

Calculating Timeliness in West Virginia Electronic Disease Surveillance System (WVEDSS)

December, 2025



Evaluating Timeliness

- Background
- Importance of timeliness in disease surveillance
- Timeliness fields
- Data dictionary
- Pulling West Virginia Electronic Disease Surveillance System (WVEDSS) data for timeliness

Background



- Timely notification and response to infectious diseases is critical for prompt response by public health.
- A case investigation created in WVEDSS serves as notification to the local health department (LHD) of the case as it will not appear in their “Open Cases Queue”
- The recommended time frame of reporting from WVEDSS to CDC Nationally Notifiable Diseases Surveillance System (NNDSS) is 30 days.
- LHDs should prioritize investigating patients within timelines that correspond with preventing further disease transmission and/or allow post exposure prophylaxis when indicated. Cases awaiting additional information such as confirmatory testing or atypical cases requiring complex public health guidance may need to remain open in WVEDSS.
- For reportable conditions, it is best practice that the LHD complete and submit case investigations to the Regional Epidemiologist for review within two weeks of receipt and no later than thirty days after initial notification. Case investigations older than thirty days may be administratively closed.

Importance of Timeliness in Disease Surveillance



**Receipt of Positive
Lab of a Reportable
Disease**

>1 day

**Local Health
Department Case
Investigation**

2 weeks

**Regional
Epidemiologist Case
Review**

1 week

**State Health
Department Case
Review**

1 week

**Submission of
Case Data to the
CDC**

Why is timeliness critical ?

Preventing Larger Outbreaks:

Early detection and prompt investigation help to prevent many illnesses from occurring.

Identifying the Source:

Timely investigation is necessary to identify the source and risk factors of an outbreak, allowing for effective and early intervention for possible contacts.

Protecting Public Health:

Swift action ensures that the appropriate control measures are put in place to protect the public's health.

Timeliness Fields



		<u>State Health Dept. Level</u>	<u>Local / Regional Investigation Level</u>	<u>State Health Dept. Review</u>	<u>Total Time Elapsed</u>
Disease (Case Count)	Program Area	Date Lab Received to Case Investigation Creation Date	Investigation Creation Date (Local Level) to Submission to the RE	RE Review to State Review /CDC notification	Total Time elapsed
	WVEDSS Fields Used	(Phc Add Time) – (EARLIEST_LAB_ADD_DATE)	(First Notification Sent Date - Phc Add Time)	(Last Notification Date - First Notification Date)	(Last Notification Date – (EARLIEST_LAB_ADD_DATE))
Hep A Acute (5 Cases)	HEP	>1 day	20 days	7 days	28 days

Data Dictionary



	WVEDSS Report Column Name	Variable	Detailed explanation
Date a Lab was added to WVEDSS	EARLIEST_LAB_ADD_DATE	Date (01/01/2025)	The date the lab report was added to WVEDSS
Public Health Case Add Time	PHC Add Time	Date (01/01/2025)	The date the case investigation was created in WVEDSS
Investigation Start Date	Inv_Start Date	Date (01/01/2025)	The date the case investigation was started
First Notification Sent Date	First_Notification_Sent_Date	Date (01/01/2025)	The date the Regional epidemiologist sent the case for state review
Last Notification Sent Date	Last_Notification_Sent_Date	Date (01/01/2025)	The date the Department of Health sent the case notification to the CDC

How to run a Timeliness Report

Home | Data Entry | Merge Patients | Open Investigations | **Reports** | System Management

Release 6.0.17.1-GA Dashboard

Patient Search

Search Demographics

(By default, search uses 'Starts With'. To search using 'Contains', enter % at start of text or use Advanced Search)

Last Name:

First Name:

DOB: 

Current Sex: 

Search Identifiers

Event ID Type: 

Patient ID(s):

(Separate IDs by commas, semicolons, or spaces)

Search

Clear

Advanced Search

My Queues

Default Queues

- Open Investigations (1073)
- Approval Queue for Initial Notifications (183)
- Updated Notifications Queue (1)
- Rejected Notifications Queue (0)
- Documents Requiring Security Assignment (380)
- Documents Requiring Review (2148)
- Messages Queue (0)
- Supervisor Review Queue (46)

News Feeds

You are not setup to receive any news feeds. Please contact your system administrator to have them configure it for you.

- Navigate to the Reports Menu at the top of the WVEDSS Home Screen

How to run a Timeliness Report

[Home](#) | [Data Entry](#) | [Merge Patients](#) | [Open Investigations](#) | [Reports](#) | [System M](#)

Reports

Go to: [Private Reports](#) | [Public Reports](#) | [Template Reports](#) | [Reporting Facility Reports](#)

[Collapse Sections](#)

Private Reports

[Expand Subsections](#)

COVID19

Custom Reports

Public Reports

[Expand Subsections](#)

Custom Reports

Default Report Section

STD Report Section

TB reports

Template Reports

[Expand Subsections](#)

COVID19

Custom Reports

Default Report Section

STD Report Section

Reporting Facility Reports

[Expand Subsections](#)

There are no Reporting Facility reports available.

- Click to expand Default Report Section

How to run a Timeliness Report



Run	Line List of Giardiasis
Run	Line List of Giardiasis_v2
Run	Line List of HIV Investigation
Run	Line List of Hepatitis A, Acute
Run	Line List of Hepatitis B Viral Infection, Perinatal
Run	Line List of Hepatitis B and C, Chronic
Run	Line List of Hepatitis B, C, and D, Acute
Run	Line List of Hepatitis B, Pregnancy
Run	Line List of Hepatitis C Viral Infection, Perinatal
Run	Line List of Hepatitis C, Pregnancy
Run	Line List of Hepatitis E, acute
Run	Line List of Hepatitis Investigations
Run	Line List of Individual Cases with Program Area and Jurisdiction Security
Run	Line List of Individual Labs with Program Area and Jurisdiction Security
Run	Line List of Isolate Tracking
Run	Line List of Latent TB Infection
Run	Line List of Legionellosis-Extended
Run	Line List of Listeriosis
Run	Line List of Lyme Disease INV
Run	Line List of Malaria Template
Run	Line List of Monkeypox
Run	Line List of Monkeypox Investigation
Run	Line List of Multisystem Inflammatory Syndrome Investigation
Run	Line List of Mumps
Run	Line List of Organizations by State and County
Run	Line List of Q fever

- Select Run “Line List of Individual Cases with Program Area and Jurisdiction Security”

How to run a Timeliness Report

Run Export Cancel

Basic Filter Advanced Filter Column Selection

Line List of Individual Cases with Program Area and Jurisdiction Security

Condition

Select All

Diseases:

- Hepatitis
- Hepatitis A, acute
- Hepatitis B virus infection, Chronic
- Hepatitis B, Pregnancy
- Hepatitis B, acute

Time

Date Filtered By: Phc Add Time

From: 01/01/2025
mm/dd/yyyy

To: 03/30/2025
mm/dd/yyyy

Run Export Cancel

- Select the disease(s) needed for your report from the “Conditions” listing.
- Enter the date frames for the cases you will be evaluating under “Time”.

How to run a Timeliness Report

Run Export Cancel

Basic Filter Advanced Filter **Column Selection**

Line List of Individual Cases with Program Area and Jurisdiction Security

Please select the column variables you would like to include in this report. Then move them up or down until they are arranged in the order you would like them to appear when the report is run.

Available Columns:

- Investigation Status Code
- Investigator Assigned Date
- Investigator Name
- Investigator Phone
- Jurisdiction
- Jurisdiction Code
- Last Notification Sent Date
- Last Notification Submitted By
- Latitude
- Longitude

Selected Columns:

- EARLIEST_LAB_ADD_DATE
- Phc Add Time
- First Notification Date
- Last Notification Date

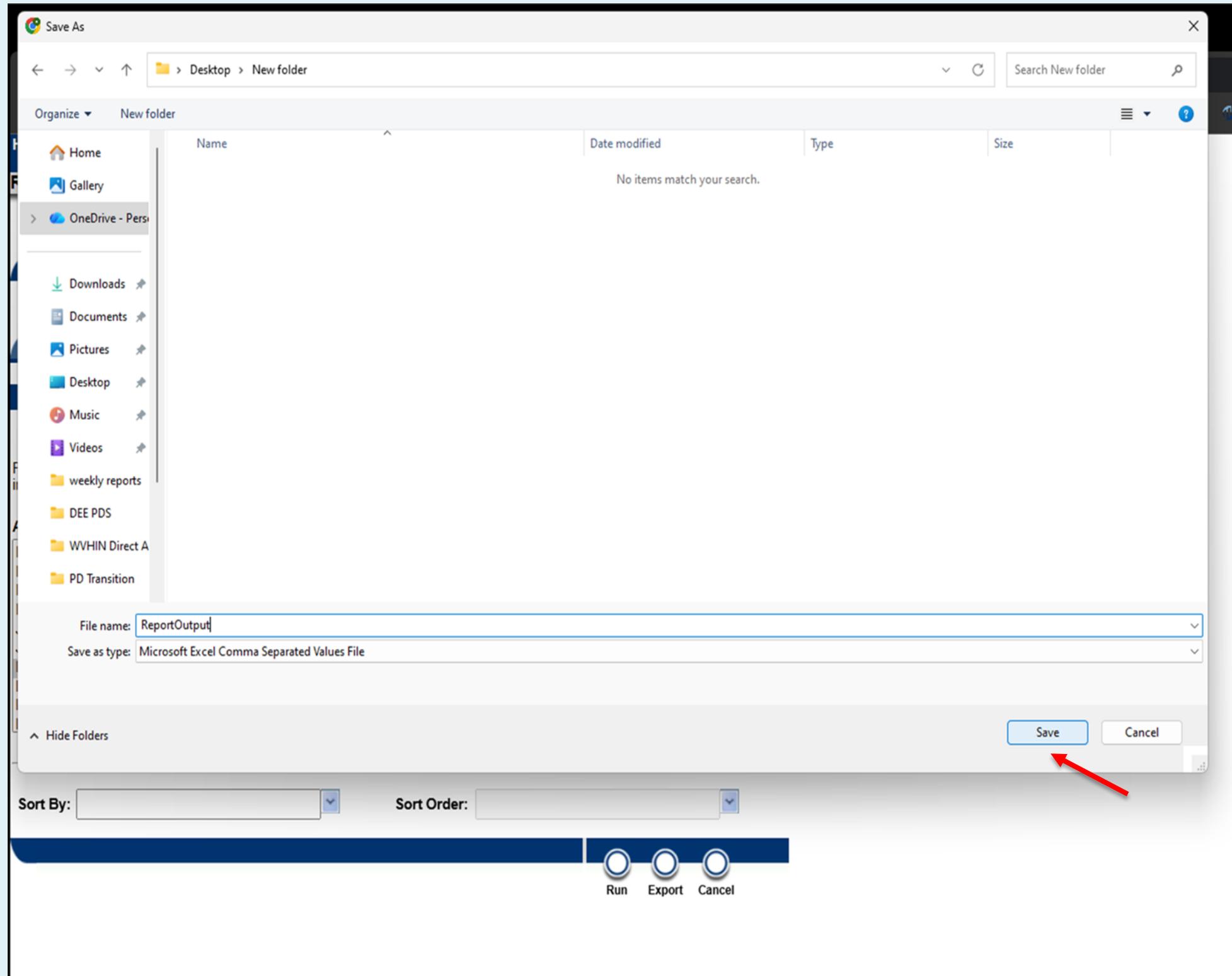
Sort By: Sort Order:

Run Export Cancel

- Select “Column Selection.”
- Select the following fields:
 - EARLIEST_LAB_ADD_DATE
 - Phc Add Time
 - First Notification Date
 - Last Notification Date
- Select “Export”

*Additional fields may be selected for analysis, but the columns listed are the minimum data necessary for timeliness calculations.

How to run a Timeliness Report



- Save the report to a folder that you can easily locate the file.

How to run a Timeliness Report



	A	B	C	D
1	EARLIEST_LAB_ADD_DATE	Phc Add Time	First Notification Date	Last Notification Date
2	1/13/2025 15:05	1/13/2025 15:00	3/18/2025 9:44	3/18/2025 9:44
3	2/2/2025 7:02	2/3/2025 15:46	2/11/2025 9:58	2/11/2025 13:54
4	1/31/2025 15:05	2/3/2025 8:20	3/18/2025 15:24	3/18/2025 15:24
5	1/30/2025 12:56	1/30/2025 13:51	3/18/2025 12:15	3/18/2025 12:15
6	1/6/2025 8:01	1/6/2025 11:45	2/4/2025 12:32	2/20/2025 13:40
7	2/15/2025 9:00	2/18/2025 9:51		
8	12/31/2024 9:05	1/2/2025 14:23	2/4/2025 13:23	2/4/2025 13:49
9	1/28/2025 8:03	1/28/2025 8:21	2/11/2025 10:08	2/11/2025 10:58
10	2/12/2025 14:00	2/13/2025 9:52	2/20/2025 10:32	2/20/2025 12:27
11	3/5/2025 7:05	3/5/2025 9:35		
12	2/7/2025 7:17	2/7/2025 11:34	3/18/2025 11:14	3/18/2025 11:14
13	3/19/2025 9:07	3/19/2025 12:07		
14	1/23/2025 7:06	1/23/2025 10:22	2/24/2025 11:52	2/24/2025 15:25
15	3/14/2025 7:07	3/14/2025 10:17		
16				
17				
18				

- Navigate to where you saved the export.
 - Utilize Excel or another comparable application for analysis to compare the dates of submission.
 - Example: Total Elapsed Case Investigation Time: (=D2-A2)
- *Blank or missing values may signify a case is still in progress and has not yet been submitted for review.

How to run a Timeliness Report



The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E
1	EARLIEST_LAB_ADD_DATE	Phc Add Time	First Notification Date	Last Notification Date	Calculate Time from Receipt of Lab to Case Investigation Creation
2	2/2/2025 7:02	2/3/2025 15:46	2/11/2025 9:58	2/11/2025 13:54	=B2-A2
3	1/31/2025 15:05	2/3/2025 8:20	3/18/2025 15:24	3/18/2025 15:24	
4	1/30/2025 12:56	1/30/2025 13:51	3/18/2025 12:15	3/18/2025 12:15	
5	1/6/2025 8:01	1/6/2025 11:45	2/4/2025 12:32	2/20/2025 13:40	
6	2/15/2025 9:00	2/18/2025 9:51			
7	12/31/2024 9:05	1/2/2025 14:23	2/4/2025 13:23	2/4/2025 13:49	
8	1/28/2025 8:03	1/28/2025 8:21	2/11/2025 10:08	2/11/2025 10:58	
9	2/12/2025 14:00	2/13/2025 9:52	2/20/2025 10:32	2/20/2025 12:27	
10	3/5/2025 7:05	3/5/2025 9:35			
11	2/7/2025 7:17	2/7/2025 11:34	3/18/2025 11:14	3/18/2025 11:14	
12	3/19/2025 9:07	3/19/2025 12:07			
13	1/23/2025 7:06	1/23/2025 10:22	2/24/2025 11:52	2/24/2025 15:25	
14	3/14/2025 7:07	3/14/2025 10:17			
15					
16					

To calculate the amount of time from receipt of the laboratory report to creation of a case investigation, subtract the (Phc Add Time) from the (EARLIEST_LAB_ADD_DATE) , In Excel, in an empty column enter “=B2-A2” and press “Enter.”

*Excel column and row letters and numbers may change based on the number of fields pulled from your WVEDSS export.

How to run a Timeliness Report



	A	B	C	D	E
1	EARLIEST_LAB_ADD_DATE	Phc Add Time	First Notification Date	Last Notification Date	Investigation Creation Date (Local Level) to Submission to the Regional Epidemiologist
2	2/2/2025 7:02	2/3/2025 15:46	2/11/2025 9:58	2/11/2025 13:54	=C2-B2
3	1/31/2025 15:05	2/3/2025 8:20	3/18/2025 15:24	3/18/2025 15:24	
4	1/30/2025 12:56	1/30/2025 13:51	3/18/2025 12:15	3/18/2025 12:15	
5	1/6/2025 8:01	1/6/2025 11:45	2/4/2025 12:32	2/20/2025 13:40	
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8	1/28/2025 8:03	1/28/2025 8:21	2/11/2025 10:08	2/11/2025 10:58	
9	2/12/2025 14:00	2/13/2025 9:52	2/20/2025 10:32	2/20/2025 12:27	
10	3/5/2025 7:05	3/5/2025 9:35			
11	2/7/2025 7:17	2/7/2025 11:34	3/18/2025 11:14	3/18/2025 11:14	
12	3/19/2025 9:07	3/19/2025 12:07			
13	1/23/2025 7:06	1/23/2025 10:22	2/24/2025 11:52	2/24/2025 15:25	
14	3/14/2025 7:07	3/14/2025 10:17			
15					

To calculate the amount of time from Investigation Creation Date (Local Level) to Submission to the Regional Epidemiologist, subtract the (Phc Add Time) from (First Notification Date), In Excel, in an empty column enter “=C2-B2” and press “Enter.”

*Excel column and row letters and numbers may change based on the number of fields pulled from your WVEDSS export.

How to run a Timeliness Report



The image shows an Excel spreadsheet with the following data:

	A	B	C	D	E
1	EARLIEST_LAB_ADD_DATE	Phc Add Time	First Notification Date	Last Notification Date	Regional Epidemiologist Review to State Review /CDC notification
2	2/2/2025 7:02	2/3/2025 15:46	2/11/2025 9:58	2/11/2025 13:54	=D2-C2
3	1/31/2025 15:05	2/3/2025 8:20	3/18/2025 15:24	3/18/2025 15:24	
4	1/30/2025 12:56	1/30/2025 13:51	3/18/2025 12:15	3/18/2025 12:15	
5	1/6/2025 8:01	1/6/2025 11:45	2/4/2025 12:32	2/20/2025 13:40	
6	2/15/2025 9:00	2/18/2025 9:51			
7	12/31/2024 9:05	1/2/2025 14:23	2/4/2025 13:23	2/4/2025 13:49	
8	1/28/2025 8:03	1/28/2025 8:21	2/11/2025 10:08	2/11/2025 10:58	
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10	3/5/2025 7:05	3/5/2025 9:35			
11	2/7/2025 7:17	2/7/2025 11:34	3/18/2025 11:14	3/18/2025 11:14	
12	3/19/2025 9:07	3/19/2025 12:07			
13	1/23/2025 7:06	1/23/2025 10:22	2/24/2025 11:52	2/24/2025 15:25	
14	3/14/2025 7:07	3/14/2025 10:17			
15					
16					

To calculate the amount of time from Regional Epidemiologist Review to State Review /CDC notification, subtract the (First Notification Date) from (Last Notification Date), In Excel, in an empty column enter “=D2-C2” and press “Enter.”

*Excel column and row letters and numbers may change based on the number of fields pulled from your WVEDSS export.

How to run a Timeliness Report



	A	B	C	D	E
1	EARLIEST_LAB_ADD_DATE	Phc Add Time	First Notification Date	Last Notification Date	Total Elapsed Time
2	2/2/2025 7:02	2/3/2025 15:46	2/11/2025 9:58	2/11/2025 13:54	=D2-A2
3	1/31/2025 15:05	2/3/2025 8:20	3/18/2025 15:24	3/18/2025 15:24	
4	1/30/2025 12:56	1/30/2025 13:51	3/18/2025 12:15	3/18/2025 12:15	
5	1/6/2025 8:01	1/6/2025 11:45	2/4/2025 12:32	2/20/2025 13:40	
6	2/15/2025 9:00	2/18/2025 9:51			
7	12/31/2024 9:05	1/2/2025 14:23	2/4/2025 13:23	2/4/2025 13:49	
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9	2/12/2025 14:00	2/13/2025 9:52	2/20/2025 10:32	2/20/2025 12:27	
10	3/5/2025 7:05	3/5/2025 9:35			
11	2/7/2025 7:17	2/7/2025 11:34	3/18/2025 11:14	3/18/2025 11:14	
12	3/19/2025 9:07	3/19/2025 12:07			
13	1/23/2025 7:06	1/23/2025 10:22	2/24/2025 11:52	2/24/2025 15:25	
14	3/14/2025 7:07	3/14/2025 10:17			
15					

To calculate the total elapsed time of a case investigation from start to finish, subtract the (Last Notification Date) from (EARLIEST_LAB_ADD_DATE), In Excel, in an empty column enter “=D2-A2” and press “Enter.”

*Excel column and row letters and numbers may change based on the number of fields pulled from your WVEDSS export.

Things to Remember



- Blank fields may be contributed to an open case investigation that is still in progress, this analysis is most useful on completed investigations.
- During your analysis you may encounter negative days calculated. This can be attributed to a case investigation created before the receipt of a lab report. Example – A provider calls in a suspect case to the Local Health Department while awaiting testing confirmation.
- Not all fields may be available for analysis, for example when a Regional Epidemiologist position is vacant, notifications bypass the Regional level and go straight to the State Department of Health.
- This analysis can provide a basis to understanding the range of timeliness during the case investigation process but is not comprehensive.
- If you need any assistance duplicating this analysis please contact oeopsdatasystems@wv.gov