



# Outbreak Preparedness Toolkit

## Starting a Line List - Facilitator's Guide

**Time Required:** 30 min

**Target Audience:** Individuals involved with Line List management, such as: IPAC Leads/Backups, Nurse Managers (including evening and weekend), Directors of Care, Administrators, IPAC Champions, New hires (RNs, RPNs, PSWs)

### Introduction

Line lists are a mandatory requirement for all institutional confirmed outbreaks (e.g. COVID-19, Non-COVID-19 respiratory and enteric). It is a document that is a part of the official/legal outbreak (OB) record.

A line list is a table that contains key information about each case in an outbreak, with each row representing a case and each column representing a variable such as demographic, clinical and epidemiologic information (e.g., risk factors and exposures).

Line list information describes an outbreak in terms of person, place and time and allows for quick identification of trends, missing information, and errors. This facilitates the creation of descriptive statistics, such as an epidemic (epi) curve to be able to visually depict the distribution of cases over time.

Are you familiar with using TPH's updated electronic line list? Let's get prepared!

## Objectives

- Orient participants to completing TPH's electronic line list.
- Facilitate discussions and critical thinking through application scenarios/situations.
- Emphasize the importance of communication among staff at a long-term care home or retirement home, with Toronto Public Health and hospital IPAC hub, and to patients/families.

## Instructions

Read through the scenario below and practice using TPH's line list. These line lists can be accessed on our [Infection Prevention & Control Information for Long-Term Care Homes & Retirement Homes](#) internet page – under the Respiratory and Enteric drop down headings.

- ❖ [COVID/Respiratory LRCT Line List Epi Curve Tool\\*](#)
- ❖ [Enteric Outbreak Line List\\*](#)

\*While we aim to provide fully accessible content, there is no text alternative available for some of the content on this site. If you require alternate formats or need assistance understanding our maps, drawings, or any other content, please contact us at [LRCT@toronto.ca](mailto:LRCT@toronto.ca)

**Note: If you would like to obtain a PowerPoint version of this activity, please email your TPH Liaison or [LRCT@toronto.ca](mailto:LRCT@toronto.ca).**

## Activity

### Scenario Part 1:

#### January 3<sup>rd</sup>:

On January 1st, a symptomatic resident (B.C.) developed symptoms and was sent to St. Michael's Hospital where she was hospitalized. As the ICP/ nurse manager, you implemented enhanced syndromic surveillance in the home. B.C. was tested at the hospital on Jan. 1, 2023 and found to be positive for Influenza A. You were notified today, and upon speaking with Toronto Public Health, declared a suspect outbreak for the 1st floor where the resident resided.

The facility has 3 floors; rooms 1-10 are on floor 1, rooms 11-20 are on floor 2, and rooms 21-30 are on floor 3.

#### Resident Surveillance Data:

Resident Name	Room #	Sex	DOB	HCN	Symptoms	Symptom onset	Specimen collection date and result	Other information
B.C.	8	Female	1952-08-19	11111 11	Dry cough, Shortness of breath, fatigue, fever (39 degrees)	2023-01-01	<b>Multiplex:</b> Positive, Influenza A; collected on 2023- 01-01, <b>COVID-19:</b> negative	<ul style="list-style-type: none"><li>- Resides on 1<sup>st</sup> floor.</li><li>- Hospitalized on Jan. 1, 2023.</li><li>- COVID-19 vaccine: 3 doses</li></ul>

Resident Name	Room #	Sex	DOB	HCN	Symptoms	Symptom onset	Specimen collection date and result	Other information
A.V.	2	Female	1939-10-01	22222 22	Rash	2023-01-01	N/A	<ul style="list-style-type: none"> <li>- Resides on 1<sup>st</sup> floor. Eats at the same table as B.C.</li> <li>- COVID-19 vaccine: 4 doses</li> </ul>
A.P.	15	Female	1946-10-05	33333 33	Dry cough, nasal congestion	2023-01-02	N/A	<ul style="list-style-type: none"> <li>- Resides on 2<sup>nd</sup> floor.</li> <li>- COVID-19 vaccine: 3 doses</li> </ul>
B.Y.	22	Male	1940-09-04	44444 44	Productive cough	2022-11-14	N/A	<ul style="list-style-type: none"> <li>- Resides on 3<sup>rd</sup> floor.</li> <li>- Pre-existing condition of COPD.</li> <li>- COVID-19 vaccine: 3 doses</li> </ul>
J.G.	12	Female	1955-04-17	66666 66	Abdominal pain, diarrhea	2023-01-01	N/A	<ul style="list-style-type: none"> <li>- Resides on 2<sup>nd</sup> floor.</li> <li>- COVID-19 vaccine: 3 doses</li> </ul>
W.F.	7	Male	1942-06-23	77777 77	Dry cough, malaise	2022-12-01	N/A	<ul style="list-style-type: none"> <li>- Resides on 1<sup>st</sup> floor.</li> <li>- COVID-19 vaccine: 3 doses</li> </ul>

Resident Name	Room #	Sex	DOB	HCN	Symptoms	Symptom onset	Specimen collection date and result	Other information
J.C.	10	Male	1941-08-08	888888	Dry cough, sore throat	2023-01-02	N/A	<ul style="list-style-type: none"> <li>- Resides on the 1<sup>st</sup> floor.</li> <li>- COVID-19 vaccine: 3 doses</li> </ul>
C.A.	11	Female	1951-05-18	999999	Feeling unwell, loss of appetite	2023-01-02	N/A	<ul style="list-style-type: none"> <li>- Resides on 2<sup>nd</sup> floor.</li> <li>- COVID-19 vaccine: 3 doses</li> </ul>

#### Staff Surveillance Data:

Staff Name	Floor worked	Sex	DOB	HCN	Symptoms	Symptom onset	Specimen collection date and result	Other information
J.W.	1st and 2nd floor	Male	1990-09-13	1000000	Sore throat, fatigue	2022-12-30	N/A	<ul style="list-style-type: none"> <li>- RN. Last day worked was Jan. 1, 2023.</li> <li>- COVID-19 vaccine: 3 doses</li> </ul>
A.L.	3rd floor	Female	1989-01-06	1222222	Sore throat, change in level of alertness	2023-01-03 (half-way through shift)	N/A	<ul style="list-style-type: none"> <li>- RN.</li> <li>- COVID-19 vaccine: 3 doses</li> </ul>

**Actions:**

- **Develop a case definition for this suspect outbreak.**
- **Determine which residents and staff should be included on the line list based on data collected from the syndromic surveillance conducted from January 1st to 3rd.**

*Answer/ Possible Response:*

1) An acceptable case definition can include:

- One or more of the following symptoms with illness onset from Dec. 30<sup>th</sup>, 2023: new or worsening cough, abnormal temperature ( $\leq 35.5$  or  $\geq 37.5$ ), abdominal pain, diarrhea, nasal congestion, sore throat, and loss of appetite.
- The illness onset date is listed as Dec. 30<sup>th</sup>, instead of the Jan. 1<sup>st</sup> date for the first confirmed resident case, as the index case may have been the staff member (J.W.).

2) The residents listed below would not be included in the line list. The rationale is as follows:

- A.V. – Rash is not a symptom of influenza A.
- B.Y. – Pre-existing productive cough that does not align with illness onset listed in the case definition.
- W.F. – Symptom onset that does not align with illness onset listed in the case definition.

The resident, C.A., would be placed on the line list. Although she was experiencing vague symptoms, loss of appetite and feeling unwell can be an indicator that something more is happening with this resident. Loss of appetite can also be a symptom of Influenza.

## Scenario Part 2

### January 5<sup>th</sup>

You have received additional information, including some lab results, for the residents and staff (highlighted in yellow below).

#### Resident Surveillance Data:

Resident Name	Room #	Sex	DOB	HCN	Symptoms	Symptom onset	Specimen collection date and result	Other information
B.C.	8	Female	1952-08-19	111111 1	Dry cough, shortness of breath, fatigue, fever (39 degrees)	2023-01-01	<b>Multiplex:</b> Positive Influenza A; collected on 2023-01-01 <b>COVID-19:</b> negative	<ul style="list-style-type: none"> <li>Resides on 1st floor.</li> <li>Hospitalized on Jan. 1, 2023.</li> <li>COVID-19 vaccine: 3 doses</li> </ul>
A.P.	15	Female	1946-10-05	333333 3	Dry cough, nasal congestion	2023-01-02	<b>Multiplex:</b> Positive Influenza A; collected on 2023-01-03 <b>COVID-19:</b> negative	<ul style="list-style-type: none"> <li>Resides on 2nd floor.</li> </ul>
J.G.	12	Female	1955-04-17	666666 6	Abdominal pain, diarrhea	2023-01-01	<b>Multiplex:</b> Pending; collected on 2023-01-03 <b>COVID-19:</b> negative	<ul style="list-style-type: none"> <li>Resides on 2nd floor.</li> <li>COVID-19 vaccine: 3 doses</li> <li>Has been on laxatives since Dec 31, 2022.</li> </ul>

Resident Name	Room #	Sex	DOB	HCN	Symptoms	Symptom onset	Specimen collection date and result	Other information
J.C.	10	Male	1941-08-08	88888888	Dry cough, sore throat	2023-01-02	<b>Multiplex:</b> Pending; collected on 2023-01-03 <b>COVID-19:</b> negative	<ul style="list-style-type: none"> <li>- Resides on the 1st floor.</li> <li>- Was hospitalized for infection from Dec 25, 2022</li> <li>- Jan. 1st, 2023. Transferred to the home from the hospital on Jan. 1st, 2023, where he was placed on Droplet and Contact Precautions.</li> </ul>
C.A.	11	Female	1951-05-18	99999999	Feeling unwell, loss of appetite	2023-01-02	<b>Multiplex:</b> Positive for Influenza A; collected on 2023-01-03 <b>COVID-19:</b> negative	<ul style="list-style-type: none"> <li>- Resides on 2nd floor.</li> </ul>



### Staff Surveillance Data:

Staff Name	Floor worked	Sex	DOB	HCN	Symptoms	Symptom onset	Specimen collection date and result	Other information
J.W.	1 <sup>st</sup> and 2 <sup>nd</sup> floor	Male	1990-09-13	1000000	Sore throat, fatigue	2023-12-30	N/A	RN. Last day worked was Jan. 1, 2023.
A.L.	3 <sup>rd</sup> floor	Female	1989-01-06	1222222	Sore throat, change in level of alertness	2023-01-03	N/A	RN. Last day worked Dec. 12, 2022 before going on vacation. Returned to work on Jan. 3 <sup>rd</sup> where screened for symptoms and sent home without going into facility.

#### Action:

- Based on the updated information above, identify who should remain on the line list and update the line list.

#### Answer/ Possible Response:

The residents and staff listed below would be removed from the line list based on the additional information or lab results.

The rationale is as follows:

- J.C. – Although lab results for this resident is still pending, he was not residing at the home during his period of acquisition before symptom onset. Therefore it is unlikely that whatever he may have acquired was acquired in the

home. Furthermore, upon being transferred to the home, he was placed on Droplet and Contact Precautions during his period of communicability.

- A.L. – Although she meets the case definition, this staff member was not working at the home during her period of acquisition or period of communicability and would not be included in the line list.

The resident, J.G., would remain on the line list. Although this resident has been on laxatives since Dec. 31<sup>st</sup>, and laxatives can cause abdominal pain and diarrhea, this resident would remain on the line list since she has a potential epi link (residing on 2<sup>nd</sup> floor with other cases) and she meets the current case definition. If the lab results return and the client is negative for Influenza A, she can then be removed from the line list and the case definition can be updated.

## Debrief Discussion Questions

- **What were some challenges you faced when developing the case definition for the suspect outbreak?**
- **What were some key items that needed to be considered when placing an individual on a line list?**

## Feedback

Thank you for completing the activity. We want to hear your feedback. Please complete this short survey (1-2 min) so we can continue to improve the tools.

[https://s.tphsurvey.chkmkt.com/TPH\\_OBPrep\\_Toolkit](https://s.tphsurvey.chkmkt.com/TPH_OBPrep_Toolkit)



## Additional Resources/References

- [COVID/Respiratory LRCT Line List Epi Curve Tool](#)
- [Enteric Outbreak Line List](#)
- National Collaborating Centre for Infectious Diseases: [Descriptive epidemiology – Outbreak Toolkit \(outbreaktools.ca\)](#)
- National Collaborating Centre for Infectious Diseases: [Epidemic curves – Outbreak Toolkit \(outbreaktools.ca\)](#)
- [TPH Outbreak Transfer Notification Form](#)

*Version 2 (June 2023)*