



# **CDC FluView Weekly Report**

## **National, Regional, and State/Jurisdiction Level Outpatient Illness and Viral Surveillance**

### **Application Quick Reference Guide – October 2017**

#### **Introduction**

This Quick Reference Guide is intended to provide an overview of the outpatient ILI and viral surveillance systems and explain the available features and use of the “National, Regional, and State/Jurisdiction Level Outpatient Illness and Viral Surveillance” web application.

This application is part of the CDC FluView report, which provides weekly influenza surveillance information in the United States. This application was developed to improve communication about influenza with the public health community, clinicians, scientists, and the general public. This application is added to the series of dynamic visualizations that allow internet users to access influenza information collected by CDC’s monitoring systems. CDC’s FluView report is available at <http://www.cdc.gov/flu/weekly/>

#### **About the Data**

**Virologic Surveillance** — Approximately 110 U.S. **World Health Organization (WHO) Collaborating Laboratories** and 270 **National Respiratory and Enteric Virus Surveillance System (NREVSS)** laboratories, which include both public health and clinical laboratories, located throughout the United States participate in virologic surveillance for influenza. All public health and clinical laboratories report the total number of respiratory specimens tested and the number positive for influenza each week to CDC, along with age or age group of the person, if available. Beginning in the 2015-16 season, reports from public health and clinical laboratories were presented separately in the weekly influenza update, FluView. Data from clinical

laboratories include the weekly total number of specimens tested, the number of positive influenza tests, and the percent positive by influenza type. Data presented from public health laboratories include the weekly total number of specimens tested, the number of positive influenza tests, and the number by influenza virus type, influenza A subtype, and influenza B lineage. In addition, the age group distribution of influenza positive tests are also summarized in Fluview. A subset of the influenza viruses collected by public health laboratories are sent to CDC for further characterization, including antiviral resistance testing and antigenic and/or genetic characterization, and this information is presented in the antiviral resistance and virus characterization sections of the FluView report.

**Outpatient Illness Surveillance** — Information on patient visits to health care providers for influenza-like illness is collected through the **U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet)**. ILINet consists of approximately 3,200 outpatient healthcare providers in all 50 states, Puerto Rico, the District of Columbia and the U.S. Virgin Islands reporting over 36 million patient visits each year. Each week, approximately 2,000 outpatient healthcare providers around the country report data to CDC on the total number of patients seen and the number of those patients with influenza-like illness (ILI) by age group (0-4 years, 5-24 years, 25-49 years, 50-64 years, and  $\geq 65$  years). For this system, ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and a cough and/or a sore throat in the absence of a known cause other than influenza. Sites with electronic records use an equivalent definition as determined by state public health authorities.

**ILI baselines:**

The percentage of patient visits to healthcare providers for ILI reported each week is weighted on the basis of state population. This percentage is compared each week with the national baseline. The baseline is developed by calculating the mean percentage of patient visits for ILI during non-influenza weeks for the previous three seasons and adding two standard deviations. Due to wide variability in regional level data, it is not appropriate to apply the national baseline to regional data; therefore, region-specific baselines are calculated. Likewise, state or jurisdiction level data should not be compared to the national or regional baseline. Because state/jurisdiction level data may fluctuate more from week to week depending on the providers that have reported, an alternate analysis is performed that compares the weekly percent of visits due to ILI to a baseline that is adjusted each week based on

which sites within each jurisdiction provide data. For information regarding state and jurisdiction level data analysis please see (<https://gis.cdc.gov/grasp/fluview/main.html>).

**Note: ILINet and WHO/NREVSS Collaborating Laboratory surveillance data are preliminary and subject to change as more data becomes available.**

The map and data used in the National, Regional, and State/Jurisdiction Level Outpatient Illness and Viral Surveillance web application are displayed nationally, regionally (Health and Human Services (HHS) Regions and Census Divisions) and by select state or jurisdiction (DC, NYC, PR, and USVI).

**State and Jurisdiction Level Data:**

State and jurisdiction data will be available only after approval from the individual reporting jurisdictions are received. Approvals are gathered for each data source (ILINet, clinical labs, and public health labs) for each season. Data will be listed as “Data Not Available” if the jurisdiction has decided to not share data on the CDC website. Contact information is provided for all reporting jurisdictions if more information/data is needed.

**Region Level Data:**

The 10 HHS regions include:

HHS Regions	Jurisdiction
Region 1	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont
Region 2	New Jersey, New York, Puerto Rico, and U.S. Virgin Islands
Region 3	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia
Region 4	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee
Region 5	Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin
Region 6	Arkansas, Louisiana, New Mexico, Oklahoma, and Texas
Region 7	Iowa, Kansas, Missouri, and Nebraska
Region 8	Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming
Region 9	Arizona, California, Hawaii, and Nevada

Region 10	Alaska, Idaho, Oregon, and Washington
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The Census Divisions are:

Census Divisions	Jurisdiction
New England	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont
Middle Atlantic	New Jersey, New York, Pennsylvania, Puerto Rico, and U.S. Virgin Islands
East North Central	Indiana, Illinois, Michigan, Ohio, and Wisconsin
West North Central	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota
South Atlantic	Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia
East South Central	Alabama, Kentucky, Mississippi, and Tennessee
West South Central	Arkansas, Louisiana, Oklahoma, and Texas
Mountain	Arizona, Colorado, Idaho, New Mexico, Montana, Utah, Nevada, and Wyoming
Pacific	Alaska, California, Hawaii, Oregon, and Washington

## Accessing the FluView Web-based Application

All FluView applications are accessible to the public on the World Wide Web. To access the National and Regional Level Outpatient Illness and Viral Surveillance web application open a web browser on your computer and go the following internet link:

<http://qis.cdc.gov/grasp/fluview/fluportaldashboard.html>

Application requirements:

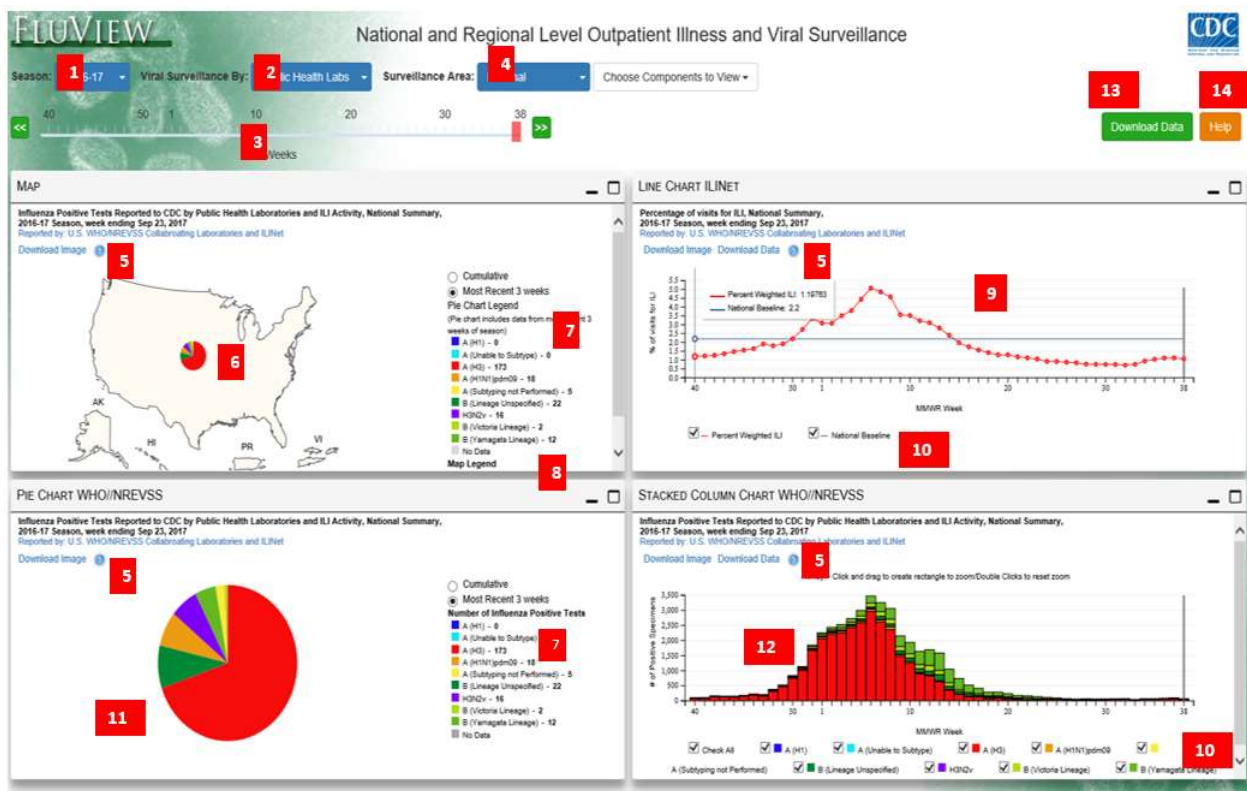
- Internet Browser (one of these)
  - Windows Internet Explorer 7 and later
  - Google Chrome
  - Mozilla Firefox
- Adobe Flash plug-in for internet browsers. This plugin can be downloaded at <http://get.adobe.com/flashplayer/>.

Once the website is loaded, a disclaimer dialog box will appear. Please review the disclaimer for important reference information. Click "Ok" to continue the FluView web application. Clicking on Cancel will take you to the CDC FluView weekly Flu report home page <http://www.cdc.gov/flu/weekly/>

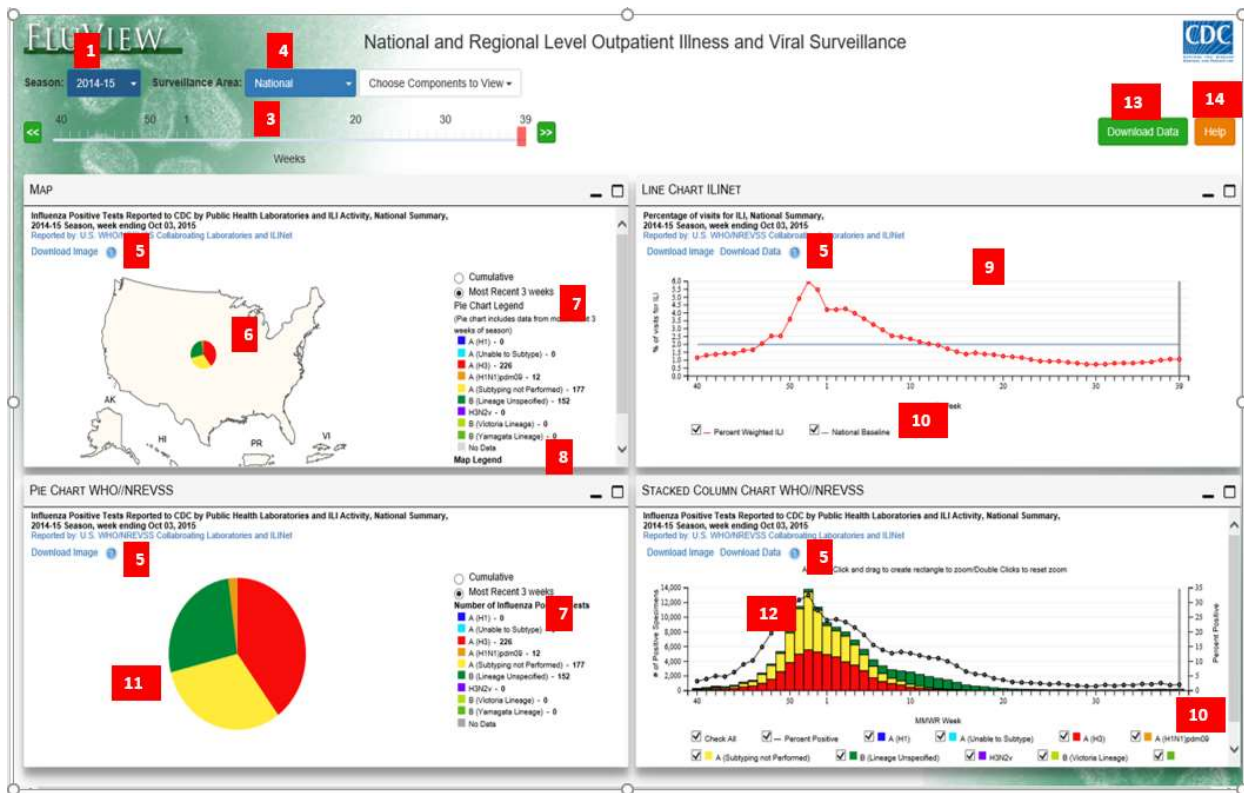
## Application Functions and Tool Overview

This interactive tool allows users to display and query information for current and previous influenza seasons. The descriptions for each tool are listed below the application image. The selection for laboratory type was added for seasons 2015-2016 and later. Below are images of the default view of the National and Regional Level Outpatient Illness and Viral Surveillance web application based on season selected.

## 2015-2016 Influenza season and later



## 2014-2015 Influenza season and prior



1. **Influenza Season Selection Tool** – A drop down menu allows the user to choose which influenza season to display.
2. **Laboratory Type Selection Tool (Viral Surveillance By)**- A drop down menu allows the user to choose between public health laboratories and clinical laboratories. **Available for 2015-2016 season and later.**
3. **MMWR Week Slider Bar** – Use the cursor to move the slider button across the selected time frame. The green and white arrows on either side of the slider bar also can be used to move the slider from one week to another.
4. **Surveillance Area Selection Tool** – Allows the user to view the data at the national level, HHS Regions, Census Divisions, or by state.
5. **Download Image and Download Data Hyperlink** – To create a static image of the data displayed in your current view, click the “Download Image” hyperlink. The file download dialog box will appear providing the option of viewing the image, saving a

copy to a local drive or discarding the image. To create a copy of the data in your current view, click the “Download Data”

6. **Map** –The map component shows an overview of the data displayed in the application. For national and regional level data the map will be colored based on the level of ILI activity (i.e. elevated or normal), and each region within the map will also be displayed with a pie chart showing the proportions of viruses that have been reported during the last three weeks of reports. For the state/jurisdiction level the map will be colored based on the availability of ILINet data; and each state/jurisdiction will be displayed with a pie chart showing the proportions of viruses that have been reported either cumulatively or in the previous three weeks (clinical labs only).
7. **Pie Chart Legend** – Shows the color breakdown for the influenza virus type, subtype and lineage information that is displayed in a pie chart on the map.
8. **Map Legend** – The map legend displays the fill colors that are displayed in the map to depict the level of ILI activity (i.e. elevated or normal)
9. **Line Chart ILINet** – The ILI graph shows in red the weighted percent of visits to outpatient clinics due to ILI for each week for the selected season and surveillance area. The horizontal blue line indicates the baseline for the selected season. ILI at or above this baseline level is considered to be elevated. The user can hover over the data-points to display the values.
10. **Graph Series Selection Tool** – The graph series selection tool allows the user to select which series he/she wants to view on the graph. For example on the stacked column chart for public health laboratories, if the user does not want to see the number of A (Subtyping not Performed) they would simply uncheck the box next to A (Subtyping not Performed) in the graph legend.
11. **Pie Chart WHO/NREVVS – Version: 2015-2016 and later**

Public Health Laboratories: The pie chart shows the breakdown by virus type, subtype and lineage for either the most recent three weeks or the cumulative totals for the selected season and surveillance area.

Clinical Laboratories: The pie chart shows the breakdown of virus type for the most recent three weeks or the cumulative totals for the selected season and surveillance area.

**Pie Chart – Version: 2014-2015 and prior** - The pie chart shows the breakdown of virus type, subtype and lineage for either the last three weeks or the cumulative totals during the selected season and surveillance area.

## **12. WHO/NREVSS Stacked Column Chart – Version: 2015-2016 and later**

**Public Health Laboratories:** The stacked column chart shows the number of positive influenza virus tests by type, subtype and lineage by week in a stacked bar for the selected surveillance area and season.

**Clinical Labs:** The stacked column chart shows the number of positive influenza virus tests by type by week in a stacked column for the selected surveillance area. The percent of tests positive for influenza from clinical labs is indicated by a black line. The user can hover over both the line and the bars to display the actual values.

*Note: For state/jurisdiction level data this component will not show if “Public Health Labs” are selected.*

**WHO/NREVSS Stacked Column Chart – Version: 2014-2015 and prior** - The stacked column chart shows the number of positive influenza virus tests by type and subtype by week in a stacked column for the selected surveillance area. The percent of tests positive for an influenza virus is indicated by a black line. The user can hover over both the line and the bars to display the actual values.

**13. Download Data Button** – The Download Data dialog box will appear and provide two options: clicking the first button, “Custom Download” enables you to customize the selection by selecting the data source, region type/regions and for seasons you would like data for. With the options selected, click the Download Data button and a file download dialog box will appear. You will be given the option to open or save the comma separated value (\*.csv) file.

**14. Help** – The Help Menu provides a detailed overview and describes the full functionality of the FluView Web application.