

Measuring Quality

Thomas Weiser MD MPH

Assistant Professor, Dept of Surgery

Stanford University Medical Center



Framework for Understanding Quality

- Institute of Medicine:
 - Safe
 - Effective
 - Patient Centered
 - Timely
 - Efficient
 - Equitable



Framework for Understanding Quality

- World Health Organization:
 - Optimal health for all
 - Responsiveness
 - Fairness in financing



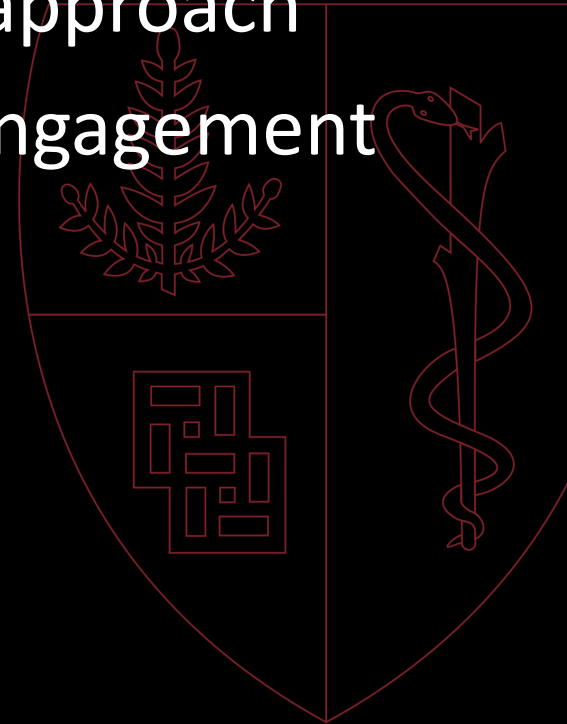
Framework for Understanding Quality

- Bamako Initiative
 - Effectiveness
 - Efficiency
 - Financial Viability
 - Equity



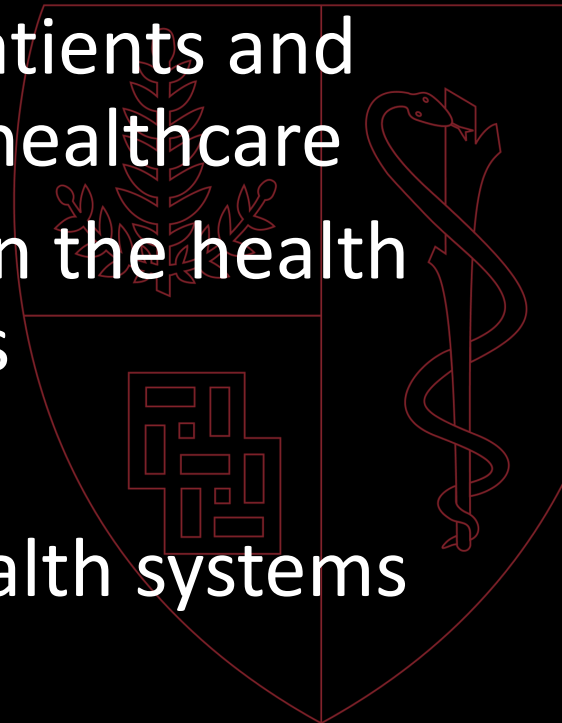
Framework for Understanding Quality

- IOM: empiric, goals-based approach
- WHO: philosophical, right-based approach
- Bamako: economic, community engagement approach

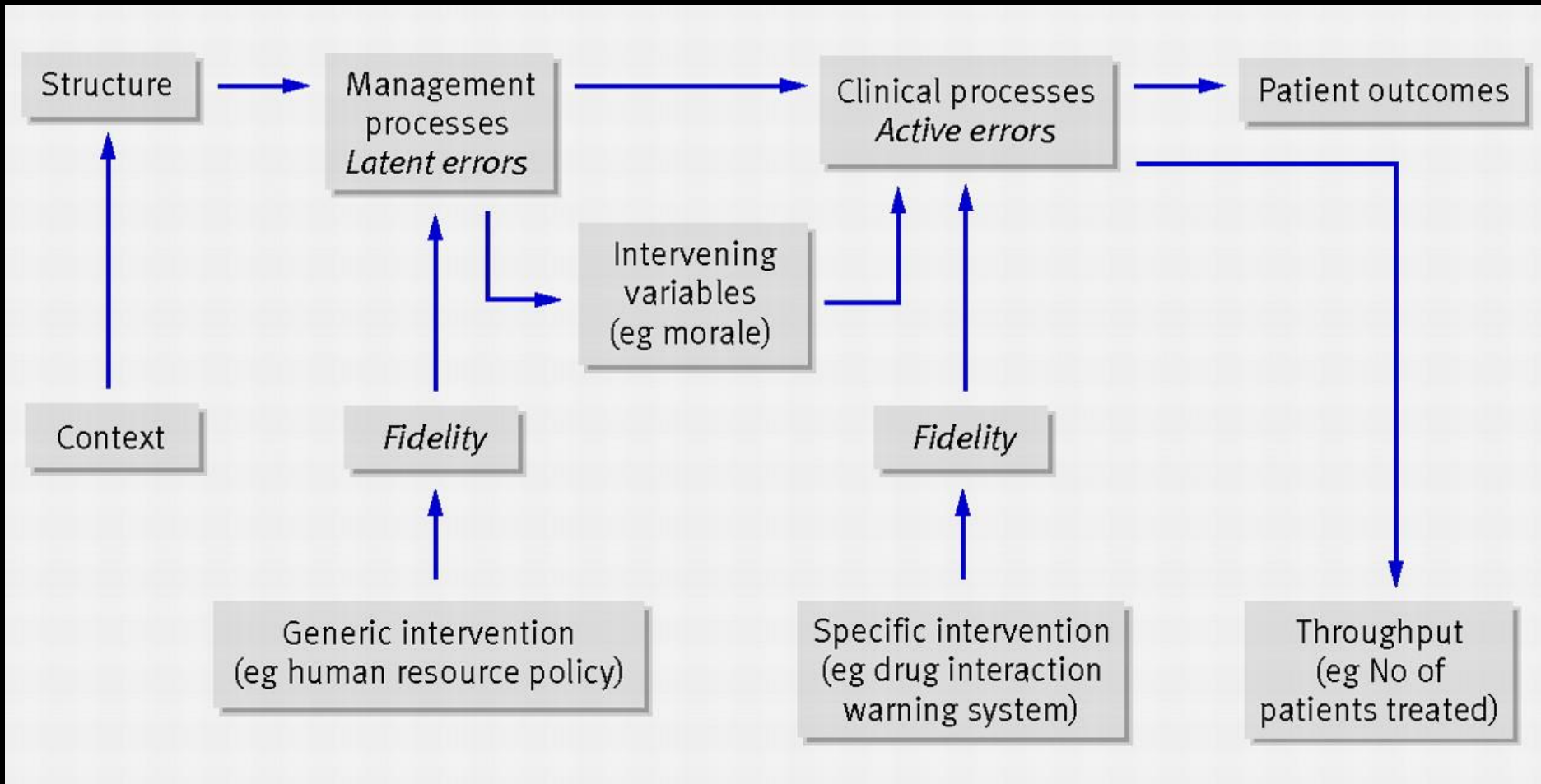


Donabedian's Framework for Evaluating Quality

- Structure - context in which care is delivered, includes hospital buildings, staff, financing, and equipment
- Process - transactions between patients and providers throughout delivery of healthcare
- Outcome - effects of healthcare on the health status of patients and populations
- Organizational, foundation for health systems research

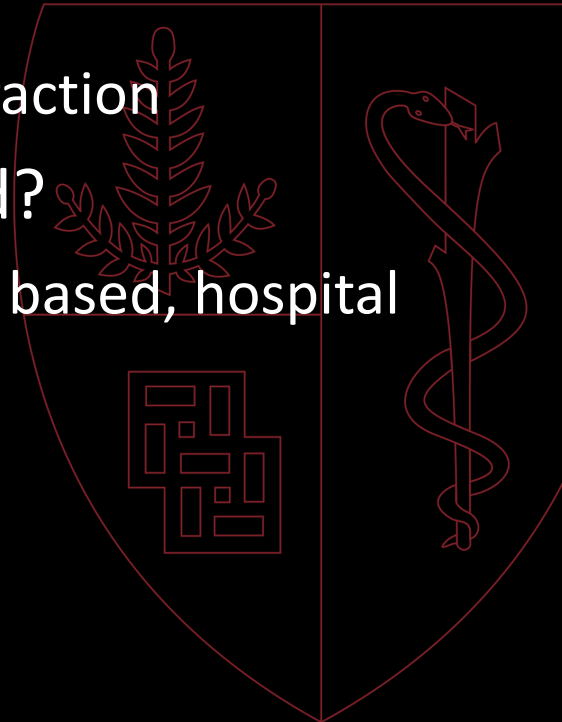


Causal chain linking interventions to outcomes



How can quality be measured?

- Context and programming matters
 - What are you evaluating?
 - A service line, an intervention, an interaction
 - Where is the service being delivered?
 - Home based, community based, office based, hospital based

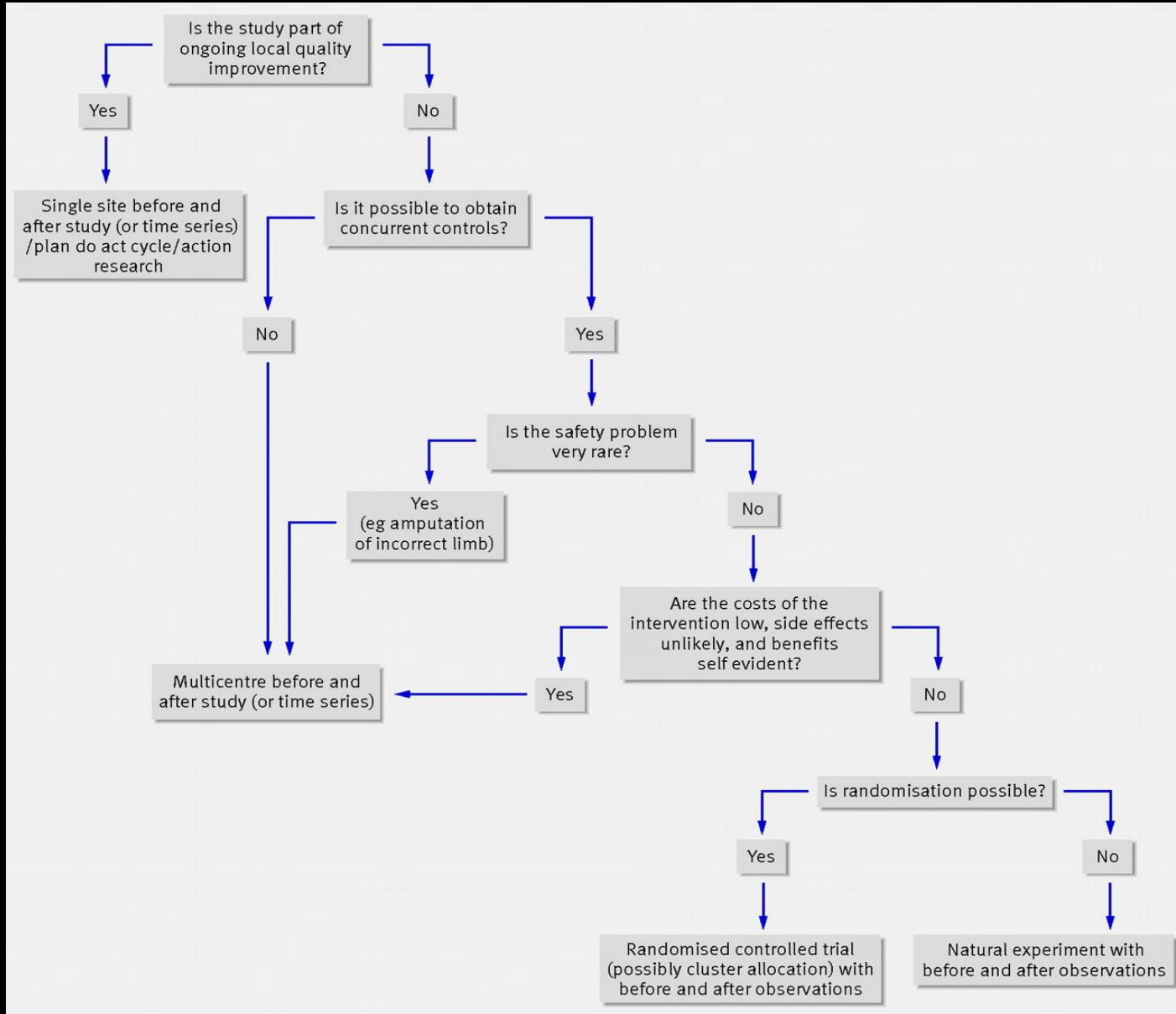


Study designs

- Pre/Post designs without concurrent controls
 - Evaluate large effects, policy implementations, or rare events
- Studies with concurrent controls
 - Timing and randomization are known (but not necessarily controlled)



Framework for selection of study design



Levels of observation

- Patient outcomes
- Fidelity
- Intervening variables
- Clinical process
- Qualitative evaluation



Techniques for measuring provider-patient interaction

- Direct Observation – cons: Hawthorne effect
- Provider Interviews – cons: bias if knowledge levels are good
- Patient Exit Interviews – cons: timing of interview, dependent on outcome and patient expectation
- Chart Reviews and Audits – cons: dependent on documentation



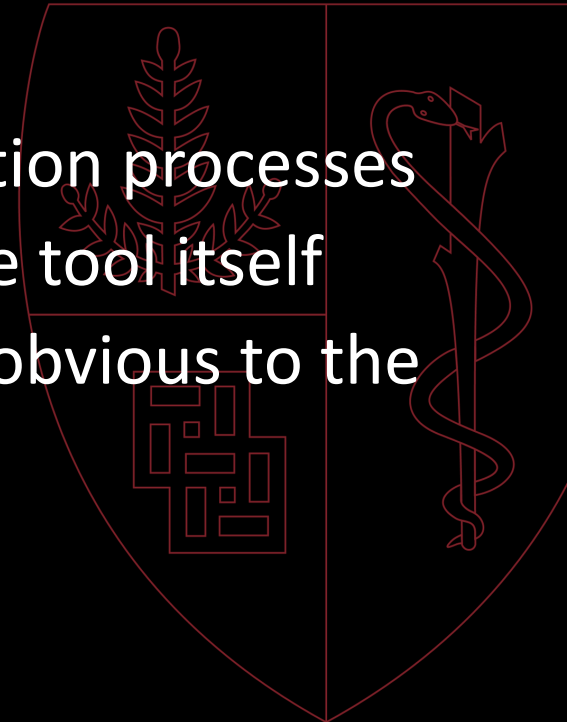
Techniques for measuring provider-patient interaction

- Group Evaluation (360° feedback) – cons: cultural and hierarchical structures
- Standardized Patients – cons: requires sophisticated “patient”
- Household Surveys – cons: dependent on timing, recall bias
- Preexisting Data Sources – cons: not tailored to intervention or outcome



Promising New Methods

- Technology Based
 - EMR, video, telemedicine
 - cons: expensive, tech based
- Clinical Decision Support Tools
 - Checklists, care algorithms, registration processes
 - data elements embedded within the tool itself
 - measurement statistics usually not obvious to the end user
 - cons: no forcing function



Conclusions

No perfect solutions...
but lots of options

