Innovative Coordinated Access and Mobility (ICAM)

Improving Access to Healthcare Services Through Transportation Assistance Coordination Technology

Indiana University Health

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Executive Summary

The Indiana University Health (IU Health) Patient Transportation Initiative was initiated to reduce transportation barriers to healthcare access among its patients with the implementation of a scheduling software. The intent of the project was to reduce transportation barriers to healthcare by utilizing the software to coordinate rides for non-emergency medical care through a local transportation provider. This would ensure that patients who needed assistance arranging transportation would receive efficient and effective help in securing a ride.

In July 2019, IU Health received a federal grant of $208,352 as a sub-awardee to IndyGo, the pass-through agency and TrAMS administrator, to implement a patient transportation assistance pilot program by purchasing a software platform. Deployment of the patient transportation assistance coordination technology was expected to reduce transportation-related barriers to healthcare for patients of the IU Health system located throughout the state of Indiana.

The proposed transportation assistance pilot program involved a partnership with LCP Transportation, LLC, a local transportation provider of non-emergency transportation solutions. This partnership would allow IU Health to customize and utilize LCP's existing web-based ride scheduling platform.

In May 2020, IU Health planned to customize LCP's existing scheduling platform to integrate with Cerner, IU Health's electronic medical record system. Doing so would provide IU Health with a centralized platform to identify solutions for patients who needed transportation assistance and then make the necessary arrangements (See Figure 1 for Patient Transportation Assistance Program). The project's intent was for LCP to be responsible for providing ongoing maintenance and support of the integrated platform, provide a 24/7 call center service support as needed, manage the fleet of services (due diligence, contracts, drivers, etc.), as well as provide reports and data as needed. IU Health would have then been able to utilize the platform throughout its statewide system, which includes large urban, small urban and rural facilities, as well as the broad network of primary care and specialty physicians.

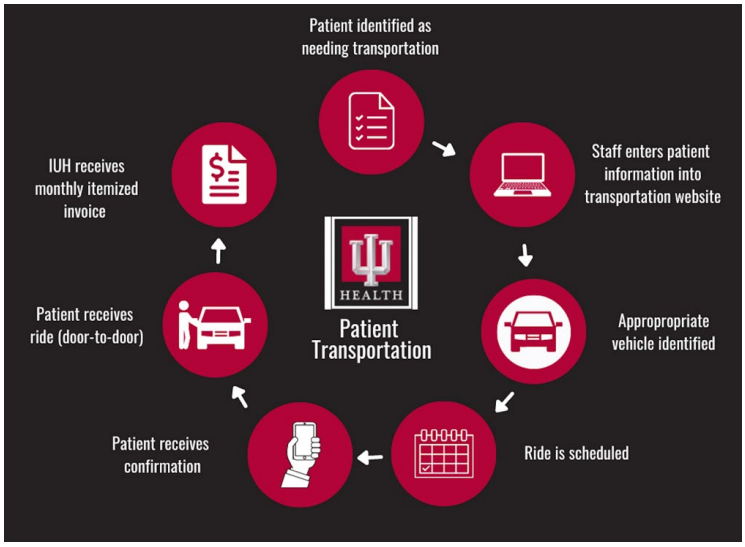


Figure 1. Patient Transportation Assistance Program

A Cerner-integrated product would have allowed for more efficient ride booking and communication amongst IU Health team members and providers. Additionally, Cerner coding rules and requirements would have added another level of security to the sensitive and confidential information being shared with outside sources. Utilizing a Cerner-integrated product was both an expectation and requirement of IU Health for the reasons listed above; therefore, the grant was written with the intent as such. Unfortunately, LCP was never able to deliver on the requirement for customizing their

scheduling platform to integrate with Cerner and as a result, the patient transportation assistance pilot program was terminated in 2023.

Introduction / Background

IU Health is the largest provider of comprehensive healthcare services in the state of Indiana. Based in Indianapolis, Indiana, with dozens of facilities statewide, IU Health is a regional leader in providing the right healthcare when and where needed. A unique partnership with Indiana University School of Medicine, one of the nation's leading medical schools, gives patients access to leading-edge medicine and treatment options that are available first, and often only, at IU Health.

IU Health has been on a path to create a healthy culture for all. The IU Health Way describes a shared culture of how we aspire to treat each other, our patients and the communities we serve.

- Our vision: To make Indiana one of the nation's healthiest states
- Our promise: The Best Care, Designed for You
- Our values:
    - **Purpose:** We work to do good in the lives of all others
    - **Excellence:** We do our best at all times and in new ways
    - **Compassion:** We treat all people with respect, empathy and kindness
    - **Team:** We count on and care for each other

With more than 2,700 available beds throughout the statewide network, combined patient volume at IU Health totals more than 111,000 inpatient admissions annually. The system is guided by its mission to improve the health of its patients and community through innovation, and excellence in care, education, research and service.

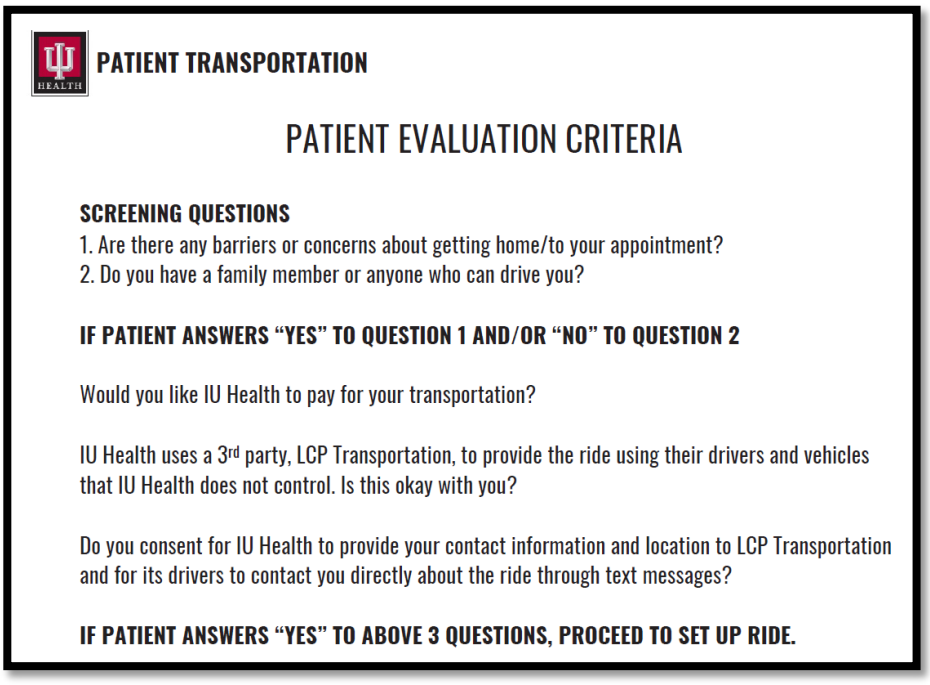
Transportation is often cited as a common barrier to quality healthcare access, especially among impoverished and under-served populations. The communities served by IU Health are not immune to these issues, including the Indianapolis area, which accounts for a significant percentage of the system patient volume. Transportation barriers are most prominently reflected in appointment no-show rates and rescheduled or missed appointments, resulting in delayed care and missed or delayed medication use, prompting the initial interest in pursuing a coordinated transportation assistance program at IU Health. Such efforts to address transportation-related barriers to healthcare access can have dual benefits for both patients and healthcare providers and systems. Efforts to remove these transportation barriers can improve health outcomes, quality of life and provide cost savings for patients and health systems.

Project Description

The proposed patient transportation assistance program had the potential to reduce transportation-related barriers for patients in numerous locations throughout Indiana through the development of patient transportation assistance coordination technology. The goal was to increase access to care through an innovative platform that would have allowed IU Health to efficiently identify and execute solutions to transportation barriers faced by patients. This would have also reduced healthcare costs and improve health outcomes by improving treatment adherence; improve patient experience by reducing appointment wait times, cancellations and no-shows; and simultaneously benefit the health system by reducing Emergency Department admissions and increasing hospital throughput.

The proposed transportation assistance pilot program involved a partnership with a local transportation provider, LCP Transportation, LLC. LCP is a provider of non-emergency transportation solutions and acts as a single-source provider for scheduling and dispatching, transportation management, utilization management and quality assurance. LCP also owns a web-based application non-emergency claims software that allows for scheduling and dispatching, auto-assigning transportation resources, auto-dispatching return trips, trip reporting and transportation resource payments. Their technology platform provides a way to efficiently identify and arrange for non-emergent healthcare transportation.

In May 2020, IU Health planned to customize LCP's existing scheduling platform to integrate with Cerner. Doing so would have provided IU Health team members with a centralized platform to identify solutions for patients who needed transportation assistance and then make the necessary arrangements (See Figure 2 for Patient Evaluation Criteria). LCP would have been responsible for providing ongoing maintenance and support of the platform, provide a 24/7 call center, manage the fleet of services (due diligence, contracts, drivers, etc.), as well as provide reports and data as needed.



PATIENT TRANSPORTATION

PATIENT EVALUATION CRITERIA

SCREENING QUESTIONS

1. Are there any barriers or concerns about getting home/to your appointment?
2. Do you have a family member or anyone who can drive you?

IF PATIENT ANSWERS "YES" TO QUESTION 1 AND/OR "NO" TO QUESTION 2

Would you like IU Health to pay for your transportation?

IU Health uses a 3rd party, LCP Transportation, to provide the ride using their drivers and vehicles that IU Health does not control. Is this okay with you?

Do you consent for IU Health to provide your contact information and location to LCP Transportation and for its drivers to contact you directly about the ride through text messages?

IF PATIENT ANSWERS "YES" TO ABOVE 3 QUESTIONS, PROCEED TO SET UP RIDE.

Figure 2: Patient Evaluation Criteria

As previously stated, arrangements were made to customize LCP's existing scheduling platform to integrate with the IU Health electronic medical record system, Cerner. Doing so would have provided several benefits, including:

- Single sign-on – IU Health team members would be able to utilize their IU Health-issued usernames and passwords for accessing the scheduling platform
- Transportation arrangements would have been tied directly to electronic medical records
- Streamlined communication between IU Health team members and providers via Diagnotes, the HIPAA-compliant platform for secure messaging across the IU Health system

A Cerner-integrated product would have allowed for more efficient transportation ordering and communication. Additionally, Cerner coding rules and requirements would have added another level of security to the sensitive and confidential information being shared with outside sources. Utilizing a Cerner-integrated product was both an expectation and requirement of IU Health for the reasons listed above; therefore, the grant was written with the intent as such. Unfortunately, LCP was never able to deliver on the requirement for customizing their scheduling platform to integrate with Cerner and as a result, the patient transportation assistance pilot program was terminated in 2023.

Key Partnerships

IU Health had key partnerships with IndyGo, who acted as the primary grant awardee and TrAMS administrator, and LCP Transportation, LLC, a local provider of non-emergency transportation solutions.

Implementation

While the patient transportation assistance pilot program was not fully executed, there was a significant amount of work that took place during the grant life cycle. Service agreements were finalized between LCP and IU Health and stringent performance measures were set in place. Design documents and flowcharts were developed during the planning phase allowing for LCP to customize the existing scheduling platform to meet the needs of IU Health. Customizations included the development of an updated driver application to support IU Health transportation requirements and the delivery of a transportation scheduling portal. A prototype application was created and demonstrated for IU Health end-users to test and provide feedback from which minimal changes were made. Spending on the above implementation tasks amounted to $124,870.

The remaining tasks within the implementation phase included the interfacing of the scheduling portal with Cerner, completion of system testing and IU Health acceptance of the customized-system produced by LCP. These tasks were not completed due to the inability for LCP to successfully interface with Cerner.

Performance Measures

An interface between the transportation coordination software and Cerner would have provided IU Health access to data during and after the pilot program to demonstrate the impact of this initiative. In addition to tracking the total number of rides arranged by using the transportation coordination platform, it was anticipated that increased access to care would have been demonstrated through reduced no-show rates for appointments at IU Health facilities. Improved health outcomes would have been determined by tracking hospital readmission rates and repeat emergency room visits. For example, the proportion of individuals who utilized the largest IU Health emergency department at least six times in calendar year 2017 was 2.76 percent, yet these individuals accounted for 16.63% of total emergency department visits during the year. It was anticipated that by helping patients get to healthcare appointments through the transportation coordination technology, they would have been less likely to encounter a situation that required an avoidable trip to the emergency department. Similarly, reduced healthcare costs would have been evidenced by an avoidance of expensive emergency department visits or hospital readmissions as a result of effective preventive care or health condition maintenance. Data could have also potentially demonstrated reduced costs for the system due to the shift from ambulance transports to a less expensive non-emergent medical transport (NEMT).

Performance monitoring would have included the following measures:

- Trips booked through the scheduling transportation coordination technology
- Number of patients served (unique encounters)
- Number of rides for hospital inpatient/ED discharges to home or extended care facilities
- Number of trips to/from rural areas
- Number of trips to/from high-risk areas
- Number of non-emergent medical transportation rides (use of specialty vehicles)

These measures were determined to be realistic and achievable by IU Health over the course of the pilot program and grant lifecycle; however, with LCP's inability to meet Cerner's security requirements, the program was terminated prior to being launched.

Outcomes

The IU Health proposed patient transportation assistance pilot program had the potential to reduce transportation-related barriers for patients in numerous locations throughout Indiana and increase access to healthcare services by 25% through the use of transportation assistance coordination technology. The performance measures stated above were determined to be realistic and achievable by IU Health over the course of the pilot program and grant lifecycle; however, with LCP's inability to meet Cerner's security requirements, the program was terminated prior to being launched and outcomes realized.

Moving Forward / Sustainability

IU Health had the technical, legal and financial capacity to execute and sustain this pilot program due to its large operational structure which included a robust team of technical, legal and finance. Additionally, due to the broad reach of the IU Health system, the opportunities for the sustainability and growth of this project were significant.

While the ICAM project was not fully successful, the work in the implementation phase and the difficulties that we encountered reiterate the importance of, and the commitment that IU Health has, to developing community transportation solutions. IU Health must continue to evaluate and identify transportation opportunities to ensure patients remain connected to critical services that support their everyday health and wellbeing. The development of the Patient Transportation Assistance Program under the ICAM grant has helped inform IU Health of the challenges of developing a seamless referral system for our patients and while the project was not completed, IU Health has had the benefit of participating in multi-sector community partnerships that reiterate our commitment to finding transportation solutions.

As such, IU Health will continue to provide transportation services, as able and with limitations, by partnering with Uber and Lyft to provide free, non-ambulance transportation services to all IU Health facilities, locations and patients within 75-miles. Limitations include unavailability of specialty vehicles required for wheelchair capabilities, limited access in rural areas and lack of door-to-door service. While these limitations do exist and may hinder access to care, utilizing these services will allow as many patients as possible to receive the care when and where needed.

Lessons Learned

Key lessons learned include:

- Involve all parties during the grant application process to ensure proper handoff between the grants team and the implementation team.
- Grants involving technology integration should be well-vetted by internal, and possibly external, subject-matter experts to avoid lengthy delays and underperforming projects.

Impacts of COVID-19

While COVID-19 did have an impact on the project timeline, it did not affect the issues with implementation of the proposed patient transportation assistance pilot program or LCP's inability to meet Cerner security requirements.