

ESSENCE-FL

Florida's syndromic surveillance system provides epidemiologists access to data, analytic tools, and visualizations that enhance their ability to detect and monitor morbidity and mortality trends over time, over space, and across multiple data sources.

Overview

The Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE-FL) consolidates data from nine sources into a single platform to monitor health trends. ESSENCE-FL offers integrated visualization tools for data overlays and allows users to create versatile free-text queries for specific diseases or hazards. The system supports customized surveillance at county and regional levels and sends daily "Visits of Interest" emails to users for public health investigations.

ESSENCE-FL sources include data from ER, FSED and UC visits; emergency medical service calls; poison control center calls; death records; reportable diseases (excluding cancer, HIV/AIDS, TB); inpatient hospitalizations; disaster medical assistance teams (when deployed in FL); weather stations; and air quality monitors.

Impact

POST-DISASTER SURVEILLANCE

- Identified 340 carbon monoxide poisonings and an increase in ED visits for seizures after Hurricane Irma

REEMERGING DISEASE

- Identified 18% of all reported dengue and 30% of emerging Oropouche virus cases in the state of Florida in 2024

IDENTIFICATION OF REPORTABLE DISEASE CASES

- Identified over 2,300 reportable disease cases in calendar year 2024 using ESSENCE-FL



Supports situational awareness and trend monitoring for events of public health concern.



Enables real-time surveillance after hurricanes and other natural or manmade disasters.



Assists in the identification of reportable disease cases.



Provides data and tools to create visualizations to support public health decision-making.

2024 Coverage & Volume

- **215/215** ERs, **150/150** free-standing emergency departments (FSEDs), and **153/1000+** urgent cares (UCs)
- **99%** of ERs, FSEDs, and UCs report at least every 2 hours
- **15+ million** visits from ER/FSED/UCs
- **127+ thousand** Poison Control Center Calls
- Of the ER/FSED visits: **99%** had Chief Complaint & **94%** had Discharge Diagnosis
- **5+ million** transports from EMS

2025 Facilities Reporting to ESSENCE-FL (n=518)

