Gift from 63,257 S’poreans to healthcare research

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Is coffee good for my health? Should I eat less carbohydrates and more protein? How much exercise is sufficient to lower my health risk?

We know it yourself health-wise to make the right diet and lifestyle choices, but it is not easy saying out fact from fiction amidst the myriad of conflicting advice and inconsistent research reports.

Research should empower individuals to take personal responsibility for their health, by making sound evidence-based lifestyle and dietary changes. And this evidence is often derived from population studies such as cohort studies. A “cohort” is a group of people who share a common trait, for example ethnicity, gender or occupation. Cohort studies attempt to observe such a group over a long period, collecting data such as physical, biological and lifestyle information, which is thought to be relevant to the disease risk.

Unlike experimental trials, cohort studies do not involve the administration of drugs and participants are not asked to make any change to their diet or lifestyles. Nevertheless, cohort studies with large numbers of participants and long periods of observation are very informative, often providing critical evidence on which to base preventive disease care in a population.

There are many successful cohort studies based on Western populations. One such example is the Framingham Heart Study, which started in the 1940s with 5,209 participants, almost every important fact we know about the causes of heart disease and stroke can be traced back to this study.

Another example is the British Doctors’ Study, which began observing 40,071 British doctors from 1951 and has continued for more than six decades. It was the first study to show convincing links between smoking and deaths from lung cancer, heart disease and lung diseases.

How would such findings apply to us in Singapore? We are distinctly different in genetic make-up, lifestyle and diet. For example, an Asian needs to have more body fat compared with a white European of the same body mass index (BMI), and this has implications on using BMI as a predictor of disease risks. Another example is the difference in staples—rice versus bread or potatoes—which will also impact how the health effects of carbohydrates are translated for Asians.

One of the findings of the Singapore Chinese Health Study is that eating yellow-coloured fruits such as papaya, pumpkins and oranges may reduce the risk of lung cancer in women. (ST FILE PHOTO)

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The contributions of the SCS participants provide valuable data that forms a compelling case for future research. As part of participants, we have begun studying the factors that contribute to healthy ageing. We also plan to recruit children of our original participants to examine how inter-generational factors affect health and disease development in Singaporeans. This will be possible only if the next generation lends its support.

Following the success of SCS, Singapore is ready to organise other cohorts linking interactions between genes and environment to disease risk. We are optimistic that Singaporeans will continue to share their health information for such studies vital research on the prevention and promotion of health.