C0085

Wellness 55™

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Summary

- New Brunswick's population is aging rapidly, with significant implications for the healthcare system. Older adults are more likely to have multiple long-term illnesses and are more susceptible to declines in the physical and mental functions needed to complete everyday activities.
- These declines can be prevented or delayed through health education, healthy habits, and community supports. However, finding, coordinating, and understanding the information and services needed to age safely at home may be challenging, especially for older adults without existing community networks.
    - Community health and wellness programs for older adults also tend to have a narrow focus, such as exercise/nutrition or smoking/alcohol use. Healthy aging depends on multiple factors at a time.
- The Wellness 55™ program aimed to help older adults in New Brunswick learn about and improve their health and wellness status across physiological, psychological, and social domains by combining group education and in-person coaching with a digital app platform. The program was designed to address challenges related to limited access to primary care and use existing community/municipal services to help distribute/deliver the model.
    - Participants were invited to meet with members of a clinical team for one-on-one coaching and attend virtual or in-person group education sessions based at one of five community hubs.
    - The digital app platform offered learning modules and goal-setting activities.
- The project evaluated changes in older adults' health and wellness outcomes. Participants used a fitness tracker to better understand, monitor, and improve their health metrics.
- 182 older adults (141 females, 41 males) completed the six-month program. 33% of participants were between the ages of 55 to 64, 43% were ages 65 to 74, and the remaining 24% were ages 76 and older.
- The Wellness 55™ pilot project demonstrated need, interest, and efficacy for a geographically distributed program for wellness. The use of technology was largely successful and used for awareness, training, and accountability/ progress tracking.
- Frailty Index improvements during the program extrapolated to a population of 200,000 show that:
    - ~2,000 "most-frail" older adults could avoid a year of long-term care for an estimated savings of $82+ million.
    - ~14,000 "frail" older adults could avoid half of a hospital stay on average for an estimated savings of $50+ million.
- Next steps include:
    - Improving onboarding, the online training library, and the wellness goal interface.
    - Exploring options for the next research trial, which could include an expanded community sample of older adults or special patient populations including mental health.

HSPP Focus Area	Increasing independence, quality of life, and promoting healthy lifestyles
Project Start & End Date	April 1, 2023 – March 31, 2024
Organization/Agency	Canadian Health Solutions (CHS)
Location	Saint John, Rothesay, Grand Bay-Westfield, Quispamsis, Hampton
Principal Investigator(s)	Dr. David Elias and Dr. Arron Metcalfe

Indicator	Impact / Outcome / Result	Quote
General Health	• Based on survey results, participants showed statistically and clinically significant improvements in **total wellness** as well as in the individual areas of creative, coping, essential, and physical wellness after the program compared to before. • While participants' **overall health and disability** (i.e., difficulties experienced due to physiological or mental health conditions) did not significantly improve, their survey responses relating to "**participation in society**" showed significant increases, indicating that they felt more capable of engaging with their family and community than they were before the program.	*"[W]ithout this study, my wife and I would have never started looking into our health and being more mindful about our every day eating habits."*

Indicator	Impact / Outcome / Result	Quote
General Health	Program health screening identified 12 participants (about 5%) who were not previously treated, or were only partially treated, for health conditions that required additional primary care. These participants were connected to appropriate primary care supports or given navigation assistance to community support services.	

Prevention	• Based on survey results, participants with **higher risk levels** on individual health measures showed clinically significant improvements by the end of the program.
	  ○ On many health measures, approximately 1/3 of participants with higher risk levels improved to **lower risk categories** by the end of the program.
	• A frailty model based on survey results, fitness tracker data, and participants' health conditions showed statistically and clinically significant improvements in participants' **frailty levels** after the program compared to before.
	  ○ The model demonstrated an 8.6% reduction in the **overall frailty** score.
	  ○ 28% of participants who showed "high frailty" before the study improved to "**below high frailty**" by the end of the program.
		"Any changes are better. Any positive change, albeit small, is an improvement over before and I think I've made quite a few changes from there, and my husband has also, so that we might not have had we not joined."

Return on Investment (ROI)	• The program service cost was estimated at about $3,000 per participant during the pilot phase. Based on the potential for reduced costs beyond the pilot phase, the future cost is estimated at $300 per participant, resulting in an estimated cost of $60 million for 200,000 older adults (corresponding to the whole older adult population of New Brunswick).
	• Higher levels of frailty are associated with increased hospitalizations and transitions to long-term care (LTC). The average cost per hospital stay in New Brunswick is estimated to be $7,174 and the average daily provincial cost for nursing care is estimated at $113.
	• If the program is offered to 200,000 New Brunswick older adults with the same impact on frailty reduction as shown in this project, the program could lead to savings of at least:
	  ○ $82 million per year on nursing care in LTC (based on older adults in the "most frail" condition improving their health to "frail" status, thus avoiding LTC), and
	  ○ $50 million per year on hospitalization (based on older adults improving their health from "frail" to "pre-frail" status, which would avoid half of one hospital stay).
	• It is possible that the ROI is overestimated because the likelihood ratios are not an absolute effect measure.
	• Savings estimates do not account for any program effects beyond a reduction in frailty. If this service was delivered at or below a cost of $300 per senior per year on a province-wide basis, the return on investment in both quality of life and saved primary healthcare dollars could be significant and warrants further consideration.	

Methods and Comparison

Participants completed a set of online surveys at the beginning and end of the project that measured their ability to use digital tools, levels of engagement and motivation, levels of psychological health and wellness, physical health symptoms, and medical status. Health metrics from participants' fitness trackers were monitored throughout the project.

Conclusions and Lessons Learned

- Project results suggest that the Wellness 55™ program was effective in improving seniors' overall wellness and self-management of health conditions by engaging them in monitoring their health metrics and making behavioural/lifestyle changes.
- Social and community engagement supported program participation and outcomes. Participants expressed interest in more in-person group information sessions, and many participants joined or created wellness networks that were organized around other community services such as walking groups.

- The need/desire for one-on-one coaching meetings varied among participants. A better understanding of the needs of participants who require increased coaching services versus participants who opt for a more self-directed approach may result in program cost-efficiencies.
- Variable use of fitness tracking devices limited the usefulness of this data for program evaluation.

Recommendations

- Facilitate social engagement and peer support through more opportunities for in-person interaction.
- Leverage the social networks that emerged organically among participants to provide additional program resources (e.g., designated peer organizers).
- Adapt the program structure to account for variability in one-on-one coaching needs.
- Engage with participants to better understand fitness tracker use patterns while emphasizing the importance of consistent daily use.

Next Steps

- Canadian Health Solutions is currently supporting ongoing program development/improvement while the project team seeks additional funding.
- The project team is also exploring opportunities to adapt Wellness 55™ for use in other specific populations (e.g., as a dedicated sleep improvement service and as a wellness tool for individuals receiving therapy for mental health conditions).

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