**Supplementary Appendix: Sample questionnaire for primary care physicians**

***Section One: Confidence in Knowledge about Nutrition and Chronic Disease***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***Please rate how confident you are in your knowledge of…*** | Not Confident at all | Not Very Confident | Somewhat Confident | Very Confident | Extremely Confident |
| 1. How different body systems are affected by foods and nutrients | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. How foods and nutrients influence the development and management of chronic disease | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. How an individual’s body composition (including size, shape, weight) can impact on the development of chronic disease | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. My Healthy Plate, including number of recommended serves of food groups and serving sizes for different ages and genders | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. Guidelines for the nutrition-related management of specific chronic diseases (including type 2 diabetes and cardiovascular disease) | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. How foods and nutrients interact with medications | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. The most recently published peer-reviewed evidence regarding nutrition and chronic disease | ☐ | ☐ | ☐ | ☐ | ☐ |

***Section Two: Confidence in Nutrition Skills***

| ***Please rate how confident you are in your ability to…*** | Not Confident at all | Not Very Confident | Somewhat Confident | Very Confident | Extremely Confident |
| --- | --- | --- | --- | --- | --- |
| 1. Interpret data about height, weight and body composition against reference ranges | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. Interpret an individual’s biological data (e.g. blood pressure, cholesterol levels) against reference ranges | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Collect information on the food that an individual usually eats (e.g. diet history, food frequency questionnaire) | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. Use My Healthy Plate to evaluate the appropriateness of an individual’s food intake | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. Determine appropriate food or nutrition goals for an individual with chronic disease | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. Formulate a meal plan for an individual with chronic disease | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. Recommend changes in food choices for an individual with chronic disease | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. Monitor and evaluate changes over time regarding the food an individual usually eats | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9. Maintain clear and concise records regarding the nutrition-related assessment and advice you provide to individuals | ☐ | ☐ | ☐ | ☐ | ☐ |
| 10. Access the most recently published peer-reviewed evidence regarding nutrition and chronic disease | ☐ | ☐ | ☐ | ☐ | ☐ |
| 11. Provide nutrition care that results in improvements in the food that an individual usually eats | ☐ | ☐ | ☐ | ☐ | ☐ |

***Section Three: Confidence in Communication and Counselling about Nutrition***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***Please rate how confident you are in your ability to…*** | Not Confident at all | Not Very Confident | Somewhat Confident | Very Confident | Extremely Confident |
| 1. Clearly describe what patients can expect from their discussions with you about food or nutrition | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. Check a patient’s understanding of the influence of food and nutrients on their health | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Work with patients to identify possible ways to improve the food they usually eat | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. Demonstrate genuine empathy to patients about their food-related experiences and goals | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. Maintain a non-judgemental attitude in discussions with patients about the food they eat | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. Communicate with patients about food and nutrition using culturally appropriate language | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. Consider how personal, social, cultural, psychological, and economic factors may influence the foods that a patient eats | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. Identify individuals who need additional support from other health professionals or services regarding the food they eat | ☐ | ☐ | ☐ | ☐ | ☐ |
| 9. Communicate with other health professionals about the discussions you’ve had with patients regarding food | ☐ | ☐ | ☐ | ☐ | ☐ |

***Section Four: Attitudes Towards Nutrition Care***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***Please rate your agreement with the following statements:*** | Completely Disagree | Somewhat Disagree | Neither Agree nor Disagree | Somewhat Agree | Completely Agree |
| 1. It is important that all individuals usually eat healthy foods regardless of age, body weight and physical activity levels | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. If the topic arises, it is important that I encourage my patients to eat healthy foods | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. It is important that I take every opportunity possible to encourage my patients to eat healthy foods | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. Encouraging my patients to eat healthy foods is an effective use of my professional time | ☐ | ☐ | ☐ | ☐ | ☐ |
| 5. Providing specific nutrition recommendations to my patients that can assist with managing their chronic disease is an effective use of my professional time | ☐ | ☐ | ☐ | ☐ | ☐ |
| 6. Encouraging my patients to eat healthy foods is within my scope of practice | ☐ | ☐ | ☐ | ☐ | ☐ |
| 7. Providing specific nutrition recommendations to my patients that can assist with managing their chronic disease is within my scope of practice | ☐ | ☐ | ☐ | ☐ | ☐ |
| 8. It is important that I encourage my patients to seek support from other health professionals if I am unable to meet their nutrition-related needs | ☐ | ☐ | ☐ | ☐ | ☐ |

***Section Five: Personal Dietary Habits***

1. How many times a week do you eat deep fried food?
   1. Do not eat at all/ Not part of my usual diet
   2. 2 times or less
   3. 3 – 5 times
   4. 6 or more times
2. How many times a week do you eat processed foods (e.g. sausages, nuggets, bacon, vegetarian mock meat, luncheon meat)?
   1. Do not eat at all/ Not part of my usual diet
   2. 2 times or less
   3. 3 – 5 times
   4. 6 or more times
3. How many times a week do you eat fat spread (e.g. butter, margarine, kaya, peanut butter)?
   1. Do not eat at all/ Not part of my usual diet
   2. 2 times or less
   3. 3 – 5 times
   4. 6 or more times
4. How many times a week do you use coconut milk/cream, full cream milk, non-dairy creamer, 2-in-1and 3-in-1 beverages with creamer, condensed milk or regular full fat evaporated milk?
5. Do not eat at all/ Not part of my usual diet
6. 2 times or less
7. 3 – 5 times
8. 6 or more times
9. How many times a week do you eat full fat cheese or meals with cheese (e.g. pizza, lasagna, pasta and baked rice with cheese)?
   1. Do not eat at all/ Not part of my usual diet
   2. 2 times or less
   3. 3 – 5 times
   4. 6 or more times
10. How many times a week do you eat red meats (e.g. beef, mutton, lamb, pork)?
    1. Do not eat at all/ Not part of my usual diet
    2. 2 times or less
    3. 3 – 5 times
    4. 6 or more times
11. When you eat meat with visible fat, how much visible fat do you remove?
    1. I do not eat meat at all
    2. I remove all the fat
    3. I remove some of the fat
    4. I do not remove any fat
12. When you eat poultry (e.g. chicken, duck, turkey), how much skin do you remove?
    1. I do not eat poultry at all
    2. I remove all the skin
    3. I remove some of the skin
    4. I do not remove any skin
13. When you eat at home, how many times a week do you/ your family members use butter, ghee, lard, palm oil, coconut milk or vegetable oil blended with palm oil for cooking?
    1. We do not use the cooking fat/oil mentioned above/ Not part of my usual diet
    2. 2 times or less
    3. 3 – 5 times
    4. 6 or more times/ We do not cook at home
14. How many times a week do you eat high fat snacks/ desserts (e.g. curry puff, goring pisang, potato chips, ice cream, cream cakes, pastries, chendol, bulbur cha cha, nonya kueh, Indian sweets)?
    1. Do not eat at all/ Not part of my usual diet
    2. 2 times or less
    3. 3 – 5 times
    4. 6 or more times
15. How many times a week do you eat high fat dishes (e.g. char kway teow, fried carrot cake, fried bee hoon, chicken rice, nasi lemak, laksa, prata, fish and chips, creamy pastas, nasi briyani)?
    1. Do not eat at all/ Not part of my usual diet
    2. 2 times or less
    3. 3 – 5 times
    4. 6 or more times
16. How many times a week do you eat at fast food restaurants?
    1. Do not eat at all/ Not part of my usual diet
    2. 2 times or less
    3. 3 – 5 times
    4. 6 or more times
17. How many servings of fruit do you usually eat per day?

(One serving of fruit is equivalent to 1 small apple/ 1 wedge papaya, pineapple or watermelon/ 1 medium banana/ 10 grapes or longans)

1. None on some days
2. One serving everyday
3. One to two servings per day
4. Two everyday
5. How many servings of vegetables do you usually eat per day?

(One serving of vegetables is equivalent to ¾ mug cooked leafy/non-leafy vegetables)

1. None on some days
2. One serving everyday
3. One to two servings per day
4. Two everyday
5. How many times a week do you eat oats, wholemeal bread/ chapati or whole grain cereals?
6. Do not eat at all
7. 2 times or less
8. 3 – 5 times
9. 6 or more times
10. How many times a week do you eat brown rice/ brown rice vermicelli/ wholemeal noodles/ whole wheat pasta?
11. Do not eat at all
12. 2 times or less
13. 3 – 5 times
14. 6 or more times
15. How many times a week do you eat legumes (e.g. green beans, red beans, chickpea, lentils, soya beans, dhal)?
16. Do not eat at all
17. 2 times or less
18. 3 – 5 times
19. 6 or more times

***Section Six: Previous Nutrition Education and Training***

1. Which of the following best describes your previous nutrition education?

* + 1. I have not completed any formal education program that included nutrition content
    2. I have completed a formal education program that included some nutrition content, specify: \_\_\_\_
    3. I have completed a formal education program that was predominantly focused on nutrition, specify:\_\_\_\_\_

1. Have you ever participated in any informal professional development or continuing education on the topic of nutrition?
   * 1. Yes, specify:\_\_\_\_
     2. No
2. I feel I need further nutrition education to support me in my current role
   * 1. Strongly Disagree
     2. Disagree
     3. Neither Agree Nor Disagree
     4. Agree
     5. Strongly Agree
3. What type of dietary counselling do you feel least confident with?
   * 1. Healthy plate
     2. Carbohydrate counting
     3. Low fat diet
     4. Dietary Approaches to Stop Hypertension (DASH)
     5. Weight loss
     6. Calorie counting
     7. Others:\_\_\_\_\_\_

***Section Seven: Demographic Information***

1. What is your professional title?
   * 1. Resident (year 1, year 2, year 3)
     2. Medical Officer
     3. Resident Physician
     4. Family Physician
2. What is your highest qualification?
   * 1. MBBS
     2. GDFM
     3. MMED
     4. FCFP
3. How many years have you been working in the primary care setting? Years
4. What is your gender?
   * 1. Male
     2. Female
5. What is your current age? \_\_\_\_\_ years old
6. What is your current weight? \_\_\_\_\_\_ kg
7. What is your current height? \_\_\_\_\_ m

-------------------------------------------------------------------End of Survey-------------------------------------------------------------------

Thank you very much for your time