Module 4: Media Scanning

This module covers the introduction, steps, flow and requirements to establish media scanning. Participation in this module will enable you to play a full and active role in the successful and effective establishment of media scanning centre in your working place.

This module consists of four sessions;

Session 1: Media scanning and sources
Session 2: Steps of media scanning
Session 3: Flow of information for media scanning
Session 4: Requirements to establish media scanning

Learning Objective.

By the end of this module you will be able to;

- Define media scanning
- Identify Sources of media scanning
- Understand Steps for conducting Media scanning in EBS
- Understand flow of information for Media scanning
- Identify requirements to establish media scanning.

Definition of Terms.

Media scanning - Also known as "media monitoring): The active monitoring of the content of media sources on a continuing basis to get information about specific topics

Social media messaging - Online platforms that enable the general public to report and share information and engages them in social networks, for example Facebook, Twitter, WhatsApp etc.

Triage - The process of screening out the data and information that is relevant for early detection purposes (i.e., the screening out mild/irrelevant events from potential acute public health events, and the cleaning to eliminate duplicates and correct obvious mistakes).

Module Duration: This module will take 20 minutes to complete

Session 1. Media Scanning and Sources.

Introduction

In this session you will learn on media scanning definition, sources and channels of general communication amongst a population and the way they act as gathering tools used to store and disseminate information or data.

Session Content

Definition

Media scanning refers to the regular perusal and/or reading, listening through different sources of media and extracting relevant information pertaining to public health events, which falls within guidelines of an identified signal. It is an active process of regularly reading and/or listening then extracting public health events from media sources (channels of general communication amongst a population). It utilises unstructured data from diverse web-based sources, radio, television, newspapers etc. to provide early warning and situational awareness of human, animal and plant infectious diseases, as well as chemical, radiological and nuclear threats. It emerged in the mid-1990s, relying primarily on text media for its information, then included social media, participatory sources, and non-text-based sources using signals.

Sources

A Source list should be maintained as a resource for EBS analysts to keep track of the location of media sources, as well as of login IDs and passwords, when conducting surveillance for all public health events. This source list is shared among all analysts.

EBS requires a multisector, One Health approach and should rely on sources of information beyond traditional health system sources. While these may be directly linked to human health, data can also be provided by the non-human health sector, local communities, media and international sources. The main sources include the following:

Official Sources

Signals detected through official sources are reliable and do not need further verification. The following are examples of official sources

a) Websites of governmental sectors including, but not limited to, Ministries of Health, Livestock, Agriculture, Environment, and Foreign Affairs

b) Websites for official organisations such as universities and internationally recognized Centres of research

c) Official pages/accounts on social media for governmental and official organisations: most organisations have official accounts on social media which can be considered a reliable source of information

d) WHO official websites for Early Warning e.g., WHO's International Health Regulations Event Information Site for National Focal Points, which is a secured platform accessible only to national focal points

e) WHO Disease Outbreak News (DON)

f) Websites for WHO regional offices, e.g., AFRO, EMRO, EURO, SEARO, WPRO, PAHO

g) Official public health agencies, e.g., US CDC, ECDC, ACDC websites

h) Disease-specific sources (e.g., Global Influenza Surveillance and Response)

i) World Organisation for Animal Health (OIE); World Animal Health Information System

j) Food and Agriculture Organization of the United Nations (FAO)

k) International Food Safety Authorities Network (INFOSAN)

l) The International Atomic Energy Agency (IAEA) for environmental events (radiological and chemical)

Un-official Sources

Signals detected through unofficial sources are not reliable and need to be verified, though they may be a good source for acute public health events. The following are examples of unofficial sources:

a) Newspapers and magazines

b) Online content of TV and radio channels

c) Social media

d) Blogs

e) Local and international media

f) Google

g) Internet bio-surveillance sources/mechanisms include ProMED, the Global Public Health Information Network (GPHIN), HealthMap, and MEDISYS, among others

Social media platforms such as Facebook, WhatsApp and Twitter are internet-based applications that allow individuals to communicate in a network that boosts information sharing. Information from social media, which at first must be verified, may offer a direct channel to confirmed events.

Session summary

- Media Scanning is the active monitoring of the content of media sources on a continuing basis to get information about specific topics

- Sources of Media Scanning include official and unofficial

Quiz

1. Signals detected through unofficial sources are reliable and do not need to be verified (True/False)
2. The following are official sources of media scanning except
   a) Websites of governmental sectors
   b) Websites for official organisations
   c) Official pages/accounts on social media for governmental and official organisations
   d) Local and international media
3. EBS should rely on sources of information beyond traditional health system sources (yes/no)

Session 2: Steps for conducting Media Scanning.

Session Introduction

This session covers steps of conducting media scanning. Signals are captured through manual listening and/or reading local media or automatically mining data on digital media and triaged, verified and risk assessed before a response is initiated.

Session Content

STEP 1: Signal Detection

Each signal captured should include data about the signal's detection, triage, and verification, risk assessment until the response. Signal registration should include the minimum data set for tracking the signals. Signal detection involves information scanning that can be done manually and automatically:

Approaches of signal detection;

A. Manual Scanning

This refers to the physically monitoring of media sources for public health events. This process requires taking the following steps

1. Develop a list of keywords related to the list of prioritised signals including diseases, syndromes or events
2. Develop a list of prioritised sources (online, radio, TV, print)
3. Develop a review schedule of the prioritised sources

4. Visit all predetermined sources in the checklist to scan for keywords (online sources, e.g., social media, blogs, websites and others) and review content (print and audio-visual)

5. Designated Media Analyst captures the signal (according to the pre-defined list of signals) from media source and register in a signal logbook/ register (see a sample of signal logbook for in Annex 1)

B. Automated Scanning

Multiple automated technological tools can be used for scanning online information from pre-defined sources. These tools can save time and effort and support the early detection of public health threats. Examples of automated scanning are:

a) Rich site summary (RSS feeds) is a standardised software tool that monitors predefined websites and informs the user of updates.

b) Contributor-based sources are based on sharing information among health professionals, in which individuals collect information that can be accessed through shared feeds, for example, ProMed, BioCast

c) Automated information feeds or services developed by governments or international organisations that collect health information from several sources and then can decrease time spent scanning for individual sources. These are called data aggregators.

Automated scanning requires taking the following steps:

1. Develop a list of keywords related to the list of prioritised signals including diseases, syndromes or events

2. Develop a list of prioritised automated scanning tools (sources of signal information, e.g., ProMED, HealthMap, EIOS etc.)

3. Subscribe/ download and install the automated scanning tool

4. Operationalize the tool using keywords developed in step 1 (may follow instructions provided by various tools)

5. Review the signal information to determine whether it matches any of the pre-determined list of signals.

6. Register the signal and proceed to triage (see registration tool Annex 1)

Note: A signal registration should include the minimum data set for tracking the signals for example:

- Place of occurrence (geographical area) – where it starts and spreads
- Description of signal/ event.
- Magnitude of the event – who is affected (number of cases and/or deaths)
- Date of Signal/event start date
- Date of reporting the signal to the next level
- Source of signal/event
- Name and contact details for reporting person
- Follow-up of the signal: Triage, verification, risk assessment dates.
- EBS analyst tasked to follow up

STEP 2: Triaging

Once the signal information matches any of the pre-determined list of signals, the Media Analyst takes further steps to triage the signals. Key steps for triaging involve:

1. Establish that the signal registered is pertinent to EWAR.
2. Confirm that the signal conforms to the pre-determined signals.
3. Confirm that the same signal has not been reported from the same or different sources (duplicate reports)
4. If the signal is from an official source, register as an event (see signal registration form in Annex 1), notify relevant authorities for risk assessment.
5. If the signal is from an unofficial source, notify relevant authorities for verification.

STEP 3: Verification

Verification is an essential step in confirming the authenticity and characteristics of the signal. Verification should be done at the local level nearest to the location of the signal. The following are the steps for verification:

1. Media Analyst contacts the Disease Surveillance Focal Person at the District level for verification and notifies the National Disease Surveillance Focal Person for his information

2. The Disease Surveillance Focal Person at the district level reports to the health facility focal point (closest to the signal source) who then proceeds to verification using the verification tool (see Annex 2).

3. If the signal is true, it becomes an event and if not, true it is discarded, and recorded accordingly in the relevant tool (Annex 3).

4. Once it is confirmed an event it is immediately reported to a higher level (e.g., District, Provincial, National) who then proceed to conduct a risk assessment

5. Feedback is again provided to the reporting party (Media Analyst)

STEP 4: Risk Assessment

The Disease Surveillance Focal Person at the District level convenes a multi-disciplinary team to determine the extent and magnitude of the event. Refer to 3.2.4 for RRA steps.

Session summary

1. Approaches of signal detection which include manual and automated
2. Steps of Media Scanning which include detection, triaging, verification and risk assessment.

Quiz.

1.Arrange the following steps for conducting media scanning in chronological order.

1.Verification….3
2.Risk Assessments….4
3.Triage….2
4.Detection….1

2. Manual and Automated information scanning are ways of Signal detection **(True/False).**

3. The following are steps for conducting triage in media scanning except

a) Establish that the signal registered is pertinent to EWAR.
b) Confirm that the signal conforms to the pre-determined signals.
c) Confirm that the same signal has not been reported from the same or different sources (duplicate reports).
d) If the signal is true, it becomes an event and if not, true it is discarded, and recorded accordingly in the relevant tool.

Session 3: Flow of Information for media scanning.

Session introduction

This session will cover how EBS signals are initially captured by media analysts from pre-determined media sources, registered at the national/regional level (depending on the level where the media scanning centre is located) and flows down to lower levels with a feedback loop in the reverse directions.

Session Content

The figure below shows flow of information on media scanning

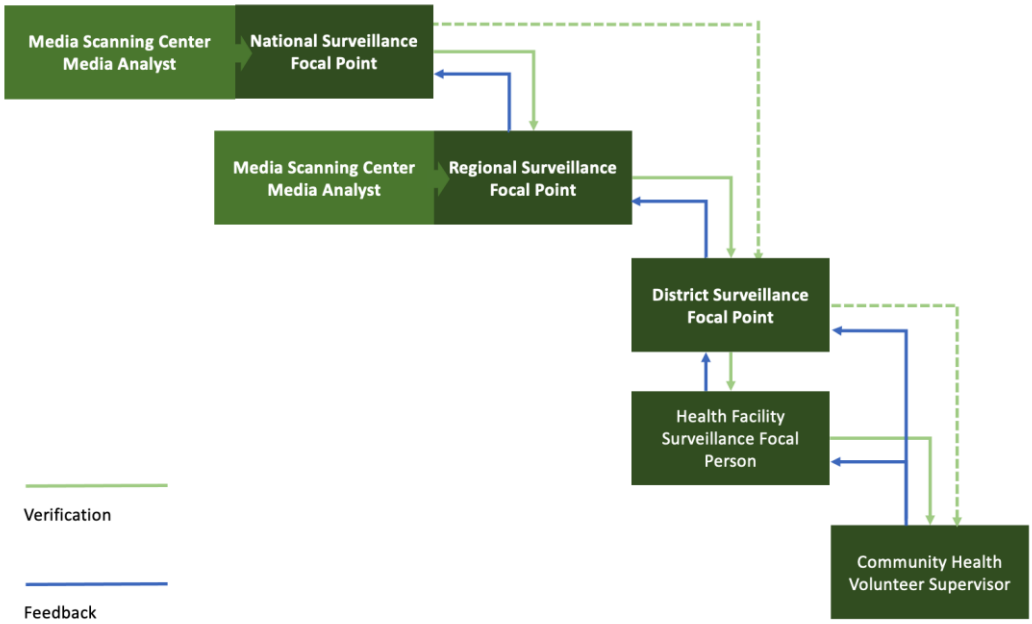

Figure 5 Information flow in Media Scanning EBS

Session summary

1. Flow of information and feedback for Media scanning include verification and feedback mechanisms from community Health volunteer supervisor to National surveillance focal point.

QUIZ

2. EBS signals are initially captured by media analysts and registered at media scanning centre (True /False)

Session 4: Requirements to establish a media scanning centre.

Session introduction

This session will cover a description of minimum requirements to establish a Media Scanning centre including infrastructure and setup options.

Session Content

Requirements

There is a myriad of options for media scanning centre technology. Whether a MS wants to build or reassess its media scanning centre requirements, technology considerations should include the core platform and workforce optimization software. Here we outline the minimum requirements for establishing a functional centre.

Infrastructure

a) Office space
b) Radio, TV
c) Recording devices
d) Computers connected to the internet
e) Social media monitoring tools: these let you keep track of the public conversation, postings, account, keyword, and hashtag that is relevant to your business

Setup Options

a) Perform a complete inventory of all print, radio and television media available: Encouraged to visit multiple media kiosks to ensure all print sources are documented
a) From this, select sources (rank) that feel most important and relevant to EBS in your country.
b) Selected resources should be reviewed to ensure they are not currently feeding into main news aggregation sites, including Google news, health maps etc.
c) Train data collection team to screen local media for stories that may be related to a relevant health event and/or signal as described.

Session Summary.

a) Minimum requirements for establishment of Media Scanning centre include infrastructure (Office, Radio, TV, recording devices, Computers with internet connectivity and social media monitoring tools).

b) Setup options for a Media Scanning centre which includes a complete inventory and training of data collection teams.

Quiz

1. The following are the minimum infrastructure requirements for establishing a Media Scanning centre.
   a) Office space
   b) Radio, TV
   c) Recording devices
   d) Computers connected to the internet
   e) Social media monitoring tools
   f) GPS track

2. Training data collection team to screen local media for stories that may be related to a relevant health event is ery important (True / False)

Pre and Post Knowledge Check Questions Media Scanning

1. Question 1: Media Scanning is also known as Media Monitoring (True /False)
   Answer: True

2. The screening out mild/irrelevant events from potential acute public health events, and the cleaning to eliminate duplicates and correct obvious mistakes is not part of Triage? True /False
   Answer: False

3. Does EBS requires a multisector, One Health approach as sources of information (Yes / No)
   Answer: Yes

4. Tick the main sources of Media Scanning
   1. Official
   2. Unofficial
   3. Electronic sources
   4. Paper based sources

   Answer 1 and 2

5. Tick the source(s) of information that do not require verification
   1. Newspapers and magazines
   2. Online content of TV and radio channels
   3. Social media
   4. Blogs
   5. Local and international media
   6. Google
   7. Food and Agriculture Organization of the United Nations (FAO)

Answer (7)

6. Signals detected through social media sources are reliable and do not need to be verified (True/False)
   Answer: False

7. The following are official sources of media scanning except
   e) Websites of governmental sectors
   f) Websites for official organisations
   g) Official pages/accounts on social media for governmental and official organisations
   h) Facebook and twitter

   Answer: (d)

8. Manual Media Scanning employs the following (Tick the appropriate)

   i. Developing a list of keywords related to the list of prioritised signals including diseases, syndromes or events
   ii. Developing a list of prioritised sources (online, radio, TV, print)
   iii. Use Rich site summary (RSS feeds)
   iv. Developing a review schedule of the prioritised sources

Answer (i, ii, iv)

9. Capturing signals from media sources and registering in a signal logbook/ register are the duties of
   a) Surveillance officer
   b) Monitoring & Evaluation Officer
   c) Media Analysist
   d) Clinical Officer

Answer (C)

10. Tick the appropriate data set for tracking the signals

   I. Place of occurrence (geographical area) – where it starts and spreads
   II. Description of signal/ event.
   III. Date of Commencing Fever
   IV. Date of Commencing Vomiting
   V. Magnitude of the event – who is affected (number of cases and/or deaths)
   VI. Date of Signal/event start date
   VII. Date of reporting the signal to the next level
   VIII. Source of signal/event
   IX. Name and contact details for reporting person

Answer (III and IV)

11. Arrange the following steps for conducting media scanning in chronological order.

    1.Verification

    2.Risk Assessments

    3.Triage

    4.Detection

    Answer (4, 3, 1 and 2

12. Once a signal is confirmed an event, it needs to wait for 24 hours before being reported to a higher level (e.g., District, Provincial, National) who then proceed to conduct a risk assessment (True/False).

    Answer (False)

13. During Risk Assessment, the community health care worker supervisor convenes a multi-disciplinary team to determine the extent and magnitude of the event. (True/ False).

    Answer (False)

14. Verification should be done at the local level nearest to the location of the signal. (True/False).

    Answer (True)

15. Training data collection team to screen local media for stories that may be related to a relevant health event is very important (True/False)

    Answer (True)

16. Once a signal is verified and reported, feedback is not necessarily provided to the reporting party (True /False).

    Answer (False)

17. The following are the minimum infrastructure requirements for establishing a Media Scanning centre.

    g) Office space
    h) Radio, TV

i) Recording devices
j) Computers connected to the internet
k) Social media monitoring tools
l) GPS track

Answer (f)

18. Online platforms e.g. Facebook, WhatsApp and twitter enable the general public to report and share information and engages them in social networks (True/False).

Answer (True)

19. Media scanning utilises unstructured data from diverse web-based sources, radio, television, newspapers etc. to provide early warning and situational awareness of human, animal and plant infectious diseases, as well as chemical, radiological and nuclear threats. (True/False).

Answer (True)

20. Multiple automated technological tools can be used for scanning online information from pre-defined sources. These tools can save time and effort and support the early detection of public health threats. (True/False).

Answer (True)