HSE Public Health: National Health Protection Office
FSS Sláinte Poiblí: An Oifig Náisiúnta um Chosaint Sláinte

Guidelines for Public Health Response to Chemical Incidents

Public Health Risk Assessment and Response

Version number: Version 5.0

Publication Date: 31/12/2024

VERSION HISTORY

VERSION	DATE	SUMMARY OF CHANGES	DEVELOPED BY
5.0	December 2024	• Restructuring of document layout • Recommendation to collect epidemiological data • Inclusion of source-pathway-receptor advice model • Updated decontamination algorithm • Inclusion of link to UKHSA chemical hazards compendium • Updated PHRA record form	Environment and Health Programme, Health Security Programme, National Health Protection Office, HSE in consultation with Environment and Health Special Interest Group and Research and Guideline Development Unit.
4.0	May 2019	Update	Public Health Medicine Environment and Health Group
3.0	March 2017	Restructure and update to publish online	Public Health Medicine Environment and Health Group
2.0	June 2010	Update of “On-Call Pack”	Public Health Medicine Environment and Health Group
1.0	April 2005	First “On-Call Pack”	Public Health Medicine Environment and Health Group

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Before check the HPSC website to ensure this is the current version.

If you have any queries relating to this guidance document, please contact [rgdu@hpsc.ie].

CONTENTS

List of Abbreviations

AAR	After Action Review
CIDR	Computerised Infectious Disease Reporting
DNHP	Director of National Health Protection
ED	Emergency Department
EPA	Environmental Protection Agency
EUROCAT	European Surveillance of Congenital Anomalies
GP	General Practitioner
HSE	Health Service Executive
HIPE	Hospital In-Patient Enquiry
IHR	International Health Regulations
MDT	Multidisciplinary Team
MEM	Major Emergency Management
MOH	Medical Officer of Health
NAS	National Ambulance Service
NFP	National Focal Point
NHPO	National Health Protection Office
NPIC	National Poisons Information Centre
OCIMS	Outbreak Case and Incident Management System
OOH	Out Of Hours
PHRA	Public Health Risk Assessment
UKHSA	United Kingdom Health Security Agency
WHO	World Health Organization

1.0 Introduction

Guidelines for Public Health Response to Chemical Incidents provides an overview of the Public Health Risk Assessment (PHRA) and actions to be taken when notified[1] of a chemical incident that poses a risk to human health. It includes the legislative and management context that underpins Public Health response and advice in such incidents. Detailed guidance on water and other environmental incidents can be found elsewhere on the guidance page (https://www.hpsc.ie/a-z/environmentandhealth/guidance/).

1.1 Key Changes to this Guidance

- Restructuring of document layout to standard National Health Protection Office (NHPO) format
- Recommendation to collect descriptive epidemiological information
- Inclusion of source-pathway-receptor Public Health advice model
- Updated chemical decontamination algorithm
- Inclusion of link to United Kingdom Health Security Agency (UKHSA) chemical hazards compendium
- Updated PHRA record form

2.0 Purpose

This guideline has been developed in consultation with the Environment and Health Special Interest Group. The intended audience of this guideline is Consultants/Specialists in Public Health Medicine (MOHs) and Health Protection multidisciplinary teams who may be called upon to respond to chemical incidents of public health importance, in hours and out of hours.

3.0 Background

Chemical and environmental incidents have the potential to impact negatively on population health. Public Health's legislative responsibility is to conduct a PHRA, provide advice and information to multi-agency partners involved in risk assessment, response and recovery, and affected populations, and measure and monitor population health impacts. The Major Emergency Management (MEM) Framework (Appendix A: MEM Framework) describes

[1] Notification is not statutory unlike for infectious diseases on the Schedule of Infectious Diseases. A cluster of illness related to a chemical incident is notifiable but by clinicians only.

arrangements and structures for principal response agencies attending to major emergencies, which includes the HSE.

In situations that do not fulfil the definition of a major emergency, the MEM Framework still provides a useful structure for responding to these incidents. The following document provides guidance to Public Health teams involved in responding to chemical incidents.

4.0 Public Health Roles and Responsibilities

- The role of Public Health in environmental incidents is to prevent or limit the impact on human health by conducting a PHRA, providing advice and information to multi-agency partners and affected populations involved in the incident, measuring and monitoring population health impacts, and working collaboratively with those involved in incident response and recovery on an ongoing basis, including ongoing assessment of health impact post-exposure where needed.
- The Health (Duties of Officers) Order 1949 provides the national level legislative basis for this responsibility (Appendix B: Public Health Legislation), while the World Health Organization (WHO) International Health Regulations (IHR) 2005 provides the legal basis for notification of the event to the WHO in instances where there is potential for international spread (Appendix C: WHO International Health Regulations 2005).
- Public Health is **not** responsible for **leading the response to** an environmental incident (Appendix D: Public Health Role); this is the responsibility of the lead agency.
- Public Health may be required to seek expert toxicological advice. The HSE has a standing contractual arrangement with partners in UKHSA to provide this advice. This is activated by the MOH dealing with the incident.

5.0 Involvement of Regional Department of Public Health in a Chemical Incident

- A Regional Department of Public Health may be notified of a chemical incident from a number of sources.

Sources of Notification include:

- Health Service Executive (HSE) National Director of Health Protection
- HSE National Director of Public Health
- HSE Area Director of Public Health
- HSE Chief Emergency Management Officer
- HSE Chief Ambulance Officer
- HSE Crisis Management Team
- Chair of the Regional Interagency Local Coordination Group
- National Environmental Health Service
- Local Authority
- Uisce Éireann
- Food Safety Authority Ireland

- In a major environmental emergency, the Local Authority is the Initial Pre-nominated Lead Agency under the Major Emergency Management framework (Appendix A: MEM Framework), and this holds for smaller scale incidents.
- The Lead Agency should set up an inter-agency Local Co-ordination Group[2], which should include HSE Regional Public Health Department.
- If an inter-agency group has not been formed, the MOH should/can request that the Lead Agency establish such a group to facilitate information sharing, collaborative working and informed decision making in major environmental emergencies.
- The process of inter-agency information sharing in environmental incidents that do not fulfil the definition of Major Emergency[3] is less well prescribed. The principles of the Major Emergency Management framework can be adapted in such situations.
- The HSE may also establish a Crisis Management Team to co-ordinate the HSE's overall response to the incident.
- Depending on the scale and nature of the incident, the MOH may activate an internal departmental Incident Management Team.
- The level at which Public Health response is coordinated, and by whom, is determined by the incident; further details are available in the National Health Protection Incident Response Plan[4], which includes details on deciding whether an incident is managed locally or escalated to national incident management.

6.0 Public Health Risk Assessment (PHRA)

6.1 Indication

- Not all chemical incidents will require Public Health involvement.
- A practical approach to notification of a possible environmental incident is presented below (Figure 1).

[2] The Local Co-ordination Group provides high-level strategic management during an incident. Further details on the mandate of this Group can be found in Appendix F8 of the MEM Framework.

[3] A Major Emergency is any event which, usually with little or no warning, causes or threatens death or injury, serious disruption of essential services or damage to property, the environment or infrastructure beyond the normal capabilities of the principal emergency services in the area in which the event occurs, and requires the activation of specific additional procedures and the mobilisation of additional resources to ensure an effective, co-ordinated response.

[4] Available on request through HSE National Health Protection Office.

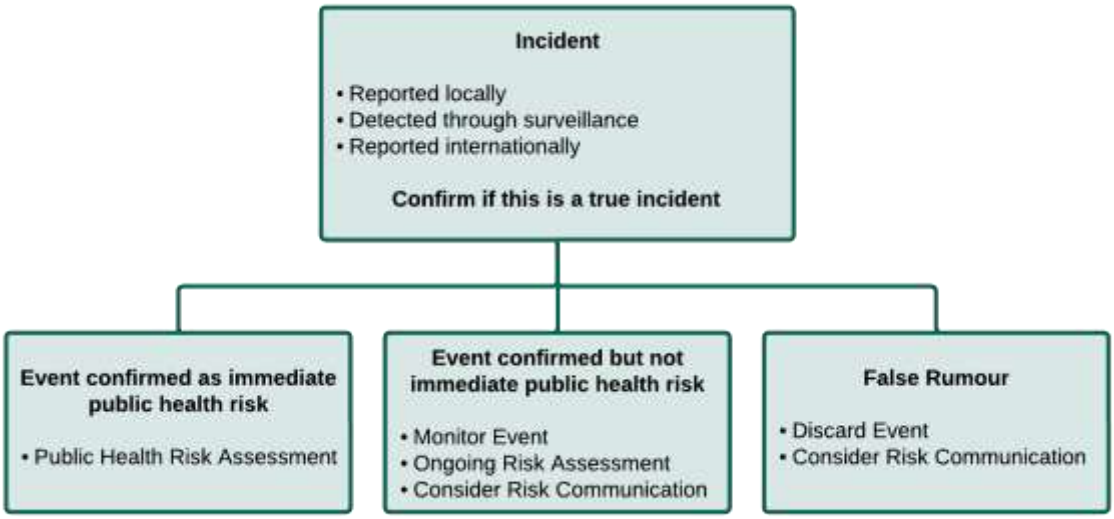


Figure 1: Preliminary Assessment of Incident Notification

- Where there is a risk of human exposure to a chemical incident that has potential for harm, then Public Health should conduct a PHRA.

6.2 Purpose

- A PHRA is a dated, timed, signed, context specific and dynamic intervention (Appendix E: PHRA Record, and available electronically here.
- It acts as a systematic medical record of decision-making and is required to ensure appropriateness of actions and advice.
- It will serve as the template for recording of chemical incidents in anticipation for the future Outbreak Case and Incident Management System (OCIMS).
- It will support national incident surveillance.
- It also serves as a resource for post-event debriefing and audit, monitoring and evaluation.

Mnemonic for Public Health Action – **PAR(RC)2**

- Identify the **Population** exposed or expected to be exposed
- **Assess** the risk
- Consider actions to-date and **Recommend** further actions to protect the health of the population
- **Risk Communication** to:
    - other professionals (e.g. local authority, health professionals etc.)
    - the public

6.3 Information Requirements

- When a PHRA is indicated, Public Health Multidisciplinary Teams (MDTs) require a forum for information exchange and decision-making; this is usually through the inter-agency group.
- If such a group does not exist, the MOH may request the agency leading the response to convene one. The frequency of meetings will be determined by the nature of the incident.
- The information management system used by the MEM Framework (Appendix A: MEM Framework) in all **major** incidents may be a source of information for PHRA.
- The Public Health Management Incident and Risk Assessment Record (Appendix E: PHRA Record) provides a systematic approach to information collection and documentation.
- All discussions held (including phone and email), decisions made, and actions taken should be recorded. Documentation should include the rationale behind decisions and actions.
- Figure 2 provides prompts on issues to consider when conducting a PHRA, utilising the 'source-pathway-receptor' model of risk assessment.
- The PHRA may not have complete information initially and should be considered provisional until more complete information is available.
- Consideration should also be given to collecting descriptive epidemiological information for assessment and reporting purposes (Appendix F: Epidemiological Data).

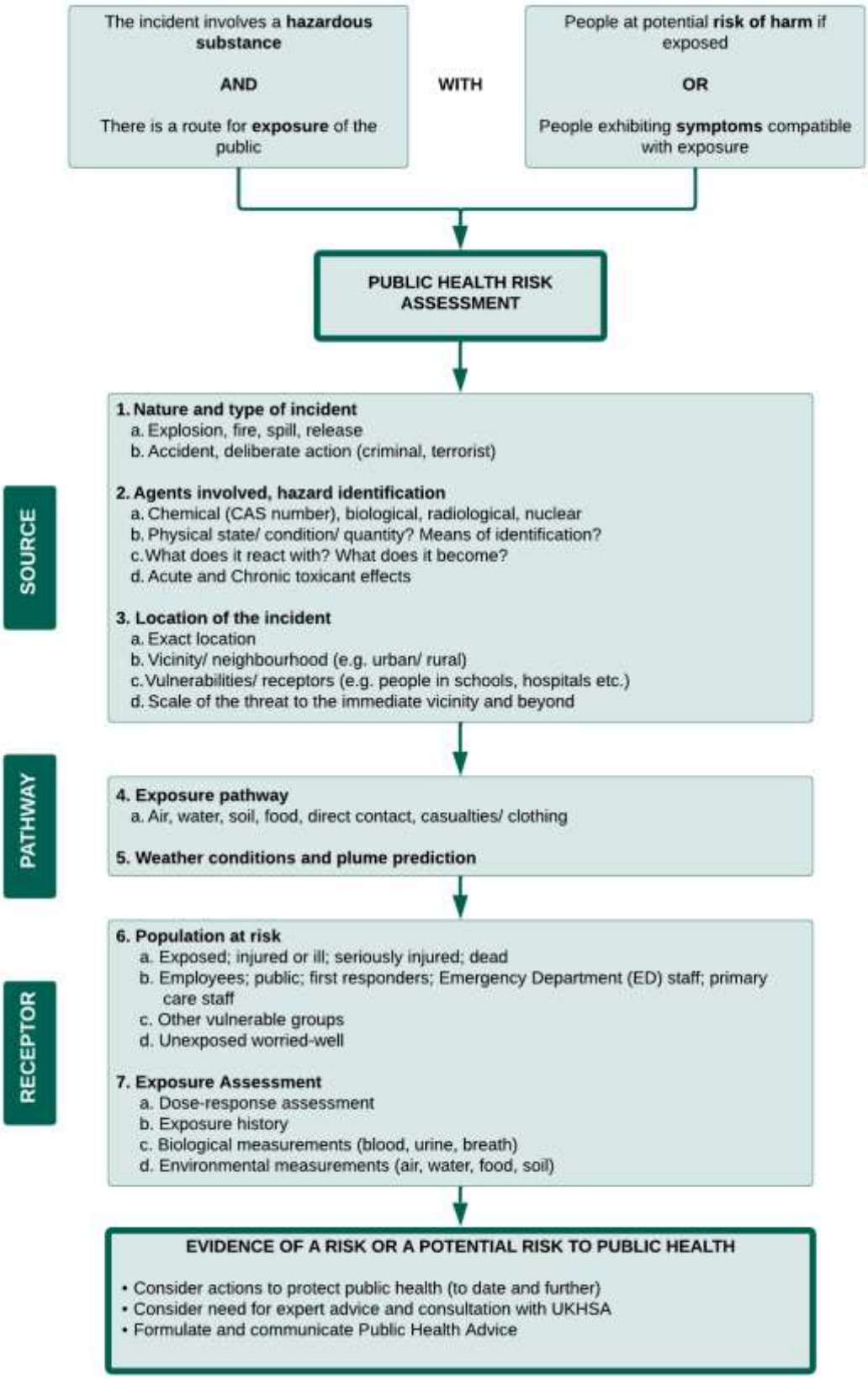


Figure 2: Source-Pathway-Receptor Model of Risk Assessment[5]

[5] Incident check list adapted from "Health Protection Incident Response Framework", Health Protection Scotland.

7.0 Public Health Advice

7.1 Stakeholders

- The HSE NHPO should be informed of the incident as soon as possible. During office hours, this is to the Director of National Health Protection (DNHP). Out-of-hours, contact should be made with the NHPO on-call consultant.
- Public Health advice may be provided to a range of stakeholders.

Stakeholders who require Public Health advice include:

- Agency leading the response
- Inter-agency Local Co-ordination Group
- General public and vulnerable subgroups
- HSE colleagues and other healthcare providers (e.g. Environmental Health, General Practitioners (GPs), hospitals)

7.2 Source-Pathway-Receptor Advice Model

- Depending on the nature of the incident, Public Health **advice** is likely to focus on preventing or reducing further exposure.
- The source-pathway-receptor model of risk assessment provides a useful framework for considering suitable Public Health advice, and may include:

SOURCE	PATHWAY	RECEPTOR
• Prevent further emission (e.g. seal leak)	• Divert emissions away from pathway (e.g. river, treatment plant) • Limit exposure (e.g. do not consume)	• Shelter in place • Evacuate area • Avoid area • Limit exposure (e.g. do not consume) • Closure of schools, creches and other areas where vulnerable groups congregate (e.g. day-care services) • Cancellation of public events

- Public Health advice may change in light of new emerging information and on-going inter-agency collaboration.

7.3 General Public Risk Communication

- Public Health advice provided to the public during an incident is an intervention to protect human health.
- It is essential that Public Health advice is clear, avoiding medical jargon, and communicated appropriately, timely and accurately within press releases and other communications, especially in multi-agency situations where operational responsibility for messaging may lie outside of Public Health.
- Liaise with HSE Communications, and co-ordinate all communications through the inter-agency group (when convened).
- **DISSECT**[6] is a useful mnemonic when considering the key components to include in a risk communication strategy.

DISSECT the Risk Communication Strategy

Define the issue or problem

Identify the stakeholders and the target audience (stakeholder analysis)

Set the aim and detailed objectives

Select the key messages

Engage partners involved in managing the incident and who need to contribute to the key message development

Choose the communication channels

Track and evaluate the impact

- Keep all messages **STARCC**

STARCC Messaging

Simple – avoid big words

Timely - provide information promptly

Accurate – make it direct

Relevant – give action steps and answer specific questions

Credible – use empathy and openness in messages

Consistent – keep messaging consistent, but qualify areas of uncertainty where messages might need to change

[6] Communicating with the Public about Health Risk Health Protection Scottish Guidance 2008. Available at http://www.hps.scot.nhs.uk/resourcedocument.aspx?id=5936

7.4 Chemical Decontamination

- The MEM On-Site Coordinator, in collaboration with other Controllers of Operations, is responsible for determining whether decontamination of individuals is required following chemical exposure.
- Responsibility for decontamination on site lies within the Fire Services or National Ambulance Service (NAS).
- Where there is the possibility of individuals exposed to chemical contaminants presenting to healthcare facilities, Public Health should alert health services of the need for decontamination to prevent secondary contamination.
- The approach to decontamination is presented in **Figure 3**[7], and is dependent on the nature of the chemical.
- UKHSA provides more information on individual chemical hazards, including toxicological overview, incident management, health effects and decontamination procedures, available in a chemical compendium here.

[7] Adapted from: Kibble A., Brunt H, Rixon D. Chemical Decontamination Update: Guidance for Health Boards. Version 2. 5th August 2016; Review date August 2017. Available online at http://www.wales.nhs.uk/sites3/Documents/457/Public%20Health%20Wales%20Decontamination%20Guidance_final%20%28version%202%29_August_2016.pdf

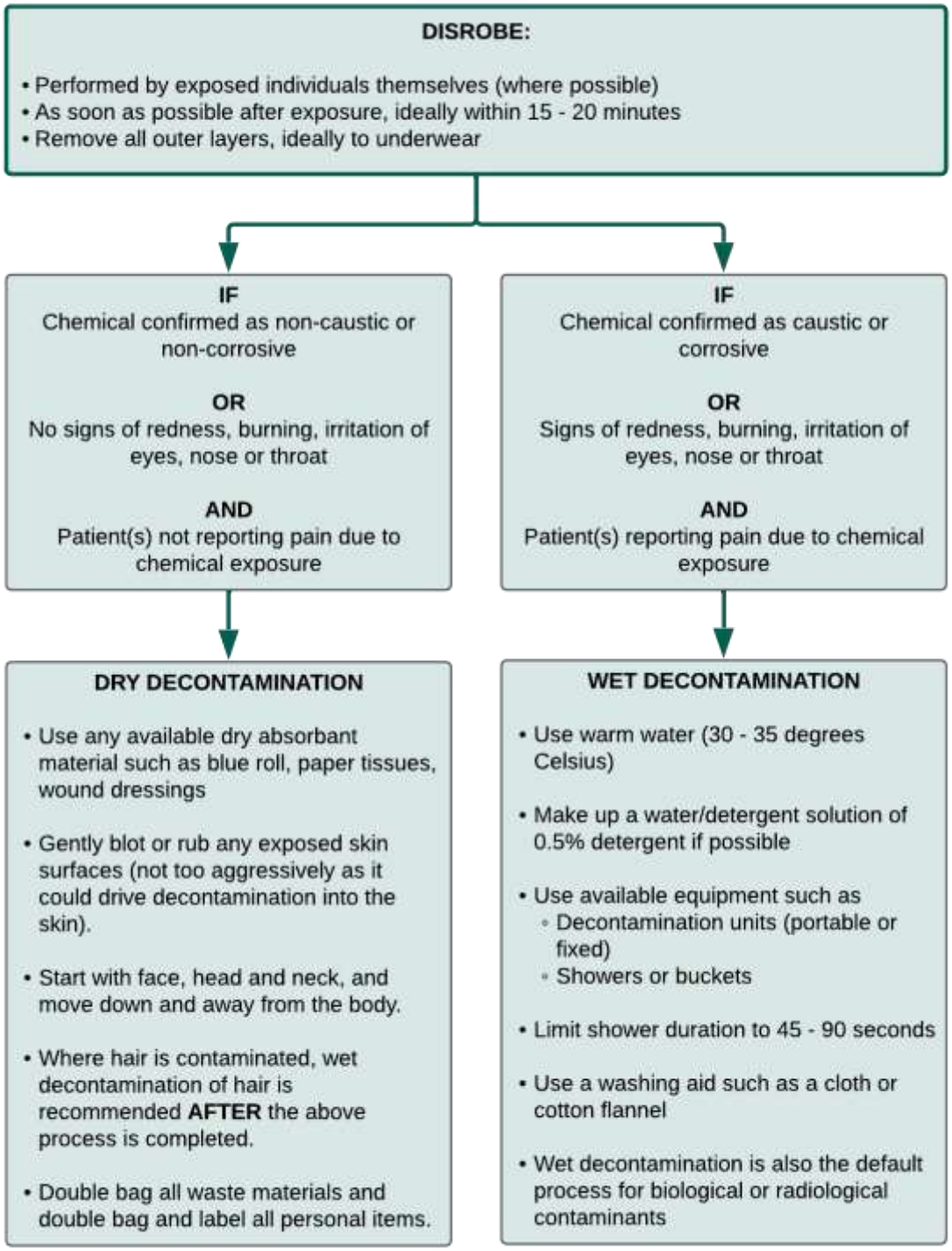


Figure 3: Chemical Decontamination Protocols

8.0 Standing Down the Incident

- In general, the agency leading the response will make the decision to stand down the emergency status following consultation with involved stakeholders.
- Public Health may opt to reduce/stand down their own services as the situation is brought under control; the agency coordinating the response should be consulted before such a decision is enacted.
- In incidents that may persist for prolonged periods due to ongoing low-level population exposure, ongoing governance and arrangements should be clarified amongst stakeholders at that point.
- In a Major Emergency, all Principal Response Agencies are encouraged to carry out an operational debrief, and document findings in a report. Public Health should be requested to feed into this report as part of the HSE.
- In all situations, it is recommended that Public Health conduct an internal debriefing and document the experience in an After Action Review (AAR) for audit purposes, and future learnings. This report should include descriptive epidemiology of the incident.

9.0 Appendices

9.1 Appendix A: MEM Framework

The Framework for Major Emergency Management (2006) was developed to set out common arrangements and structures for front line public sector emergency management in Ireland and it has an "all hazards" approach. A few relevant excerpts from Ireland's Framework for Major Emergency Management are presented here. Please read the full document[8] and appendices for more detail.

Section 1.5 of The Framework defines a Major Emergency as:

> *"Any event which, usually with little or no warning, causes or threatens death or injury, serious disruption of essential services or damage to property, the environment or infrastructure beyond the normal capabilities of the principal emergency services in the area in which the event occurs, and requires the activation of specific additional procedures and the mobilisation of additional resources to ensure an effective, co-ordinated response."*

The notification of a declared Major Emergency should include the ETHANE message:

E Exact location of the emergency
T Type of Emergency (transport, fire, spill, chemical, biological, radiological etc)
H Hazards, present and potential
A Access, Egress routes
N Number and type of casualties
E Emergency services required and present

The principal response agencies are An Garda Siochana, the Health Service Executive and the Local Authorities.

If not involved already, the call to Public Health may come from one of a number of routes (HSE National Director of Health Protection; HSE Chief Emergency Management Officer; Chief Ambulance Officer; Crisis Management Team; Chair of the Regional Interagency Local Coordination Group, Local Authority)

[8] https://www.gov.ie/en/collection/ca182-a-framework-for-major-emergency-management/?referrer=/

Section 5.9.2 within the Framework explores the potential role of Public Health Doctors in an emergency:

"Where an emergency results in a real or perceived threat to public health by, for example, the release of chemical, radioactive or biological agents, the contamination of water or food supplies, or the spread of contaminated flood water, it can be anticipated that there will be considerable concern among both the persons immediately affected and the wider public. In such situations, the Health Service Executive Controller should ensure that the local public health services are informed of the situation as soon as possible so that they can become involved in the response at the earliest possible stage.

Public Health Doctors can provide advice, information and re-assurance, where appropriate, to exposed individuals and communities, and can play a key role in the short term and long term monitoring and management of those exposed. They can also play an important part in dealing with queries from the media. Where appropriate, a public health specialist should join the Health Service Executive support team at the Local Coordination Centre, to provide guidance and support on public health and public information issues."

9.2 Appendix B: Public Health Legislation

The main legal roles and responsibilities of the MOH are described in MOH legislation. In relation to chemical incidents, the Health (Duties of Officers) Order 1949 is relevant.

MOH Legislation: Health (Duties of Officers) Order 1949:

.. inform ourselves "as respects all influences affecting or threatening to affect injuriously the public health in the county and as respects the causes, origin and distribution of diseases in the county"

And

"advise the county council generally in relation to the health of the people"

Other relevant legislation may apply such as the Drinking Water Regulations[9] or the Seveso Regulations[10]. Where the HSE is a prescribed body in environment and health legislation, the MOH may be the appropriate health officer to fulfil HSE obligations.

If the incident relates to an infectious disease, the much more substantial responsibilities and authority of the MOH under Infectious Diseases Regulations, 1981 as amended, become relevant[11].

Under the General Data Protection Regulation (GDPR) 2018, Article 9 2(i), Public Health may be able to access identifiable data relevant to all hazards without consent in the public interest for public health, under our MOH legislation.

We need to take Regulation EU 2022/2371 on serious cross border threats to health into account, which include the area of epidemiological surveillance, monitoring, early warning of and combating serious cross-border threats to health, including preparedness and response planning related to these activities, in order to coordinate and complement national policies.

[9] European Union (Drinking Water) Regulations 2023 (S. I. No. 99 of 2023). The Stationery Office: Dublin. Available online at https://www.irishstatutebook.ie/eli/2023/si/99/made/en/print

[10] Chemicals Act (Control of Major Accident Hazards involving Dangerous Substances) Regulations 2015 (S.I. No. 209 of 2015)

[11] Infectious Disease Regulations, 1981 (S.I. No 390 of 1981). The Stationery Office: Dublin. Available online http://www.irishstatutebook.ie/eli/1981/si/390/made/en/print

For more information on MOH legislation and links to the statutory instruments see:

- https://www.hse.ie/eng/services/list/5/publichealth/publichealthdepts/moh/moh.html
- https://www.hpsc.ie/notifiablediseases/notifyinginfectiousdiseases/medicalofficerofhealthroleandlegalbasis/

Note that if the event is a Public Health Emergency of International Concern, the WHO International Health regulations apply.

9.3 Appendix C: WHO International Health Regulations 2005

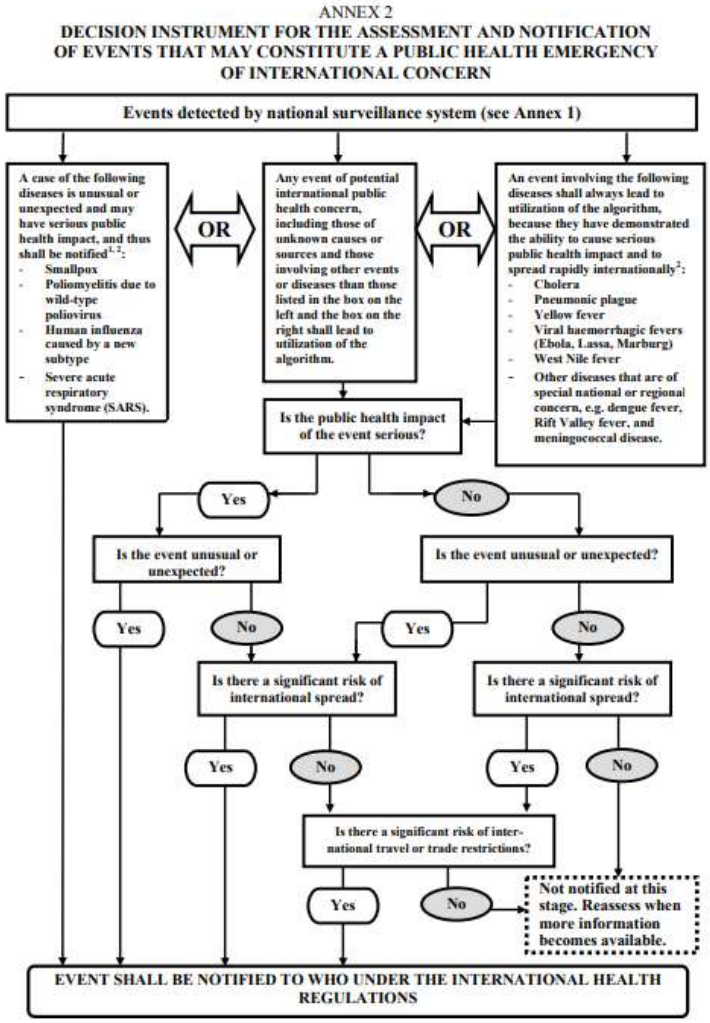
The WHO defines a Public Health Emergency of International Concern (PHEIC) as:

> *"an extraordinary event which is determined to constitute a public health risk to other States through the international spread of disease and to potentially require a coordinated international response".*

This definition[12] implies a situation that is:

- serious, sudden, unusual or unexpected;
- carries implications for public health beyond the affected State's national border;
- and may require immediate international action.

If a PHEIC or Potentially a PHEIC: Contact Ireland's International Focal Point: Director of the Health Protection Surveillance Centre



[12] WHO International Health Regulations (2005). Available online at: https://www.who.int/publications/i/item/9789241580496

9.4 Appendix D: Public Health Role

MOH, where appropriate, will:	MOH is not:
• Work with responsible agencies, which includes the local authority, FSAI/ HSE National Environmental Health Service, EPA, Uisce Éireann, DAFM, etc. as appropriate. • Conduct a Public Health Risk Assessment (PHRA) based on information collected through various sources and provided by responsible agency and partners. • Provide Public Health advice based on the PHRA, to stakeholders, partners and public as appropriate.	• Responsible for managing a non-infectious environmental incident. This is the responsibility of the agency leading the response.
• Need early involvement, by engaging, participating, and contributing to inter-agency group as soon as notified of incident.	• A first responder. First responders to a chemical incident are typically (but not exclusively) the Fire Brigade, National Ambulance Service and Gardai.
• Access expert toxicological advice through the agreed partnership with UKHSA and/or the National Poisons Information Centre (NPIC).	• A toxicologist, though they have access to toxicological advice to assist and inform PHRA.
• Access patient management advice through the available resources as appropriate (e.g. UKHSA, NPIC, etc)	• An expert in acute patient management. This is the role of the first responders and acute hospital services.
• Access occupational health advice as needed through engagement with the Health and Safety Authority.	• An expert in occupational health or protective equipment. This is the role of the Health and Safety Authority and the on-site frontline response agencies internal policies.
• Interpret environmental sample testing results in the context of its impact on public health, with input and advice on interpretation from partner agencies where needed and appropriate.	• Responsible for procuring, processing and testing of samples. This is the responsibility of the local authority, national environmental health services, and EPA.

9.5 Appendix E: PHRA Record

Public Health Medicine Incident and Risk Assessment Record

SECTION 1: OVERVIEW
Date of start of incident: Click or tap to enter a date.
Date Public Health informed:Click or tap to enter a date.
Date of end of incident:Click or tap to enter a date.
Incident Summary: Click or tap here to enter text.

SECTION 2: INCIDENT DETAILS
Date of Incident: Click or tap to enter a date. Time of Incident: Click or tap here to enter text. Call taken by: Click or tap here to enter text. Notifier name: Click or tap here to enter text. Notifier organisation: Click or tap here to enter text. Contact email and phone number: Click or tap here to enter text.
M
Major Incident Declared: Yes ☐ No ☐ Not applicable ☐ If yes, by whom? Click or tap here to enter text. If yes, what agency? Click or tap here to enter text.
E
Exact Location: Click or tap here to enter text.
T
Type of Incident: Click or tap here to enter text.
H
Hazard (please specify): Click or tap here to enter text.
A
Access (any access information): Click or tap here to enter text.
N
Numbers - People exposed: Click or tap here to enter text. - Fatalities: Click or tap here to enter text. - People reporting symptoms: Click or tap here to enter text. - Symptoms reported: Click or tap here to enter text. - People seeking medical attention: Click or tap here to enter text. - Additional information: Click or tap here to enter text.
E
Emergency Services Present: Yes ☐ No ☐ If yes what agency(ies): Click or tap here to enter text.

SECTION 3: INITIAL PUBLIC HEALTH RISK ASSESSMENT	
Date of Public Health Risk Assessment: Click or tap to enter a date.	
Public Health Risk Assessment	**Select Option**
No Public Health Risk *No Incident*	☐
Low Public Health Risk *Minor Incident (Advice Only)*	☐
Medium Public Health Risk *Minor Incident (Advice and Further Actions)*	☐
High Public Health Risk *Major Incident*	☐
Rational for initial Public Health Risk Assessment: Click or tap here to enter text.	
Public Health Actions	
Initial actions taken: Click or tap here to enter text.	
Communications team involved: Yes ☐ No ☐ If yes, what involvement: Click or tap here to enter text.	
Incident Management Team Meetings summary: Click or tap here to enter text.	

SECTION 4: UPDATED PUBLIC HEALTH RISK ASSESSMENT

[Duplicate template as needed]

Date of Public Health Risk Assessment: Click or tap to enter a date.

Public Health Risk Assessment	Select Option
No Public Health Risk *No Incident*	☐
Low Public Health Risk *Minor Incident (Advice Only)*	☐
Medium Public Health Risk *Minor Incident (Advice and Further Actions)*	☐
High Public Health Risk *Major Incident*	☐

Rational for updated Public Health Risk Assessment:

Click or tap here to enter text.

Public Health Actions

Actions taken:

Click or tap here to enter text.

Communications team involved: Yes ☐ No ☐

If yes, what involvement: Click or tap here to enter text.

Incident Management Team Meetings summary:

Click or tap here to enter text.

AIDE MÉMOIRE: POST-ACUTE PHASE CHECKLIST[13]

1. Confirm that the chemical hazard initially identified is the actual chemical hazard

2. Identify source-pathway-receptor linkages

- Is there an aquifer used for drinking water abstraction?
- Is there a river or stream used for recreational purposes?
- Is the land used to grow food?
- Are there other contaminant transport pathways?
- Are there plastic water supply pipes?

3. Obtain any plume modelling (real time or after event) data

4. Obtain updates on incident evolution and any secondary contamination

5. Consider whether a site visit would help the Public Health Risk Assessment and if so, make arrangements with the inter-agency team to undertake detailed site assessment. The following actions might be needed:

- Collect maps and plans of the area
- Establish topography and direction of groundwater flow
- Collect further environmental samples
- Compare any measured concentrations with regulatory standards and any past sample results, e.g. from routine environmental sampling

6. Re-evaluate incident category

7. Ensure appropriate remedial action has been undertaken to remove source of contamination or exposure pathway

- Once confirmed, no further action required
- Go to 'post incident questions'

8. Undertake further assessment of health impact

- Consider whether biological sampling of sentinel cases and other exposed individuals is necessary (i.e. benefit for patient)

[13] Adapted from HPA 'Acute Chemical Incidents – Basic Checklist, March 2009'

- Consider carrying out a questionnaire survey of all those exposed to identify any adverse health effects
- If necessary, initiate a case control study to assess health impacts
- Consider long-term follow up and monitoring of the exposed population
- Ensure national incident surveillance data are logged

Post Incident Questions

9. Has the incident been declared over for organisations involved and are they standing down?

- Have all those affected been informed of the end of the incident?
- Have all those involved in incident management been advised of event close?

10. Have all those with adverse health effects fully recovered?

- Do any patients need long term follow up?
- Consider longer-term epidemiological surveillance
- Relevant public health resources for surveillance post incident include Computerised Infectious Disease Reporting, GP Co-op Out Of Hours (OOH) database, Health Atlas, European Surveillance of Congenital Anomalies (EUROCAT), Hospital In-Patient Enquiry (HIPE)

11. Are all records of the incident complete and up to date?

12. Conduct an audit of the management of the incident

- Identify lessons learnt
- Identify necessary modifications to emergency and/or incident plans

A final media briefing, by the MEM team, will detail how the incident has been managed and any remaining adverse health impact and any preventative actions to be taken.

9.6 Appendix F: Epidemiological Data

Descriptive epidemiological information to collect:

Population in area of exposure:

Total number

Demographic profile

Health profile

Exposed population:

Total number exposed

Date(s) of exposure

Intensity/concentration of exposure (if relevant and known)

Duration and frequency of exposure

Symptomatic population:

Total symptomatic

Date(s) and time (if relevant) of symptom onset

Nature of symptom(s)

Number seeking medical attention

Deceased population:

Total deaths from incident

Cause of death (if known)