# Tablet Education Application: Overweight, Obesity, and Weight Loss

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## 1 Background

The Johns Hopkins Hospital has been creating applications on computer tablets as a teach back method for patients while in the hospital. The patient learns facts from the application, are asked questions on the content, then have to answer correctly to continue and pass the multiple choice or true false questions in order to be considered health literate in the topic. Overweight, obesity, and weight loss was one subjects that needed to be addressed.

Obesity is a condition in which a person has an abnormally high and unhealthy proportion of body and can determined by Body Mass Index (BMI). BMI is divided into four different range categories: underweight (below 18.5), healthy weight (18.5-24.9), overweight (25.0-29.9) and obese (30.0+). The percentage of adults age 20 years and older have been increasing each year in the U.S. About 68% of U.S. adults age 20 years and older are currently overweight or obese.

Many Americans are not very physically active. One reason is that many people spend hours in front of TVs and computers doing work, schoolwork, and leisure activities. Another reason is that a person's environment might not have easy access to neighborhood sidewalks or safe places for recreation. Not having area parks, trails, sidewalks, and affordable gyms makes it hard for people to be physically active. Additionally, people often say that they do not have time to be physically active because of long time spent commuting, working, or taking care of others. All these factors can contribute to people being overweight and obese..

Obesity accompanies many other co-morbidities such as diabetes type 2, heart disease, and certain cancers and can further complicate one's health while in the hospital by slower healing time and increased infection rate.
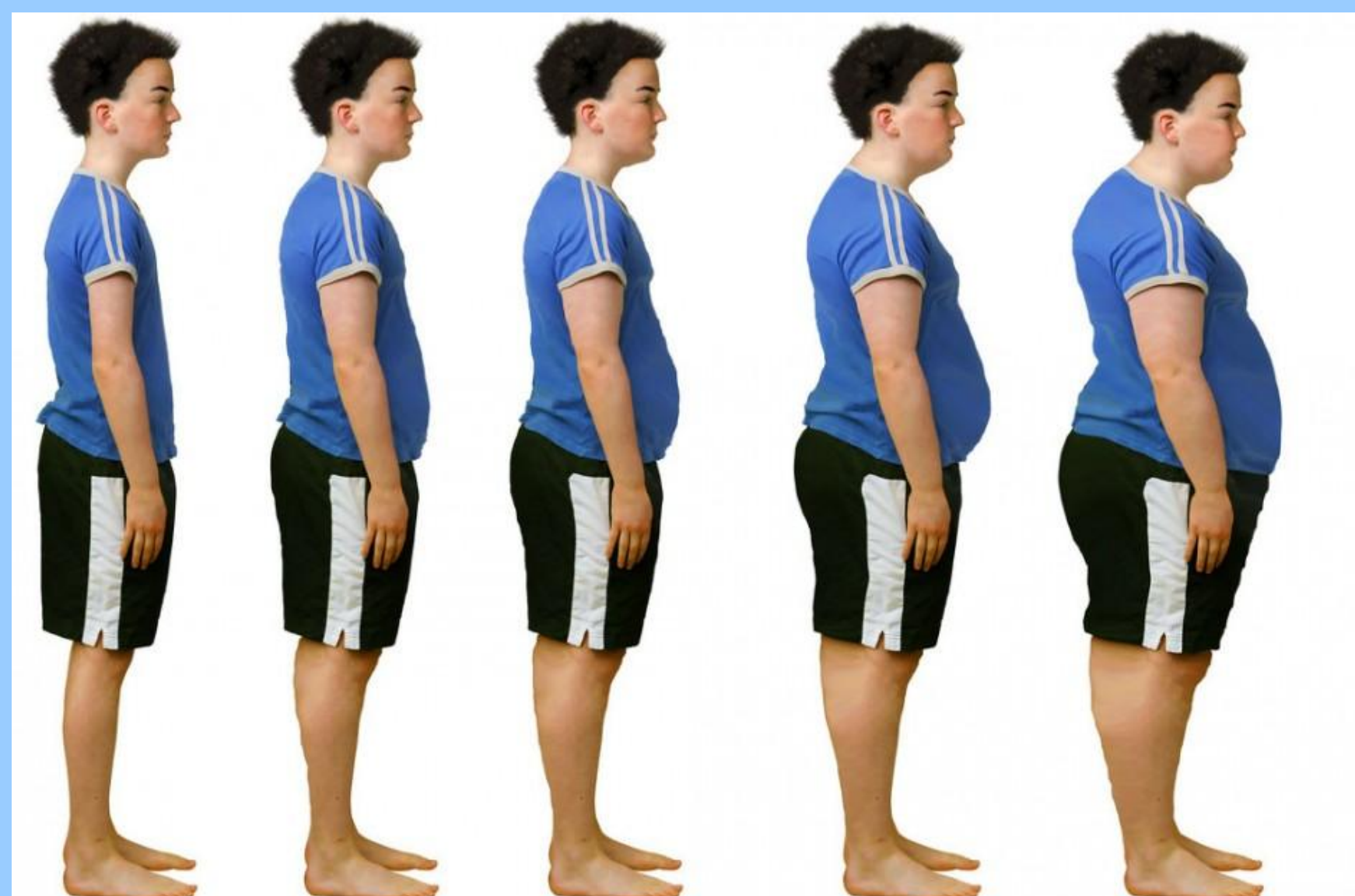
Increasing rates of obesity in U.S. according to CDC.

## 2 Methods

This project was started in March 2013 and is not yet complete. The facts, questions and answers, and pictures have all been compiled and structured in an outline, however the data bank, and application transfer with voice over need to be finished. The latter half may be finished at another time by me or another Fuld Fellow..

Steps for Tablet Education Application
- Find facts consistent with CDC and NIH
- Create a question to accompany the facts
- Create a multiple choice or true/false question for the facts
- Find pictures for each fact
- List resources

All data and questions are presented on a tablet in the hospital for a teach back method for patients to learn about their condition.(s).
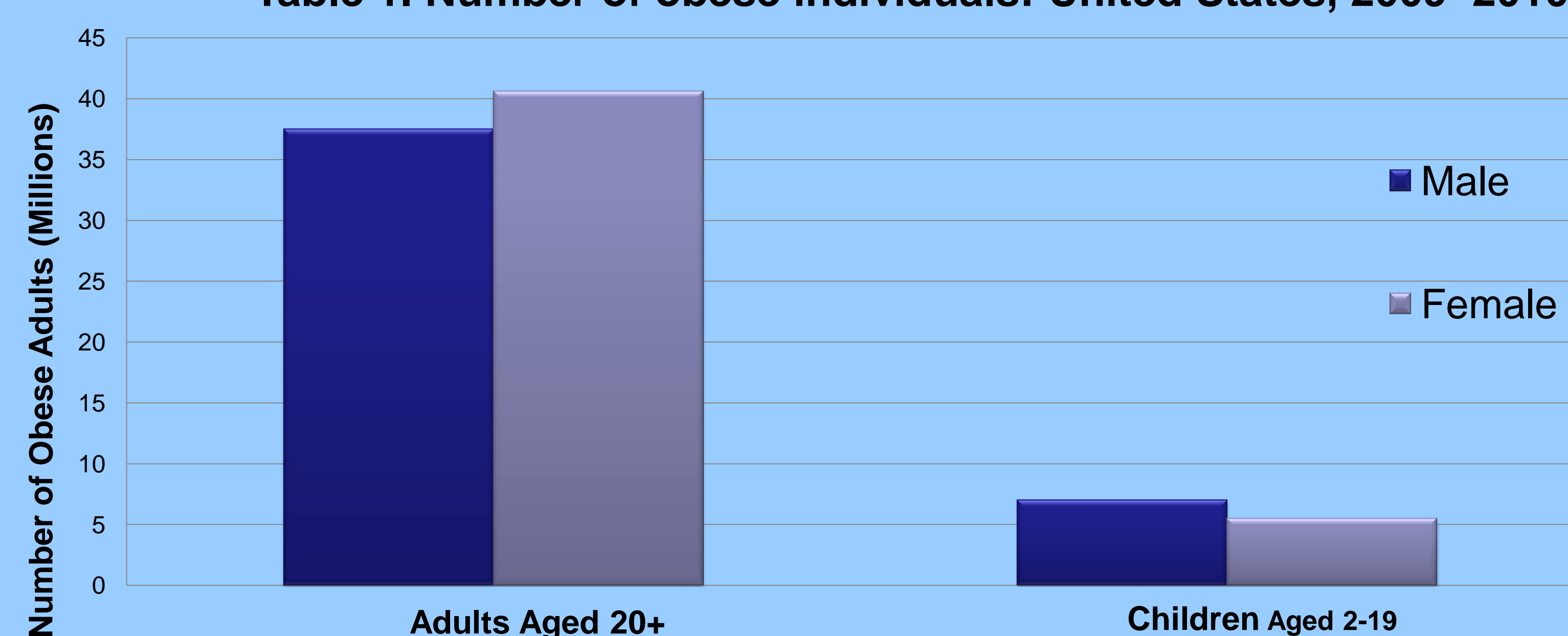
## 3 Prospective Results

This project was not an experiment , but rather the development of a teach-back tool that will be utilized at the Johns Hopkins Hospital. Therefore, there is no concrete results for the tablet especially since is it is in the middle of development. The tablet application on the education of overweight obesity and weight loss holds many prospective purposes.

The tablet is a user friendly, touch device that frames questions about overweight, obesity, and weight loss at a fifth grade level. It also reads aloud to the patient in case he/she is illiterate. The facts are short and to the point and after each fact is presented a question is framed. If the question is answered correctly, the patient moves on to the next question. If the patient answers incorrectly, the patient is led back to the fact to re-read and will answer the question until answered correctly. At the end there is a more comprehensive test that the patient needs to answer correctly before a medical intervention and/or before discharge.

Many patients come into the hospital with an ailment or condition that is complicated by the effects of overweight and obesity. This application is a tool to help patients treat this condition as a primary or secondary concern. The results in this education is hoped to increase knowledge about overweight and obesity and decrease the complications in the hospital and at home.

**Table 1. Number of obese individuals: United States, 2009–2010**

Number of Obese Adults (Millions)

| | Adults Aged 20+ | Children Aged 2-19 |
|---|---|---|
| Male | ~37 | ~7 |
| Female | ~40 | ~5 |

## 4 Conclusions

- The tablet is a user friendly teach back device
- It can be used as an education tool before discharge and/or before procedure
- Tablets are currently being used at Johns Hopkins Hospital
- This particular tablet application is incomplete

## 5 Future Directions

- Complete tablet application
- Create more tablet applications for use at Johns Hopkins Hospital for other conditions
- Future research to indicate effectiveness of tablet teach-back method
- Improve the information when newer data is present

## 6 References

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