Introduction

Hypertension and Diabetes are the common health-related killers in society. These kinds of diseases do not happen in a short period of time but have an incubation period in our bodies.

In fact, many diseases can be detected by our body signals like heart rate, body temperature. Some health care devices are well developed to measure these signals. However, such devices only can provide figures to users, and the users cannot have an overview of their body status.

In our project, an overall monitoring system application will be well developed for users and doctors. Blood pressure and diabetes figures can be input by users and analyzed by our application system. The collected data will be compared with cases of other patients, once the user was found in a dangerous situation, a message will show up and the health status of patient will change to red color in doctors’ client list.

Aims and Objectives

• To analyze and compare the blood pressure and diabetes data with cases.
• To show users’ health status after analyzed the data.
• To provide an effective and efficient communication channel between patients and doctors.
• To create an environment/system to enhance people to care more about their health.

Specification

Acquired Hardware:

Device with iOS 5 or above:
- iPhone
- iPad
- iPod Touch

Device for data measure:
- Sphygmomanometer
- Blood glucose meter

Methodology

Data Comparator

If users were determined as normal people, the system will compare with the following cases:

If users were determined as diabetes patients, the system will compare with the modified cases as the research found that diabetes patients’ blood pressure is higher:

Age 20-29:
- Diabetic patients SBP and normal SBP different is +4.66 mmHg.
- Diabetic patients DBP and normal DBP different is +3.28 mmHg.

Age 30-39:
- Diabetic patients SBP and normal SBP different is +4.57 mmHg.
- Diabetic patients DBP and normal DBP different is +3.79 mmHg.

Age 40-49:
- Diabetic patients SBP and normal SBP different is +4.21 mmHg.
- Diabetic patients DBP and normal DBP different is +3.50 mmHg.

Age 50-59:
- Diabetic patients SBP and normal SBP different is +5.17 mmHg.
- Diabetic patients DBP and normal DBP different is +3.28 mmHg.

Result

Remote Health Monitoring System Using a Mobile Phone (MWH2-12)

Name: Ho Chun Wà, 10472160
Lam Ming Tong, 10066167

Supervisor: Prof. Mow, Wai Ho