IMS Mass Influenza Immunization Response

TO:	Chair and members of the Board of Health
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PREPARED BY:	Dave George, Emergency Preparedness Health & Safety Officer; Justin Brown, Manager, Human Resources; Marlene Jantzi-Bauman, Manager, Vaccine Preventable Diseases; Janice Tigert Walters, Manager, CID; and Shanna O'Dwyer, Manager, Finance
APPROVED BY:	Christopher Beveridge, Director, Health Protection
	Original signed document on file
SUBMITTED BY:	Dr. Nicola J. Mercer, MD, MBA, MPH, FRCPC Medical Officer of Health & CEO

Recommendations

It is recommended that the Board of Health:

1. **Receive this report for information.**

Key Points

- After receiving notification of two flu related deaths of children who attended the same school in February 2018, Wellington-Dufferin-Guelph Public Health (WDGPH) initiated a community response to coordinate mass immunization clinics using the Incident Management System (IMS).
- Between February 8 and 26, there were 15 IMS business cycle meetings to manage WDGPH activities.
- Community clinics began on Friday, February 9 through to Friday, February 16 at three WDGPH locations: Chancellors Way (Guelph), Fergus and Orangeville. After February 16, flu immunizations could be arranged by appointment at each office.
- 3,535 doses of Quadrivalent influenza vaccine (QIV) were provided during this response.
- Approximately 44% of all Agency employees were engaged in direct response work which represented 87 non-management employees and 14 management employees. The remaining employees were involved in critical business continuity functions.

- The cost of the response was $64,849.48 and a one-time grant request was approved on May 8, 2018.
- A debrief was held after the response that identified seven priorities to enhance WDGPH current practices and processes to allow for future IMS response enhancements.

Discussion

On February 8, 2018, WDGPH received notification of a second child death (suspected influenza related at the time) from the affected school in Guelph after the death of a child the week before of Influenza B. Immediately after learning of the second death, WDGPH activated its Emergency Response Plan (ERP) and initiated an Incident Management System (IMS) response in order to coordinate mass flu immunization clinics to the community at Chancellors Way (Guelph), Fergus and Orangeville locations. IMS facilitated the redeployment of staff from their normal responsibilities to ensure the Agency had sufficient staff available for mass immunization clinic needs from all program areas and levels of the Agency.

Incident Management System (IMS) Response

As part of the IMS structure, daily business cycle meetings are held by the Emergency Control Group (ECG) to continually assess the situation and make decisions to manage the response. Between February 8 and 26, there were 15 IMS business cycle meetings held to manage the response. A high level overview of the three main phases is outlined below.

IMS Activation Phase

The first IMS business cycle meeting was held on February 8, 2018 to activate the control group, assess the situation, develop incident objectives, and assign tasks according to the IMS command structure, which is comprised of the following: Command Section, Operations Section, Planning Section, Logistics Section and Finance Administration Section.

IMS Response Phase

Throughout the response phase, staff completed all tasks of their assigned positions, maintained activity logs, completed standard forms and reports to maintain records and accountability. During each business cycle, minutes were recorded and the Incident Action Plan (IAP) was updated outlining action items to be completed before the next business cycle.

IMS Recovery Phase

Recovery from an incident begins as soon as the active response phase has ended. As the volume and scope of the response work diminishing it was decided to demobilize from IMS on February 26. Part of the recovery phase included a debrief session to capture any lessons learned from the response and to determine what the successes were and what items can be done differently for future responses. There were two separate debrief sessions: one with the Upper Grand District School Board (UGDSB) on April 6 and one with WDGPH staff on April 24 (the details of each are discussed at the end of the report).

Command

The first IMS role identified to coordinate mass immunization clinics was Command as the primary organizational component of the IMS structure. Command consists of the person with responsibility for managing the responses to an incident. In this event, the Commander's responsibilities included:

- Ensuring organizational communication (through Communications Manager)
- Assessing and reassessing the situation
- Determining goals, strategies, objectives and priorities appropriate to the level of response
- Establishing an appropriate command structure using IMS
- Coordinating all incident management activities
- Coordinating overall incident activities with other levels of response
- Providing information to senior staff
- Activating IMS facilities (e.g. clinic space)
- Establishing an operational planning cycle
- Approving an Incident Action Plan (IAP)
- Managing incident resources
- Ordering incident demobilization as appropriate

To support the Commander, the following Sections were activated each with their own responsibilities/teams to coordinate mass immunization clinic needs:

- Operations
- Logistics
- Planning
- Administration/Finance

Communications

Communications is a key part of the IMS structure and a separate Board of Health report was presented previously to summarize this section; see the Board of Health Report BH01APR0418.R11.

Operations

Operations planned and executed its responsibilities consistent with WDGPH's Strategic Directions. In addition, the Operations Section was assigned four key responsibilities:

1. To hold mass immunization clinics for the public
2. To operate a call centre to provide information to the public
3. To be a resource for the school community (superintendent, teachers, parents and students)
4. To review technical information and key messages developed by Communications for messaging to the media, stakeholders and the public.

Walk-in Community Immunization Clinics

Walk-in Community Immunization Clinics were set up, offering flexible day, evening and weekend hours at WDGPH offices. Community clinics began on Friday, February 9 and ran through Friday, February 16 (inclusive). The spaces used at Chancellors Way (Guelph) were the Emergency Operations Centre (EOC) for immunization and the food demonstration room for

observing clients following their immunization. To process clients efficiently, Operations used staff as client greeters, to hand out consents, to manage the clinic line, to immunize clients, to restock immunization supplies in the clinic, to monitor the waiting area for faints and/or adverse events and to manage adverse events. Accommodations were made as needed for clients with special needs. Nursing and other support staff were added as needed and available depending on the wait time experienced by people in line. Smaller clinics were offered in the Fergus and Orangeville WDGPH offices. There was less public demand for immunization at these locations and staff resources and clinic hours were adjusted to match the demand. Following the end of the community walk-in clinics on February 16, flu immunizations could be arranged by appointment at each office.

Call Centre

The Call Centre was set up on the second floor at Chancellors Way. Callers were advised to call extension 4752 (the existing Outbreak Reporting Line) for information about influenza, the vaccine or flu clinic hours. The calls were answered and directed to an available operator. Four to six Public Health Inspectors (PHI) manned the phone line during operating hours (which ran in parallel with the immunization clinic hours). A Public Health Nurse (PHN) was available as a resource to the call centre to answer medical questions or provide more detail about the vaccine. Prior to the influenza B response, the dedicated call centre equipment had been proactively set up and in use for the *Immunization of School Pupils Act* (ISPA) campaign. The ISPA campaign had notified thousands of students that their immunization was overdue and that they were at risk of being suspended. A large number of callers was anticipated for the ISPA campaign which required a responsive call centre. The flu call centre was managed using existing resources. Staff were given regular updates so that they could respond to emerging themes as well as have any new information about the flu clinic hours or wait times. The flu call centre documented 569 calls during the response week of February 9-16.

Liaison with the Affected School

The Manager of Control of Infectious Diseases (CID), a PHI and a PHN were provided as liaisons and resources to the involved school. The PHI and PHN were sent to school on Friday, February 9 to assess what supports would assist the school. The school principal and the school's superintendent were given the Manager of CID's after-hours contact information so that they could contact directly for any concerns or new issues identified. The Manager of CID, the Manager (A) of Healthy Communities and Public Policy and a CID PHI met with the principal and superintendent early on February 12, 2018. Following a meeting with the school's administrators, WDGPH met with all the teachers in the school to answer questions. Anyone who wanted to speak privately to a WDGPH representative was then given an opportunity to do so. During the site visit on the February 12, the school requested that an information session be provided to parents and the larger school community. This request was taken back to the IMS group and the Facebook Live forum with the Medical Officer of Health was planned.

Technical Review of Information

The Operations Section was also a resource to the Communications department. Information on the clinics, call centre, influenza vaccine or disease prepared for the public, media or other stakeholders was reviewed by Operations.

Logistics

Note: for additional information on influenza vaccine clinics also see the Board of Health Report BH.01.APR0418.C0 - Influenza Vaccine Clinics.

Clinic Supplies

WDGPH cycles supplies for mass immunization events through the Vaccine Preventable Disease Program in order to avoid wastage due to expired product. The volume of supplies on hand, stored in the three main offices, is sufficient to provide a minimum of 6,000 immunizations. WDGPH also has agreements in place with suppliers to ensure that we can access supplies for an additional 6,000 immunizations within 24 hours. For this incident, clinic supplies from Orangeville and Fergus were redirected to Guelph to accommodate the additional volume in this office. WDGPH's Procurement and Project Analyst immediately replenished the supplies utilized for clinics in order to maintain inventory for business continuity.

Vaccine Procurement

Vaccine inventories are strategically managed at WDGPH in order to minimize vaccine wastage. The majority of influenza vaccine is received in September of each influenza season and distributed to community healthcare providers and utilized at WDGPH clinics. By February, influenza vaccine is ordered only in small quantities due to waning demand for the product. Influenza vaccine that is not used by the end of a flu season is deemed as wastage that WDGPH is accountable for to the Ministry.

Trivalent influenza vaccine (TIV) was the only publicly funded influenza vaccine offered to clients >18 years of age in the fall of 2017. As of January 13, 2018, surveillance data indicated that influenza A activity was within expected levels for this time of year while influenza B activity was much higher as compared to previous seasons.[1] In response to the increased influenza B activity, Quadrivalent influenza vaccine (QIV) was publicly funded for unvaccinated individuals over 18 years of age, based on the influenza activity and local needs of the public health unit. QIV was the only vaccine utilized for this event, although anyone previously immunized with TIV during the 2017-2018 flu season was not recommended to be re-immunized.

On February 8, 2018, WDGPH had 250 doses of QIV on hand in our fridges. The Ontario Government Pharmacy (OGP) was able to courier 2,000 doses to WDGPH immediately in order for us to meet anticipated demand related to this event. Unused doses up to 10% of the order could be returned to OGP without being deemed as wastage.

As demand from the community continued to increase, an additional 5,800 doses of QIV were procured from OGP by February 12, to service our local healthcare providers and internal clinics, for a total of 7800 doses.

Influenza Doses Provided and Distributed

WDGPH was able to provide 3,355 doses of QIV to our clients through mass immunization clinics over eight days as described in Figure 1. An additional 180 doses were provided via appointment from February 20-26 for a total of 3,535 doses of influenza vaccine provided throughout the course of this emergency response.

From the period of February 9-26, 1,060 doses of QIV were distributed by WDGPH to community healthcare providers. Local pharmacists also ordered additional QIV directly from their Ministry designated distributors, to meet their client needs. About 10% of special order vaccine was returned to the ministry and will not count as wastage. Currently WDGPH has 360 doses of QIV on hand to fill orders until the end of the flu season.

Figure 1. Doses provided through mass immunization clinics from February 9-16, 2018

Office Location	Feb 9 Fri	Feb 10 Sat	Feb 11 Sun	Feb 12 Mon	Feb 13 Tue	Feb 14 Wed	Feb 15 Thu	Feb 16 Fri	Total
Orangeville	18	46	0	5	27	12	8	25	**141**
Fergus	49	159	0	31	40	19	14	36	**348**
Guelph	362	654	440	717	304	97	202	90	**2,866**
Daily Totals	**429**	**859**	**440**	**753**	**371**	**128**	**224**	**151**	**3,355**

Planning

Prior to commencing the response, WDGPH notified the Ontario Nursing Association (ONA)'s executive in advance of an Agency-wide communication in order to support positive labour relations. Generally, during these emergent events, staff respond positively and work additional hours earning compensating time off for the extra hours. This results in ongoing business continuity challenges as other work gets sidelined during the response. Once the response is over, staff have accumulated additional compensating time and are not available to catch up on pending work. The decision to enter into IMS, also implemented the payment of staff for additional hours worked therefore eliminating the bank of compensating hours staff gained.

For this incident, this would have equated to over 785 hours of compensation time which would have significantly affected program functionality.

Where possible, WDGPH attempted to solicit employee volunteers able and willing to support the response. Where this was not possible, employees were reassigned from various Agency programs as well as called into work during the weekend. The complex task of scheduling and reassigning employees while ensuring collective agreement compliance for unionized staff as well as non-unionized from different programs, was led by the HR team.

The response required a complex multi-site response. This involved three immunization sites as well as an information call center. To support this response, approximately 44% of all WDGPH employees were engaged in direct response work which represented 87 non-management employees and 14 management employees. The remaining employees were involved in critical business continuity functions.

The key occupations that were directly involved in the emergency response activity included:

- Administrative and Executive Assistants
- Communication Specialists
- Dental Assistants and Hygienists
- Family Home Visitors
- Health Promotion Specialists
- HR Staff
- Public Health Inspectors
- Public Health Nurses
- Receptionists
- Vaccine Coordinators
- Management Staff

Work for the response was completed during business hours (which equated to a total of 678 staffing hours) and 785 evening and weekend hours of work for front line staff. A minimum of 445.5 management hours were spent planning, coordinating and managing the response.

Finance Administration

The Finance Administration Section Coordinator is responsible for advising the Emergency Control Group (ECG) on financial and human resources matters during the response and for activating groups within the Finance and Administration Section to achieve the goals of the Incident Action Plan (IAP).

The Manager of Finance was assigned to the role of Finance Administration Section Coordinator for this response. The role was limited to setting up and communicating general ledger codes to track expenses, supporting logistics with supply orders, and ordering food for staff working in the clinics during evenings and weekends; human resources needs for this response were handled under the Planning Section. None of the groups under the Finance and Administration Section required activation, and the Procurement and Projects Analyst for the organization was able to support supplies ordering under the normal course of operations to replace the supplies used during the response.

The total cost of the response was $64,849.48, broken down as follows:

Cost	**Amount**
Staffing (salaries and benefits)	$54,720.22
Travel – mileage	1,385.58
Program materials	411.89
Catering	2,456.99
Clinic Supplies	5,839.18
Fees for service	35.62
Total	**$64,849.48**

A one-time grant request to cover the costs of this response was included with the Annual Service Plan and Budget Submission which was due in early March. Due to incomplete costing information available at the time of submission, the grant request was estimated at $75,000 which was approved on May 8, 2018 by the Ministry of Health and Long-Term Care. The balance ($10,150.52) will be returned to the Ministry by year-end.

Debrief

Two separate debrief sessions were held one with the Upper Grand District School Board (UGDSB) staff and one with WDGPH staff.

School Board Debrief

On April 6, WDGPH met with Upper Grand District School Board staff to conduct an after action review. Three key learnings were identified from this session:

1. UGDSB needs timely public health information to better communicate with school community
2. A lack of understanding between WDGPH and UGDSB needs during a crisis event identified
3. A protocol for interagency communication needed

WDGPH-School Board Protocol

Over the summer, WDGPH is planning to work with area school boards to create a protocol for school-related public health needs. When complete, this protocol will support health protection activities for students, teachers, administrators, and other school staff during a school-based public health event by:

- Encouraging ongoing, adaptive and responsible partnership between WDGPH and schools
- Facilitating appropriate sharing and disclosure of information in accordance with privacy laws
- Ensuring obligations and requirements of both the school and WDGPH systems are met
- Providing an equitable and consistent approach to the way schools and WDGPH respond to school-related incidents

WDGPH Debrief

On April 24, the WDGPH debrief took place and consisted of a group exercise with representation from all levels of the Agency who were involved in the Response. Four key questions were analyzed in order to produce a final list of priorities/next steps to work on which will allow WDGPH to enhance our current practices and processes to allow for enhanced IMS responses in the future.

The four key questions analyzed were:

1. What worked/went well for this event?
2. What didn't work/go well for this event?
3. What did you learn from this event?
4. What will you do the next time you work on a similar event? (recommendations)

The fifth component involved identifying priorities/next steps based on the analyses of the questions. In addition to creating a WDGPH-School Board Protocol as a priority, there were six other priorities identified as listed below. Each priority was assigned to a team for further investigation and to create solutions for the priorities.

1. Staff Scheduling During an IMS Response – review the existing process used to better streamline the process and determine if certain components can be automated such as calling staff in.
2. IMS Structure and Role Clarity – ensure IMS structure is adhered to such as keeping business cycle meeting times tight, ensuring only control group members (or designates) are part of the meetings and provide role clarity for each IMS role.

3. Communication – ensure key partners receive notices and in a timely manner; ensure key messaging is communicated internally to all staff such as volunteers/sites/call centre/other intake lines.
4. Staff Training – provide training on IMS roles, IMS structure, basic de-escalation strategies, cross training of staff and conduct exercises.
5. Data Collection Method – determine the best and most efficient method for data collection during mass immunizations, for example paper vs. electronic.
6. Mass Vaccination Plan – finalize revision of the Mass Vaccination Plan (Section G. of the Emergency Response Plan) and incorporate key leanings from this event to enhance the plan.

Conclusion

After receiving notification of two flu related deaths of children who attended the same school, WDGPH established a community response to coordinate mass immunization clinics using IMS which enhanced WDGPH to be responsive to emerging needs in a coordinated and collaborative manner.

Over the course of the response, a total of 3,535 doses of influenza vaccine were provided through mass immunization clinics and appointments at three WDGPH locations including Chancellors Way (Guelph), Fergus and Orangeville.

Seven priorities have been identified to enhance WDGPH current practices and processes to allow for improved future IMS response.

Ontario Public Health Standard

Emergency Management Foundational Standard, 2018

Emergency Management Guideline, 2018

WDGPH Strategic Direction(s)

☒ **Health Equity:** We will provide programs and services that integrate health equity principles to reduce or eliminate health differences between population groups.

☒ **Organizational Capacity:** We will improve our capacity to effectively deliver public health programs and services.

☒ **Service Centred Approach:** We are committed to providing excellent service to anyone interacting with WDG Public Health.

☒ **Building Healthy Communities:** We will work with communities to support the health and well-being of everyone.

Health Equity

Health equity is the condition where everyone can attain their full health potential and are not disadvantaged due to their social position or other socially determined circumstances.

Walk-in Community Immunization Clinics were set up, offering flexible day, evening and weekend hours for all members of the public to access in order to get their flu immunization.

By using strategic communications, WDGPH was able to inform residents of the threat of flu in the community and the opportunity to use evenings and a weekends to get their flu immunization.

References

1. Fluwatch Canada. Government of Canada. Available from https://www.canada.ca/en/public-health/services/diseases/flu-influenza/influenza-surveillance/weekly-influenza-reports.html

Appendices

None