Author's response to reviews

Title: Factors associated with uptake of influenza vaccine in people aged 50 to 64 years in Hong Kong: A case-control study

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Author's response to reviews: see over
22 April 2015

Dear Editor-in-Chief,

Your reference: MS: 5401085261551009

Thank you for your emails dated 6 April, 20 March and 11 February 2015, and grateful for the reviewers’ invaluable comments. Below is a point-by-point response to the reviewers’ concerns on the manuscript entitled, “Factors associated with uptake of influenza vaccine in people aged 50 to 64 years in Hong Kong: A case-control study” by May PS Yeung et al. The revised manuscript (word and pdf) has been uploaded and it has been English edited by a professional native English academic editor.

Please address all correspondence to me by email <maypsyeung@gmail.com>, or by phone at (+852)9771 7501. Thank you.

Best regards,

May PS YEUNG
Reviewer 1: Subhadra Rajanaidu

1. Yes, people getting vaccinated by out-of-pocket themselves without knowing they were recommended group for influenza vaccination. The possible reason could be speculated by studying the variables in the controls. Or a further subgroup analysis on dividing the controls into “those have never vaccinated” and “those have not vaccinated in 2011/12 and 2012/13” to study the association of the variables. However, a subgroup analysis on this had not been performed because the definitions of the cases and controls were focused to compare the changes before and after the new policy was implemented instead.

2. The following information is added to the background (line 90) “No free or subsidized influenza vaccination service was provided by the Government to this group, except those who already belonged to the other subsidised recommended high-risk group and those with financial difficulties, i.e., Comprehensive Social Security Assistance (CSSA) receivers. Healthy 50 to 64 year-olds, without other risk indicators, had to pay out-of-pocket if they want to be vaccinated.”

3. The sentence “During street intercept interview, there were more unvaccinated individual (controls) instead of the vaccinated ones (cases). The excess controls approached by the interviewers were counted as non-responders” is added to Results (line 149). This is one of the reasons for the low response rate (41.7%) in this study. We designed the cases and controls to ratio as 1:2 in the beginning of the study. Therefore the vaccine uptake of 31% was deliberate instead of random.

Reviewer 2: John Mair-Jenkins

Major Compulsory Revisions (Method)

1. Calculation of the adjusted odds ratio and choice of confounders

Line 9: Multinomial logistic regression analysis was performed. In addition, the following sentence is added in Method (line 143): Multinomial logistic regression analysis was performed. Any variables with p values <0.25 and those with important associations demonstrated in the literature were selected for multinomial regression analysis (backward stepwise regression algorithms). The regression model is a built-in formula in the SAS software. All statistical tests were two-tailed and variables were considered significant at a significance level of
The list of variables selected for the regression analysis are those listed in table 1 of the manuscript and table a in this document, with “odds ratio (crude)” p values <0.25. Not all variables in table a are presented in the table 2 of the manuscript.

2. To ensure completeness, any questionnaire with important information, or more than 20% of the questions with missing / ambiguous answer was excluded. There were 12 questionnaires excluded because of missing important data, such as year of birth. No questionnaire was excluded because of more than 20% questions with missing / ambiguous answer. To ensure completeness, the interviewers would ask the respondents questions, document all the questions in the questionnaire form using pen and paper, and check its completeness before approaching the next person during the street intercept interview.

Minor Essential Revisions (Method)
3. Same as below

4. The following sentence is added in Method (line 147) “This sample size reached the required in the sample size calculation.”

5. The data of this study is collected on 17 July to 15 August 2013. In Hong Kong, the new influenza vaccine for each season usually available from doctors in September. The Government subsided and free vaccination programmes starts in late September to October in the past 5 years. Therefore the chance of including people vaccinated in 2013/14 was low. However, people may get vaccinated after completing this survey at a later day. The definition of the control is changed to “Controls were the same as cases in (ii) and (iii), except they did not receive influenza vaccine in 2011/12 or 2012/13 influenza seasons.” (line 103)

6. Addressed in reviewer 2 question 2

7. The survey question is included as Annex 1 here. It will only be available to reader upon request.
Table a. Comparing study variables between cases and controls by crude odds ratio and multinomial logistic regression analysis

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Cases (193)</th>
<th>Control (411)</th>
<th>Odd Ratio (Crude)</th>
<th>Odd Ratio (Adjusted)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td>%</td>
<td>Count</td>
<td>%</td>
</tr>
<tr>
<td>Knowing oneself to be in the recommended group for flu vaccine</td>
<td>37</td>
<td>19.6</td>
<td>25</td>
<td>6.1</td>
</tr>
<tr>
<td>Knowing flu vaccine provides 70-90% protection in healthy adults</td>
<td>89</td>
<td>46.6</td>
<td>140</td>
<td>34.1</td>
</tr>
<tr>
<td>Knowing about the Government Vaccination Programme</td>
<td>128</td>
<td>68.0</td>
<td>219</td>
<td>53.5</td>
</tr>
<tr>
<td>Knowing flu vaccine reduces flu complications and related hospitalisation</td>
<td>180</td>
<td>97.8</td>
<td>366</td>
<td>93.4</td>
</tr>
<tr>
<td>Needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Live with children &lt; 6 years or elderly &gt;65 years</td>
<td>53</td>
<td>27.5</td>
<td>85</td>
<td>20.7</td>
</tr>
<tr>
<td>Presence of chronic disease(s)</td>
<td>78</td>
<td>40.4</td>
<td>111</td>
<td>27.1</td>
</tr>
<tr>
<td>Visited doctors in the past 3 months</td>
<td>92</td>
<td>47.7</td>
<td>141</td>
<td>34.3</td>
</tr>
<tr>
<td>Behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current smoker</td>
<td>16</td>
<td>8.3</td>
<td>20</td>
<td>4.9</td>
</tr>
<tr>
<td>Current drinker</td>
<td>34</td>
<td>17.6</td>
<td>80</td>
<td>19.5</td>
</tr>
<tr>
<td>Belief &amp; perception</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived having severe or moderate symptoms when contracting flu</td>
<td>17</td>
<td>8.8</td>
<td>15</td>
<td>3.6</td>
</tr>
<tr>
<td>Perceived flu vaccine to be safe</td>
<td>183</td>
<td>98.4</td>
<td>342</td>
<td>89.8</td>
</tr>
<tr>
<td>Believed flu vaccine has additional benefits other than flu protection</td>
<td>181</td>
<td>93.8</td>
<td>356</td>
<td>87.3</td>
</tr>
<tr>
<td>Perceived very high and high chance of contracting flu in the next 12 months</td>
<td>55</td>
<td>31.1</td>
<td>77</td>
<td>19.9</td>
</tr>
<tr>
<td>Perception of having very good or good health</td>
<td>105</td>
<td>54.4</td>
<td>281</td>
<td>68.4</td>
</tr>
<tr>
<td>Perception of having severe adverse events after vaccine</td>
<td>22</td>
<td>12.2</td>
<td>89</td>
<td>24.9</td>
</tr>
<tr>
<td>Belief in very good or good vaccine efficacy</td>
<td>147</td>
<td>76.2</td>
<td>269</td>
<td>65.5</td>
</tr>
<tr>
<td>Health-care system</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eligible for free government vaccine</td>
<td>45</td>
<td>23.6</td>
<td>21</td>
<td>5.1</td>
</tr>
<tr>
<td>Willing to receive flu vaccination for free</td>
<td>184</td>
<td>95.8</td>
<td>309</td>
<td>75.7</td>
</tr>
<tr>
<td>Convenient to reach a vaccination location</td>
<td>187</td>
<td>96.9</td>
<td>370</td>
<td>90.0</td>
</tr>
<tr>
<td>Prefer public clinic for injection</td>
<td>105</td>
<td>54.7</td>
<td>291</td>
<td>71.0</td>
</tr>
<tr>
<td>Will respond to Government telephone reminder service on flu shot</td>
<td>105</td>
<td>54.4</td>
<td>160</td>
<td>39.6</td>
</tr>
<tr>
<td>Advice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accept advice from health professionals</td>
<td>183</td>
<td>94.8</td>
<td>333</td>
<td>81.2</td>
</tr>
<tr>
<td>Had family member receive flu vaccine</td>
<td>76</td>
<td>41.8</td>
<td>74</td>
<td>18.3</td>
</tr>
<tr>
<td>Accept advice from relatives and friends</td>
<td>86</td>
<td>44.8</td>
<td>101</td>
<td>24.6</td>
</tr>
<tr>
<td>External factors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Will receive flu vaccine when there is an epidemic</td>
<td>181</td>
<td>94.8</td>
<td>327</td>
<td>81.3</td>
</tr>
</tbody>
</table>
Major Compulsory Revisions (Result)

8. All the measure of association, i.e. odds ratios, in the manuscript refer to relationship between cases and controls.
   - For those percentages or proportion showed “all the respondents” (line 173, 210-211, 265, 283), they are changed to “the proportion exposed or unexposed only to be reported for either cases or controls” as required. The only exception is the presentation under Demography of the Result, which a presentation of all the sample together is more appropriate.

9. Discussion points on confounding factors paragraph of 259 to 263 is changed to: There are multi-dimensional factors that might have contributed to people’s choice of whether or not to receive vaccination. These factors comprise of social, environmental and economic dynamics in a context. The factors were put in a multinomial logistic regression model and statistically adjusted for age, employment status, receiving social security, and all independent variables. Before statistical adjustment, most of these factors had statistically significant crude odds ratios. The variables affected each other and many became non-significant after adjustment. There would be a confounding effect between variables.

Minor Essential Revisions (Result)

10. Table 1 showed were crude odds ratios and table 2 only showed adjusted odds ratios. All the odds ratios in the text referred were adjusted odds ratios.

11. Addressed in reviewer 2 question 1.

Major Compulsory Revisions (Discussion)

12. The sentences (line 251-252, 254-255) were deleted. In addition, the information explaining the calculation of the response rate is added to Result (also related to reviewer 1 question 3).

13. The sentence in line 339 is revised as: The study result have important implications to the general population aged 50 to 64 in Hong Kong.
14. Further interpretation or the results, limitations, policy implications and recommendations are added after these lines:

- Line 249: It was estimated that a large number of people had to be approached should a telephone or postage survey have been used.
- Line 272: Health promotion strategy on empowerment and enhancement of knowledge on this issue has to be planned and supported by health-care policy.
- Line 281: The odd of cases being ‘eligible for free government vaccine’ was 6.4 times the controls.
- Line 343: Further studies on local vaccination policy and the views of health professionals would provide a comprehensive account of the low vaccination coverage in this age group.

15. Line 334 is revised as “Limitations of using street-intercept method would be…”. Further explanation is added after line 337: A test on this during the pilot phase could have provided an estimate on the degree of misses. Another bias would be due to sampling of respondents from different locations, e.g. in public and private estates, in train stations and shopping malls. A comparison of the demographic characteristics of the samples collected in different locations, and to those of the relevant population, would be useful to identify potential bias.

16. Recall bias of the respondents was a result of questions asking past events such as “Do you need to consult a doctor (Western or Traditional Chinese Practitioner) in the past 3 months?”

17. Line 327-332 are revised as: One of the important limitations of this case-control was temporal sequence and reverse causality. It is difficult to interpret the time sequence of the exposures and the outcomes. For example, it is uncertain whether perception of the safety of influenza vaccine was a cause or a consequence of vaccination. Other limitations of this case-control includes the information and recall bias of the respondents; and the inability to estimate the coverage of vaccination in this age band.
The question on “Will you receive flu shot in the coming months (from Sep 2013 to Aug 2014)?” was asked but not presented in the manuscript.

18. Addressed in reviewer 2 question 8 and 9.

**Minor Compulsory Points (Other)**

19. Line 104-5 is revised as “They were classified as control because they were not recommended group in 2010/11 and before.”

20. Line 118 is moved to Result.

21. It is a speculation by the author and therefore no reference is cited.

22. Line 128 is changed to past tense.

**Discretionary Revisions**

A paragraph on discussion about implications/ recommendations for public health policy makers is added.

In addition, the conclusion is revised.
Factors associated with uptake of influenza vaccine in people aged 50 to 64 years in Hong Kong: a case-control study

Introduction

We sincerely invite you to participate in this project conducted by Dr. YEUNG Pui Shan from the London School of Hygiene and Tropical Medicine (LSHTM). This academic research project has been approved by the Human Subjects Ethics Sub-committee (HSESC) of The Hong Kong Polytechnic University. Before you decide to participate, please read the following information carefully to understand the content and purpose of the study. If you wish, you can discuss it with others.

This academic research project aims to explore the factors associated with the uptake of influenza vaccine among people aged 50 to 64 years in Hong Kong. The research results can provide useful references to assist public health professionals in developing suitable influenza vaccination services and community health promotion programs. The survey questionnaire takes approximately 10 minutes to complete.

Participation is voluntary and it is up to you whether to participate. This study should not cause you any discomfort. You have the right to withdraw at any time without giving any reason and this will not have any consequences. Your personal data will be handled anonymously and confidentially. The identification code used in the questionnaire is only known to the researcher. You have the right to withdraw from this project without any penalty. If you wish to learn more about this study, you are welcome to contact Dr. YEUNG Pui Shan (telephone: 97717501) or email tak.fai.tong@polyu.edu.hk.

If you have any complaints about this study, please write to the Human Subjects Ethics Sub-committee Secretary Dr. Virginia Cheng (C/O The Hong Kong Polytechnic University Research Administration Office) and indicate the responsible person and department.

Thank you for participating in this study.

Y. F. T. (Project Leader)
Hong Kong Polytechnic University and the LSHTM Ethics Committee. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Talk to others about the study if you wish.

The aim of this study is to explore the factors associated with uptake of influenza vaccination in residents of Hong Kong aged 50 to 64 years. The result of this study may serve as useful reference public health workers on planning influenza vaccination service and health promotion work. The interview takes about 10 minutes to complete a questionnaire.

Participation is voluntary. It is up to you to decide whether or not to take part. This study should not cause you any discomfort. You are free to withdraw at any time without giving a reason and this will not have any consequence. All information related to you will remain anonymous and confidential, and will be identifiable by codes only known to the researcher. You have every right to withdraw from the study before or during the measurement without penalty of any kind. If you would like to get more information about this study, please contact Dr. Yeung Pui Shan at 9771 7501 during office or via tak.fai.tong@polyu.edu.hk.

If you have any complaints about the conduct of this research study, please do not hesitate to contact Dr. Virginia Cheng, Secretary of the Human Subjects Ethics Sub-Committee of The Hong Kong Polytechnic University in writing (c/o Research Office of the University) stating clearly the responsible person and department of this study.

Thank you for your interest in participating in this study.

YEUNG Pui Shan, May
Principal Investigator

參與者的選擇和同意
我們邀請50至64歲懂中文或英文的香港居民參與。如果你是，請繼續調查問卷。
我同意貢獻將版權讓倫敦衛生和熱帶醫學院公共健康政策用作研究。

Participant selection and consent
We are choosing Hong Kong residents aged 50 to 64 who could understand Chinese or English, please continue the questionnaire only if you are. I hereby assign copyright of my contribution for research purposes to the Faculty of Public Health and Policy of the LSHTM.
抽選被訪者 Participant selection

□ 請問你係唔係50至64歲的香港人士？(1962年至1949年出生) Ascertain the person is Hong Kong resident aged between 50 to 64 years? (born between 1962 to 1949)

□ 解釋研究目的 Explain the research purpose

□ 告訴參與是自願的 Tell the person participation is voluntary

□ 取得書面或口頭同意 Obtain written or verbal consent

調查不成功原因 Reasons for unsuccessful interview:

□ 拒絕 Refuse

□ 前兩年未接種疫苗 (太多對照個案) Unvaccinated in previous two years (too many controls)

□ 溝通困難 Language difficulty

□ 聲稱以前完成同樣的調查 Claimed completed the same survey before

<table>
<thead>
<tr>
<th>請選擇 Please tick box</th>
</tr>
</thead>
</table>

1. 我對所附資料的有關步驟已經得到充分的解釋(或理解口頭解釋). 這項研究應不會對我造成任何不適。如果我參加, 我明白需要做什麼. 我是自願參與這項研究。  
   I fully understand the information concerning this study (or have understood the verbal explanation). This study should not cause any discomfort. I understand what will be required of me and what will happen to me if I take part in it. My participation is voluntary.

2. 有關於這項研究的問題, 已經回答了。  
   My questions (if any) concerning this study have been answered by the interviewer.

3. 我理解我有權在研究過程中提出問題, 並在任何時候決定退出研究而不會受到任何不正常的待遇或被追究責。  
   I understand I have the right to ask question during the research, and may withdraw from this study without giving a reason and without any unusual treatment or any consequence.

4. 我同意參與由楊貝珊醫生負責監督和執行的研究項目。  
   I agree to take part in this study supervised and implemented by Dr. YEUNG Pui Shan.

______________________  ____________________  ____________________
被訪者姓名 Name of participant  請問你係唔係50至64歲的香港人士？(1962年至1949年出生) Ascertain the person is Hong Kong resident aged between 50 to 64 years? (born between 1962 to 1949)  日期 Date

______________________  ____________________
被訪者簽名 Signature of participant  訪問員姓名 Name of interviewer
Signature of interviewer

Date
Please choose only one answer for the following questions unless otherwise stated.

1. What is your year of birth? _________ (1962 to 1949)

2. What is your gender? (Interviewer: Only ask when you are unsure about the participant’s gender.)
   a. Male
   b. Female

3. What is your ethnicity?
   a. Chinese
   b. Indonesia
   c. Philippines
   d. White (American or European)
   e. Indian
   f. Other (Please specify:_____________)

4. What is your highest educational attainment?
   a. No schooling / kindergarten
   b. Primary
   c. Secondary
   d. Tertiary or above
   e. Refuse to answer

5. What is your current occupation? (Interviewer: Write down the name of occupation if you cannot classify.)
   a. Employer / manager and administrator
   b. Professional / Associate professional
   c. Clerk
   d. Service worker and sales
   e. Skilled or unskilled worker
   f. Student
   g. Homemaker
   h. Retired
   i. Unemployed person
   j. Other (Please specify:_____________)

6. Is your occupation health related?
   a. Yes
   b. No
7. 你有冇領取綜合社會保障援助（綜援）？
Are you receiving Comprehensive Social Security Assistance (CSSA)?
   a. 有 Yes
   b. 冇 No

8. 請問你每月嘅個人總收入係？ What is your total monthly personal income?
   a. 沒有收入 No income
   b. 港幣 $7,500以下 Below HK$7,500
   c. 港幣 HK$7,500 – $9,999
   d. 港幣 HK$10,000 – $14,999
   e. 港幣 HK$15,000 – $19,999
   f. 港幣 HK$20,000 – $29,999
   g. 港幣 HK$30,000以上 or above HK$30,000

9. 你有冇吸煙？ Are you a smoker?
   a. 有 Yes
   b. 已戒煙 Ex-smoker
   c. 從來冇 Never

10. 你有冇飲酒？ Are you a drinker?
    a. 有社交飲酒 Yes, social drinker
    b. 有酗酒 Yes, binge drinking
    c. 冇 No

11. 你住哪個區？ Which district do you live?
    a. 中西區 Central & Western District
    b. 東區 Eastern District
    c. 離島區 Islands District
    d. 九龍城區 Kowloon City District
    e. 葵青區 Kowloon District
    f. 觀塘區 Kwun Tong District
    g. 北區 North District
    h. 西貢區 Sai Kung District
    i. 沙田區 Sha Tin District
    j. 深水埗區 Sham Shui Po District
    k. 南區 Southern District
    l. 大埔區 Tai Po District
    m. 荃灣區 Tsuen Wan District
    n. 屯門區 Tuen Mun District
    o. 灣仔區 Wan Chai District
    p. 黃大仙區 Wong Tai Sin District
    q. 油尖旺區 Yau Tsim Mong District
    r. 元朗區 Yuen Long District
行為  Behaviour

Q1. 你在過去的兩個疫苗接種季節有冇打流感針 (自2011年九月) ？

Have you got flu shot in past two vaccination seasons (since 2011 Sep)?

a. 有，今年 Yes, this year (2012/13; 即自2012年9月 i.e., since September 2012)
b. 有，這兩年 Yes, for two years (2012/13 and 2011/12, 即自2011年9月 i.e., September 2011)
c. 冇 No

Q2. 你2011/12年以前有沒有打過流感針？ Have you ever received a flu shot before 2011/12?

a. 有 Yes
b. 冇 No

Q3. 你會唔會在未來幾個月內打流感針 (2013年9月至2014年8月) ？

Will you receive flu shot in the coming months (from Sep 2013 to Aug 2014)?

a. 一定會 Yes, definitely
b. 可能會 Yes, probably yes
c. 可能唔會 No, probably not
d. 一定唔會 No, definitely not

醫療系統  Health-Care System

Q4. 你是否有政府免費或資助打流感針？ Are you eligible for free or subsidized vaccination under the Government Vaccination Programmes and Schemes?

a. 有 Yes
b. 冇 No
Q5. 請問你知不知道有政府防疫注射計劃和資助計劃，和非政府的疫苗資助計劃？

Are you awareness of the Government Vaccination Programmes and Schemes; and non-governmental vaccination subsidy schemes?

a. 有 Yes
b. 有 No

Q6. 請問你願意比幾多錢去打流感針呢？

If you need to pay, how much are you willing to pay for receiving a flu shot?

a. $0
b. $1 - $50
c. $50 - $100
d. $100 - $150
e. 費用唔係問題 Cost is not an issue

Q7. 如果打流感針是免費，你願意打嗎？

Are you willing to receiving flu shot if it is FREE?

a. 願意 Yes
b. 不願意 No (請說明 Please specify ______________)

Q8. 你上次在哪裡打流感針呢？Where did you got the flu shot last time？

a. 在政府(公營)診所 In government clinics
b. 在私人診所 In private clinic
c. 在醫院 In hospital
d. 其他地方 (請註明 Please specify: ______________)
e. 沒有打流感針 No, have not receive flu shot

Q9. 到打流感針的地方方便嗎？ Was the access to receive the flu shot convenient?

唔方便 Very inconvenient □ □ □ □ □ 好方便 Very convenient

1 2 3 4 5

信念和感覺 Belief and perceptions

Q10. 你認為你喺未來12個月內感染流感嘅機會有幾高呢？

What is your chance of contracting flu in the next 12 months?

很低 Very low □ □ □ □ □ 很高 Very high

1 2 3 4 5

Q11. 你預計你流感嘅病情會點樣呢？

What would you expect the severity of the disease to be if you get flu?

a. 嚴重 (需要住院 / 可能會導致死亡) Severe (need hospitalization / may cause death)

b. 中等 (需要睇醫生 / 休息 / 影響日常工作) Moderate (need doctor consultation / take rest / affect daily routines)

c. 輕微 (輕微病徵，可繼續日常工作) Mild (mild symptoms and can continue daily routines)

d. 唔知道 Don't know

Q12. 你認為疫苗是安全和只有輕微的不良反應嗎？

Do you think the vaccine is safe with only minor adverse reaction?

a. 是 Yes

b. 不是 No
Q13. Do you think the vaccine is useful in protecting you from flu?

- Very useless □ □ □ □ □
- Very useful □ □ □ □ □

1 2 3 4 5

Q14. Do you think having a flu shot has other benefits?

a. Yes, protect family
b. Yes, fulfill social norm
c. Yes, requirement of work
d. Yes, for other reasons
   註明 specify:________________
e. No

Q15. Will you not get the vaccine because of fear of needle or pain?

a. Yes
b. No

Q16. Do you think your health is good?

- Very unhealthy □ □ □ □ □
- Very healthy □ □ □ □ □

1 2 3 4 5

需要 Need
Q17. 你有任何慢性疾病，如高血壓，糖尿病，高血脂，心臟疾病，殘疾等？
Do you have any chronic illness, e.g., hypertension, diabetes, hyperlipidemia, heart diseases, disability etc?
   a. 有 Yes 
   b. 冇 No

Q18. 在過去3個月，你需要睇醫生(西醫或中醫)嗎？Do you need to consult a doctor (Western or Traditional Chinese Practitioner) in the past 3 months?
   a. 只有睇西醫 Yes, only Western doctor 
   b. 只有睇中醫 Yes, only Traditional Chinese Practitioner 
   c. 有睇兩種醫生 Yes, both types 
   d. 冇 No 

Q19. 與你家中共同居住，有未滿6歲嘅兒童或者65歲或以上長輩？
Are you living with children <6 years or elders ≥65 years?
   a. 有未滿6歲嘅兒童 Yes, child / children <6 years 
   b. 有未滿65歲或以上長輩 Yes, elders ≥65 years 
   c. 有未滿6歲嘅兒童和未滿65歲或以上長輩 Yes, both 
   d. 冇 No 

知識 Knowledge 

Q20. 打流感針能否減少流感並發症及入院？
Can flu shot reduce flu complications and related hospital admission?

a. 能 Yes

b. 不能 No

Q21. 請講出有效預防流感嘅方法？你可以選擇多過一個答案。(開放式問題)

Can you list measures that are effective to prevent flu? You can give more than one answer. (open-ended question)

a. 保持健康生活模式 Maintain healthy lifestyles
b. 避免人多的地方 Avoid crowd places
c. 保持室內空氣流通 Maintain good indoor ventilation
d. 注意個人衛生，例如打噴嚏後洗手 Observe personal hygiene, e.g., wash hand after sneezing and coughing
e. 服用藥物，例如預防藥物，中藥 Take drugs, e.g., chemoprophylaxis, Chinese herbs
f. 打流感針 Get a flu shot

Q22. 你認為你屬唔屬於目標或高危組別嘅人士呢？

Do you think you are the target or high-risk group for flu shot?

a. 屬於 Yes

b. 唔屬於 No

建議和社會支持 Advice and social support

Q23. 如果醫護人員提醒你，你會去打流感針嗎？

Will you go to get a flu shot if health professionals advise you?

a. 會 Yes

b. 唔會 No
Q24. 如果家人或朋友勸你，你會去打流感針嗎？
   Will you go to get a flu shot if your family or friends advise you?
   a. 會 Yes
   b. 唔會 No

Q25. 如果有客戶系統提醒你打流感針，你會打針嗎？
   Will you get the flu shot if there is a client reminder system to remind you?
   a. 會 Yes
   b. 唔會 No

Q26. 與你同居的家庭成員有冇打流感針？
   Have your family member in your household received flu shot?
   a. 有 Yes
   b. 冇 No

**外界環境因素 External environmental factors**

Q27. 請問您的選擇打流感針會受外界因素影響嗎？
   Will your choice of receiving flu shot affected by external factors?
   a. 頻繁媒體廣告 Frequent media advertisements
   b. 近期當地的流行病 Recent local epidemics
   c. 近期海外流行 Recent overseas epidemics
   d. 其他 Others (請註明 specify:____________)
問卷調查結束，謝謝！

End of questionnaire, Thank you!