Designing research questionnaires: Start with the end in mind

Bronwen Thompson, Policy adviser, PCRS
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Objectives

• To guide on what you need to consider when designing how you will gather information from patients to evaluate a service

• What kind of data do you want and how will you use them?
• You will learn to
  • consider the merits of qualitative vs quantitative research,
  • methods for collecting data,
  • how to decide who you want to gather information from, and
  • how to present your results
Start with the end in mind

• Decide on the information required
• Quantitative vs qualitative
• Targeting respondents/subjects/patients and how will you identify them
• Decide on data collection method – pros and cons of each
• Questionnaire/interview guide design
• Pre-test/pilot your questionnaire
• Develop the final questionnaire/interview guide
• Other considerations
Decide on the information required

- What is your overall objective for the research?
- What is your hypothesis?
- What is the purpose of undertaking your research?
- To whom will the data be relevant?
- With whom will it be shared?
Start with the end in mind

• Decide on the information required
• **Quantitative vs qualitative**
• Likelihood of shopping near work

Supermarket usage patterns

• The majority use just one most of the time

• Some use 2-3 and may have purchasing patterns for each

• A few say it depends on what journey they are doing by car

• A few say they only ever use one
Start with the end in mind

- Decide on the information required
- Quantitative vs qualitative
- Targeting respondents/subjects/patients and how will you identify them – random vs selecting according to specific criteria
  - e.g. age, has had an exacerbation, has not attended annual review, has used a specific product, has had pulmonary rehab, next 20 asthma patients seen
How many respondents?
Start with the end in mind

• Decide on the information required
• Quantitative vs qualitative
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• Decide on data collection method – pros and cons of each
  • Questionnaires/telephone/online/text message/face to face/group or focus interviews
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- Questionnaire/ interview guide design
# Interview guide/questionnaire design

## 1. In clinical practice do you use the colour of the inhaler when talking to patients about how to use their medication? (e.g., use your blue inhaler more frequently if your symptoms worsen)

<table>
<thead>
<tr>
<th>Usually</th>
<th>Often</th>
<th>Sometimes</th>
<th>Never</th>
</tr>
</thead>
</table>

## Statement 3. Please indicate how strongly you agree/disagree with the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour conventions for inhalers are helpful</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colour conventions are not that important: patients need to understand the role of each medication whatever their colour</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>It is helpful if all blue inhalers are relievers and inhalers of other colours are preventers</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>It would be easy to stop referring to inhalers by colour and use the words ‘preventer’ or ‘reliever’ instead</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would have concerns about patient safety if a blue inhaler were to contain a preventer treatment</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Talking about inhalers by colour helps me to explain the role of different inhalers so that patients use them properly</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
4. Is there anything you would like to say about the traditional colour conventions for inhalers where blue is a reliever and other colours are preventers?
Which supermarkets do you use?

• Aldi
• Asda
• Lidl
• Morrisons
• Waitrose
Which supermarkets do you use?

Tick as many as are applicable

• Aldi
• Asda
• Lidl
• Morrisons
• Waitrose
• None of the above
  • Give details
• Not applicable
• Don’t know
Questionnaire vs interview guide

- Which of the following are the 3 most important properties of LABA/LAMA inhalers?
  - Ease of use
  - Dose counter
  - Dry powder vs MDI
  - Rapid onset of action
  - Portability
  - Price
  - Molecules
  - Manufacturer

- Tell me how you select a LABA/LAMA inhaler
- What are the properties you are looking for?
- Then prompt -
  - How important is the device?
  - How important is price?
  - How important is a dose counter etc
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• Other considerations
  • Are there any constraints on timing?
  • Is there a budget?
  • What will the final output be? A presentation/report?
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