



**A JOINT PROGRAM
OF
THE CENTRAL HEALTH BOARD (CHB)
AND
THE CENTRAL MEDICAL BOARD (CMB)**

MINI - HEALTH SCREENING REPORT 2009

In the holy month of Ramadhan 1430 AH, August 2009, a fifth consecutive yearly mini-health screening program was conducted for members at the KSIJ Dar-es-Salaam Mosque Compound for both gents and ladies. The program was jointly organized by the Central Medical Board (CMB) of KSI Jamaat of Dar-es-Salaam and the Central Health Board (CHB) of the Federation of Khoja Shia Ithnasheri Jamaats of Africa.

Preamble

Our community of Khoja Shia-Ithnasheri Jamaat has a rising incidence of age related and life-style related diseases as noted during the previous mini-screen programs. As is the situation then and now, the most common risk factors and/or morbidities exhibited by our members are; hypertension, Type II diabetes, Coronary diseases, and obesity, all of which are modifiable.

The main aim therefore of such screening programs is to identify at an early stage individuals who are at high risk of the common morbidities and factors mentioned above, so that effective treatment and lifestyle changes can be put in place to alter the natural cause of diseases and thus improve patient outcomes, similarly arouse health awareness in our community.

Objectives

- **Broad Objective**

To determine the prevalence of diabetes, hypertension, abnormal Body Mass Index (BMI), and exercising in the Khoja Shia-Ithnasheri Jamaat of Dar es Salaam, Tanzania.

- **Specific Objective.**

1. To determine the prevalence of existing medical conditions in the community.
2. To determine the prevalence of addictions versus Sex and Age.
3. To determine the prevalence of elevated BMI versus Sex and Age.
4. To determine the prevalence of high blood sugar versus Sex and Age.
5. To determine the prevalence of high blood pressure versus Sex and Age.
6. To determine the prevalence of Exercising versus Sex and Age.

Methodology

The mini-screen was conducted at the KSIJ DSM Mosque for the Gents and ladies, running concurrently at separate compounds. Various stations were set up in the respective areas. The stations included Registration, Calculating the BMI by assessing Height and Weight, Blood Pressure reading and Random Blood Glucose reading.

After which, the participants each would sit with a doctor for consultation and reading of their results.

The persons who were recording the parameters were medical students & members of Jaffery Medical Students Association (JAMSA).

Those participants whose blood pressure (BP) was found to be first time high (or low) were requested for follow up the very next day to re-monitor their BP. On the other hand, participants with first time abnormal random blood sugar (RBS) were assigned a fasting blood glucose test on a specified date for further monitoring.

Parameters used for analysis can be found on page 10 of this report

Results

➤ Participation

A total of **944 participants** took part in the screen of which 61% were males (Fig. 1).

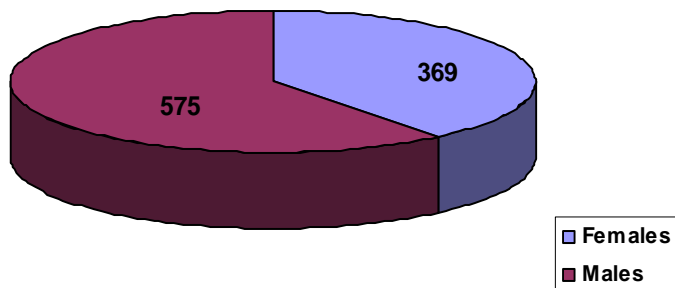


Figure 1

23% of the individuals screened were from the age group 46 – 55 years, while only 2% represented the less than 16 age category (Fig. 2)

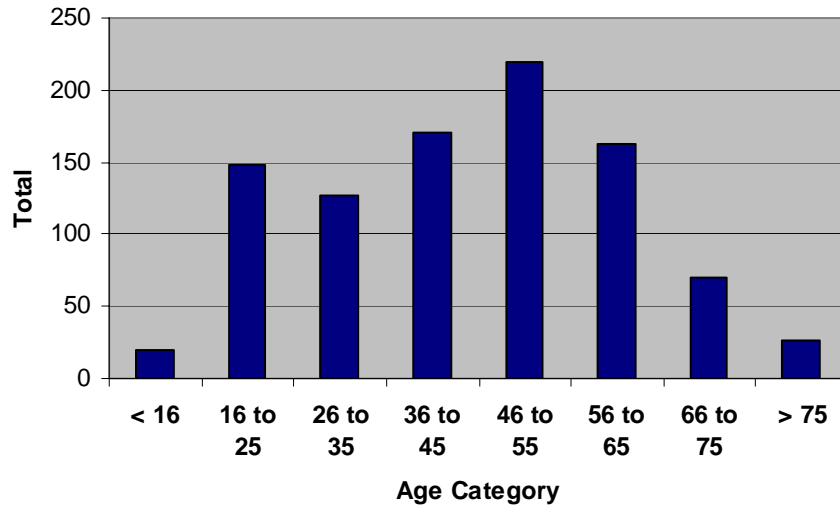


Figure 2

1. Pre-existing Conditions

Apart from the others category, hypertension was most common pre-existing illness reported. CAD was the least common. Other pre-existing illnesses included arthritis and thyroid disease (Fig. 3).

Figure 4 illustrates the breakdown of pre-existing conditions by age groups. However, it is also important to note that when comparing the number of participants in each age category, the greater **risk** for hypertension lies with participants aged 66 and onwards, depicting nearly 40% of cases in contrast to the mid- aged participants (46-65), reflecting only 17% of cases.

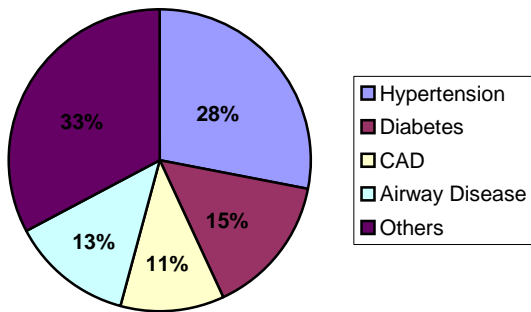


Figure 3

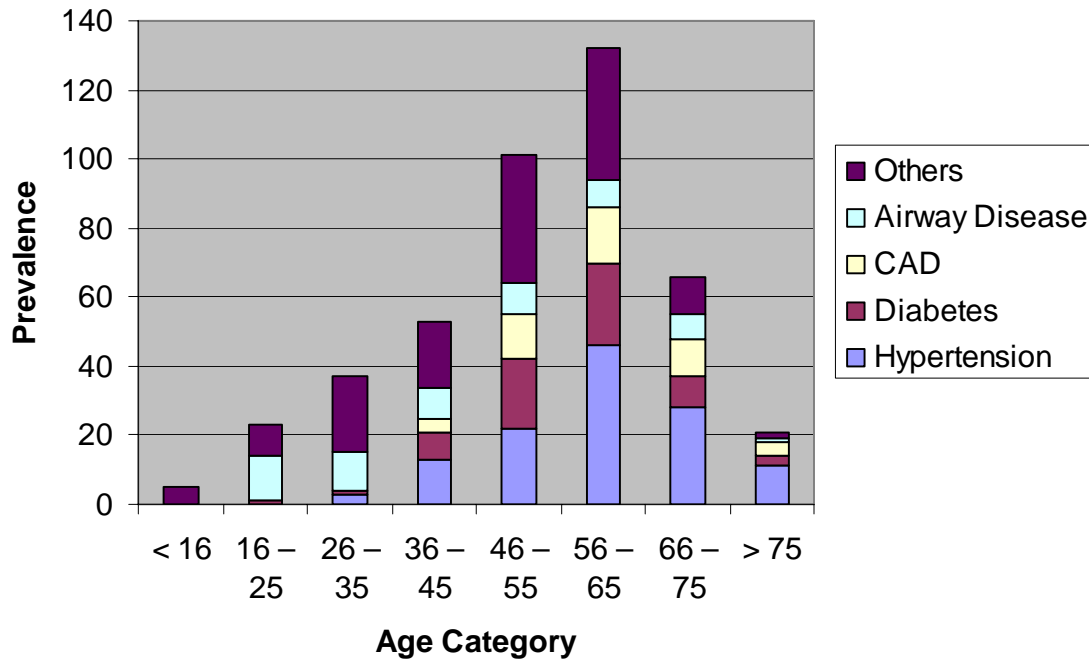


Figure 4

When comparing pre-existing illnesses across gender, hypertension, diabetes, CAD, and airway disease were more common amongst males than females. However females had a higher count of other pre-existing conditions-majority of them suffering from thyroid disease (Fig. 5).

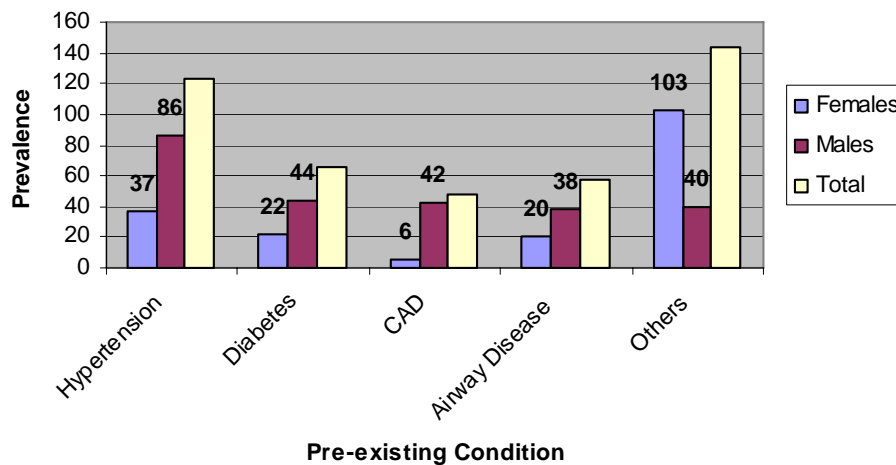


Figure 5

2. Addictions

Smoking remains the most common addiction of the community, with one smoker even in the age group of under 16 years. Smoking was most prevalent in the age group 46 – 55 years (26.8%). Use of pariki/sopari was also more common in the same age group. Other addictions included chocolates and sweets (Fig. 6).

All smokers who reported the addiction were males. Addiction prevalence was very low in females compared to males.

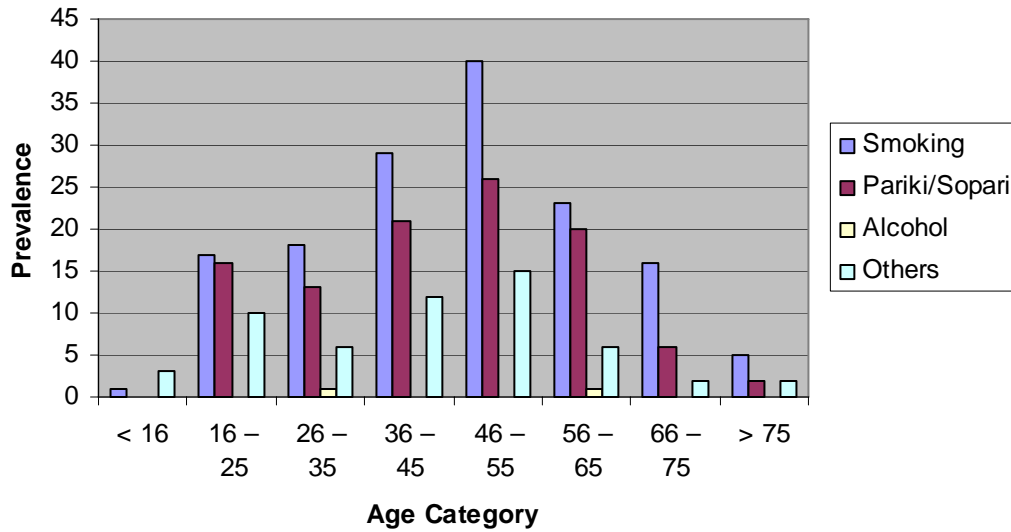


Figure 6

3. Body Mass Index (BMI)

The body mass index (BMI) is a calculated numerical measurement which compares a person’s weight and height. It is used to estimate a healthy body weight based on how tall a person is. It is the most widely used tool to identify whether individuals are underweight, normal weight, overweight or obese.

The BMI of all participants was calculated and recorded.

Almost two-thirds of the screened individuals (66%) were above the normal BMI value, i.e. either being overweight or obese. A few (27%) had normal BMI value and the rest were underweight (Fig. 7).

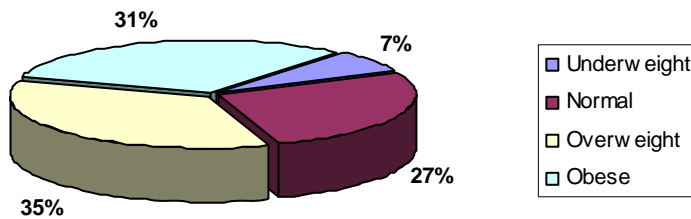


Figure 7

High BMI value was more common in the age group 46 – 55 years (Fig. 8). On the other hand, 40% of participants aged 16 and below were underweight. This proportion is significantly high.

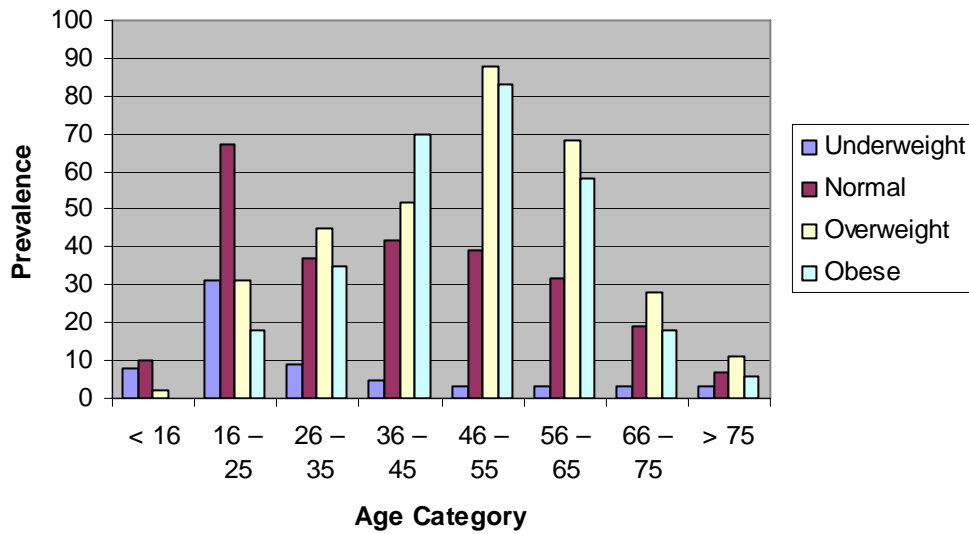


Figure 8

When comparing BMI across gender, more females (34%) were obese than overweight (Fig. 9), while in males there was a higher percentage of overweight (37%) than obese men (Fig. 10).

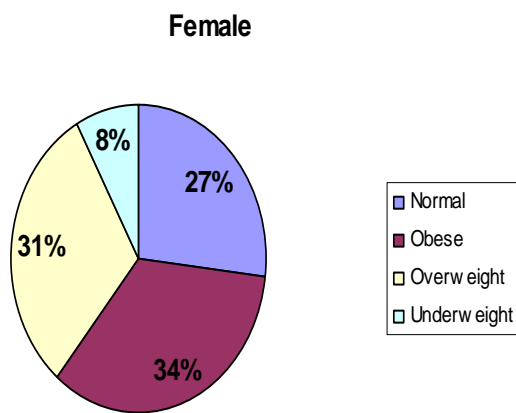


Figure 9

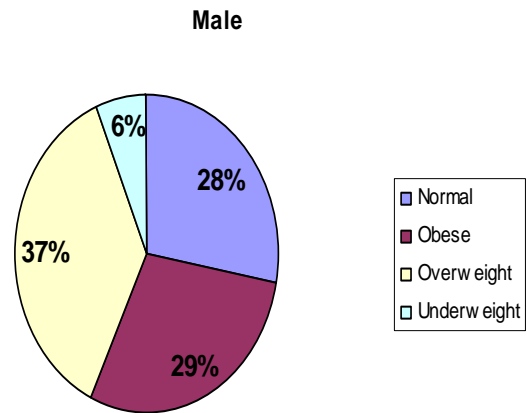


Figure 10

4. Blood Glucose

Most (70.5%) of the screened individuals had a normal blood glucose level. Out of those who were seen to have a high blood glucose level, majority (29.9%) were in the age group 56 – 65 years (Fig. 11).

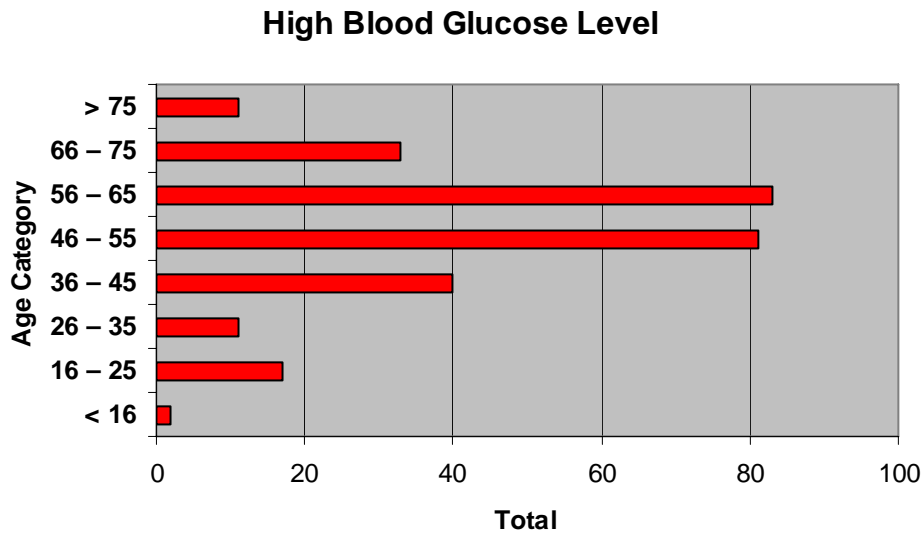


Figure 11

5. Blood Pressure

83% of participants across the different age categories had normal blood pressure at the time of screening. Out of the remaining who did have high blood pressure, most were of the mild form (Fig. 12)

There was no significant difference seen between the blood pressure status among females and males, 85.8% of females and 81.5% of males having a normal blood pressure.

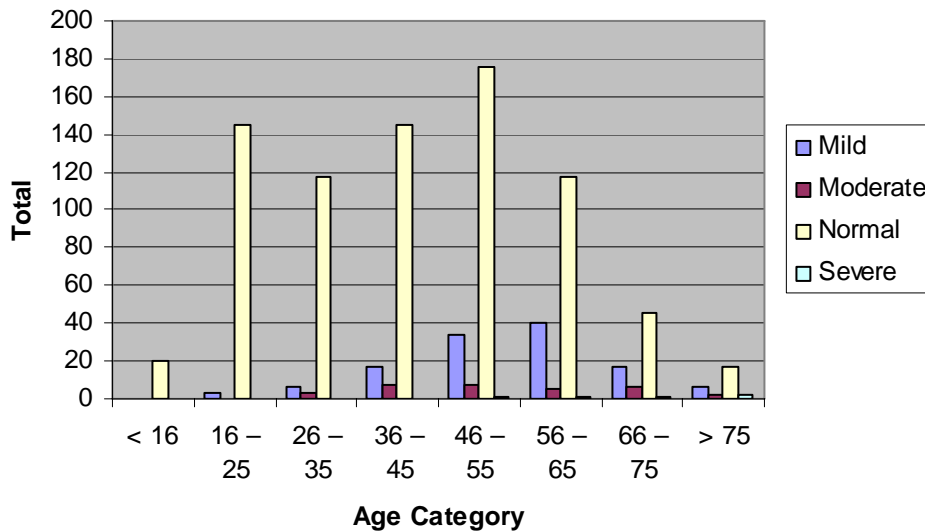


Figure 12

6. Regular Exercise

Out of the 944 screened participants, only 414 (44%) individuals reported of engaging in some form of sport and/or physical activities.

Among females, 36.0% exercised regularly while in males, 48.9% exercised regularly

When comparing the level of activity across the assigned age groups, as expected, children and youths reported higher level of activities than adults. However, it is relevant to note that members aged 66 and above were far more active than members aged between 36 and 65 years (Fig. 13).

This pattern reflects the sedentary lifestyle experienced by the majority of our adults, since the highest number of screened participants, came from these age categories (Fig. 2)

Level of Activity for Each Age Category (%)

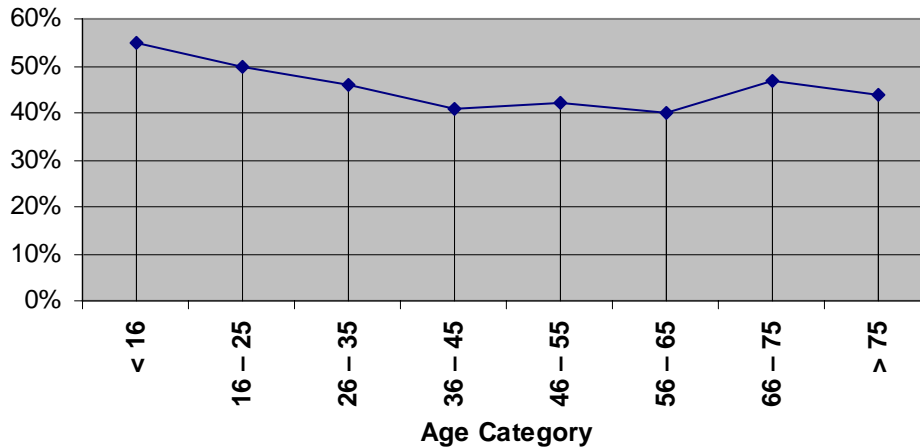


Figure 13

Conclusion

- Over the last three mini-screen programs, average participation has been at 938, of which 62% have been males.
- Overall, 9% to 13% of Dar-es-Salaam Jamaat members are benefiting from the screening programs conducted to date so far.
- Hypertension was the most common pre-existing condition.
Elderly participants were at greater risk of hypertension than younger members. This is expected, since age plays an important factor in determining morbidity, whereby, the greater the age, the more chances of having a medical condition.
- The most common addiction is smoking, which stretches from the very young to the elderly. This pattern has been identical over the last three years. However, considering the average number of participants being almost similar over the last three years, figures sadly indicate more smokers this year than the previous years.
- In addition, a significant number of participants were also addicted to pan/pariki and sopari.
- Alcohol consumption by one participant was also recorded. This figure should not be treated apathetically.
The adverse health outcomes of drinking are clearly evident. However, more importantly, this area needs serious confrontation based on religious grounds, since it may suggest that there are other participants who could be into this harmful habit, that were reluctant to admit to this behavior, or other individuals out there who urgently need the community's help and guidance to pull them out of this habit once and for all.
- BMI statistics show that two third of participants were either overweight or obese. Again, such figures have been almost identical over the last three screening programs.
Also, out of the 20 participants aged 16 and under, 40% were underweight. This figure is not representative of all underweight members of same age, currently present in our community. However, it indicates that a number of youngsters are not receiving the required calorie intake needed for growth and healthy functioning of their bodies. This could be due to the families' low socio-economic status that cannot bring enough food to the table. It could also mean a lack of awareness on healthy nutrition on the parents' part. Or it could also mean a young individual may be suffering from nutritional related morbidity.
- High blood glucose affected middle to higher aged (46-65 yrs) participants than younger aged participants. Males had higher prevalence (161) of hyperglycemia than females (117).
- Exercise and physical activity levels indicate that middle aged participants were not as active as some of their elders. There is a decrease in activity levels among participants aged 36-65 yrs. The sedentary lifestyle could reflect the pressure of fulltime jobs, working late hours, as well as family commitments, leaving little or no time for exercise and other physical activities.

Acknowledgement:

The Central Health Board (CHB) wish to thank most sincerely the medical students & members of Jaffery Medical Students Association (JAMSA) for fully participating in the screening program and assisting in compiling this report. We also wish to thank the community doctors, volunteers and Ebrahim Haji Charitable Health Centre (EHCHC) management & staff for extending their valuable time and participating in the screening program along side with JAMSA.

Parameters used for analysis were:

1. Blood Pressure Ranges

Blood Pressure	Systolic	Diastolic
Normal Blood Pressure	< 140mmHg	< 90mmHg
Mild Hypertension	140-159mmHg	90-99mmHg
Moderate Hypertension	160-179mmHg	100-110mmHg
Severe Hypertension	≥180mmHg	≥110mmHg

2. Blood Glucose Ranges

Blood Glucose	Range
Normal	3.5-7.0 mmol/L
Hyper Glycemia	>7.0mmol/l

3. Body Mass Index (BMI) Ranges

Body Mass Index	Range
Under Weight	<20
Normal Weight	20-24.9
Over Weight	25-29.9
Obese	≥30

$$BMI = Weight / (Height \text{ in meters})^2$$