

# National Health Survey 2010

By  
 Ms Lily Chua Ai Vee  
 Epidemiology and Disease Control Division  
 Ministry of Health

The Ministry of Health (MOH) is conducting the National Health Survey (NHS) 2010 between March and June 2010. Data collected will provide baseline information for the National Healthy Lifestyle Programme<sup>1</sup> and create a basis for future development of health programmes that would help to improve the health of Singapore residents.

The NHS 2010 is the fourth in a series of surveys conducted once every six years to assess and monitor the health of the Singapore population. The latest survey content has been updated to accommodate changes in the healthcare environment.

## Survey Content

The survey content for NHS has evolved through the years. In 1992, there were only a few topics of interest. Today, the list of topics has expanded to include elderly health, mental health and care-giving.

For NHS 2010, the diseases, medical conditions, and health indicators to be studied include:

- Alcohol consumption
- Diabetes
- High blood cholesterol

- Hypertension
- Obesity
- Smoking
- Physical activity
- Hearing loss
- Mental health
- Preventive cancer screening
- Self reported health conditions  
 e.g. asthma, arthritis.

## Sample Design

The NHS 2010 covers non-institutionalised Singapore residents (Singapore citizens and permanent residents). The sampling plan follows a multistage design.

At the first stage, sampling divisions within close proximity of the designated survey sites are chosen. Dwelling units of each selected sampling division are then stratified by house-type and systematically selected at the second stage. The eventual sample is representative of the house-type distribution of the whole housing population in Singapore.

All selected households are notified by post. Thereafter, house visits are made to enumerate all members of the households who fall within a specified age range. In the final stage, a disproportionate

<sup>1</sup> The National Healthy Lifestyle Programme is a programme that aims to raise awareness among Singaporeans of the importance of a healthy lifestyle, and to provide them with the knowledge and skills to adopt healthy lifestyle practices.

stratified sampling design is used to select a random sample of 7,500 individuals who were identified during the enumeration exercise. These individuals are first stratified by age and ethnic group and then systematically selected.

## **Data Collection Procedures**

Prior to the commencement of fieldwork, an invitation letter is mailed to each of the 7,500 selected survey participants. The invitation letter provides information on the survey appointment date, time, venue and fasting instructions. Reminder letters are sent and phone calls made nearer to the participants' appointment dates.

On the actual day of the survey, participants are expected to go to their appointed survey sites where they are required to give their consent to participate in the survey. Participants then undergo a health screening and a face-to-face interview using a structured questionnaire.

## **Innovative Approaches to Data Collection**

As non-response may bias the survey results, several innovative data collection approaches will be adopted for the NHS 2010 to increase the response rate.

### ***Online Submission for Household Enumeration Exercise***

Given the current widespread availability of Internet access in Singapore, online submission via MOH website was introduced for the Household Enumeration Exercise

as an additional mode of submission to snail mail and fax. Available 24 hours a day throughout the enumeration period, the online application allowed households to submit the data at their convenience and privacy. For households who did not submit their returns through any of these three modes, fieldworkers would visit them to enumerate the household members.

### ***Health Screening and Face-to-Face Interviews on Weekends***

Previous NHS was conducted on weekdays (Tuesdays to Fridays) and Saturdays. It was noted that fewer participants visited their appointed survey site on weekdays compared to Saturdays. Hence, for NHS 2010, appointments for health screenings and face-to-face interviews of the participants will be conducted from Wednesdays to Fridays, Saturdays and Sundays, including the public holiday Labour Day. This arrangement is expected to result in a higher response rate.

### ***Lucky Draw***

For NHS 2010, participants can take part in a lucky draw with attractive prizes in the form of vouchers. The lucky draw, together with tokens of appreciation, is intended to make it attractive to participate in the NHS.

### ***Extended Opening of Selected Survey Sites for Participants Who Missed Their Appointments***

In the past, there were participants who missed their appointments despite

letter and phone reminders and were thus unable to take part in the survey. For NHS 2010, one more survey site will remain open for an extended period to cater to participants who miss their earlier survey appointments.

### ***Increase in Value of Token of Appreciation***

Participants of NHS 2004 were presented with a \$10 NTUC Fairprice voucher and a souvenir mug each as tokens of appreciation. For NHS 2010, each participant will receive a \$40 NTUC Fairprice voucher as an incentive for participating in the survey.

### **Concluding Remarks**

A publicity campaign which includes blogs, posters and media publicity will be rolled out to create awareness of the NHS 2010 among the public. Invitation letters and reminder letters would also be sent to the selected participants to inform them about the survey.

Cooperation and participation of the survey participants in NHS 2010 is very important because the resultant survey findings will help MOH to accurately assess the health of Singaporeans and draw up relevant health policies and programmes for all Singaporeans.

**For more information on NHS 2010, please visit MOH website at [www.moh.gov.sg](http://www.moh.gov.sg)**

## Overseas Visitors

The Singapore Department of Statistics (DOS) welcomed visitors from Abu Dhabi and New Zealand over the last six months. The visits provided an excellent platform for professional exchanges and sharing of best practices.

The topics discussed included the availability of use of administrative data, managing statistical data confidentiality and the strategies, and national classification standards. The topic of strategy, approach and challenges in implementing standard business reporting was also shared by one of the visitors.

### **New Zealand**

#### *- Statistics New Zealand*

- Mr Patrick Ng  
Deputy Government Statistician

### **Abu Dhabi**

#### *- Statistics Center Abu Dhabi*

- H.E. Butti Ahmed Mohamed Bin Butti Al Qubaisi  
Director General
- Dr Yousef Salim Alhammadi  
Director, Research and Development Support
- Mr Abu Baker Abdullah Al Amoudi  
Director, Statistics Sector
- Mr Khalid Ali Al Safi Al Hashemi  
Director, Strategy and Development
- Mr Abdulla Omar Abdulla  
Director, Support Services
- Dr Hussein Shakhatreh  
Director, Survey and Research Sector
- Mr Alvaro M. de Bourio  
Expert, Strategy and Development
- Mr Salim Hamood Aljabri  
Administrative Assistant