GUIDANCE SYNOPSIS

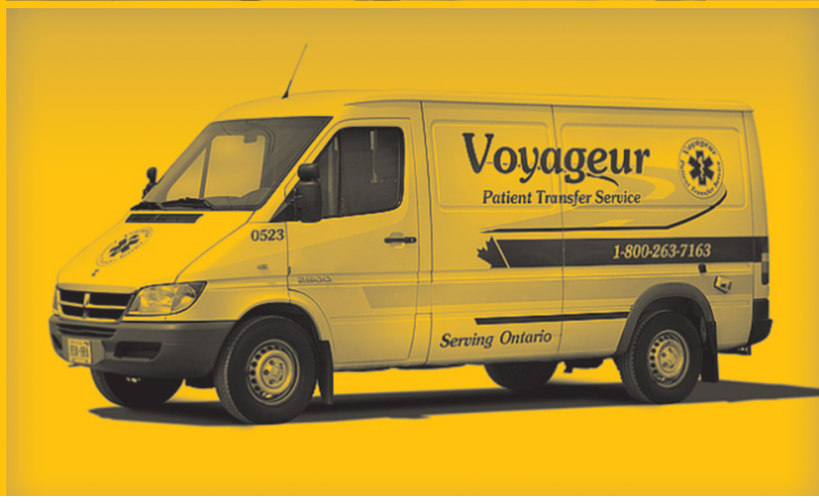
August 2019

Converge3

Integrating health, economic and equity evidence to inform policy

Toward a More Efficient and Effective Health Care Transportation System

A Converge3 Guidance Synopsis



About this Report

This report was prepared by Converge3. Converge3 receives funding from the Province of Ontario. The views expressed in this report are those of Converge3 and do not necessarily reflect those of the Province of Ontario.

Suggested Citation

Converge3. *Toward a More Efficient and Effective Health Care Transportation System:* A Converge3 Guidance Synopsis. Converge3: Toronto, Canada. 30 August 2019. Available from: https://converge3.ca/publication/guidance-synopsis-toward-more-efficient-effective-health-care-transportation-system.

About Converge3

Converge3 is a policy research centre based in the Institute of Health Policy, Management and Evaluation at the University of Toronto that focuses on integrating health, economic and equity evidence to inform policy. The Centre is funded by the Province of Ontario and includes multiple partner organizations, including Li Ka Shing Knowledge Institute at St. Michael's Hospital, McMaster University, Ottawa Hospital Research Institute, ICES, Health Quality Ontario, Public Health Ontario, and the Ontario Ministry of Health.

© Converge3 2019

Contact Information

Converge3
Institute of Health Policy, Management and Evaluation
Dalla Lana School of Public Health
University of Toronto
155 College Street – 4th Floor
Toronto, Ontario M5T 3M6 Canada

https://converge3.ca

info@converge3.ca

@converge3_ca

Background

Patients need to be transported between various health care service locations for many reasons. For example, patients may need to be transported between health care sites for appointments or from their home to a hospital. When there is an emergency or urgent situation, ground and air ambulance provide transportation services. In non-urgent situations, where there is no immediate threat to the patient, a variety of service options exist in Ontario. Non-urgent transportation is currently provided by a mixture of public, private, and volunteer services, typically coordinated by Local Health Integration Networks (LHINs).

Several concerns about the current provision of non-urgent transportation in Ontario exist, including availability and access in rural and remote regions, inefficient organization of existing services, and use of urgent transportation when non-urgent transportation services are more appropriate.

To support the optimization of non-urgent transportation in Ontario, Converge3 worked with health system stakeholders to identify the following policy research question: "what are the features of different non-urgent transportation models and what approaches may improve use of non-urgent transportation in Ontario?"

Converge3 commissioned the McMaster Health Forum to conduct research addressing the question above. The Forum produced an evidence report entitled "Enhancing the Efficiency and Effectiveness of Non-urgent Transportation Models". The report included a targeted evidence synthesis on the policy research question, a jurisdictional scan of non-urgent transportation services currently available in Ontario by LHIN, and an analysis of CIHI (Canadian Institute for Health Information) data to estimate the frequency with which emergency services are used for non-urgent transportation in Ontario. Based on the evidence report, Converge3 developed this guidance synopsis in collaboration with our faculty and advisors to outline policy options relevant for Ontario.

Evidence report summary

The evidence report identified few recent studies that have examined non-urgent transportation models. Of the 13 studies that were identified, only five had been published within the last five years, two of which were based in Canada. The evidence report identified four studies that specifically examined non-urgent transportation models. These included 1) a non-urgent inter-facility patient transfer system in India; 2) a centralized bed management system to improve patient flow in Pennsylvania; 3) a publicly-subsidized non-urgent transportation service for rural communities in northern British Columbia (BC); and 4) a decision-support tool based on business intelligence techniques to optimize inter-facility patient transfers in northern BC. Two studies used the Patient Transfer Authorization Centre database to examine costs and trends in Ontario. A study in Québec found that the vast majority (83%) of inter-facility transfers from a rural hospital were for CT scans. The CIHI data showed that less than 2% of patients brought to emergency departments by ambulance are ultimately classified as non-urgent, across all LHINs.

The jurisdictional scan of current LHIN services revealed some recent local initiatives to improve non-urgent transportation. The Champlain LHIN has developed three decision guides (addressing discharge, inter-facility transfer, and mental health transfer) to assist hospital staff in determining the most appropriate transport service for the patient. The North East LHIN has developed a non-urgent transportation model that contains fixed (i.e. scheduled routes) and on-demand (i.e. arranged as needed) responses; the choice of fixed or on-demand service is partly based on whether the distances are short or long. The effects of these initiatives have not been formally evaluated.

Policy options

The findings of the evidence report could help in the consideration of policy options to enhance the efficiency and effectiveness of non-urgent transportation in Ontario:

1. **Ontario may benefit from investing in methods to identify appropriate patients for appropriate non-urgent transportation services.** The evidence review suggests that patient selection could be based on characteristics of the individual patient, the type of appointments, and the region(s) in which the patient is being transferred.
2. **Accountability and transparency can be enhanced by ensuring rigorous collection and regular reporting of evaluation metrics.** Key performance measures will include assessing how, and to whom, non-urgent transportation is provided, the cost and efficiency of such services, transport time, waiting time to transfer, and equity concerns, particularly relating to geographic disparities in access in remote communities. The Patient Transfer Authorization Centre database may be a valuable source of such information.
3. **Methods that may improve the experiences of patients receiving non-urgent transfer between institutions include centralized bed management systems and enhancing communication between facilities.** Recent Ontario initiatives to re-organize regional care and improve integration of care across facilities offer important opportunities to address structural barriers to effective management and communication.
4. **Patient-centred methods include selecting the best transportation choice for individuals.** The evidence report identified a range of strategies and models that could be adapted to local circumstances. For example, the North East LHIN model incorporates both local fixed and on-demand transportation models for short and long-haul distances that may be a model for other geographically dispersed regions. New low-cost models may be an option for urban communities, such as iRIDE plus, which is a LHIN-funded non-urgent transportation service for patients over 55 years of age who are not eligible for Wheel-Trans. Selecting the best service also requires determining the appropriate mix of volunteer, private (ambulance vs. non-ambulance), for profit and non-for-profit, and public services.
5. **Decision support has the potential to optimize non-urgent transportation choices in real time.** Decision support programs could select the appropriate service for each patient, potentially by using formal tools, decision guides, or computer programs. A model for this that could be translated and implemented in other regions exists in the Champlain LHIN.

Converge3

Integrating health, economic and equity evidence to inform policy

Institute of Health Policy, Management and Evaluation
Dalla Lana School of Public Health
University of Toronto
155 College Street – 4th Floor
Toronto, Ontario M5T 3M6 Canada

https://converge3.ca

info@converge3.ca

@converge3_ca