



Every Record. In Real Time. Automatically.

Top 10 Reasons to Consider 9-1-1 (PSAP) Data For Disease Surveillance

1. **Large Geographic Footprint.** Unlike many data sources, a single 9-1-1 agency typically covers an entire city or county or even multiple jurisdictions. That means one single health surveillance system like FirstWatch can cover an equally large geographic area.
2. **Real-Time Data Analysis.** All 9-1-1 systems are time sensitive, designed to deliver emergency services rapidly in measurements of minutes. FirstWatch systems monitor data in real-time, meaning analysis is available to authorized users within minutes of the call to 9-1-1. The FirstWatch automated alerting system means users can receive notice of unusual patterns or events as they occur, 24x7x365.
3. **Standardized medical chief complaint codes.** Standards in 9-1-1 practices mandate a medical chief complaint system similar to ICD9 codes. Most agencies follow these standards, allowing great specificity in the types of health surveillance analysis. Typical chief complaint codes include complaints of respiratory distress, gastrointestinal problems, seizures, CVA (**cerebral vascular accident**), rash/skin condition and many others.
4. **More than just syndromic surveillance.** Large-scale incidents, including natural and man-made disasters will have a substantial impact to public health. 9-1-1 data and FirstWatch allow your agency to automate situational awareness alerts as they occur. From large commercial fires, explosions, train derailments, aircraft accidents, hostage situations or riots to events at high profile locations, such as schools, government buildings, hospitals, airports, sporting venues, and maritime ports, there is only one number everyone knows to call when they need help; 9-1-1.
5. **Easy to aggregate.** Because 9-1-1 systems typically share close similarities and chief complaint codes, aggregating information across geo-political boundaries is possible and commonly done by agencies using FirstWatch. Many clients participate in local or regionally aggregated real-time analysis packages such as the multi-state Regional Influenza Network¹, an alert network of FirstWatch users in the U.S. and Canada who share early indicators of potential influenza outbreaks with each other. The flexible and customizable nature of FirstWatch allows de-identified views of analysis making data sharing easier than ever.
6. **Safe & Stable.** 9-1-1 systems provide a stable platform less susceptible to cyclical expansion and contraction often seen in other health care data systems. Nothing is worse than expending funds for a hospital system only to have that hospital close, or a new hospital open nearby requiring another system deployment. What's more is 9-1-1 call centers are typically built in hardened facilities with backup power supplies designed to withstand the worst natural or manmade disasters. That means your data analysis is more likely to be available when you most need it.

7. **Remarkably robust data set.** In 2006 OC (Oleoresin Capsicum) agent was sprayed inside Edmonds High School north of Seattle, WA². The concentration of the chemical within the enclosed, heavily populated area caused respiratory distress problems in numerous students and staff ultimately resulting in 22 patients being transported to five area hospitals in two separate counties. FirstWatch identified both the geo-graphic cluster of cases and volumetric increase in respiratory distress cases. In addition to rapidly identifying the event, FirstWatch also provided real-time incident details including patient transport distribution tracking information. No other data source can provide public health providers with this level of information.
8. **Scalable.** Experts agree that an effective health surveillance programs should not rely on one single data source³. FirstWatch is a non-database specific system which has integrated with many different data systems. From hospital, pharmacy, lab, poison control, and nurse triage systems, to 9-1-1 and electronic patient care reporting systems, FirstWatch is the ideal solution with a proven track record. What's more is that FirstWatch allows aggregation of information in a single platform, allowing side-by-side analysis in our highly configurable analysis methods and automated alerting system.
9. **Part of National Pandemic Influenza Plan.**⁴ The U.S. Federal Government recognizes and recommends disease surveillance of 9-1-1/ PSAP data be part of Nation's strategy for pandemic influenza preparation. The 2007 U.S Department of Transportation's National Strategy for Pandemic Influenza study lists 10 attributes of effective disease surveillance using 9-1-1 data and FirstWatch is a perfect match on all 10 characteristics.
10. **Readily accepted by users.** Buy-off on deploying surveillance systems can be a challenge, often seen as "giving away our data" with no return for the data providers. One reason FirstWatch has successfully been deployed in more than 80 jurisdictions is a result of the highly configurable nature of the system. Stakeholders at virtually every level can benefit from FirstWatch by creating user defined analysis views and automated alert notifications that are important to them.

References/Sources

1. Regional Influenza Network:
[http://www.firstwatch.net/pdf/TriggerRegionalInfluenzaNetwork\(RIN\).pdf](http://www.firstwatch.net/pdf/TriggerRegionalInfluenzaNetwork(RIN).pdf)
 2. Case Study: Chemical irritant released in high school
<http://www.firstwatch.net/wp-content/themes/firstwatch/files/CS-Real-WorldAllHazardTool.pdf>
 3. Point Taken: Dr James Buehler Interview
<http://www.firstwatch.net/wp-content/themes/firstwatch/files/Dr-Buehler-Point-Taken.pdf>
 4. NHTSA: Using 9-1-1 and EMS Data for Situational Awareness and Surveillance
<http://www.nhtsa.gov/people/injury/ems/PandemicInfluenza/PDFs/AppC.pdf>
- NHTSA: Preparing for Pandemic Influenza: Recommendations for Protocol Development for 9-1-1 Personnel and Public Safety Answering Points (PSAPs) <http://www.nhtsa.gov/people/injury/ems/PandemicInfluenza/>

Other Resources

- Case Studies & Research
<http://www.firstwatch.net/case-studies>