**What is our intervention?**

BioDem combines a biodome containing specialized air filtration systems with programming that connects older adults with younger generations through a covid-friendly space. The BioDem program coordinator will communicate with already existing day programs to decide the best use of the BioDem space (i.e., physical activities, arts and crafts, cooking, storytelling). We hope to gain new inter-generational connections from volunteer youth facilitators who are hired to engage in activities that provide bidirectional growth and enjoyment.

**What makes it special?**

- **Architecture:** 50x50m to accommodate social distancing. Accessible, plexi shields and barriers for additional safety. Main room with two side rooms and flex space to promote collaboration.
- **Plants and Greenery:** Plants inside BioDem to purify air, green space maintained by members as an activity that helps contribute to mental well-being and environmental health.
- **Ventilation Technology:** HVAC system draws air from outdoors and runs it for 2h before and after BioDem occupancy. HVAC specs: MERC-15 filters; bio-polar ionizer filters; humidifiers; supplemental HVAC system with HEPA filtration systems, fans inside the building, and sliding windows.
- **Greenery:** Plants inside BioDem to act as a pilot study to encourage social connectedness during time of isolations.
- **Accessibility:**设有无障环境,为年长者提供易行的方案直接到他们.

**Who is our target audience and how will it benefit them?**

**Youth and Adults:**

- Volunteers express interest in programming and facilitating events, working with younger and older adults. Volunteers will develop skills that are also needed within the community and collaboration with inter-generational boundaries by engaging with other generations during this time of social isolation.

**Older adults:**

- Older adults in long-term care facilities and retirement homes are disproportionately affected by COVID-19. A novel and adapted solution to help counter these issues and improve the mental health perspective. This innovation will bring accessible solutions and opportunities for COVID-safe infrastructure.

**ACTIVITIES**

- BioDem youth and adult staff work with older adult programs to engage in activities that are enjoyable for all. The external program coordinator organizes programming and coordinates with internal numbers are in accordance with COVID-19 guidelines. The goal is to provide tailored and targeted experience to groups of individuals so they can participate in activities that best suit their interests.

**PERSONNEL**

- BioDem program coordinator reaches out to communities affected by the pandemic to plan events in the BioDem.
- BioDem facilitators are community volunteers who assist in programming and facilitating engaging events.
- BioDem maintenance staff maintains an air filtration system and ensures COVID-19 health protocols are in place.
- Outside program coordinators communicate with BioDem program coordinator to arrange disl and activities for BioDem “field trips.”

**LEVERAGING EXISTING OPPORTUNITIES**

- We are not trying to recreate already existing programs or facilities. Instead, we are partnering with existing community programs to create a novel and safe experience. We believe this is feasible as many programs have funding set aside for “day trips.”
- We are not trying to create experiences for COVID-safe infrastructure.

**COSTS & FUNDING:**

- Building costs are $130/sqft, as purifiers cost $600-2000 each, land is on average $500,000. There are many opportunities for funding.

**PROGRAMMING AND EVALUATING SUCCESS**

- BioDem “field trips” reach over 200 participants.
- BioDem program coordinator reaches out to communities affected by the pandemic to plan events in the BioDem.
- BioDem facilitators are community volunteers who assist in programming and facilitating engaging events.
- BioDem maintenance staff maintains an air filtration system and ensures COVID-19 health protocols are in place.
- Outside program coordinators communicate with BioDem program coordinator to arrange disl and activities for BioDem “field trips.”
- Outside program members engage in symbolic activities with the youth and other ideas for tailored BioDem activities.

**Table:**

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