Leveraging Home-Delivered Meal Programs to Address Social Determinants of Health for Vulnerable Seniors

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Introduction

- There is growing evidence that social determinants (e.g., nutrition, transportation, and housing) have a significant impact on health and well-being.
- Home-delivered meal programs, such as Meals on Wheels (MOW), can proactively identify and address unmet health-related social needs of vulnerable senior clients.
- We conducted a study to assess the feasibility of a technology-supported meal-delivery service that included client monitoring and care navigation support.

Methods

- Two MOW programs, located in California (Site 1) and Ohio (Site 2), participated in the study.
- Implementation was staggered by 4-5 months across the two sites and included a total of 21 routes, 53 drivers, and 867 home-delivered meal clients.
- Training materials and protocols developed and tested at Site 1 were provided to Site 2 to inform and expedite implementation.

Intervention Protocol

- Figure 1 provides an overview of the intervention protocol.
- MOW drivers were trained to use a mobile application to submit electronic alerts across seven wellness categories when they had a concern or noticed a change in a client’s condition during meal delivery.
- Wellness categories included: (1) physical/mental health, (2) self-care/personal safety, (3) mobility, (4) nutrition, (5) home environment, (6) social engagement, and (7) emergency/911.
- Responses were sent electronically to trained MOW care coordinators (CC), who followed up with clients, determined if assistance was needed, and connected them with necessary health and community services to address unmet needs.
- Data on the number and types of alerts, follow-up responses, and referrals were collected and analyzed.

Results

- Data were aggregated across sites. The average age of clients with alerts was 77 years of age, 70% were female, and 59% lived alone.
- Over a 12-month period, a total of 429 wellness alerts were submitted for 189 clients across sites. Of these clients, 20% had three or more alerts during the study period. The most frequent alerts were for health, self-care/personal safety, and mobility (Figure 2).

Conclusions

- This project demonstrates the feasibility of utilizing routine meal deliveries and mobile technology to identify and address social determinants among at-risk senior meal recipients in two MOW programs.
- This proactive standardized approach may serve as an early-warning system to reduce risk of an adverse event and enable seniors to maintain their independence and remain in their homes and communities.
- Further research is needed to determine the impact of the intervention on health outcomes.
- Efforts are underway to scale the intervention across additional MOW programs to enable further evaluation.