BMI SURVEY: CASE STUDY AT THE MOH HEADQUARTERS IN 2008

1.0 INTRODUCTION

Body Mass Index (BMI) is a simple ratio of mass per square height of an individual. The unit for measuring BMI is kg/m^2. BMI is a reliable indicator of total body fat, which is related to the risk of disease and health. The score is valid for both adult gender but it does have some limit. The limits are:

- It may overestimate body fat in athletes and other who have a muscular build.
- It may underestimate body fat in older persons and others who have lost muscle mass.

BMI indicates that one is underweight for BMI **less than 18.5**; normal BMI lies between **18.5 and 24.9**, overweight lies between **25- 29.9** and obesity ranges from **30 and above**. The risk factors associated with BMI are high blood pressure (hypertension), high cholesterol build up, high blood glucose (diabetes), heart disease and physical inability. As part of the efforts to reduce the risk of these diseases among MoH staff, they were given presentations on RHN. These presentations were intended to create awareness among staff to practice healthy lifestyle and thus improve their chances of being healthy.

2.0 BACKGROUND

With the increase in non- communicable diseases and attempt to find the trend of these diseases and curtail their emergence so as to create a pool of healthy human resource base, the RHNP Unit conducted a study on BMI in 2008. The case study was the MoH Headquarters. The BMI of 82 members of staff at the Ministry of Health Headquarters was determined by measuring their mass as against the square of their height. The study was conducted to ascertain the extent of BMI scores attained by the working staff. Moreover, it was to ascertain the extent to which the working force has been able to adopt and apply RHN to cause a positive health change. The data collected was then worked upon to find the mean BMI for age intervals of 20-29, 30- 39, 40-49, 50-59, 60-69 respectively.

3.0 OBJECTIVE

- To ascertain the extent to which staff of MoH have adopted and practiced RHN, and the possible health impact on them.

4.0 METHODOLOGY

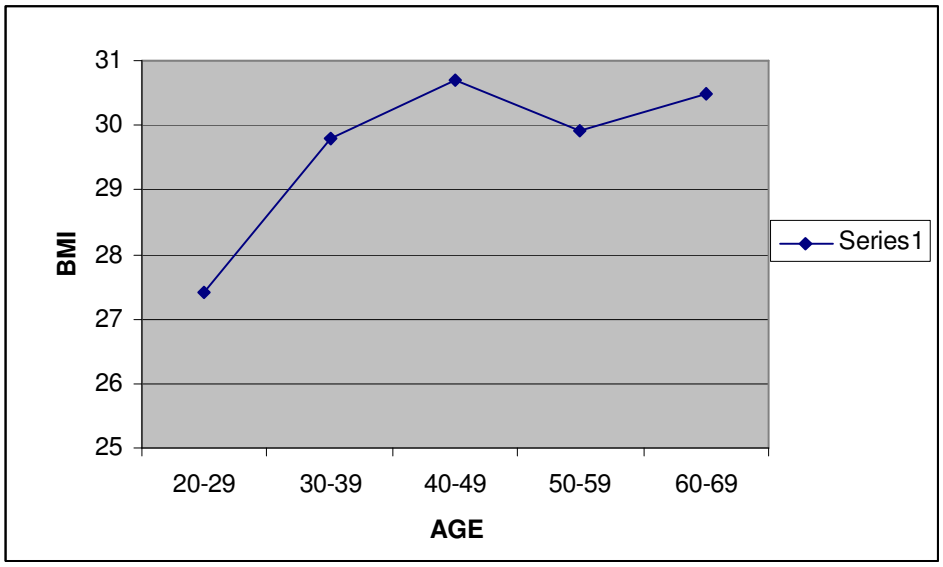
About six months after the presentations on RHN to the members of staff, a simple health check was conducted. The mass and height of 82 members of staff of the MoH was conducted using a mass balance and measuring tape respectively. BMI was determined by dividing the mass and the square of the height. The staffs' regular means of transport and diet intake was also recorded to strike the interdependence between these and the corresponding BMI. The distribution was scaled down to calculate the mean BMI as against the corresponding age interval. The age intervals were 20-29, 30- 39, 40-49, 50-59, and 60-69. A graph of BMI against age interval was drawn to determine the trend of adoption and practice of RHN by inferring from the sinusoidal graph.

5.0 TABLE OF RESULTS

AGE GROUP	MEAN BMI
20- 29	27.4
30- 39	29.8
40- 49	30.7
50- 59	29.9
*60- 69	30.5

NB: **** this category is actually from 60-63. The pensionable age is 60 but can one be retained to serve for more years if one's service is needed.***

6.0 GRAPH



Graph of mean BMI against age intervals of MOH staff in the year 2008.

7.0 ANALYSIS

From the graph, the age range of 20-29 has a corresponding mean BMI of 27.4; 30-39 has a mean BMI of 29.8; 40-49 has 30.7; 50-59 has 29.9; and 60-69 of 30.5. The graph shows an increment in BMI from 27.4 to a maximum at 30.7 and then recedes to a BMI of 29.9 and eventually increases to 30.5.

It could be deduced that those in the age range of 20-29 are heavy weight; 30-39 are very heavy; 40-49 are obese; 50-59 are very heavy; 60-69 are obese.

From the RHNP point of view, regular exercise and intake of proper diet, mainly fruits and vegetables, as well as enough intake of water should leave one with a BMI of about 18.4- 24.9 (healthy weight). It could be inferred that none of these age groups have been able to attain this healthy weight.

8.0 CONCLUSION

- The results indicated that most members of staff, having received presentations on RHN, are aware of the concept but it is seems most of them are not practicing the

RHN Concept yet. Even if they are, it is not enough to give them the required healthy weight.

- MOH workers are therefore likely to be prone to BMI associated diseases such as hypertension, arteriosclerosis, diabetes, kidney impairment and certain cancers.

9.0 RECOMMENDATION

- In an attempt to get members of staff to board the RHN vehicle, a supportive environment should be created. The Ministry could begin by providing water dispenser in every office to enhance regular intake of water among members of staff.
- In addition, education on RHN should be extended to reach food vendors around the ministry. This will go a long way to streamline what kind of food they serve to workers.
- Since exercise is one important element that goes a long way to burn the fat in us and keep us in shape, the ministry should endeavour to establish a mini gym, shower room and/ or organize weekly exercise that will rope all members of staff into this keep fit club.
- Strict adherence to the RHN concept is the only God-given medicine that can bring healing and holistic health to the entire staff of the Ministry of Health.
- In future, the BMI study should be specific, not generic; so as to know which category of staff is more prone to BMI related diseases. This will then serve as an alarm for them to consider more proactive approach to practicing RHN.