

7-1-7 Milestone Dates Reference Guide

Detailed definitions and examples

- This reference guide is intended for use by implementers of the 7-1-7 target, including technical staff who are tasked with identifying and recording the 7-1-7 milestone dates. It includes the definitions of the four key 7-1-7 milestone dates (dates of emergence, detection, notification, and early response action completion) as well the seven early response actions upon which the early response action completion milestone is based.
- Examples are provided for how the dates may be determined based on various factors such as type of event, surveillance system, or scenario for notification. Examples of actions for each of the seven early response actions are also provided; note that this list is not comprehensive but should provide a sense of what constitutes each early response action.

Date of Emergence

The date of emergence varies by how the disease type is classified in the country/jurisdiction:

- Endemic diseases: the date when a predetermined increase in case incidence over baseline rates occurred (e.g., IDSR alert thresholds).
- Non-endemic diseases: the date when the index case or first epidemiologically-linked case experienced symptoms.
- Other health threats: the date the threat first met criteria as a reportable event, based on existing reporting standards.

Note that the date of emergence is often unknown when a health event is first detected. Epidemiologic information gathered during the outbreak investigation should be used to determine the date, based on whatever information is available. The date may then change as more is learned and earlier cases are identified.

Event type	Example of date of emergence
Endemic disease (e.g., malaria)	Malaria alerts thresholds are incidence-based in country X. On epidemiologic week 32, malaria cases surpassed the alert threshold of 50 cases per 100,000 population in district Y. Because data are aggregated and analyzed weekly, the last day of epidemiologic week 32 would be the date of emergence.
Animal disease (e.g., avian influenza in a bird)	The date of outbreak emergence would be the earliest known date of symptom onset in a bird, or the earliest known date of death if other symptom data are not available.

Non-endemic disease (e.g., Ebola virus disease [EVD] in a human)	The date of outbreak emergence would be the date when the index case or first epidemiologically-linked case first experienced a symptom of EVD.
Other health threats (e.g., contaminated food product)	The date of outbreak emergence would be the earliest date of onset of symptoms among persons exposed to the contaminated product.

Date of Detection

The date of detection is the date the public health event was first recorded by any source or in any system. This may happen at the community or health facility level, through a lab, through the surveillance system, or elsewhere.

For indicator-based surveillance, the date of detection would be when case or incidence data were recorded (e.g., in a log book, case investigation form, laboratory requisition form). For event-based surveillance (EBS), the date of detection would be when the event information was first recorded (e.g., detected by a media scanning system, recorded by a community health worker, recorded by a hotline operator).

Note that detection for the 7-1-7 target is not based on lab confirmation; rather, lab confirmation is an early response action. The date of detection includes suspicion of the event (e.g. entry in a log book, laboratory requisition form, record by community health worker).

Detection type	Example of date of detection
Indicator-based surveillance (e.g., aggregate data for malaria cases)	Malaria outbreaks are declared at the district level in country X. The date of detection of the malaria outbreak in district Y would be the first date that the district aggregated the data and recorded that the incidence threshold was exceeded.
Indicator-based surveillance (e.g., case of EVD detected in a health facility)	The date of detection would be the date that the health facility recorded a suspected EVD case in any system. Most frequently this occurs or is documented by the completion of a case investigation form or laboratory requisition form, but may also be indicated in the clinical chart.
Event-based surveillance (e.g., media scanning)	A measles outbreak has been occurring in state Z for three weeks, but nobody has been aggregating or analyzing the data to record that an outbreak has started. A local newspaper reports on a cluster of deaths among children likely due to measles, which is then picked up by an EBS analyst at the national public health institute. The date of detection of the outbreak would be the date this event was recorded by the EBS analyst.
Event-based surveillance (e.g.,	A community health worker notices acute flaccid paralysis in a young child on a home visit. The date of detection is the date

community event-based surveillance)	that the community health worker recorded the suspected polio case (e.g., in a log book, a mobile application, an investigation form).
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Date of Notification

The date of notification is the date of the event is first reported to a public health authority responsible for action.

Oftentimes, the most immediate public health jurisdiction (city, district) will be the public health authority responsible for action and the first public health authority to be notified. Notification of responsible health authorities could be from a clinical setting to a district surveillance officer. In the case of event-based surveillance or when outbreaks are detected centrally, notification to a responsible authority might be from the central level to the subnational level.

For countries that require notification of reportable events to multiple levels of government that are tasked with different actions, the earliest date that any of these public health authorities were notified would be the date of notification. In some guidance, this step may be referred to as 'reporting' to a public health authority or district health team.

This step should not be confused with notification to WHO as defined by the International Health Regulations (2005), which is typically only done after local or national public health authorities have become aware of an event.

Notification scenario	Example of date of notification
Epidemic-prone disease detected by a health worker (e.g., EVD)	The date when a clinician or facility surveillance focal point contacted the public health department or local surveillance officer to inform them of a suspected viral hemorrhagic fever case. Note: if the facility sent the specimen (i.e., detected the case) but did not contact the public health department or local surveillance officer and public health authorities only became aware of the specimen when the laboratory result became available, the date the public health authorities received the laboratory result would constitute the date of notification.
Event detected by a community health worker	The date when the event was reported to a public health authority responsible for action. If a community health worker reported the result to a surveillance officer or public health department directly, this would be the date of notification. If a community health worker reported the event to a health facility, the date of notification is when the health facility notified the event to the surveillance officer or public health department.
Event detected by a central media scanning unit	The date when the central media scanning unit or EBS program notified the public health authorities at the jurisdiction level responsible for investigating or responding to the event.

Event detected by aggregate indicator-based surveillance	The date when the analyst or surveillance officer notified the outbreak to a member of the team responsible for investigation or public health response.
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Date of Early Response Action Completion

The latest date on which any of these seven 7-1-7 early response actions are completed:

1. Initiate investigation or deploy investigation/response team;
2. Conduct epidemiologic analysis of burden, severity and risk factors, and perform initial risk assessment;
3. Obtain laboratory confirmation of the outbreak etiology;
4. Initiate appropriate case management and infection prevention and control (IPC) measures in health facilities;
5. Initiate appropriate public health countermeasures in affected communities;
6. Initiate appropriate risk communication or community engagement activities;
7. Establish a coordination mechanism.

As shown in the Assessment Tool, the dates for each of these separate early response actions should be recorded, and the date of early response action completion recorded as the last of these dates.

All seven early response actions may not be applicable for some public health events. For example, an event that is determined to be low risk may not require public health countermeasures or risk communication. For events where some early response actions are not applicable, the latest date among the applicable actions should be used as the date of early response completion. "N/A" should be recorded in the data collection platform for these in order to differentiate them from early response actions with missing data.

Early response actions	Examples (the earliest date should be used for 7-1-7 purposes) Note: these examples are not comprehensive
Initiate investigation or deploy investigation/response team	<ul style="list-style-type: none"> • Date the district initiated an investigation of a suspected outbreak or in response to a signal • Date a rapid response team was deployed
Conduct epidemiologic analysis of burden, severity and risk factors, and perform initial risk assessment	<ul style="list-style-type: none"> • Date when the first results of the epidemiologic analyses were reported, and the risk assessment was completed • Date when the first situation report was published, and the risk assessment level was indicated
Obtain laboratory confirmation of the outbreak etiology	<ul style="list-style-type: none"> • Date when laboratory confirmation of the pathogen was completed • Date when the etiology of a toxicological or chemical poisoning event was confirmed

<p>Initiate appropriate case management and infection prevention and control (IPC) measures in health facilities</p>	<ul style="list-style-type: none"> • Date when a facility IPC assessment was initiated in affected health facilities • Date when appropriate case management procedures were assessed at affected health facilities • Date when IPC or case management training was initiated • Date when appropriate therapeutics, vaccines, or personal protective equipment was distributed to health facilities • Date when known cases were transferred to a specialty center or isolation unit with known capacity for case management and IPC for the etiology
<p>Initiate appropriate public health countermeasures in affected communities</p>	<ul style="list-style-type: none"> • Date when procurement or distribution of commodities to prevent outbreak spread in communities was initiated (e.g., vaccines, ORS sachets, antimicrobial agents, water treatment, soap, insect repellants, bednets, or personal protective equipment) • Date when a food recall or boil water advisory was announced • Date when a public health or social measure was instituted (e.g., masking, travel restrictions, or quarantine)
<p>Initiate appropriate risk communication and community engagement activities</p>	<ul style="list-style-type: none"> • Date when a local or public health official announced the outbreak • Date when messaging to reduce risk or prevent spread was published or communicated • Date when two-way dialogue with communities was initiated • Date when community sentiment or knowledge, attitudes, or perceptions of the event were assessed
<p>Establish a coordination mechanism</p>	<ul style="list-style-type: none"> • Date when an incident management system (IMS) was activated • Date when the emergency operations center (EOC) was activated • Date when a task force or technical working group was initiated • Date when an incident action plan was drafted