Part 2:

EVALUATING IF A PROGRAM WORKED: STANDARD APPROACHES FOR SBCC OUTCOME EVALUATION

Randomized controlled trials (RCTs) are the benchmark for outcome evaluation

- The dominant paradigm for assessing effect of health interventions
- When implemented well, RCTs provide a strong and compelling evidence of causal effect

Lack of confounding is the source of RCTs strength

- Confounder = a factor that is related both to the exposure and to the outcome of interest
  - Provides an alternate explanation for relationship between exposure and the outcome

- With a large enough sample, randomization in a RCT should result in similar groups
  - In other words, randomization reduces the chance that confounders are present

RCTs may be inappropriate for evaluating SBCC interventions

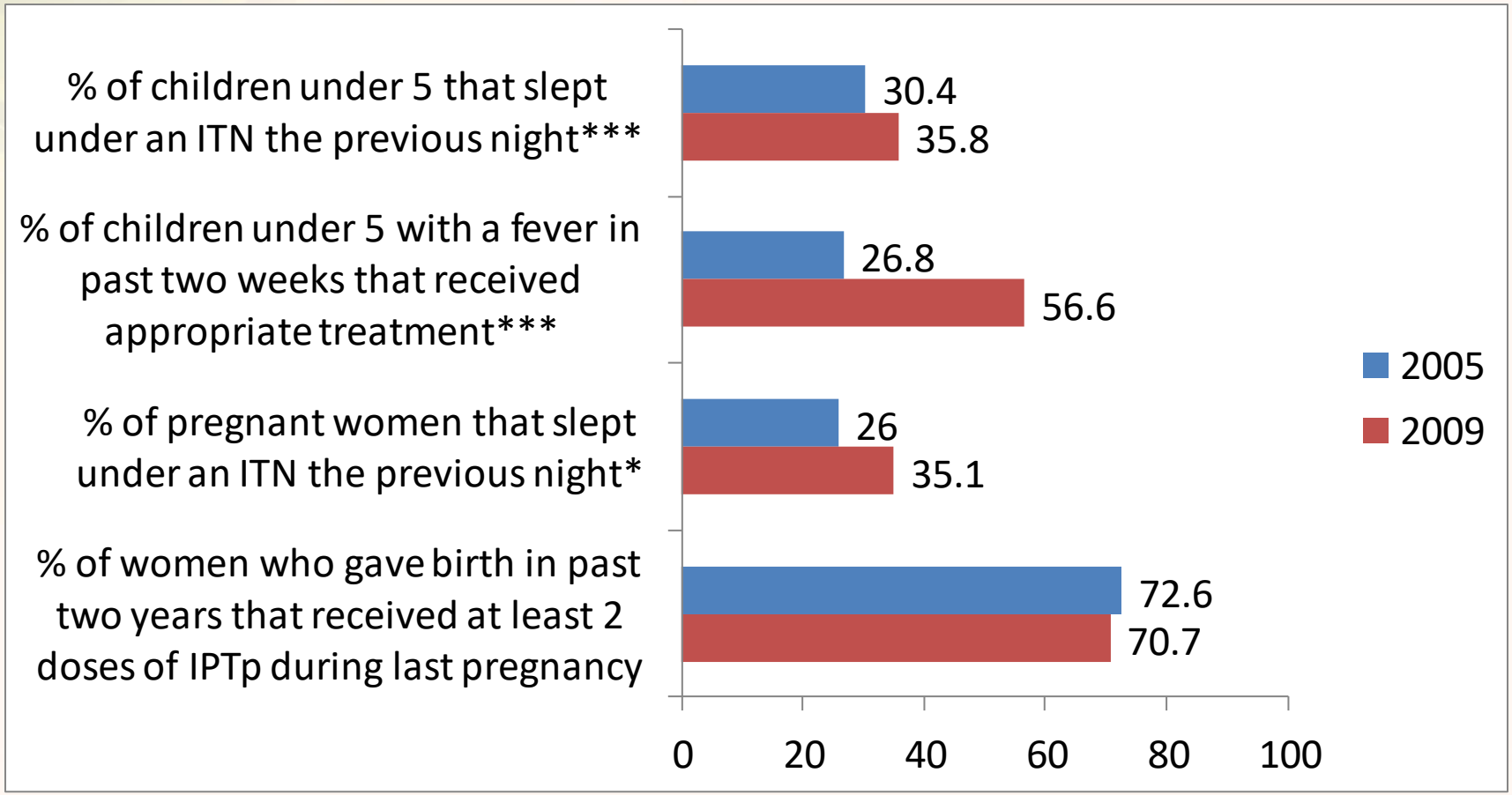
- Difficult to implement since we often can not randomize exposure to program messages
- RCTs need to minimize diffusion/contamination, which often conflicts with program implementation goals
- RCTs do **not** help us to understand **how** or **why** a program worked (or did not work)
- Consider alternatives to the RCT for SBCC evaluation

RCT alternative: Comparing baseline and endline

- Uses time to define exposed and unexposed groups
  - Baseline = unexposed
  - Endline = exposed

- If certain assumptions are met, the difference between baseline and endline is the effect of the intervention

Changes in malaria-protective behaviors in Zambia: 2005 vs. 2009



Sources: 2005 and 2009 HCP Endline Surveys
2005-2009 comparison: *p<0.05, **p<0.01; ***p<0.001
Adjusted for age, urban residence, and religion

Limitations of baseline vs. endline approach

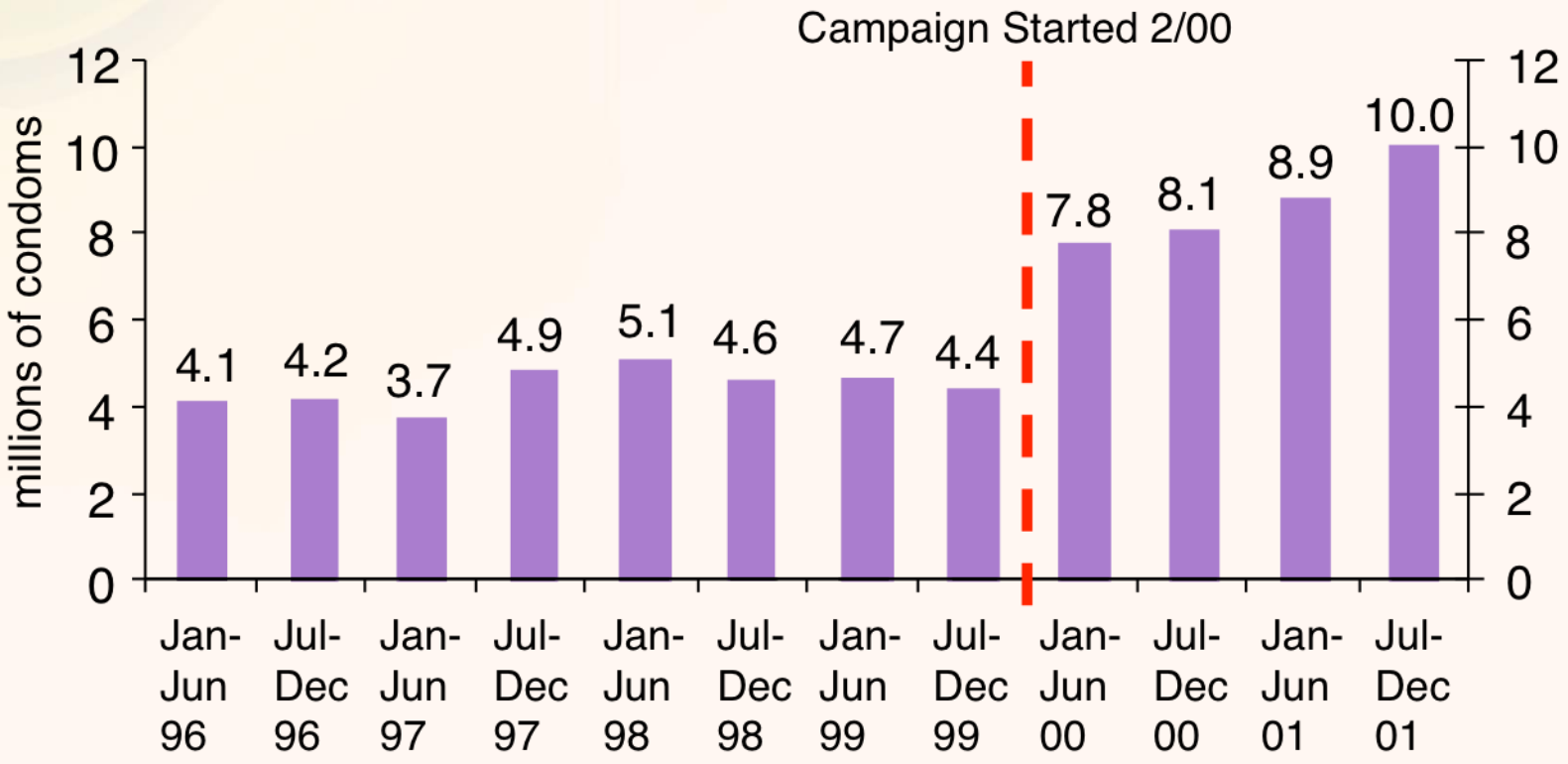
- **The intervention is not explicitly included in the analysis**
  - Assumes that the intervention is the only significant event between the two time points (may overestimate the effect)
  - Assumes everyone in endline received the intervention (may underestimate the effect)

- **This approach does not explain how a program worked**

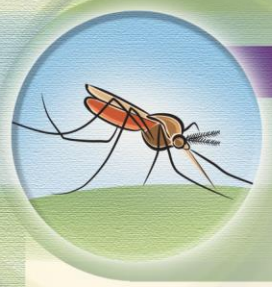
RCT alternative: Time series approaches

- Time series = data collected repeatedly over a lengthy period of time
- Data can more explicitly link observed changes to the SBCC intervention
- Examine data over time to see if a changing trend is linked to the timing of the SBCC activities
- Challenges
  - Data are difficult to collect
  - Often does not directly measure the behavior

Condom sales in Ghana: 1996-2001



Sales and distribution figures from MOH, GSMF, and PPAG

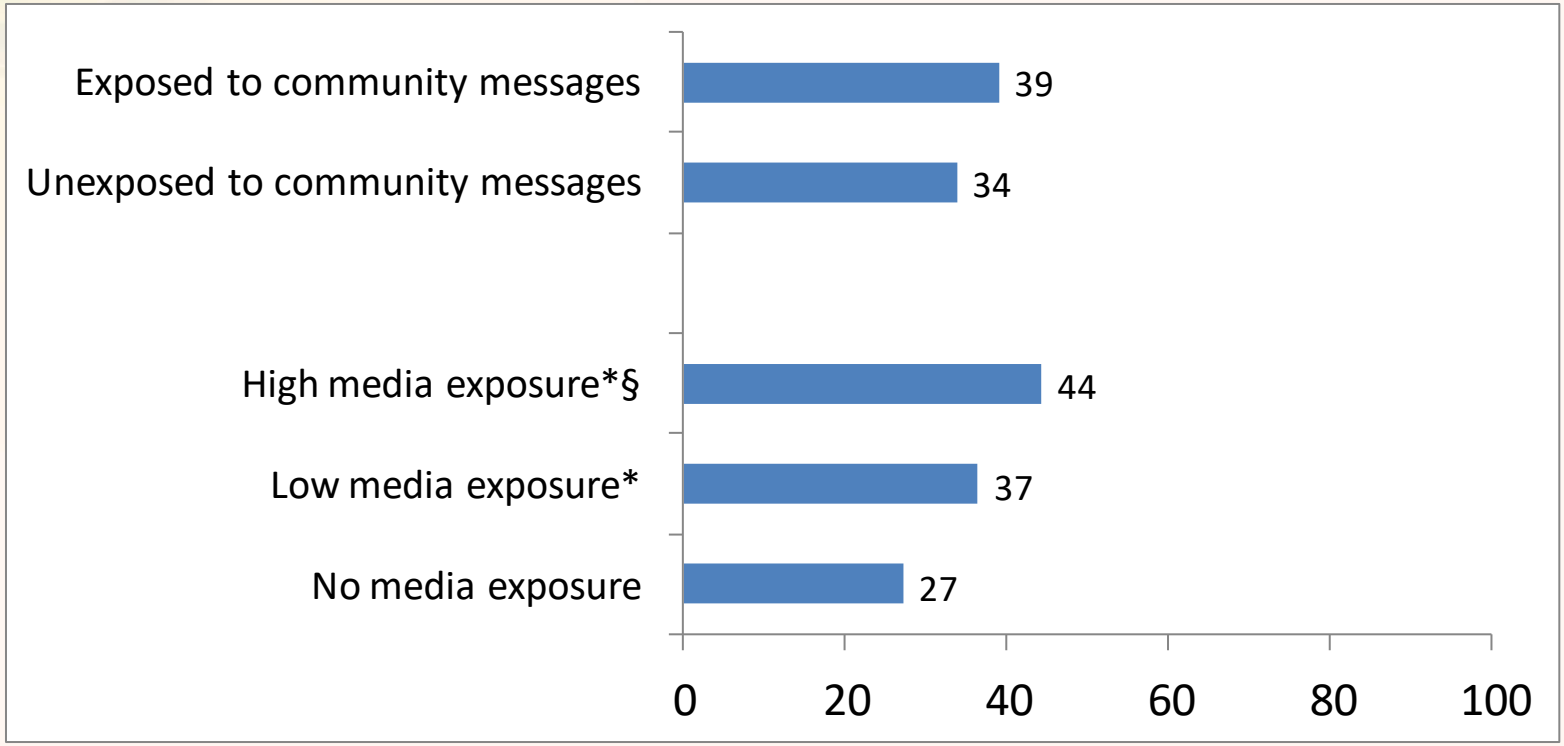


RCT alternative: Self-reported exposure

- Responses to survey questions about message recall are used to define exposed and unexposed groups:
  - Reported hearing/seeing a program message = Exposed
  - Did not report hearing/seeing a message = Unexposed

- Compare the difference in the outcome between these two groups to assess effect

Percent of children > five that slept under an ITN the previous night, by exposure, Zambia 2009



Source: 2009 Health Communication Partnership (HCP) Endline Survey
*Different from No exposure (p<0.05); § Different from Low exposure (p<0.05)
Adjusting for age, education and urban residence

Self-reported exposure approach is similar to a RCT . . . with one crucial difference

- Similarities to RCT
  - Explicitly categorizes individuals based on their receipt of the intervention
  - Assuming no confounders, the difference between the groups will be caused by the intervention

- Differences to RCT
  - An individual's odds of message recall—and their subsequent placement in the exposure group—may be influenced by their motivations, beliefs, etc.