

Implementation of a Facility Based County Surveillance System Using Epi Info

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Objective

The Florida Department of Health in Hillsborough County (DOH-Hillsborough) routinely reviews the ESSENCE-FL system to assess syndromic trends in emergency department (ED) and urgent care data (UCC). Collection of this type of symptom data from long term care facilities (LTCFs) and child care centers is of interest in order to better understand how these illness patterns present in vulnerable populations outside of the EDs.

Introduction

Surveillance in nursing homes (Enserink et al., 2011) and day care facilities (Enserink et al., 2012) has been conducted in the Netherlands, but is not commonly practiced in the United States (Buehler et al., 2008). Outbreaks of illnesses within these facilities are required to be reported to the Epidemiology Program, however a small fraction of outbreaks reported come from LTCFs. Without regular communication between LTCFs and the Epidemiology Program, it is likely that many outbreaks are going unreported due to lack of awareness of the reporting requirements by facility staff. To better understand the prevalence of illness in LTCFs and improve communication between LTCFs and DOH-Hillsborough a weekly surveillance survey was created using Epi Info web survey.

Methods

The online facility search tool from the Agency for Healthcare Administration (AHCA) was used to query assisted living facilities and nursing homes in Hillsborough County in July 2017. The information provided included the number of beds a facility is licensed to have. Interest in participation was solicited from larger LTCFs within the county in August 2017 and 23 facilities volunteered to receive weekly surveys, with a total volume of 3,276 beds. A form was created in Epi Info to capture weekly information per facility of the number of residents and staff with new onset of various symptoms. Symptom groups include GI, rash, respiratory, and those with respiratory symptoms who also have a fever (to assess influenza-like illness); number of positive flu tests for the week is also asked. Starting with week 38, an email has been sent once a week to participating facilities with a link to the Epi Info web survey (Figure 1) and instructions to fill out the information for the previous week.

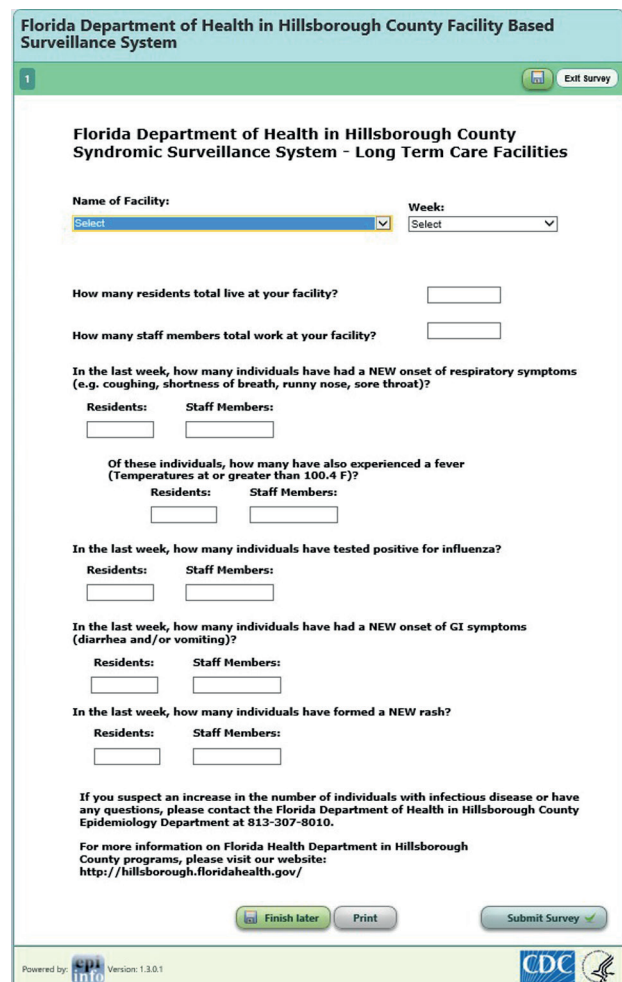
Results

To date, 12 weeks of information has successfully been captured in Epi Info and transferred to Microsoft Excel for graphical visualization of percentage of residents/staff reported each week in the county with new onset of the above symptoms. Low levels of illness (<6%/week of total reported residents/staff) have been reported for various syndromes each week. Over the 12 week period an average of 3.9 facilities submit data per week, with a total of 10 of 23 facilities participating at least once. In week 42 phone calls were made to facilities that had not submitted any responses in an attempt to elicit more participation and troubleshoot any problems facilities may have encountered. Prior to week 42, an average of 3.2 facilities reported per week. After reminder phone calls were conducted, the average number of responses for weeks 42-48 was 4.4 with the highest in

week 42 (6 responses). Starting in week 42 the survey has also been implemented for 15 child care facilities, with four participating over the seven weeks with an average of 2.1 responses per week.

Conclusions

Since implementation, the main limitation with the data collection is lack of regular participation from facilities. The current goal of the project is to increase the number of regular responses from both LTCFs and child care facilities. The phone calls made in week 42 increased the response rate for LTCFs, particularly for that week. Preliminary results from the first 12 weeks of data indicate that using Epi Info web survey as a syndromic surveillance tool for local facilities has potential if regular participation can be achieved.



Florida Department of Health in Hillsborough County Facility Based Surveillance System

Florida Department of Health in Hillsborough County Syndromic Surveillance System - Long Term Care Facilities

Name of Facility: Week:

How many residents total live at your facility?

How many staff members total work at your facility?

In the last week, how many individuals have had a NEW onset of respiratory symptoms (e.g. coughing, shortness of breath, runny nose, sore throat)?

Residents: Staff Members:

Of these individuals, how many have also experienced a fever (Temperatures at or greater than 100.4 F)?

Residents: Staff Members:

In the last week, how many individuals have tested positive for influenza?

Residents: Staff Members:

In the last week, how many individuals have had a NEW onset of GI symptoms (diarrhea and/or vomiting)?

Residents: Staff Members:

In the last week, how many individuals have formed a NEW rash?

Residents: Staff Members:

If you suspect an increase in the number of individuals with infectious disease or have any questions, please contact the Florida Department of Health in Hillsborough County Epidemiology Department at 813-307-8010.

For more information on Florida Health Department in Hillsborough County programs, please visit our website: <http://hillsborough.floridahealth.gov/>



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Figure 1. Screenshot of the Epi Info web survey for long term care facilities, to be completed on a weekly basis.



Keywords

Syndromic Surveillance; Long Term Care Facility; Epi Info

References

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