A WebEOC® case study from ESi®

Health & Human Services in Dallas County, Texas, uses WebEOC to track flu outbreaks in public schools

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Gabriela Cantu
Epidemiologist
Dallas County Department of Health and Human Services

The primary mission of the Dallas County Department of Health and Human Services (DCHHS) is to protect the health of the citizens of Dallas County through disease prevention and intervention.

To help protect the health of the more than 400,000 children in the Dallas County school system, Dr. Wendy Chung, MD, Chief Epidemiologist, DCHHS, and Gabriela Cantu, Epidemiologist, DCHHS, utilize WebEOC to track the absentee rate in county schools.

The Dallas County school system is made up of 14 independent school systems with over 510 elementary, middle and secondary schools.

DCHHS created a WebEOC board and instructed every school nurse in Dallas County how to log in to report on the number of absentees in their school and within that group, the number exhibiting influenza-like symptoms (ILI), which include fever, cough and sore throat.

"We are proud that we are receiving absentee reports from over 90 percent of our schools on average," Ms. Cantu said.

"WebEOC has been a flexible tool for us. There are other tools out there that are being touted to track student absenteeism, but we feel that the key to the wide participation that is critical to our program is that WebEOC is an easy-to-use, easy-to-learn system that enables our school nurses to enter information into the system themselves. We've had a lot of positive feedback from them on how easy it is to use and how it's not a burden on them."

"We did create a user manual for our school nurses with screen shots, etc. and that's all we've had to do in terms of WebEOC training," Ms. Cantu added. "Overall the biggest problem is when they simply don't remember their password."

Currently, the nurses submit absentee reports weekly. During the H1N1 pandemic of 2009-2010, they were asked to submit daily reports.

"The program has been a success because of wide participation," Dr. Chung said. "This type of data isn't useful if you only have a fraction of the schools participating on an intermittent basis. You really need them all participating all the time."

Another key to maintaining participation is that Ms. Cantu gives the school nurses and administrators access to their own data. She also educates schools about what the data means, including the thresholds of absenteeism and ILI at which a school may become concerned enough to follow-up and verify data that may prompt notifications to parents and even trigger school closures."

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“This data is meaningful – we create an influenza summary for the schools each week and an end of season report,” Ms. Cantu said.

“We have found this type of school reporting data to accurately reflect trends in influenza illness in the school-age population – sometimes even more so than emergency room surveillance reports,” Ms. Cantu noted. “During the initial portion of the H1N1 pandemic, we had a lot of people running to emergency rooms because of anxiety. Emergency departments registered these visits as influenza-related, even if many may not have been sick. So the hospital data showed a huge spike of flu complaints when there were actually relatively few cases at that time in our country.”

“When we went back to the school absentee data for the same period, we could see that the hospital flu reports were exaggerated, because a child isn’t going to be absent from school unless they genuinely report symptoms. So there was more validity in the school absentee reports than the emergency room reports.”

“Now that we have this system of illness reporting, if another mass outbreak of disease affects our school children, we can simply modify the symptoms our school nurses report through WebEOC,” Dr. Chung said.

“Even when there isn’t a community-wide outbreak, having a baseline measurement of student absenteeism is extremely valuable,” Dr. Chung added.

“If the absenteeism for a particular school suddenly shoots up above their baseline, we can rapidly detect a potential outbreak at that school. Many schools can’t readily tell you what their baseline absences and influenza illnesses are.”

The school data can also be used by DCHHS as a tool for protecting the health of the general population in the county.

“During the second wave of the H1N1 pandemic, we had a system in place to flag any school that reported greater than 10% total absenteeism or greater than 4% absenteeism due to influenza-like symptoms over two consecutive days,” Dr. Chung explained.

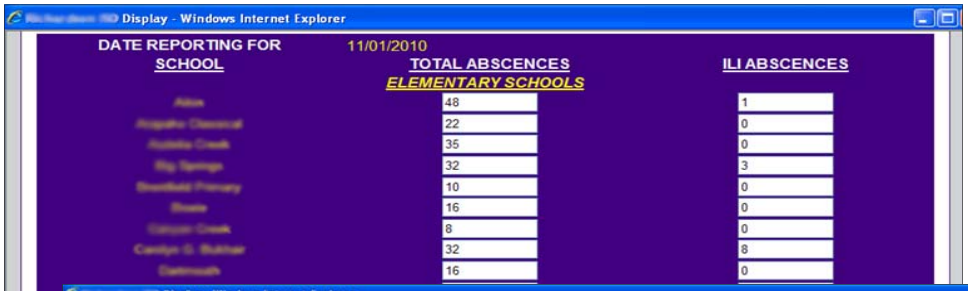
After the Health Department verified the reports, the school would send out mass notifications to parents letting them know that flu was being seen in increased levels in their school and advising them to take precautionary measures.

For the 2011-2012 school year, Ms. Cantu introduced a revised WebEOC board that was easier for school nurses to use and easier for them to use to compile reports and export data to Microsoft Excel.

“We really thought about making the WebEOC board user friendly and adapted it to what the school nurses are used to seeing,” Ms. Cantu said.

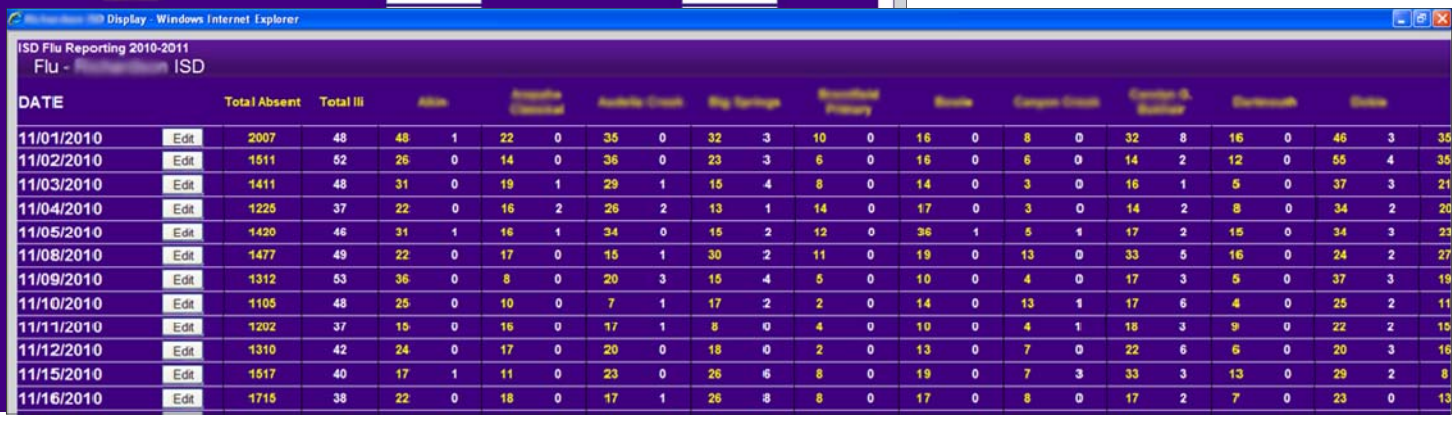
“This is one of the most successful WebEOC processes I’ve ever seen,” said Kent Cawley, ESi Regional Manager. “I also have to congratulate the team at DCHHS for creating a process that’s easy to use for the hundreds of school nurses who log in to WebEOC every week and key in their absentee data.”

WebEOC is also used by the Dallas County Department of Health and Human Services, other county departments and the Texas WebEOC Interoperability Project (under the guidance of the State of Texas’ Department of State Health Services and the Southwest Texas Regional Advisory Council for Trauma) for sharing information, requesting resources, and tracking medical surge and hospital surge capacity data.


Display - Windows Internet Explorer

DATE REPORTING FOR 11/01/2010

SCHOOL	TOTAL ABSCENCES	ILI ABSCENCES
ELEMENTARY SCHOOLS		
[redacted]	48	1
[redacted]	22	0
[redacted]	35	0
[redacted]	32	3
[redacted]	10	0
[redacted]	16	0
[redacted]	8	0
[redacted]	32	8
[redacted]	16	0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ISD Flu Reporting 2010-2011

Flu - [redacted] ISD

DATE		Total Absent	Total Ili	[redacted]		[redacted]		[redacted]		[redacted]		[redacted]		[redacted]		[redacted]		[redacted]		[redacted]		[redacted]		[redacted]		[redacted]	
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11/02/2010	Edit	1511	52	26	0	14	0	36	0	23	3	6	0	16	0	6	0	14	2	12	0	55	4	35			
11/03/2010	Edit	1411	48	31	0	19	1	29	1	15	4	8	0	14	0	3	0	16	1	5	0	37	3	21			
11/04/2010	Edit	1225	37	22	0	16	2	26	2	13	1	14	0	17	0	3	0	14	2	8	0	34	2	20			
11/05/2010	Edit	1420	46	31	1	16	1	34	0	15	2	12	0	36	1	5	1	17	2	15	0	34	3	23			
11/08/2010	Edit	1477	49	22	0	17	0	15	1	30	2	11	0	19	0	13	0	33	5	16	0	24	2	27			
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11/15/2010	Edit	1517	40	17	1	11	0	23	0	26	6	8	0	19	0	7	3	33	3	13	0	29	2	8			
11/16/2010	Edit	1715	38	22	0	18	0	17	1	26	8	8	0	17	0	8	0	17	2	7	0	23	0	13			