Opportunity and Significance

- Eighty-six percent of all health care spending in 2010 was for people with one or more chronic medical conditions.
- The total costs of heart disease and stroke in 2010 were estimated to be $315.4 billion. Of this amount, $193.4 billion was for direct medical costs.
- To optimize public health’s efficiency and effectiveness, Telehealth delivers health-related services and information via telecommunications technologies and is a valuable tool to provide health care system intervention to chronic patients.

Technical Approach

- When a new Telehealth user is registered, they are assigned specific thresholds determined by their clinician. These thresholds define ranges in which the patient’s vital readings should lie within.
- If the patient’s readings fall outside of the defined safe ranges, the patient and clinician are both alerted to take appropriate action.

Technologies

- The mobile app was built using the Ionic framework. This framework is composed of the AngularJS JavaScript library and HTML5.
- The web server is built on a Microsoft Azure virtual machine using the ASP.NET framework. This framework is built on the C# programming language.
- The Withings API’s were used to access Telehealth users’ Withings account data to include in the Telehealth database.
- The Zoom API’s were used to schedule and cancel video conference meetings between Telehealth users and their clinicians.

Next Steps for Development and Test

The Telehealth Patient System is to be integrated into the larger Telehealth ecosystem, consisting of the Telehealth Clinic System under development by Urban Science.

Integration will require reworking the mobile application to interface with the larger ecosystem.

Commercialization Plan & Partners

This product was built for Urban Science to use to obtain new clients and expand their business into the healthcare industry.

If Urban Science determines that the clientele and opportunity exists, they will continue to build on the Telehealth ecosystem to transform it into an enterprise grade software solution.

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