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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Version: 4 Date: 3 May 2015

Author's response to reviews: see over
2 May 2015

Dear Editor-in-Chief,

Your reference: MS: 5401085261551009

Thank you for your emails dated 22 April 2015 and for consideration of our manuscript for publication in BMC Public Health. We have reviewed the cover letter to include page and line numbers where changes have been made and highlighted these changes in the revised manuscript. Below is a revised point-by-point response to the reviewers’ comment. The revised manuscript (word and pdf) has been uploaded and it has been English edited by a professional native English academic editor. Thank you

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
Point-by-point response to the Reviewers’ Report

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

Version: 2 Date: 7 February 2015

Reviewer: Subhadra Rajanaidu

Discretionary revisions

1. I found it interesting that there were those who were vaccinated but did not know that they belonged to a recommended group for influenza vaccination. Interesting discussion point as to why and how they would get vaccinated. Yes, some people getting vaccinated by out-of pocket themselves without knowing they were recommended group for influenza vaccination. The possible reason would be speculated by studying the variables in the controls. Or found by 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. I think it would be incredibly useful to the reader to briefly mention the health care system in Hong Kong in terms of payment for vaccines earlier in the article as it does bring some of the discussion points into context. The above suggested information is added to the Background (line 90-95, p.3) “No free or subsidised influenza vaccination service was provided by the Government to this group, except those who already belonged to the other free or subsidised recommended high-risk groups and those with financial difficulties, i.e., Comprehensive Social Security Assistance (CSSA) recipients. Healthy 50 to 64 year olds, without other risk indicators, had to pay if they wanted to be vaccinated.”

3. I think it would be very amiss not to discuss the reasons behind the gross difference between the national uptake figure of vaccination within this group of 8.5% and what was the uptake figure within the cohort you intercepted (approx.
31%.

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. The sentence following is added to Results (line 158-160, p.6) “During street intercept interviews, there were more unvaccinated individuals (controls) than vaccinated ones (cases). The excess controls approached by the interviewers were counted as non-responders”. This also explains the reasons of a low response rate (41.7%) in this study.
**Point-by-point response to the Reviewers’ Report**

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

**Version:** 2 Date: 9 February 2015

**Reviewer:** John Mair-Jenkins

**Reviewer's report:**

The question relates to identifying factors which are associated with receiving vaccination. This is well defined and a clear hypothesis is stated, it is of interest to doctors and policy makers. All tables appear genuine and the majority of elements of the STROBE statement are included, although further details are provided below.

Overall the quality of writing is acceptable, but arguments could be more developed in the discussion. The abstract may need rewording in part following response to the comments below.

The abstract is reworded following the response given.

**Method: Major Compulsory Revisions**

1. The data collection methods in general are well described and suitable for data collection by questionnaire and analysis of a case-control study. However further detail needs to be provided in order for the reader to understand how adjusted odds ratios were calculated. If logistic regression was used it needs to be stated. The method of model building and choice of confounding factors needs to be detailed, along with any a priori exposures.

   New information on calculation of the adjusted odds ratio, multinomial logistic regression analysis and choice of confounder variables is detailed in the revised manuscript, as follows:

   - Line 36-37, p.1: Multinomial logistic regression analysis was performed on the data to explore the associations between vaccination status and the variables.
– Line 146-151, p.5: 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 0.05.

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. The following sentence is added:

– Line 270-272 p.10: The factors were put in a multinomial logistic regression model and statistically adjusted for age, employment status, in receipt of social security, and all independent variables.

2. Were all questions answered by cases and controls?
   How was missing data or unknown answers handled in the analysis?

   Yes, all questions were answered by cases and controls.

   To ensure completeness in answers, 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.

**Method: Minor Essential Revisions**

3. Minor Essential Revisions
   See below

4. The inclusion of details about sample size calculation is good practice. If included it should assumptions of proportion of control exposed and ratio of cases to controls. Whether the sample size was reached should also be reported in the results section.
The following sentence is added in Method (line 155-156, p.6) “This sample size reached the required range in the sample size calculation.”.

5. The case definition needs to be refined as it currently includes people vaccinated post interview.
   The chance of including people vaccinated in 2013/14 was low. 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. You point out that people may get vaccinated after completing this survey at a later day.

   In line 106-107, p.4, 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.” The last two words “influenza seasons” are newly added to the old definition.

6. Details of proposed confounders should be provided.
   Addressed in reviewer 2 question 2

7. The survey questions need to be included as supplementary material
   The survey question is included as Annex 1 here. It will only be available to readers 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>value</td>
<td>95% CI</td>
</tr>
<tr>
<td>Knowing oneself to be in the recommended group for flu vaccine</td>
<td>37</td>
<td>19.6</td>
<td>3.75</td>
<td>2.18</td>
</tr>
<tr>
<td>Knowing flu vaccine provides 70-90% protection in healthy adults</td>
<td>89</td>
<td>46.6</td>
<td>1.66</td>
<td>1.17</td>
</tr>
<tr>
<td>Knowing about the Government Vaccination Programme</td>
<td>128</td>
<td>68.0</td>
<td>1.79</td>
<td>1.25</td>
</tr>
<tr>
<td>Knowing flu vaccine reduces flu complications and related hospitalisation</td>
<td>180</td>
<td>97.8</td>
<td>3.20</td>
<td>1.10</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>1.45</td>
<td>0.98</td>
</tr>
<tr>
<td>Presence of chronic disease(s)</td>
<td>78</td>
<td>40.4</td>
<td>1.83</td>
<td>1.27</td>
</tr>
<tr>
<td>Visited doctors in the past 3 months</td>
<td>92</td>
<td>47.7</td>
<td>1.74</td>
<td>1.23</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>1.77</td>
<td>0.89</td>
</tr>
<tr>
<td>Current drinker</td>
<td>34</td>
<td>17.6</td>
<td>0.88</td>
<td>0.57</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>2.55</td>
<td>1.25</td>
</tr>
<tr>
<td>Perceived flu vaccine to be safe</td>
<td>183</td>
<td>98.4</td>
<td>6.96</td>
<td>2.12</td>
</tr>
<tr>
<td>Believed flu vaccine has additional benefits other than flu protection</td>
<td>181</td>
<td>93.8</td>
<td>2.20</td>
<td>1.15</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>1.81</td>
<td>1.21</td>
</tr>
<tr>
<td>Perception of having very good or good health</td>
<td>105</td>
<td>54.4</td>
<td>0.55</td>
<td>0.39</td>
</tr>
<tr>
<td>Perception of having severe adverse events after vaccine</td>
<td>22</td>
<td>12.2</td>
<td>0.42</td>
<td>0.25</td>
</tr>
<tr>
<td>Belief in very good or good vaccine efficacy</td>
<td>147</td>
<td>76.2</td>
<td>1.69</td>
<td>1.14</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>5.71</td>
<td>3.29</td>
</tr>
<tr>
<td>Willing to receive flu vaccination for free</td>
<td>184</td>
<td>95.8</td>
<td>7.37</td>
<td>3.50</td>
</tr>
<tr>
<td>Convenient to reach a vaccination location</td>
<td>187</td>
<td>96.9</td>
<td>3.45</td>
<td>1.44</td>
</tr>
<tr>
<td>Prefer public clinic for injection</td>
<td>105</td>
<td>54.7</td>
<td>0.48</td>
<td>0.33</td>
</tr>
<tr>
<td>Will respond to Government telephone reminder service on flu shot</td>
<td>105</td>
<td>54.4</td>
<td>1.82</td>
<td>1.29</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>4.23</td>
<td>2.14</td>
</tr>
<tr>
<td>Had family member receive flu vaccine</td>
<td>76</td>
<td>41.8</td>
<td>3.20</td>
<td>2.17</td>
</tr>
<tr>
<td>Accept advice from relatives and friends</td>
<td>86</td>
<td>44.8</td>
<td>2.48</td>
<td>1.73</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>4.15</td>
<td>2.09</td>
</tr>
</tbody>
</table>
**Result: Major Compulsory Revisions**

8. In a number of places in the results and discussion inappropriate results are presented such as line 282 ‘The majority (84%) of all respondents were willing to receive the vaccine…’, line 173 or line 265. The proportion exposed/unexposed should only be reported for either cases or controls due to the case control methodology. Measures of association (odds ratios) should be used to describe the relationship between exposures and outcomes. This needs correcting throughout.

For those percentages or proportion showed “all the respondents” they are changed to “the proportion of cases (exposed) and control (unexposed)” as required. The only exception is the presentation under Demography (line 169-182, p.6-7) of the Result part, which a presentation of all the sample together is more appropriate. The changes are in:

- Line 185, p.7: The majority of all the cases (80.8%) and controls (93.9%)…
- Line 221-222, p.8: Ninety-five percent (95.8%) of the cases and seventy-five percent (75.7%) were ‘willing to receive flu vaccination for free’.
- Line 277, p.11: The majority of the cases (80.8%) and controls (93.9%)…
- Line 298, p.11: Many study cases and controls expressed they were willing to receive the vaccine if it was free or subsidised.

All the measures of association, i.e. odds ratios (OR), in the manuscript refer to relationship between cases and controls The ORs are all adjusted statistically.

9. More detail about the confounding factors needs to be provided in the results section. What were the factors?

Detailed discussion on confounding factors is added to line 267-274, p.10: Multi-dimensional factors have contributed to people’s choice of whether or not to receive vaccination. These factors comprise of social, environmental and economic dynamics in a specific context. The factors were put in a multinomial logistic regression model and statistically adjusted for age,
employment status, in receipt of 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.

**Result: Minor Essential Revisions**

10. The factors adjusted for should be detailed for adjusted odds ratios.

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

11. Table 2 needs to show details of factors adjusted for

   The above is addressed in question 1 and 9 above.

**Discussion: Major Compulsory Revisions**

12. Line 251 – 252 the response rate is positive responses over all interviews, not positives over negatives as stated. Also much of the second paragraph in the discussion should be moved to the results section as it introduces new results. Lines 251-252 and 254-255 in the original manuscript were deleted. In addition, lines 158-160 in p.6 are added as the information explaining the calculation of the response rate to the Result section: “During street intercept interviews, there were more unvaccinated individuals (controls) than vaccinated ones (cases). The excess controls approached by the interviewers were counted as non-responders.”.

13. Line 339 – 343 the study results should not be generalised to the population as a whole or extreme caution used due to the study design and sampling method. The sentence in line 375-376 (p.15) is revised as: The study results have important implications for the general population aged 50 to 64 years in Hong Kong.

14. The discussion is supported by the results but the writing in the discussion needs developing in places. Currently in some places factual statements are
provided, however it would be useful for readers to have some further interpretation or the results, and limitations

Further interpretation or the results, limitations, policy implications and recommendations are added in the Discussion section:

- Line 259-261, p.10: It was estimated that a larger number of people would have had to be approached should a telephone or postage survey been used.

- Line 284-286, p.11: A health promotion strategy on empowerment and enhancement of knowledge on this issue needs to be planned and supported by health-care policy.

- Line 295-296, p.11: the odds of the cases being ‘eligible for free government vaccine’ were 6.4 times the controls.

- Line 343: Further studies on the local vaccination policy and the views of health professionals would provide a comprehensive account of the low vaccination coverage in this age group.

15. The selection of cases and controls by street intercept interview is a subjective convenience sampling method. The effect of sampling both cases and controls in this way means they may be biased and not representative of the population. The biases introduced by this method need to be discussed in more detail in the discussion.

The following texts are added the biases introduced by street-intercept method:

- Lines 369-373. P.14-15 are added: Another bias would be due to the sampling of respondents from different locations, e.g., on public and private estates, in train stations and shopping malls. A comparison of the demographic characteristics of the samples collected in different locations, and those of the relevant population, would be useful to identify potential bias.

16. Line 328 - Is recall bias likely to have an effect here if respondents are asked the opinions at the time of interview?

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 329 – temporal sequence and reverse causality are important in this study and may be a key limitation depending on what questions were asked. The effect of asking about future states, ie will you get vaccinated next year, as an exposure in a case-control study is difficult to interpret and needs further discussion.

Lines 327-332, p.14 are revised as: One of the important limitations of this case-control was the 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 the influenza vaccine was a cause or a consequence of vaccination. Other limitations of this case-control include 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. Line 262 – 263 needs rewording to show confounding was identified. The effects of confounding factors needs to be discussed in full.

The lines 262-263, now 273-274, p.10 are revised to show the identified confounders: The factors were put in a multinomial logistic regression model and statistically adjusted for age, employment status, in receipt of 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.

Other: Minor Compulsory Points

19. Line 104-5 word missing – suggest not part of a…
Line 104-5, now 108-109 in p.4 is revised as “They were classified as control because they were not included as the recommended group in 2010/11 and before.”

20. Line 118 A total of 210 man-hours were spent on the interviews. Should be moved to the results section
   Line 118 is moved to Result section as line 160-161, p.5.

21. Line 314-316 reference missing
   Lines 314-316, now 329-331, p.13 are speculation by the author in this discussion and therefore no reference is cited.

22. Line 128 – wrong tense used
   Line 128, now 131, p.22 is changed to past tense.

Discretionary Revisions
Is it worth including a section in the discussion about implications/recommendations for public health policy makers?
A paragraph is added, as lines 341-353, p.13-14 in the discussion section, on implications/recommendations for public health policy makers.

In addition, the conclusion is revised.
You are invited to participate in a study 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 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 withdrawn 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.
**Participant selection**

- **Ascertain the person is a Hong Kong resident aged between 50 to 64 years?** (born between 1962 to 1949)
- **Explain the research purpose**
- **Tell the person participation is voluntary**
- **Obtain written or verbal consent**

**Reasons for unsuccessful interview:**

- **Refuse**
- **Unvaccinated in previous two years (too many controls)**
- **Language difficulty**
- **Claimed completed the same survey before**

<table>
<thead>
<tr>
<th>請選擇 Please tick box</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>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.</strong></td>
</tr>
<tr>
<td>2. <strong>My questions (if any) concerning this study have been answered by the interviewer.</strong></td>
</tr>
<tr>
<td>3. <strong>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.</strong></td>
</tr>
<tr>
<td>4. <strong>I agree to take part in this study supervised and implemented by Dr. YEUNG Pui Shan.</strong></td>
</tr>
</tbody>
</table>

____________________
**被訪者姓名 Name of participant**

____________________
**日期 Date**

____________________
**被訪者簽名 Signature of participant**

____________________
**訪問員姓名 Name of interviewer**
以下問題請選擇一個答案，除非另有說明。
Please choose only one answer for the following questions unless otherwise stated.

**人口統計學 Demographics**

1. 你的出生年份係？ What is your year of birth? _________ (1962 to 1949)
2. 請問你性別係？What is your gender?
   (訪問員：喺未能確定被訪者嘅性別嘅情況下才問此問題。
   (Interviewer: Only ask when you are unsure about the participant’s gender.)
   a. 男 Male
   b. 女 Female
3. 請問你種族？What is your ethnicity?
   a. 中國 Chinese
   b. 印尼 Indonesia
   c. 菲律賓 Philippines
   d. 白人 White (American or European)
   e. 印度人 Indian
   f. 其他 Other (請說明 Please specify:____________)
4. 請問你最高教育程度？What is your highest educational attainment?
   g. 未受教育／幼稚園 No schooling / kindergarten
   h. 小學 Primary
   i. 中學 Secondary
   j. 大專或以上 Tertiary or above
   k. 拒絕回答 Refuse to answer
5. 請問你現在職業？What is your current occupation?
   (訪問員：如未能分類，填上職業名稱。)
   (Interviewer: Write down the name of occupation if you cannot classify.)
   a. 僱主 / 經理及行政人員 Employer / manager and administrator
   b. 專業人員 / 輔助專業人員 Professional / Associate professional
   c. 文員 / Clerk
   d. 服務工作及商店銷售人員 Service worker and sales
   e. 技術工人 / 非技術工人 Skilled or unskilled worker
   f. 學生 Student
   g. 料理家務者 Homemaker
   h. 退休人士 Retired
   i. 待業 Unemployed person
   j. 其他 Other (請說明 Please specify:____________)
6. 你嘅職業與醫護有關嗎？ Is your occupation health related?
   a. 有關 Yes
   b. 有關 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. 有 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. 有 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 Kwai Tsing 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用打流感針(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年以前有用打過流感針？

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. 请问你知不知道有政府防疫注射计划和资助计划，和非政府的疫苗资助计划？

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

a. 有 Yes
b. 有 No

Q6. 请问你愿意出多少钱去打流感针呢？

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. 如果打流感针是免费，你愿意打吗？

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针呢？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. 你認為流感疫苗有效保護你嗎？
Do you think the vaccine is useful in protect you from flu?

有效 Very useless □ □ □ □ □ 有效 Very useful
1 2 3 4 5

Q14. 你覺得打流感針，有其他好處嗎？
Do you think having a flu shot has other benefits?

a. 有，保護家人 Yes, protect family

b. 有，履行社會規範 Yes, fulfill social norm

c. 有，工作需要 Yes, requirement of work

d. 有，其他原因 Yes, for other reasons 註明 specify: ______________

e. 有 No

Q15. 你唔打流感針，喺唔喺因為怕打針/怕痛？
Will you not get the vaccine because of scare of needle or pain?

a. 怕打針 / 怕痛 Yes

b. 唔喺 No

Q16. 你認為你健康嗎？Do you think your health is good？

唔健康 Very unhealthy □ □ □ □ □ 好健康 Very healthy
1 2 3 4 5

需要 Need
Q17. 你有冇任何慢性疾病，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，有冇未滿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. 你認為屬唔屬於目標或高危組別人士呢？

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

**External environmental factors**

Q27. 請問您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!