MIDDLESEX-LONDON HEALTH UNIT

REPORT NO. 043-20

TO: Chair and Members of the Board of Health

FROM: Christopher Mackie, Medical Officer of Health
            Michael Clarke, CEO (Interim)

DATE: 2020 September 17

UPDATE ON PROVINCIAL COVID-19 CASE AND CONTACT MANAGEMENT (CCM) SYSTEM

Recommendation

It is recommended that the Board of Health receive Report No. 043-20 re: "Update on Provincial COVID-19 Case and Contact Management (CCM) System" for information.

Key Points

- The Ontario Ministry of Health has directed all public health units (PHUs) to implement a new COVID-19 case and contact management (CCM) system. The tool is being built by a company called Salesforce. As of August 20, 2020, 31 out of 34 PHUs have implemented the system.
- MLHU staff have been monitoring the development of the tool closely, through participation in several provincial working groups and liaison with other PHUs who have implemented the tool.
- Although the Ministry of Health and Salesforce continue to enhance the system, there exist unresolved issues related to solution instability, data migration, record creation, and reporting. In contrast to MLHU's existing CCM solution, the current functionality of the provincial system is insufficient for the MLHU to meet its legislated mandate and its use may expose the MLHU to organizational risks.
- MLHU has delayed implementation of the provincial CCM solution until these issues are addressed. The MLHU team will continue to work with the Ministry of Health to further develop the system such that risks can be mitigated or eliminated, and a go-live date can be established.

Background

In June 2020, the Ontario Ministry of Health announced that it was implementing a new case and contact management (CCM) solution for public health units (PHUs) to manage and report on COVID-19 cases and contacts, replacing the use of the existing provincial infectious disease information system (iPHIS). Under the direction of the Ministry of Health, the companies Salesforce and Accenture have been developing the new CCM system with input from Ontario's PHUs.

Using a rapid, iterative approach, the initial release of the system was implemented by four PHUs on July 17, 2020. As of August 20, 2020, the fourth iteration of the solution was implemented by 31 of 34 Ontario PHUs. The provincial CCM system is yet to be implemented at three PHUs, all of which have locally developed COVID-19 case and contact management systems, including the Middlesex-London Health Unit (MLHU).

Leveraging the experiences of developing a successful case management tool, the MLHU has actively participated in the development of the new provincial CCM solution. While the Ministry of Health and Salesforce have been responsive to system development feedback from PHU users, several issues continue to exist regarding the functionality of the solution and the inherent organizational risks that would be assumed by MLHU once it is implemented locally.

CCM System Limitations

Based on feedback provided by other PHUs at province-wide collaboration meetings, the provincial CCM system is characterized by several limitations and deficiencies, including (but not limited to):

Solution and data instability

Between July 17 and August 20, 2020, four iterations of the provincial CCM were released. An additional three iterations are projected by mid-autumn. With each release, substantial new and updated functionality is introduced, requiring refresher training for users. Additional data fields are also migrated into the system with each release, necessitating review of existing data to verify the accuracy and completeness of records. While appreciative of expanding functionality and data availability, PHUs already using the CCM system report that it can be challenging to plan for new releases and to ensure all users are up to date on the system's functionality.

Insufficient and inaccurate data migration from existing systems into CCM solution
Only a subset of the case and contact management data that resides in existing systems is migrated into the provincial CCM solution at the time of go-live. While the number of data elements migrated has expanded with each release, the current data migration templates do not include all data elements required for fulsome case and contact management and reporting by the MLHU. Further, PHUs already using the solution report that inaccuracies have been introduced during the data migration process, due to data mapping errors.

Inaccuracies introduced by integration with the Ontario Laboratory Information System (OLIS)
Currently, positive laboratory results are faxed to the case's PHU of residence to initiate case management. The provincial CCM system integrates with the provincial laboratory system (OLIS) to automate case investigation record creation. PHUs already using the CCM solution report that some system-generated records are not created as a positive case, even though faxed results for the same individual are positive. In other instances, the OLIS feed reflects that the result was indeed positive, but the system-generated case investigation record has been flagged with a different classification. The potential for missing a report of a COVID-19 positive case requires process redundancies to be developed until these and other record-creation issues are resolved.

Decreased reporting functionality
Currently, CCM solution reports are unable to link data from different sections of the system, such as linking client demographics to the associated case investigation details. Further, the system lacks key fields that are integral to infectious diseases reporting, such as age at time of illness and earliest symptom onset date. This issue is further amplified because the report builder is restricted to one calculated field within each report. A user could build a report that calculates one of these fields, but not all. Overall, the reporting functionality currently available in the CCM solution is greatly decreased compared to what PHUs had previously. Many PHUs use parallel systems to sustain public reporting, resulting in duplicative work.

Given the currently unresolved issues related to solution instability, data migration, record creation, and reporting, the functionality of current release of the provincial CCM solution is insufficient for the MLHU to meet its legislated mandates for case and contact management, and infectious diseases surveillance and reporting.

Next Steps
Given the inadequacies noted above and the associated organizational risks, MLHU has delayed implementation of the provincial CCM solution until the system is proven to be adequate for comprehensive COVID-19 case and contact management and reporting. The MLHU CCM implementation team will continue to work with the Ministry of Health to advance data migration processes and system functionality, such that organizational risks are mitigated or eliminated, after which a go-live date can be established.

In a memo released on September 4th, 2020, the Ministry has signaled that it intends to proceed with full provincial implementation of the tool. The memo, attached in Appendix A, indicates changes to regulation that would require all reporting of COVID-19 cases to occur through the new provincial tool.

This report was prepared by the Associate Medical Officer of Health and the COVID-19 Incident Management Team.

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