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Norwood Senior Medical Transport Program: Cost Efficiency and User Demand Alignment

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The Town of Norwood, located 10 miles from Boston, MA, serves a population of 31,000, with a daytime population exceeding 75,000. As a full-service municipality, Norwood provides a range of services, including police, fire/EMS, education, public works, utilities, recreation, public health, and senior services. Senior services are managed by the Norwood Council on Aging, established in 1972, which operates from a dedicated facility offering office space, activity rooms, dining areas, and more. The Senior Medical Transport Program (SMTP), launched during the COVID-19 pandemic, addresses a critical need for senior transportation. With the abrupt cessation of taxi services and the closure of Norwood Hospital in 2020, seniors faced significant transportation challenges. In response, Norwood developed an in-house program providing free, sedan-based transport for seniors to medical appointments within Norwood and surrounding areas. This evaluation aims to assess the program's cost-efficiency compared to private ride-share options, its ability to meet user demand, and its alignment with the goal of supporting senior independence and enabling seniors to remain in their homes longer.

Keywords: aging, aging in place, program evaluation, medical transportation, senior citizens

Introduction

Aging in place has become a popular concept in recent years, as senior citizens seek alternatives to assisted living, nursing homes, or perceived family imposition. Whether the desire stems from communal ties, the comfort of familiarity (Gonyea & Burnes, 2013), or another catalyst altogether, aging at home presents obstacles that need to be addressed to ensure the process safely supports the individual. Challenges arise as people age and navigate methods of coping with potentially limited resources, reduced mobility, expanded medical needs, and the anxiety that comes with traversing the unknown. Government, private, and volunteer services seek to address many of these issues through the creation of programs geared specifically to the senior populations. Importantly, these programs are often designed to support elderly citizens who prefer to remain in their communities, but may have insufficient support systems or aid.

The Norwood Senior Medical Transport Program (SMTP) is provided through the Norwood Senior Center, and is one of those governmental initiatives aimed at assisting seniors in the local community by providing a method of transportation to medical appointments. Despite the up-front monetary costs to the community, there

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may be added benefits in keeping seniors healthy and active as they continue to contribute to their communities and interact with their peers. The Town of Norwood, understanding the value of their elderly community and looking to provide them with relevant and valuable services, has devised a program to empower their senior community to take control of their medical needs.

By using a quasi-experimental design that collects and analyzes data across intentionally curated groups (White & Sabarwal, 2014), this evaluation seeks to explore and detail the overall program effectiveness. Specifically, the evaluation will be directed toward analyzing and describing the demographics of users of the program, participant feedback on efficacy and ease of use, resource considerations, and whether established goals are being met. Cost analysis of the cost-per-ride of SMTP transportation services compared to other available options will further help inform stakeholders on the efficiency of the program from a budgetary perspective. It is believed the results will show that the Norwood Senior Medical Transport Program provides the intended program benefits by allowing seniors to remain in place longer, because it provides medical transportation that might not be readily available, enables program users to take charge of their health without missing appointments, reduces the costs of hiring taxi or ride-share services, and lowers the perceived burden on any available companions.

Literature Review

Background on Aging in the United States

The United States Census Bureau provides valuable population information to states, cities, and other government, non-profit, and private users seeking to make informed decisions to address needs or improve the quality of life of their citizens. The most recent data available showed a population of over 54 million adults aged 65 and older, rising above 16% of the total nationwide population, a climbing percentage year over year for the last decade (Administration for Community Living, 2021). According to the Administration for Community Living (2021), the expanding senior citizenry is largely due to increases in life expectancy. This data shows the importance that is placed on public and privately funded areas on aging centers, senior service centers, and service providers that specialize in reaching out to these members of the community.

Aging in Place

In a report about the movement patterns of the national population aged 65 and older based on census data gathered from the years 2015 to 2019 (United States Census Bureau, 2022), the information shows that the older the senior, the less likely they are to move, and those who do move generally stay close to their communities. Elderly women and disabled adults are the most likely to move in their greater senior years, but even then, most remain in close proximity to their previous homes (United States Census Bureau, 2022). These statistics lead to the realization that more seniors are looking for ways to remain where they feel close to their community for as long as possible.

Saunders (2015) notes American Association of Retired Persons (AARP) survey data showing senior preference for staying in their homes through their remaining lifetime, reaching levels close to 90%. Both Saunders (2015) and Turnham (2019) relay additional data that illustrates that more than half of seniors anticipate aging in place, not only being desirable, but also being an obtainable goal. When viable, research relays advantages for seniors who can age in place. These advantages include links to greater life-satisfaction, feelings of independence (Bercaw, 2020; Kim et al., 2022), financial security (Bercaw, 2020; Turnham, 2019),

mental health (Bercaw, 2020; Kim et al., 2022; Turnham, 2019), and dignity and purpose (Lim & Bowman, 2022).

While Lim and Bowman (2022) support more of the idea for choice of location for older adults, rather than limiting it to a particular home or community, they argue that it is important for older adults to believe they have the option to live as or where they desire. For communities, this requires the planning of services that make the area friendly to the seniors who reside within (Kim et al., 2022). According to Kim et al. (2022), these age friendly communities (AFCs) seek to build livable areas that provide holistic support to their elderly residents, thereby increasing their positive outcomes. Communities in a quest to increase their age friendliness, which one could argue should be all communities with a senior population, face challenges as they work toward useful solutions and try to anticipate current and future unmet needs.

Challenges for Addressing Needs of the Aging

Gonyea and Burnes (2013) argue that there has not been enough evaluation on specific programs that are geared toward providing services for the aging communities, resulting in a lack of understanding how they contribute to quality-of-life goals. Moreover, decision-makers face challenges obtaining data from community stakeholders, limiting access to valuable, analyzable, or relevant background information (Anderson, 2020). Relatedly, Kim et al. (2022) acknowledge that when data collection is successful, many survey or focus group results obtained are subjective because they are based on feeling or may be skewed by geographical, social, and demographic variables. Without accurate knowledge of the demographics and service needs of the aging population, there is reduced opportunity to create and implement truly usable programs that tackle specific stakeholder desires, requirements, and expectations or to provide understanding of how currently implemented services relate to their continued needs (Anderson, 2020). Consequently, many communities and families are unprepared to ask the relevant questions and address the myriad of complex choices and concerns for the elderly in their care (Gonyea & Burnes, 2013).

Administrative services for aging programs have also faced challenges in recent years from staffing and funding shortages (Olsen, 2018) to trying to navigate the quickly changing landscape of the senior population and their unique demands and ideologies (Anderson, 2020). Furthermore, recruiting and academic pursuit for administrative career paths in the industry have declined, exacerbating future staffing problems. Olson (2018) contributes this declination to several underlying factors. First, there is poor communication of the importance of aging program services to incoming or aspiring professionals making it difficult to attract attention to job candidates, and there also remain uncertainties pertaining to career potential and growth (Olson, 2018). Additionally, Olson (2018) notes a lack of field training opportunities. Also, there are inconsistent or weak partnerships with service providers throughout the country (Olson, 2018). Different communities reflect this as some may have stronger relationships between the statewide and local aging service providers where others operate at more individual levels reducing their opportunities for outreach and additional resources.

The prior factors play into inefficiencies which influence how communities approach the creation of senior service programs potentially negatively impacting the age friendliness of their area. Saunders (2015) specifically looks at concerns of housing in communities and the difficulties associated with making current housing accessible. Anarde (2019) goes further to describe economic challenges often faced by the members of more rural communities which may require local government intervention. Gonyea and Burnes (2013) note poor community planning or budgetary constraints. MacLeod et al. (2015) and Gould, Webster, Daniels, and Dupuis-Blanchard

(2016) both explore transportation issues, like those the Norwood Senior Medical Transportation Program was created to try and address.

Aging in Place and Transportation

Anarde (2019) explains that transportation concerns affect the aging population in different ways. Some adults become less confident in their driving abilities as they age; others may be medically unable to drive or suffer from reduced mobility making driving more difficult (Anarde, 2019). There are others of the community who may not have access to a vehicle for financial or other reasons, and where some may be able to rely on a companion; others may not have reliable companionship (Gould et al., 2016; Hval, 2017). MacLeod et al. (2016) argue the danger of leaving transportation barriers unaddressed as the population continues to increase in age and size and programs and infrastructure should prepare to take on the added responsibility.

Much of the concern regarding insufficient transportation alternatives relates to the increased medical needs of people as they grow older (MacLeod et al., 2016). Preventative and chronic illness medical care services are critical for seniors to be able to access, as both routine and non-routine non-emergency medical issues arise (Hval, 2017; MacLeod et al., 2016). Regular medical appointments reduce the instances of emergency situations and help to extend the health and ability of seniors to be able to continue living independently (MacLeod et al., 2016). There are non-emergency medical transport options, generally in more urban areas, but these present their own challenges, such as not having room for companions or the inability to accommodate last minute appointments (Gould et al., 2016), being limited to a certain health care system, or reduced capacity and trips from lack of volunteers or adequate funding (MacLeod et al., 2016).

Programs like Care Cars in Spokane, Washington, offer solutions outside of public transportation or other paratransit services which often come with limited ride options (Hval, 2017). By offering rides to and from medical appointments, services such as this and those similar in nature provide ways for seniors to get the critical healthcare that they need. These programs reduce the financial strain that some seniors may face (Hval, 2017) as many are on fixed or limited incomes (Anarde, 2019). Oftentimes, these services also provide direct transportation to and from appointments rather than requiring seniors to depart and arrive at fixed locations nearby (Hval, 2017; MacLeod et al., 2016). As MacLeod et al. (2016) stress, having affordable and direct access to transportation with flexible locations reduces the chance that seniors will miss or cancel valuable healthcare appointments. Recognizing the value in maintaining a healthy population, the Town of Norwood has worked to provide a service that falls within this niche of proven need.

Methodology

Research Goals

The research seeks to evaluate the Norwood Senior Medical Transport Program on multiple fronts. First, the evaluation looks to determine how effective the program has been at reaching its established short, midterm, and long-range goals including providing a reliable and affordable method of transportation for the senior adults of the Norwood community to and from their non-emergency medical appointments. Second, the research will obtain valuable user demographic data, along with feedback from program participants and other stakeholders, to analyze the efficacy, value, and user-friendliness of the program. Additionally, the research will conduct a cost analysis to determine a cost-per-ride for transport provided by the program compared to other available services.

Research Questions

R.1: Is the program effectively reaching its intended senior audience and providing efficient and affordable transportation services to and from their routine medical appointments, thereby allowing them to live independently for longer?

R.2: Is the program a cost-efficient, value-add operational initiative for the community?

Research Hypothesis

H_1: Participation in the Norwood Senior Medical Transport Program leads to increases in overall senior health, age-friendliness rating of the community, reduced cost for seniors, enhanced community connection, and value of local government services.

H_2: The Norwood Senior Medical Transport Program's operation costs are in-line with or more cost efficient than other ride-share services in the area.

Expected Outcomes

Research data is expected to reflect positive results from the SMTP services. It is anticipated that the data will show that the program saves seniors in the Norwood community valuable time and financial costs associated with transportation to and from medical appointments, allows them to schedule and observe routine and other necessary or beneficial non-emergency medical appointments, and therefore allows those older adults to live healthier lives more independently for longer time periods. Research also expects to show the program is perceived as a valuable service that increases goodwill toward community government. Additionally, it is predicted that the associated costs reflected in the budget are in-line with other transportation service providers.

Logic of Inquiry

Research methodology for this program evaluation encompassed a combined methods approach to the surveys and analysis. The surveys distributed to research participants included both quantitative and qualitative questions to capture a range of usable data, including hard statistics related to users and costs, as well as more subjective opinions and relevant factors that may otherwise be overlooked or missed due to bias or lack of knowledge. Recent research has shown multiple advantages in mixed methodology research, where appropriate, as the varying types of data allow analysis and expanded viewpoints into the validity and usefulness of the information both individually and combined (McKim, 2017). While mixed methodology research often incorporates numerous data collection sessions beginning as quantitative or qualitative, and determining additional avenues to explore more in depth with the other method (McKim, 2017), the approach for data collection concerning this project combined the two methods into a singular collection objective to account for limited time and resources. The surveyed groups were specifically pinpointed based on their close proximity to the Norwood Senior Medical Transport Program and the other resources offered by the senior center.

Research Approach

Evaluation data was collected via in-person and Qualtrics survey distribution to three groups of individuals. The Qualtrics versions were accessible online in a simplified format that was compatible with computer, tablet, and mobile devices. Newcomer, Hatry, and Wholey (2015) advocate for a mixed-mode approach to passing out surveys as it can be more inclusive for a larger audience. Understanding that senior adults may not regularly engage with or have access to the internet enabled instruments, the survey was also made available in paper format. Skewing of data was mitigated by maintaining the individual aspect of all distributed surveys, rather than

mixing between online and in-person interview versions of the same (Newcome et al., 2015). The questionnaire form of data collection was chosen to diminish anonymity concerns, as some questions could be perceived as sensitive in nature. The survey method also helped collect the data within the available time parameters that may have been untenable in an interview setting.

Ethical considerations were also accounted for, as respondents could have future interactions with one of the evaluators. The questions were crafted with input from both evaluators and the staff of the senior center to ensure they were relevant, reduced internal bias, clear, complete, and easy to answer. To maintain data integrity, the online version was provided to respondents by an anonymous link obtained at the center. Participants acquired the paper surveys from a table upon entry to the Norwood Senior Center or on request to a staff member, and returned them in unmarked envelopes to a collection box in the lobby. Hard-copy survey data was then manually uploaded into the relevant Qualtrics survey dataset for inclusion with the online data groupings.

Research Participants

Three distinct groupings of surveys were distributed. Each group of surveys represented information collected from those who interact at some capacity with the Norwood Senior Center and/or the Norwood SMTP. Having varying representation allowed the evaluators to collect data from users, targeted users, coordinators, and decision-makers. These were the immediately recognizable stakeholders for the program. The first group solicited was composed of individuals who specifically use the medical transport service. The second set of individuals surveyed were seniors who use other resources within the Norwood Senior Center, but who do not regularly, or have not, used the medical transportation program. The final survey was directed toward senior center staff, board members, and volunteers with familiarity about the senior center services and/or programs. If time had allowed, a greater town-wide survey would have been conducted to further understand the sentiments and needs of the community and their knowledge of resources provided. However, by designing the research methods to survey the varying groups available at the time, the evaluation still anticipates analyzing the program more holistically than if merely the users were included.

Program users, despite their frequency of use, provide insight into program results based both on statistical data and individual perception. Specifically, the survey for this group was drafted to collect data on the demographics of the program users, how often they use the medical transportation service provided by the senior center, if they have alternative transportation methods available, and their overall opinion on the value and ease of engaging with the service. Demographics and transportation availability were anticipated to show a relationship between age, income, and the ability to drive or use a companion and the frequency of use for the program. Lower income, the inability to drive, and lack of an available companion were expected to correlate to greater use of the program and higher perceived value. Open-ended questions allowed participants to have avenues to relay program areas of particular importance or influence, potential difficulties using the service, program successes, or additional needs the program may address in the future. User data also accounts for critical statistics on time and resource allocations for the provided service to understand the budgetary impacts.

Seniors involved with the senior center who do not engage with the medical transportation service contribute additional understanding about reasons why they have not participated in the program. Related questions about demographics, participants' typical medical transportation methods, and the reason(s) why they are not users of the Norwood SMTP shed additional light on any statistical differences between users and non-users of the program and what factors may contribute to those decisions. In contrast to program users, the research anticipated

that non-users were more likely to have higher incomes, be able to drive, or have an available companion. Non-user surveys also included open-ended questions to allow additional dialogue explaining why they do not take advantage of the program and if other services may add value.

Surveying the staff, board members, and volunteers additionally imparts their perceptions of the program based on program user feedback, personal observation, their time commitments, ease of program operations, and program expenditures. Input from these stakeholders is valuable, because they have a behind the scenes view of the operations and effect that the program may have on other senior center staff, members, and services. It is expected that staff who regularly interact with the medical transportation service users will have a greater appreciation for the program than board members who understand the program has value but who may be looking at the program from more of a budgetary standpoint.

Research Analysis

Data collected from all three surveys was entered into Qualtrics for individual survey analysis. The quantitative values were then modeled into statistical variations to enhance understanding of the average values of each group. These values were then analyzed in comparison across the three groups of participants, where common data sets existed, to further explore commonalities and nuances. By comparing the data in such a manner, program evaluators can determine the types of users of the program and if there are factors such as age, gender, income, mobility, or companionship, that are highly represented in one group or another. This could help further illustrate a need in certain populations that may contribute to program expansion or modifications. Also, the content of the qualitative portions of the surveys was analyzed individually to note specific areas of possible immediate need, while also looking for more normative feedback.

Logic Model

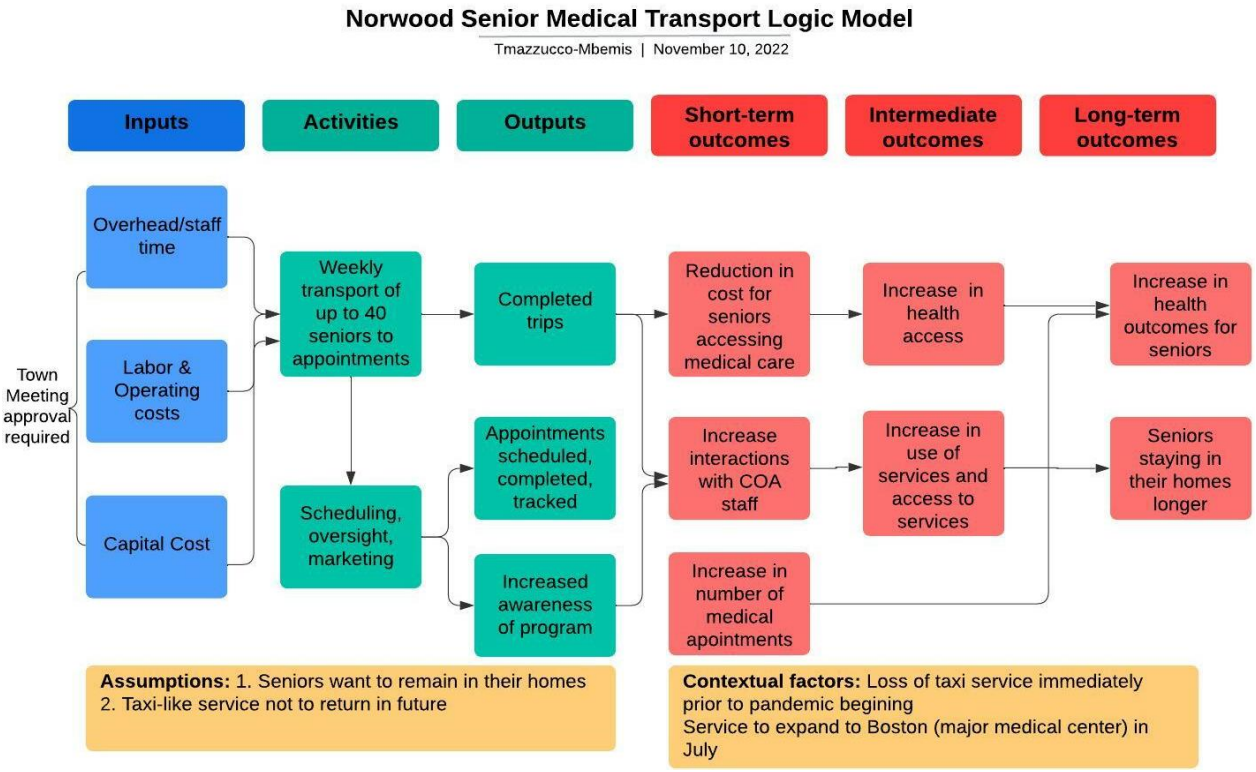

Figure 1. Program logic model.

A logic model has been developed to assist in outlining the program activities and outcomes/goals as well as to assist in the evaluation of the program. Fortunately the potential outcomes for the program short, intermediate, and long term are both interrelated and build on each other. Immediate outcomes such as reduction in cost to seniors are easily identifiable and have been shown throughout the fiscal analysis portion of this evaluation. The increase in interactions is not tracked per se but additional usage of a new program will always lead to increased interactions with staff. These interactions will lead to better health outcomes for seniors, and the evidence of interactions leading to better health outcomes can be seen in the data where nearly 40% of respondents learned from the program from interactions at the senior center.

Findings and Outcomes

Program Data

The study period for this evaluation was a six-month period running from March to September 2022. The SMTP conducted 740 trips during that period and program staff believe this number is easily annualized; the program averages a statistical 5.6 trips per day however when factoring in holidays and in other non-operational days the average comes closer to 6-7 trips per day, five days per week. Total costs for the program are estimated at $18,238 and included in that cost is approximately $17,000 in hourly labor costs. The total labor hours costed to the program are 853, slightly short of part-time (a 40 hour per week employee would work 2,040 hours per year with part time being 1,020 per year). The difference likely stems from days the program does not operate (holidays). Extrapolating the program data out would see approximately 1,500+ trips per year and total costs of approximately $36,000 per vehicle, minus cost of capital/depreciation. Assuming added vehicles with the same activity level, this number could be reasonably utilized to anticipate and budget costs for expansion of the program. The trip data would change as more out of town routes are added or for longer out of area trips.

Demographic Analysis

The average age of survey respondents is 81 years old, and 80% are female and 20% male. 33% of respondents own their own home and the remaining 67% rent, though nearly 10% of respondents did not answer this question. 60% of respondents self-reported incomes of less than $30,000, 30% reported income of $30,000-$50,000, and 10% reported income of $50,000-$75,000 with a small percentage (1%) reporting an income higher than that. More than half of the respondents would have incomes above the poverty level, despite some of these individuals having possibly retired as far back as the 1990s. About ⅓ of respondents reported income outside of social security, namely pensions (27%) and retirement funds/savings (19%) as sources of income. Most interesting and important for consideration of the program as a whole is that 89% of respondents reported living alone.

About 20% of respondents reported owning their own vehicle (important to note as this indicates they have direct access to transportation but utilize the SMTP instead) and over 40% reported having a driver's license. 40% of respondents reported that they are medically unable to drive, an astounding figure. Just over 20% reported cost as the primary reason why they did not have a license, but the 40% figure is key to this evaluation as it underscores the need for the program as a large portion of its service population could not drive if they wanted to.

Program Value/Match to Goals

One particularly important statistic that underlines the need for the program and it's value proposition is that

88% of respondents reported that they live alone, and only 12% reported living with a companion[1]. With 40% of respondents medically unable to drive, 80% not owning a vehicle, and 88% living alone, there is an identifiable trend of transportation challenges here. 91% of respondents reported that the program has saved them money. While this is not an explicit goal of the program given that a local dialysis center was a high volume trip (188 trips in a six-month period), a senior traveling to dialysis three times a week in that six-month period would have spent approximately $1,713.66 in that same time period for their transit using private rideshare services[2]. With 60% of respondents reporting that they earn under $30,000 annually, these costs alone could equate to a minimum of 10% of their income, and could be anywhere from 5% and up of the total income for almost 90% of program participants. It is important to note this is just for *transportation* to medical appointments, not the cost of any procedures when one actually arrives.

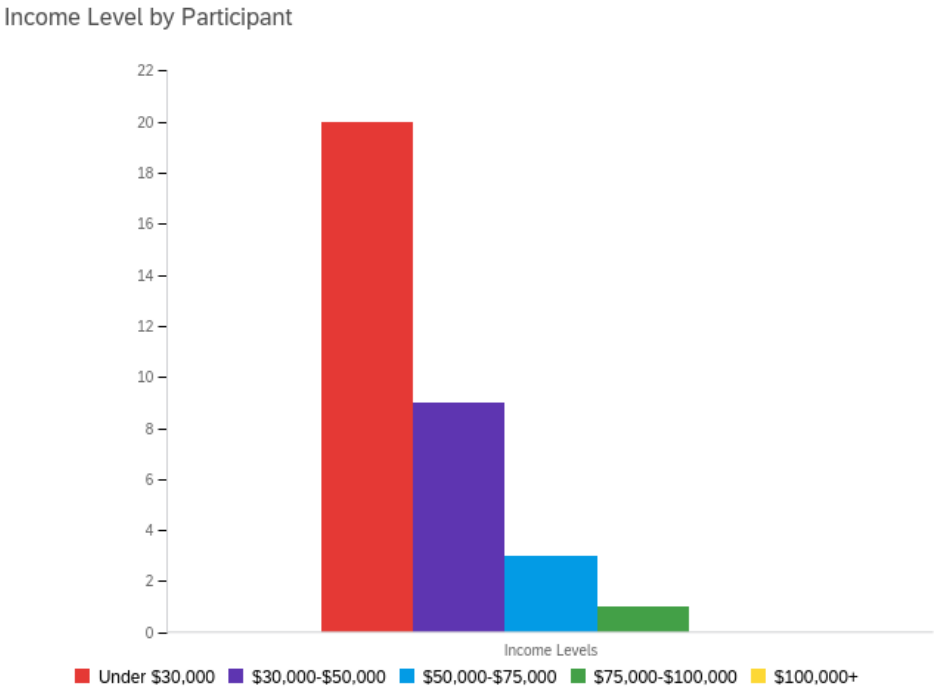

Figure 2. Income level by participant.

Respondents reported that the program helped reduce the burden on family (19%), save money (15%), appointments would not otherwise happen (14%), and helped them stay in their home (9%) as the top benefits of the program. Of these, the relatively low number of 9% of self-reported helping staying in the home varies the greatest from the program goals. It is likely that there may be some selection bias at play as most seniors would not want to admit they need to go into a nursing facility or those perhaps living in senior/public housing may not be able to envision their next living situation. Furthermore, given that most respondents live alone, there is already a level of independence that currently exists and they have entered into a routine that they feel they can maintain as long as their health remains the same.

[1] It is worth noting that medical procedures that require a companion (eye visits, small surgeries and procedures) would be particularly challenging for program users to attend without outside assistance.
[2] Using the calculated in-town cost of $21.97 per round-trip ride multiplied by a 3x a week dialysis trip for a six-month cost of $1,713.66 (or $3,427.32 annually).

The 14% of respondents who selected appointments otherwise would not have happened which is a critical data point for the program's effectiveness. While the figure is self-reported, the reduction in medical appointments for this vulnerable population would have a direct impact on health outcomes overall. This increase in health access is an important intermediate outcome in the program's logic model and the corresponding longer-term outcome of an increase in overall health for seniors is considered a positive long-term outcome of the program as well.

The 15% of respondents who reported the program helps them save money which corresponds to a short-term outcome identified in the program logic model.

Staff and Volunteer Response

Staff and volunteers had nearly unanimous ratings on the program as a whole. Volunteers who filled out the staff/volunteer survey are either Council on Aging Board of Directors members, Friends of the Council on Aging board members, or regular volunteers (defined as routinely working 10 or more hours for the Council on Aging). There are no staff members or volunteers who reported using the program themselves. 100% of staff responses indicated that they feel the program will allow seniors to stay in their homes longer, and 100% of responses felt the program was worth its budgetary allocation and should be expanded.

Financial Analysis

A complete set of program costs has been developed including labor, capital, operating, and an estimate for overhead. Costs for the municipal program were analyzed over a six-month period (March to September). A cost for capital (vehicle acquisition) was included using the cost of the vehicle assuming it would be depreciated over the standard timeline for vehicle depreciation (vehicle was purchased in first year of the program). Total labor costs for the period were $17,070, total fuel costs were $768, and total maintenance costs were $400. The cost of the vehicle was added as a capital expense (vehicle cost of $40,000 depreciated over five years and adjusted for a six-month period) adding a total cost of $4,000; $100 was added for miscellaneous benefits (primarily medicare and P&C insurance, positions are non-benefitted). No figure has been included for overhead such as supervision or scheduling; as these costs are fixed regardless of the program's operation, but could expand if the program expands significantly. There is also no factor for donations, as the program does receive donations but these are not tracked in a way that they can be tied directly to the transport program, factoring in the total cost of $30.19 per trip.

Costs for private transport options were completed by utilizing actual app-generated prices for both Uber and Lyft for a one-week period gathered at hour points from 9 am to 3 pm. This represents the normal window of transport that the SMTP would be operating. Four locations were chosen, one in-town destination to calculate in-town transit costs and the other was the average of the three most traveled out of town locations. To account for the cost of tipping a small average of $1 per trip was added to private app based rideshare options. The analysis concludes that the average rideshare cost per-trip for in town trips was $21.97 and the average rideshare cost per-trip for out of town trips was $49.37 for rideshare services.

The weighted average of private app-based rideshare services (in town and out of town rides) comes in at $35.09. It is important to point out that it appears the municipal program costs more on a per trip basis for in-town rides, and private rideshare companies cost significantly more for out of town rides. Adjustments could be made that would increase or decrease the town cost such as not including the cost of capital or overhead, or reducing the cost based on donations received and grant funds utilized to offset the program; however, this "raw" number is important to understand the cost-benefit of the program as a whole. It is likely that when these factors

are included, the town cost per ride for in-town rides is actually lower, perhaps significantly so, than private rideshare options. Furthermore, the town's number is a fixed number and its cost basis for six months of the program is fixed and would increase (on paper) if rides decrease but will also decrease if more rides occur in the same period.

Other Notes

It is worth noting that 40% of program participants reported learning of the program from the Senior Center newsletter, with another 50% hearing from staff and volunteers at the Senior Center and/or word of mouth. This is important for management to understand the value of the newsletter produced as well as the amount of information that is disseminated informally. These two sources accounted for virtually all knowledge of the program. It is likely that wider distribution of the information/availability of the program would lead to increased demand. This does not represent a weakness in the program; however, it does show there are opportunities for additional marketing beyond existing sources that may reach other segments of the community but not currently active at the Council on Aging or not otherwise utilizing any municipal services.

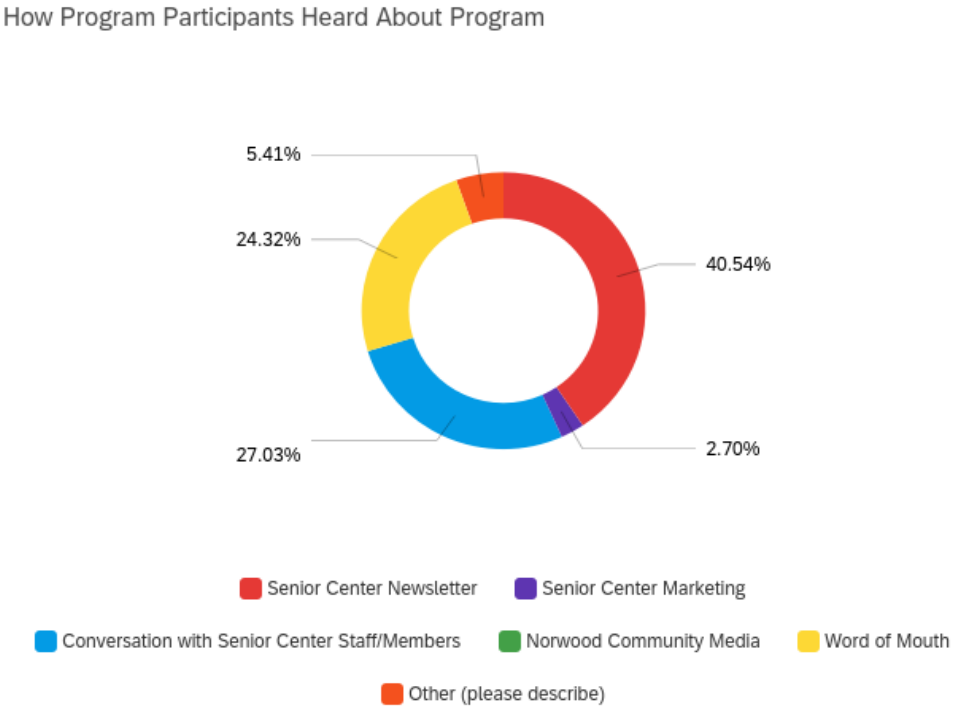

Figure 3. Participant program notification.

Recommendations

Recommendation 1: Expand the program:

As the program has shown value in offering cost-effective solutions, its continued expansion should be pursued. The service should be expanded until total local demand is met and the second phase of appointments in Boston is operational.

Recommendation 1.1: The SMTP does not operate on weekends or holidays, at least as of yet. It is possible that if the program did the costs would be significantly higher; however, the same may be true of private rideshare options where availability may be lower on a holiday. The COA should explore via a cost benefit analysis whether

weekend medical services and/or certain personal services for the limited appointments on weekends would alleviate back-ups and/or offer expanded services.

Recommendation 2: Continue to monitor in-town versus out of town costs:

The in town cost for the SMTP appears to be a higher cost than private rideshare options. This direct cost difference should be analyzed more closely. It is possible that the SMTP could achieve more rides per day.

Recommendation 3: Continue use of part-time/per diem non-benefited staff:

The cost of the program remains competitive with the current staff structure. If sufficient part-time staff can continue to be utilized, the program will continue to operate in its current cost-effective manner. This is important to minimize overall budgetary impact and to continue to grow the program until a point where demand is met.

Recommendation 4: Explore weekend/social options:

Program staff should explore and possibly pilot an operation for seniors to use the service on the weekends (with a charge) for social or other rides. This may develop into a revenue service for the program and will help further alleviate the problems presented with the loss of taxi service in town. While the focus is medical appointments, the loss of traditional taxi service also reduces the ability of seniors to get transportation to shopping and social events on the weekends. While the larger senior bus is occasionally used for community events, many seniors are without transportation options on a weekend to attend smaller social events and having access to reliable, safe transit may further enhance quality of life for many seniors and could even have a stimulating impact on the local economy. This should be explored, modeled, surveyed, and perhaps piloted when the program has a second vehicle/route operating.

Recommendation 4.1: Similar to Recommendation 1.1 this could include personal services appointments that could come at a cost or as a complimentary program (i.e. medical appointments are free and X dollars for a visit to a hairdresser or similar personal service).

Recommendation 5: Purchase electric vehicles:

Currently the operating vehicle is a small hybrid SUV. Future vehicle purchases should be electric to reduce the carbon footprint, reduce maintenance costs and downtime, and reduce fuel costs. This will continue to allow the program to operate in a cost-effective manner and in a more sustainable manner.

Recommendation 6: Pursue donations/corporate sponsorship:

The program has the potential to be a magnet for both donations and corporate sponsorship. Program administrators should explore a mechanism to allow program users to donate if they choose to help offset the cost of the program. This could take the form of a suggested donation or just an annual donation drive, etc. Furthermore, corporate sponsorships should be pursued, in particular focusing on the medical offices/practices where participants are receiving services. With the program trip data available it presents program administrators with a compelling case for donations from practices receiving large numbers of patients. Given the annualized cost of about $37,000 per vehicle, significant portions of the program could be offset by both donations and corporate sponsorships.

Conclusion

This program operates in a cost-efficient manner whereby it matches or exceeds the potential private rideshare options. The SMTP is close to par for costs of in-town rides and significantly more cost-effective for out of town rides. The potential expansion of the program into Boston, a nearby major medical center, would likely yield significantly higher cost savings for participants than any private ride-share options.

The demographic data provided shows that many participants are, generally, lower income. However, this is somewhat skewed by the age of program participants, as noted elsewhere some participants may have retired 30+ years ago and have seen their purchasing power decrease significantly. Program expansion into Boston may yield a higher-earning and slightly younger demographic as much of the program now focuses on appointments that are held locally for health maintenance. The types of procedures offered in a major medical hub could potentially alter the demographics or trajectory of the demographics or program users; however, the program is not demographic based (other than seniors) so this should not impact the utilization or continued operation of the program. It is unlikely that any means-testing would need to be added to the program; in general individuals able to drive themselves to local medical appointments will continue to want that flexibility.

The reported 14% of participants who would have otherwise not made medical appointments are of grave concern for the community (and the wider region). It begs a larger question of how many seniors are not making medical appointments throughout the country due to lack of transportation. Often access to quality healthcare is focused on different demographics and looks at the *availability* of services, and *affordability* of health services, but *transportation* to services is often overlooked, as if the presence of affordable health services everywhere would solve all problems.

Survey data indicates that the program is following its logic model and contributes to the goals outlined therein of increasing health outcomes for seniors and allowing seniors to continue to remain in their homes independently. The program further reduced the cost-burden to participants, in some cases saving participants thousands of dollars annually.

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