BACKGROUND

The Indiana State Department of Health (ISDH) applied the knowledge gained from American Public Health Laboratories (APHL) and the Centers for Disease Control and Prevention (CDC) regarding a project called right size surveillance. The ISDH epidemiology and laboratory developed customized report cards for each ILINET provider. The primary goals for these customized reports cards were to show sites their reporting and submission performance over the last three seasons and to explain expectations for this season to be in compliance with the right size virologic surveillance project. In addition, we wanted to capture feedback to see if the customized reports would have impact on the reporting and specimen submitting behaviors.

METHODS-

The ISDH used a 5 color system to assign sites rankings for how well they performed their two responsibilities: reporting data and specimen submission. Then we summarized these two rankings into one overall level of achievement. After the reports were disseminated, a survey monkey was sent to all ILINET sites to capture feedback and anticipated individual performance behavior changes.

The report contained:
- Influenza reporting color level and number of weeks reported for past 3 seasons
- Influenza specimen submission level and number of weeks reported for past 3 seasons
- Overall Reporting/Submission Level and number of weeks reported for past 3 seasons
- A graph and a table to show how many patients the site saw with influenza like illness throughout the influenza season. Data were provided for three seasons to compare peak times for ILI patients.
- A cumulative graph by week showing the number of specimens submitted to ISDH lab by all ILINET Providers
- Site specific graph comparing the facility’s rapid test results vs. PCR results obtained at ISDH Labs
- Table detailing average specimen transport time
- Graph of all non-flu viruses detected from respiratory specimens during the 2012-2013 flu season
RESULTS:

- Most of the sites need to improve their weekly specimen submissions, our survey asked if they will be increasing the number they send to our lab. Approximately 86% said yes they would increase their specimen submission. We have seen an increase in specimen submission to our lab for the 2013-2014 season as not less than 72% of the ILINET sites have submitted specimens every week. The percentage of ILINET sites submitting specimens to ISDH lab for the 2012-2013 season ranged from 6-86%.

- Twenty four ILINET report card feedback survey monkeys were returned for a 57% return rate. From the 24 survey responses 10/24 (42%) said report was informative, 7/24 (30%) said it was helpful, 5/25 (21%) said it was interesting, 1 said it was encouraging (4%) and 1 (4%) said it was too complicated. The sites were asked if after reading your report, will you be increasing your reporting to the CDC website. Forty three percent said changes were not needed, 36% said yes they would increase reporting, and 21% said no they would not be changing behaviors.

CONCLUSIONS:

- The ISDH epidemiology and laboratory special project of developing the customized report cards have increased the ILINET sites awareness of reporting and submitting specimens. Additionally, it has provided education opportunity and rationale for the reasons of right size surveillance. The report cards were time consuming and required collaboration between epi and lab. The quality of communication provided to the ILINET site and developing a strategic method to track reporting and submission have proved to be invaluable. ISDH spent 95 hours of labor between epidemiology and lab staff (collecting data, analyzing data, creating charts, creating report and disseminating the report) to create these customized reports.
Process to Develop Customized ILINET Report Cards

1. Epidemiology and lab determined the weekly number of specimens acceptable for influenza surveillance by using the right size surveillance calculators provided in the APHL roadmap. Epi and lab agreed on their acceptable error, level of confidence and level of detection when determining their weekly number of specimens for testing. Several factors were taken into consideration when determining the final number of specimens. Some of those factors were:
   a. Number of microbiologists to test specimens
   b. Allocated funding for influenza testing supplies and reagents
   c. Number of specimens we already receive on a weekly basis
   d. Anticipated costs to increase specimen shipping and testing

2. Created a database that summarized the previous three seasons and created customized tables from the database for each ILINET sites. The following tables and graphs were provided in each report:
   a. One table quantified the percentage of weeks each site reported their ILI data for each flu season and the desired percentage.
   b. Another table reported the average number of specimens the site submitted each week, with a column indicating the number Indiana needed from their site for right size surveillance, and a column indicating the desired change or recommendations to reach the desired number of specimens for right size surveillance.
   c. A line graph was developed to show the weekly percentage of patients seen at the ILINET site for the previous 3 seasons. It was our hope that this would provide each ILINET with a customized visual that could help in their flu season planning, and to show the differences per year.
   d. A chart was developed that provided the ILINET site with the average number of patients seen at the ILINET site per week. These data showed sites if their facility had an increase or decrease in patient volume over the past 3 years.
   e. A graph was provided that showed the cumulative number of submission the ILINET sites submitted by week for the whole season and placed a line on the graph that showed the number of specimens we needed to receive to meet the goal. We thought this was a good visual to include in
ILINET Provider Customized Report Card

the report card to show sentinel sites how far from our goal we actually were.

f. Report card included a site specific graph comparing the facility’s rapid test results vs. PCR results obtained at ISDH Labs. This was to show how well each facility performed the rapid test.

g. a table detailing the # of weeks each facility submitted specimens. Our goal is to have each facility send specimens 24/32 reporting weeks.

h. a table detailing average specimen transport time. For our PCR assay, optimal performance is met when specimens are tested within 72 hrs of collection. Most sentinel sites fell within our desired transport time.

i. included a graph of all non-flu viruses detected from respiratory specimens during the 2012-2013 flu season. We want the sites to see what pathogens are circulating in the community besides influenza. We want them to see the big picture on what respiratory surveillance is, not just the influenza piece. When it’s not flu, we want our sites to see what’s causing the illness (and most enjoy this additional information!)

3. A five color system to assign sites rankings for how well they performed their two responsibilities: reporting data and specimen submission. Then we summarized these two rankings into one overall level of achievement.

   a. A Gold Level Ranking indicates that the facility is exceeding surveillance requirements and demonstrating exemplary efforts (97-100%).

   b. A Blue Level Ranking indicates that the facility is meeting surveillance requirements (90%).

   c. A Green Level Ranking indicates that the facility is close to meeting surveillance requirements (51-89%).

   d. A Purple Level Ranking indicates that the facility is meeting requirements at least 50% of the time.

   e. An Orange Level Ranking indicates that the facility is meeting requirements less than 50% of the time.

4. The defined the purpose of the report card, primary goals of influenza and right size surveillance, the ILINET customized tables and graphs were cut and pasted into a word document and organized into the report card.

5. Customized report cards were saved as pdf files and signed by the respiratory epidemiologist, virology supervisor and public health administrator and were sent to each ILINET site in an e-mail.
Initial Survey Post Customized Report Card Dissemination

A week after the ILINET sites received their customized reports, we sent out a surveymonkey to capture the feedback sites had about the report cards. We wanted to know if these sites found the customized reports valuable and we also wanted to find out if the sites intend to change their behavior based on their own individual performances. Below graphs and charts contain the survey questions and results.

Survey Results Chart 1

Most sites that responded found the report to be informative, interesting and helpful. So far, none have admitted to finding the report boring or disappointing.
Since some of the sites need to improve their weekly data reporting, we asked if they will be increasing their reporting: about 43% said changes were not needed, about 36% said yes they would increase, and about 21% said no.
Since most of the sites need to improve their weekly specimen submissions, we asked if they will be increasing the number they send to our lab. It was encouraging to see that approximately 86% said yes they would increase their specimen submission.
Customized report cards were sent during Week 43.

- 100% ILI reporting will be achieved when all sites report to the CDC database.
- 100% Specimen Submission will be achieved when 50 specimens are received.

To keep the sites up to date on progress, we are also tracking compliance for the two responsibilities in our weekly report. While reporting is slightly down from last year, we have seen an increase in specimen submission to our lab.
## Total Time for ILINET Report Cards

<table>
<thead>
<tr>
<th>Action</th>
<th>Epidemiology Hours</th>
<th>Laboratory Hours</th>
<th>Epi and Lab Time per report</th>
<th>Total Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collecting Data</td>
<td>6.5 Hours</td>
<td>45 Hours</td>
<td>1.15 hr/report</td>
<td>51.5 Hours</td>
</tr>
<tr>
<td>Epi-Using ILINET database</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lab- pulled from logs and different data sources</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analyzing Data</td>
<td>10 Hours</td>
<td>10 Hours</td>
<td>30 min/report</td>
<td>20 Hours</td>
</tr>
<tr>
<td>Creating Charts</td>
<td>5 Hours</td>
<td>5 Hours</td>
<td>30 min/report</td>
<td>10 Hours</td>
</tr>
<tr>
<td>Creating Report</td>
<td>3 Hours</td>
<td>15 Hours</td>
<td>25 min/report</td>
<td>18 Hours</td>
</tr>
<tr>
<td>Includes design and revisions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disseminating Report</td>
<td>30 Minutes</td>
<td>0 Hours/Minutes</td>
<td>Less than 1 min</td>
<td>.5 Hours</td>
</tr>
<tr>
<td>E-mail only through Epi</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>25 Hours</td>
<td>75 Hours</td>
<td>2.45 hours/report</td>
<td>100 Hours</td>
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Follow Up Survey at Close of Season

A follow up survey was administered to the ILINET sites at the end of the 2013-2014 season during the first week of June. The next set of graphs will show the effects of report card on reporting and submission behaviors for the 2013-2014 season.

Effects of Report Card on Reporting and Submission Behaviors 2013-2014 Season

Fifty percent of the ILINET sites shared that the customized report cards encouraged them to report more often and 56% reported that it encouraged them to submit more specimens.
Fifty six percent of the ILINET sites were interested in seeing if their facility improved on reporting ILI and submitting specimens.
One third of the ILINET sites increased specimen submission, 1/3 stayed the same, 1/3 decreased
Fewer sites fell below 97% threshold in 2013-2014.
ISDH Contact Information

<table>
<thead>
<tr>
<th>Epidemiology</th>
<th>Laboratory</th>
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<tbody>
<tr>
<td>• Shawn Richards</td>
<td>• Stephanie Dearth</td>
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<td></td>
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<tr>
<td>o 317.234.2809</td>
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</tbody>
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Value Added

- Knowing ILINET base lines of submissions and reporting giving us a starting point of where we need to go to be in right size surveillance compliance.
- Identify needs by providing hard data of our current capacity
- CSTE abstract accepted and presented at the 2014 CSTE conference
- Provided a strong evaluation piece for the ELC grant
- Presented the project, survey and results with all Epi/Lab staff during a joint meeting