# Select a Statistical Model

Interpretation of data

Prof. J. Ramkumar

Department of ME & Design

Indian Institute of Technology Kanpur



#### Interpretation of data



Adding meaning to information by making connections and comparisons and exploring causes and consequences

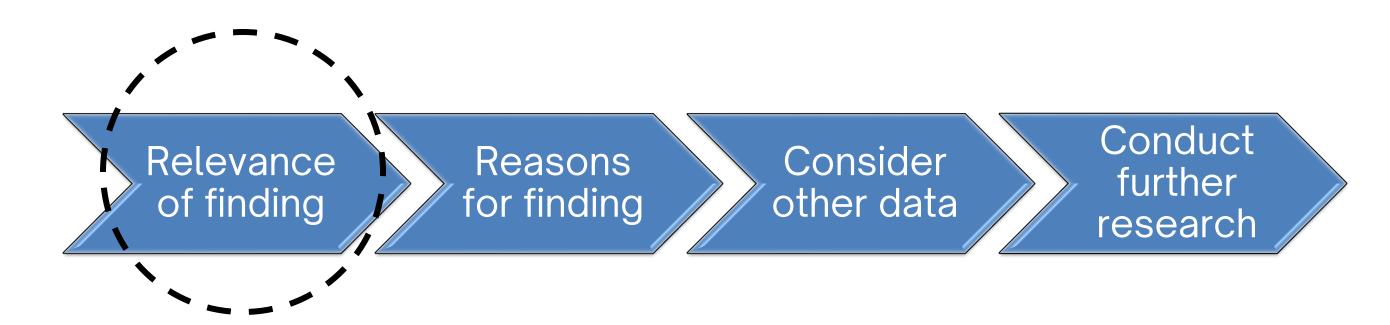
Relevance Consider of finding other data Conduct further research

## Interpretation – relevance of finding



Adding meaning to information by making connections and comparisons and exploring causes and consequences.

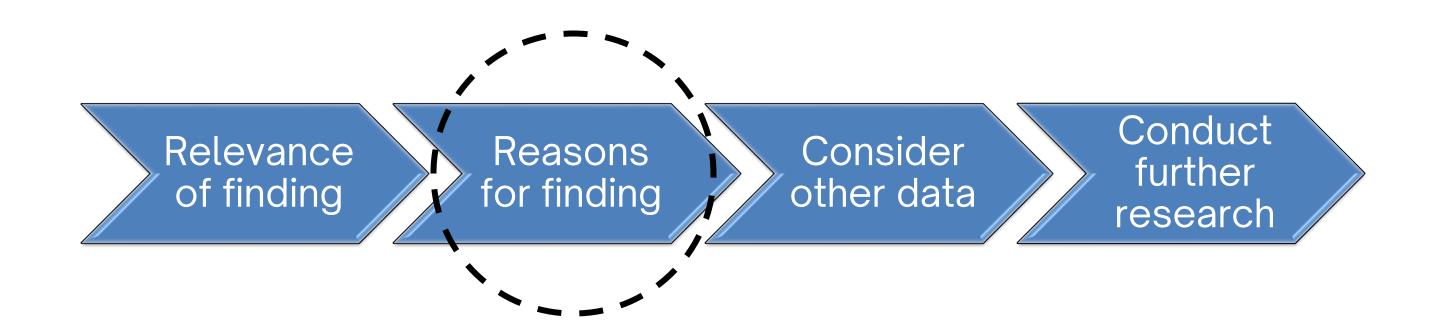
- Does the indicator meet the target?
- How far from the target is it?
- How does it compare (to other time periods, other facilities)?
- Are there any extreme highs and lows in the data?



## Interpretation – possible causes?



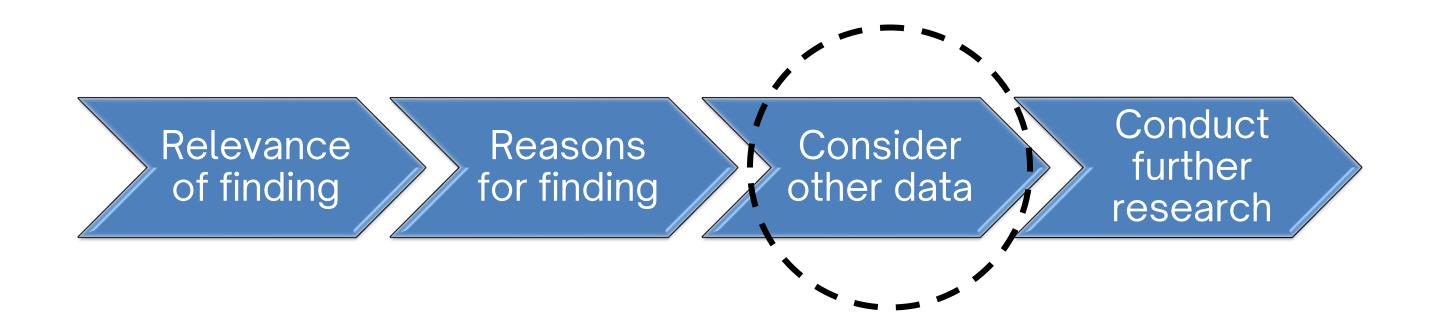
- Supplement with expert opinion
- Others with knowledge of the program or target population



### Interpretation – consider other data



- While it is important to consider other indicators in your analysis, remember descriptive statistics do not show causality. In these cases, look at other data sources.
- Use routine service data to clarify questions
- Calculate nurse-to-client ratio, review commodities data against client load, etc.
- Use other data sources



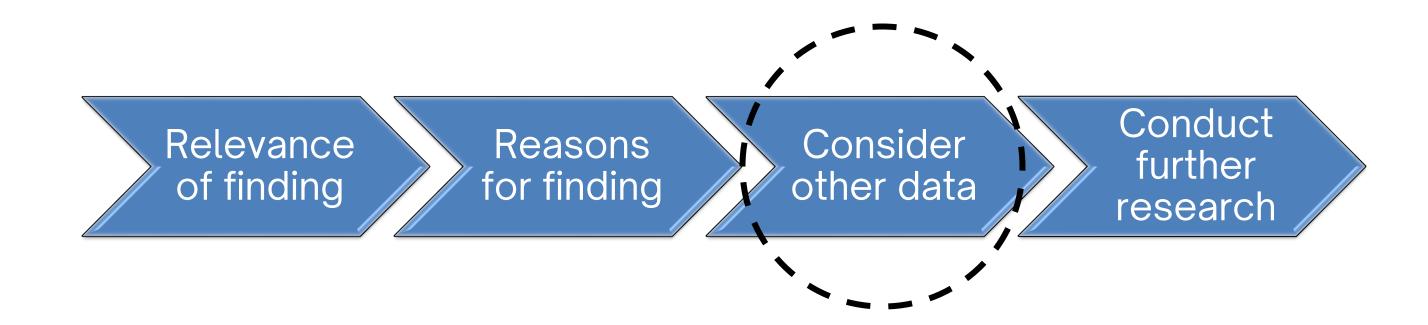
#### Interpretationother data sources



Situation analyses

Demographic and environment surveys

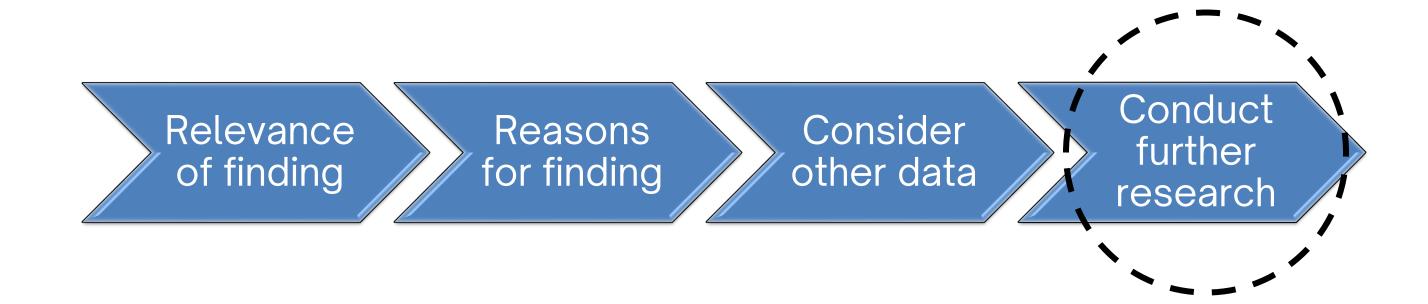
Performance improvement data



## Interpretation – Conduct further research



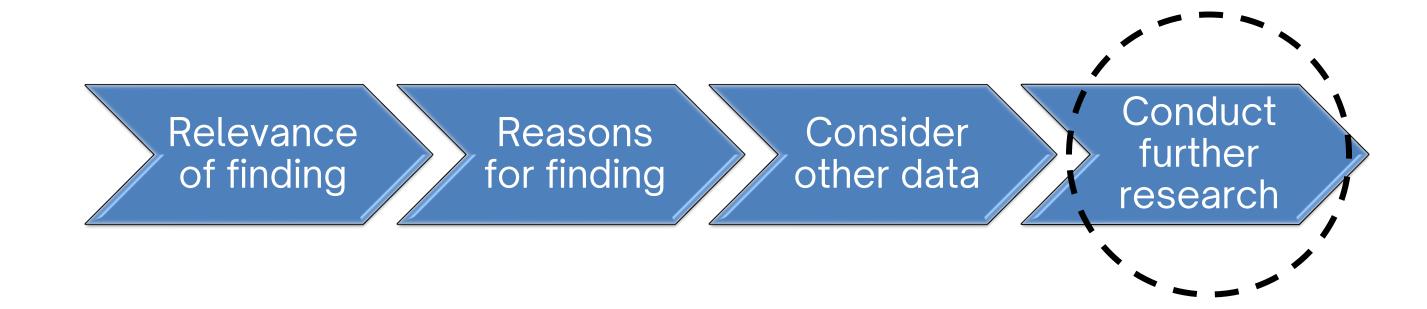
- Once you review additional data, it may become apparent that these data are not sufficient to explain the reasons for your findings – that a data gap exists.
- In these instances, it may be necessary to conduct further research.
- The types of research designs that are applied will depend on the questions that need to be answered.



## Interpretation – Conduct further research



- Consider the feasibility and expense involved with obtaining the new data.
- Simple concept:
  - Data gap → conduct further research.
- Methodology depends on questions being asked and resources available



#### Thank you

