

**Field Questionnaire
Methodology**

Steps for Implementing Outbreak Investigation
Questionnaire Methods

Developed by the Florida Center for Public Health Preparedness

Module Objectives

- Understand development of field questionnaires
- Describe different methods of exposure measurement and identify strengths and weaknesses of each
- Identify issues associated with editing, coding, and entering survey data
- Identify steps for pilot testing survey
- Awareness of ethical issues in public health

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**Why is Field Questionnaire
Design Important?**

With an understanding of good field questionnaire design principles, you will ask *only* about what you need to meet your research objectives.

Ask only about what you need. . .

Example: You ask respondents to list all medications that they are taking (difficult in terms of respondent recall or accuracy), when you really only need to know if they are taking antibiotics.

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Field Questionnaires for Exposure Assessment

Whether you use a pre-existing investigation worksheet or develop your own, there are steps to field questionnaire development and implementation which should be followed in order to ensure an effective and efficient investigation.

Florida Department of Health Case
Report Forms and Investigation Worksheets:
http://www.doh.state.fl.us/disease_ctrl/epi/topics/crforms.htm

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General Investigation Worksheet

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Creating a Field Questionnaire Steps

Step 1 - Identify the leading hypotheses about the source of the problem

Step 2 - Identify the information needed to test the hypotheses

Step 3 - Identify the information needed for the logistics of the study and identify possible sources of error

Step 4 - Write the questions to collect this information

Step 5 - Organize the questions into field questionnaire format

Step 6 - Pilot test the field questionnaire

Step 7 - Revise the field questionnaire based on pilot test

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Step 1
Identify the leading hypotheses about the source of the problem

- One of the most common errors in field questionnaire development is to start by writing the questions.
- The first step in creating a field questionnaire is actually to identify the leading hypotheses about the source of the problem.
- Only after you have identified the information you need are you ready to write the questions and organize them into a field questionnaire.
- This is where you distinguish between "What would I like to know" versus "What do I need to know."

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Step 2
Identify the information needed to test the hypotheses

An epidemiological field questionnaire typically includes five categories of information:

1. Identifying information
2. Demographic information
3. Clinical information
4. Exposure or risk factor information
5. Source of information

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Step 2 (continued)
Identify the information needed to test the hypotheses

Identifying information

- Important for the logistics of the study
- Includes:
 - Respondent's name or other identifier
 - Respondent's address (and/or where they can be found)
 - Respondent's telephone number
- This information identifies the subject, allows for updating of the field questionnaires as more information becomes available, and can be used to link the field questionnaire to other records (e.g., laboratory results or other field questionnaires)
- This information can also prevent duplicate entry of records

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Step 2 (continued)

Identify the information needed to test the hypotheses

Demographic information

- Age
 - Sex
 - Race
 - Educational level
 - Location
- These items are used to characterize the population at risk and to explore the problem under investigation
- The information is important in the search for possible confounders (factors that distort the apparent exposure-disease relationship)

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Step 2 (continued)

Identify the information needed to test the hypotheses

Clinical information

- Signs and symptoms of the disease
- Date of onset of illness
- Results of laboratory testing

This information allows you to characterize the illness, decide who has the outcome of interest, and chart the time course of the problem

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Step 2 (continued)

Identify the information needed to test the hypotheses

Exposure or risk factor information

- Used to test the hypotheses under investigation
- Should be specific to the problem under investigation and reflect your hypotheses about the source of the problem

Exposure or risk factor information often includes

- The respondent's exposure to the factor of interest
- The route of exposure
- The amount of exposure
- The timing of exposure
- Other details of exposure (e.g., brand distributor)

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Step 2 (continued)

Identify the information needed to test the hypotheses

Source of the information

- The individual supplying the information as well as the person receiving it (i.e., the interviewer)
- Identification of the person supplying the information provides some insight to its validity. Is this person a study subject or a surrogate such as the spouse or parent?
- Identification of the interviewer can also be important for follow-up or clarification

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Step 3

Identify the information needed for the logistics of the study and identify possible sources of error

It is important to identify the logistical needs of field questionnaire implementation early in the process.

By addressing each of the components listed, you will be able to tailor your field questionnaire instrument to the needs and demands of your situation.

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Step 3 (continued)

Identify the information needed for the logistics of the study and identify possible sources of error

- What is the timeline for data collection?
- Who is our population of interest?
 - How do we access this population?
 - How do we locate households in the sample?
- How do we visit all households selected?
- What logistical elements do we need?
 - Office and supplies? (e.g., computers, printers, software, other office supplies)
 - Vehicles?
 - Fieldwork supplies?
 - Maps for each area?
 - Special travel arrangements?
 - Do we need to contact local authorities?

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Step 3 (continued)

Identify the information needed for the logistics of the study and identify possible sources of error

- What special needs will be there for fieldwork?
 - Facilitating the work of the team in the field?
 - Maintaining interviewer morale?
 - Ensuring contact with the central office?
 - Maintaining fieldwork control sheets?
 - Spot checking field questionnaire accuracy?

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Step 3 (continued)

Identify the information needed for the logistics of the study and identify possible sources of error

- What special field documents are needed?
 - Interviewer's Manuals?
 - Maps and household listing forms?
 - Will each team be given:
 - General cluster maps
 - Household listing forms for urban areas
 - Sketch maps and written descriptions of the boundaries of selected areas
 - If symbols are used on the maps, does the interviewer/team know how to interpret them?
 - ID cards?
 - Letters of introduction?
 - Field questionnaires?
 - Interviewer's Assignment Sheets?

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Step 3 (continued)

Identify the information needed for the logistics of the study and identify possible sources of error

- What special fieldwork supplies are needed?
 - Pens/pencils for interviewers ?
 - Clipboards?
 - Paper clips, scissors, string, staplers, tape, etc.?
 - Envelopes to store completed field questionnaires?
 - First aid kit?
 - Communication system?
 - Personal protection equipment or gear?

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Step 3 (continued)

Identify the information needed for the logistics of the study and identify possible sources of error

- What is our sampling plan?
 - Who will be included in the sample?
 - What mode of field questionnaire will be used?
 - Self-administered paper and pencil?
 - Interviewer administered?
 - Face-to-face?
 - Telephone?
 - Mail?
 - Reference to existing records?
 - Physical and/or chemical measurements?
- How many interviewers will be needed?

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Step 3 (continued)

Identify the information needed for the logistics of the study and identify possible sources of error

- How will we train interviewers?
- What method of data entry will be used?
 - Paper and pencil?
 - PDA?
 - Laptop?
- How do we revise the field questionnaire, if needed?

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Step 3 (continued)

Identify the information needed for the logistics of the study and identify possible sources of error

Field questionnaires can be conducted in a variety of ways.

Your sampling plan should identify the mode or modes of field questionnaire administration as there are distinct purposes, as well as, advantages and disadvantages associated with each.

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Step 3 (continued)
Field Questionnaires

Self-administered paper and pencil
Purpose: Obtain survey information directly from the respondent.

Mode: Respondent fills out the survey themselves with little or no oversight from the interviewer.

Special Design Note:

- Field questionnaires should be designed so they can be completed in less than 30 minutes
- Field questionnaires may need to be translated into different languages

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Step 3 (continued)
Field Questionnaires

Self-administered paper and pencil
Method: There are three ways in which a self-administered paper and pencil survey can be implemented

- Face-to-face either individually or in a group setting
- Mail
- Third person

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Step 3 (continued)
Field Questionnaires

Self-administered paper and pencil

Advantages

- Low cost
- Easier to standardize
- Anonymity
- Reduce Interviewer Bias

Disadvantages

- Low response rate
- Inappropriate or inaccurate answers due to misunderstanding the question
- Lack of open ended questions
- Possible source of bias
- Respondents may get distracted and not complete the instrument

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Step 3 (continued)
Field Questionnaires

Interviewer administered

Purpose: Obtain survey information directly from the respondent

Mode: Interviewer asks the respondent the survey questions

Special Design Note:

- Field questionnaires should be designed so they can be completed in less than 45 minutes
- Data could be entered directly into an electronic database

Method: There are two ways in which a self-administered paper and pencil survey can be implemented

- Face-to-face
- Telephone

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Step 3 (continued)
Field Questionnaires

Interviewer administered

Face-to-Face Advantages

- High Response Rate
- Flexibility
- Contact hard to reach populations

Face-to-Face Disadvantages

- High cost
- Interviewer Bias
- Personal Safety

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Step 3 (continued)
Field Questionnaires

Interviewer administered

Telephone Advantages

- Rapid data collection
- Low cost
- Large-scale accessibility
- Interviewer can explain questions, probe for more information, and/or reschedule if language is a barrier

Telephone Disadvantages

- Less credibility
- Respondents can be distracted and/or end call anytime
- Telephone access/use may not be available
- Lack of visuals

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Step 3 (continued)
Field Questionnaires

Reference to existing records

- Sometimes adequately standardized information is already available from existing records
- It is possible to identify treated patients and obtain the information needed to follow them up (name, date of birth, sex, address, etc) by searching hospital files
- When existing records are used in this way, the required information is normally abstracted on to a specially designed form or even direct on to a portable computer

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Step 3 (continued)
Field Questionnaires

Reference to existing records

- The design of the abstraction form or of the computer program for inputting data should take into account the layout of the source material
- Each abstracted record should be identified by a serial number, and should include sufficient information to permit easy access back to the source material and to obtain additional data if required
- To minimize the chance of error, any reformulation of numerical data (for example, derivation of age at hospital admission from date of birth and date of admission) should be carried out by the computer after data entry, and not as part of the abstraction process
- When coding data, allowance must be made for the possibility of missing information

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Step 3 (continued)

Identify the information needed for the logistics of the study and identify possible sources of error

- The longer the recall time, the less detail can be expected from the respondent and the less likely it is that the respondent will give an answer of sufficient quality to be included in the analysis
- In most cases, it is important to focus on key events
- Rare events may only be remembered by the subjects if they made a large impact on their life or are somehow connected to other events

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Step 3 (continued)

Identify the information needed for the logistics of the study and identify possible sources of error

Possible sources of error

- Incomplete list
- Non-response bias
- Response bias
- Wording

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Step 3 (continued)

Identify the information needed for the logistics of the study and identify possible sources of error

Incomplete list

- Occurs when any part of a population is not included in a list that sample respondents are chosen from
- Some examples of respondents that might be missed are people in prison, homeless people, students, and long term travelers

Strategy

- Ensure sample is representative of the population under study
- Follow-up on leads of "where to find" sample

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Step 3 (continued)

Identify the information needed for the logistics of the study and identify possible sources of error

Non-response bias

- Occurs when a large portion of those sampled do not respond

Strategy

- Questionnaire design may be flawed – Re-design and pilot test
- Questionnaire may be too long – Re-design and pilot test
- Sample may have re-located – Use leads to determine new location(s)

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Step 3 (continued)

Identify the information needed for the logistics of the study and identify possible sources of error

Response bias

Occurs when a respondent tries to tailor a response to what she/he thinks the interviewer wants because the respondent is:

- Unable to understand the question
Strategy: Re-ask the question
Native language may not be English and thus require an interpreter
Show the person the question in writing
- Unable to understand the response choices
Strategy: Re-ask the question
Ask the person to respond with their own answer
Show the person the response choices in writing

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Step 3 (continued)

Identify the information needed for the logistics of the study and identify possible sources of error

Response bias (continued)

- Unable to recall the requested information
Strategy: Use calendar and/or other events to aid recall
- Unable to articulate a response (usually in response to open-ended questions)
Strategy: Use the 10 second rule and wait for a response
Rephrase the question
- Unwilling to disclose or social desirability
Strategy: Restate confidentiality
Restate purpose of study
Restate the ways the information will be used

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Step 3 (continued)

Identify the information needed for the logistics of the study and identify possible sources of error

Wording

- Leading statements, questions, or response choices can affect the answers to questions
Strategy: Pilot test questionnaire
Train interviewers to "stick" to the questions
- Field investigators may:
 - Ask unclear or ambiguous questions
 - Lack a neutral demeanor
 - Transcribe or record the response incorrectlyStrategy: Train interviewers
Build in quality checks

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Step 4

Write the questions to collect this information

Two considerations:

1. Type of question
2. Design of the question

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Step 4 (continued)

Write the questions to collect this information

Type of Question

Three types of questions are used in field questionnaires for epidemiologic studies:

- Open-ended questions
- Fill-in-the-blank questions
- Closed-ended questions

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Step 4 (continued)

Write the questions to collect this information
– Type of Question

Open-Ended Questions

- Allow respondents to provide answers in their own words
- Yield qualitative data
- May yield unanticipated answers that contribute to the study
- Are most appropriate for hypothesis generating versus testing field questionnaires

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Step 4 (continued)

Write the questions to collect this information
– Type of Question

Example: Open-Ended Questions

- What restaurants did you patronize in the past seven days?
- Please list the two main symptoms you are having with this illness

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Step 4 (continued)

Write the questions to collect this information
– Type of Question

Fill-in-the Blank Questions

- Allow respondents to provide *short* answers in their own words
- Yield qualitative data
- Are most appropriate when possible response categories are too numerous to list
- Are most appropriate when the question is measuring respondent characteristics versus attitudes, beliefs, or behaviors

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Step 4 (continued)

Write the questions to collect this information
– Type of Question

Example: Fill-in-the-Blank Questions

- Country of residence _____
- Age in years _____
- Number of children under age 18 in your household _____
- Birthdate _____ (mm/dd/yyyy)

(DK=don't know R=refused)

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Step 4 (continued)
Write the questions to collect this information
– Type of Question

Closed-Ended Questions:

- Provide answer choices in pre-coded categories that represent counts, ranges, or demographic information
- Yield quantitative data
- Are preferable for self-administered and hypothesis testing field questionnaires

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Step 4 (continued)
Write the questions to collect this information
– Type of Question

Two Types of Closed-Ended Questions:

1. Categorical (or nominal)
2. Ordinal

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Step 4 (continued)
Write the questions to collect this information
– Type of Question

Categorical Closed-Ended Questions
The available response fits into categories that have no particular order or inherent numerical value with respect to each other.

Example: To explore why Medicare beneficiaries did not get vaccinated against influenza, the following categorical closed-ended questions could be posed:

What was the main reason you did not get the flu shot last winter?

1. Did not know it was needed	7. Doctor did not recommend it
2. Could cause influenza	8. Unable to get to location
3. Could cause side effects	9. Do not know
4. Vaccine not available	10. Refuse to answer
5. Do not like shots or needles	
6. Doctor recommended against it	

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Step 4 (continued)

Write the questions to collect this information
– Type of Question

Categorical Closed-Ended Questions (continued)

Options can also result in the classification of a respondent into a category for race, gender, marital status, etc.

Example: Please select the one response that describes your marital status.

- Single
- Married
- Divorced
- Widowed

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Step 4 (continued)

Write the questions to collect this information
– Type of Question

Ordinal Closed-Ended Questions

The available responses tend to describe a range of choices and have a quantitative value with respect to each other.

Ordinal closed-ended questions are useful for determining the frequency of participation, degree of involvement, or intensity of feelings.

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Step 4 (continued)

Write the questions to collect this information
– Type of Question

Ordinal Closed-Ended Questions (continued)

Example: In seeking information on how much “could cause side effects” influences a person’s decision to get vaccinated against influenza, the following ordinal closed-ended question may be posed:

Describe your level of concern about the side effects caused by the flu shot (circle one):

1. Not concerned
2. A little concerned
3. Somewhat concerned
4. Moderately concerned
5. Very concerned
6. DK = Do not know
7. R = Refuse to answer

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Step 4 (continued)

Write the questions to collect this information
– Type of Question

Ordinal Closed-Ended Questions (continued)

Likert scales contain pre-coded ordinal responses with assigned values. You can then calculate averages to determine the most prevalent response.

Example: On a scale of 1 to 5, with 1 being low and 5 being high, please rate the severity of your abdominal cramp pain.

1. Minimal
2. Mild
3. Moderate
4. Painful
5. Very painful

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Step 4 (continued)

Write the questions to collect this information
– Type of Question

All three question types – open-ended, fill-in-the-blanks, and closed-ended – have their place.

When do you use which types?

- Select the question type based on the kind of information you need and your expectations about that information
- In the early exploration of a problem, you will be more likely to use open-ended questions
- As information about the problem grows, you will be able to anticipate possible response and will be more likely to use closed-ended questions

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Step 4 (continued)

Write the questions to collect this information

Question Design

- Choosing the type of question is just the first issue
- Care needs to be given to the wording of the question and the response categories (if applicable)

Here are a few guidelines for writing questions for an epidemiologic study. . .

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Step 4 (continued)

Write the questions to collect this information
– Question Design

Elements of good question design:

- Reliability
- Validity
- Specificity versus ambiguity
- Simplicity
- Ask only one question at a time
- Mutually exclusive answer choices
- Refers respondents to dates/times for recall
- When feasible, makes response categories comparable to existing data sources
- Back-translate and re-check wording of questions
- Avoid leading and loaded questions

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Step 4 (continued)

Write the questions to collect this information
– Question Design

Reliability

A question that is designed to be reliable will assure that the words are interpreted the same way in any setting, and that respondents answer the same way in any setting.

Example: "Are you experiencing diarrhea?"

Interviewer then adds:

"For the purposes of this survey, we consider diarrhea to be 3 or more loose bowel movements in a 24 hour period."

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Step 4 (continued)

Write the questions to collect this information
– Question Design

Validity

A question that is designed to be valid will always yield information that can be used as a true measure of what you are looking for.

Less Useful:

Which is your source of drinking water at home?

1. Tap water
2. Bottled water

Improved:

Which is your source of drinking water at home?

1. Municipal tap water
2. Municipal tap water with additional filtration
3. Well water
4. Commercially bottled water

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Step 4 (continued)

Write the questions to collect this information
– Question Design

Specificity versus ambiguity

Word each question as precisely as possible. Use caution with general adjectives and adverbs that may have different meanings for different people (e.g., big, bad, nice, etc.).

Less Useful
"When did you have 'Disease X'?"

Improved
"How old were you when you had 'Disease X'?"

Less Useful
"Have you been examined by a physician in the past seven days?"

Improved
"Have you been examined by a physician *for these symptoms* in the past seven days?"

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Step 4 (continued)

Write the questions to collect this information
– Question Design

Simplicity

Use simple language and keep questions short.

Avoid technical jargon, slang, abbreviations, and stuffy sounding bureaucratic words.

Less Useful
"Were you exposed to the fomite at the dinner party?"

Improved
"Did you use a shared hand towel at the dinner party?"

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Step 4 (continued)

Write the questions to collect this information
– Question Design

Ask only one question at a time

Limit each question to a single idea. Combining questions can result in responses that are conflicting and may not answer the question you think you asked.

Less Useful
"Did you eat mashed potatoes and giblet gravy?"

Improved
"Did you eat mashed potatoes?" Yes No
If Yes, did you eat them:
___ Plain
___ With butter
___ With giblet gravy

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Step 4 (continued)

Write the questions to collect this information
– Question Design

Mutually exclusive answer choices

In creating the responses for a closed-ended question, be sure that the categories cover all potential responses and are every response fits into one and only one category.

Less Useful

"What is your age?"

A. 18 years old or younger

B. 18 years or older

Improved

"What is your age?"

A. 17 years old or younger

B. 18 years old or older

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Step 4 (continued)

Write the questions to collect this information
– Question Design

Mutually exclusive answer choices

NOTE - Always include a "Do not know" or "Refuse to answer" category with potential responses.

This will help you distinguish between respondents who do not answer a question because they do not remember the answer and those who choose not to answer or just skipped the question.

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Step 4 (continued)

Write the questions to collect this information
– Question Design

Refers respondents to dates/times for recall

Use specific date/time references to improve respondent recall.

Refer to a calendar and/or special event to improve recall.

Less Useful

"Have you been swimming in a public pool recently?"

Improved

"Did you swim in a public pool between Monday, June 2nd and Monday, June 9th, 2006?"

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Step 4 (continued)

Write the questions to collect this information
– Question Design

When feasible, makes response categories comparable to existing data sources.

Try to quantify measures and provide the format in which to record data as much as possible.

Less Useful

Case-patient birth date

Improved

Case-patient birth date

___/___/___

Mm/dd/yyyy

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Step 4 (continued)

Write the questions to collect this information
– Question Design

Back-translate and re-check wording of questions

If the field questionnaire is translated from one language (say, English) to another (say, Chinese), test it with native speakers.

A good test is to have the translated field questionnaire "back translated" (that is, translated from Chinese to English).

Back-translation allows investigators to see or hear what the respondents will be seeing or hearing and may reveal problems.

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Step 4 (continued)

Write the questions to collect this information
– Question Design

Avoid leading and loaded questions

Leading Question – A question is phrased in a way that suggests a response (i.e., a leading question) or implies a value judgment. The interviewer's attitude, as perceived by respondents, can influence their response.

Less Useful

"No one else in your family is sick, are they?"

This question implies a "No" response

Improved

"Are other members of your immediate family feeling ill?"

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Step 4 (continued)

Write the questions to collect this information
– Question Design

Avoid leading and loaded questions (continued)

Loaded question - A question with a false or questionable pre assumption.

Less Useful

"Have you stopped using drugs?"

This question presupposes that you have used drugs in the past prior to its asking, as well as you are still using drugs.

Improved

"Do you use drugs?"

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Step 5

Organize the questions into field questionnaire format

General Guidelines:

1. Format page layout with a vertical flow from question to question and from response option to response option.
2. Maintain "white space" on the page.
3. Number every question.
4. Use consistent codes for response options and indicate units for fill-in-the-blank questions.
5. When applicable, use numbers versus check boxes for pre-coded response options so they can be used for data entry and analysis (e.g., in a software program).

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Step 5 (continued)

Organize the questions into field questionnaire format

General Guidelines: (continued)

6. Use differentiating font for *questions* and response options.
7. Provide clear but brief instructions for survey completion.
8. Use clear cues (text or arrows) to guide through skip patterns.
9. Use transitional cues for each subsection of questions ("The next series of questions will ask about . . .").
10. Include a unique identification number so you can maintain confidentiality *and* link data when applicable (e.g., in a software program).

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Step 5 (continued)

Organize the questions into field questionnaire format

Special Note:

To reduce the difficulty of distinguishing between missing data and simply "no" responses to a categorical list of response options, consider alternative formatting.

Example: Standard question format

Where did you see published information about this free HIV screening?

- Billboard on subway
- Doctor's office
- Local newspaper

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Step 5 (continued)

Organize the questions into field questionnaire format

Example: Alternative question format

Where did you see published information about this free HIV screening?

Billboard on subway	Yes	No
Doctor's office	Yes	No
Local newspaper	Yes	No

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Step 5 (continued)

Organize the questions into field questionnaire format

Tips for Formatting the Field Questionnaire

1. Introduction
2. Length
3. Logic
4. Layout
5. Wrap up

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Step 5 (continued)

Organize the questions into field questionnaire format

Introduction

The introduction for the field questionnaire should:

- Identify the organization sponsoring the study
- Explain the study purpose in general terms so respondents understand the importance of the interview and their part in the process
- Give credence to the undertaking and increase the likelihood that respondents will participate and answer honestly
- State how long the interview is likely to take
- Reassure participants that their answers will be strictly confidential
- Stress the ways the data will be used in compliance with HIPAA and the Privacy Rule

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Step 5 (continued)

Organize the questions into field questionnaire format

HIPAA – Health Insurance Portability and Accountability Act of 1996

- Federal regulation, not state
- Involves privacy, security, transactions and code sets, and electronic transmission of personal information
- Almost all employees of the healthcare industry must abide by HIPAA regulations
 - Health care providers
 - Health care clearinghouses
 - Health plans
- HIPAA sets a national minimum of basic privacy protection for individuals, however many state laws are more stringent

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Step 5 (continued)

Organize the questions into field questionnaire format

The Privacy Rule

- Defines and limits the circumstances in which an individual's protected health information may be used or disclosed by a covered entity
- The Privacy Rule - Standards for Confidentiality of Individually Identifiable Health Information – became effective in April 2001

HIPAA Privacy Act

- Sets national standards for ensuring the privacy of *protected health information (PHI)*
- Requires covered entities to implement measures that protect against the misuse of PHI
- Provides individuals with privacy rights and control over how their PHI is used

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Step 5 (continued)

Organize the questions into field questionnaire format

Protected Health Information (PHI)

- Health information relates to:
 - Past, present, and/or future physical/mental health or condition
 - Provision of health care to an individual
 - Payment for the provision of health care
- Individually identifiable information is:
 - Name, geography, month & day of birth, telephone #, email address, SSN, health insurance account #s, photographs and more

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Step 5 (continued)

Organize the questions into field questionnaire format

Covered Entities Include:

- Health Plans: Individual/group health insurance, HMOs, Medicare, Medicaid and other government health plans
- Health Care Clearinghouses: Billing services and providers
- Health Care Providers: Hospitals/clinics, doctors, nurses, pharmacies, paramedics, and other emergency service personnel

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Step 5 (continued)

Organize the questions into field questionnaire format

The Privacy Rule and Public Health

- Access to PHI is an essential element in public health
- Public Health uses PHI to identify, monitor, and respond to disease, death and disability among populations
- Covered entities may disclose PHI to public health authorities authorized to collect necessary data

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Step 5 (continued)

Organize the questions into field questionnaire format

Extension of PHI Disclosure Rules – Public Health

- PHI can be disclosed when:
 - A person may have been exposed to a communicable disease or may be at risk for contracting or spreading disease
 - A person is subject to jurisdiction of the Food and Drug Administration (FDA) concerning the quality, safety, or effectiveness of an FDA product
 - An employer needs certain PHI to meet the requirements of Occupational Safety and Health Administration (OSHA) or other similar laws

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Step 5 (continued)

Organize the questions into field questionnaire format

Length

- In general, a field questionnaire should be as short as possible
- It should focus on the hypotheses being tested in the study
- Try to strike a balance between testing the hypotheses and taking advantage of opportunities to gather “extra” information that is of interest to the investigation

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Step 5 (continued)

Organize the questions into field questionnaire format

Logic

- The field questionnaire should appear logically organized and not skip from topic to topic
- The questions should be organized to promote the rapport between the respondent and the interviewer

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Step 5 (continued)

Organize the questions into field questionnaire format

Logic (continued)

- Commonly used methods of organization include:
 - Grouping similar types of information or topics
 - Asking general questions first, followed by more specific questions
 - Asking the least sensitive questions first, leaving questions about sexual habits, religious beliefs, political orientation, or income for later when rapport has been developed
 - Asking the most important question first (relating to your leading hypotheses), followed by less critical questions in case the respondent loses interest

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Step 5 (continued)

Organize the questions into field questionnaire format

Layout

- The organization of the field questionnaire should make it easy to read and complete
- Instructions should be clearly stated
- Questions and pages should be numbered
- Each page should include an identifying code for the respondent
- Possible responses to question and the place for recording responses should be clearly separated from the questions
- You should include skip patterns to avoid asking irrelevant questions

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Step 5 (continued)

Organize the questions into field questionnaire format

Skip Patterns

- A skip pattern usually begins with a "screening question" that tells the interviewer to know whether a set of subsequent questions pertain to a particular respondent
- If they do, the subsequent questions are read. If not, they interviewer skips over the questions and continues with the next set
- Using skip patterns can prevent a respondent from hearing and having to answer questions that do not pertain to him or her
- Make sure the skip pattern is clearly marked and easy to follow

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Step 5 (continued)

Organize the questions into field questionnaire format

Skip patterns (continued)

1. *In the past 7 days, did you eat any mixed lettuce? This lettuce can be pre-bagged. Or it can be picked from a bin, or you use tongs to put it into a bag yourself. It is sometimes called Spring or Mesclun mix.*
Yes No Don't know Refused

If no, skip to Question 3.

2. *Was the type of mix called:*
Italian?
Yes No Don't know Refused
- Caesar?*
Yes No Don't know Refused

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Step 5 (continued)

Organize the questions into field questionnaire format

Skip patterns (continued)

3. *In the last 7 days, did you eat sprouts, such as alfalfa or bean sprouts? These may have been eaten as part of a salad or as part of any other food item such as sandwiches, tacos, etc.*
Yes No Don't know Refused

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Step 5 (continued)

Organize the questions into field questionnaire format

Wrap it up

- An ending statement is important
- You should thank respondents for their input and their time
- You should also provide them with a means to contact the study investigators if they have questions or remember additional information

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Step 6

Pilot test the field questionnaire

- In pilot testing, the flow of the questions, whether the words are understood, and whether the questions are interpreted similarly are evaluated
- Need to evaluate how the answers can be interpreted and if they can be analyzed and used for the epidemiological study
- Pilot testing in the field will most likely be done with a sample of convenience; for example, relatives, friends, or colleagues
- The better the pilot testing, the less regrets there will be at the end of the study

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Step 6 (continued)

Pilot test the field questionnaire

Questions to Ask:

- Are questions yielding the information that they are supposed to yield?
- Do respondents understand all wording?
- Do respondents interpret the questions the same way?
- Do closed-ended questions have a response option that applies to *each* respondent?
- Are skip patterns followed correctly?

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Step 7

Revise the field questionnaire based on the pilot test

Possible ways field questionnaire will need to be revised:

- Re-word questions
- Revise closed-ended question options
- Re-work skip patterns
- Re-write instructions
- Re-format layout/design

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Step 7 (continued)

Revise the field questionnaire based on the pilot test

Re-word questions

- Are the words uniformly understood?
- Do the questions contain abbreviations or unconventional phrases?
- Are the questions too vague?
- Is the question too precise?
- Is the question biased?
- Is the question objectionable?
- Is more than 1 question being asked?
- Does the question contain a double-negative?
- Is the question technically accurate?
- Is an appropriate time referent provided?

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Step 7 (continued)

Revise the field questionnaire based on the pilot test

Revise closed-ended question options

- Are the options uniformly understood?
- Are the options too vague?
- Are the options too precise?
- Are the options mutually exclusive?

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Step 7 (continued)

Revise the field questionnaire based on the pilot test

Re-work skip patterns

- Are the skip patterns clear?
- Are the skip patterns easy to follow?
- Is the lead-in question clear?
- Do the skip patterns need to re-formatted?

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Step 7 (continued)
Revise the field questionnaire based on the pilot test

Re-write instructions

- Does a context need to be provided to frame responses?
- Does confidentiality need to be stressed more?
- Is the purpose of the study clear?
- Is the role of Florida Department of Health clearly stated?

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Step 7 (continued)
Revise the field questionnaire based on the pilot test

Re-format layout/design

- Is it too long? Too short?
- Do the questions logically flow?
- Is the layout easy to administer?
- Is there a clear conclusion?

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Creating a Field Questionnaire Steps

Step 1 - Identify the leading hypotheses about the source of the problem

Step 2 - Identify the information needed to test the hypotheses

Step 3 - Identify the information needed for the logistics of the study and identify possible sources of error

Step 4 - Write the questions to collect this information

Step 5 - Organize the questions into field questionnaire format

Step 6 - Pilot test the field questionnaire

Step 7 - Revise the field questionnaire based on pilot test

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Summary

Whether you use a pre-existing investigation worksheet or develop your own, the steps covered in this module for survey development and implementation should be followed in order to ensure an effective and efficient Investigation.

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The following material and information was used with permission:

- An Overview of HIPAA and the Privacy rule. UNC slide presentation
- Focus on Field Epidemiology, Volume 2, Issue 2, "Developing a Field questionnaire." Stehr-Green, P. A., Stehr-Green, J. K., & Nelson, A. North Carolina Center for Public Health Preparedness
- Designing Field questionnaires. Pfau, S. NC Center for Public Health Preparedness.
- Nieuwenhuijsen, M. J. "Design of exposure field questionnaires for epidemiological studies." Downloaded from oem.bmjournals.com on 13 January 2006.
- Schenback, V. J., & Alexander, L. K. "Sources of error: Information bias." UNC slide presentation.
- "Planning and conducting a study"
<http://bmj.bmjournals.com/epidem/epid.5.html>

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