



Transportation as a Social Driver of Health in Aroostook County



Introduction

Aroostook County, with only 68,000 residents, is the largest county east of the Mississippi River, at 6,829 square miles.¹ Expansive landscape, complete with trees, lakes, and farmland, is a major draw for many, but also present significant challenges for those needing to access services. Over 32% of the population is 65+ and lives alone, and in 2019², 17.7% of residents needed to travel 30+ miles to be seen by a primary care provider.¹ These challenges are compounded by the fact that 24% of households do not have access to a vehicle,² and public transportation services are sparse. Additionally, the nearest Level I Trauma Center is approximately 300 miles South, so patients requiring specialized care must be transported. Without our own Life Flight plane or crew and with limited EMS transporters, patients occasionally wait in the Emergency Department for hours before transport to Bangor or Portland. In the 2022 Maine Shared Community Health Needs Assessment Report, transportation was identified as a major barrier to accessing quality healthcare across all aspects of care. This issue is exacerbated by social drivers of health, such as socioeconomic status and advancing age, which affect many residents of Aroostook County.³ Through observational research, I have generated the following recommendations, aimed to lessen the burden that transportation causes for individuals and families in Aroostook County.

Recommendations

Optimize Telehealth

Occasionally, patients are transported to Southern Maine or Boston for appointments that could be completed in Aroostook County by incorporating more Telehealth. Specifically, it is recommended that physicians in Aroostook County refer to the Maine eConsult Network Roadmap⁴ before automatically requesting a patient to travel elsewhere. Doing this would improve patient experience and accessibility, while simultaneously reducing the cost and stress of having to travel.



Additionally, local hospital systems are encouraged to partner with larger research centers that have the capacity to support federally funded telehealth implementation projects (see resources 2-3 below).

Develop EMS Workforce

Allocating more funding and attention to the EMS workforce will improve patient experiences in emergency medical transportation. To make this an attainable goal, it is recommended that local ambulance services apply for Workforce Development Funding through the Harold Alfond Center⁴ to support the costs of education, testing, and training required for EMT certification and incentivize individuals to join the field, ensuring a fully staffed and well-supported crew.



Divide Fire and Ambulatory Services



Previous mergers of the fire station EMS led to significant resignations as many personnel preferred specializing either as firefighters or EMTs/paramedics. Therefore, the recommendation is to consider separating these entities into distinct departments with independent funding and staffing to mitigate staffing challenges. While the initial costs may be substantial, upfront investment in EMS transportation services is more economical than the potential health risks associated with inadequate emergency services.

Implement New Assessment Tools for ModivCare Services



Patients and local transportation services express similar frustrations with MaineCare Non-Emergency Transportation (NET) contractor ModivCare. In a few cases, patients described such excessive barriers that it prevented them from accessing services all together. See background for additional information. Recommendations include: (1) completing a more comprehensive and transparent evaluation of ModivCare. Currently, the effectiveness of their services is measured by “timeliness” and “trips missed,” but these metrics do not necessarily reflect the needs of consumers, and it is unclear how these statistics are collected, or if the State is relying solely on ModivCare to report this data. It would also be helpful to have qualitative data from the stakeholders about their experience of navigating ModivCare. Additionally, (2) including an accessibility metric in the comprehensive evaluation to assess how accessible ModivCare is for all patients, particularly those in rural counties, who have specific social drivers of health that can make it challenging to access all services, including those mediated by non-local entities (such as lack of access to phone or computer). This would provide a more accurate representation of the effectiveness of ModivCare for patients, to assess its value in a rural community, such as Aroostook County, and allow MaineCare to respond effectively to inefficiencies in the system.

Background

Transportation in Aroostook County faces many logistical challenges. For instance, 17.7% of residents are required to travel 30 miles or more to be seen by a primary care provider, while 24% of respondents live in a household without access to a vehicle.¹ The increasing rise in age of Aroostook County residents poses a significant barrier to transportation as well, reflected by the fact that 72% of the respondents who did not have access to a vehicle are over the age of 65.² For patients requiring tertiary care, travelling to Bangor or Portland is not only a barrier to care, but sometimes is a complete roadblock. Additionally, social drivers of health are exacerbated in rural areas because there are fewer public resources available in order to combat them.⁵ Transportation in rural regions, such as Aroostook County, necessitates distinct strategies and solutions as compared to urban environments, given the unique geographic and demographic characteristics of these communities.

Healthcare transportation can be divided into two major sections: Emergent and Non-Emergent Transportation. In Aroostook County, emergency services have declined in quality and effectiveness over the last decade. The emergency department in Presque Isle (the county’s biggest and most central hospital) used to have access to a fixed wing aircraft, with a pilot and medical crew that was employed by the hospital and was available for emergent transportation South. However, following the unfortunate crash of the plane in 2017⁶, the service was discontinued due to lack of funding. Now, when a patient in the ED needs critical transport to a tertiary hospital, a Life Flight crew from downstate must fly to Northern Maine and back before the patient receives the care they need. Additionally, according to an emergency physician in the area, Life Flight can only complete the transportation request approximately 30% of the time, leaving 70% of the patients sitting in a rural hospital that is not set up to provide that level of care.

Approximately 10 years ago, Maine Emergency Management Agency underwent a budget cut that resulted in the city of Presque Isle's fire departments losing state funding.⁷ In order to resolve this, the fire department combined with the ambulatory operations in order to have a "billable service." Although this strategy proved effective for a while, the cost of EMS transportation was more than revenue generated, which led to a decrease in funding overall. Additionally, as stated by the Chief of the fire department, the amalgamation of these two services precipitated a significant decrease in employment, as many firefighters were not interested in the role of an EMT, and vice versa. Furthermore, the 24-hours on/48-hours off schedule is unappealing for many. This situation has left emergent transportation services understaffed.

One invaluable resource that benefits numerous patients is Angel Flight, a worldwide air ambulance that is a leading provider of fixed-wing urgent and non-emergent air medical-transportation services across the nation¹¹. This nonprofit organization facilitates the transportation of medical patients to and from appointments, whether in Southern Maine or out of state, ensuring a safe and timely return following the appointments. This service provides a "flying ICU," fully equipped with medical professionals and pilots who have a mission of patient satisfaction and safety. Angel Flight coordinates every aspect of the transport, while additionally collaborating with insurance companies to ensure that patients can focus on receiving quality care.

Non-emergent transportation (NET) includes transportation available through public access and insurance coverage. Current modes of public transportation in the Presque Isle area are available, but are underfunded and have logistical challenges, making it difficult for many patients to utilize. Although there are a few local taxi cabs, only one company accepts hospital vouchers, making that a limited option for many. Common applications of public transportation found in urban cities, such as Uber or Lyft, are not available in Aroostook County. Even if they were, the average price of an uber is \$1-2 dollars per mile⁸, 24% of Aroostook County households are over 20 miles away from the nearest hospital⁹. That, in addition to the booking fee, the wait time fees, service fees, sales tax, etc., making these an unrealistic option for many as well.

Often, patients depend on family members or neighbors to bring them to and from appointments. Frequently, there is someone sitting in the Emergency Department waiting room because there is no way for them to get home. In an attempt to offer more accessible transportation in Presque Isle, the Star City Connector through the Aroostook Regional Transportation System¹⁰ created a bus route with 19 stops on a continuous loop, 5 times a day. Although it is undeniably helpful and a necessary step in the right direction, people who identify as belonging to the aging or disabled populations may still live miles from the closest bus stop, due to the vast geographic layout of the area. Similarly, there is a bus that spans the entire county, but will travel from Fort Kent to Presque Isle 2 days a month. Disregarding all emergencies, it is nearly impossible to schedule regular doctors' appointments on that type of schedule.

Any eligible MaineCare recipient has access to free transportation to qualifying medical appointments within the state of Maine, and MaineCare utilizes ModivCare to manage NET. In order to arrange the service, patients are required to contact ModivCare by phone or computer (barrier #1) 48 hours in advance (barrier #2; effectively NET is unavailable for acute medical appointments), who will verify their MaineCare status, and then organize a ride through a local transportation company if necessary. To qualify for transportation services, medical appointments must receive verification from ModivCare representatives. Patients are required to distinguish the exact reason for their medical appointments (barrier #3). For instance, individuals getting blood work may be unsure whether it is to monitor their diabetes or to assess cholesterol levels for heart disease risk evaluation. A detail as minute as this may deem the patient ineligible for transportation.

Additionally, ModivCare has effectiveness standards based on "timeliness" and "trips missed;" however they are often misaligned with what is genuinely beneficial for patients. For example, ModivCare deems its service effective if their "on-time" ratings exceed 85%.¹² However, "on-time" pickup is achieved as long as it occurs within a two-hour window. It was a common narrative for patients with a 10:00 AM appointment to be picked up anytime between 7:30 AM and 9:30 AM. Should patients not be watching out their window for the driver to arrive, the delays will be attributed to the patient rather than ModivCare.

According to MaineCare representatives, it is necessary to have ModivCare mediate this interaction, for reasons including the ease of having one common vendor to monitor eligibility and payment. However, both patients and local transportation services claim that their experience would be significantly improved if ModivCare were removed as the intermediary. Local transportation companies advocate for direct communication with patients asserting to have the necessary resources and infrastructure needed to effectively operate without ModivCare's involvement. They also emphasized that they could serve the entire county, with less focus on insurance eligibility, and more on quality of service. For example, one local provider of transportation said that he would provide transportation whether someone was eligible or not, so it was not as important to him if MaineCare ultimately reimbursed the invoice he submitted; he would rather focus on serving his community.

References

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13. "Air Ambulance." *Angel MedFlight*. <https://angelmedflight.com/>.
14. "NET Monthly Dashboard." *Department of Health and Human Services*, Apr. 2024.

Resources

1. Maine Health has the Center for Clinical Excellence and Translational Research that provides guidance and mentorship for rural clinical investigators.
2. Maine Rural Health Research Center at the Muskie School of Public Health at the University of Southern Maine provides technical assistance to rural communities on issues that affect rural health.
3. NIH NOSI: Assessing Real-World Effectiveness Implementation of Telehealth-Guided Provider-to-Provider Communication among Rural Communities

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