

**Every plan (& mental model) is a theory**


**Harvard  
Business  
Review**

**Finance And Investing**

# **Why Hard-Nosed Executives Should Care About Management Theory**

by Clayton M. Christensen and Michael E. Raynor

From the Magazine (September 2003)



“...most  
managers  
don’t realize  
that they are  
voracious users  
of theory.”

# Chanticleer's Rooster

"He crowed every morning, putting forth all his energy, and flapped his wings. The sun came up. The connection was clear: his crowing caused the sun to come up. There was no question about his importance. There was a snag. He forgot one morning to crow. The sun came up anyhow."

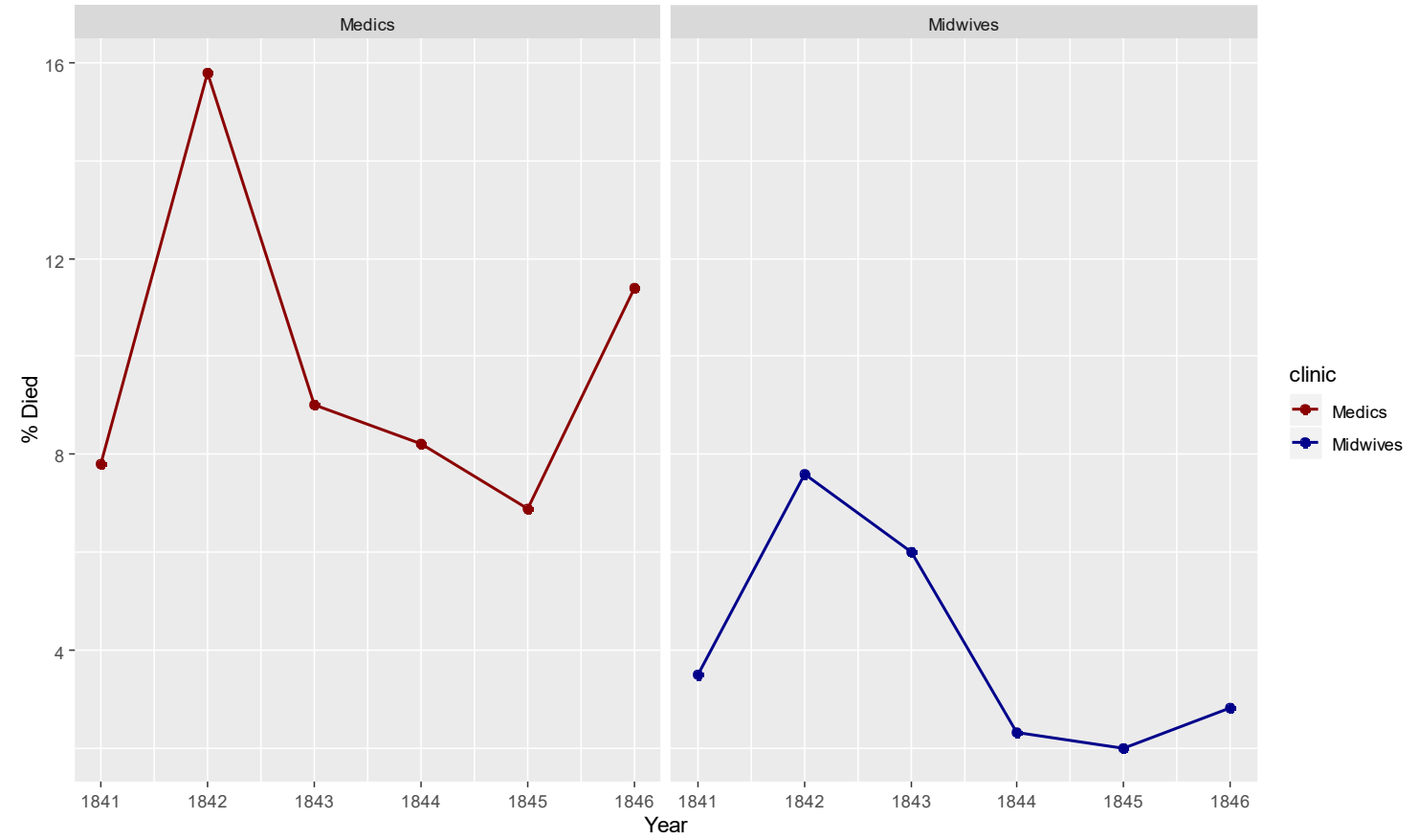
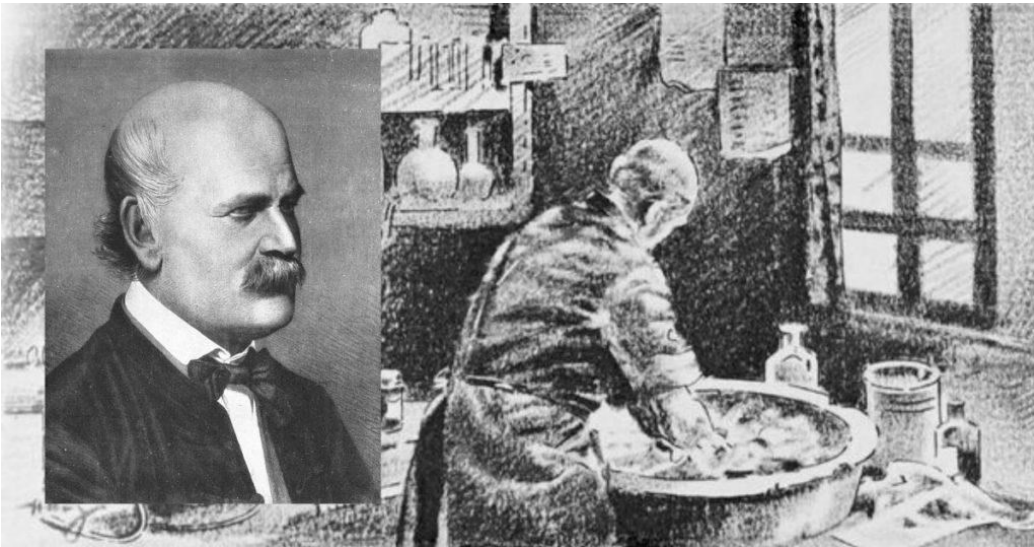


Chanticleer is the cock in Reynard the Fox from  
Jean del la Fontaine's Fables Choises Misses en Vers 1668

"Experience is inevitable. Learning is not" Paul Shoemaker Decision Science Researchers

"Without his theory he would have nothing to revise, nothing to learn." Deming

# Vienna General Hospital 1841–1846

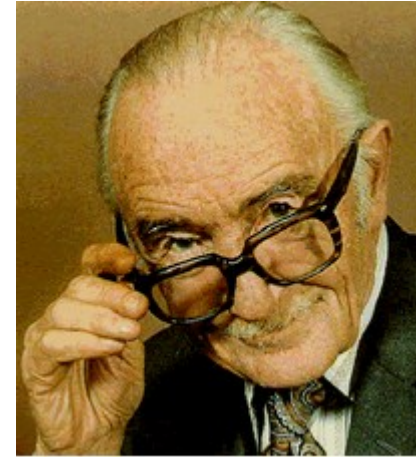




being challenged, and their favourite practices being tested. Archie Cochrane was one of the pioneers of evidence based medicine, and in his autobiography, he describes many battles he had with senior doctors, in glorious detail. In 1971, Cochrane was concerned that Coronary Care Units in hospitals might be no better than home care, which was the standard care for a heart attack at the time (we should remember that this was the early days of managing heart attacks, and the results from this study wouldn't be applicable today). In fact, he was worried that hospital care might involve a lot of risky procedures that could even, conceivably, make outcomes worse for patients overall.

Because of this, Cochrane tried to set up a randomised trial comparing home

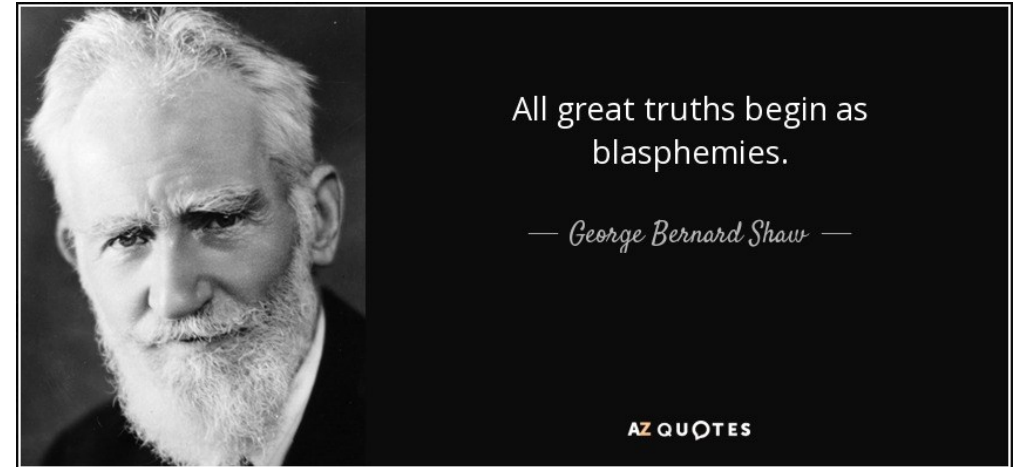
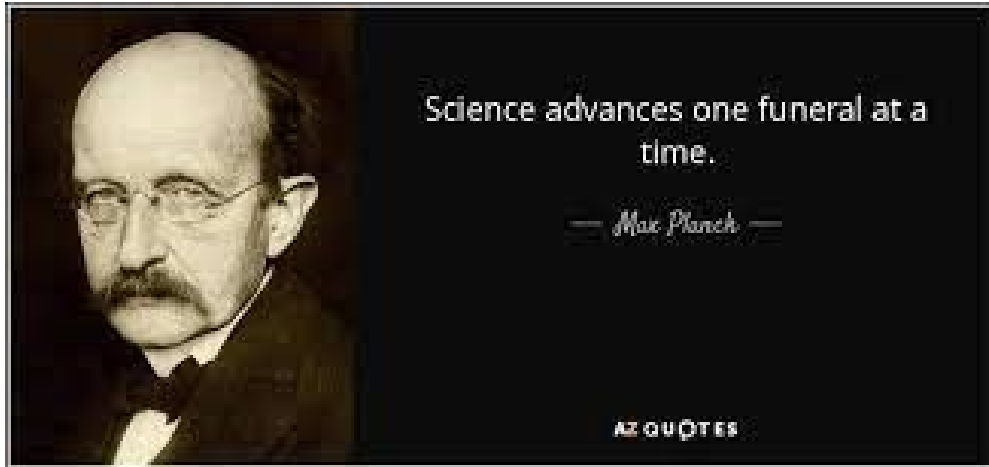
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care against hospital care, against great resistance from the cardiologists. In fact, the doctors running the new specialist units were so vicious about the very notion of running a trial that when one was finally set up, and the first results were collected, Cochrane decided to play a practical joke. These initial results showed that patients in Coronary Care Units did worse than patients sent home; but Cochrane switched the numbers around, to make it look like patients on CCUs did better. He showed the cardiologists these results, which reinforced their belief that it was wrong of Cochrane to even dare to try running a randomised trial of whether their specialist units were helpful. The room erupted:

“They were vociferous in their abuse: “Archie,” they said “we always thought you were unethical. You must stop this trial at once.” ... I let them have their say for some time, then apologized and gave them the true results, challenging them to say as vehemently, that coronary care units should be stopped immediately. There was dead silence and I felt rather sick because they were, after all, my medical colleagues.



# A quiz

- If people are doing identical tasks under identical conditions then differences in performance are mostly due to the staff. [True/False]
- In 1990's, Lucent, a very large US telecoms company, reorganised its 3 divisions into 11 smaller units to flatten hierarchy, improve decision making and customer response. Was the re-organisation successful? [Yes/No]
- A letter from the chief medical officer (CMO) to a group of GPs with high antibiotic prescribing led to a drop in antibiotic prescribing? [True/False]
- To increase response rates from a postal survey, people were randomly allocated to \$1 in the envelope vs \$50 upon return of the completed survey. Which one increased response rates? [\$1/\$50]
- A classic study (1984) of homicide rates of countries across the world found that, after a war, homicide rates within countries fell sharply? [True/False]
- 1000 people in Switzerland were randomly tested to determine the prevalence of covid19? The population in the USA is 40 times larger. How many people would we have to test in the USA for similar accuracy? [1000/40,000]
- Asking patients at the end of a consultation “Is there something else you want to address in the visit today”, vs “Is there anything else you want to address in the visit today” identifies more patient concerns. [True/False]

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# Learning from theory

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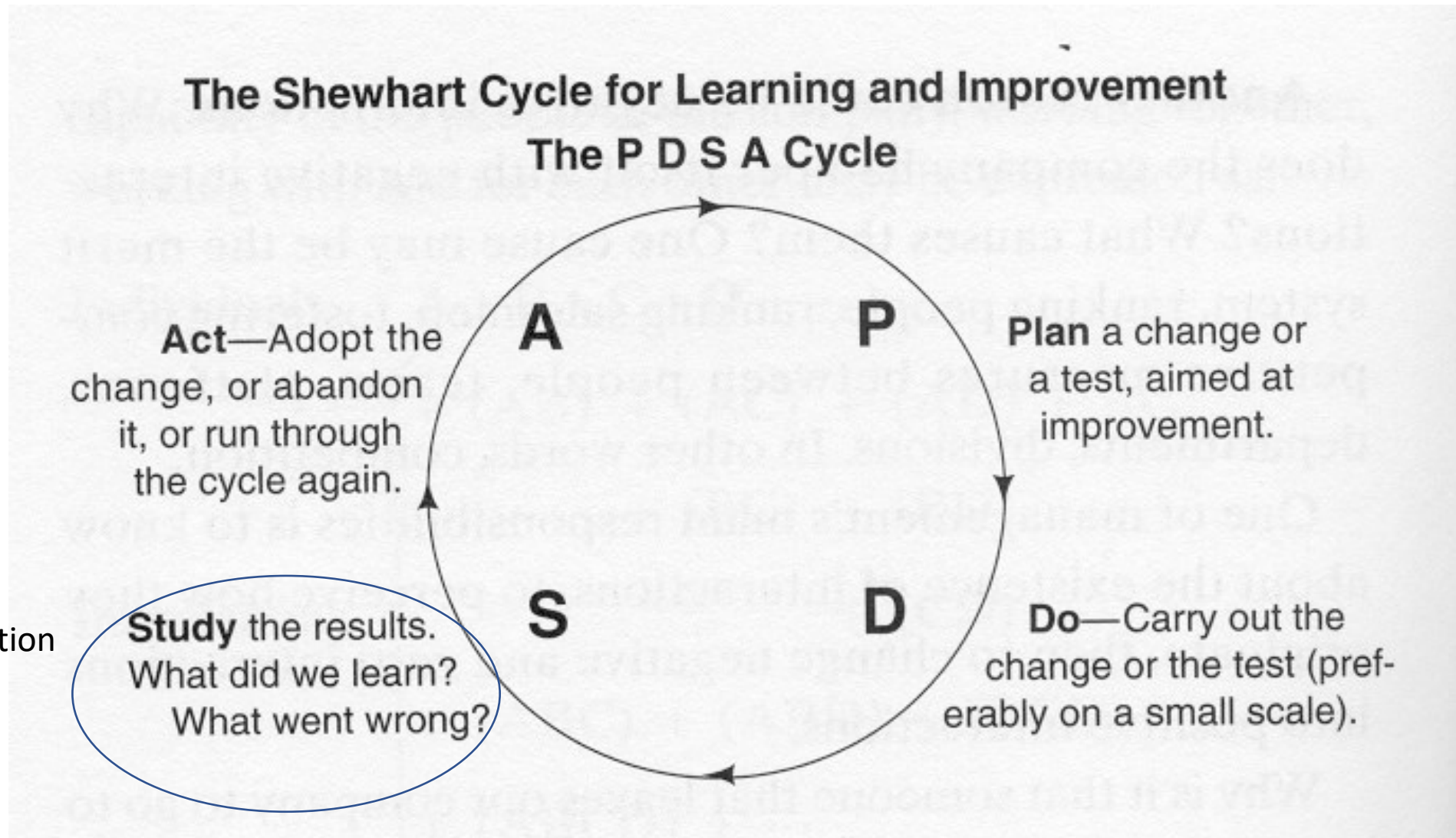


# Scientific Theories are testable and self-correcting

- Theories help us
  - Explain the past and make future predictions
- Scientific theories
  - Are designed to be **testable** (and falsifiable)
    - Prediction vs Observation
  - “All swans are white”
    - Never proven true
      - Increased degree of belief by replication
    - Can be proven false
- Learning comes by self-correction
  - Predictions vs observations (Expected vs Observed)
  - Proceeding from correlation to causation by falsification

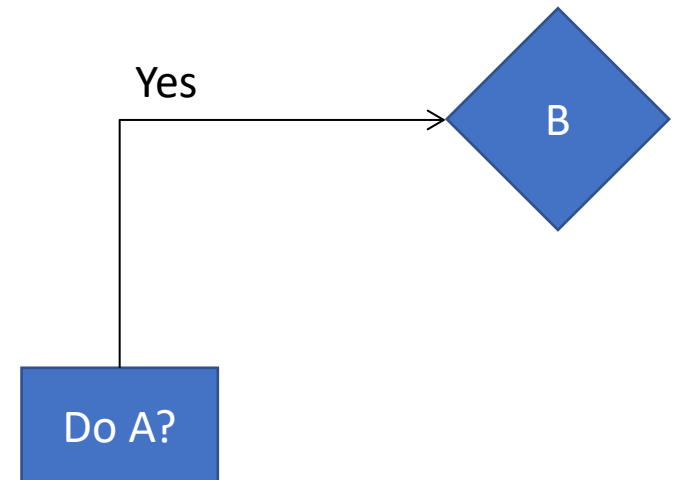


# Knowledge Generation - The Scientific Method



# Every plan is a theory

- If "A" then "B"
- What else does this imply?



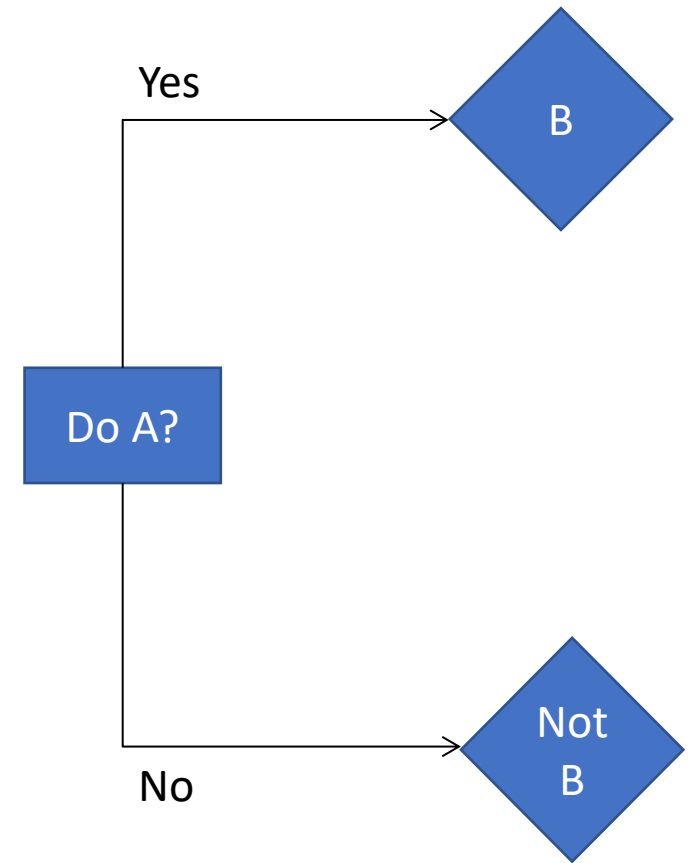


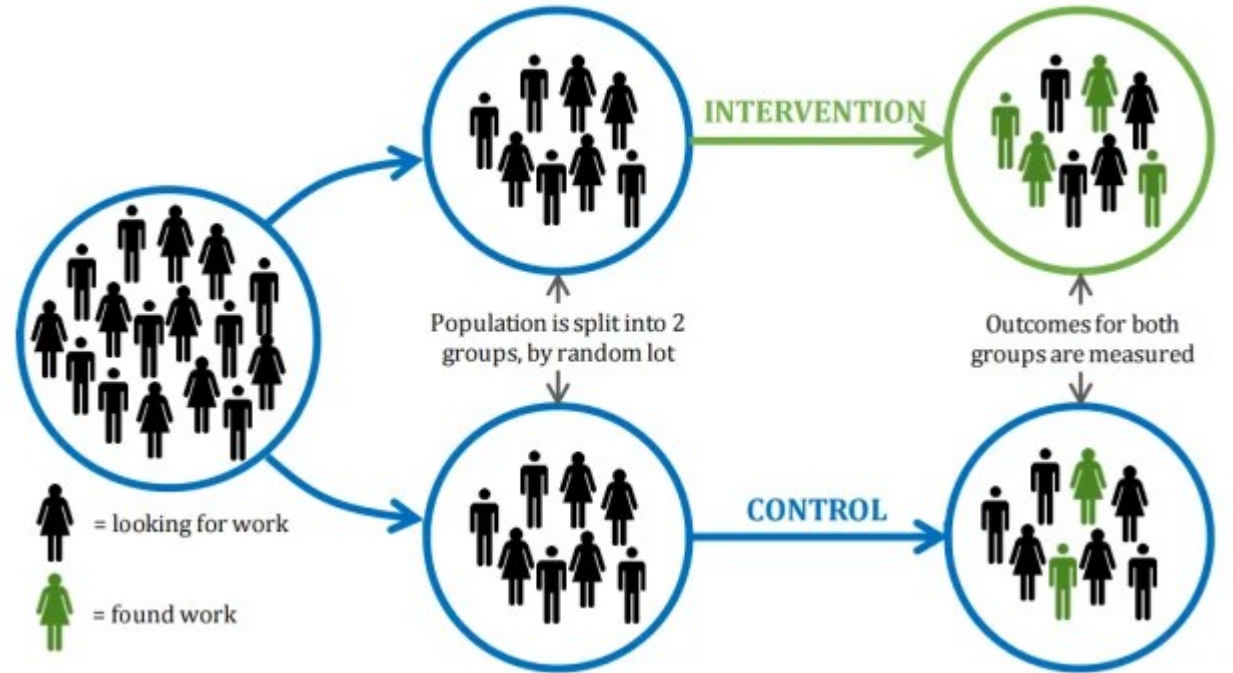
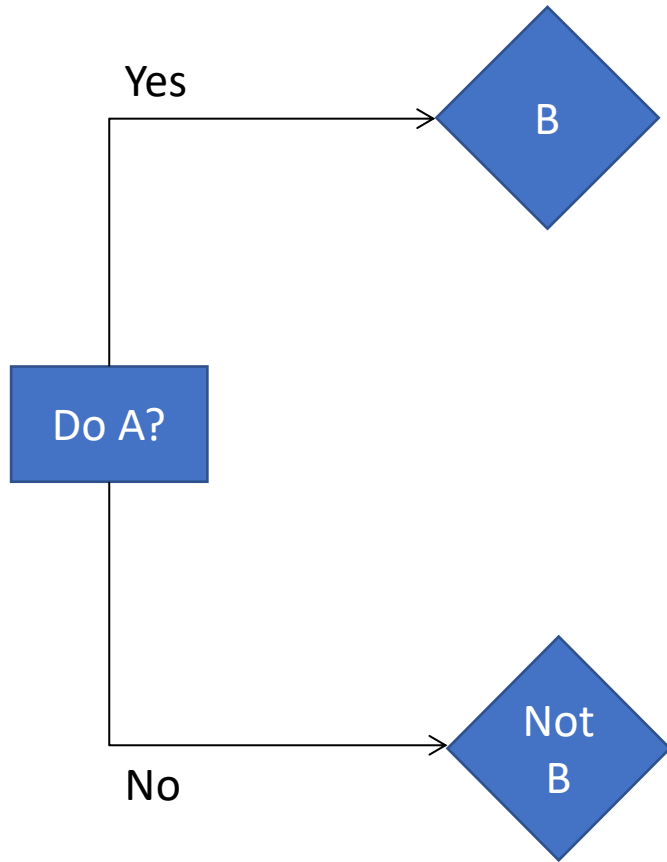
# Every plan is a theory

- If "A" then "B"
- What else does this imply?

counterfactual

If 'Not A' then 'Not B'





Control groups eliminate rival explanations



# A Theory



[https://en.wikipedia.org/wiki/An\\_apple\\_a\\_day\\_keeps\\_the\\_doctor\\_away](https://en.wikipedia.org/wiki/An_apple_a_day_keeps_the_doctor_away)

Apples Delivered	Apples Eaten	Vitamin Levels Raised	Health Outcomes Improved	Interpretation
✗	✗	✗	✗	Implementation Failure
✓	✗	✗	✗	Engagement Failure (first causal link)
✓	✓	✗	✗	Theory Failure (early causal link)
✓	✓	✓	✓	Consistent with theory
✓	✓	✓/✗	✓	Theory Failure (later causal link)
✓	✓	✓/✗	✓/✗	Partial Theory Failure Works in some contexts
✓	✓	✗	✓	Theory Failure (different causal path)



OPEN ACCESS

## Quality and reporting of large-scale improvement programmes: a review of maternity initiatives in the English NHS, 2010–2023

BMJ Qual Saf: first published as

**Results** We identified 1434 records via databases and other sources. 14 major initiatives in English maternity services could not be quality assessed due to lack of a retrievable evaluation report. Quality assessment of the 15 improvement programmes meeting our criteria for assessment found highly variable quality and reporting. Programme specification was variable and mostly low quality. Only eight reported the evidence base for their interventions. Description of implementation support was poor and none reported customisation for challenged services. None reported reduction of inequalities as an explicit goal. Only seven made use of explicit patient and public involvement practices, and only six explicitly used published theories/models/frameworks to guide implementation. Programmes varied in their reporting of the planning, scope and design of evaluation, with weak designs evident.

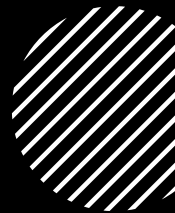
**Conclusions** Poor transparency of reporting and weak or absent evaluation undermine large-scale improvement programmes by limiting learning and accountability. This review indicates important targets for improving quality in large-scale programmes.

# Key points: theory is central

- Theories lead to predictions
- Every plan/mental model/decision is a theory
- Predictions have a degree of belief (low/medium/high)
- Scientific theories are falsifiable (counterfactual)
- Test predictions from theories
  - Desktop testing vs Field testing
  - Fail fast and safely
- Learning involves revising theory
  
- Reflections...



# Share your insights...



Any key insights...



So what...  
(any scope for application)



One wish...