

Living with H1N1: To School or Not

During this past spring, as cases of Influenza A (H1N1) rapidly spread from state to state and across national borders, school administrators and public health officials faced a difficult question: *should we shut down our schools?* With summer drawing to a close and cases of H1N1 infection remaining prevalent—as seen at many camps, the debate continues over both the effectiveness of closures and their economic and social impact. Recent experiences from two schools that have already dealt with cases of H1N1—the Hampton School in the UK and the St. Mel School in California—provide insightful lessons for others facing this challenge.

Studies of past influenza viruses have shown that children play a large role in spreading the disease. A recent study undertaken by researchers at the Imperial College in London showed that 60 percent of the reported H1N1 cases occurred in those aged 18 or younger.¹ “Children are thought to be important vectors of transmission, more infectious and susceptible to most influenza strains than adults, and high contact rates in schools favor transmission,” said the authors of the report, both professors in the college’s department of infectious disease epidemiology. The report concluded that a widespread shutdown of schools during a major flu pandemic could potentially reduce infection rates by nearly 40 percent during the peak of a severe outbreak.

Estimates of the economic cost of a 12-week nationwide school closure in the United States or Great Britain are as much as 6 percent of GDP, due to greatly augmented worker absenteeism throughout every major industry as parents themselves become infected or need to care for ill children.² However, if the virulence of H1N1 is considerably more severe than seen to date, it has the potential to disrupt entire health care systems and other critical services.

By closing schools, many argue that the speed in which the virus spreads could be slowed, providing more time for vaccine production. In the case of a severe pandemic, this would also lessen the stress placed on medical care providers. The Imperial College study estimated that mass school closures could lessen flu cases by 13 to 17 percent.³

Another concern with regards to a mass shutdown of schools is lost time in the classroom educating children. In preparation for a nationwide school shutdown, the French Education Ministry reportedly has recorded nearly 300 hours of educational programming to ensure that its students would receive continuous learning.⁴ Other school systems are taking similar actions.

Marsh Risk Consulting’s (MRC) Business Continuity Risk Management Practice recently spoke with Mike King, Bursar of Hampton School in the United Kingdom; Janet Nagel, Principal of St. Mel School in Sacramento, California; and Dr. Josh Lipsman, the Westchester County, New York Health Commissioner about their experience with and views on H1N1 and school closures.

¹ Dr. Simon Cauchemez, Prof. Neil Ferguson, Claude Wachtel, PhD, Anders Tegnell, MD, Guillaume Saour, Ben Duncan, LL.M., Prof. Angus Nicoll, MB ChB. “Closure of Schools During an Influenza Pandemic,” *The Lancet Infectious Diseases*, Volume 9, Issue 8, Pages 473-481, August 2009, doi:10.1016/S1473-3099(09)70176-8

² *ibid*

³ *ibid*

⁴ *ibid*

The Hampton School and St. Mel School: Pandemic Communications and Education Continuity Experiences

Mike King noted that on Sunday May 8, 2009, the acting head teacher of the Hampton School—an all-boys school—received an urgent call from an official with the British Health Protection Agency (HPA), informing her that one of the school's students was being tested for the H1N1 influenza. The health official recommended a full-week closure of the Middlesex, England-based school. Assembling some key staff, agreement to follow the HPA recommendations was made—the school would be temporarily closed, a drastic yet necessary measure given what was known about the new strain of H1N1 at the time.

The HPA required the school to vet all communication with public health officials before disseminating it. Through use of the school's e-mail system and Web site, as well as a flurry of Facebook and MySpace postings, Hampton School's parents and students became aware that the school would not open the next day—within half-an-hour of the original messages being broadcast.

Overnight, school officials began initiating emergency procedures. By 11:00 am Monday morning, all major responsibilities for the activities that lay ahead were divided up between appropriate personnel. The acting head teacher was placed in charge of press inquiries and all PR-related matters. The Bursar assembled a team that handled the logistics of informing third parties of the situation and worked with the HPA and its doctors to distribute 180 courses of the anti-viral, Tamiflu, on-site to any staff, faculty, or classmate that had been or could be in prolonged contact with any one of the five H1N1-diagnosed students. Tamiflu was not provided to the parents of infected children.

Supervised by the Deputy heads, the Heads of the Academic Department were responsible for uploading lessons, class assignments, and test review material via Hampton School's Web portal, ensuring that its students did not fall behind with their coursework or test preparation. Nevertheless, upwards of 150 students at one time were required during this period to attend school to sit for exams. Faculty and students alike were reminded of good hygiene procedures and asked to distance themselves from one another to minimize transmission. Janitorial services also made a point to use

anti-viral cleaners throughout the school.

Parents were far from immune to the H1N1 outbreak. They found they were either required to stay home to care for their boys, drive those sitting exams to and from school—school bus service was suspended during the closure—and sometimes dissuaded from going to their workplace for fear of contaminating others whether or not their own child(ren) had been in close proximity to someone with the virus.

Consistent and frequent communication kept all parties apprised of the ongoing situation. Much of this communication was accomplished through the extensive use of the Hampton School Web site, which was updated nearly every five minutes during school hours and had more than 10,000 web hits by the time school re-opened the next week. The ease of accessing critical and current information practically eliminated frantic calls from parents, said Mike King. When the school opened the following Monday, the administration received many compliments from parents, neighboring schools, as well as the local media. Altogether, Hampton School's students did not fall behind in their coursework and the school was not forced to extend its normal schedule.

Since the incident, the school has invested in a mass texting software (an add-on module to its Management Information System, thereby avoiding the need to re-key data), which will enable Hampton School to send instant emergency notifications to the parent and faculty body in the event of future crises. The school also revisited its legal contract with parents and added a "force majeure" addendum, which will free it from liability or obligation to reimburse school fees in the event of future forced closures.

A week earlier, and several thousand miles away, administrators at St. Mel School, a Fair Oaks, California-based parochial school, were similarly informed that one of their students had been positively diagnosed with the H1N1 virus. Understanding the gravity of the situation, Principal Janet Nagel quickly sent an emergency notification to all parents, warning them to keep their children home if they displayed any flu-like symptoms. Shortly after the note went out, Sacramento County Health & Human Services Medical Director Dr. Glenna Trouchet notified the school that three more of its seventh graders had been reported with H1N1-

like symptoms. As soon as the students' illnesses were positively confirmed, school administrators, working closely with the U.S. Centers for Disease Control and Prevention (CDC), local health officials and the Catholic Diocese of Sacramento, decided to close the school.

Utilizing the same technological prowess displayed by the Hampton School, St. Mel administrators were able to alert 194 out of the 195 parents of the school's closure. Unlike Hampton School, however, the school did not have a forum for teachers and students to interact remotely. This later forced St. Mel to extend its daily class schedule by half-an-hour when it reopened seven days later. Since the incident, the school has developed policies that will require students to bring all necessary material home with them if a class-wide dismissal occurs. It has also designated several confined spaces for future ill students, refined and extended its emergency call-tree, and is currently looking into computer software that would allow for remote learning. Reflecting on the experience, Principal Nagel stressed that communication in such a situation must be "top drawer," ensuring that all key parties are informed of major decisions.

U.S. Guidelines for School Closures in a Pandemic Environment

At this time most major health agencies in the United States have issued guidelines that *do not advise* school shutdowns if the virulence of H1N1 remains at its current level. The French government, however, recently issued guidance that would allow for a school closure if three or more students displayed flu symptoms in less than a week. This stands in stark difference with the British and U.S. guidelines, which discourage class-wide dismissals other than in the case of extraordinary circumstances. New York City Mayor Michael Bloomberg recently outlined an "open-school" policy, promoting awareness, hygiene, and immunization programs rather than school dismissals. British health authorities are following a similar approach. Despite such varied guidance, the undertaking of extensive planning and preparation is near-universal.

Many U.S. school districts already have emergency pandemic plans in place that were originally created in response to the 2003 outbreak of Severe Acute Respiratory Syndrome (SARS) and adapted for H5N1 (Avian Influenza). Many such plans have since been appended to include specific H1N1 guidance.

In New York, health officials and education leaders have held dozens of meetings over the past several months to discuss the potential impact of the virus on schools reopening this fall. Dr. Josh Lipsman, the Westchester County, New York Health Commissioner, stressed the importance of communication and facilitating a 'joint decision-making process' between school administrators and health officials as was seen in the Hampton School and St. Mel School examples. He noted that unless H1N1 is severely impacting the ability of a school to fulfill its mission of education, operations should continue as usual.

In early August, the U.S. CDC and Departments of Education and Health and Human Services published further guidance for health officials and school administrators for school (K-12) responses to H1N1 Influenza.⁵ The document recognizes that the decision to dismiss students should be made at the local level, but stresses that the potential benefits of preemptively shutting down schools are generally outweighed by the negative consequences of such an action. The guidance also emphasized the need for interaction and fact-sharing between schools and local health officials, health care providers, parent and student representatives, state education agencies, and other important decision-makers.

Lessons Learned to Date from H1N1-Related School Closures

One underlying lesson for all schools is the importance of preparation. The Hampton School greatly benefitted from already having established a crisis management plan that was created several years ago and updated in response to a severe snowstorm in early 2009. The school's administrators were readily able to identify critical processes that would be affected by the dismissal and assigned appropriate personnel to manage each one. To further combat H1N1 or other health-related outbreaks, Hampton School increased its hygiene awareness program and installed hand gel dispensers outside its cafeterias, with plans to add additional dispensers next to restrooms. The school has also implemented a secure Virtual Learning Environment so class assignments can be set and communication

⁵ CDC Guidance for State and Local Public Health Officials and School Administrators for School (K-12) Responses to Influenza during the 2009-2010 School Year: <http://www.cdc.gov/h1n1flu/schools/schoolguidance.htm>

between teachers and students are not visible to external parties. Discussions are ongoing as to whether to increase bandwidth to handle additional online workload and hits on its Web site.

Westchester County has since revised and adapted its existing emergency response plan to address H1N1-specific concerns. Its county health commissioner is also an active participant in a state-wide association of county health officials, which has held numerous meetings to discuss pandemic response strategies.

By already having related plans in place, Hampton School was ready to respond to its H1N1 outbreak while Westchester has the framework to respond. Hampton School's parents remained calm due to the school's constant updates that kept them informed of the progressing events. Likewise, St. Mel School's consistent communication between faculty, students, parents, local doctors, health officials and its diocese ensured that the situation was handled appropriately and all critical parties were involved.

Given that H1N1's impact varies by geography, no one situation—and hence response—will be the same. However, the tools developed to foster active preparation and communication across industry, can always be shared, especially given the real social, economic, health, and jurisdictional impacts of a disease outbreak like H1N1. Irrespective of whether H1N1's virulence becomes more severe this fall, Westchester County, the Hampton School, and St. Mel School will all be better prepared to handle future crises, as all three have assessed, analyzed, and adapted major pandemic-related policies, plans, and procedures.

How Marsh Can Help – Pandemic Response Center and Preparedness Solutions

The Marsh Pandemic Response Center has fielded hundreds of inquiries since it was activated on May 1 in response to the outbreak of H1N1 in more than 30 countries. In support of organizations' pandemic preparedness, Marsh Risk Consulting's Business

Continuity Risk Management Practice has designed an assessment that helps to identify gaps in current pandemic plans, creates a baseline of current capabilities, and produces a roadmap for process improvement.

The Business Continuity Risk Management Practice is actively engaged with clients across industry, including educational institutions (K-12 and colleges), helping them to develop robust business continuity, information technology, disaster recovery, and pandemic plans. The practice is assisting clients in conducting exercises and updating plans using scenario-based exercises, a key component in the planning process that is often overlooked.

For more information about the Marsh Pandemic Response Center and our services, please contact:

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You can also visit <http://global.marsh.com/risk/pandemic/index.php> or contact the Marsh Pandemic Response Center at At.Risk@marsh.com or via phone at (866) 928-7475 (outside the United States and Canada (212) 345-9589) for additional resources and information about pandemic preparation.

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