WI-C.A.R.E: Wifi Computer-Assisted Remote Eldercare, Year 2

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As America ages, it's estimated that by 2021, nearly 45% of the country's population will be over the age of 50. While retirement years may be filled with travel, hobbies, and time with family, it is also traditionally a time of increasing healthcare needs and decreasing independence. COVID-19 has challenged the congregate care model, making it even more crucial to find effective solutions for senior independent living. The purpose of this study was to analyze what seniors need most to maintain their independence and then to develop technology to directly address that need. The research project has two main components: -Surveys were distributed to both seniors and healthcare professionals who work with seniors to gather input on how technology could be developed to provide improved care for seniors and help them live independently longer. This activity generated many ideas that can help guide priorities for this project both now and in the future. -A tool was developed using Arduino to track prescription consumption and timing using weight sensors that electronically communicate medication use to family members and doctors. Second, a tool was developed that measures the distance from a cane or walker to another object, making a beeping sound if within 6 feet. This assists with both social distancing and fall prevention goals. Both of the project goals were achieved. The next steps for the project include refining the tools and developing an alert system that reminds seniors to take their medications at the prescribed times, increasing their effectiveness.

Awards Won: