

If you require this information in an alternate format, please contact the Accessibility Coordinator at accessibility@northumberland.ca or 1-800-354-7050 ext. 2327



Report 2025-084

Report Title: The Importance of Quality Data and Value Engineering

Committee Name: Community Health

Committee Meeting Date: May 6, 2025

Prepared by: Susan Brown
Chief
Northumberland Paramedics

Approved by: Jennifer Moore, CAO

Council Meeting Date: May 21, 2025

Strategic Plan Priorities: ☒ Innovate for Service Excellence
☐ Ignite Economic Opportunity
☐ Foster a Thriving Community
☐ Propel Sustainable Growth
☒ Champion a Vibrant Future

Information Report

That the Community Health Committee, receive Report 2025-084 'The Importance of Quality Data and Value Engineering' for information, and

Further That the Committee recommend that County Council receive the report for information."

Purpose

The purpose of this report is to provide an overview of the Community Paramedicine Clean Data Stream Initiative that is currently being undertaken. This project is a partnership with Northumberland Paramedics and Queens University, emphasizing the importance of clean, consistent streamlined data, the development of "value add" equations to provide the subjective analysis of the Community paramedic program.

Background

The project aims to establish a robust and streamlined data pipeline that ensures clean, standardized, and high-quality data for community paramedicine (CP). This initiative aims to transform CP documentation from an administrative task to a professional competence in a

strategic effort to ensure accurate, consistent, and comprehensive recording of data. The initiative aims to achieve the following benefits: (1) Improve collaboration between CPs and other healthcare professionals in Northumberland County to improve access to care as well as enhance patient quality of life and reduce caregiver burden, (2) Improve decision-making related to patient care and navigation to reduce 911 calls, ER visits and hospitalizations, (3) Ensure the value of CP is accurately reported to sustain provincial and municipal funding.

This project will also position Northumberland to participate as an early innovator in the Queen's Paramedic Data Lake Program. This intent of this program is to evaluate the benefits of Queen's University becoming a data custodian for healthcare by establishing and managing a scalable and flexible healthcare platform to store vast amounts of structured, semi-structured, and unstructured data from diverse electronic health records (EHR) vendors across Ontario and potentially Canada. By breaking down vendor silos, a Queen's-managed data lake fosters a clean, standardized, and high-quality data source that can be used to advance paramedicine innovation and research as well as streamline reporting. Most notable, a Queen's data lake will provide the foundation to fuel the use of artificial intelligence (AI) to train machine learning models, natural language processing (NLP) algorithms, and predictive analytics tools that accelerate healthcare system transformation and advance paramedicine practice.

Consultations

Queens University, Smith School of Business. M. Kathryn Brohman, Ph.D.

Legislative Authority / Risk Considerations

N/A

Discussion / Options

Quarterly we are mandated to provide the objective data of the CP programs to the respective Ministries that are currently the funders of the CP programs in Northumberland and the Province of Ontario. This data is combined with the objective financial cost of the program. It doesn't necessarily examine or report on the subjective or social / humanitarian benefits of the program. CP programs provide positive benefits to the client, caregiver, other healthcare providers, and paramedics.

This opportunity and partnership with Queens, and the other provincial CP programs, allows a multitude of benefits:

- Examine the subjective data for the value- add tasks that directly impacts the outcomes of the CP program, which also can be utilized as a tool across all delivery departments:
- Develop a minimum data set, which provides good, consistent, reliable data to be imported by all CP programs:
- Strong, reliable and consistent data builds a database that can be utilized to predict, or hypothesize future capabilities for CP and healthcare:
- Innovation and excellence utilizing specialists in research methodologies, and analytics.

Financial Impact

No specific financial impact currently.

Member Municipality Impacts

Equally beneficial and supportive of all municipalities in Northumberland County.

Conclusion / Outcomes

Receive this presentation for information and support the continued partnership and evolution of the Northumberland Community Paramedicine program as a leader and innovator for excellence.

Attachments

1. Report 2025-084 ATTACH 1 'Northumberland Health Committee Presentation – Power Point Presentation'
2. Report 2025-084 ATTACH 2 'Testimonials of Clients, Care Givers, and Healthcare Providers'