

Cognitive Interviewing

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Question Evaluation Methods Workshop

National Center for Health Statistics

October 21 – 23, 2009

State of the Method

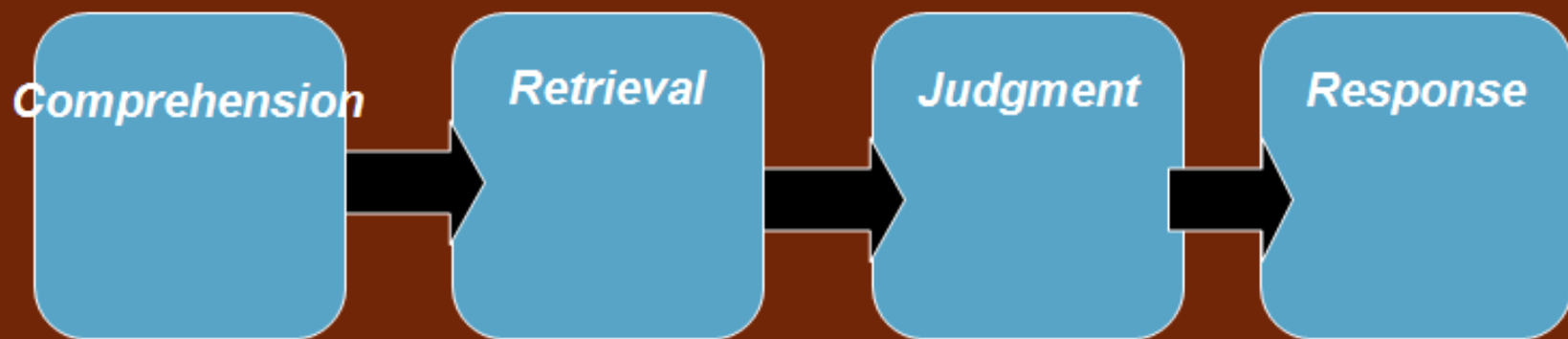
- Primary evaluation method used for federal surveys
- No established guidelines or standards
- No directive regarding the accessibility of testing reports
- Difficult to discern how the method is actually conducted and applied
- Potential variation within and across agencies

NCHS QDRL Perspective

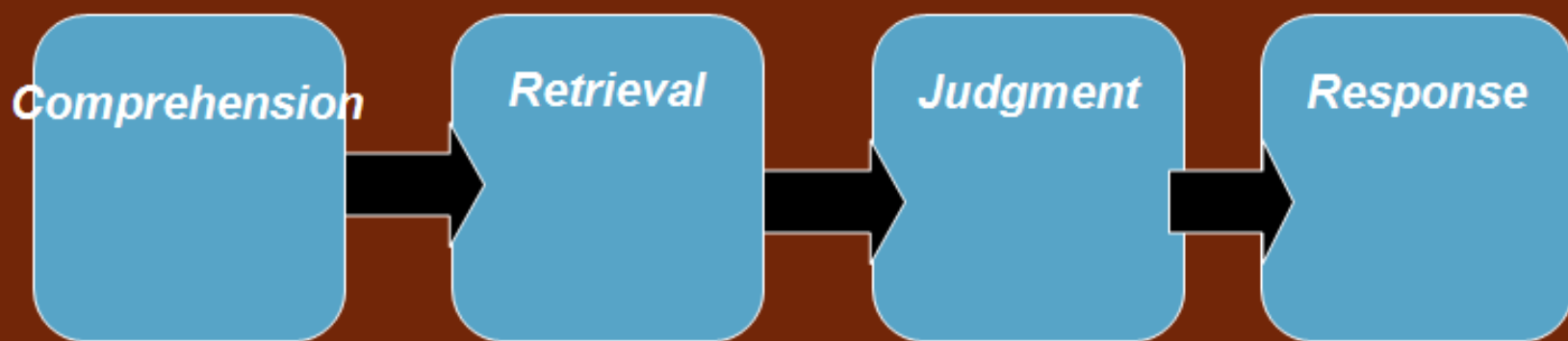
■ Context

- Challenged to address long-standing criticisms
 - Lacking scientific merit
 - Anecdotal
 - Impressionistic
- International testing projects
- Qualitative methodology and sociological training

Question Response Process

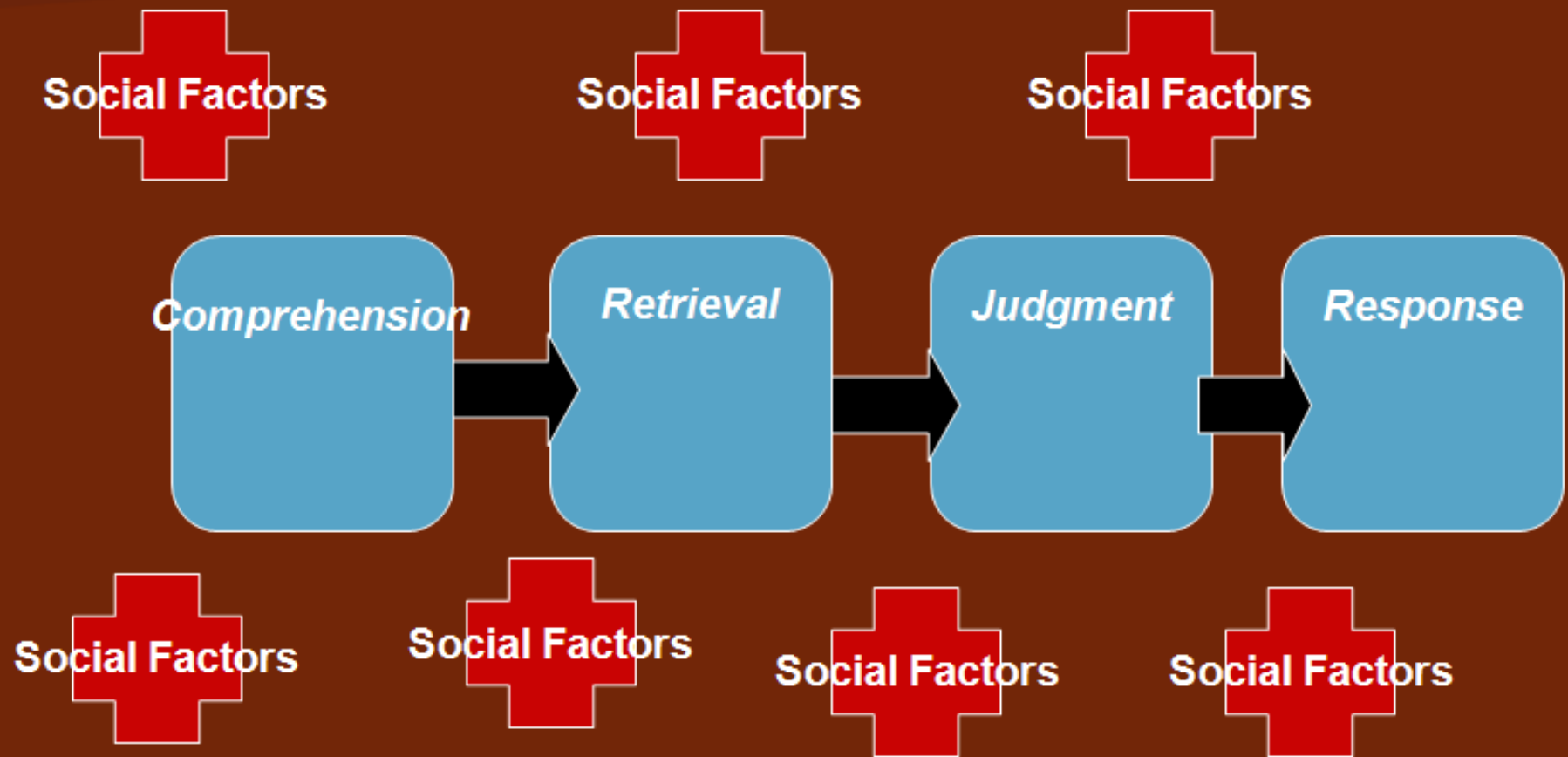


Question Response Process



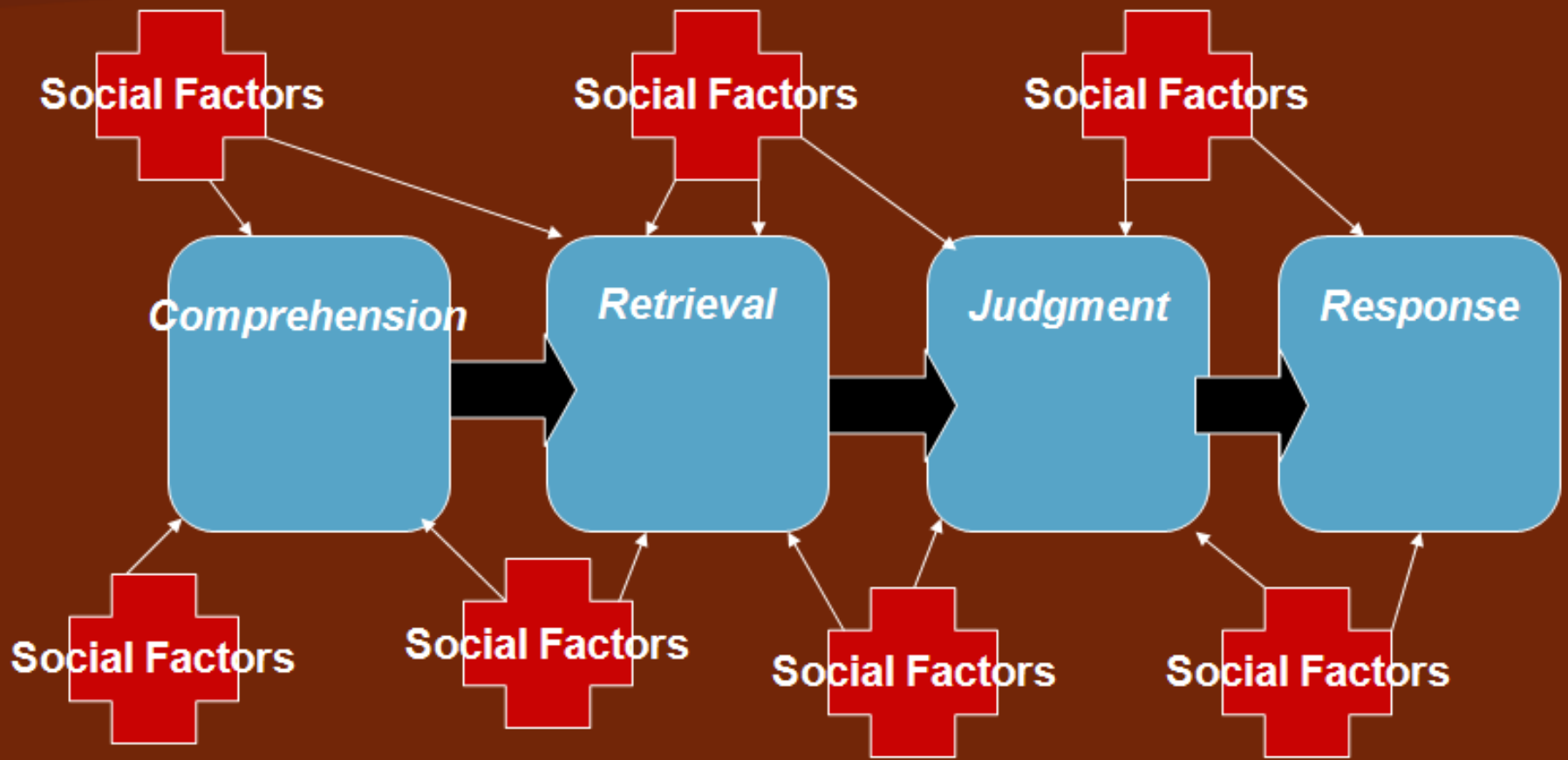
Cognitive Model

Question Response Process



Cognitive Model

Question Response Process



Interpretive Model

- Interpretive processes throughout the response process
- Specifically, meanings that emerge through interaction of the respondent and the survey question
- Meaning/interpretation tied to social context; questions perform differently across different groups of people
 - Skeptical of “question design rules”
 - Argue for design based on empirical study

- Purpose: Identify and document phenomena captured by the question
 - Valid (Intended phenomena)
 - Non-valid (Unintended phenomena)

- Essence of interview: R's interpretations of the question response process
 - Narrative
 - "Story" behind respondents' answer; why they answered the question as they did.
 - In ideal form, by definition, untainted by interviewer

- Role of interviewer: To facilitate a detailed and coherent narrative
 - (Analysis begins in the interview)

■ Analytic process:

- Identify types of textual information, make judgments about quality:
 - Narrative,
 - Out-of-context interpretations,
 - Respondents' opinions about the question,
 - Interviewer-imposed interpretations (reflexivity)
- Identify interpretive patterns throughout the response process

■ Goal of analysis: Produce a synthesized interpretive framework of the captured phenomena

- (Captured phenomena = phenomena captured by the survey question and represented in the survey data)

- Sample: Complete when all patterns are identified; Implicit desire to increase sample size to understand multiple perspectives

Advantages

- Interpretive quality
- Capability of capturing complexity
- Findings are grounded

Requirements

- Standards for evidence
- Deliberate method of analysis
- Transparent process

*Characteristics particularly beneficial for mixed-method designs

Example

Washington Group/UNESCAP Project
Evaluation of Disability Questions

Washington Group Cognitive Test

- 10 countries:

Cambodia, Canada, Fiji, Kazakhstan, Maldives, Mongolia, Philippines, South Africa, Sri Lanka, United States

- 143 cognitive interviews

- Captured “the story” of how R answered the question
- Conducted in language of the respondent
- Interview notes translated into English

- Q-Notes:

- New application, developed for this project
- On-line data entry
- Allows for fast, in-depth analysis

Q-Notes

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Project Information

Project Name	Washington Group International Disability Testing Round 2
Investigator	Kristen Miller
Date Range	2/2/09
Topic	Disability
Scope	International
Project Information	

Country	Interviews
CAMBODIA	21
Canada	17
FIJI	8
KAZAKHSTAN	20
MALDIVES	20
MONGOLIA	20
PHILIPPINES	20
South Africa	7
SRI LANKA	16
United States	19

[View All Interviews](#)

Q-Notes

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Interview Information

Respondent ID:	<input type="text" value="United States 13"/>	Interview Date:	<input type="text" value="3/25/2009"/>
Interviewer:	<input type="text" value="Stephanie"/>	Place of Interview:	<input type="text" value="NCHS lab"/>
Gender:	<input type="text" value="Male"/>	Age:	<input type="text" value="54"/>
Country:	<input type="text" value="United States"/>	Language of Interview:	<input type="text" value="English"/>

Notes

Interview Narrative:

This respondent in his own words may have ADD and was yancy to get out of the interview exactly on time. However, he gave good information and intuitively understood the task. I just couldn't get through much of the interview because he left early saying he had another appointment. He got impatient if I lingered on a question too long.

Summarizing Memo:

[Save Memo](#) [Delete Memo](#)

Others' Summarizing Memos:

LHakeem: Her one eye was blind and the other eye too had problems.
MSchneider: this interview and other similar ones raises the issue of literacy level and understanding of

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- ...[Description of Education](#)
- ...[Work Status](#)
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Affect Questions

How often do you feel worried, nervous or anxious? Daily, Weekly, Monthly, A few times a year, or Never?

How often do you feel depressed? Daily, weekly, monthly, a few times a year, or never?

Q-Notes

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Response Information

IDR2A8.5: How often do you feel depressed?
Daily, weekly, monthly, a few times a year, or never?

Respondent ID: United States 19

Interviewer: Kristen [Send Email](#)

Interview Date: 4/16/2009

Answer:

Notes

Interview Narrative:

Respondent has a difficult time answering the question and is thinking about the word "depressed". She says that she is not depressed, but sometimes she feels withdrawn. She isn't sure whether or not to call that depressed. She says that she "gets into her little moods". She says that with her "woman thing" she gets depressed. She had a c-section with her 6 year old and now her cramps are "so severe I can't even get out the bed for 2 days and I'm feeling depressed."

When prompted to answer the question, respondent choses monthly. She says that this is from a pain that she "can't even explain" but it's from after she had her c-section. She says it feels like the pain just stayed there. The doctor gave her strong medicine but she feels like it did not work. She has to stay in bed for 2 days when this pain comes because it's so bad. This makes her depressed because she snaps at her daughter. When this happens her daughters father steps in a "takes her to school and whatever" but respondent is depressed because she can't do what her daughter wants her to do.

Summarizing Memo:

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Others' Summarizing Memos:

PCollado: The respondent did not want to give details on why he was anxious nor depressed.

IBandara: Anxious and depression should be clearly defined as

Analysis

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Response Information

IDR2A8.5: How often do you feel depressed?
Daily, weekly, monthly, a few times a year, or never?

Gaano kadalas kayo makaramdam ng depresyon? Araw-araw, minsan sa isang lingo, minsan sa isang buwan, ilang araw lang sa isang taon, o hindi nakakaramdam?

Respondent ID: PHILIPPINES 2
Interviewer: PCollado [Send Email](#)
Interview Date: 3/27/2009

Answer:

Notes

Interview Narrative:

The respondent related that he feels depressed when he goes home to his family. He has to cope with the traffic and other commuters to get a ride home. He feels so tired and his wife nags him. Sometimes, his wife confront him on hanging around with friends before going home when in fact it was the traffic that made him reach the house late. He does not fight back but keeps his anger within himself.

Summarizing Memo:

[Save Memo](#) [Delete Memo](#)

Others' Summarizing Memos:

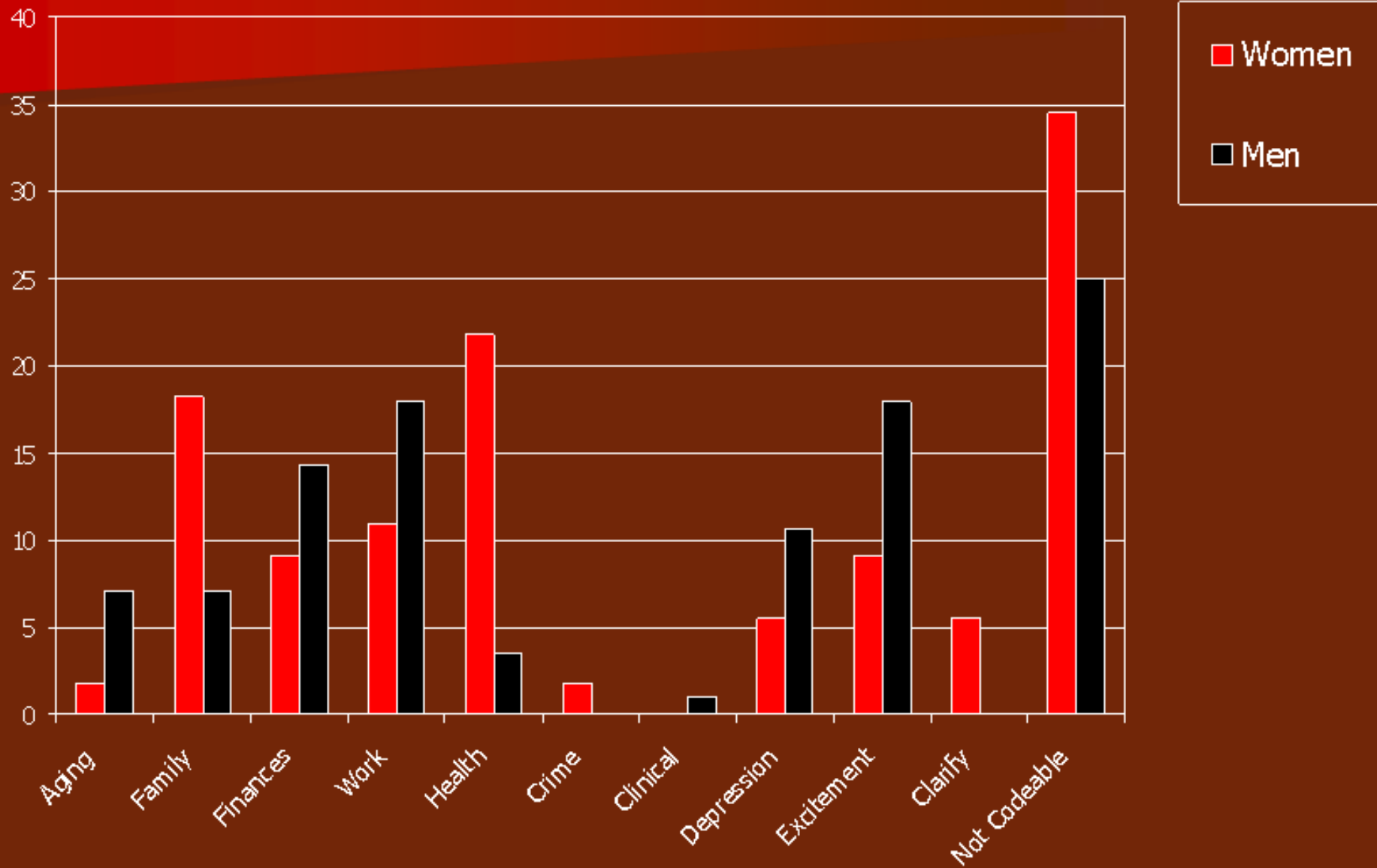
PCollado: The respondent did not want to give details on why he was anxious nor depressed.

IBandara: Anxious and depression should be clearly defined as

Anxiety Findings

- Aspects of anxiety reported
 - Stress
 - Workload, deadlines, performances
 - Relationship/family problems
 - Dread/concern about future
 - Economic security
 - Health concerns
 - Depression
 - Clinical/diagnosed anxiety
 - Excitement/Positive energy

Cognitive interview data: Basis of anxiety reports by gender



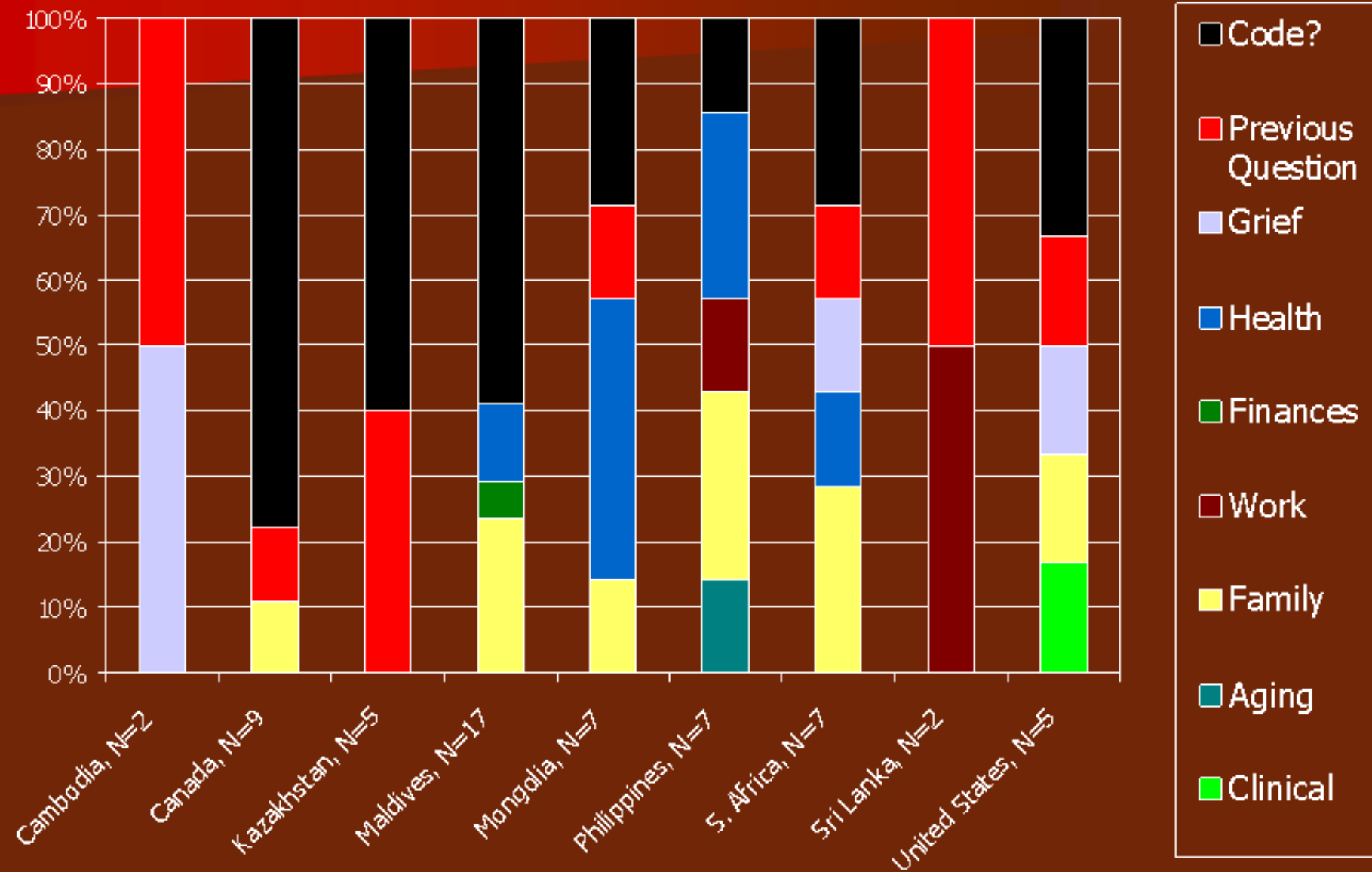
Depression Findings

- Aspects of depression reported
 - Stress
 - Workload, deadlines, performances
 - Relationship/family problems
 - Dread/concern about future
 - Economic security
 - Health concerns
 - Clinical/diagnosed depression
 - Grief

Affect Findings

- Interpretation overlap in anxiety and depression
 - Similar words being used in narratives: worries, stress, anxiety
 - Evidence that some respondents spoke about not seeing the difference, stating they just answered the question
 - Exceptions: excitement and grief

Cognitive interview data: Basis of depression reports by country



Field Test: Anxiety Follow-up Question

Please tell me which of the following statements, if any, describe your feelings.

- My feelings are caused by the type and amount of work I do.
- Sometimes the feelings can be so intense that my chest hurts and I have trouble breathing.
- These are positive feelings that help me to accomplish goals and be productive.
- The feelings sometimes interfere with my life, and I wish that I did not have them.
- If I had more money or a better job, I would not have these feelings.
- Everybody has these feelings; they are a part of life and are normal.
- I have been told by a medical professional that I have anxiety.

Field Test: Depression Follow-up Question

Please tell me which of the following statements, if any, describe your feelings.

My feelings are caused by the death of a loved one. Sometimes the feelings can be so intense that I cannot get out of bed.

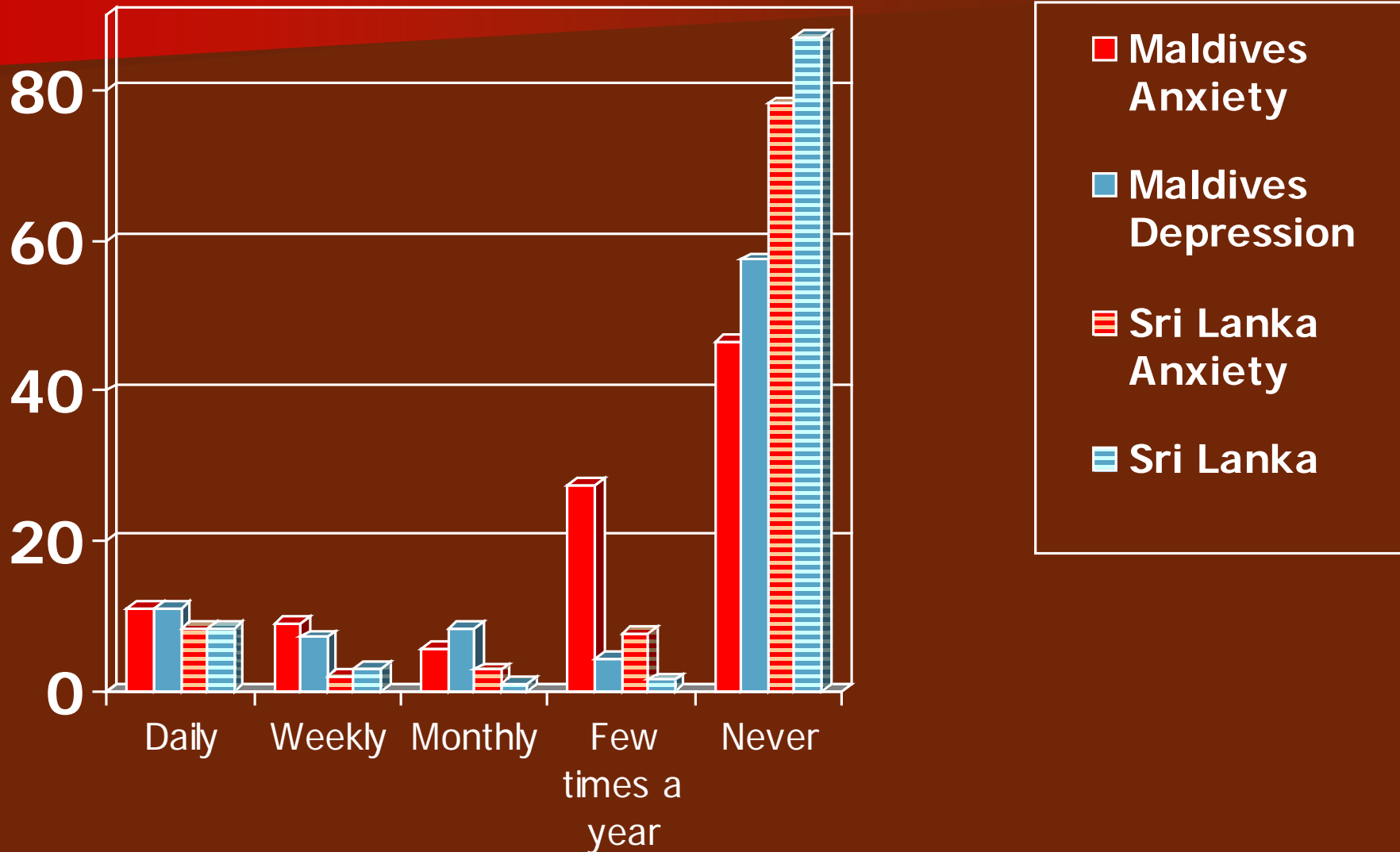
The feelings sometimes interfere with my life, and I wish I did not have them.

If I had more money or a better job, I would not have these feelings.

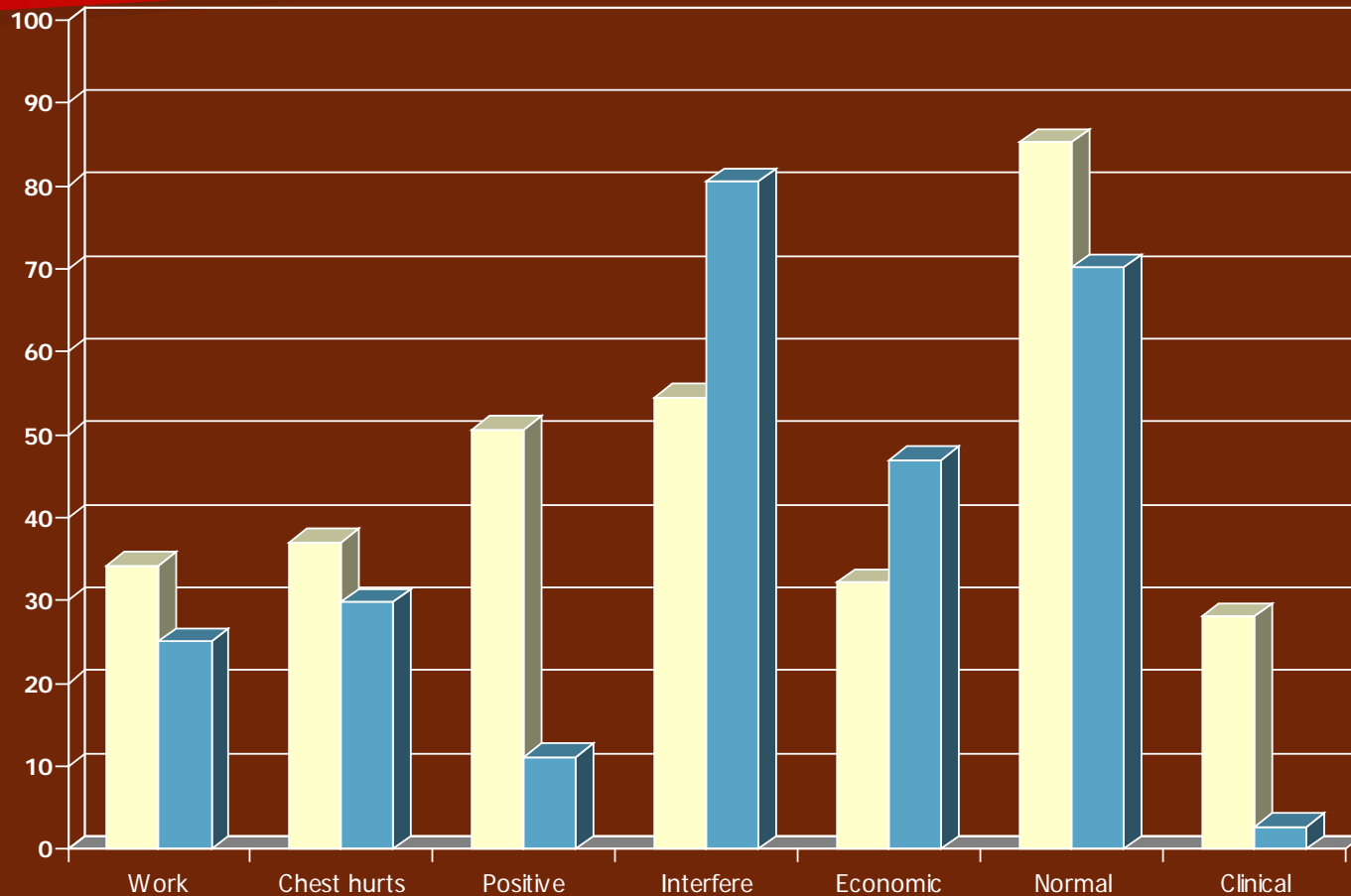
Everybody has these feelings; they are part of life and normal.

I have been told by a medical professional that I have depression.

Maldives and Sri Lanka Field Test: Percentage reporting anxiety and depression



Field Test Data Maldives and Sri Lanka: Characteristics of reported anxiety

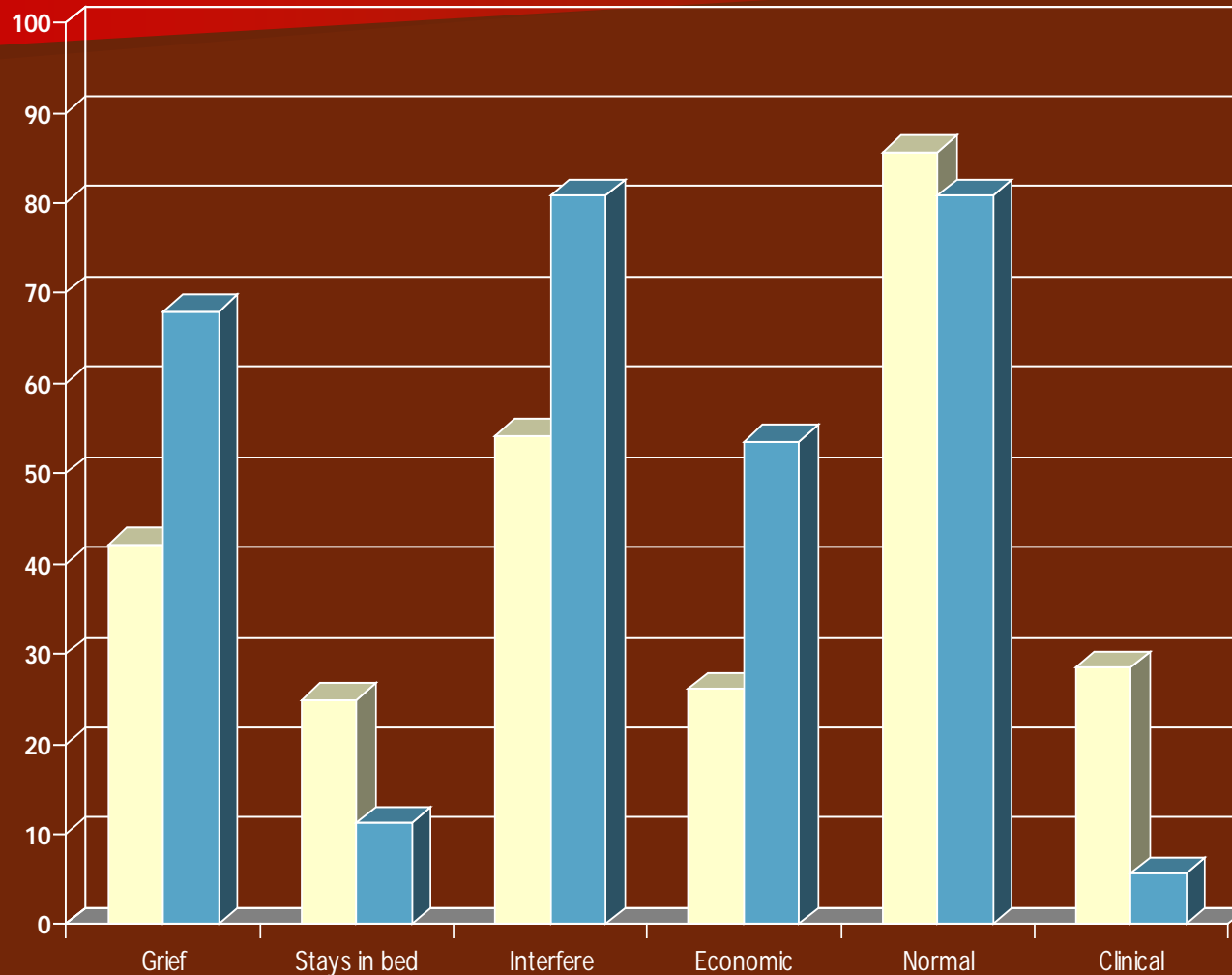


Reports of anxiety

Maldives, N=538

Sri Lanka, N=215

Field Test Data: Characteristics of reported depression



Reports of depression

Maldives, N=421

Sri Lanka, N=125

Advantages to Survey Research

- Interpretive quality
- Capability of capturing complexity
- Findings are grounded

1. Provides evidence-based understanding of how the question functions:

- To make informed decisions about question design

2. Provides basis for interpreting quantitative data:

- Other question evaluation methods
- Survey data

Methodological Criteria

- Standards for evidence
 - Interviews consist of different types of information, different types not all equal in quality, can be contradictory
- Deliberate method of analysis
- * Study findings can vary depending on:
 1. the type of evidence used, and
 2. the completeness of analysis

Methodological Criteria

- Transparent process
 - Cognitive testing reports accessible
 - Comprehensive reports: methods, detailed evidence found in interviews, not opinion-based
 - Audit trail to show analytic steps; Linking findings to actual interviews