Executive Summary

It is no secret that hypertension is a prevalent medical condition in Jamaica. Research has shown that an estimated 1 in 4 Jamaicans suffers from the condition. Many Jamaicans have family members or friends who are hypertensive. Hypertension, commonly called high blood pressure, can go undetected for years and as such has been infamously named the silent killer. Hypertension sadly often allows an individual to be susceptible to other ailments such as heart disease, heart failures, kidney problems, vision problems and many more.

But why do so many Jamaicans fall prey to the disease even though it is so common? Simple. Lack of hypertension health literacy. Health literacy can be defined as having sufficient knowledge about a medical issue so you can make informed decisions to keep yourself healthy. Many Jamaicans know of hypertension, but many do not know enough about hypertension to keep themselves healthy. In essence, because of a lack of hypertension health literacy, many Jamaicans become susceptible to a medical condition that can easily be thwarted by simply applying the correct preventative measures.

However, many Jamaicans are not presented with knowledge about hypertension more readily. Many more don’t have access to the information or are not inclined to seek out this knowledge because either they believe they are not at risk and/or don’t think about hypertension at all. Sighting these factors, a solution has been highlighted to bringing hypertension-related information to Jamaicans. This medium is through mHealth and more specifically mobile health apps. Mobile health applications are a budding field in medical technology and provide an avenue to reach individuals in the growing technological world. This study aims to explore the effectiveness of mobile health applications in increasing hypertension health literacy of Jamaicans, with the belief it could lessen the prevalence of hypertension amongst Jamaican adults.

Using a one-group pretest-posttest design, 20-25 adults were selected for the research study. These individuals were given a hypertension-based questionnaire to gather data on demography, hypertension and technology acceptance. They were allowed to used a newly developed hyptension mobile app aimed at increasing their hypertension literacy. Finally, these individuals were given a quiz containing the same material from the initial questionnaire to note changes/improvements in their knowledge of hypertension since using the mHealth app provided.

The results were analyzed and a marginal increase in hypertension literacy levels was found. Results showed 12.5% higher health literacy scores from the older participants. An initial 95.5% of participants were willing to use a hypertension app and 85% found the newly developed app useful. Overall, the survey recorded 13% increase in hypertension literacy levels. This research suggests that mobile health applications can be useful to educate as well as help Jamaicans manage and/or control hypertension. In addition to this, the research also suggests that Jamaicans are very much willing to use a hypertension-focused mobile app.

Nonetheless, several factors affected our research process, most notably the COVID-19 pandemic which reduced our population sample size and resulted in a convenience sample approach. Another limitation was having our application only designed for Android devices. This move skewed our research criteria to some extent. Application feedback suggests further testing be done with the mobile health applications concerning content, design and interactiveness to encourage continued use by users. It is recommended that much more research, time and vastly more application testing be implemented on future mobile health applications to provide the best possible service and care to Jamaican citizens.