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Using Response Time for Each Question in Quality Control on the China Mental Health Survey (CMHS)

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CSDI Bethesda, 2014

Backgrounds(1)

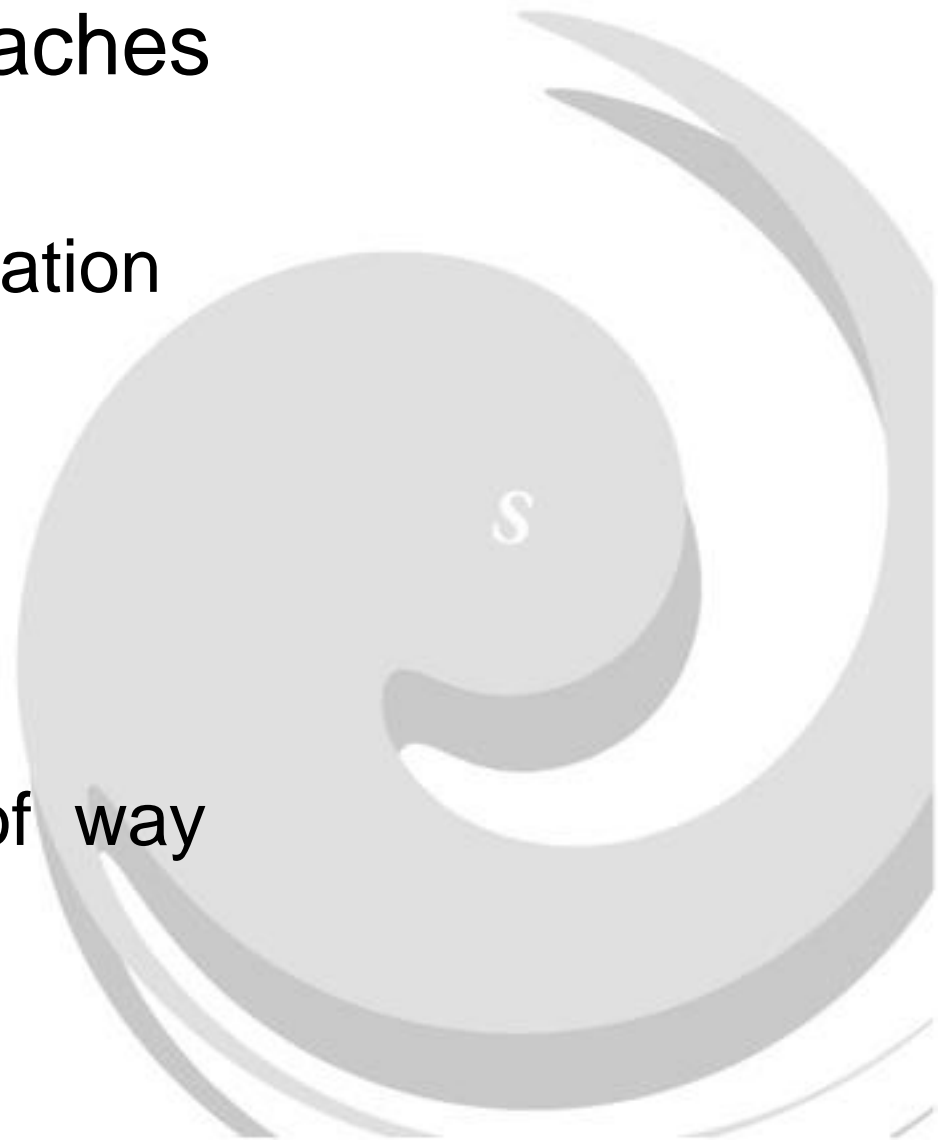
- On-going National Wide representative studies in ISSS
 - China Family Panel Study(CFPS)
 - Began in 2010,
 - Longitudinal studies, follow up every two years.
 - Sample size: 13,000~ HHs, 50,000 ~ Individuals
 - Scale of interviewer team: 300+
 - China Mental Health Survey(CMHS)
 - Began in July 2013
 - sample in 31 provinces
 - Sample size: 30,000 ~ HHs, 30,000~Individuals
 - Scale of interviewer team: 500+

Backgrounds(2)

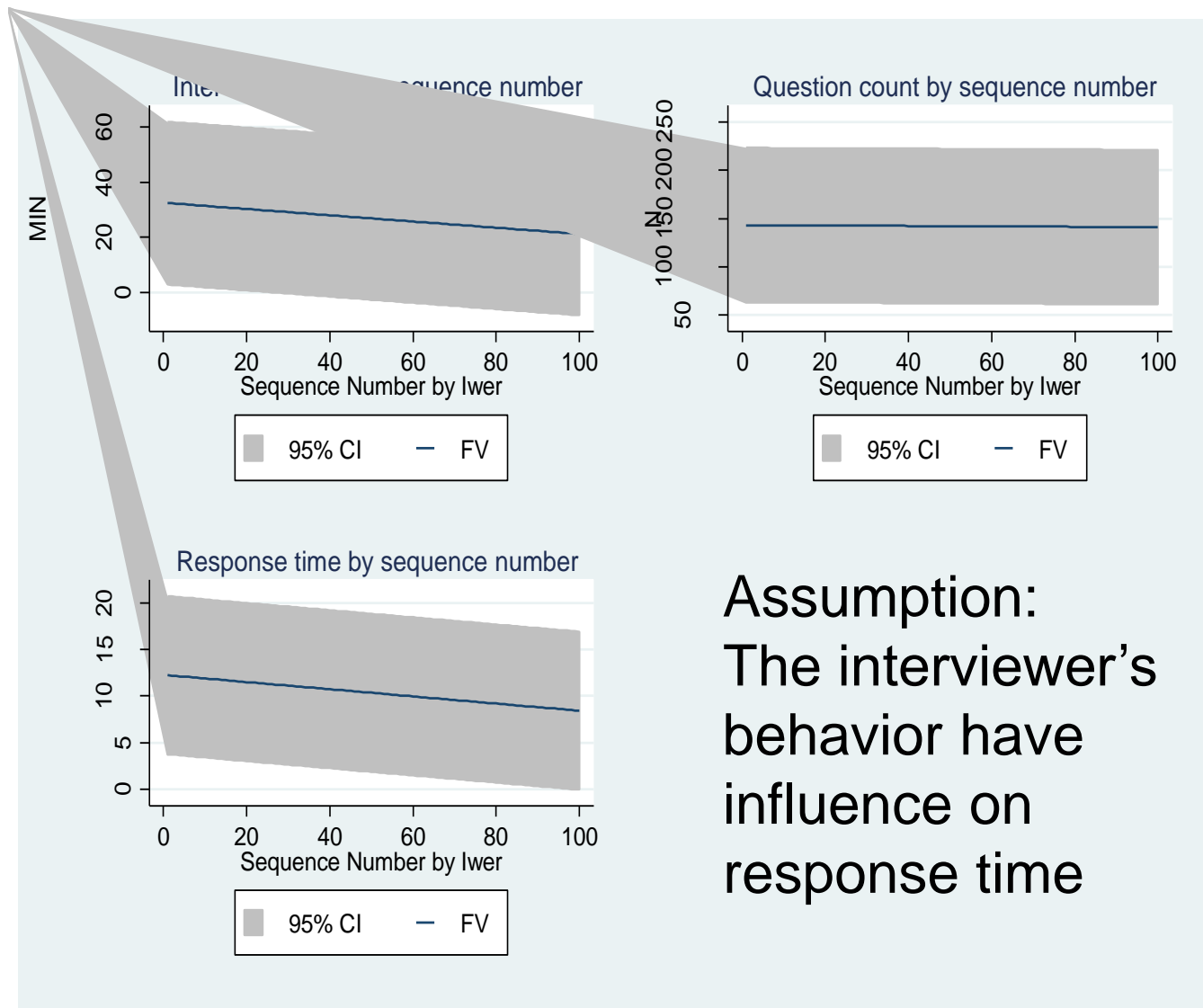
- Complicate questionnaire
- Data quality has been questioned
- Interviewer behaviors are monitoring and corrective action need to be quickly taken to maximize data quality
 - Efficient
 - Effective
 - Lower Cost

Backgrounds (3)

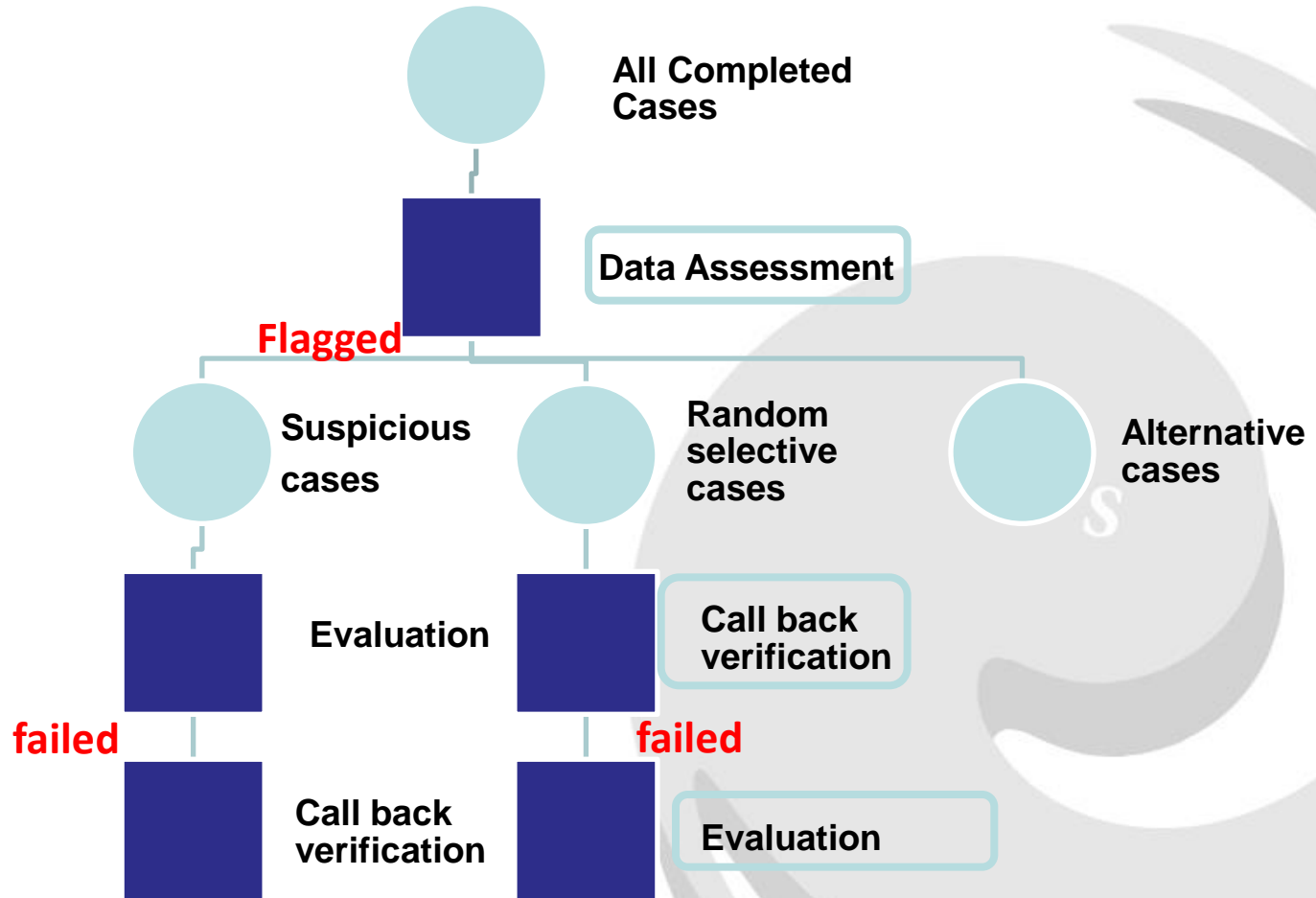
- Traditional QC approaches
 - Call back verification
 - Audio recording evaluation
 - Field verification
- Disadvantage
 - Can be slow
 - Time consuming
 - Not the most foolproof way



Why we are interesting in response time



Quality Control Flow Chat



Data Quality Assessment

- Interviews are flagged if
 - **Maximum % Variables response time is less than threshold**
 - Reasonable question reading time for each question (=N of words in each question * 110 millisecond per Chinese character)
 - **Adjusted Interview length is less than minimum threshold**
 - Replace RRT more than 3min into a reasonable time
 - Aggregate the adjusted RR time for each question
 - **Maximum % DK/REF violated**
 - **Interview completed during 11pm to 7am**
- **Interviewers are flagged if**
 - They Complete significantly More IWs than average
 - The distribution of selective variable is significantly different from the other Iwers



Unregulated interviewer behaviors

– Major error

- Falsification
 - Make up data by themselves
 - Administers the questionnaire to household other than the selected one
 - Unapproved proxy interview
- Curb-stoning: the entire question was omitted.
- Unapproved agent interview
- Miscoding the answer to avoid follow up question

– Minor fault

- Omitting part of question (key words/ examples/ determiners) during question reading
- Giving not standard clarification
- Unsatisfactory probing: not neutral, not been probed enough to elicit a satisfactory answer.

Example of evaluation(1)

- *A103a Did the interviewer asked the question “Have you **ever in your life** had an attack of fear or panic when all of a sudden you felt very frightened, anxious, or uneasy?” (Curb-stoning)*
 1. YES
 5. NO(Go to A104a)
- *A103b Did the interviewer read the question verbatim? (quality of question reading)*
 1. YES(Go to A104a)
 5. NO(Go to A103c)
- *A103c Did the interviewer read out the key word “fear” or “panic”? (quality of question reading)*
 1. read out all thy key words
 3. read out part of key words
 5. did not read out any key word
- *A103d Did the interviewer emphasis the **determiner** “**ever in your life**”? (quality of question reading)*
 1. YES
 5. NO

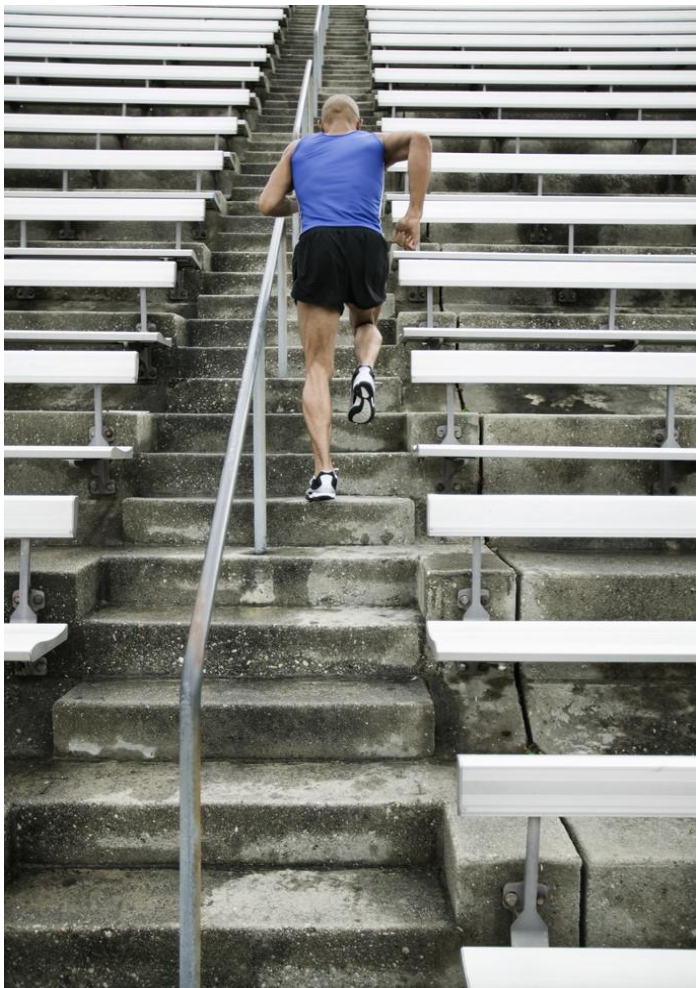


Results

	suspicious case	random selected case
Falsification	0%	0%
Curb-stoning	17.53%	3.14%***
Omit (some) key words	44.24%	16.61%***
Omit (some) some options	19.93%	10.74%***
Omit (some) examples listed in the question	77.6%	53.64%***

Discussion

- Even though longer response times do not guarantee good data quality or good interviewer performance, shorter response times than average do signal quicker processing in one or more components of the survey response framework and call for attention from survey researchers.
- Compare the true values with the reasonable values, flagged the sample below the thresholds is an effective and efficient approach to detect unregulated interviewer performance, especially those behavior related to question reading.
- With the result of the data assessment, we can arrange other more expensive method to evaluation the performance of the interviewer with a more targeting strategy.



Thank You

for

Your attention!!

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