easy digestion.**

Adaptive eating and daily routines refer to adjusting meal portions, meal timing and food choices based on ambient temperature, to optimise digestion and maintain energy levels when working outdoors.

> *Getting a free meal today means one less meal to worry about. Selling tickets in this extreme heat is very tiring, and receiving meals means I don't have to cook at noon and can rest instead.*
>
> **Worker's account** · Lottery ticket seller, Can Tho

Adjusting meals according to weather

Hot days (above 35°C)

- Eat more small meals instead of fewer large ones
- Prioritise light foods: porridge, pho, vermicelli
- Increase high-water fruits: watermelon, oranges, lemons
- Avoid fried foods and excessive red meat (pork, beef)

High pollution days (AQI above 150)

- Increase foods rich in vitamin C: oranges, guava, tomatoes
- Eat more green vegetables: mustard greens, water spinach, bok choy
- Avoid grilled or smoky foods

Meal timing

- Eat breakfast later (7:00-8:00) to avoid early heat
- Eat a light lunch and drink plenty of water

- Eat dinner earlier (17:00-18:00) when the weather is cooler

Adaptive rest and sleep

- Go to bed 1-2 hours earlier during hot weather
- Wake up earlier to take advantage of cooler temperatures
- Take a short nap (15-30 minutes) if possible
- Take a cool shower before sleeping

Note Do not skip meals even in hot weather, the body needs energy to cope with extreme weather.

My notes



02

Identifying and Responding to Dangerous Situations

10 cards in this section

12	Recognising Heat Exhaustion and Heatstroke	55
13	Managing Heat Exhaustion and Heatstroke	57
14	Drinking Water to Prevent Heat Exhaustion	60
15	Recognising Health Impacts from Air Pollution	63
16	Managing Air Pollution-Related Poisoning	65
17	Wound Management	67
18	Burn Management	70
19	Managing Fractures and Sprains	72
20	Basic First Aid Kit	74
21	Emergency Contact Numbers	76

Even when workers understand weather-related health risks and take preventive measures, dangerous situations can still occur unexpectedly. These may include sudden heat exhaustion, breathing difficulties caused by air pollution, traffic accidents, falls, scrapes, burns, and fractures.

In such situations, the first few minutes are critical. Emergency services may take time to arrive, especially in congested urban areas. Knowing basic first aid and correct response steps can prevent a situation from becoming life-threatening (Ministry of Health, 2025). This section helps workers:

- Recognise early warning signs of emergencies,
- Take correct first-aid actions,
- Know when self-care is sufficient and when emergency services must be called,
- Respond calmly and confidently to protect themselves and others.

2.1 Heat Exhaustion and Heatstroke

Heat exhaustion (commonly called "say nắng" in everyday Vietnamese) and heatstroke are among the most dangerous conditions faced by outdoor workers, particularly during hot and humid weather. Heat exhaustion is a serious warning condition. Heatstroke is a medical emergency that can be fatal if not treated immediately.

Card 12

02 · Identifying and Responding to Dangerous Situations

Recognising Heat Exhaustion and Heatstroke

Quick guide

Heat exhaustion = tired, dizzy, but alert and able to answer clearly; Heatstroke = confusion, unusual speech, seizures, collapse, loss of consciousness or a very high body temperature → call 115 immediately, even if the person is still sweating.

Heat exhaustion and heatstroke are two stages of heat-related illness. Heat exhaustion is a condition in which the body overheats but the person is usually still alert, while heatstroke is a critical condition in which the body's temperature regulation collapses, the person may become confused or collapse, and life is at risk. Sweating cannot be used to tell the two apart: a person with heatstroke may still be sweating heavily, or may have hot, dry skin.

> *I once had a severe headache and felt dizzy. Luckily, an older worker on the team recognised the signs of heatstroke right away and moved me into the shade in time.*
>
> **Worker's account** · Construction worker, Ho Chi Minh City

Heat Exhaustion, Early signs requiring immediate action

- Abnormally heavy sweating
- Headache, dizziness, light-headedness
- Persistent thirst despite drinking a lot of water
- Abnormally rapid heartbeat
- Nausea, possibly vomiting
- Unusual fatigue and weakness
- Cool but moist skin due to sweat

Heatstroke, Severe signs, life-threatening

- Very high body temperature, with or without sweating
- Body temperature may be 40°C or higher if measured; skin may be hot and dry, or still sweaty
- Drowsy or altered mental state, incoherent speech, abnormal behaviour
- Continuous vomiting
- Seizures, uncontrollable shaking
- Rapid, shallow breathing
- Possible complete loss of consciousness

Key distinction

- **Heat exhaustion:** usually heavy sweating and cool or moist skin; headache, dizziness, nausea, thirst and weakness. The person is usually still alert.
- **Heatstroke:** confusion, unusual speech or behaviour, seizures or loss of consciousness. Skin may be hot and dry or still sweaty. This is an emergency: call 115 immediately. Do not rule out heatstroke just because the person is sweating.

My notes

Card 13

02 · Identifying and Responding to Dangerous Situations

Managing Heat Exhaustion and Heatstroke

Quick guide **Heat exhaustion: stop work, cool the body, sip cool water, never leave the person alone, and get a health check, Heatstroke requires calling 115 immediately + Cooling is the top priority.**

Managing heat exhaustion and heatstroke is an initial first-aid process consisting of three main steps: moving the victim away from the heat source, lowering body temperature using rapid cooling methods, and replenishing fluids/electrolytes. In cases of heatstroke, emergency medical services must be called immediately.

> *He immediately took me into the shade, took off my shirt and applied cold towels to my forehead and neck [...]. Thirty minutes later, I felt better.*
>
> **Worker's account** · Construction worker, Ho Chi Minh City

Managing heat exhaustion (act immediately and do not leave the person alone)

- Stop work immediately
- Move the person to a cool, well-ventilated area immediately
- Remove unnecessary clothing, especially jackets and helmets
- Start cooling the body: apply cold, wet towels to the forehead, neck, wrists, and ankles, and fan the person
- If the person is fully alert, give cool water to drink in small, frequent sips (do not drink too much or too quickly at once)
- Make sure someone stays with the person at all times to watch over and support them

- Get medical advice, or have the person assessed by health staff. If symptoms are mild, check again after 30 minutes and take the person to hospital if there is no improvement. If confusion, unusual speech, seizures, collapse, loss of consciousness or rapid worsening appears, treat it as heatstroke and call 115 immediately, without waiting 30 minutes

Managing heatstroke (medical emergency)

EMERGENCY

1. Call 115 immediately, THIS IS AN EMERGENCY
2. Cool the body by any available means:
    - Cold towels or ice packs applied to the body
    - Pour cool water over the body (avoid choking)
    - Use strong airflow or a fan
3. DO NOT give water if the person is unconscious
4. Place the person in the recovery position to prevent choking on saliva
5. Transport to the nearest hospital immediately

Important notes

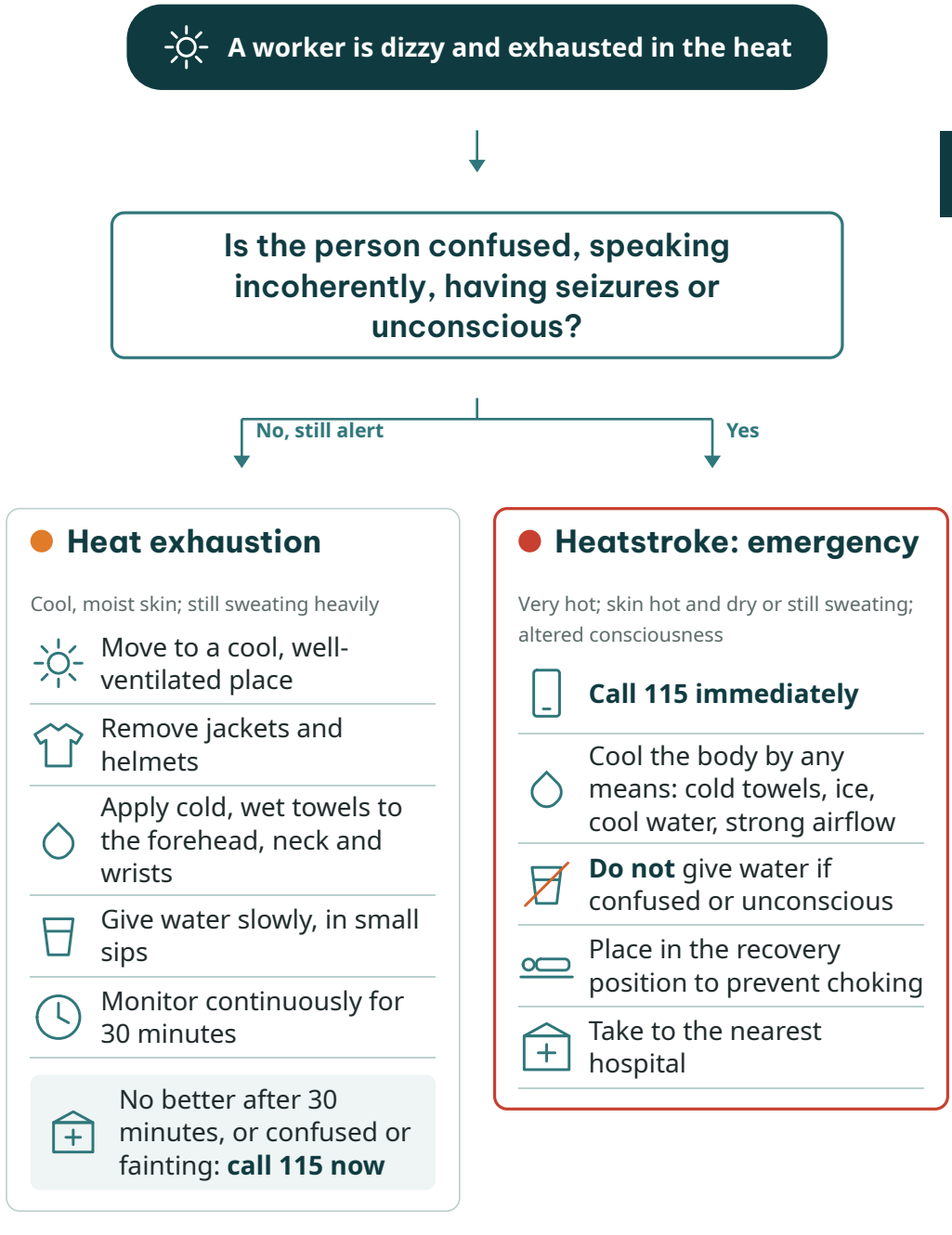
- Heatstroke can be fatal within hours if not treated promptly
- Older adults, children, and people with cardiovascular disease or diabetes are more vulnerable to heatstroke
- Alcohol consumption increases the risk of heatstroke

Remember

Listen to your body, do not push yourself once warning signs appear.

▸ Figure 2. Heat exhaustion or heatstroke? Recognition and response

Use when a worker feels dizzy, has a headache or is exhausted while working in the heat.



Source: adapted from Cards 12 and 13 of this toolkit.

Drinking Water to Prevent Heat Exhaustion

Note: This card builds on the general hydration guidance in Card 8, with additional adjustments specific to heavy labour and dusty environments where the risk of heat exhaustion is highest.

Quick guide **Drink before you feel thirsty, thirst is a sign that the body is already dehydrated.**

Drinking water to prevent heat exhaustion is a proactive and continuous hydration strategy carried out before the body shows signs of thirst, to maintain fluid balance and ensure that the body's temperature-regulation mechanism through sweating functions effectively.

> *This year is hotter than previous years. I hope for rain so the weather will be cooler.*
>
> **Worker's account** · Motorbike taxi driver, Can Tho

Water intake formula based on ambient temperature

- Below 30°C: 1 small cup/hour, approximately 200 ml
- 30-35°C: 1 large cup/hour, approximately 300 ml
- 35-40°C: 2 cups/hour, approximately 400-500 ml
- Above 40°C: 3 cups/hour, approximately 600 ml

Adjustments based on working conditions

- Heavy labour (construction, loading/unloading): add 1 small cup/hour, approximately 200 ml
- Working in dusty areas: add ½ small cup/hour, approximately 100 ml

- Heavy sweating: keep drinking plain water at the amounts above; use ORS only if needed, prepared exactly as directed on the packet
- Never drink more than about 1 litre (5 small cups) in one hour in total, and do not force yourself to drink more than you need

How to check hydration status

- Pale yellow urine: adequately hydrated
- Dark yellow urine: beginning dehydration
- Orange-yellow urine: severe dehydration
- Little or no urination: dangerous
- Pinch the skin on the back of the hand; if it goes back slowly, this may be a sign of dehydration (check the other signs too)

Recommended drinks

- Clean drinking water, boiled and cooled water (top priority)
- Fresh coconut water, replenishes electrolytes
- ORS (oral rehydration salts): a powder sachet that already contains salt and sugar in a standard formula; dissolve it in exactly the amount of clean water stated on the packet (for example after heavy sweating, vomiting or diarrhoea). Do not add extra salt, sugar or powder

Drinks to avoid

- Carbonated soft drinks: ineffective for hydration, cause bloating
- Alcohol: causes severe dehydration, increases heat exhaustion risk
- Excessive caffeine (strong coffee, strong tea, caffeinated energy drinks): limit these; water is the best choice
- Gulping large amounts of any drink at once: sip cool water slowly instead

When to drink water

- Drink before feeling thirsty, thirst indicates dehydration has already begun
- Drink evenly throughout the day; do not drink large amounts at once
- Drink before, during, and after work
- Increase intake when sweating heavily, within the limits above

My notes

Air Pollution-Related health problems 2.2

Air pollution in cities is becoming increasingly severe and is especially dangerous for workers who are exposed for long periods while working outdoors.

Card 15

02 · Identifying and Responding to Dangerous Situations

Recognising Health Impacts from Air Pollution

Quick guide **If you experience shortness of breath, chest tightness, or dizziness → leave the polluted area immediately and move to a well-ventilated place.**

When working outdoors in polluted environments (vehicle exhaust, construction dust, open burning smoke), the body may be affected at different levels of severity depending on the intensity and duration of exposure.

> *When stopping at traffic lights, many vehicles gather around. Once the exhaust builds up, even with a mask on, I can hardly breathe. The smoke and dust are suffocating. Riding is fine because there's airflow but standing still gives me headaches.*
>
> **Worker's account** · Female ride-hailing driver, Ho Chi Minh City

Acute symptoms (within the first few hours):

- Dry cough, persistent throat irritation
- Burning or watery eyes, red eyes
- Frequent sneezing, nasal congestion
- Shortness of breath, shallow breathing
- Headache, dizziness

Severe symptoms (require immediate medical attention):

- Severe shortness of breath, rapid or wheezing breathing
- Chest pain or pressure
- Abnormally fast heart rate
- Dizziness or fainting
- Blue lips or pale/blue skin (lack of oxygen)
- Vomiting due to toxic exposure

Chronic symptoms (long-term exposure):

- Persistent cough lasting weeks
- Ongoing fatigue, difficulty concentrating
- Reduced immunity, frequent colds
- Dry skin, frequent acne
- Insomnia or poor sleep quality

Groups most vulnerable to poisoning

- People with asthma or bronchitis
- Older adults and children
- Pregnant women
- Smokers

My notes

Card 16

02 · Identifying and Responding to Dangerous Situations

Managing Air Pollution-Related Poisoning

Quick guide **Do not enter areas with toxic air unless they are confirmed safe, call for emergency assistance.**

Managing air pollution-related poisoning is an initial intervention process consisting of three stages: removing the source of exposure by leaving the polluted area, resting in a clean-air environment to allow recovery, and seeking medical support if symptoms persist or worsen.

> *If I feel short of breath or chest pain, I stop and rest immediately. I don't dare to keep going.*
>
> **Worker's account** · Delivery driver, Da Nang

On-the-spot management (mild symptoms):

- Leave the polluted area immediately
- Move to a place with cleaner air (parks, green spaces)
- Sit upright and breathe slowly and deeply
- Drink water in small sips to soothe the throat
- Rinse eyes and nose with saline solution
- Rest until symptoms subside

When to go to hospital

- Shortness of breath does not improve after 30 minutes
- Chest pain or persistent rapid heartbeat occurs
- Dizziness or fainting develops
- Continuous vomiting
- Blue lips or pale/blue skin

Supportive care at home

- Gargle with warm salt water
- Eat plenty of green vegetables and vitamin C-rich fruits
- Shower thoroughly to remove dust from the skin
- Change clothes after returning home
- Good nutrition and enough water support general health, but they do not remove pollutants from the body. Reducing exposure is what protects you

Long-term prevention

- Wear appropriate masks when AQI > 100
- Avoid outdoor exercise during high pollution periods
- Increase intake of foods rich in vitamins A, C, and E
- Plant trees around the home to help filter air

Remember

If you feel short of breath, leave the polluted area immediately. Do not push through.

My notes

Common Workplace Accidents 2.3

Accidents are never desired, but when they occur, timely and appropriate first aid can significantly reduce the severity of injuries.

Card 17

02 · Identifying and Responding to Dangerous Situations

Wound Management

Quick guide **Stop bleeding → Clean the wound → Dress and secure → Go to a medical facility if the wound is deep.**

Wound management is an initial medical procedure that includes ensuring hand hygiene for the first aider, cleaning the wound with clean water, stopping bleeding through direct pressure, and applying a sterile dressing to prevent infection.

> *I was pierced in the hand by a sharp object and bleeding heavily. Luckily, my colleague helped bandage it in time.*
>
> **Worker's account** · Porter, Da Nang

General principles for wound care

- Safety first: ensure the area is safe for both the rescuer and the injured person
- Wash hands thoroughly or wear medical gloves before providing care
- Prevent wound contamination
- Bleeding control is the top priority

Minor, shallow wounds (can be self-treated):

- Wash hands with soap or wear medical gloves

- Rinse the wound with clean running water to remove dirt
- Rinse with saline solution if available
- Clean the intact skin around the wound with soap and water; an antiseptic (e.g. Betadine) may be applied to the skin around the wound only, and should not be poured into the open wound
- Cover with sterile gauze and bandage
- Change dressing daily and keep the wound dry
- Monitor for signs of infection: swelling, redness, warmth, increasing pain

Severe bleeding wounds (emergency management):

EMERGENCY
- Call 115 or go to the hospital immediately
- Apply firm direct pressure using a clean cloth (shirt, towel)
- Maintain pressure continuously for 10-15 minutes; do not lift to check
- If blood soaks through, add more dressing on top (do not remove the first layer)
- Elevate the injured area above heart level if possible
- Keep the patient warm to prevent shock
- Note the time bleeding started to inform medical staff

Penetrating wounds (object embedded):

EMERGENCY
- DO NOT remove the object
- Stabilise the object with gauze and bandage around it
- Control bleeding elsewhere if present
- Transport to hospital immediately
- Keep the patient still and minimise movement

What you must NEVER do

EMERGENCY

- Do not remove embedded objects (knives, nails, glass, etc.)
- Do not pour alcohol or hydrogen peroxide into any open wound (causes pain and further damage)
- Do not apply cotton wool directly to the wound (the fibres stick to the wound)
- Do not apply creams, oils, or grease
- Do not leave wounds uncovered for long periods

Signs of infection, seek medical care immediately

- Swelling, redness, warmth after 2-3 days
- Pus or foul smell
- Increasing pain instead of improvement
- Fever above 38°C
- Red streaks spreading from the wound

Remember

Deep wounds or bleeding that won't stop = go to hospital immediately.

My notes

Burn Management

Quick guide **Degree 1 = red skin, Degree 2 = blisters, Degree 3 = white/black skin**

Burn management is a first aid approach based on three burn degrees (degree 1: red skin; degree 2: blistering; degree 3: white or blackened skin), prioritising cooling the burn with clean room-temperature water for 20 minutes and avoiding traditional home remedies.

> *Cement splashed onto my hand, it burned badly. Pouring cold water continuously helped relieve the pain.*
>
> **Worker's account** · Construction worker, Da Nang

Burn severity classification

- **First-degree burns:** Red, painful skin, no blisters
- **Second-degree burns:** Red, painful skin with fluid-filled blisters
- **Third-degree burns:** White or blackened skin; may be painless due to nerve damage

Managing mild heat (thermal) burns, first- and second-degree (small area)

- Cool immediately under running cool water for 20 minutes
- Remove clothing and jewellery (rings, watches) near the burn before swelling occurs, unless they are stuck to the burn
- Do not use ice or ice water to cool the burn
- Do not apply toothpaste, cooking oil, butter, grease or creams
- Cover loosely with cling film or a clean, lint-free dressing
- Drink plenty of water; take pain relief if needed

- Do not break blisters

Go to hospital immediately if

- Third-degree or deep burns
- Burns larger than the size of the palm
- Burns on the face, hands, feet, or genital area
- Chemical or electrical burns
- Burns accompanied by breathing difficulty (suspected airway burns)

Chemical burns

- Rinse continuously with cool water for 30-60 minutes
- Remove contaminated clothing
- Go to hospital immediately and bring the chemical packaging for the doctor to see

Electrical burns

- Disconnect the power source before approaching the victim
- Go to hospital immediately (electrical burns are often more severe internally)
- Do not apply water if electricity is still present

Cement burns (a type of chemical burn)

- Rinse immediately with clean water (at least 15 minutes), don't wait for pain
- Remove cement and contaminated clothing.
- Seek medical help if skin becomes red, painful, or blistered.

My notes

Managing Fractures and Sprains

Quick guide **Do not realign joints yourself, Immobilise the injured area, Go to hospital immediately.**

Managing fractures and sprains is a temporary first-aid measure aimed at immobilising the injured area in the most comfortable position, stopping movement of the injured person if a severe fracture is suspected, and applying splints before transporting the victim to a medical facility.

> *I fell off my motorbike while carrying heavy goods. My leg swelled badly and I couldn't walk. I had to rely on colleagues to take me to the emergency room.*
>
> **Worker's account** · Porter, Da Nang

Signs of a fracture

- Severe pain at the injury site
- Swelling and bruising
- Deformity or misalignment
- Inability to move normally
- A possible cracking sound at the time of injury

Managing fractures

- Do not move the injured person if a spinal fracture is suspected
- Immobilise the joints above and below the fracture
- Use improvised splints (wooden boards, rulers, rolled newspapers)
- Bandage lightly, not too tightly
- Transport to hospital immediately

Signs of a sprain (injury to the ligaments around a joint)

- Pain at the joint
- Swelling, bruising and difficulty using the joint

Signs of a suspected dislocation (the bones of a joint are out of their normal position)

- Severe pain at the joint
- Visible deformity, or a joint that looks out of place
- Unable to move the joint
- Numbness, tingling, or a pale, cold or bluish limb below the injury (poor circulation)

Managing sprains

- Rest and avoid moving the injured joint
- Apply ice wrapped in a cloth (never directly on the skin) for 20 minutes, rest 20 minutes (during the first 24-48 hours)
- Apply light compression bandage to reduce swelling
- Elevate the injured area
- See a doctor for X-ray examination and treatment

Managing a suspected dislocation

- Do not try to put the joint back in place yourself
- Keep the joint still in the position you found it
- Seek emergency medical help immediately: visible deformity, severe pain, inability to move, numbness or poor circulation need urgent medical assessment

Do not

- Do not attempt to realign joints or bones yourself
- Do not give food or drink if surgery may be required
- Do not apply force to “test” whether a bone is broken

2.4 Preventing Occupational Accidents

Below are effective measures to prevent accidents that may occur during work.

2

Card 20

02 · Identifying and Responding to Dangerous Situations

Basic First Aid Kit

Quick guide **Complete, Easy to locate, Check regularly**

A basic first aid kit is a set of essential medical supplies prepared in advance, including dressing materials, disinfectants, and basic medicines, to provide timely care for common injuries and illnesses before accessing professional medical services.

> *I don't have any first aid kit at all. When I get injured, I have to ask others for help or go to a pharmacy myself.*
>
> **Worker's account** · Painter, Da Nang

Essential items to have

- Sterile bandages and gauze (various sizes)
- Medical adhesive tape
- Antiseptics: Betadine, 70% alcohol
- Scissors, small tweezers
- Medical gloves
- Surgical masks
- Pain relief medicine: Paracetamol
- Saline solution
- Instant ice pack

Basic medicines

- ORS sachets: rehydration and electrolytes when needed; mix exactly as directed on the packet
- Medicated oil, eucalyptus oil
- Salonpas patches (for muscle pain relief)
- Cough medicine, throat lozenges

Checking and storage

- Check expiry dates every 3 months
- Always check expiry dates and replenish immediately after use
- Store in a dry, cool place
- Clearly write down the emergency number 115

My notes

Emergency Contact Numbers

Quick guide **Save 115, local police, local health station; Know how to call; Do not hesitate to call when needed**

Emergency contact numbers are a list of free 24/7 hotlines for emergency medical services, police, and fire services, saved and readily available for immediate use in emergencies that threaten health and life.

> *I've saved 115 on my phone, but I've never had to use it. I hope I never have to call.*
>
> **Worker's account** · Female street vendor, Da Nang

Important contact numbers

- Medical emergency: **115**
- Police: **113**
- Fire service: **114**
- National emergency switchboard (incidents, disasters, rescue): **112**

Information to prepare when calling emergency services

- Exact location (house number, street name, ward/commune)
- Condition of the patient (conscious, unconscious, bleeding, etc.)
- Cause of the incident
- Caller's phone number
- Number of casualties

Tips for effective emergency calls

- Speak slowly and clearly
- Answer all questions from emergency staff fully
- Do not hang up until you are instructed to do so
- Have someone guide the ambulance at the entrance or alley



03

Protective Equipment

5 cards in this section

22	Proper Use of Face Masks	83
23	Budget Sun Protection Tips	85
24	Temporary DIY Protective Gear	88
25	Building a Family First-Aid Kit	90
26	Portable First-Aid Kit for Workers	92

Protective equipment helps reduce the health risks that outdoor workers face every day, including heat, dust, pollution, noise, sharp objects, and traffic hazards. While some workers believe protective gear is uncomfortable or unnecessary, using the right equipment correctly can prevent serious injury, illness, and long-term health problems (National Assembly of Vietnam, 2015).

Protective equipment should be seen as an investment in health and work capacity. Even simple and low-cost items can significantly reduce risk when chosen appropriately and used correctly.

This section explains

- Protective equipment needed for different occupations,
- How to use protective gear properly,
- Low-cost and temporary alternatives when standard equipment is not available,
- How to prepare basic first-aid kits for work and home.

3.1 Occupation-Specific Protective Gear

Different jobs expose workers to different risks. Choosing equipment that matches the work you do is essential for effective protection.

3.1.1 Motorbike Taxi Riders and Ride-Hailing Drivers

Drivers face traffic pollution, extreme heat, and accident risks daily. Protective equipment not only safeguards health but also improves work efficiency.

Mandatory items

- Certified helmet (QCVN 02:2008/BKHCN, issued in 2008): Must have a quality certification sticker; replace the helmet if it cracks or after a serious impact.



An app-based motorbike taxi driver with helmet, face mask and sun-protective jacket.

- Fabric face mask, 3-5 layers: if possible, replace after 8-12 hours of use.
- Long-sleeved cotton jacket: Breathable, light-coloured to reflect heat, machine washable.

Recommended additional items

- UV400+ sunglasses: Protect eyes from UV rays and dust; choose lenses that do not distort vision.
- Driving gloves: Prevent slipping when hands sweat and improve grip on the handlebars.
- Non-slip rain boots: Rubber soles with anti-slip grooves, ankle high.

Effective use tips

- Replace the mask immediately if it develops an unpleasant smell.
- Wash jackets 2-3 times per week to remove dust and dirt.
- Store sunglasses in a hard case to prevent scratches.



A construction worker covering the face with a scarf and mask against sun and dust.

3.1.2 Construction Workers and Porters

Construction sites are hazardous environments with dust, noise, falling objects, and chemicals. Protective equipment here is not only necessary but also legally required.

Mandatory items

- Ventilated safety helmet: Choose one with an adjustable chin strap; light colours for easy visibility.
- S3 safety shoes: Puncture-resistant sole, steel toe cap, anti-slip and anti-static properties.
- P2 dust mask: Designed for cement dust; replace after 4-6 hours.
- Safety goggles: Protect against dust, UV rays, and flying debris; with a strap to prevent falling off.

Recommended additions

- High-visibility clothing: Helps machinery operators see workers easily, especially near major roads.
- Cut-resistant gloves: Protection level 3-5 depending on the task; replace if torn.
- Back support belt: Reduces strain on the spine when carrying heavy loads; adjust tightness appropriately.



A vendor at a Da Nang fish market with conical hat, face mask and rubber boots.

Important notes

- Inspect protective equipment before each shift.
- Do not use damaged or expired equipment.
- Comply with site-specific regulations regarding protective gear colours.

Street Vendors 3.1.3

Street vendors move around a lot under the sun and are exposed to traffic fumes and dust and to unpredictable weather. Protective items need to be light and convenient, yet still effective. Essentials:

- Wide-brimmed hat or conical hat: Covers the face, neck, and shoulders; choose one with a chin strap to prevent being blown away.
- Medical mask: Replace after 4-6 hours or when damp; carry spares.
- UPF 50+ sun and rain umbrella: Lightweight, foldable, dual-purpose.
- Light-coloured long-sleeved clothing: Cotton or breathable polyester to reflect UV rays.

Additional conveniences

- Protective tarpaulin for goods: Shields products from sun and rain, extending shelf life.
- Compact folding stool: Allows rest during quiet periods, reducing leg fatigue.
- Insulated cooler bag: Keeps food and drinks fresh, improving product quality.

Optimisation tips

- Choose multi-functional items to reduce carried weight.
- Prioritise light colours for better visibility and heat reflection.
- Prepare spare items for the rainy season.

Card 22

03 · Protective Equipment

Proper Use of Face Masks

Quick guide **Wash hands before wearing; cover nose and mouth fully; do not touch the front of the mask.**

Proper use of face masks means wearing the mask so that it fits snugly over both the nose and mouth without gaps, keeping it on throughout exposure to polluted environments, and replacing it when the mask becomes damp or dirty to maintain optimal filtration efficiency.

> *I wear a conical hat and a mask covering almost my entire face to avoid the sun, leaving only my eyes uncovered.*
>
> **Worker's account** · Rice paper vendor, Ho Chi Minh City

Mask replacement time

- **Medical mask:** 4-6 hours of continuous use
- **3-5 layer absorbent fabric mask**: 8-12 hours, then wash and reuse
- **Fabric mask:** Wash thoroughly after each day of use
- **Damp medical mask:** Replace at once, regardless of time
- Replace any mask or respirator that is wet, dirty, damaged, hard to breathe through, or no longer fits snugly on your face

Correct way to wear a mask

- Wash hands thoroughly with soap or hand sanitiser
- Check the inner and outer sides to wear it correctly
- Place the ear loops on and press the metal strip (if any) to fit snugly over the bridge of the nose
- Pull the mask down to fully cover the chin

- Check that there are no gaps around the edges

Common mistakes

- Wearing the mask below the nose greatly reduces protection, because polluted air can enter through the uncovered part
- Touching the front of the mask contaminates it and reduces its lifespan
- Wearing a mask for too long: reduces filtration efficiency and may cause breathing discomfort
- Reusing medical masks reduces their ability to filter pollutants

How to remove a mask safely

- Wash hands before removing the mask
- Remove using the ear loops only, without touching the front
- Dispose immediately in a covered bin
- Wash hands again after disposal

Important notes when using face masks

- Always carry spare masks
- Do not store masks in trouser pockets for long periods (they become dirty and lose shape)
- Wet masks (from sweat or rain) significantly reduce fine dust filtration → replace with a dry mask for better protection
- People with lung disease or asthma should consult a doctor about the most suitable type of mask
- A medical (surgical) mask is not the same as an N95 or other certified respirator: they differ in design, filtration, fit and intended use. Wearing two medical masks does not make them equivalent to an N95

DIY Simple Protective Equipment 3.2

Protective equipment is extremely important and necessary, especially standard-compliant gear. However, when proper equipment is not available, this section provides several alternative solutions to help workers protect themselves while they still must work.

Card 23 · 03 · Protective Equipment

Budget Sun Protection Tips

Quick guide **Use what's available; choose breathable materials, avoid heat-absorbing ones; safe and cost-saving.**

Budget sun protection tips are a set of solutions that make use of household items (wet towels, frozen water bottles, long-sleeved clothing) to create heat barriers or cool the body, helping to reduce the impact of heat without requiring major financial investment.

> *I don't have money to buy expensive gear. Using a wet towel on my neck or rolling a frozen water bottle on my arms and legs already feels very cooling.*
>
> **Worker's account** · Mobile fruit vendor, Da Nang

Using items available at home

- Wet towel on the neck: a cool, wet towel placed on the skin can help cool the body and reduce the feeling of heat
- Frozen water bottle: Portable cold pack, roll over forearms and calves
- Light-coloured long-sleeved shirt: More effective against sun exposure than T-shirts

- Old socks filled with ice: Flexible cold packs, softer than commercial ice packs

Reasonable rest times

- 10-11 a.m.: Rest when UV starts rising sharply, avoid heavy work
- 12-2 p.m.: Peak UV hours, rest in shaded areas
- 2-3 p.m.: UV remains high but begins to decrease; light work is possible
- Find mobile shade: Under umbrellas, tarps, parked trucks, shop awnings

Instant cooling tips

- Apply cold wet towels to the neck, wrists, and knees (areas with large blood vessels)
- Drink cold water in small sips, hold it in the mouth for a few seconds before swallowing
- Sit under fans or near shop air-conditioning vents
- Wash face and hands with cold water every 30 minutes
- Soak feet in cold water when possible

Electrolyte drinks

- Plain drinking water is usually enough if you eat regular meals
- If you need an electrolyte drink, use ORS (oral rehydration salts) prepared exactly as directed on the packet
- Do not add extra salt, sugar or powder to drinks or to ORS, and do not make up your own salt or sugar mixtures. Follow the packet instructions on how long a prepared drink can be kept

Using public spaces

- Petrol stations: Shelters, seating, often with fans
- Banks: Air-conditioned, with waiting chairs
- Hospitals: Cool waiting halls, with free drinking water
- Pagodas and communal houses: Quiet, cool spaces for rest

Remember

Prevention is better than cure, small investments in health today.

My notes

Card 24 · 03 · Protective Equipment

Temporary DIY Protective Gear

Quick guide **Temporary use only, cannot replace certified protective gear; check durability before use.**

Temporary DIY protective gear refers to using available substitute items (towels, old socks, plastic bags) to create basic protective equipment in emergency situations. These are for short-term use only and cannot replace standard, certified occupational safety equipment.

> *When there are no gloves, we use old socks to cover our hands; no masks, we wrap scarves. Everything must be taken care of by us.*
>
> **Worker's account** · Porter, Da Nang

DIY emergency fabric mask

- Take a clean handkerchief or cotton shirt
- Fold in half to create 2-3 layers
- Use elastic bands or shoelaces as ear loops
- Wash thoroughly after each use

DIY protective gloves

- Plastic bags + tape: Prevent hands from getting wet
- Old socks: Protect hands when handling rough materials
- Rubber dishwashing gloves: Can be used for various tasks

DIY eye protection

- Prescription glasses + tape: Seal the edges to prevent dust entering

- Transparent face shield: Cut from a large plastic bottle as a temporary substitute

DIY support belt

- Thick towel + belt: Wrap around the waist and fasten moderately tight
- Old sweater: Wrap around the waist to support the back during lifting

DIY sunshield hat

- 2 cardboard boxes, scissors, stapler or double-sided tape
- Join the two pieces into a hat wider than the shoulders by about two hand spans, to block morning and afternoon sun
- Cooler than insulated plastic hats sold in markets

> *Regular hats are still hot, so I came up with this myself to improve it.*
>
> **Worker's account** · Outdoor worker, Da Nang

Safety notes

- DIY items are for temporary use only and cannot replace certified protective equipment
- Check durability before use
- Replace with genuine, standard-compliant equipment as soon as conditions allow

My notes

3.3 Basic First-Aid Kits

This section outlines the essential components of different types of first-aid kits that are practical and useful for everyone.

Card 25 · 03 · Protective Equipment

3

Building a Family First-Aid Kit

Quick guide **Complete; easy to find; check regularly; Store in a dry place, out of children's reach.**

A family first-aid kit is a basic medical kit prepared and stored at home, containing essential bandaging supplies, medications, and tools to manage common injuries or illnesses before accessing professional healthcare services.

> *There's no medicine stored at home. Whenever someone gets sick, we must rush to a pharmacy; only serious cases go to the hospital.*
>
> **Worker's account** · Female street vendor (vegetables, roots and fruit), Da Nang

Wound care and hygiene

- Sterile gauze rolls (5 cm) × 5 rolls: For small to medium wounds
- Medical cotton wool (100 g): Absorbing blood, cleaning wounds
- Adhesive bandages (Band-Aids), various sizes: Daily minor cuts
- Small stainless-steel scissors: Cutting bandages or clothing if needed
- Tweezers: Removing debris or glass fragments from wounds

Antiseptics and cleaning supplies

- 70% alcohol (100 ml): Disinfecting skin around wounds (not for direct use on open wounds)

- Betadine (30 ml): Antiseptic for the skin around a wound
- Normal saline (100 ml × 2): Safe for eye washing and wound cleaning
- Small antibacterial soap: Handwashing before first aid

Basic medications

- Paracetamol 500 mg × 10 tablets: Fever and pain relief
- ORS packets × 5: Rehydration and electrolyte replacement when dehydrated. Mix exactly as directed on the packet; do not add extra salt or sugar
- Medicated oil and eucalyptus oil: For motion sickness
- Salonpas patches: Muscle pain and mild sprains
- Cough lozenges: Relieving cough and dry throat

Supporting tools

- Digital thermometer: Quick and accurate temperature measurement
- Small LED flashlight: Lighting during first aid in low-light conditions
- Transparent plastic bags: Protecting the kit from water
- Pen and paper: Writing emergency contact information
- Medical gloves: Protecting the first aider

How to organise the kit

- Use a hard plastic box with compartments
- Label medicines clearly with names and expiry dates
- Divide into three sections: Dressings, Oral medicines, Tools
- Store in a dry, cool place away from direct sunlight
- Keep out of children's reach but easy to access in emergencies

Inspection and maintenance

- Check expiry dates every 3 months
- Replace expired medicines immediately
- Refill items after use
- Clean the container regularly to prevent dust buildup
- Ensure all family members know how to use it

Card 26

03 · Protective Equipment

Portable First-Aid Kit for Workers

Quick guide **Compact; all essentials included; easy to carry. Always take it when going to work.**

A portable first-aid kit for workers is a compact, easy-to-carry medical kit designed specifically for outdoor workers, containing essential items to manage common injuries and illnesses directly at the workplace.

> *I don't usually carry medicine with me. If I get hurt, I either run to a pharmacy or rely on co-workers.*
>
> **Worker's account** · Construction worker, Da Nang

Minimal kit (to keep on a motorbike)

- 5 adhesive bandages
- 1 roll of gauze bandage (5cm)
- 1 small bottle of Betadine (10ml)
- 3 Paracetamol tablets
- 1 ORS packet
- 1 pair of medical gloves

Basic kit (for construction sites)

- 10 adhesive bandages (various sizes)
- 2 rolls of gauze bandage (5 cm and 7 cm)
- 1 pack of medical cotton (50 g)
- 1 bottle of Betadine (30 ml)
- 1 bottle of 70% alcohol (50 ml)
- 5 Paracetamol tablets
- 3 ORS packets

- 1 small scissors and tweezers
- 3 pairs of medical gloves
- 1 small flashlight

Advanced kit (for work teams)

- All items from the basic kit
- Add a thermometer
- Pain relief patches
- Medicated oil
- Triangular bandage (for fracture immobilisation)
- Instant ice pack
- List of emergency contact numbers

Principles of use

- Prioritise the safety of first aider
- Assess the situation before acting
- Call emergency services (115) for serious cases
- Do not perform procedures you are unsure about
- Record the time and actions taken to inform medical staff

Storage and care of portable kits

- Use waterproof bags
- Check contents before each work shift
- Refill immediately after use
- Do not leave the kit in a hot vehicle
- Write family members' phone numbers and 115 on the lid of the kit

Remember

Being prepared means being ready, a first-aid kit, however small, can save a life.



04

Technology-Based Support Applications

5 cards in this section

27	Using Mobile Phones for Health Support	97
28	Searching for Reliable Medical Information	100
29	Using Mobile Phone Camera Features for Health Support	102
30	Personal Information Security	104
31	Community Connection and Support	106

Mobile phones can be powerful tools for protecting health at work. In addition to communication, phones can help workers check weather conditions, monitor air quality, locate nearby health services, and contact emergency services quickly.

Many workers already own a smartphone, but not all are familiar with using applications for health and safety. Some worry that apps are complicated, use too much mobile data, or drain the battery. When used correctly, however, mobile applications can help prevent danger from the outset, rather than only helping to respond after it happens.

This section explains

- How mobile phones can support health and safety at work,
- Useful features for outdoor workers,
- How to save battery and mobile data,
- How to prepare phones for emergency situations.

Health Support Applications for Workers 4.1

Weather and Environmental Monitoring Applications 4.1.1

Knowing weather conditions and air quality in advance helps workers prepare better for their workday and avoid dangerous situations.

User-Friendly Design 4.1.2

- Simple interface: large buttons, clear colours
- Large text, easy to read even under strong sunlight
- Intuitive icons instead of complex text
- Clear Vietnamese voice guidance

4.1.3 24/7 Support Features

- Online health consultations at any time
- Step-by-step first aid guidance via messages
- Reminders to drink water and take breaks based on personal schedules
- Quick connection to the emergency hotline 115

4.1.4 Works Even Without Internet Access

- Storage of basic first aid information
- Emergency handling instructions
- Contact list of important emergency phone numbers
- Offline maps to the nearest hospital

4.2 Key Features Supporting Outdoor Workers

---

1. Weather and Environmental Alerts

- Hourly updates on temperature and humidity
- UV index and AQI with clear colour-coded warnings
- 3-7 day forecasts to support work planning
- Immediate notifications when dangerous weather conditions occur

2. Essential Service Maps

- Nearest hospitals, health stations, and 24/7 pharmacies
- Public free drinking water points
- Cool resting places with air conditioning: shopping centres, banks
- Clean public toilets

3. Community-Based Support

- Connection with colleagues in the same area

- Sharing experiences and practical safety tips
- SOS call feature for emergencies
- Job information and new work opportunities

Card 27

04 · Technology-Based Support Applications

Using Mobile Phones for Health Support

Quick guide **Install useful applications; save emergency numbers; save battery.**

Using mobile phones for health support refers to the use of applications and features on smartphones (weather forecasts, air quality monitoring, locating medical facilities, calling emergency services) to monitor and manage health, especially useful for outdoor workers.

> *I don't follow weather forecasts on my phone because I don't use a smartphone.*
>
> **Worker's account** · Motorbike taxi driver, Can Tho

Useful applications for workers

- AirVisual: Check real-time air quality
- Weather forecast apps (AccuWeather, Weather Underground): Hourly detailed forecasts
- Google Maps: Find nearby hospitals and pharmacies
- Zalo, Viber: Emergency contact with family
- YouTube: Watch first aid instructional videos

Tips to save battery and mobile data

- Download apps and update them when free WiFi is available
- Turn off GPS when not needed to save battery
- Use battery-saving mode when working all day

- Carry a spare battery or power bank
- Use airplane mode when the signal is weak to avoid battery drain

How to find free WiFi

- Convenience stores: Circle K, FamilyMart, 7-Eleven
- Fast-food restaurants: McDonald's, KFC, Lotteria
- Shopping centres, banks
- Libraries, public cultural centres
- Large petrol stations

Important phone numbers to save in advance

- Medical emergency: 115
- Police: 113
- Fire services: 114
- National emergency switchboard: 112
- Ministry of Health feedback hotline (charged call): 1900 9095

How to call emergency services effectively

- Stay calm, speak slowly and clearly
- State the exact address immediately (house number, street name, ward/commune)
- Briefly describe the patient's condition
- Listen and answer all questions from medical staff
- Do not hang up until permitted

Backup arrangements when no smartphone or app is available

Not every worker owns a smartphone or feels confident using applications. The following arrangements help ensure that workers can still protect themselves when they have no device, the battery is flat, or the network is down:

- Memorise or carry a paper card listing the four core emergency numbers: 115 (medical), 113 (police), 114 (fire and rescue)

and 112 (national emergency switchboard). Calls to these numbers are free and can be made from a basic phone.

- Agree on a daily check-in time with a peer or family member: a brief call or message at the start and end of the shift creates a simple human safety net that does not depend on any application.
- Keep a small notebook with the addresses of the nearest hospital, ward or commune health station, 24/7 pharmacy, and the contact number of a colleague who can help quickly when needed; update it whenever you change working area.
- Learn body-based warning signs covered in Cards 4 and 12 so that the decision to stop work, rest or seek help can be taken based on physical signals alone, without relying on any forecast or alert from a device.
- Where peer groups operate (e.g. construction sites, motorbike taxi stands, market porters), nominate one colleague per shift as the "signal receiver" who holds a charged phone and shares weather alerts verbally with the rest of the group.

Remember

A phone can save lives, learn how to use it properly.

My notes

Card
28

04 · Technology-Based Support Applications

Searching for Reliable Medical Information

4

Quick guide **Choose reputable sources; cross-check information; ask a doctor when in doubt.**

Searching for reliable medical information is the skill of identifying and selecting accurate health information from reputable medical websites, official health authorities, or certified professionals, to avoid misinformation and false content that may harm health.

> *I see a lot of information online, but I don't know which ones to trust. Sometimes following them makes things worse.*
>
> **Worker's account** · Female street vendor (vegetables, roots and fruit), Da Nang

Reliable information sources

- Ministry of Health website: moh.gov.vn
- Health Information Portal: suckhoedoisong.vn

Leading hospitals

- National Hospital of Dermatology and Venereology: dalieu.vn
- National Hospital of Obstetrics and Gynaecology: benhvienphusantrunguong.org.vn
- Ho Chi Minh City Oncology Hospital: benhvienungbuou.vn

Medical universities

- Hanoi Medical University: hmu.edu.vn
- University of Medicine and Pharmacy at Ho Chi Minh City: ump.edu.vn

Medical organisations

- Vietnam Medical Association: tonghoiyhoc.vn

- Vietnam Association for Medical Education: vame.org.vn

Private hospitals

- Vinmec International General Hospital System: vinmec.com
- Tam Anh General Hospital System: tamanhhospital.vn

Signs of reliable information

- Author is identified as a doctor or medical professional
- References to scientific research are clearly cited
- Objective language, no drug or service advertising
- Recently updated
- Does not promise “100% cure” or “miracle secrets”

Warnings about misinformation

- Avoid social media content with unclear sources
- Do not trust “traditional remedies” without evidence
- Be cautious with information from sales-oriented websites
- Consult a doctor when encountering conflicting information

Effective searching tips

- Use simple keywords: “heatstroke treatment”, “shortness of breath due to pollution”
- Add “site:moh.gov.vn” to search within the Ministry of Health website
- Look for instructional videos from reputable hospitals
- Compare information from 2-3 different sources

My notes

Card
29

04 · Technology-Based Support Applications

Using Mobile Phone Camera Features for Health Support

Quick guide **Take clear photos, ensure good lighting, send them to medical staff when needed.**

Using a mobile phone camera for health support is a method of recording medical information (injuries, symptoms, medications, first aid instructions) to monitor disease progression, store personal medical records, and support clear and accurate communication with doctors.

> *My child reminds me to regularly take photos of the wound to see if it's healing. If anything looks unusual, I show it to the doctor.*
>
> **Worker's account** · Porter, Da Nang

Taking photos to monitor health

- Photograph wounds to track the healing process
- Photograph medicines to remember names and dosages
- Photograph test results for storage
- Photograph of unusual skin symptoms to ask a doctor

Recording first aid videos for learning

- Record first aid instruction videos for later review
- Record the steps of wound bandaging
- Save videos of neck and shoulder massage for pain relief
- Record clips of mid-work exercise

Using the flash

- Examine the throat when having a sore throat
- Check wounds in dark places

- Provide lighting when giving first aid at night
- Emergency distress signal

Health measurement apps using the camera

- Measure heart rate via camera (finger pulse apps): InPulse, We Do Pulse, ...
- Basic vision testing (Eye test, ...)

Important notes

- App results are for reference only
- They do not replace medical examinations with doctors
- Always compare with specialised medical devices
- Consult a doctor before fully trusting the results
- For body temperature and blood pressure, use a validated digital thermometer and a validated blood pressure monitor, not a phone camera or a general-purpose app

My notes

Card 30

04 · Technology-Based Support Applications

Personal Information Security

Quick guide **Install trusted apps only; do not share passwords; delete when not in use.**

Personal information security refers to a set of measures to protect sensitive data related to health, medical images, and identifying information when using health applications, including installing apps only from trusted sources, not sharing passwords, and deleting data no longer in use.

> *My kid often borrows my phone to play games and installs random things, then ads pop up every now and then.*
>
> **Worker's account** · Motorbike taxi driver, Can Tho

Information that should be protected

- ID card/citizen ID numbers, health insurance numbers
- Medical records, medications being used
- Phone number, home address
- Photos of injuries, test results
- Financial information

How to protect information

- Download apps only from the official CH Play or App Store
- Carefully read access permissions before installing
- Do not share passwords with others
- Log out after using public devices
- Delete apps that are no longer used

Signs of unsafe applications

- Request too many unrelated access permissions

- No information about the developer company
- Excessive advertising or sensitive content
- Request money transfers or account information
- Send unwanted messages or calls

If information is compromised

- Change passwords immediately
- Notify the bank if financial information is involved
- Report to authorities if necessary
- Temporarily block credit cards/ATM cards
- Monitor accounts to detect unusual activity

My notes

Card
31

04 · Technology-Based Support Applications

Community Connection and Support

Quick guide **Share experiences; help one another; stay safe when connecting.**

Community connection and support refer to participating in online groups based on occupation or residential areas to share work experience, issue danger warnings, exchange health information, and build mutual support networks among workers in similar circumstances.

> *There's a Zalo group for motorbike taxi drivers. If anyone has an issue, they share it. We help each other a lot.*
>
> **Worker's account** · Traditional motorbike taxi driver, Da Nang

Joining online support groups

- Occupation-based Facebook groups (construction workers, drivers, sellers, ...)
- Occupational health forums
- Safety experience-sharing groups
- Job-seeking support communities

Ways to contribute to the community

- Share useful experiences on occupational safety
- Warning about dangerous locations or times
- Guide colleagues in using useful applications
- Recommend good and reputable medical services

Receiving and providing emergency support

- Share location when in difficulty
- Call emergency services for others when needed

- Give directions to the nearest hospital
- Contact the victim's family

Safety principles when connecting

- Do not meet strangers in isolated places
- Do not share overly personal information
- Verify information before trusting it
- Report on suspicious behaviour
- Maintain boundaries between support and privacy

Using technology to improve knowledge

- Watch basic first aid instructional videos
- Participate in online occupational safety courses
- Read guidance documents from official authorities
- Share learned knowledge with colleagues

My notes



05

Accessing Healthcare Services

5 cards in this section

32	What to Prepare Before a Medical Visit	110
33	Choosing a Suitable Time for a Medical Visit	112
34	Communicating Effectively with Doctors	114
35	Understanding Types of Health Insurance	116
36	How to Register for Health Insurance	118

After learning how to protect yourself and handle emergencies, it is important to know how to use healthcare services properly. Many workers delay seeing a doctor because they think it is complicated or do not know how to explain their health problems clearly.

In reality, medical visits are much easier when you prepare in advance and communicate clearly. Being prepared saves time, helps doctors understand your condition better, and leads to more accurate diagnosis and treatment. Vietnam's healthcare system offers many options, including public and private facilities, free services, and health insurance. Knowing where to go and how to use your insurance can help you get care without unnecessary financial stress (Duong Phuc Lam et al., 2022).

Clearly explaining work conditions and job-related symptoms is especially important. This section guides you on how to prepare for a medical visit, talk effectively with doctors, and use available health services and support programmes. Remember, your health is your most valuable asset, seeing a doctor is your right and an important step in taking care of yourself.

Card 32

05 · Accessing Healthcare Services

What to Prepare Before a Medical Visit

Quick guide **Bring ID, health insurance, list of symptoms & medicines; prepare questions in advance.**

Preparing before a medical visit is the process of gathering all necessary medical documents (health insurance card, previous medical records), noting symptoms in detail over time, and listing questions to discuss with the doctor. This helps make the most of the consultation time and supports more accurate diagnosis.

> *It's the same for everyone. Most people use health insurance when they go to the hospital, so you have to take a number and wait a very long time for your turn.*
>
> **Worker's account** · Porter, Can Tho

Documents to bring

- Citizen ID card or VNeID app on your phone
- Health insurance card (if available)
- Medical booklet or previous medical records (if any)
- Current prescriptions (write down medicine names and dosages)
- Recent test results or X-rays (if available)
- Referral letter from another doctor (if you have been referred to another facility)

Key information to remember

- When did the symptoms start? (date and time if possible)

- Level of pain or discomfort (scale from 1-10, where 10 is the worst)
- Medicines taken or self-treatment methods already tried
- Working conditions: job type, environment, hours worked per day
- Personal and family medical history

How to record symptoms effectively

- Write down anything unusual compared to your normal condition
- Take photos of wounds, rashes, or skin changes
- Note the exact time symptoms appear or become worse
- List questions to ask the doctor so you do not forget
- Record possible related factors: food, environment, weather

Mental preparation tips

- Go when you have enough time, do not rush
- Bring a family member if you need support
- Be prepared that additional tests may be required
- Do not worry too much, most health problems are treatable

Remember

Good preparation helps doctors diagnose faster and more accurately.

My notes

Card 33

05 · Accessing Healthcare Services

Choosing a Suitable Time for a Medical Visit

Quick guide **Avoid peak hours; arrive early; book in advance if possible.**

Choosing a suitable time for a medical visit means selecting the right time of day and day of the week based on patient flow (avoiding peak hours and Mondays), helping to reduce waiting time and allowing doctors to examine you more thoroughly.

> *Stopping by a clinic at the doctor's home after work is more convenient, I don't have to take time off. Going to a hospital can take a whole day off work.*
>
> **Worker's account** · Construction worker, Da Nang

Busy times to avoid

- Early morning: 8:00-10:00 (many people visit before work)
- Late afternoon: 16:00-18:00 (after work hours)
- Mondays: Avoid all day (patients accumulated from the weekend)
- After long public holidays: Often overcrowded because many people have put off their visits

Best 'golden hours' for visiting

- Early morning: 6:30-7:30 (arrive early, shorter queues)
- Late morning: 10:30-11:30 (after morning peak)
- Early afternoon: 13:30-15:00 (quieter, doctors less rushed)
- Tuesday to Friday: Usually less crowded than Monday

Special situations

- Emergencies: Go immediately, do not wait for the right time
- Specialist visits: Book an appointment by phone or online

- Follow-up visits: Arrive on time as scheduled by the doctor to avoid losing your turn
- Routine check-ups: Book mid-week, mid-month if possible

Time-saving tips

- Call ahead to check how busy the clinic is
- Arrive 15-30 minutes early for registration
- Bring a book or phone for entertainment while waiting
- Ask staff about estimated waiting time

Remember

The right timing means faster and more thorough care.

My notes

Card 34

05 · Accessing Healthcare Services

Communicating Effectively with Doctors

Quick guide **Be specific; use simple words; answer honestly.**

Effective communication with doctors is the skill of describing symptoms clearly and accurately (location, severity, timing), answering questions fully, and actively asking about diagnosis and treatment when something is unclear.

> *When I see a doctor, I don't know how to explain things clearly. I just say I feel tired or in pain.*
>
> **Worker's account** · Female street fruit vendor, Da Nang

Describe symptoms in a logical order

- Main problem: "Doctor, I have a headache."
- Duration: "For the past three days" or "Since Monday"
- Severity: "It's quite bad, about 7 out of 10"
- Nature of pain: "Sharp pain in waves" or "Dull, constant pain"
- Possible cause: "After working in the sun" or "I'm not sure"

Use simple, easy-to-understand words. Instead of medical terms, describe symptoms in everyday words, such as

- "Headache", "shortness of breath", "nausea", "fatigue"
- "High fever", "dizziness", "stomach pain", "persistent cough"
- "Fast heartbeat", "insomnia", "feeling weak"

Link symptoms to work and working conditions

- "I work in construction, outdoors 8-10 hours a day."
- "I'm a motorbike taxi driver and breathe in a lot of dust."
- "I sell goods on the street with little chance to rest in the shade."
- "I work night shifts and don't get enough sleep."

Example of a complete description

Worker's account

"Doctor, I've had a headache since Monday, so it's been three days. The pain is quite strong, about 7 out of 10. It comes in sharp waves, not constant. I'm a construction worker, and for the past few days the temperature has been 39-40°C, but I still had to work outdoors from 7 a.m. to 5 p.m."

How to answer doctors' questions

- Listen carefully
- Answer directly, without unnecessary details
- Be honest and accurate, do not hide information
- If you do not remember clearly, say: "I don't remember exactly"

Examples of good answers

Doctor: "Do you drink enough water?"

Answer: "About 2-3 cups a day."

Doctor: "Do you wear a helmet?"

Answer: "Yes, but it gets very hot, so I usually take it off when resting."

Questions you should ask the doctor

- "Could you explain what condition I have?"
- "Is there anything I should avoid during treatment?"
- "When should I come back for a follow-up?"
- "Are there any warning signs that mean I should go to emergency immediately?"

Remember

Speaking clearly and simply and answering the questions directly helps doctors understand your condition correctly.

5.2 Health Insurance and Support

Card 35

05 · Accessing Healthcare Services

Understanding Types of Health Insurance

Quick guide **Lower costs; access healthcare anywhere; priority treatment.**

Health insurance is a social security scheme in the healthcare sector, in which participants pay regular contributions so that the insurance fund covers up to 80% of medical examination and treatment costs at healthcare facilities within the system. This helps reduce the financial burden when illness occurs.

> *I did buy voluntary health insurance, but I hardly use it. When I'm sick, I usually just go to the pharmacy to buy medicine, it's quicker.*
>
> **Worker's account** · Construction worker, Da Nang

Social Health Insurance (for people with labour contracts)

- Contribution rate: 4.5% of basic salary, shared by the employee and the employer
- Benefits: Covers 80% of medical examination and treatment costs
- Procedure: Registered by the company or directly by the individual
- Coverage: Nationwide, with referral options when needed

Household Health Insurance (for informal workers)

- First household member: Base contribution according to regional minimum wage

- Second member: 30% reduction from the base rate
- Third member: 40% reduction from the base rate
- Fourth member: 50% reduction from the base rate
- Fifth member onwards: 60% reduction from the base rate

Free Health Insurance (Article 12 of the Health Insurance Law)

- Eligible groups: People aged 75 and over, people with loss of working capacity, poor households, near-poor households
- Benefits: Completely free medical examination and treatment
- Procedure: Automatically issued or registered at the local commune/ward People's Committee

Benefits of having health insurance

- Reduces up to 80% of costs for consultations, tests, and medicines
- Access to all public hospitals nationwide
- Priority access to medical services
- Financial support for surgery and treatment of serious illnesses

Important changes from 1 July 2025

- The healthcare system shifts from four tiers to three technical levels: primary, basic, and specialised care
- Expanded access to medical care regardless of administrative boundaries for certain groups
- Patients receive 100% of their health insurance benefit level for out-of-province care if lawful temporary residence has been declared

How to Register for Health Insurance

Quick guide **Prepare documents; register via VssID or in person at the local authority/health station; renew on time.**

Registering for health insurance is an administrative process of submitting documents (identification papers, photo, participation fee) at authorised collection points (Social Security offices, post offices, or online) to receive a health insurance card valid for a specific period and requiring regular renewal.

> *Health insurance fees have gone up a lot. Income is limited and buying three cards for the household costs nearly three million.*
>
> **Worker's account** · Motorbike taxi driver, Da Nang

Required documents

- Citizen ID card or VNeID app (original for verification + photocopy)
- Health insurance registration form (Form TK1-TS)
- Income confirmation letter (for household registration, if applicable)
- Certificate of poor or near-poor household status (if applicable)

Important note on household registration: Since 2023, Vietnam has abolished the paper household registration book (Government Online Newspaper, 2023). Household health insurance participants now include people registered with permanent or temporary residence at the same address, regardless of the former household registration book.

Places to register

- Commune or ward People's Committee where you reside (note: unit names may change from 1 July 2025)

- Online via the National Public Service Portal: dichvucong.gov.vn
- VssID mobile application
- Provincial Social Security offices

Processing time and validity

- Processing time: 3-5 working days (online registration is usually faster)
- Validity: From the first day of the month following full payment
- Payment period: Annually or quarterly (3 months, 6 months)
- Health insurance cards are integrated into chip-based Citizen ID cards or displayed on the VNeID app

Important reminders

- Pay before the last day of the month for coverage to start the following month
- No separate photo required; the system uses the Citizen ID database photo
- Contribution status can be checked via the VssID app
- Renew before expiry to avoid interruption of benefits

Special cases

- Workers who lose their jobs: Can continue paying for individual health insurance
- Change of address: Update information via the VNeID app or at the relevant authority
- Health insurance integrated with chip-based Citizen ID, no need to carry a separate paper card

Key updates from 1 July 2025

- Registration procedures may change due to administrative unit restructuring
- Use of the VssID app is encouraged for information lookup and procedures
- In certain cases, people may register for primary healthcare services regardless of administrative boundaries



06

Self-Assessment and Health Monitoring

6 cards in this section

37	Two-Minute Health Diary	121
38	How to Recognise Warning Signs	124
39	Five-Minute Risk Assessment Table	126
40	Tracking Changes Over Time	130
41	Three-Minute Pre-Work Checklist	132
42	End-of-Day Checklist (After Returning Home)	135

Daily health self-checks are a simple and effective way to stay safe at work. Many workers ignore early warning signs or think health monitoring takes too much time. In reality, spending just 5-10 minutes a day checking basic health signs can help detect problems early and adjust work habits in time, especially for outdoor or physically demanding jobs.

Regular self-checks also help workers understand their bodies better and recognise what affects their health. Writing down simple health notes makes medical visits more effective, as doctors can clearly see changes over time.

This section shows how to keep a simple health diary, use quick daily safety checklists, and recognise warning signs that need attention. Remember, your body is the best warning system, listening to it every day helps protect your health and keep you safe at work.

Daily Health Diary 6.1

Card 37 · 06 · Self-Assessment and Health Monitoring

Two-Minute Health Diary

Quick guide **Write briefly: symptoms + time + working conditions; write consistently; bring it to medical appointments.**

The Two-Minute Health Diary is a quick daily method for recording basic information (physical feelings, weather, working conditions, meals) in approximately two minutes. It helps track health trends

over time and provides useful data for doctors during medical consultations.

> *I don't have any habit of writing things down. I just tell the doctor whatever I remember.*
>
> **Worker's account** · Female street vendor, Da Nang

Daily Basic Record

Date:	..../...../20...
Weather:	☐ Sunny ☐ Rainy ☐ Overcast ☐ Windy
Perceived temperature:	☐ Cool ☐ Warm ☐ Hot ☐ Very hot ☐ Cold
Cups of water:	..... cups *(1 cup = 200 ml)*
Fatigue level (1-5):	..... *(1 = very energetic, 5 = very tired)*
Sleep time:	Went to bed at ..... o'clock Woke up at ..... o'clock *(Total: ..... hours)*

Unusual symptoms (tick all that apply)

☐ Headache	☐ Dizziness	☐ Nausea
☐ Frequent cough	☐ Shortness of breath	☐ Chest pain
☐ Stinging/red eyes	☐ Itchy skin	☐ Back pain
☐ Fever	☐ Insomnia	☐ Loss of appetite
☐ Other:		

Working Environment

Work location:	☐ Outdoor ☐ Indoor ☐ Tunnel/basement ☐ High-rise building
Working hours:	From ..... o'clock to ..... o'clock *(Total: ..... hours)*
Protective equipment:	☐ Helmet ☐ Face mask ☐ Gloves ☐ Safety shoes ☐ Goggles ☐ Other: .....
Accident/incident:	☐ No ☐ Yes: .....

Daily Evaluation

What went well: .....

Needs improvement: .....

Preparation for tomorrow: .....

Tips for effective diary keeping

- Write at the end of the day while details are still fresh
- Take a photo of this form on your phone and fill it in daily
- Abbreviations are acceptable; consistency is more important
- Pay special attention to days with unusual symptoms
- Bring the diary to medical appointments

Remember

Two minutes of recording each day helps detect health problems early.

My notes

.....

.....

.....

.....

Card 38

06 · Self-Assessment and Health Monitoring

How to Recognise Warning Signs

Quick guide **Listen to your body; severe signs → call 115, mild signs → rest and monitor; seek medical care when needed.**

Health warning signs are unusual symptoms or changes compared to the body's normal condition (persistent fatigue, frequent headaches, ongoing cough). These may indicate serious health problems that require early medical examination and diagnosis.

> *I had a dry cough for a long time and thought it was just dust. I didn't realise it was a lung disease.*
>
> **Worker's account** · Painter, Da Nang

Some symptoms may seem normal but can be signs of serious health problems.

Signs requiring immediate attention

Respiratory-related

- Cough lasting more than 2 weeks, especially with phlegm
- Shortness of breath during light activity or at rest
- Chest pain when breathing deeply
- Wheezing or whistling sounds when breathing
- Extreme fatigue when talking for long periods

Skin-related

- Rash or itching lasting more than 3 days
- Yellow, purple, or unusually discoloured skin
- Wounds that do not heal after 1 week
- Dry, cracked skin in areas exposed to chemicals
- Blisters on hands or feet

Eye-related

- Red eyes with continuous tearing

- Blurred vision or dark spots blocking vision
- Eye pain when exposed to light
- Gritty or sandy sensation in the eyes
- Swollen eyes with discharge

Nervous system-related

- Frequent headaches (more than 3 times per week)
- Dizziness when standing up
- Numbness or tingling in hands or feet
- Loss of balance or unsteady walking
- Memory problems or difficulty concentrating

Danger signs, seek medical care immediately

EMERGENCY, Call 115

- Severe shortness of breath or rapid breathing
- Intense chest pain
- Loss of consciousness or confusion
- Uncontrolled bleeding
- High fever above 39°C with seizures

Need same-day medical care

- Coughing up blood
- Fever lasting more than 3 days
- Severe abdominal pain
- Persistent vomiting
- Painful urination or blood in urine

Should see a doctor within the week

- Fatigue lasting more than 1 week
- Unexplained weight loss
- Change in headache pattern
- Recurrent symptoms

Remember

Listen to your body, never ignore unusual warning signs.

6.2 Quick Risk Assessment

Card 39

06 · Self-Assessment and Health Monitoring

Five-Minute Risk Assessment Table

Quick guide **Score each factor from 1-5; calculate the total score; act according to the risk level.**

The Five-Minute Risk Assessment Table is a quick self-check used before starting work, based on a simple scoring system for key factors (weather, health, protective equipment) to help decide whether to continue working or adjust working conditions. It is a safety checklist developed by the project team, not a clinically validated risk assessment tool.

> *I know it's dangerous, but if I don't work, I don't earn money. I just have to push through.*
>
> **Worker's account** · Construction worker, Da Nang

Quick safety check before starting work, to decide whether to continue

Score each factor from 1 to 5

Factor	Score (1-5)	Meaning
Temperature		1: <30°C / 2: 30-33°C / 3: 34-37°C / 4: 38-40°C / 5: >40°C
Air quality		1: AQI <50 / 2: 50-100 / 3: 101-150 / 4: 151-200 / 5: >200
Working hours		1: <4 h / 2: 4-6 h / 3: 6-8 h / 4: 8-10 h / 5: >10 h
Protective equipment		1: Complete / 2: Missing 1 item / 3: Missing 2 items / 4: Missing several / 5: None
Health condition		1: Very well / 2: Well / 3: Normal / 4: Slightly tired / 5: Very tired

Total score: ..... / 25

Meaning and recommended actions

5-10 points Safe

- Continue working as normal
- Maintain regular water intake
- Monitor health regularly

11-15 points Caution

- Increase protection (extra mask, hat, water)
- Take more frequent breaks (every 2 hours)
- Avoid heavy work
- Work with a companion or keep regular contact

16-20 points Dangerous

- Reduce working time (maximum 6 hours)
- Take breaks every 1 hour
- Avoid outdoor work during the hottest hours
- Consider postponing non-essential work

21-25 points Very dangerous

- STOP working
- Move to a cool, safe place
- Drink water and rest
- Resume work only when conditions improve

Special notes

- If any factor reaches a score of 5 (an extreme-risk condition for that factor) → STOP work immediately and apply the corresponding response below before resuming any activity:
  - **Temperature scoring 5 (>40°C):** Stop outdoor work; move to a shaded or air-conditioned space; rehydrate slowly with cool (not iced) water; cool the neck, wrists and groin; resume only when your symptoms have completely gone and conditions have improved.
  - **Air quality scoring 5 (AQI >200):** Stop work and seek indoor shelter; wear an N95 if you must remain outdoors; if you develop a cough, chest tightness or eye irritation, go to a healthcare facility to be checked; resume only when air quality has clearly improved and you have no symptoms.
  - **Working hours scoring 5 (>10 hours):** Stop and rest for at least 30 minutes in a cool place; do not extend the shift further; arrange a buddy to monitor your condition; reschedule remaining tasks for the next working day.
  - **Protective equipment scoring 5 (none):** Do not begin or continue the task; request the missing equipment from the employer or borrow from a peer; if working independently, postpone the task until basic protection (mask, gloves, hat, water) is available.
  - **Health condition scoring 5 (very tired):** Stop work; rest in a cool, quiet place with adequate ventilation; sip water slowly; if symptoms include dizziness, headache, nausea or chest pain, call 115 immediately.

- If the score increases suddenly during the day → stop and reassess
- Always prioritise safety over work progress
- Any emergency symptom (for example confusion, fainting, seizures, chest pain or severe difficulty breathing) takes priority over the total score: call 115 and act immediately, whatever the score
- This checklist was developed by the project team. It has not been clinically validated and does not replace medical advice
- Before going back to work, symptoms must have gone completely and working conditions must have improved: consider workload, humidity, heat from the sun or machinery, clothing, protective equipment and how well your body has adapted to the heat
- A health check may be needed before you return to work

Remember

Higher score = higher risk; do not gamble with your health.

My notes

Card 40

06 · Self-Assessment and Health Monitoring

Tracking Changes Over Time

Quick guide **Record and compare weekly, detect trends early.**

Tracking changes over time is a method of recording and comparing health indicators across different periods (days, weeks, months) to identify increasing or decreasing trends. This helps detect developing health problems early and enables timely intervention.

> *I only go to the doctor when something is wrong. If nothing seems wrong, I don't really go.*
>
> **Worker's account** · Scrap collector, Hanoi

Recording health trends over days, weeks, and months

Weekly tracking table (score 1-5)

Factor	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Average
Fatigue								
Headache								
Shortness of breath								
Sleep quality								
Overall condition								

Weekly notes

- Healthiest day: .....
- Most tiring day: .....
- Possible causes: .....
- Plan for next week: .....

Signs requiring attention

- Fatigue scores increasing day by day
- New symptoms appearing
- Existing symptoms becoming more severe
- Continuous decline in sleep quality
- Clear links between symptoms and working conditions

When to see a doctor

- Any symptom lasting more than 1 week
- Three or more symptoms occurring at the same time
- Overall score declining for two consecutive weeks
- Symptoms affecting work or daily activities

Remember

Trends matter more than a single day's data.

My notes

6.3 Daily Safety Checklist

Card 41

06 · Self-Assessment and Health Monitoring

Three-Minute Pre-Work Checklist

Quick guide **Check the weather; prepare your health; bring sufficient water, mask, shoes, safety equipment; inform your schedule.**

The Three-Minute Pre-Work Checklist is a quick checklist covering key items to be confirmed (weather forecast, health condition, protective equipment, communication plan) before starting the workday, helping ensure safety and adequate preparation for possible situations.

> *My phone already has the weather forecast. I mostly just check it there.*
>
> **Worker's account** · Construction worker, Da Nang

Quick checks to ensure maximum safety for the workday

Environmental information check

- ☐ Checked today's weather forecast
- ☐ Checked current AQI (via AirVisual app or weather reports)
- ☐ Aware of rain/storm/strong wind conditions
- ☐ Aware of the highest temperature of the day
- ☐ Aware of humidity and "feels like" temperature
- ☐ Checked disaster warnings (if any)

Health preparation

- ☐ Had a proper breakfast (rice/noodles/bread + vegetables/fruit)
- ☐ Drank at least 500 ml of water
- ☐ Feel well, no unusual symptoms

- [ ] Slept enough (at least 6 hours)
- [ ] No fever, no headache
- [ ] Used the toilet, feeling comfortable

Equipment preparation

Brought all required protective equipment for the job

- [ ] Safety helmet/sun hat
- [ ] Face mask (appropriate for the work)
- [ ] Protective gloves
- [ ] Safety shoes
- [ ] Protective goggles (if required)
- [ ] Long-sleeved clothing (if exposed to chemicals/sun)
- [ ] Spare masks (2-3 pieces)
- [ ] Drinking water (at least 1 litre)
- [ ] Necessary medication (personal medicines)
- [ ] Phone fully charged, emergency numbers saved
- [ ] Light snacks (sweets, biscuits) in case of hunger

Notification and communication

- [ ] Informed family of today's schedule
- [ ] Contacted colleagues or co-workers
- [ ] Know the emergency contact phone number
- [ ] Saved the address of the nearest hospital/health station
- [ ] Set a check-in time with family (if working alone)

Final check

- [ ] If total risk assessment score >15 → mitigation measures prepared
- [ ] If feeling unwell → considered resting or reducing workload
- [ ] If bad weather → have a Plan B
- [ ] Ready to refuse work if it is too dangerous

Golden rules

- When in doubt → ask colleagues/family
- When uncertain → choose the safer option
- When extremely tired → rest before continuing work
- When conditions are poor → wait or change the plan

Remember

Three minutes of preparation can save your life.

My notes

Card 42

06 · Self-Assessment and Health Monitoring

End-of-Day Checklist (After Returning Home)

Quick guide **Personal hygiene; review the workday; healthcare; monitor unusual signs.**

The End-of-Day Checklist is a final daily checklist covering personal hygiene, post-work health review, and recording unusual signs, helping recovery and early detection of issues requiring attention.

> *In the morning, I go straight to the site. In the evening, I come home and rest. Then I save my strength for the next day.*
>
> **Worker's account** · Construction worker, Hanoi

Health review and care after a workday

Immediately upon arriving home

- [ ] Wash hands and face thoroughly
- [ ] Change into clean clothes
- [ ] Drink water to replace lost fluids
- [ ] Check for cuts or abrasions
- [ ] Clean eyes and nose (if working in dusty environments)

Workday review

- [ ] Encountered any dangerous situations?
- [ ] Protective equipment damaged or ineffective?
- [ ] Any unusual health symptoms?
- [ ] Need to report any incident to someone?
- [ ] Anything to improve for tomorrow?

Health care

- [ ] Eat properly to restore energy
- [ ] Shower thoroughly (especially if exposed to chemicals)

- [ ] Rest and relax for at least 30 minutes
- [ ] Complete the 2-minute health diary
- [ ] Prepare mentally for the next day

Signs requiring attention

- [ ] Unusual fatigue
- [ ] Headache, dizziness
- [ ] Shortness of breath, cough
- [ ] Skin irritation
- [ ] Eye irritation, redness
- [ ] Nausea
- [ ] Other: .....

If any of the above signs occur → continue monitoring and consider seeing a doctor if there is no improvement.

Remember

Post-work care is just as important as pre-work preparation.

The next section will summarise all the knowledge covered and set out a clear action plan that workers can apply immediately in their daily lives and work, from building safe habits to preventing occupational diseases.

My notes



07

Community Support Networks

14 cards in this section

43	How the Buddy System Works	138
44	Managing Heat Exhaustion on Construction Sites	141
45	Tips for Working Outdoors Effectively	143
46	Protecting Health in Polluted Environments	145
47	Preventing Sunburn When Selling Near the Coast	147
48	Maintaining Energy During Continuous Work	148
49	Avoiding Sunburn When Working Outdoors	150
50	Staying Safe When Working During Stormy and Rainy Weather	152
51	Avoiding Flooding When Working in Heavy Rain	154
52	Working Safely on Hot Days	156
53	Steps to Establish a Group	158
54	Regular Group Activities	161
55	Creating a Map of Useful Locations	164
56	How to Review and Update Community Amenities Map Information	167

In high-risk work, no one can stay safe alone. Community support is one of the most effective ways to protect workers' health and safety. Many accidents can be prevented, or made less serious, when colleagues and the community help each other in time.

Buddy systems and mutual-support groups can help reduce the risk of accidents and improve quality of life, both internationally and in Vietnam. Community support is not only useful in emergencies, it also reduces stress, creates a safer work environment, and encourages people to look out for one another.

This section explains how to set up a buddy system, build community support groups, share useful information, and coordinate during emergencies. Remember, working together makes everyone safer and more confident every day.

7.1 Peer Support System, The Buddy System

Card 43

07 · Community Support Networks

How the Buddy System Works

Quick guide **Pair appropriately; look out for each other daily; support one another in emergencies.**

The buddy system is an organisational model that pairs two workers in the same occupation or working area. They commit to looking out for one another, monitoring each other's health, and providing mutual support in daily work, especially in emergency situations.



A rest stop supporting workers, where drivers take a break and check their vehicles.

> *We go out in groups, selling together. We have shared rest spots. If one person cannot sell everything, another helps.*
>
> **Worker's account** · Female street fruit vendor, Da Nang

The "buddy system" is a model in which two workers support and care for each other in their daily work.

Pairing principles

- An experienced worker paired with someone new to the job
- Working in the same area, with regular opportunities to meet
- Compatible personalities, easy to talk to each other
- Able to contact each other outside working hours
- Same gender, or mixed gender where culturally appropriate

Daily responsibilities

Before starting work (morning)

- Greet each other and check on each other's health

- Check each other's protective equipment
- Remind one another to drink water and eat breakfast
- Share information about the weather and working conditions

During work

- Watch for signs of fatigue or stress
- Remind each other to take breaks at the right time
- Help with difficult tasks
- Share drinking water or snacks when needed

At the end of the day

- Check on each other's health condition
- Remind one another about post-work self-care
- Plan for the next working day
- Discuss any problems encountered

In emergency situations

- Inform each other immediately if something is wrong
- Provide basic first aid and arrange transport to hospital
- Contact family members in the event of an accident
- Notify supervisors or community groups
- Follow up and provide support during recovery

Remember

A buddy is not just a colleague, but someone who genuinely cares about each other's safety.

My notes

Community Experiences and Initiatives 7.2

The real-life stories below show the power of mutual support.

Card 44

07 · Community Support Networks

Managing Heat Exhaustion on Construction Sites

A Bricklayer's Experience

Quick guide

Always watch out for one another; prepare cold towels and drinking water; know the signs of heat exhaustion

Managing heat exhaustion on construction sites, based on bricklayers' experience, refers to a set of practical measures that bricklayers apply in real construction settings. These include continuous mutual observation, having cold towels and drinking water ready, and immediately applying cooling measures when signs of heat exhaustion are detected.

> *Luckily, a co-worker spotted the signs of heatstroke straight away. He moved me into the shade, took off my shirt and applied cold towels to my forehead and neck [...].*
>
> **Worker's account** · Construction worker, Ho Chi Minh City

Worker's account

"In the summer of 2023, I was working on a construction site in Ho Chi Minh City. It was 39°C. At 2 p.m., I had

a severe headache and felt dizzy. Fortunately, an older worker on the team immediately recognised the signs of heatstroke.

He quickly took me into the shade, removed my shirt, placed cold towels on my forehead and neck, and let me drink saline water slowly. He also gently massaged pressure points on my wrists and temples. 30 minutes later, I felt better and was able to go home safely.", Construction worker, Ho Chi Minh City.

Note: Drinking salt water and massaging pressure points on the wrists and temples are practices described by the worker, not recommended first aid for heat-related illness. If the person is fully alert and able to swallow, give small sips of cool drinking water, or ORS prepared according to the packet instructions.

Lessons learned

- Always have co-workers watching out for one another, especially during the hottest hours
- Prepare cold towels and drinking water in advance
- Know the signs of heat exhaustion to act promptly
- Learn basic first aid from trained instructors or health workers

My notes

Card 45

07 · Community Support Networks

Tips for Working Outdoors Effectively

A Street Vendor's Experience

Quick guide

Choose naturally advantageous locations; use ice water and wet towels; build a support network.

Tips for working outdoors effectively, based on street vendors' experience, are practical strategies that include choosing selling spots with natural advantages (shade, cool breezes), using ice water and wet towels to cool the body regularly, and building a support network with colleagues in the same area.

> *I choose a spot with big tree shade, bring a bottle of iced water and a damp mask. Every 30 minutes, I wipe my face and neck with a cold towel.*
>
> **Worker's account** · Female bánh mì vendor, Ho Chi Minh City

Worker's account

"I sell bánh mì outside a school from 6 a.m. to 10 a.m. My trick is choosing a spot with good tree shade, bringing a bottle of iced water and a damp mask. Every 30 minutes, I wipe my face and neck with a cold towel.

Most importantly, I know how to 'read' the weather, if the sky turns gloomy, I prepare a rain cover straight away. I'm also part of a group of five women selling in the same area. We regularly share information about customers, the weather, and help each other out when something urgent comes up."- Female bánh mì vendor, Ho Chi Minh City.

Practices shared by workers

- Choose locations with natural advantages (shade, ventilation)
- Use ice water and wet towels for local cooling
- Predict weather changes by observing clouds, wind, and humidity
- Build a support network within the same area
- Share information and experience regularly

My notes

Card 46

07 · Community Support Networks

Protecting Health in Polluted Environments

A Motorbike Taxi Driver's Experience

Quick guide **Set up a schedule-notification system; change masks regularly; arrange mutual check-ins.**

Protecting health in polluted environments, based on motorbike taxi drivers' experience, is a set of practices shared by drivers, including changing masks every four hours and setting up a schedule-notification system so someone can check in when needed.

> *It's best to change masks every four hours [...] and always make sure someone knows your schedule.*
>
> **Worker's account** · Motorbike taxi driver, Ho Chi Minh City

Worker's account · reported practice, not medical advice

"As a motorbike taxi driver in Saigon, I regularly breathe in smoke and dust. After joining a local drivers' group, we learnt many useful tips: changing masks every four hours, drinking lemon-salt water, and most importantly, making sure someone always knows our schedule.

Once, I fainted after inhaling smoke from a burning vehicle. Luckily, the group noticed my bike had been parked at the roadside for too long, came to check on me, and got me emergency help in time.", Motorbike taxi driver, Ho Chi Minh City.

Key lessons

- Set up a shared schedule-notification system within the group
- Change masks regularly when working in polluted environments
- Have a plan for regular mutual check-ins

- Know how to respond after inhaling toxic fumes

My notes

Card
47

07 · Community Support Networks

Preventing Sunburn When Selling Near the Coast

A Street Vendor's Experience

Quick guide **Use a thin, breathable headscarf; wear a wide-brimmed hat on top.**

Preventing sunburn when selling near the coast involves a layered sun-shielding method that vendors use against sunlight reflected from the sea surface. This includes wearing a thin, breathable headscarf underneath and a wide-brimmed hat on top to reduce heat on the head and neck.

> *I used to get sunburnt selling near the beach. After I started covering my head and neck with a scarf and wearing a wide-brimmed hat on top, it stopped happening.*
>
> **Worker's account** · Street vendor, Da Nang

Key lesson

- Use a thin, breathable headscarf to prevent overheating

Remember

The experience of those who came before is a valuable asset for those who come after.

Card
48

07 · Community Support Networks

Maintaining Energy During Continuous Work

A Delivery Driver's Experience

Quick guide **Eat light snacks on time; drink enough water; check health before starting work.**

Maintaining energy during continuous work is an essential skill for high-intensity jobs that require prolonged movement and concentration. Practical experience highlights three core factors: keeping regular snack times, preparing drinking water and backup food in advance, and checking one's health condition before starting a shift.

> *A little before 10 a.m., I need to grab something light to eat first. Once lunchtime comes and I switch the app on, there's no time to eat.*
>
> **Worker's account** · Delivery driver, Da Nang

Experience from practice

Worker's account

"Once, my hands were shaking and I almost fell off my bike because I was hungry. Since then, I've learnt my lesson, a little before 10 a.m., I always grab something light, like bread or a banana. By lunchtime, once the app is on, it's nonstop work with no time to eat.

Now I prepare a bottle of water and some snacks in the bike storage every day. On hot days, I choose routes with the most shade to reduce fatigue. These small habits make me feel healthier and help me ride more safely.", Delivery driver, Da Nang.

Lessons learned

- **Eat regularly:** Always have light snacks on time to avoid low blood sugar while working
- **Prepare in advance:** Carry water and backup food for long working shifts
- **Choose wisely:** Select routes or working methods that reduce fatigue (e.g. shaded routes on hot days)
- **Listen to your body:** Stop and rest when experiencing warning signs such as dizziness, trembling, or extreme fatigue

My notes

Card
49

07 · Community Support Networks

Avoiding Sunburn When Working Outdoors

A Construction Worker's Experience

Quick guide

Use appropriate protective clothing; take breaks to avoid peak sun hours; choose breathable materials.

Avoiding sunburn when working outdoors is an important consideration for jobs that require prolonged direct exposure to strong sunlight. An effective solution is to combine the use of specialised protective clothing (such as cooling fan jackets and breathable materials) with sensible rest periods during peak sunshine hours.

> *During the early stages of construction work, we're outdoors 100% of the time. On very hot days, you get exhausted quickly. Strong sun plus wearing many layers makes you hot and uncomfortable, so I learned to use a 'cooling jacket'. It works really well. If you buy one costing 800,000 VND or more, the battery can last nearly two days.*
>
> **Worker's account** · Construction worker, Da Nang

Experience from practice

Worker's account

"When I first came to Da Nang to work, I once got severe sunburn on my back because I wore a thin shirt. After that, I learned from more experienced workers, they use 'cooling jackets' with small battery-powered fans, which stay airy without making you overheat.

> *Very cheap ones have batteries that wear out quickly, so I bought one costing around 800,000 VND, and the battery lasts almost two days. Now I still get tired working outdoors, but I no longer suffer from burning skin or heatstroke like before.", Construction worker, Da Nang.*

Key lessons

- **Appropriate clothing:** Do not wear thin shirts when working under strong sun; choose protective clothing with fans or breathable fabrics
- **Invest in quality:** Select good-quality protective equipment for durability and effectiveness
- **Avoid dangerous hours:** Limit outdoor work during peak sun hours (10:00-14:00)
- **Learn from experience:** Observe and learn from experienced colleagues to better protect your health

My notes

Card
50

07 · Community Support Networks

Staying Safe When Working During Stormy and Rainy Weather

Quick guide **Monitor weather forecasts; stop working when storm warnings are issued; seek safe shelter during strong wind and rain.**

Staying safe during stormy and rainy weather is a matter of survival for outdoor workers. When weather conditions worsen, it is essential to proactively stop work, find safe shelter, and avoid travelling in strong winds. No income is worth risking one's life.

> *That day I thought the storm would only arrive in the evening, so I tried to sell until early afternoon. Unexpectedly, before noon the wind became extremely strong, so strong that I almost fell over just walking. I had to ask to shelter in someone's house for nearly an hour until the wind eased, then I went home.*
>
> **Worker's account** · Lottery ticket seller, Da Nang

Experience from practice

> *I usually go out early in the morning. Light rain is manageable, but storms are different. Once I was careless, thinking the storm was still far away. By midday the wind suddenly picked up, blew my hat away, and I was staggering as I walked. Luckily, I met kind locals who let me shelter for nearly an hour before I dared to return home. Since then, I've learned my lesson: when there's a storm warning, I stop work completely and don't regret losing a day's income.*
>
> **Worker's account** · Lottery ticket seller, Da Nang

Key lessons

- **Life comes first:** Health and safety are more important than income on dangerous days
- **Be proactive:** Follow weather forecasts to plan work safely
- **Recognise danger:** Learn to identify signs of severe weather so you can seek shelter in time
- **Be prepared:** Always carry a raincoat, a power bank, and check your phone before going out
- **Ask for help:** Do not hesitate to ask for temporary shelter in people's homes or solid buildings when facing strong winds

My notes

Card 51

07 · Community Support Networks

Avoiding Flooding When Working in Heavy Rain

Quick guide **Stop working when flood risk appears; avoid low-lying routes; prioritise safety over completing tasks.**

Avoiding flooding when working in heavy rain is a crucial safety skill for those who need to travel frequently. Recognising flood risks and proactively stopping work early helps ensure the safety of oneself, one's vehicle, and others.

> *When heavy rain lasts for a long time, don't push yourself to keep going. It's better to head home early. I once had to push my bike along Au Co Street, it was terrifying!*
>
> **Worker's account** · Grab driver, Da Nang

Experience from practice

> *Once the rain was extremely heavy and the water level rose quickly. I was riding along Au Co Street when my bike stalled. I had to push it through floodwater up to the wheels, exhausting and frightening. Since then, I've learned that if it rains heavily or there's a flood warning, I stop immediately and go home early to be safe. Roads like Au Co, Me Suot, Nguyen Van Linh, and Pham Van Nghi flood as soon as there's heavy rain, it's not worth the risk.*
>
> **Worker's account** · Grab driver, Da Nang

Key lessons

- **Monitor warnings:** Check rain and flood forecasts before starting a work shift

- **Know when to stop:** Pause work or change routes when signs of flooding appear
- **Understand the terrain:** Remember low-lying roads that frequently flood in your work area
- **Do not take risks:** Avoid travelling during heavy rain or through deep floodwater
- **Communicate promptly:** Stay in contact with customers/ partners to cancel or postpone work safely when necessary
- **Professional safety:** Knowing when to stop is also an important part of professional responsibility

My notes

Card 52

07 · Community Support Networks

Working Safely on Hot Days

Quick guide **Eat enough to maintain energy; take breaks to avoid peak heat; use proper sun protection when outdoors.**

Working safely on hot days is an essential skill for those who regularly work outdoors. Intense heat can easily cause dehydration, dizziness, or heat exhaustion. Careful preparation, choosing suitable routes, and knowing when to rest are key factors in protecting one's health.

> *At midday, I choose routes with lots of trees and look for areas near cafés to sell.*
>
> **Worker's account** · Lottery ticket seller, Da Nang

7

Experience from practice

> *On hot days, you must manage your time well. I go out early in the morning, then at midday I make sure to eat something and drink enough water, don't wait until you feel thirsty to drink. When the sun is strongest, I switch to routes with trees or near cafés, where it's cooler and there are more customers. I also wear long gloves, a hat, and a wide cloth mask to reduce the burning sensation on my face. In this line of work, you need to preserve your strength if you want to keep going for the long-term.*
>
> **Worker's account** · Lottery ticket seller, Da Nang

Key lessons

- **Eat and drink properly:** Maintain energy levels and drink water regularly; do not wait until you are thirsty

- **Carry essential items:** Prepare cool water or electrolyte drinks when working outdoors
- **Choose routes wisely:** Prioritise routes with plenty of trees or shade
- **Protect your body:** Use long gloves, a hat, and a wide cloth mask to avoid direct sun exposure
- **Work sustainably:** Good health is essential for sustaining work over the long term
- **Rest appropriately:** Avoid intense heat during peak hours to reduce the risk of heat exhaustion

My notes

7.3 How to Establish and Operate a Community Support Group

Card 53

07 · Community Support Networks

Steps to Establish a Group

Quick guide **Form a suitable group; assign clear roles; develop transparent rules.**

Establishing a community support group is a structured process consisting of three main steps: bringing together workers from the same occupation or working area who wish to support one another, clearly assigning roles to each member, and developing transparent operating rules agreed upon by everyone.

> *I have a group of five women selling in the same area. We regularly share information about customers, the weather, and support each other when something urgent comes up.*
>
> **Worker's account** · Female bánh mì vendor, Ho Chi Minh City

Build a community support group to assist one another in work and daily life.

Step 1: Form the group (8-15 people)

Criteria for selecting members

- Same occupation or same working area
- A strong sense of solidarity and willingness to help
- Diversity in age and experience
- Ability to participate regularly in group activities
- Good reputation within the community

How to approach and invite members

- Start with people you know and trust
- Clearly explain the group's purpose and benefits
- Organise a first meeting
- Listen to everyone's opinions and suggestions
- Do not force participation; respect each person's decision

Step 2: Assign roles

Group leader

- **Role:** Coordinate activities and liaise with external parties
- **Criteria:** Experienced and trusted by members
- **Term:** 1 year, with the possibility of re-election

Treasurer

- **Role:** Manage funds transparently and report on finances
- **Criteria:** Honest and with basic financial management skills
- **Responsibilities:** Record income and expenditure; provide monthly reports

Secretary

- **Role:** Keep records, maintain contact information, and send notifications
- **Criteria:** Careful, with writing skills and basic use of technology
- **Responsibilities:** Prepare contact lists and record meeting minutes

Step 3: Develop operating rules

General principles

- Voluntary participation, no coercion
- Transparency in all activities
- Mutual respect and support
- Sharing useful information

- Protection of personal information

Member responsibilities

- Contribute to the support fund (voluntary amount)
- Attend regular meetings (at least 70% of sessions)
- Support other members when able
- Share information and experience
- Notify the group of any changes to contact details

Member benefits

- Receive support when facing difficulties
- Share information about jobs and opportunities
- Take part in collective activities
- Access training in new skills
- Purchase supplies jointly to save costs

Remember

A group is strong when everyone has clear responsibilities and benefits.

My notes

Card 54 · 07 · Community Support Networks

Regular Group Activities

Quick guide **Regular meetings; emergency support; joint activities; record-keeping and evaluation.**

Regular activities of a community support group are the practices carried out periodically to sustain and develop the group. These include experience-sharing meetings, emergency support when members face difficulties, organising joint activities to strengthen bonds, and recording and evaluating the effectiveness of group operations.

> *There are many workers gathered in this area. We often gather here because it's cool and there's a big tree. In the late afternoon, after work, we usually have a can of something to cool down and then head home.*
>
> **Worker's account** · Porter, Da Nang

Specific activities to maintain and develop the support group.

Regular meetings

Frequency and timing

- **Frequency:** Once a month, around 1-2 hours
- **Timing:** Sunday evening or Saturday morning
- **Venue:** Rotating between members' homes or public locations

Meeting agenda

- Update on members' health and work situations
- Exchange of safe working practices and experience
- Sharing information about new job opportunities

- Discussion of common occupational issues
- Planning activities for the following month

Emergency support

In case of a work-related accident

- Immediately inform the group leader and members
- Assign 1-2 people to provide direct support
- Assist with transport to hospital and care
- Contact the injured person's family
- Report to relevant authorities if required

When a member is unwell

- Visit and provide emotional support
- Offer assistance from the group fund (if available)
- Help with household tasks when needed
- Share experience and advice on treatment and care

Joint activities

Collective purchases of protective equipment

- Assess members' needs
- Identify reputable suppliers
- Place bulk orders to reduce costs
- Check quality before distribution

Sharing job information

- Announcing new job opportunities
- Introducing members to trustworthy employers
- Sharing interview and workplace experience
- Warning about unreliable workplaces

Learning and study visits

- Invite experts to share knowledge on occupational safety
- Visit model projects or worksites

- Learn from the experience of other groups
- Organise basic first-aid training courses

Social activities

- Organise birthdays or weddings for members
- Visit and support families during bereavement
- Participating in community activities
- Fundraise to support members in difficult circumstances

Record-keeping and evaluation

- Record minutes for each meeting
- Monitor members' situations
- Evaluate the effectiveness of group activities
- Adjust operating methods as appropriate

Remember

Regular activities help the group stay connected and grow sustainably.

My notes



A roadside shop where workers stop to rest out of the sun.

7.4 Community Amenities Map

Card
55

07 · Community Support Networks

Creating a Map of Useful Locations

Quick guide **Worker-shared information; regular updates; prioritise worker-friendly locations.**

A map of useful locations is a digital or paper-based mapping tool that marks places supporting workers in the local area (resting spots, free drinking water, public toilets, medical facilities). It is built from information shared by the community and updated regularly.

> *The local police officers feel sorry for us older folks, and since I've lived in this ward for a long time, they still allow me to sit and sell on the pavement.*
>
> **Worker's account** · Female roadside drink vendor, Hanoi

Creating a map of locations that support workers in the local area.

Principles for development

- Information shared directly by workers
- Regular updates, at least once every three months
- Assessment based on practical criteria, not reputation alone
- Priority given to worker-friendly locations
- Open sharing within the community

Criteria for assessing locations

Clean drinking water

- **Good:** Free, clean water, seating available, friendly attitude
- **Fair:** Reasonable, clean water, good service
- **Acceptable:** Stable quality, usable

Resting places

- **Good:** Free, sheltered, seating available, safe, clean toilets
- **Fair:** Cool and airy, parking available
- **Acceptable:** Seating available, protection from sun and rain

Medical services

- **Good:** Competent doctors, good attitude, health insurance accepted
- **Fair:** Good quality of care
- **Acceptable:** Meets basic needs

Priority locations

Drinking and resting

- Good-quality automatic water dispensers in safe locations
- Clean street-side drink stalls with friendly owners
- Pagodas or churches providing free water on hot days

- Parks with public water fountains and benches
- Bus stations or stops with shelters and seating
- Shopping centres that allow free resting areas

Support services

- Clean, free public toilets
- Reputable shops selling protective equipment
- Trustworthy motorbike repair shops
- Pharmacies with a doctor available for advice
- Free Wi-Fi points for emergency communication

Medical services

- General clinics accepting health insurance
- Reputable pharmacies
- Ward/commune health stations
- Nearest hospitals

How to collect information

- Directly survey locations
- Listen to colleagues' shared experiences
- Regularly check and update information
- Build interconnected information networks

How to share the map

- Create handwritten lists or printed versions
- Share via Zalo or Facebook groups
- Post notices at crowded public places
- Spread information by word of mouth within the labour community

Remember

A community map is a shared asset that helps everyone stay safer.

Card 56

07 · Community Support Networks

How to Review and Update Community Amenities Map Information

Quick guide **Regular checks; collect feedback; remove unsuitable locations.**

Reviewing and updating community amenities map information is the process of periodically checking the accuracy and usefulness of marked locations, collecting user feedback, and removing or adding information to ensure the map reflects reality.

> *There are some shop owners who are kind and let us sit there to rest without counting costs. But there are also places that chase us away.*
>
> **Worker's account** · Traditional motorbike taxi driver, Da Nang

Ensuring that information on the community map remains accurate and useful.

Regular review process

Monthly

- Check 20% of the listed locations
- Update service conditions and quality
- Remove locations that are no longer operating
- Add newly identified locations

Quarterly

- Survey the entire list
- Reassess the suitability of each location
- Hold meetings to gather community feedback
- Update the map and share the new version

Criteria for removal from the list

- Change in attitude that becomes unfriendly to workers
- Decline in service quality
- No longer operating or permanently closed
- Multiple complaints from users

Ways to collect feedback

- Create chat groups for sharing experiences
- Encourage reporting of both positive and negative feedback
- Conduct simple quarterly surveys
- Listen to opinions during group meetings

Remember

Accurate information helps the community make the right decisions.

My notes



08

Emergency Situations

2 cards in this section

57 Important Numbers to Save in Advance 170
58 How to Call 115 Correctly 173

In high-risk work, knowing how to act quickly in an emergency can save lives. Many serious accidents become worse because the right action is not taken in the first few minutes.

Work emergencies include not only accidents, but also sudden health problems such as heatstroke or poisoning. Being able to recognise danger, call for help clearly, and give basic first aid is essential, especially for outdoor workers or those working alone or far from medical services (Ministry of Health, 2025).

This section shows how to identify common emergencies, make effective emergency calls, and give basic first aid until professional help arrives. Remember, staying calm and knowing what to do makes the biggest difference when an emergency happens.

8.1 Emergency Contact Numbers

8

Card 57

08 · Emergency Situations

Important Numbers to Save in Advance

Quick guide **Save on your phone; write on a note in your wallet; share with family.**

Important phone numbers to save in advance are a complete list of emergency hotlines (115, medical emergency, 113, police, 114, fire and rescue) stored in multiple places (on your phone, on a note kept in your wallet, shared with family) to ensure quick access in any situation.

> *My daughter saved 115 and 113 in my phone for me. I've never needed to call them.*
>
> **Worker's account** · Female street vendor (vegetables, roots and fruit), Da Nang

List of essential phone numbers for emergency situations

Primary emergency services

- Medical emergency (24/7): 115
- Police (accidents, crime, public security issues): 113
- Fire and rescue services (fires, collapses, people trapped): 114
- National emergency switchboard (incidents, disasters, accidents; forwards to 113, 114, 115): 112

Feedback on health services

- Ministry of Health feedback hotline (24/7, charged call): 1900 9095

Other support services

- City government hotline (Hanoi, Da Nang, Ho Chi Minh City, others): 1022
- National child protection hotline (free, 24/7): 111

Important local numbers to know

- Nearest hospital: .....
- Ward/commune health station: .....
- Ward/commune police: .....
- Ward/commune People's Committee: .....
- Team leader/supervisor: .....

Effective ways to store numbers

- Save them in your phone contacts with easy-to-remember names (e.g. "EMERGENCY 115")
- Write them on a small note kept in your wallet or bag
- Share them with family members and colleagues
- Update them regularly when there are changes

- With a foreign SIM card, dial 112, 113, 114 or 115 directly, without +84

Important notes

- Calls to 112, 113, 114 and 115 are free of charge
- Network operators must keep these numbers reachable, so you can normally call them even with no phone credit
- Do not make test calls to emergency numbers, as this can block real emergency calls. Practise with a scripted role-play with a colleague or family member instead
- These numbers were checked against official sources in October 2026

Remember

Emergency numbers are lifelines, always have them ready and know how to use them.

My notes

How to Call Emergency Services Effectively 8.2

Card 58 · 08 · Emergency Situations

How to Call 115 Correctly

Quick guide **Stay calm; clearly state the address; describe the victim's condition; do not hang up until permitted.**

Calling 115 correctly is a process of providing information to the emergency operator in order of priority: stay calm, clearly state the exact address and recognisable landmarks, describe the victim's condition specifically, and do not hang up until the operator allows you to.

> *That time I called emergency services, I panicked and couldn't explain the address clearly. The ambulance took a long time to find us.*
>
> **Worker's account** · Porter, Da Nang

Detailed guidance on providing information for the fastest assistance

Information to provide in order

1. Caller information

- Full name
- Phone number (read each digit clearly to avoid confusion)
- Relationship to the victim (self, colleague, passer-by)

2. Exact location

- House number, street name, ward/commune, city/province

- Easily recognisable landmarks (near a school, crossroads, petrol station, etc.)
- Directions if the location is difficult to find

3. Victim's condition

- Number of victims
- Level of consciousness: conscious / drowsy / unconscious
- Main visible symptoms
- Whether the victim can speak

4. Cause and circumstances

- Workplace accidents, heat exhaustion, poisoning, fall from height, etc.
- Time of occurrence (how long ago)
- Surrounding environment (safe or dangerous)

5. Actions already taken

- First-aid measures provided
- Whether the victim has been moved
- Whether any medication has been given

Example of a complete call

Worker's account

"Hello, my name is Nguyen Van A, phone number 0987 654 321. I am at 123 Le Loi Street, Sai Gon Ward, Ho Chi Minh City, near the intersection with Nguyen Hue Street.

There is a construction worker suffering from heatstroke, about 35 years old. He is unconscious, his skin is very hot and dry. He has been working outdoors in the sun since 7 a.m., and today's temperature is around 39°C. There is only one victim.

We moved him into the shade, removed some of his clothing, and placed a wet cloth on his forehead. He has not been given anything to drink."

What NOT to do when calling emergency services

- Do not hang up until the operator allows you to
- Do not shout or speak too quickly
- Do not provide incorrect information
- Do not leave the scene if you can stay
- Do not make multiple calls for the same incident

What to do after calling

- Keep your phone on so emergency staff can call back
- Be ready to guide the ambulance at the main entrance
- Continue monitoring and caring for the victim
- Gather additional information if possible
- Inform the victim's family

Practise without calling

- Practise with a colleague or family member, taking turns to play the caller and the emergency operator
- Say: your name and phone number; the exact location; a nearby landmark that is easy to find; the number of casualties; the condition of the casualties; and what has already been done

Remember

Clear and detailed information helps the ambulance arrive faster and with the right equipment.

My notes



09

Protecting Health During Severe Cold and Extreme Cold Weather

4 cards in this section

59	Keeping Warm & Clothing	178
60	Eating & Resting to Protect Against Cold	179
61	Preventing Gas Poisoning & Health Warnings	180
62	Cold emergencies	182

During winter, especially in the Northern and North Central regions, temperatures can drop sharply. Severe cold can seriously affect health. Long exposure to cold causes the body to lose heat rapidly, increasing the risk of colds, pneumonia, stroke, and even carbon monoxide poisoning if heating is used incorrectly.

According to guidance from the Ministry of Health and the Vietnam General Confederation of Labour (Ministry of Health, 2024; Gia Hung, 2025), workers should take proactive steps to protect themselves. Key measures include keeping warm, staying dry, avoiding cold winds, eating well, drinking warm fluids, and resting enough to maintain energy in harsh weather (CDC, 2023).

Using heating devices safely is also critical. Burning coal in enclosed spaces must be avoided, as it can cause life-threatening carbon monoxide poisoning. Workers should monitor their health daily and seek medical care immediately if they experience warning signs such as shortness of breath, chest pain, or numbness in the arms or legs.

The guidance below highlights common risks and practical ways to stay safe in cold weather. All measures are designed to be simple and realistic, so workers can protect their health even during the coldest days.

Keeping Warm & Clothing

Quick guide **Dress in layers; stay dry; do not remove clothes suddenly.**

Keeping warm and choosing appropriate clothing in cold weather means dressing in multiple layers following the principle of a moisture-wicking inner layer, an insulating middle layer, and a wind- and rain-resistant outer layer. Clothes should always be kept dry, and sudden removal of clothing while the body is still warm should be avoided to prevent colds and cold-related illnesses.

> *It's cold so everyone's hands look pale, the skin turns whitish like it's been soaking in water. It keeps raining, but we still must work.*
>
> **Worker's account** · Construction worker, Da Nang

- Wear 3 layers: thermal innerwear → thick jacket → wind- and water-resistant outer layer.
- Keep the neck, chest, head, hands, and feet warm with scarves, hats, gloves, and socks.
- Avoid getting wet: change immediately if clothes, hair, or shoes are wet.
- In cold rain: wear a raincoat, insulated boots, and waterproof gloves.
- If you feel hot while working → remove clothing gradually to avoid thermal shock.

Card 60

09 · Protecting Health During Severe Cold and Extreme Cold Weather

Eating & Resting to Protect Against Cold

Quick guide **Eat hot food; drink warm liquids; avoid alcohol; get enough sleep.**

Eating and resting to protect against cold involves adjusting daily habits during cold weather, including eating hot food and drinking warm beverages to maintain body temperature, avoiding alcohol as it increases heat loss, and getting enough sleep to strengthen the immune system.

> *In this cold weather, it's very easy to catch a chill. You must drink warm water and ginger to stay warm.*
>
> **Worker's account** · Female street vendor (vegetables, roots and fruit), Da Nang

- Eat a balanced diet: increase fats, carbohydrates, and vitamins A & C.
- Prioritise hot foods: porridge, soup, warm milk.
- Drink warm water regularly; do not wait until thirsty.
- Avoid alcohol, beer, and coffee, they constrict blood vessels and increase the risk of stroke.
- Rest in places that are sheltered from wind and kept dry; avoid late-night bathing or bathing in draughty areas.

My notes

Preventing Gas Poisoning & Health Warnings

Quick guide **Use heaters safely; detect early; seek medical care immediately.**

Preventing gas poisoning and recognising health warnings in cold weather includes safe use of heating devices (ensuring ventilation and never burning coal in enclosed spaces), early recognition of carbon monoxide (CO) poisoning symptoms, and awareness of common cold-weather health issues such as joint pain and respiratory diseases.

Warning Carbon monoxide has no smell, no colour, and no taste, you cannot detect it without an alarm. By the time you feel symptoms, you may already be seriously affected.

> *In this kind of weather, everything hurts, this leg, the knee, the head, the neck, and the back all ache.*
>
> **Worker's account** · Street vendor, Hanoi

- Do not burn coal in enclosed spaces.
- If using coal: keep doors slightly open and do not heat overnight, install a carbon monoxide detector alarm, this is the only reliable way to know if CO is present.
- Heaters: place 1-2 metres away from the body; do not aim directly at people.
- Electric blankets: check wiring, do not wash them in water, and switch off once warm enough.
- Danger signs: shivering, numbness in limbs, dizziness, chest pain, unusual drowsiness → stop work, keep warm, and go to a local health station.
- Do not self-medicate, especially with antibiotics.

When cold exposure is severe or prolonged, it can escalate into a medical emergency. Knowing the signs of hypothermia and frostbite, and how to respond, could save a life.

My notes

Cold emergencies

Cold emergencies: hypothermia and frostbite

Cold exposure can become dangerous quickly. Workers must recognise early warning signs in themselves and coworkers.

Hypothermia warning signs (progression)

- Persistent shivering
- Confusion or slurred speech
- Extreme drowsiness
- Loss of coordination or stumbling

Important Confusion is a danger sign, workers often mistake it for tiredness.

Frostbite warning signs

- White, pale, or waxy skin
- Numbness
- Loss of feeling in fingers or toes

First response, what to do

EMERGENCY

- Move the person to a warm place immediately
- Remove wet clothing
- Wrap the person in dry clothes or blankets
- Give warm drinks if the person is conscious
- Do NOT rub arms or legs
- Do NOT give alcohol
- Call 115 if the person is confused, very drowsy, or cannot walk

For frostbite

- Do NOT rub the affected area
- Do NOT apply direct heat or hot water
- Rewarm slowly using body warmth or warm cloth
- Seek medical care as soon as possible

My notes



10

Protecting Health During the Flood Season

5 cards in this section

63	Before the Flood	185
64	During the Flood	187
65	After the Water Recedes	188
66	Disease Prevention After Floods	189
67	Maintaining Mental Resilience After Disasters	190

Flooding is common in Central Vietnam and many other areas, and it poses serious health and safety risks to workers. Floodwater is dirty and dangerous, containing waste, bacteria, and toxic chemicals. Contact with floodwater can cause skin infections, stomach and breathing problems, electric shocks, and long-term stress or sleep problems when living or working in wet conditions.

Preventing illness during and after floods is essential, especially for outdoor workers. Avoid contact with floodwater whenever possible, always cover open wounds, and wear gloves and rubber boots when working or cleaning in flooded areas.

Keeping living areas clean, using safe drinking water, and handling flood-exposed items carefully help prevent disease (Ministry of Health, 2026). Taking care of mental wellbeing and supporting one another also helps communities recover faster after disasters. The guidance below provides practical steps to stay safe and protect health during flood situations.

Card 63

10 · Protecting Health During the Flood Season

Before the Flood

Quick guide

Prepare thoroughly; reduce risks as water levels rise.

Preparation before a flood includes preventive measures taken when flood warnings are issued, such as moving belongings to higher ground, preparing food, drinking water and medicines, planning to move to a safe place, and preparing an emergency first-aid kit.

> *This November, Da Nang has seen very heavy rain. Rainfall reached up to 150mm in just three hours.*
>
> **Worker's account** · Field notes, Da Nang

- Monitor weather forecasts and local warnings.
- Prepare torches, batteries, drinking water, dry food, and medicines.
- Move important items and electrical appliances to higher places; switch off the main power supply when necessary.
- Prepare boots, raincoats, rubber gloves, and waterproof bags.
- Write down emergency phone numbers in advance: 112, 115, and local ward/commune authorities.

My notes

Card 64

10 · Protecting Health During the Flood Season

During the Flood

Quick guide **Floodwater is contaminated; stay away; stay safe.**

Safety during floods refers to essential rules that must be followed while flooding is ongoing, including never coming into contact with floodwater as it contains many pathogens and harmful substances, staying away from dangerous areas, and remaining in safe places until official notices are given.

> *When it rains heavily and you must carry goods, it's often unsafe. Combined with the cold weather, it's very easy to catch a cold.*
>
> **Worker's account** · Female street vendor (vegetables, roots and fruit), Da Nang

- Do not walk through deep floodwater or fast-flowing currents.
- Do not touch power lines, sockets, or electrical equipment when wet.
- Do not use charcoal or gas stoves for heating or cooking in enclosed spaces.
- Maintain hygiene: eat well-cooked food, drink boiled water, wash hands with soap.
- Do not allow children to swim or play in floodwater.

My notes

After the Water Recedes

Quick guide **Clean home; healthy people; prevent post-flood diseases.**

Post-flood sanitation is the process of cleaning the living environment after flooding, including cleaning homes with clean water and detergents, drying belongings, maintaining thorough personal hygiene, and treating domestic water sources to prevent disease and infection.

> *After the flood, we had to clean up all day. Dirty water was all over us, and the house was completely soaked.*
>
> **Worker's account** · Porter, Da Nang

- Wear gloves, rubber boots, and masks when cleaning up.
- Clean houses and belongings with soap and clean water; disinfect with diluted bleach solution.
- Discard food, medicines, and drinking water that have been submerged.
- Dry items in sunlight; wash bedding with hot water.
- If there are wounds → clean thoroughly, cover properly, and avoid contact with dirty water.

My notes

Card 66

10 · Protecting Health During the Flood Season

Disease Prevention After Floods

Quick guide **Clean water; dry homes; eliminate mosquitoes to prevent disease.**

Disease prevention after floods refers to measures to prevent common post-flood illnesses (dengue fever, diarrhoea, skin diseases, eye infections), including using only treated clean water, keeping living areas dry, eliminating mosquitoes and insects, and seeking medical care immediately when unusual symptoms appear.

> *After floods, it's very easy to fall ill. The water isn't clean, mosquitoes are everywhere, and the whole family can easily get a fever.*
>
> **Worker's account** · Female street vendor, Da Nang

- Eliminate mosquitoes, rubbish, and standing water to prevent dengue fever.
- Cover water containers, scatter lime powder around the house, and clear bushes.
- Do not leave food or waste that may attract rats and insects.
- Disinfect water sources; use only boiled water.
- Get vaccinated against tetanus, hepatitis, and influenza as recommended.

My notes

Maintaining Mental Resilience After Disasters

Quick guide **Overcome difficulties together; strong mind, good health.**

Maintaining mental resilience after disasters involves caring for mental health and supporting one another within the community to overcome hardship. This includes sharing feelings with family and friends, taking part in community activities, and focusing on positive aspects to rebuild life.

> *Of course it's heartbreaking. I lost all my goods, and the house was damaged. But if we're alive, we can start again.*
>
> **Worker's account** · Female street vendor (vegetables, roots and fruit), Da Nang

- Share your feelings with family members, friends, and colleagues.
- Help one another with cleaning, repairs, and emotional support.
- Maintain regular routines for daily activities, meals, and sleep.
- If insomnia, anxiety, or prolonged fatigue occurs → seek medical support or psychological counselling.

My notes



11

Occupational Safety and Hygiene for Waste Collectors

10 cards in this section

68	Identifying Workplace Hazards	193
69	Protective Clothing and Safety Equipment	194
70	Working on Roads and in Unfamiliar Areas	195
71	When Incidents or Danger Occur	196
72	Emergency response to unknown chemical waste	197
73	Needle-stick injury protocol	198
74	Working with Compactor Trucks	200
75	Workers' Rights & Responsibilities	201
76	Prohibited Practices	202
77	Final Message	203

Waste collection work involves many risks, including traffic accidents, sharp objects, toxic gases, waste compactor machines, and harsh weather. Many serious accidents have occurred due to preventable reasons such as the lack of protective equipment, rushing at work, or insufficient safety training (Environmental Safety Incident Response Centre, 2024).

This job is not only physically demanding but also carries hidden dangers that can threaten workers' health and lives. Working on busy roads increases the risk of traffic accidents, while daily contact with waste may expose workers to needles, broken glass, and harmful substances if proper protection is not used.

Waste collectors also face occupational diseases caused by long-term exposure to bacteria, hazardous waste, and extreme weather conditions such as heat, cold, and rain.

This section aims to protect waste collectors through three key goals. First, it helps workers identify common risks in their daily work. Second, it provides clear guidance on accident prevention to protect both workers and their colleagues. Finally, it helps workers understand their rights and responsibilities related to occupational safety and health, supporting safer and fairer working conditions.

Card 68

11 · Occupational Safety and Hygiene for Waste Collectors

Identifying Workplace Hazards

Quick guide **Know the hazards; avoid the risks.**

Identifying hazards in waste collection work is the ability to recognise the health and safety risks that workers face daily (sharp objects, broken glass, needles, toxic substances, bacteria, and traffic accidents), enabling proactive prevention and risk reduction.

> *Every day collecting rubbish, you never know what you will come across. Sharp objects, broken glass, sometimes even needles.*
>
> **Worker's account** · Waste collector, Hanoi

Health hazards

- Dust, vehicle exhaust fumes, foul odours, decomposing waste, chemicals, microorganisms, cold weather.
- Common illnesses: pneumonia, joint pain, skin diseases, bronchitis, depression due to night work.

Physical hazards

- Traffic collisions, slips and falls, puncture wounds from sharp objects, electric shock, falling objects, physical assault.

My notes

Protective Clothing and Safety Equipment

Quick guide **Be visible; prevent accidents.**

Protective clothing and safety equipment for waste collectors include a full set of personal protective equipment: reflective clothing (to ensure visibility to road users), thick gloves, high boots, face masks, and safety goggles, designed to protect the body from injury and infection during work.

> *Collecting rubbish at night without reflective clothing means drivers can't see you. It's very dangerous.*
>
> **Worker's account** · Waste collector, Ho Chi Minh City

- Wear reflective clothing, clearly visible from 5-10 metres.
- Attach flashing LED lights to carts or helmets when working at night.
- Apply reflective strips on all sides of carts, brooms, and dustpans.

Safety equipment

- Carts with good brakes and wheel chocks.
- Thick gloves and clean face masks.
- Rubber boots, raincoats, and torches.

My notes

Card 70

11 · Occupational Safety and Hygiene for Waste Collectors

Working on Roads and in Unfamiliar Areas

Quick guide **One minute slower; a whole day safer.**

Working on roads and in unfamiliar areas refers to safety principles when collecting waste on public roads and in new or unfamiliar locations, including carefully observing the terrain before moving, proceeding slowly and cautiously, ensuring someone is watching out, and always prioritising safety over speed.

> *Working in unfamiliar places, not knowing the roads, you can fall because of potholes or broken manhole covers.*
>
> **Worker's account** · Waste collector, Da Nang

- Park carts on level ground; avoid slopes.
- Remember where the potholes, damaged manhole covers, blind corners, and intersections are.
- If a cart starts rolling downhill: shout for help and move away, do not try to stop it.
- In unfamiliar areas: observe carefully, move slowly, and get familiar with the surroundings.

My notes

When Incidents or Danger Occur

Quick guide **Work together safer than working alone.**

Responding to incidents or danger is the procedure for dealing with emergency situations during waste collection, including stopping work immediately, calling colleagues or emergency services for help, and not attempting to handle situations beyond one's capacity alone.

> *On nights when I have to work alone, it's very scary. If something happens, there's no one to help.*
>
> **Worker's account** · Waste collector, Hanoi

- Memorise emergency numbers: 115 (medical emergency), 113 (police), 114 (fire and rescue).
- Carry a whistle and work in pairs.
- Know the locations of local security stations and 24-hour shops near your work area.
- If attacked: shout and move towards well-lit, crowded places.

My notes

Card 72

11 · Occupational Safety and Hygiene for Waste Collectors

Emergency response to unknown chemical waste

Quick guide **Move away; rinse with clean water; call 115.**

Responding to unknown chemical exposure is the protocol for dealing with hazardous substances found in waste (solvents, batteries, pesticides), focusing on immediate evacuation, skin/eye decontamination, and seeking professional medical help to prevent long-term health damage.

EMERGENCY

- **Immediate Actions:** If you notice an unusual smell, skin burning, eye irritation, or sudden dizziness: move away from the area immediately. Do not attempt to identify or handle the substance.
- **First Aid:** Remove any contaminated clothing immediately. Rinse affected skin or eyes with large amounts of clean water for at least 10-15 minutes.
- **Medical Help:** Call 115 or go to the nearest health facility immediately. Tell medical staff you were exposed to unknown chemical waste and describe what you saw or smelled.
- **Safety Warning:** Do not induce vomiting if chemicals may have been inhaled or swallowed.

My notes

Needle-stick injury protocol

Quick guide **Wash; do not squeeze; go for medical assessment for PEP as soon as possible (within 72 hours at the latest).**

A needle-stick injury occurs when a used needle accidentally punctures the skin, posing a high risk of bloodborne diseases (HIV, Hepatitis B & C). Immediate first aid and medical intervention as soon as possible, and within 72 hours at the latest, for Post-Exposure Prophylaxis (PEP) are vital to prevent permanent infection.

- **Immediate Care:** Wash the puncture site immediately with soap and running water.
- **Safety Warning:** DO NOT scrub the area hard or deliberately squeeze the wound to force bleeding, as this may damage the tissue and increase infection risk.
- **Reporting:** Report the incident immediately and tell medical staff everything you know about what happened. Do not carry the used needle to the clinic yourself. If it can be handled safely, place it in a puncture-resistant sharps container
- **Urgent Medical Action:** Go immediately to the nearest health facility that can assess needle-stick injuries (such as a tropical diseases hospital or a hospital with an infectious diseases department).

PEP Treatment: Ask to be assessed straight away for HIV post-exposure prophylaxis (PEP). For maximum effectiveness, this medication must be started as soon as possible, and within 72 hours of exposure at the latest.

- Hepatitis B: Tell the doctor your vaccination history. Your immunity will be checked and treatment given if needed.
- Hepatitis C: You will need assessment and follow-up.
- Source of the needle: If you know anything about where the needle came from, tell the doctor so the risk can be assessed.
- Tests and counselling: A baseline blood test is taken at the first visit, followed by follow-up tests and counselling after exposure.

My notes

Working with Compactor Trucks

Quick guide **Compactor trucks can cause serious accidents; always stay alert.**

Working with compactor trucks involves strict safety rules when operating or working near waste-compacting equipment, including never approaching while the machine is operating, maintaining a safe distance, using signalling devices when the vehicle is moving, and strictly following safe operating procedures.

> *You must be extremely careful when the machine is running. One moment of carelessness and you could be crushed, it's very dangerous.*
>
> **Worker's account** · Waste collector, Ho Chi Minh City

- Only trained personnel are allowed to operate the machine.
- When the machine is running: never place hands, feet, or tools into the compaction area.
- Never stand inside the waste container while the driver is in the cab.
- Always give signals and confirm with your co-workers before operating the machine.
- The vehicle must have an emergency stop button and a designated spotter.

My notes

Card 75

11 · Occupational Safety and Hygiene for Waste Collectors

Workers' Rights & Responsibilities

Quick guide **Know your rights; stay safe; protect yourself.**

Workers' rights and responsibilities in waste collection include legal entitlements (being provided with personal protective equipment, working in a safe environment, receiving training, and refusing dangerous work) and obligations (using protective equipment and complying with safety regulations) under occupational safety laws.

> *I never really thought about what rights I had. The boss tells you to do something, and you just do it.*
>
> **Worker's account** · Waste collector, Da Nang

Rights:

- To be provided with protective equipment, safety training, and health check-ups.
- To refuse dangerous work.
- To report accidents and receive support.

Responsibilities

- To follow procedures and use protective equipment.
- To report any safety hazards immediately.

My notes

Prohibited Practices

Quick guide **Unsafe work; you have the right to say NO.**

Prohibited practices in waste collection are actions that violate occupational safety regulations, such as working without protective equipment, operating vehicles under the influence of alcohol, or forcing workers to work in unsafe conditions. Workers have the right to refuse such practices.

> *I've been forced to work in dangerous conditions before, but I didn't dare say anything, I was afraid of losing my job.*
>
> **Worker's account** · Waste collector, Hanoi

- Concealing accidents or falsifying reports.
- Using machinery that has not been safety-inspected.
- Assigning untrained workers to hazardous tasks.
- Forcing workers to operate in unsafe conditions.

My notes

Card 77

11 · Occupational Safety and Hygiene for Waste Collectors

Final Message

Quick guide **Occupational safety for family happiness.**

The final occupational safety message for waste collectors is the most important reminder: safety comes first, no job is more important than life and returning home safely to one's family every day is the most precious thing to protect.

> *Every day I go out to work, I just hope to come home safely to my family.*
>
> **Worker's account** · Waste collector, Da Nang

Always remember:

- Stay safe so you can return home unharmed every day.
- Every job can be done in a safe way.
- Protect yourself and your co-workers.

My notes



12

Mental Health Care

11 cards in this section

78 Recognising & Responding to Stress (Work Pressure) 206
79 Recognising Signs of Stress 208
80 Breathing & Relaxation Techniques 209
81 Physical Activity & Stress Relief 210
82 Nurturing Positive Emotions 211
83 Responding to Verbal Abuse or Discrimination 212
84 Sleep and Mental Recovery 214
85 Building Healthy Bedtime Habits 216
86 Power Naps During Breaks 217
87 Warning Signs of Poor Sleep 218
88 Seeking Help During a Crisis 219

Mental health is essential for the safety, productivity, and overall wellbeing of outdoor workers, who often face harsh weather, heavy workloads, and limited social support. The World Health Organization (WHO) notes that work conditions strongly affect mental health. Ongoing pressure, job risks, unstable income, and lack of support can lead to stress, depression, and burnout.

WHO also highlights that a safe and supportive work environment helps prevent mental health problems while improving work performance and team morale (WHO, 2022). This shows why mental healthcare at work is important.

According to the American Psychological Association (APA), mental health is not only about avoiding mental illness. It also means being able to manage emotions, cope with challenges, and maintain positive relationships. When mental health is supported, workers are better able to handle stress and stay resilient at work.

When mental health is ignored, workers may lose motivation, experience more conflict, and face higher safety risks (APA, 2018). For these reasons, caring for the mental health of outdoor workers is not only humane but also essential for safer work, better performance, and long-term sustainability.

12.1 Stress management

Stress is the body's response to pressure, and when prolonged, it can have negative effects on the cardiovascular, digestive, and immune systems (APA, 2024b).

Work-related pressure, unsupportive working environments, and poor management are considered *occupational psychosocial risks* that need to be properly managed (WHO, 2019; WHO, 2024).

Stress is a natural response to pressure. However, when overload persists over time, stress can negatively affect the nervous system, cardiovascular health, sleep quality, and mood.

According to the APA (2024), activities such as light physical movement, deep breathing, stretching, and relaxation techniques can effectively reduce stress.

Card 78

12 · Mental Health Care

Recognising & Responding to Stress (Work Pressure)

Quick guide **Early detection; small actions; prevent build-up.**

Recognising and responding to stress is the ability to identify early signs of psychological stress (such as anxiety, insomnia, and irritability) and to respond promptly using simple stress-reduction techniques, thereby preventing stress from accumulating and leading to more serious health problems.

> *I have to work all day without rest, and I keep worrying about my children and rent. I can't sleep at night.*
>
> **Worker's account** · Street vendor (vegetables, roots and fruit), Da Nang

Early signs: restlessness, rapid heartbeat, difficulty sleeping, irritability, poor concentration.

Common causes: excessive workload, lack of control over work, insufficient support, and not enough time to rest and recover.

Quick coping strategies

- Deep breathing (4-4-4, for quick calm during work): inhale for 4 seconds, hold for 4 seconds, exhale for 4 seconds (repeat 3-5 times).
- Short break (2-3 minutes): stand up and stretch.
- Write down one positive thing from the day.

My notes

Card
79

12 · Mental Health Care

Recognising Signs of Stress

Quick guide **Recognising stress is the first step towards easing it. If symptoms last more than two weeks → seek support.**

Signs of stress are specific symptoms of psychological strain that appear both physically (headaches, fatigue, loss of appetite) and mentally (anxiety, irritability, difficulty concentrating). Recognising these signs early helps workers assess their mental wellbeing and take timely action.

> *Some days I just feel constantly tired and easily irritated. I feel exhausted all the time but don't know why.*
>
> **Worker's account** · Porter, Da Nang

Common signs

- Rapid heartbeat, fatigue, muscle tension, headaches
- Sleep difficulties, repetitive thoughts, irritability
- Feeling "overwhelmed" at work

My notes

Card 80

12 · Mental Health Care

Breathing & Relaxation Techniques

Quick guide **Breathe deeply; relax; reduce stress.**

Breathing and relaxation techniques are simple methods that can be practised anytime and anywhere (such as deep abdominal breathing and progressive muscle relaxation) to reduce stress, slow the heart rate, and bring a sense of calm to both mind and body.

> *During breaks, just sitting still for five minutes and focusing on breathing already makes me feel lighter.*
>
> **Worker's account** · Construction worker, Da Nang

- 4-7-8 breathing (for deep relaxation, ideal before sleep): inhale for 4 seconds, hold for 7 seconds, exhale for 8 seconds (repeat 3-5 times)
- Muscle relaxation: tense and then release each muscle group (arms, shoulders, legs)
- Sit quietly for 1-2 minutes, focusing on the breath

My notes

Card
81

12 · Mental Health Care

Physical Activity & Stress Relief

Quick guide **Light movement helps relax muscles and reduce stress.**

Physical activity and stress relief refer to light physical activities (such as walking, stretching, or talking with colleagues) that help the body release endorphins, which improve mood, reduce anxiety, and enhance mental wellbeing.

> *At lunchtime, I try to take a short walk and chat with my co-workers. It really lifts my mood.*
>
> **Worker's account** · Delivery driver, Da Nang

- Brisk walking for 5-10 minutes
- Stretching, neck rotation, gentle muscle stretches
- Light jumping or arm and leg movements
- Laughing and chatting with colleagues

My notes

Nurturing Positive Mindset & Emotions 12.2

When working outdoors, it is common to face pressure at times: heat, rain, noise, and physical fatigue. Positive emotions such as gratitude, joy, and hope, can help you stay emotionally steady, reduce stress, and strengthen your ability to cope with challenges.

Research shows that small, daily activities that bring joy can improve mental wellbeing (WHO, 2018a).

Card 82 · 12 · Mental Health Care

Nurturing Positive Emotions

Quick guide **Write down 1-3 good things each day to improve your mood.**

Nurturing positive emotions is the practice of actively creating and maintaining positive emotional states in daily life (such as appreciating small things, finding joy in work, and staying connected with loved ones) to improve mental health and increase resilience to stress.

> *Even though life is hard, having a job and an income every day already makes me happy.*
>
> **Worker's account** · Female street fruit vendor, Da Nang

- Each day, choose at least one small thing to be grateful for (sunshine, a good meal, help from a colleague).
- Take three deep breaths: inhale → hold → exhale, focus on something positive.
- When feeling exhausted, list three things you did well today.
- Connect: smile and share one positive moment with a colleague.

12.3 Responding to Discrimination or Verbal Abuse

When working outdoors, you may encounter disrespectful behaviour, being shouted at, looked down upon, or discriminated against because of your occupation. These experiences not only hurt emotionally but can also lead to long-term stress if not addressed. Knowing how to respond calmly, protect your emotional wellbeing, and seek support is essential (APA, 2024a).

Card 83

12 · Mental Health Care

Responding to Verbal Abuse or Discrimination

Quick guide **Do not stay silent in the face of abuse, you have the right to be respected. Record the incident and contact the appropriate authority.**

Responding to verbal abuse or discrimination is a skill that helps protect mental wellbeing and enables appropriate responses when treated with disrespect (staying calm, clearly expressing how you feel, and seeking support from colleagues or relevant authorities), rather than silently accepting mistreatment, while affirming your right to be treated with respect.

> *Some customers look down on me and speak rudely. I have to put up with it, otherwise I will lose customers.*
>
> **Worker's account** · Female motorbike taxi driver, Da Nang

- Take 2-3 deep breaths to stay calm.
- Respond calmly, for example: “I’m sorry, I’m working right now. How can I help you?”
- If the situation feels overwhelming, step away and move to a safe place.
- Talk to someone you trust (a colleague, supervisor, or trade union representative).

My notes

12.4 Sleep and Mental Recovery

Sleep is a natural remedy that helps the body and mind recover after long days of working in heat, rain, and noisy environments. Lack of sleep can make you more irritable, less focused, and more likely to work unsafely. Protecting your sleep means protecting your energy, mental wellbeing, and overall health.

Sleep is not just about rest; it helps the brain process emotions, restore energy, and maintain mental health. Many studies show that sleep deprivation increases the risk of depression, anxiety, and stress.

Improving sleep, by keeping regular sleep times, reducing exposure to blue light before bedtime, and ensuring a quiet sleeping environment, can help calm the mind and strengthen mental resilience (National Sleep Foundation, 2024; Scott et al., 2021).

Card 84

12 · Mental Health Care

Sleep and Mental Recovery

Quick guide **Less sleep = weaker mental resilience. Give your mind time to rest. Adequate sleep helps reduce workplace accidents.**

Sleep and mental recovery highlight the essential role of good-quality sleep (7-8 hours per night) in strengthening memory, regulating emotions, restoring mental energy, and maintaining the ability to cope with daily stress.

> *I start work early in the morning and get home late. Not getting enough sleep leaves me exhausted the next day.*
>
> **Worker's account** · Female recyclable collector, Da Nang

- If possible, take a short nap (10-20 minutes) during your break to "recharge".
- Before sleep: avoid phones and blue light, drink warm water.
- Create a quiet, clean, and cool sleeping environment.
- For night sleep: keep a regular bedtime and avoid staying up too late.

My notes

Card
85

12 · Mental Health Care

Building Healthy Bedtime Habits

Quick guide **Stable sleep routines = a resilient mind.**

Building healthy bedtime habits involves creating consistent pre-sleep routines (going to bed and waking up at the same time, creating a comfortable sleep environment, avoiding phone use before sleep) to improve sleep quality and support mental well-being.

> *At lunchtime, I hang up my hammock and rest for a bit, then get back to work at 1 pm. A midday rest helps me feel stronger.*
>
> **Worker's account** · Construction worker, Da Nang

- Go to bed and wake up at the same time every day.
- Avoid phones and blue lights at least 30 minutes before sleep.
- Keep the bedroom quiet, cool, and low noise.
- Drink warm water; avoid heavy meals and coffee before bedtime.

My notes

Card
86

12 · Mental Health Care

Power Naps During Breaks

Quick guide **A 15-30 minutes nap can quickly refresh your mind.**

A power nap during the lunch break is an effective rest method lasting 15-30 minutes, helping to restore energy, improve focus and mood, without causing grogginess or affecting night-time sleep.

> *During the lunch break, I lie down on the formwork on the floor and sleep for 20-30 minutes, and I feel much more alert.*
>
> **Worker's account** · Construction worker, Da Nang

- If time allows, take a short nap of 10-20 minutes.
- Avoid sleeping too long (to prevent grogginess).
- Choose a quiet, low-light place.
- Let colleagues know so you are not disturbed.

My notes

Card
87

12 · Mental Health Care

Warning Signs of Poor Sleep

Quick guide **Too little sleep + daytime drowsiness → time to improve sleep.**

Warning signs of poor sleep are symptoms indicating declining sleep quality (difficulty falling asleep, light or interrupted sleep, frequent waking, prolonged fatigue, and difficulty concentrating), which need attention and improvement to avoid negative effects on physical and mental health.

> *I've been feeling exhausted for days and can't focus on work. I wake up many times each night.*
>
> **Worker's account** · Motorbike taxi driver, Da Nang

- Feeling tired and unfocused at work.
- Increased tension and irritability.
- Difficulty sleeping or waking up many times at night.
- Prolonged fatigue → adjust habits or seek support.

My notes

Seeking Help During a Mental Health Crisis 12.5

At times, work pressure, personal life challenges, and difficult working conditions can build up and leave you feeling exhausted, sad, unmotivated, or even hopeless (WHO, 2018a).

When these feelings persist, it does not mean you are "weak", it is a sign that you may need support.

Knowing how to seek help at the right time is a brave and wise action.

Card 88 · 12 · Mental Health Care

Seeking Help During a Crisis

Quick guide **Seeking help is your right, not a sign of weakness. If you have thoughts of self-harm, contact emergency services and a family member immediately.**

Seeking help during a mental health crisis is the ability to recognise when professional mental health support is needed (persistent sadness, loss of interest in daily activities, thoughts of self-harm) and to know how to access counselling services or mental health helplines.

> *I feel sad and don't want to do anything. But I don't know who to talk to, I'm afraid people will laugh at me.*
>
> **Worker's account** · Female street vendor (vegetables, roots and fruit), Da Nang

- **Recognise the signs:** persistent sadness, insomnia, frequent negative thoughts, reluctance to go out.

- **Contact support services:** mental health helplines, charitable organisations, local health centres.
- **Speak up:** "I'm exhausted and need someone to listen to me."
- **If there is immediate danger** (thoughts of self-harm), contact emergency services or a trusted family member straight away.

Free Mental Health Services

Hanoi

Hanoi Mental Hospital

No. 30, Alley 467, Nguyen Van Linh Street, Phuc Loi Ward, Hanoi

Telephone: +84 (0)967 30 1616

Da Nang

HOPE (Hy Vong Song) hotline

Hotline: 0865 044 400

Website: hyvongsong.com

Ho Chi Minh City

Lumos Psychological Counselling and Therapy Centre

27A Nguyen Van Nguyen, Tan Dinh Ward, HCMC

- **Hotline:** 0839 000 202
- **Website:** tamlylumos.com
- **Email:** info@tamlylumos.com

Can Tho

Phong kham Tam Ly 24/7 (24/7 Psychology Clinic)

241 Hoang Quoc Viet, An Binh Ward, Can Tho

Hotline: 1900 7247

Website: https://tamly247.com

Email: info@tamly247.com



In closing

Conclusion

Your health is your most valuable asset.

Health is the most valuable asset of every worker. Without good health, work, income, and family wellbeing are all placed at risk. This toolkit has been developed to provide essential and practical knowledge to help outdoor workers protect themselves while working under harsh conditions. From recognising workplace hazards to responding effectively in emergency situations, the guidance presented here is designed to be clear, easy to understand, and immediately applicable in daily life.

Several key messages should be firmly remembered throughout the process of protecting health.

First and foremost, **"prevention is better than cure".** Small, everyday actions, such as wearing appropriate protective equipment, drinking enough water, and taking regular rest breaks, may seem simple, but they are the most effective ways to maintain long-term health. Making a small investment in protection today can prevent major health and financial losses in the future.

Second, **"listening to your body"** is a vital life skill. Do not keep working when you notice warning signs such as headaches, dizziness, or unusual fatigue. The human body has a sophisticated self-protection mechanism, and these signals are early warnings that allow us to adjust in time. Continuing to work despite these signs can lead to severe and irreversible health consequences.

Third, **community solidarity plays an indispensable role in protecting workers' health**. Caring for and supporting one another not only creates a safer working environment but also builds a strong support network. When everyone looks out for one another's safety, the risk of accidents is significantly reduced and the ability to respond to emergencies is also improved.

Last but not least, "continuous learning" is key to maintaining and improving health protection. Keeping knowledge and skills up to date not only helps us keep pace with advances in healthcare but also helps us adapt to changes in working conditions and living environments.

With the spirit of continuous improvement, this toolkit will be regularly updated using reliable information sources.

Feedback from workers is the most valuable source of information, as real-life experiences ensure that the content remains practical, relevant, and grounded in reality. New scientific research on occupational health will also be incorporated to maintain accuracy and relevance. Changes in labour and health insurance laws and policies will also be updated promptly so that workers can make full use of the rights protected by law. In addition, practical experience from the worker community will be continuously added, building a rich and diverse body of knowledge.

To ensure that this toolkit truly becomes a useful tool for the worker community, we sincerely welcome your contributions. All feedback, suggestions, and shared experiences can be sent to the email address **lienhe@sociallife.vn** or via the ICAN application under the **"Feedback"** section. Your active participation will help make this toolkit increasingly comprehensive and practical.

In closing, we would like to emphasise once again

"Your health is your most valuable asset, invest in it and protect it every day."

The knowledge in this toolkit only becomes truly meaningful when it is applied persistently and consistently in practice. We believe that, with the care and effort of each individual, the Vietnamese worker community will have a safer and healthier working environment.

Appendix. Methodology

The toolkit was developed using a worker-centred design approach, drawing on design thinking (Chan & Della, 2024) combined with participatory research methods for data collection and consultation (Chambers, 1994; Cornwall & Jewkes, 1995). This approach ensured that every component of the toolkit was grounded in the actual needs and lived experiences of outdoor workers.

The development process was implemented across five stages: Empathise, Define, Ideate, Prototype, and Test. At each stage, workers were actively involved and mechanisms were established to collect their feedback, ensuring the relevance, practicality, and usability of the toolkit.

This participatory approach is described in detail in Table 2, which presents the specific activities, methods, and outputs at each stage of the toolkit development process. The Empathise stage established the foundation through quantitative survey data from 800 workers (two rounds using a repeated cross-sectional design), 43 in-depth interviews, and 8 focus group discussions across the four cities of Hanoi, Da Nang, Ho Chi Minh City, and Can Tho, complemented by participant observation. This initial stage generated important insights into workers' everyday challenges, existing self-coping strategies, and priority health concerns as identified by the workers themselves.

Building on this foundation, the Define stage synthesised the research findings to identify core issues and key health risks through data analysis sessions and stakeholder consultations. This process informed the development of design criteria closely aligned with workers' practical needs. Next, the Ideate stage directly engaged workers in proposing solutions through a co-cre-

ation workshop in Ho Chi Minh City, ensuring that the solutions reflected the realities of their work rather than relying solely on expert assumptions.

During the Prototype stage, draft materials were refined based on workers' feedback. Pilot testing in real-world work settings helped identify necessary adjustments to the content, format, and delivery mechanisms. Finally, the Test stage involved pilot implementation activities in Ho Chi Minh City, combining user testing and impact assessment to measure effectiveness and identify areas for improvement.

Across all five stages, workers participated as active contributors, being consulted and invited to provide feedback at each step. This ensured that the final toolkit responded to their needs and could be readily integrated into their everyday work practices.

Stage 1: Empathise

The first stage focused on developing an in-depth understanding of the experiences, needs, and challenges faced by outdoor workers in the context of climate change. We conducted a quantitative survey with 800 workers (two survey rounds, with 400 workers in each round) across four major cities: Hanoi, Da Nang, Ho Chi Minh City, and Can Tho. The survey sample was evenly distributed across four main occupational groups: construction workers, porters, street vendors, and motorbike taxi drivers. The survey covered working conditions, health status, knowledge of risk prevention, access to healthcare services, and the use of protective equipment.

Alongside the quantitative survey, we conducted 43 in-depth interviews with workers representing the target occupational groups to capture their personal stories, coping experiences, and barriers to accessing healthcare. Eight focus group discussions (FGDs) were conducted across the four cities, using participatory research tools such as community mapping, problem classification matrices, and health timelines. In addition, researchers

Table 2. Toolkit development process

Methodology: Design Thinking combined with Participatory Research



Methods	Tools	Activities	Outputs	Testing
▸ Surveys (n=800) ▸ In-depth interviews (n=43) ▸ FGDs (8 groups) ▸ Participant observation ▸ 4 cities, 4 occupations	▸ Empathy Map ▸ Journey Map ▸ Personas (n=4) ▸ Problem Statement ▸ Success criteria	▸ Co-creation ▸ Brainstorming ▸ SCAMPER ▸ Design challenge (n=12) ▸ Impact matrix ▸ Five thematic categories	▸ Paper-based prototypes ▸ Digital prototypes ▸ ICAN App (Beta) ▸ Toolkits (n=100) ▸ Emergency pocket cards ▸ Co-creation sessions	▸ Alpha (n=40, 4 weeks) ▸ Beta (n=100, 8 weeks) ▸ Feedback Grid ▸ "Companion" model ▸ Four workshops ▸ Impact assessment ▸ Final feedback

Feedback and iteration: testing loops back to ideation

Implementation context 4 cities · 4 occupational groups

800	43	8	30	40	100
surveys	in-depth interviews	FGDs	co-creators	Alpha, 4 weeks	Beta, 8 weeks

Participants throughout the process

- Outdoor workers (co-creators, n=30 in co-creation workshops)
- Primary healthcare staff, occupational health experts, designers
- Support organisations, local health and labour authorities

Final outputs

- Fully developed toolkit with field-tested content
- ICAN application version 1.0 (integrated support chatbot)
- User guidance videos and supporting materials
- Scalable community implementation model

Implementation principles

- Workers as co-creators
- Diversity and inclusion
- Adaptive flexibility based on feedback
- Compliance with research ethics

Key highlights of the process

- Workers are not merely research subjects but active co-creators
- Integration of quantitative and qualitative methods to understand needs in depth
- Continuous feedback loops before large-scale implementation

conducted participant observation to document actual working conditions and workers' natural coping behaviours.

Stage 2: Define

Data collected during the Empathise stage were synthesised and analysed to identify the core issues that needed to be addressed. We conducted a synthesis and analysis session involving the research team and worker representatives, using an empathy map to capture workers' thoughts, feelings, words, and actions, alongside a journey map to trace their experiences from daily work, through the onset of health problems, to seeking support.

Based on this analysis, we developed four representative user personas corresponding to the main occupational groups, incorporating detailed information about their circumstances, needs, and challenges. These findings led to the identification of the central problem: outdoor workers need accessible, low-cost, and practical solutions to protect their health and access public healthcare services, as they often lack the necessary knowledge, resources, and system-level support. The success criteria were also established: the toolkit should be easy to understand, easy to apply, affordable, and culturally appropriate for local communities.

Stage 3: Ideate

With the problem clearly defined, this stage focused on generating a wide range of creative ideas through a co-creation workshop held in Ho Chi Minh City. A total of 30 participants, including outdoor workers, primary healthcare providers, occupational health experts, and designers, took part in brainstorming activities and applied the SCAMPER creative thinking technique. Ideas were freely shared, explored, and developed without judgement.

Stage 4: Prototype

Based on the selected ideas, we began developing prototype versions of the toolkit to gather early feedback. The initial paper prototypes included draft layouts for the toolkit, sketches of the ICAN application interface, and simulations of the user journey. Subsequently, digital prototypes were developed, incorporating

detailed guidance content, visual illustrations, and a trial version of the ICAN application featuring core functions such as weather alerts, a support-point map, first-aid guidance, and a community forum.

Most importantly, we organised a co-creation session in Ho Chi Minh City, inviting workers to review the prototypes and provide specific feedback on the content, language, visual design, and usability of the application. Revisions were then made based on this feedback.

Stage 5: Test

The final stage involved testing the toolkit under real-world conditions to evaluate its effectiveness and make further improvements before wider implementation. The initial pilot test was conducted with 40 workers in Ho Chi Minh City over a four-week period. Participants received training on how to use the toolkit, were provided with the toolkit, and downloaded the application. They then documented their daily experiences through user diaries.

Feedback was collected through individual interviews, group discussions, and short surveys, and was analysed using a feedback matrix to identify strengths that should be retained and areas requiring improvement. An expanded pilot test was subsequently conducted with 100 workers in Ho Chi Minh City over eight weeks, using the improved version of the toolkit and receiving continuous support through the "Companion" (Bạn đồng hành) model. The impact of the toolkit was assessed through indicators including increased knowledge, improved health-protective behaviours, and increased access to healthcare services.

All feedback collected throughout the testing process was synthesised and shared with participating workers and supporting organisations to jointly review the findings and discuss opportunities for scale-up. The final feedback was incorporated into the completed products, including the toolkit, the ICAN application

(version 1.0) with an integrated support chatbot, instructional videos, and other supporting materials.

Overarching Principles

Throughout the entire process, workers were not only the intended beneficiaries of the toolkit but also active contributors to its development. This approach ensured that the toolkit was inclusive, culturally responsive, adaptable, and developed in accordance with research ethics principles. As a result, the final toolkit is both reliable and user-friendly, while remaining relevant to the realities of outdoor work.

References

ACOG. (2020). *Physical activity and exercise during pregnancy*. https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2020/04/physical-activity-and-exercise-during-pregnancy-and-the-postpartum-period

APA. (2018). *APA Dictionary of Psychology.* https://dictionary.apa.org/mental-health

APA. (2024a). *Discrimination: What it is and how to cope, Types of stress*. https://www.apa.org/topics/racism-bias-discrimination/types-stress

APA. (2024b). *Stress effects on the body*. https://www.apa.org/topics/stress/body

Centers for Disease Control and Prevention. (2025). *Clinical overview of heat and pregnancy.*

https://www.cdc.gov/heat-health/hcp/clinical-overview/heat-and-pregnant-women.html

Centers for Disease Control and Prevention. (2023). *Prevent hypothermia & frostbite*. https://www.cdc.gov/natural-disasters/psa-toolkit/preventing-hypothermia-and-frostbite.html

Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health. (2024). *Heat-related illnesses and first aid*. Centers for Disease Control and Prevention. https://www.cdc.gov/niosh/heat-stress/about/illnesses.html

Chambers, R. (1994). The origins and practice of participatory rural appraisal. *World Development, 22*(7), 953-969.

Chan, G. C. S., & Della, C. (Eds.). (2024). *Design thinking: A comprehensive guide. UCSI Press.*

Cornwall, A., & Jewkes, R. (1995). What is participatory research? *Social Science & Medicine, 41*(12), 1667-1676.

Duong, P. L., Nguyen, T. D., Pham, C. M. T., & Le, M. B. (2022). *Cost structure and out-of-pocket capacity for healthcare among patients at O Mon District General Hospital, Can Tho City, 2022* [Nghiên cứu cơ cấu chi phí và khả năng tự chi trả cho chăm sóc y tế ở người bệnh tại bệnh viện đa khoa quận Ô Môn thành phố Cần Thơ 2022]. *Tạp Chí Y Dược Học Cần Thơ [Can Tho Journal of Medicine and Pharmacy], 50*, 114-121. https://doi.org/10.58490/ctump.2022i50.132

Environmental Safety Incident Response Centre. (2024). *Training on occupational safety and hygiene for informal waste collectors* [Tập huấn an toàn vệ sinh lao động cho người thu gom rác dân lập] [PowerPoint slides]. Internal training material.

General Statistics Office of Vietnam. (2023). *Summary tables of the Vietnam Household Living Standards Survey 2022* [Biểu tổng hợp kết quả khảo sát mức sống dân cư 2022]. General Statistics Office website.

Gia Hung. (2025). *Prioritising the health of outdoor workers during severe and extreme cold seasons* [Ưu tiên bảo vệ sức khỏe người lao động ngoài trời mùa rét đậm, rét hại]. Cuộc Sống An Toàn, Lao động & Công đoàn [Safe Living, Labour & Trade Union]. https://cuocsongantoan.laodongcongdoan.vn/uu-tien-bao-ve-suc-khoe-nguoi-lao-dong-ngoai-troi-mua-ret-dam-ret-hai-109684.html

Government of Vietnam. (2021). *Decision No. 1658/QĐ-TTg approving the National Strategy on Green Growth for the period 2021-2030, with a vision to 2050* [Quyết định số 1658/QĐ-TTg: Phê duyệt Chiến lược quốc gia về tăng trưởng xanh giai đoạn 2021-2030, tầm nhìn 2050].

Government Online Newspaper. (2023, January 1). *Vietnam officially abolishes household registration books from 1 January 2023* [Chính thức bỏ sổ hộ khẩu, sổ tạm trú kể từ hôm nay, 1/1/2023]. https://baochinhphu.vn/chinh-thuc-bo-so-ho-khau-so-tam-tru-ke-tu-hom-nay-1-1-2023-10223010110293599 3.htm

Health Environment Management Agency (HEMA). (2024). *Official Letter 104/MT-SKMT/2024 on prevention and protection of community and workers' health from impacts of heatwaves, drought and saltwater intrusion* [Công văn 104/MT-SKMT/2024 về việc dự phòng, bảo vệ sức khỏe cộng đồng, người lao động trước tác động của nắng nóng, hạn hán, xâm nhập mặn], issued on 3 April 2024.

International Labour Organization. (2019). *Maternity protection at work*. https://www.ilo.org/sites/default/files/wcmsp5/groups/public/@africa/@ro-abidjan/documents/instructionalmaterial/wcms_388232.pdf

International Labour Organization. (2020). *Safety and health in the use of chemicals at work: A training guide*.

International Labour Organization. (2021). *Occupational safety and health in extreme temperatures* (Technical Note). https://www.ilo.org/topics/safety-and-health-work

Ministry of Science and Technology. (2008). *QCVN 02:2008/BKHCN, National technical regulation on motorcycle and moped helmets* [QCVN 02:2008/BKHCN, Quy chuẩn kỹ thuật quốc gia về mũ bảo hiểm cho người đi mô tô, xe máy], issued on 26 December 2008.

Ministry of Labour, Invalids and Social Affairs. (2021). *Circular 29/2021/TT-BLĐTBXH on labour classification standards by working conditions, as the basis for determining cases entitled to in-kind allowances and health rehabilitation allowances* [Thông tư 29/2021/TT-BLĐTBXH quy định về tiêu chuẩn phân loại lao động theo điều kiện lao động].

Ministry of Labour, Invalids and Social Affairs. (2022). *Circular No. 24/2022/TT-BLĐTBXH on in-kind allowances for workers exposed to hazardous and harmful working conditions* [Thông tư số 24/2022/TT-BLĐTBXH quy định việc bồi dưỡng bằng hiện vật đối với người lao động làm việc trong điều kiện có yếu tố nguy hiểm, yếu tố có hại].

Ministry of Natural Resources and Environment. (2021). *State of the national environment report, 2016-2020* [Báo cáo hiện trạng môi trường quốc gia giai đoạn 2016-2020]. Dân Trí Publishing House. https://moit.gov.vn/upload/2005517/fck/files/20211108_Bao_cao_HTMT_2016-2020_F_a4980.pdf

Ministry of Natural Resources and Environment. (2023). *State of the national environment report, 2023* [Báo cáo hiện trạng môi trường quốc gia năm 2023].

Ministry of Health. (2021). *Decision No. 1053/QĐ-BYT issuing guidelines on wearing face masks for COVID-19 prevention in public places* [Quyết định số 1053/QĐ-BYT về việc ban hành Hướng dẫn đeo khẩu trang phòng, chống dịch COVID-19 tại nơi công cộng], issued on 6 February 2021.

Ministry of Health. (2025). *Training materials on first aid and emergency response in the workplace* [Tài liệu huấn luyện sơ cứu, cấp cứu tại nơi làm việc] (Issued under Decision No. 636/QĐ-BYT dated 21 February 2025). Ministry of Health.

Ministry of Health. (2026). *Decision No. 237/QĐ-BYT issuing guidelines on disease prevention and control during natural disasters (storms and floods) [Quyết định số 237/QĐ-BYT về việc ban hành Hướng dẫn phòng, chống dịch bệnh trong tình huống xảy ra thiên tai (bão, lũ)], issued on 23 January 2026.*

National Institute for Occupational Safety and Health. (2024). *NIOSH pocket guide to chemical hazards: Emergency first aid procedures*. Centers for Disease Control and Prevention. https://www.cdc.gov/niosh/npg/firstaid.html

National Sleep Foundation. (2024). *Sleep health and mental health: A position statement from the National Sleep Foundation*. https://www.thensf.org/wp-content/uploads/2024/04/NSF-Position-Statement_Sleep-and-Mental-Health_4.1.2024.pdf

National Weather Service. (n.d.). *What is the heat index?* NOAA. https://www.weather.gov/ama/heatindex

National Assembly of Vietnam. (2014). *Law No. 46/2014/QH13 amending and supplementing several articles of the Law on Health Insurance* [Luật số 46/2014/QH13 sửa đổi, bổ sung một số điều của Luật Bảo hiểm y tế], issued on 13 June 2014.

National Assembly of Vietnam. (2015). *Law No. 84/2015/QH13 on Occupational Safety and Health* [Luật số 84/2015/QH13 về an toàn, vệ sinh lao động], issued on 25 June 2015.

National Assembly of Vietnam. (2024). Law on Social Insurance No. 41/2024/QH15 [Luật Bảo hiểm xã hội số 41/2024/QH15], issued on 29 June 2024.

Prime Minister of Vietnam. (2022, July 26). *Decision No. 896/QĐ-TTg approving the National Strategy on Climate Change to 2050* [Quyết định số 896/QĐ-TTg phê duyệt Chiến lược quốc gia về biến đổi khí hậu giai đoạn đến năm 2050].

Scott, A. J., Webb, T. L., Martyn-St James, M., Rowse, G., & Weich, S. (2021). Improving sleep quality leads to better mental health: A meta-analysis of randomised controlled trials. *Sleep medicine reviews*, *60*, 101556. https://doi.org/10.1016/j.smrv.2021.101556

SocialLife Research Institute. (2024). *Survey on the health and working conditions of precarious outdoor workers in urban Vietnam: Quantitative survey data from Hanoi, Da Nang, Ho Chi Minh City and Can Tho* [Climate-Health Vietnam Project Survey Dataset]. Wellcome Trust Grant No. 227993/Z/23/Z. https://climate-health-vietnam.org

Vietnam Environment Administration. (2019). *Decision No. 1459/QĐ-TCMT issuing technical guidance on the calculation and publication of the Vietnam Air Quality Index (VN_AQI)* [Quyết định số 1459/QĐ-TCMT về việc ban hành Hướng dẫn kỹ thuật tính toán và công bố chỉ số chất lượng không khí Việt Nam (VN_AQI)]. https://cem.gov.vn/storage/news_file_attach/QD%201459%20TCMT%20ngay%2012.11.2019%20AQI.pdf

Vu, H. M., Vu, L. G., Tran, T. H., Boyer, L., Auquier, P., Fond, G., Nguyen, T. T., Le, L. K., Do, H. T., Do, H. P., Nghiem, S., Latkin, C. A., Ho, R. C. M., & Ho, C. S. H. (2023). Economic burden and financial vulnerability of injuries among the elderly in Vietnam. *Scientific Reports, 13(1)*, Article 19254. https://doi.org/10.1038/s41598-023-46662-3

World Health Organization, World Meteorological Organization, United Nations Environment Programme, & International Commission on Non-Ionizing Radiation Protection. (2002). *Global solar UV index: A practical guide* (WHO/SDE/OEH/02.2). World Health Organization. https://apps.who.int/iris/handle/10665/42459

World Health Organization. (2010). *WHO best practices for injections and related procedures toolkit.* World Health Organization. https://www.who.int/publications/i/item/9789241599252

World Health Organization. (2018a). *Mental health: Strengthening our response* [Fact sheet]. https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response

World Health Organization. (2018b). *WHO housing and health guidelines*. https://www.who.int/publications/i/item/9789241550376

World Health Organization. (2019). *Mental health in the workplace* [Commentary]. https://www.who.int/news-room/commentaries/detail/mental-health-in-the-workplace

World Health Organization. (2021). *WHO global air quality guidelines: particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide.* World Health Organization. https://iris.who.int/handle/10665/345329

World Health Organization. (2022). *Guidelines on mental health at work*. https://www.who.int/publications/i/item/9789240053052

World Health Organization. (2024). *Mental health at work* [Fact sheet]. https://www.who.int/news-room/fact-sheets/detail/mental-health-at-work

World Health Organization. (2026). *Heat and health.*

https://www.who.int/news-room/fact-sheets/detail/climate-change-heat-and-health

Photo credits

Page	Photo ID	Description	Photographer
Cover	NH104	Cover: worker pushing a goods cart at a fish market, photographed from behind	Nguyen Hanh
9	HT002	Part I opener	Huyen Tran
11	HD036	Construction workers building formwork on a site under the midday sun.	Hong Dao
23	HT008	Part II opener	Huyen Tran
25	HD018	Section 1 opener	Hong Dao
44	HD020	An app-based motorbike taxi driver waiting for customers under the awning of a roadside shop.	Hong Dao
53	HD035	Section 2 opener	Hong Dao
77	HD022	Section 3 opener	Hong Dao
79	XO222	An app-based motorbike taxi driver with helmet, face mask and sun-protective jacket.	Hoang Trieu
80	HD033	A construction worker covering the face with a scarf and mask against sun and dust.	Hong Dao
81	NH102	A vendor at a Da Nang fish market with conical hat, face mask and rubber boots.	Nguyen Hanh
94	HD012	Section 4 opener	Hong Dao
108	NH173	Section 5 opener	Nguyen Hanh
120	HD030	Section 6 opener	Hong Dao
137	NH170	Section 7 opener	Nguyen Hanh
139	HD009	A rest stop supporting workers, where drivers take a break and check their vehicles.	Hong Dao
164	NH050	A roadside shop where workers stop to rest out of the sun.	Nguyen Hanh
169	XO223	Section 8 opener	Hoang Trieu
176	NH086	Section 9 opener	Nguyen Hanh
184	NH122	Section 10 opener	Nguyen Hanh
191	HT004	Section 11 opener	Huyen Tran
204	NH166	Section 12 opener	Nguyen Hanh
221	NH118	Conclusion opener	Nguyen Hanh
Back cover	NH094, HD034, NH203	Back cover photo strip	Nguyen Hanh, Hong Dao

NHÀ XUẤT BẢN PHỤ NỮ VIỆT NAM
39 Hàng Chuối, Phường Hai Bà Trưng, Hà Nội
ĐT: (024) 39717979 · Email: nxbphunu@vnn.vn
Website: www.nxbphunu.com.vn
Chi nhánh tại TP. Hồ Chí Minh:
16 Alexandre de Rhodes, Phường Sài Gòn, TP. Hồ Chí Minh

GUIDANCE TOOLKIT · 2026

HEALTH PROTECTION HANDBOOK FOR OUTDOOR WORKERS

In the context of extreme weather and climate change

Vu Ngoc Anh, Nguyen Duc Loc (joint lead authors)
Pham Da Uyen, Le Quang Huy

Chịu trách nhiệm xuất bản
Giám đốc - Tổng biên tập: **KHÚC THỊ HOA PHƯỢNG**
Biên tập nội dung: Nguyễn Thị Thu
Trình bày và bìa: Viện Nghiên cứu Đời sống Xã hội (SocialLife)
Sửa bản in: Viện Nghiên cứu Đời sống Xã hội (SocialLife)

Đối tác liên kết xuất bản: **Công ty TNHH Viện Đại học Social Life**
Địa chỉ: 71/62e Điện Biên Phủ, Phường Gia Định, TP. Hồ Chí Minh
Email: lienhe@sociallife.vn · Website: www.sociallife.vn

Xuất bản phẩm điện tử, định dạng PDF, dung lượng 27,7 MB
Đăng tải tại: https://nxbphunu.com.vn

Số xác nhận đăng ký xuất bản:
4412-2026/CXBTV/19-106/PN ngày 06/11/2026
Quyết định xuất bản số: **2761/QĐ-NXBPNVN** ngày 12/11/2026
ISBN: **978-632-05-2407-5**
Nộp lưu chiểu năm 2026.

Listen to your body; do not push yourself once warning signs appear.

This toolkit is built on the real-life experiences of hundreds of outdoor workers in Hanoi, Da Nang, Ho Chi Minh City and Can Tho, combined with advice from health and occupational safety experts. Twelve sections and eighty-eight guidance cards: reading weather indicators, recognising danger signs, first aid, choosing protective equipment, using mobile phones for health support, seeing a doctor and using health insurance, building peer support groups, and caring for mental health.

12

sections organised by situation

88

cards, each dealing with one task

4

cities where workers were consulted

24/7

support through the ICAN app







National Centre for Social Research

SocialLife
Science – Humanity – Enlightenment

This toolkit was developed as part of the research programme "The Health Impacts of Climate Change on Precarious Outdoor Workers in Urban Vietnam," led by NatCen and funded by Wellcome. It is delivered by SocialLife, in collaboration with NatCen, with inputs from health and medical specialists.

Contact: lienhe@sociallife.vn

ISBN 978-632-05-2407-5

9 786320 524075

Funded by wellcome