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# **EXECUTIVE SUMMARY**

## **調查摘要**

**SUBMITTED TO**  
**CENTRE FOR HEALTH PROTECTION**  
**DEPARTMENT OF HEALTH**

呈交予

衛生署衛生防護中心

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# **General Public's Knowledge, Attitude and Practice Survey on Antimicrobial Resistance 2016/17**

## **公眾對抗菌素耐藥性認知、態度及 行為調查 2016/17**

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Submitted by  
**Social Sciences Research Centre**  
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## **Executive Summary**

### **Introduction**

The Department of Health commissioned the Social Science Research Centre of the University of Hong Kong (“HKUSSRC”) to conduct a territory-wide telephone survey to gauge the general public’s awareness of Antimicrobial Resistance (“AMR”) problem; knowledge, attitude and practice on antibiotic use; and their views on potential control measures and AMR-related health promotion.

### **Research Methodology**

The survey was an anonymous telephone survey conducted using the Computer Assisted Telephone Interviews (CATI). The sample was drawn randomly from a list of telephone numbers, which included unlisted and new numbers. The target respondents were Cantonese, Putonghua or English-speaking non-institutional Hong Kong residents (excluding foreign domestic helpers) aged 15 or above. A bilingual (Chinese and English) questionnaire was used to collect data.

Fieldwork took place in the call-centre of HKUSSRC on all the weekdays (Monday to Friday, except Public Holidays) and one Saturday (14<sup>th</sup> January 2017) between 23<sup>rd</sup> December 2016 and 19<sup>th</sup> January 2017 (a total of 17 weekdays and 1 Saturday). In total, 1,255 eligible respondents completed the interview. The response rate was 10.8%.

Weighting was applied based on age and gender in order to make our findings more representative, using the Hong Kong population data compiled by the Census and Statistics Department General Household Survey Q2 2016 as reference. Associations between selected demographic information and responses to selected questions were examined by the Pearson’s chi-square test, Kruskal-Wallis test and Spearman’s rank correlation.

## Results of Survey

### **Knowledge of antibiotics**

#### **Which medical conditions should antibiotics be used to treat**

The majority of respondents correctly identified the following medical conditions as treatable with antibiotics:

- Skin or wound infection (Can be treated: 71.8% vs Cannot be treated: 15.3%)
- Bladder/urinary tract infection (UTI) (69.1% vs 13.7%)

In contrast, only 26.5% correctly identified gonorrhoea as a condition treatable with antibiotics.

Over half of all respondents mistakenly identified the following medical conditions treatable with antibiotics:

- Cold and flu (54.0% vs 37.3%)

The majority of all respondents (87.9%) thought they should stop taking antibiotics only when they have taken all of the antibiotics as directed, while one-tenth of them (10.4%) thought they should stop taking antibiotics when they felt better and the rest (1.7%) did not know.

It is reassuring that the majority of all respondents correctly identified the following two false knowledge statements about antibiotics as incorrect:

- It's okay to use antibiotics that were given to a friend or family member, as long as they were used to treat the same illness (False: 93.1% vs True: 5.9%)
- It's okay to buy the same antibiotics, or request them from a doctor, if you're sick and they helped you get better when you had the same symptoms before (False: 83.1% vs True: 13.6%)

## **Use of antibiotics and views on health education materials**

### **When respondents last took antibiotics, and how and where they obtained antibiotics**

One-third of respondents (33.0%) reported having antibiotics within the past six months, while 7% reported that they never took any antibiotics. Among those respondents who had ever taken antibiotics, a vast majority of them (97.9%) reported they obtained their antibiotics from a doctor. Among 28 respondents who did not get their last antibiotics from a doctor or couldn't remember, one of them took leftover antibiotics and the remaining 27 obtained their antibiotics from a medical store or pharmacy.

### **Whether respondents received advice from a doctor, nurse or pharmacist on how to take antibiotics**

Among those respondents who obtained their antibiotics (or antibiotic prescriptions) from a doctor, the majority (65.4%) reported that they had received advice from a medical professional (i.e. a doctor, nurse or pharmacist) on how to take antibiotics.

Among those respondents who had received advice from a medical professional, only less than half of them received the following advice on precautionary measures while taking antibiotics:

- Wearing a mask when having respiratory infection symptoms (Received: 48.6% vs Didn't receive: 50.7%)
- Children with signs and symptoms of infectious diseases should avoid contact with other children (25.4% vs 73.6%)
- Disinfect and cover all wounds (18.7% vs 80.7%)
- Eat or drink only thoroughly cooked or boiled items (15.1% vs 84.4%)
- Practise frequent hand hygiene (14.2% vs 84.7%)

However, the majority of those respondents who obtained their antibiotics from a doctor (73.8%) reported that they want to receive more information on precautionary measures while taking antibiotics.

### **Usefulness of specified actions that would help respondents to comply with the antibiotics treatment**

The majority of all respondents reported that the following actions are either very useful or slightly useful for helping them to comply with the antibiotics treatment:

- Print educational information on the antibiotic prescription bags (very useful or slightly useful: 79.0% vs very useless or slightly useless: 6.6%)
- Doctors give related advice when prescribing antibiotics (76.9% vs 4.3%)
- Pharmacists give related advice when dispensing antibiotics (70.9% vs 7.3%)

## **Practices and attitude towards antibiotic use**

About one-third of all respondents (36.3%) reported that they preferred to consult a doctor that has declared to use antibiotics responsibly.

Among those respondents (59.7%) who reported that they had consulted a doctor (for cold or flu) in the past 12 months, only a very small proportion of them (2.5%, 19 respondents) had asked for antibiotics during that consultation.

Among those respondents (21.4%) who reported that they had brought someone aged 15 years old or below to consult a doctor (for cold or flu) in the past 12 months, only 2 respondents (0.9%) had asked for antibiotics for that person during that consultation.

When a doctor's initial assessment indicated that antibiotics are not needed, the vast majority of respondents (96.9%) would accept the doctor's advice to observe for a few more days or to wait for the diagnostic test result before deciding whether to prescribe antibiotics or not.

The majority of respondents (84.3%) did not want to receive any antibiotics prescription if the doctors' initial diagnosis for them is viral infection e.g. cold/flu, while 10.3% of them wanted to get an antibiotics prescription.

The majority of respondents (73.9%) wanted their doctor to discuss and make a shared decision with them on antibiotics prescription.

## **The effectiveness of promotion on safe use of antibiotics at a list of places**

A large proportion of all respondents rated the effectiveness of promotion on safe use of antibiotics at the following places as either very useful or slightly useful:

- Hospital or Clinic pharmacies (while waiting for drug dispensing) (very useful or slightly useful: 75.6% vs very useless or slightly useless: 8.8%)
- Waiting areas of clinics or A&E departments (70.4% vs 12.9%)
- Wards (65.4% vs 13.1%)
- Community pharmacies (51.9% vs 23.0%)

## **The effectiveness of different media for promotion of safe use of antibiotics**

A large proportion of all respondents rated the effectiveness of the following promotion methods on safe use for antibiotics as very useful or slightly useful:

- Videos (e.g. TV API or programs) (very useful or slightly useful: 77.3% vs very useless or slightly useless: 9.5%)
- Websites or social medias, e.g. Facebook (57.9% vs 19.8%)
- Printed materials, e.g. posters or pamphlets (48.3% vs 22.5%)
- Articles, e.g. columns in newspapers or magazines (46.2% vs 23.1%)

## **Knowledge of antimicrobial resistance**

### **Awareness of the terms commonly used in relation to the issue of antimicrobial resistance**

A large proportion of respondents have heard of the Chinese term of superbugs (超級細菌) (82.2%), antibiotic-resistant bacteria (抗藥性細菌)(76.2%) or antibiotic resistance (抗生素耐藥性) (67.8%). However, only a minority of respondents have heard of antimicrobial resistance (抗菌素耐藥性) (36.8%) or 抗微生物藥物耐藥性 (12.6%, in Chinese only for those respondents who speak Putonghua or Cantonese). The media was the most common source from which they had heard about these terms.

### **Levels of understanding of the issue of antimicrobial resistance**

A large proportion of respondents correctly identified the following true statements:

- Many infections are becoming increasingly resistant to treatment by antibiotics (True: 79.9% vs False: 8.4%)
- If bacteria are resistant to antibiotics, it can be very difficult or impossible to treat the infections they cause (73.8% vs 15.9%)
- Antibiotic-resistant infections could make medical procedures like surgery, organ transplants and cancer treatment much more dangerous (72.3% vs 11.6%)
- Antibiotic resistance is an issue that could affect me or my family (68.6% vs 18.3%)

One third of respondents misunderstood that bacteria which are resistant to antibiotics cannot be spread from person to person (36.9%)

A large proportion of respondents (76.5%) mistakenly identified “Antibiotic resistance occurs when your body becomes resistant to antibiotics and they no longer work as well” was a true statement. Nonetheless, the majority of them recognised “Antibiotic resistance is an issue in other countries but not here” (81.8%) and “Antibiotic resistance is only a problem for people who take antibiotics regularly” (53.2%) were false statements.

### **Views on potential AMR control measures and impact on personal level**

The majority of respondents strongly agreed or slightly agreed that the following actions would help address the problem of antibiotic resistance:

- Doctors should only prescribe antibiotics when they are needed (strongly agreed or slightly agreed: 97.6% vs strongly disagreed or slightly disagreed: 0.2%)
- People should wash their hands regularly (90.6% vs 4.1%)
- People should use antibiotics only when they are prescribed by a doctor (87.3% vs 4.4%)
- Parents should make sure all of their children's vaccinations are up-to-date (83.9% vs 5.1%)
- People should not keep antibiotics and use them later for other illnesses (83.5% vs 11.9%)
- Farmers should give fewer antibiotics to food-producing animals (82.6% vs 6.6%)
- Pharmaceutical companies should develop new antibiotics (59.1% vs 12.9%)
- Governments should reward the development of new antibiotics (53.9% vs 13.7%)

### **Views on the scale of AMR problem and its impact on personal level**

The majority of respondents strongly agreed or slightly agreed with the following three statements:

- Everyone should take responsibility for using antibiotics responsibly (strongly agreed or slightly agreed: 88.7% vs strongly disagreed or slightly disagreed: 3.3%)
- I am worried about the impact that antibiotic resistance will have on my health, and that of my family (73.5% vs 10.2%)
- Antibiotic resistance is one of the biggest problems the world faces (71.3% vs 6.0%)

Around half of the respondents strongly agreed or slightly agreed with the following three statements:

- There is not much people like me can do to stop antibiotic resistance (strongly agreed or slightly agreed: 51.4% vs strongly disagreed or slightly disagreed: 23.5%)
- Medical experts will solve the problem of antibiotic resistance before it becomes too serious (46.5% vs 15.5%)
- I am not at risk of getting an antibiotic-resistant infection, as long as I take their antibiotics correctly (45.7% vs 25.5%)

### **Use of antibiotics in agriculture**

Half of the respondents (50.9%) thought that antibiotics were widely used in agriculture (including in food-producing animals) in Hong Kong, while a quarter (25.0%) did not think so.

## Recommendations

This study showed that the majority of respondents were aware of antibiotic resistance and its risk, although not familiar with the Chinese terminology of antimicrobial resistance (抗菌素耐藥性) and 抗微生物藥物耐藥性. However, half of them considered themselves incapable of stopping the AMR problem. This study also identified that misunderstanding on indications of antibiotics remain prevalent with over half of the respondents mistaking cold and flu as conditions treatable with antibiotics. Awareness-raising activities of the general public should be strengthened to fill this knowledge gap in future health promotion programmes. It is noteworthy that most respondents would comply with doctor's advice on the need of antibiotics for cold and flu or viral infections. Therefore, health advice and education provided during medical consultations can also serve as a powerful intervention in reducing inappropriate antibiotic use.

Most respondents showed support to potential AMR control measures, including shared decision-making on antibiotic prescription, and most accepted “no antibiotic prescription with watchful waiting” when the initial medical assessment indicated antibiotics is not needed. To carry this forward, guidelines and training for primary care providers and patient materials can facilitate shared decision-making and “no antibiotic prescription with watchful waiting” practice in community setting. More studies should also be conducted to further assess the needs of prescribers and how the above interventions can be facilitated.

Finally, traditional mode of message delivery by videos (TV API or television programmes), website or social media were considered useful by most respondents. Future health promotion should also explore and expand channels of delivery in waiting area of hospital, pharmacies clinics and emergency departments which were considered effective for delivery of health message on proper antibiotic use.

It would be helpful to repeat a similar KAP survey in order to monitor trend in local population, assess the effectiveness of interventions and guide future actions.



## 調查摘要

### 引言

衛生署委託香港大學社會科學研究中心（研究中心）進行一項全港性的電話調查。本調查旨在評估公眾對抗生素的認知、使用抗生素的態度和行為，對抗菌素耐藥問題的認知和對應對措施以及健康推廣活動的看法。

### 調查方法

本調查為一項不記名電話調查，利用電腦輔助電話訪問系統（CATI）進行。調查樣本是從一個電話號碼清單中隨機抽出，當中包括一些未有被刊登的電話號碼及新號碼。調查的訪問對象為年齡 15 歲或以上，能操廣東話、普通話或英語的非住院舍的香港居民（不包括外籍家庭傭工）。本調查採用一份中英對照的問卷收集數據。

正式的電話訪問於 2016 年 12 月 23 日至 2017 年 1 月 19 日期間的平日（即星期一至星期五，公眾假期除外）及一個星期六（2017 年 1 月 14 日）在研究中心內進行（總共 17 天為平日及 1 天為星期六）。共 1,255 位合資格受訪者完成了調查，應答率為 10.8%。

本調查以政府統計處於 2016 年第二季度編製的綜合住戶統計調查的本港人口數據作參考，加權調整了受訪者的年齡和性別比重，以確保調查結果更具代表性。本報告採用了三種統計檢定方法測試選取的受訪者特徵與選取的題目之間的關係，包括皮氏卡方檢定、單因方差檢定及史氏定級相關檢定。

## 調查結果

### 對抗生素的認知

#### 抗生素能治療的疾病

大部分受訪者能正確指出抗生素能治療以下疾病：

- 皮膚或傷口感染（分別為能治療：71.8%及不能治療：15.3%）
- 膀胱或泌尿道感染（尿道炎）（分別為 69.1%及 13.7%）

相反，只有 26.5%受訪者能正確指出抗生素能治療淋病。

在所有的受訪者中，超過半數誤以為抗生素能治療以下疾病：

- 傷風感冒（分別為 54.0% 及 37.3%）

在所有的受訪者中，大多數（87.9%）認為他們應按照指示服完抗生素。十分之一的受訪者（10.4%）則認為當他們覺得病情好轉便可停止服用抗生素，而其餘的（1.7%）則表示不知道應該在什麼時候停止服用抗生素。

令人欣慰的是在所有的受訪者中，大多數人能正確指出以下兩句關於抗生素的句子是錯誤的：

- 「只要係醫同樣嘅病，食朋友或者屋企人畀嘅抗生素係冇問題嘅」（分別為錯誤：93.1%及正確：5.9%）
- 「如果您病咗，之前試過類似嘅病，食抗生素之後好咗。今次可以買番同樣嘅抗生素，或要求醫生處方同樣嘅抗生素」（分別為錯誤：83.1% 及正確：13.6%）

### 使用抗生素及對健康教育素材的意見

#### 受訪者最後一次服用抗生素的時間，以及獲得抗生素的途徑和來源

三分一受訪者（33.0%）表示在受訪前六個月內曾服用抗生素，而有 7% 的受訪者表示他們從未服用任何抗生素。在曾服用抗生素的受訪者中，絕大多數（97.9%）表示他們的抗生素是由醫生處方。有 28 位受訪者表示他們最後一次服用的抗生素不是或忘記是否由醫生處方，當中有一位表示服用了剩餘的抗生素，其餘 27 位都是從藥店或藥房獲得抗生素。

#### 受訪者有否從醫生、護士或藥劑師獲得關於服用抗生素的建議

在從醫生獲得抗生素的受訪者中，大多數（65.4%）表示曾從醫療專業人員（例如：醫生、護士或藥劑師）獲得關於服用抗生素的建議。

在那些曾經從醫療專業人員獲得建議的受訪者中，只有少於半數的受訪者獲得以下關於服用抗生素的注意事項：

- 當有呼吸道感染徵狀時戴上口罩（分別為曾經獲得：48.6% 及沒有獲得：50.7%）
- 有傳染病徵狀的幼童，要避免接觸其他兒童（分別為 25.4% 及 73.6%）；
- 消毒及覆蓋傷口（分別為18.7% 及 80.7%）；
- 食水和食物必須徹底煮滾及煮熟（分別為15.1%及 84.4%）；及
- 時刻保持手部衛生（分別為14.2% 及 84.7%）

然而，大多數從醫生獲得抗生素的受訪者（73.8%）表示，希望在醫生處方抗生素的時候，得到更多有關服用抗生素的注意事項。

### 幫助受訪者遵從抗生素處方的方法的效用

大多數受訪者表示以下方法對於輔助他們遵從抗生素處方是非常有用或稍微有用：

- 在藥袋上面印有服用抗生素的注意事項（非常有用或稍微有用：79.0%及非常沒有用或稍微沒有用：6.6%）
- 醫生在處方抗生素藥時提供相關建議（分別為 76.9% 及 4.3%）
- 藥劑師在配抗生素藥時提供相關建議（分別為 70.9% 及 7.3%）

### 使用抗生素的態度和行為

在所有的受訪者中，約三分一受訪者（36.3%）表示他們會優先選擇會善用抗生素的醫生。

在表示過往十二個月內曾因傷風感冒看過醫生的受訪者（59.7%）中，只有很少數（2.5%，19 位受訪者）表示在該次求診時要求醫生處方抗生素。

在表示過往十二個月內曾携同十五歲或以下人士因傷風感冒去看醫生的受訪者（21.4%）中，只有 2 位受訪者（0.9%）表示在該次求診時要求醫生處方抗生素。

當醫生認為病情暫時不須要服用抗生素時，絕大多數的受訪者（96.9%）會接受醫生的建議觀察多一段時間，或待測試結果才決定是否處方抗生素。

如果醫生初步診斷為傷風或感冒等病毒感染時，大多數受訪者（84.3%）表示不希望醫生處方抗生素，而有 10.3% 的受訪者則希望獲處方抗生素。

大多數的受訪者（73.9%）希望醫生與他們討論及共同決定處方抗生素的需要。

## 在不同場合宣傳正確使用抗生素的成效

在所有的受訪者中，有高比例的受訪者認為在以下場合宣傳正確使用抗生素非常有用或稍微有用：

- 醫院或診所的藥房（等待取藥的時候）（分別為非常有用或稍微有用：75.6% 及非常沒有用或稍微沒有用：8.8%）
- 診所或急症室的候診室（分別為 70.4% 及 12.9%）
- 病房（分別為 65.4% 及 13.1%）
- 社區藥房（分別為 51.9% 及 23.0%）

## 以不同媒體宣傳正確使用抗生素的成效

在所有的受訪者中，有高比例的受訪者認為以下宣傳正確使用抗生素的方法非常有用或稍微有用：

- 短片（例如電視廣告或節目）（分別為非常有用或稍微有用：77.3% 及非常沒有用或稍微沒有用：9.5%）
- 網頁或社交媒體，例如臉書（分別為 57.9% 及 19.8%）
- 文字，例如報章或雜誌專欄（分別為 46.2% 及 23.1%）
- 其他印刷品，例如海報或宣傳單張（分別為 48.3% 及 22.5%）

## 對抗菌素耐藥性的認知

### 對與抗菌素耐藥性議題相關的常用術語的認知

高比例的受訪者表示他們曾聽過超級細菌（82.2%）、抗藥性細菌（76.2%）或抗生素耐藥性（67.8%）。然而，只有少數的受訪者表示他們曾聽過抗菌素耐藥性（36.8%）或抗微生物藥物耐藥性（12.6%）。而傳媒是他們最普遍聽到這些術語的來源。

### 對抗生素耐藥性的理解

高比例的受訪者能正確指出以下句子是屬實的：

- 很多感染對抗生素治療越來越有抗藥性（分別為正確：79.9% 及錯誤：8.4%）
- 如果細菌產生抗藥性，便很難或甚至沒有可能使用抗生素治療其所引起的感染。（分別為 73.8% 及 15.9%）
- 抗生素耐藥感染會增加醫療程序（例如外科手術、器官移植和癌症治療等）的風險（分別為 72.3% 及 11.6%）
- 抗生素耐藥性是一個可能會影響我或我家人的問題（分別為 68.6% 及 18.3%）

有三分一受訪者（36.9%）誤以為對抗生素具有抗藥性的細菌不會在人與人之間傳播。

高比例的受訪者（76.5%）錯誤地指出「你身體對抗生素產生抗藥性時，就出現抗生素耐藥性，因為抗生素不再有效了」是正確的句子。不過，大多數的受訪者能夠指出「抗生素耐

藥性在其他國家是問題，但在香港不是問題」（81.8%）和「抗生素耐藥性這個問題只會影響經常服用抗生素的人」（53.2%）是錯誤的句子。

### **對應對抗菌素耐藥問題的潛在控制措施以及對個人影響的看法**

大多數的受訪者表示非常同意或稍微同意以下的方法有助解決抗生素耐藥問題：

- 醫生應該只在有需要時才處方抗生素（分別為：非常同意或稍微同意 97.6% 及非常不同意或稍微不同意：0.2%）
- 應該經常洗手（分別為 90.6% 及 4.1%）
- 應該只服用醫生處方的抗生素（分別為 87.3% 及 4.4%）
- 父母應該確保他們的子女按時接種疫苗（分別為 83.9% 及 5.1%）
- 不應該保留剩餘的抗生素以留待下次生病時服用（分別為 83.5% 及 11.9%）
- 農民應該減少給食用動物服用抗生素（分別為 82.6% 及 6.6%）
- 藥廠應該開發新的抗生素（分別為 59.1% 及 12.9%）
- 政府應該鼓勵開發新的抗生素（分別為 53.9% 及 13.7%）

### **對抗菌素耐藥問題和對個人影響的看法**

大多數的受訪者表示非常同意或稍微同意以下三句句子：

- 每個人都需要承擔責任，以負責任的方式使用抗生素（分別為非常同意或稍微同意：88.7% 及非常不同意或稍微不同意：3.3%）
- 我擔心抗生素耐藥性會影響我和我家人的健康（分別為 73.5% 及 10.2%）
- 抗生素耐藥性是世界面臨最大的難題之一（分別為 71.3% 及 6.0%）

約半數的受訪者非常同意或稍微同意以下三句句子：

- 像我這樣的人，能為阻止抗生素耐藥性而做的事並不多（分別為非常同意或稍微同意：51.4% 及非常不同意或稍微不同意：23.5%）
- 醫學專家會在抗生素耐藥問題變得太嚴重之前解決問題（分別為 46.5% 及 15.5%）
- 只要我正確地服用抗生素，我就不會受到抗生素耐藥感染的影響（分別為 45.7% 及 25.5%）

### **農業使用抗生素的情況**

有半數的受訪者（50.9%）認為抗生素被廣泛使用在香港的農業（包括食用動物），而四分之一（25.0%）的受訪者則不認為是這樣。

## 建議

本調查顯示大多數受訪者對抗生素耐藥性及其風險有認知，儘管他們並不熟識「抗菌素耐藥性」和「抗微生物藥物耐藥性」等術語。然而，有半數的受訪者認為他們沒有能力阻止耐藥問題。同時，本調查發現公眾仍然普遍存在對抗生素用途的誤解，有超過半數的受訪者錯誤地認為抗生素可治療傷風感冒。當局應加強未來的健康推廣活動以提高公眾的認知和填補這方面的知識差距。值得一提的是，大多數的受訪者會遵從醫生針對有關傷風感冒或病毒感染無需服用抗生素的建議。因此，在病人求診期間提供健康教育及建議，應能有效減少不適當使用抗生素。

大多數的受訪者支持抗菌素耐藥的潛在控制措施，包括參與處方抗生素的決定，及當初步診斷指出不需要使用抗生素時，接受「不處方並觀察」的建議。建立指引和培訓以及為病人提供資訊，都有助基層醫療服務提供者於社區內實踐共同決策及「不處方並觀察」的措施。當局應進行更多有關的研究，以進一步評估處方者的需要，以及如何協助落實上述措施。

最後，大多數受訪者認為透過傳統的媒體如短片（電視廣告或節目）、網頁或社交媒體能有效傳遞訊息。當局在未來的健康推廣活動中，也應該探索和拓展訊息傳遞的渠道至醫院、藥房、診所及急症室的候診室，因為這些渠道都被認為能有效傳遞有關正確使用抗生素的訊息。

重複進行相同的「認知、態度及行為調查」將有助於監察本地趨勢、評估介入措施的成效及指導今後的行動。