

# ISO 5477:2023-12 (E)

## Health informatics - Interoperability of public health emergency preparedness and response information systems

<b>Contents</b>		<b>Page</b>
Foreword.....		v
Introduction.....		vi
<b>1</b>	<b>Scope</b> .....	<b>1</b>
<b>2</b>	<b>Normative references</b> .....	<b>1</b>
<b>3</b>	<b>Terms, definitions and abbreviated terms</b> .....	<b>1</b>
	3.1 Terms and definitions.....	1
	3.2 Abbreviated terms.....	6
<b>4</b>	<b>Requirements for PH EPR information systems</b> .....	<b>7</b>
	4.1 Defining the PH EPR information system’s domain.....	7
	4.2 General principles of management and conformance.....	8
	4.2.1 Conformance with general incident management principles.....	8
	4.3 PH EPR data and information management (DIM) processes.....	10
	4.3.1 Background.....	10
	4.3.2 Establishing strategies and goals for the PH EPR DIM.....	11
	4.3.3 Defining goals for the PH EPR information system.....	12
	4.4 Supporting PH EPR mission areas.....	13
	4.5 Establishing data and information governance.....	13
	4.5.1 Data and information governance: Background and principles.....	13
	4.5.2 Ongoing training.....	17
	4.5.3 Defining Essential Elements of Information (EIs) and Critical Information Requirements (CIRs).....	18
	4.5.4 Establishing a process for the collection, development, and utilization of standardized case definitions.....	19
	4.6 Reporting — Data analytics and visualization.....	21
<b>5</b>	<b>Interoperability in PH EPR information systems</b> .....	<b>22</b>
	5.1 Background.....	22
	5.2 Aligning the PH EPR information systems interoperability with the organizational interoperability of the activated IMS and overall emergency response.....	22
	5.3 Facilitating the improvement of organizational interoperability through organizational emergency resilience.....	23
	5.4 Assuring the expandability of PH EPR information systems without compromising interoperability.....	24
	5.5 Usability.....	25
	5.6 Adaptability.....	26
	5.7 Measure-driven capabilities for PH EPR information systems.....	27
<b>6</b>	<b>Business requirements for collecting, developing and maintaining PH EPR terminology and data vocabulary</b> .....	<b>27</b>
	6.1 Background.....	27
	6.2 Alignment of standardized PH EPR terminology and vocabulary with critical PH EPR functions.....	28
	6.3 Applying standardized terminology and vocabulary to emergency response to standard operations procedures (SOPs) and disaster planning.....	30
	6.3.1 General.....	30
	6.3.2 Utilising event grading and classifications of emergencies.....	31
	6.3.3 Using the WHO International Classification of Diseases (ICD).....	32
	6.4 Assuring relevance and coverage.....	33
	6.5 Role of stakeholders’ involvement in collecting, developing, and maintaining a public health preparedness and response data vocabulary.....	34

6.6	Assuring flexibility and scalability of PH EPR vocabulary.....	35
6.7	Supporting tasks for PH EPR vocabulary quality and integrity.....	36
6.8	Ongoing maintenance and updates.....	37
6.9	Assuring compliance and fulfilment of regulatory requirements	38
6.10	Providing adequate training and support.....	39
<b>Annex A (informative) Criteria to take into account on knowledge, skills and abilities for the fulfilment of essential PH EOC functions.....</b>		<b>41</b>
<b>Annex B (informative) Competencies for Public Health Emergency Preparedness and Response Informatics Professionals.....</b>		<b>49</b>
<b>Bibliography.....</b>		<b>57</b>