Introduction to Planning Models

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The evidence-practice gap

- Consistent failure to translate evidence into policy and practice

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PLoS MEDICINE

Essay

Closing the Gaps: From Science to Action in Maternal, Newborn, and Child Health in Africa

Sara Bennett[1]*, Freddie Ssengooba[2]

"…the technical basis for improving maternal, newborn, and child health (MNCH) in sub-Saharan Africa is largely known, but too often policy and practice are not well informed by science."

- science to policy gap: Failure of research to inform priorities or planning of the domestic policy agenda
- policy to practice gap: Even when policy exists, there are substantial challenges to implementation
  - stakeholder management through the implementation process
  - health system constraints

Objectives

1. Understand how to define the evidence-practice gap

2. Understand why a logic model of the problem is important

3. Learn about planning models useful for understanding the problem and designing interventions

Defining the evidence-practice gap

1.1 Identify and rate the evidence

1.2 Measure quality and determine the quality gap

1.3 Link quality gap to outcome gap

What evidence do you want to translate?

Processes of Care

- Health Related Behaviors
- Tests
- Treatments
- Procedures
- Interventions
- Programs

Is the evidence ready to translate?

- Efficacy
- Effectiveness
- Systematic Reviews
- Consensus Statements
- Practice Guidelines

Efficacy < Effectiveness <

Systematic Reviews < Guidelines

Evidence Synthesis

Rating the Evidence: Systematic Reviews

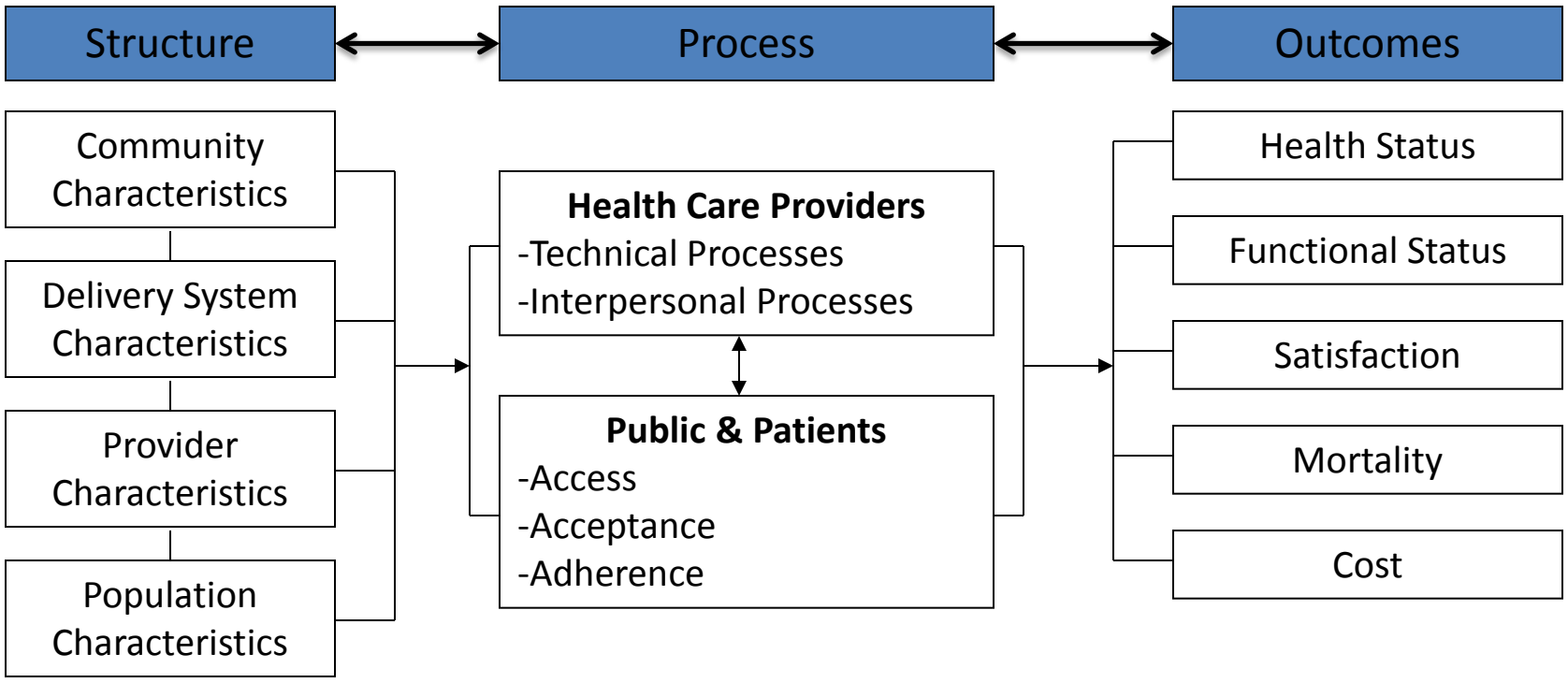
- The Cochrane Collaboration (www.cochrane.org, www.epoc.cochrane.org)
- Regional East African Community Health (REACH) Policy Initiative (www.eac.int/health)
- Evidence Informed Policy Network (http://global.evipnet.org/)

Making Recommendations: Guidelines

- World Health Organization
- Country-specific guidelines (Ministries of Health)
- Professional societies
- Guideline International Network (www.g-i-n.net/)
- National Guideline Clearinghouse (AHRQ) (www.guideline.gov/)

Quality of Health Care

- **Donabedian A. *JAMA* 1988;260:1743-8**



Quality of care measures – Examples

- Health status
  - Disease-specific morbidity
- Functional status
  - Disability, Quality of Life
- Satisfaction (Patient clinical experience)
  - Communication, pain control, comprehension of treatment/care, overall rating and recommendations to others
- Mortality
- Cost
  - Cost per QALY/DALY

IOM Pillars of Quality

-Safe
-Effective
-Efficient
-Equitable
-Patient-Centered
-Timely

Examples

-Error rates
-Mortality/morbidity
-Cost per QALY/DALY
-Subgroup analyses
-Informed decisions
-Access

Sources of data on quality of care

- National/Multi-national surveys/reports
  - WHO Survey/Country Reports
  - MDG Countdown Project (www.un.org/millenniumgoals/stats.shtml)
- National Disease Registries
- Administrative Claims Data
- Your own research
  - Surveys
  - Cross-sectional studies

Measuring quality of care yourself

- When guidelines exist… external benchmarks
  - Pre-existing or based on guidelines
- When guidelines don't exist… analysis of variation
  - Country to Country
  - Region to Region
  - Across different healthcare facilities

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Hindawi

Research Article

Quality of Tuberculosis Care in Private Health Facilities of Addis Ababa, Ethiopia

FROM ABSTRACT

The aim of this study was to investigate quality of TB care in private health facilities of Addis Ababa. A facility based **cross-sectional study** was conducted based on Donabedian's structure-process-outcome model of health care quality. **Quality of care was determined by adherence to National TB Program guidelines, treatment success rate, and client satisfaction**. Exit interview was conducted on 292 patients on the intensive phase of treatment and 384 patient records were reviewed in eight private health facilities.

The Global Numbers and Costs of Additionally Needed and Unnecessary Caesarean Sections Performed per Year: Overuse as a Barrier to Universal Coverage

World Health Report (2010) Background Paper, 30

Cesarean Section Rates	Countries		Annual number of cesarean sections (thousands)		Annual number of births (year 2006) (thousands)	
	N	%	N	%	N	%
<10%	54	39.4	4,556	24.7	77,417	60.0
Between 10 and 15%	14	10.2	414	2.2	3,177	2.5
>15%	69	50.4	13,479	73.1	48,390	37.5
Total	137	100.0	18,449	100.0	128,984	100.0

Calculating the Outcome Gap

Breast cancer screening rates	→	**Breast cancer cases averted**
SBP < 140 mmHg	→	**MI averted**
Smoking cessation rate	→	**Mortality averted**

The Public Health and Business Case

FIGURE 10. AVOIDABLE DEATHS AND MEDICAL COSTS DUE TO UNEXPLAINED VARIATIONS IN CARE: SELECT MEASURES AND CONDITIONS, U.S. POPULATION, 2006

MEASURE	AVOIDABLE DEATHS	AVOIDABLE HOSPITAL COSTS
Beta-Blocker Treatment After a Heart Attack	500 - 1,200	$6.1 million - $10.8 million
Breast Cancer Screening	200 - 700	$89 million
Cervical Cancer Screening	600 - 800	N/A
Cholesterol Management	4,400 - 9,400	$20.1 million - $60.9 million
Colorectal Cancer Screening	6,000 - 12,600	$284 million - $411 million
Controlling High Blood Pressure	9,200 - 22,800	$292 million - $708 million
Diabetes Care - HbA1c Control	7,100 - 15,900	$1.3 billion - $1.7 billion
Osteoporosis Management	N/A	$9.9 million - $10.4 million
Prenatal Care	1,000 - 1,600	N/A
Smoking Cessation	7,000 - 10,700	$673 million - $725 million
TOTAL	**35,000 - 75,000**	**$2.7 billion - $3.7 billion**

Link quality measure to outcome of interest

Antibiotic utilization = Antibiotic resistance

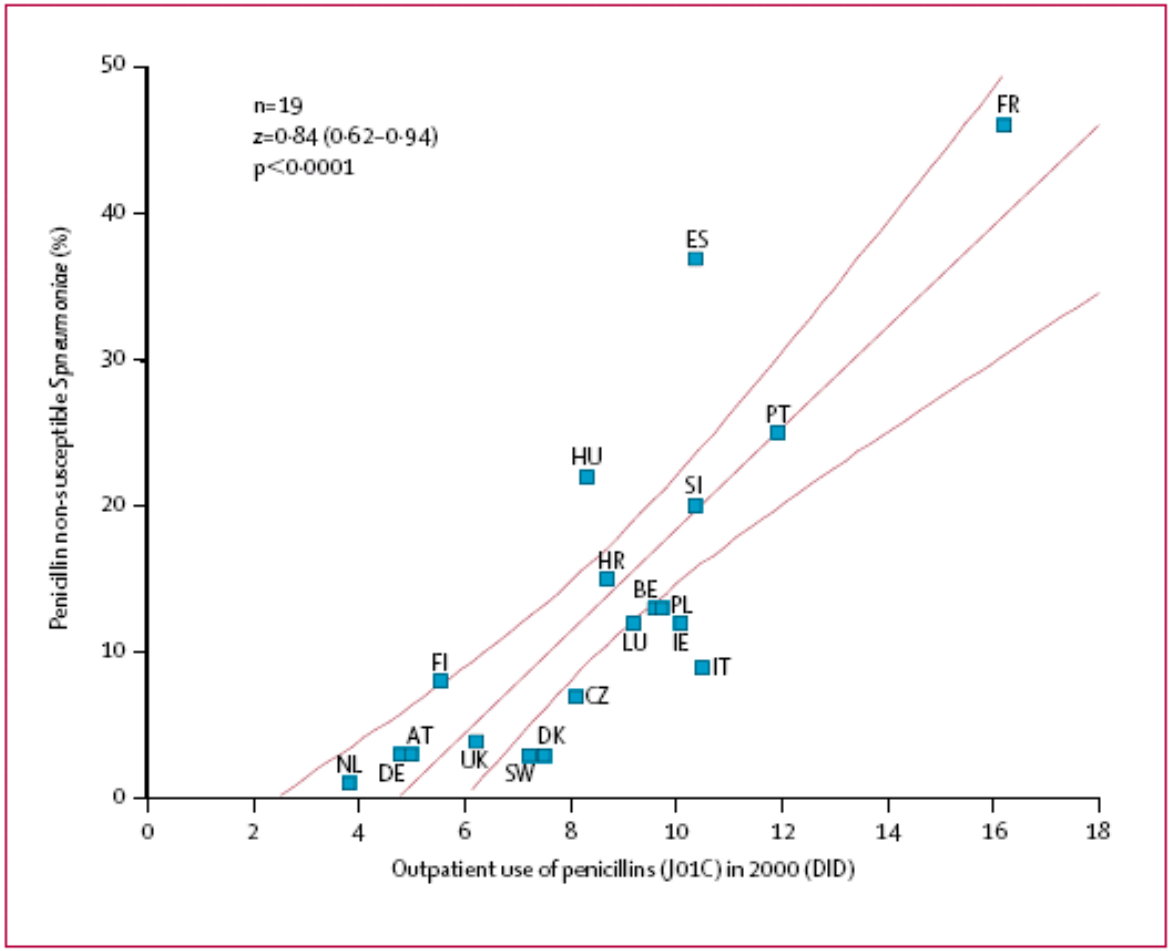

Figure 6: Correlation between penicillin use and prevalence of penicillin non-susceptible *S pneumoniae*
AT, Austria; BE, Belgium; HR, Croatia; CZ, Czech Republic; DK, Denmark; FI, Finland; FR, France; DE, Germany; HU, Hungary; IE, Ireland; IT, Italy; LU, Luxembourg; NL, The Netherlands; PL, Poland; PT, Portugal; SI, Slovenia; ES, Spain; UK, England only.

Evidence-Practice Gap Summary

- Select your evidence for translation ***carefully***
  - Ensure evidence is ready to translate
  - Confirm/communicate with key stakeholders

- Frame evidence as a quality of care issue

- Improving the quality of care (*i.e.,* the translation of your evidence) should maximize
  - safety, effectiveness, efficiency, patient-centeredness, and timeliness and eliminate disparities in care

- To make your case for ***investing*** in translating your evidence into practice
  - Measure its quality, determine the quality gap, and link the quality gap to an outcome gap

Objectives

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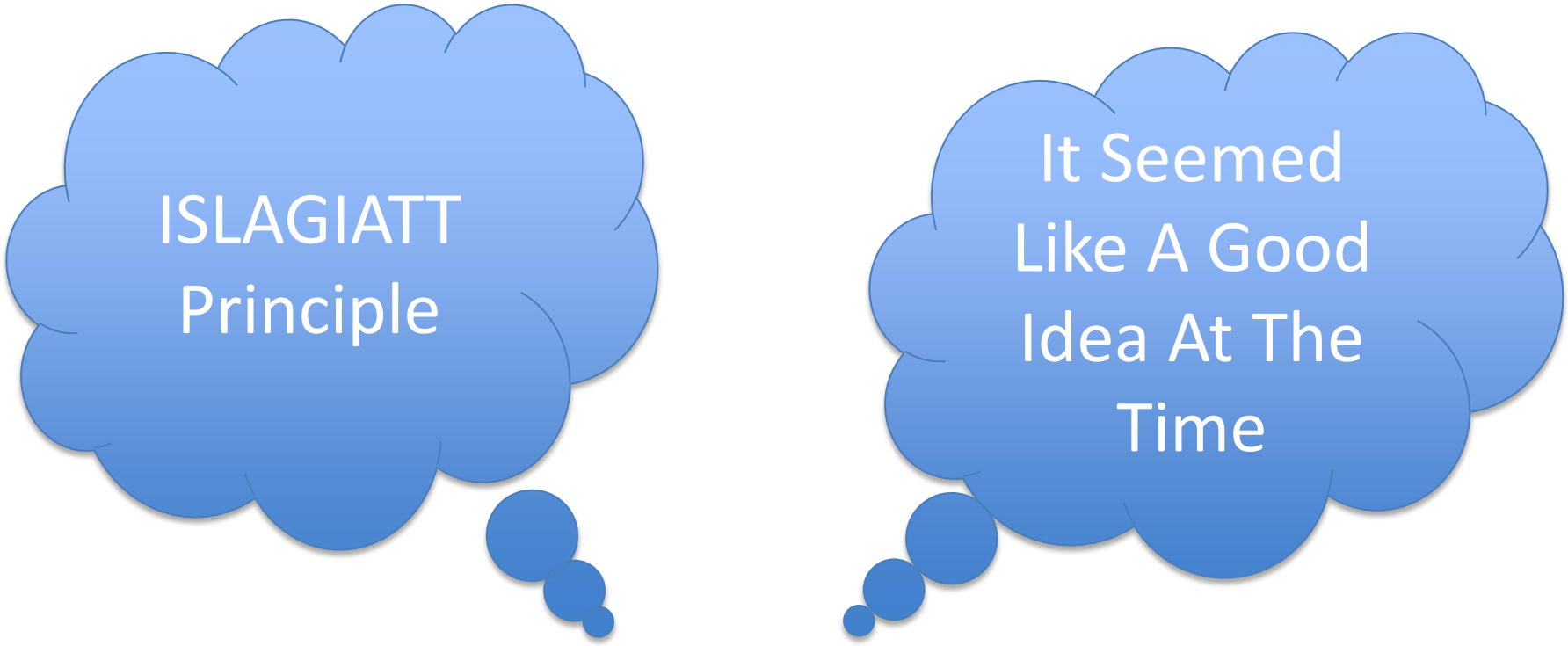
Traditional approach to evidence translation

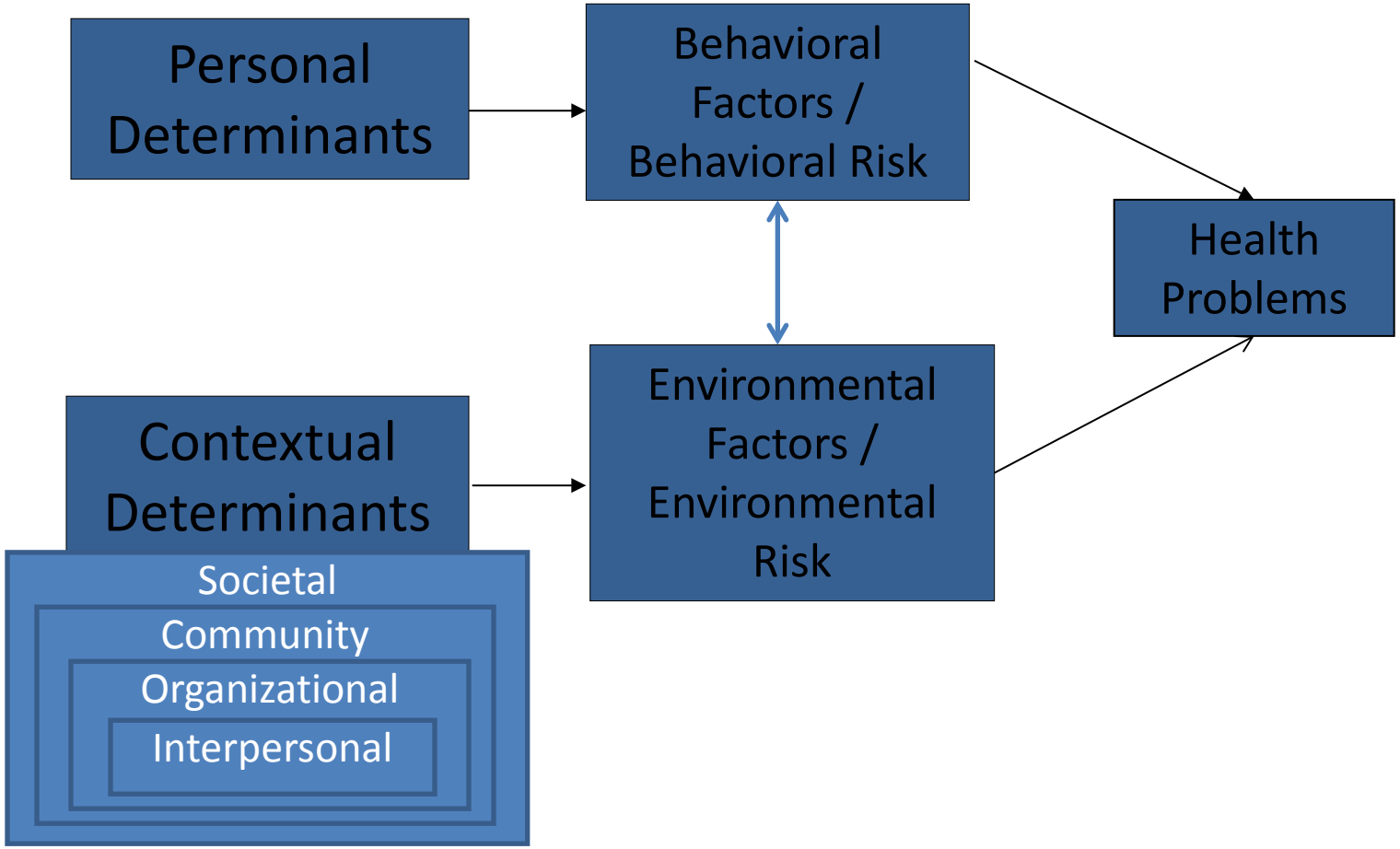


Martin Eccles

Behavioral approach to evidence translation

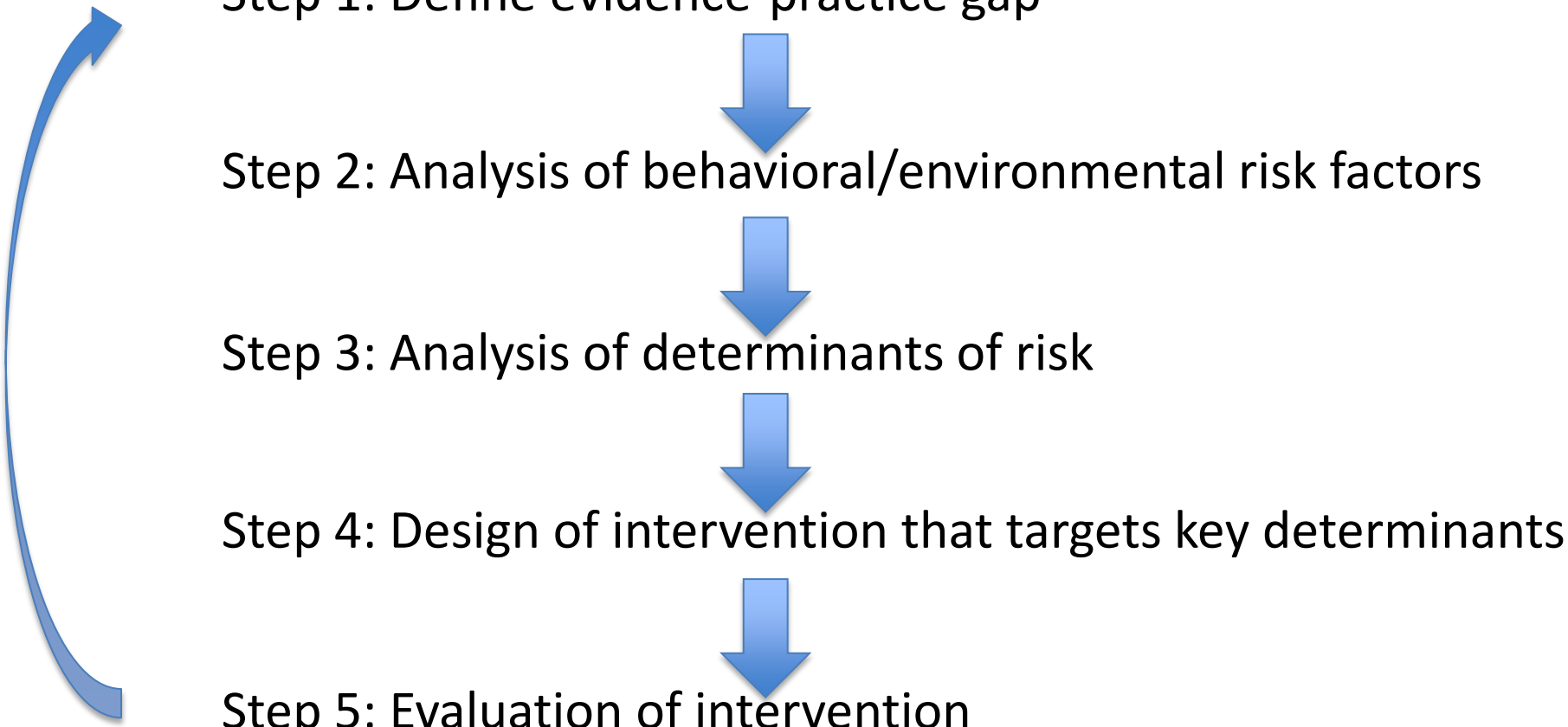
- Implementation depends on stakeholder behavior
- Improving care requires changing behavior
- Changing behavior requires understanding determinants of current behavior and how behavior changes

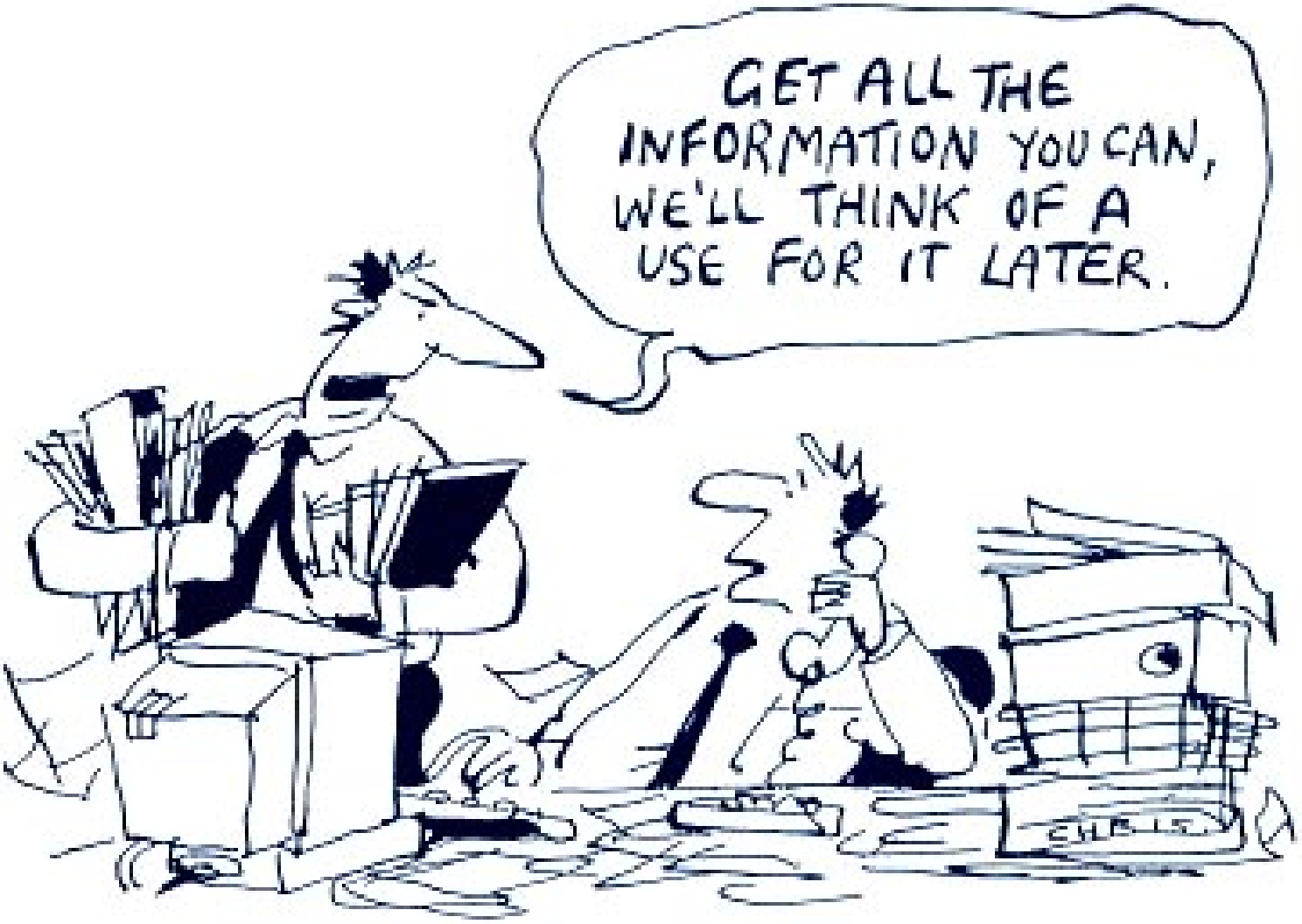
Logic Model



ADAPTED FROM: Green and Kreuter

Steps in Planned Health Promotion




GET ALL THE INFORMATION YOU CAN, WE'LL THINK OF A USE FOR IT LATER.

Planning models/frameworks

- Step-by-step guide for intervention development, implementation and evaluation

- Incorporate use of theory at each step
  - Define problem
  - Design intervention
  - Implement intervention
  - Evaluate intervention

Choosing a Planning model/Framework

- **Intervention *development and testing***
  - understand problem
  - understand context of problem
  - select intervention tools
  - test intervention

PRECEDE-PROCEED

Behavior Change Wheel

- **Intervention *implementation and testing***
  - Place existing evidence-based intervention in new setting(s)
  - focus on context, process, fit between intervention and setting

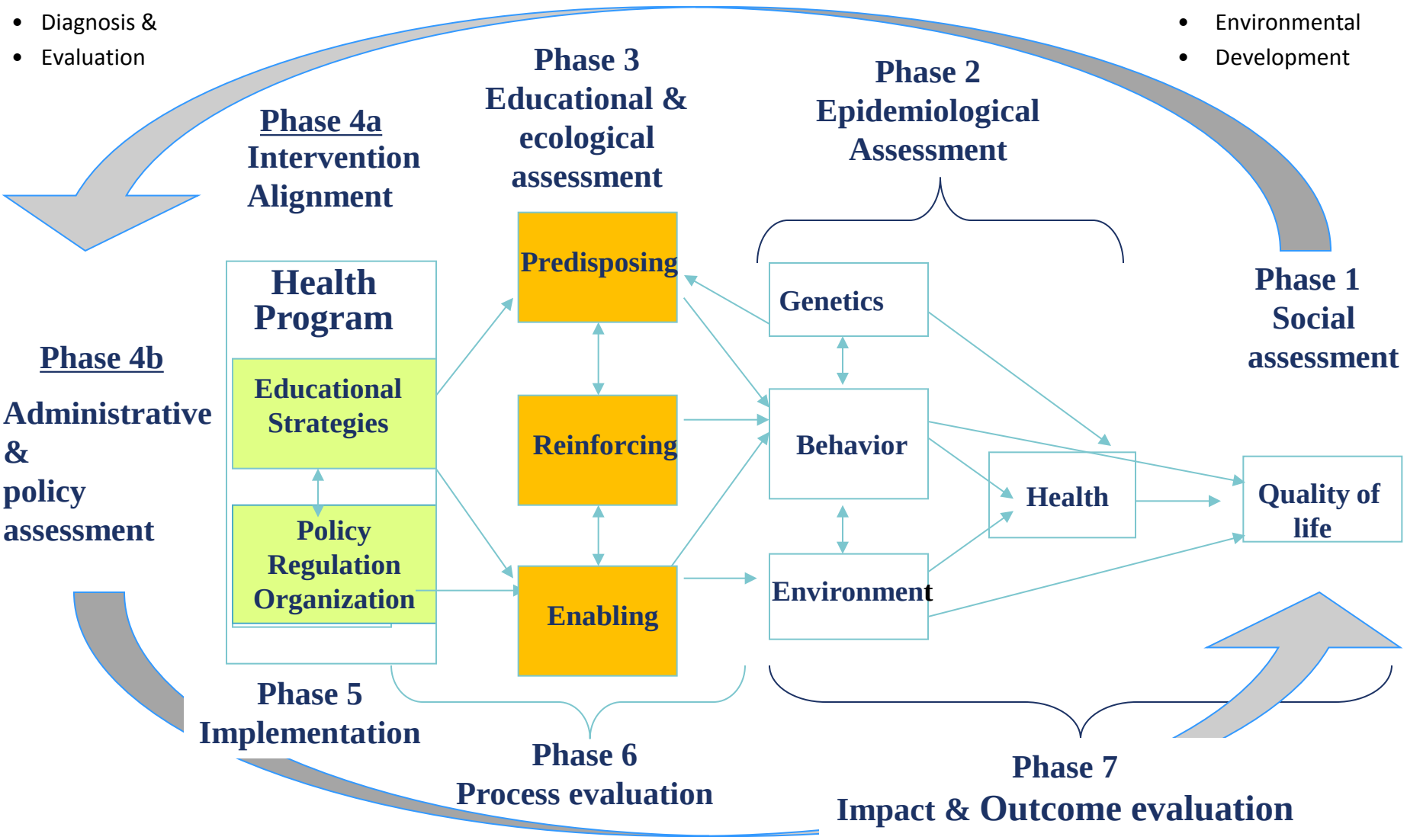
CFIR

RE-AIM

- Predisposing,
- Reinforcing, &
- Enabling
- Constructs in
- Educational/Ecological
- Diagnosis &
- Evaluation

PRECEDE-PROCEED

- Policy,
- Regulatory &
- Organizational
- Constructs in
- Educational &
- Environmental
- Development



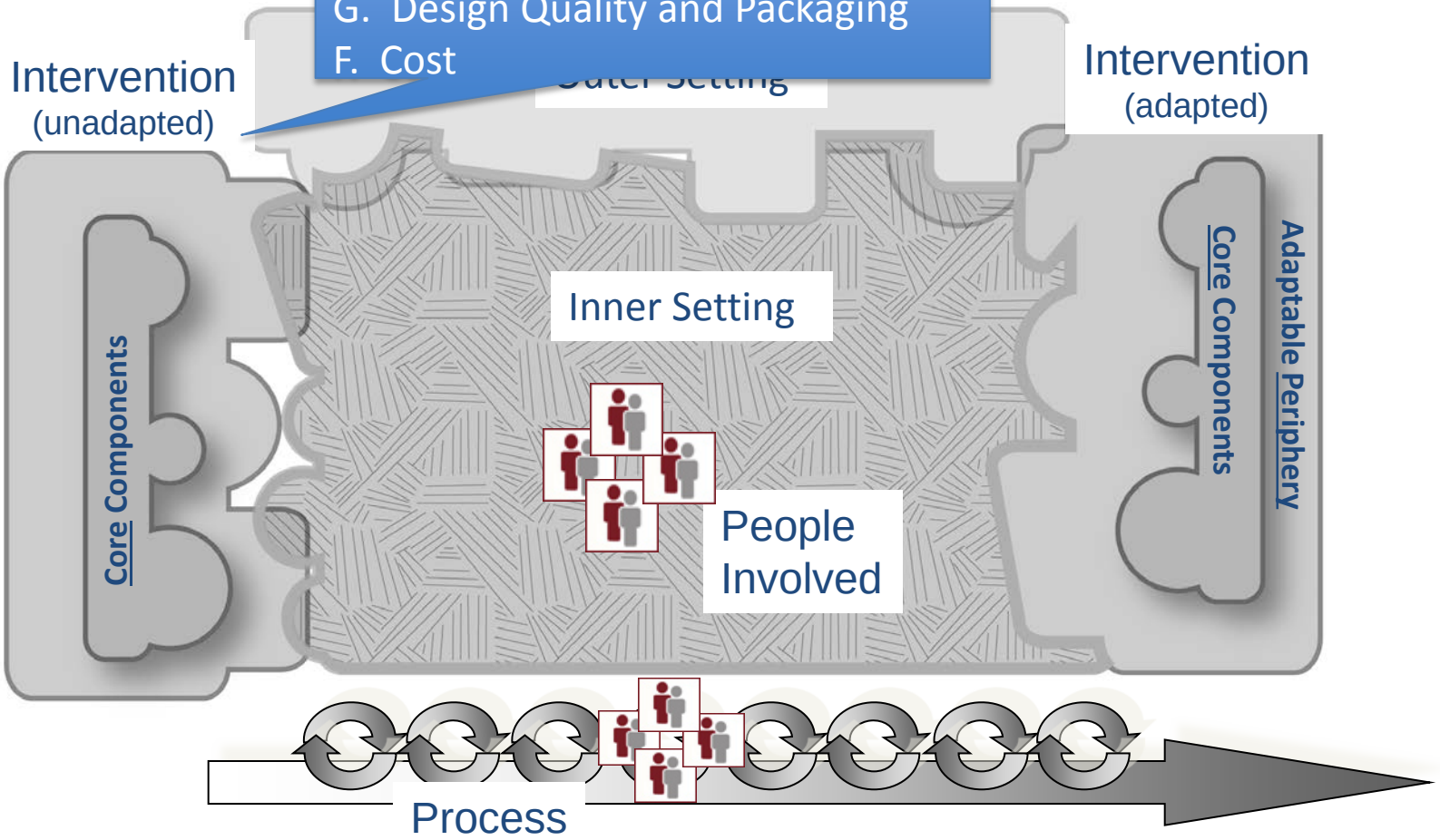
Green & Kreuter, *Health Program Planning, 4th ed.*, NY, London: McGraw-Hill, 2005.

PRECEDE Categories

- Predisposing Factors
  - *Rx=Why you should change*
  - Examples: Awareness/Beliefs – Education; Guidelines
- Enabling Factors
  - *Rx=Make it easy to do it*
  - Examples: Skills – Training; Decision Support; Authorization; Registries; Reminders
- Reinforcing Factors
  - *Rx=Align rewards/penalties*
  - Examples: Incentives; Feedback; Opinion Leaders; Social Marketing; Laws/Regulations

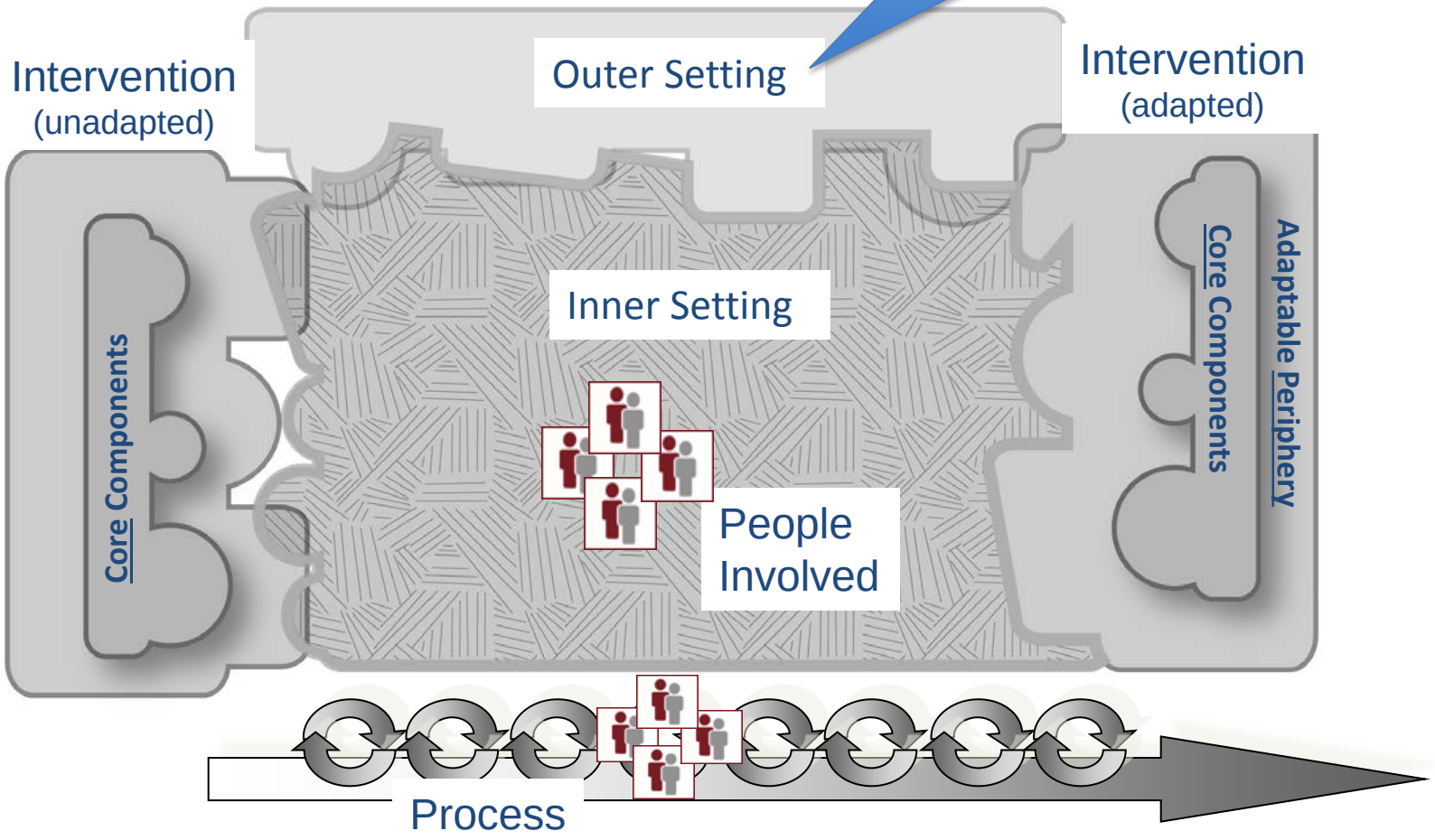
CFIR: Co ework for imp earch

A. Intervention Source
B. Evidence Strength & Quality
C. Relative Advantage
D. Adaptability
E. Trialability
F. Complexity
G. Design Quality and Packaging
F. Cost



CFIR: Consolidated Fra
implementation F

A. Patient Needs and Resources
B. Cosmopolitanism
C. Peer Pressure
D. External Policy & Incentives



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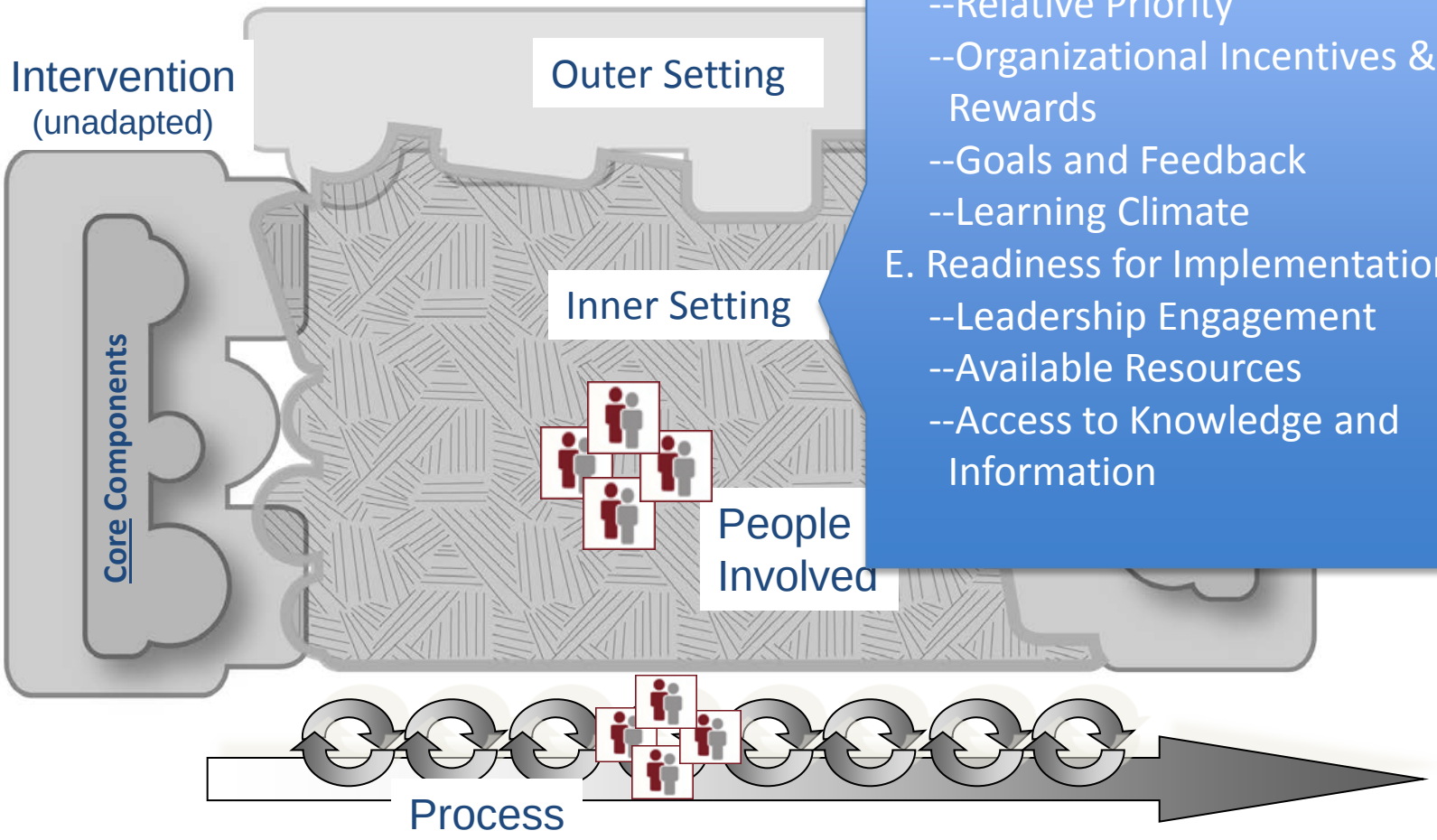
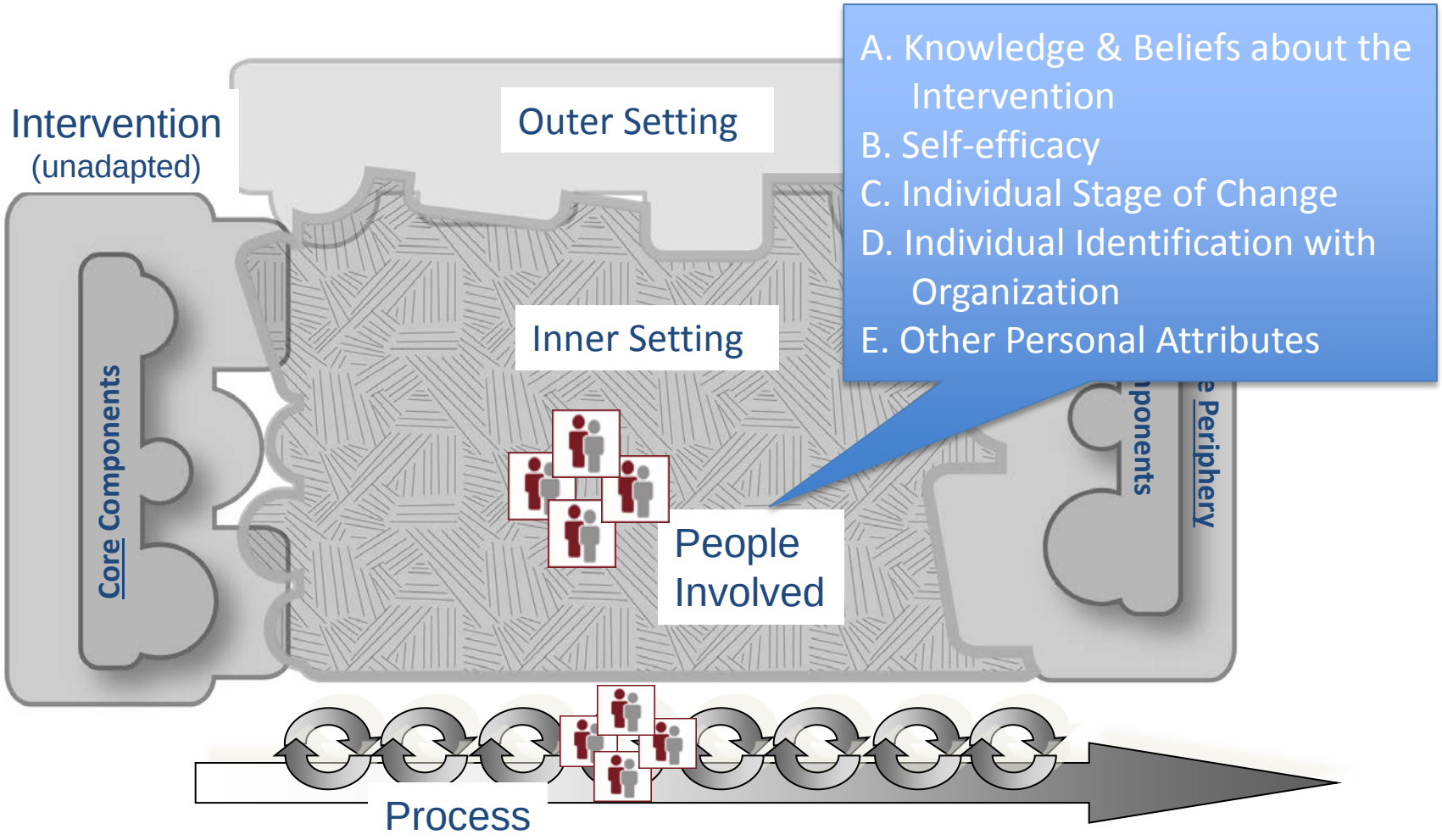
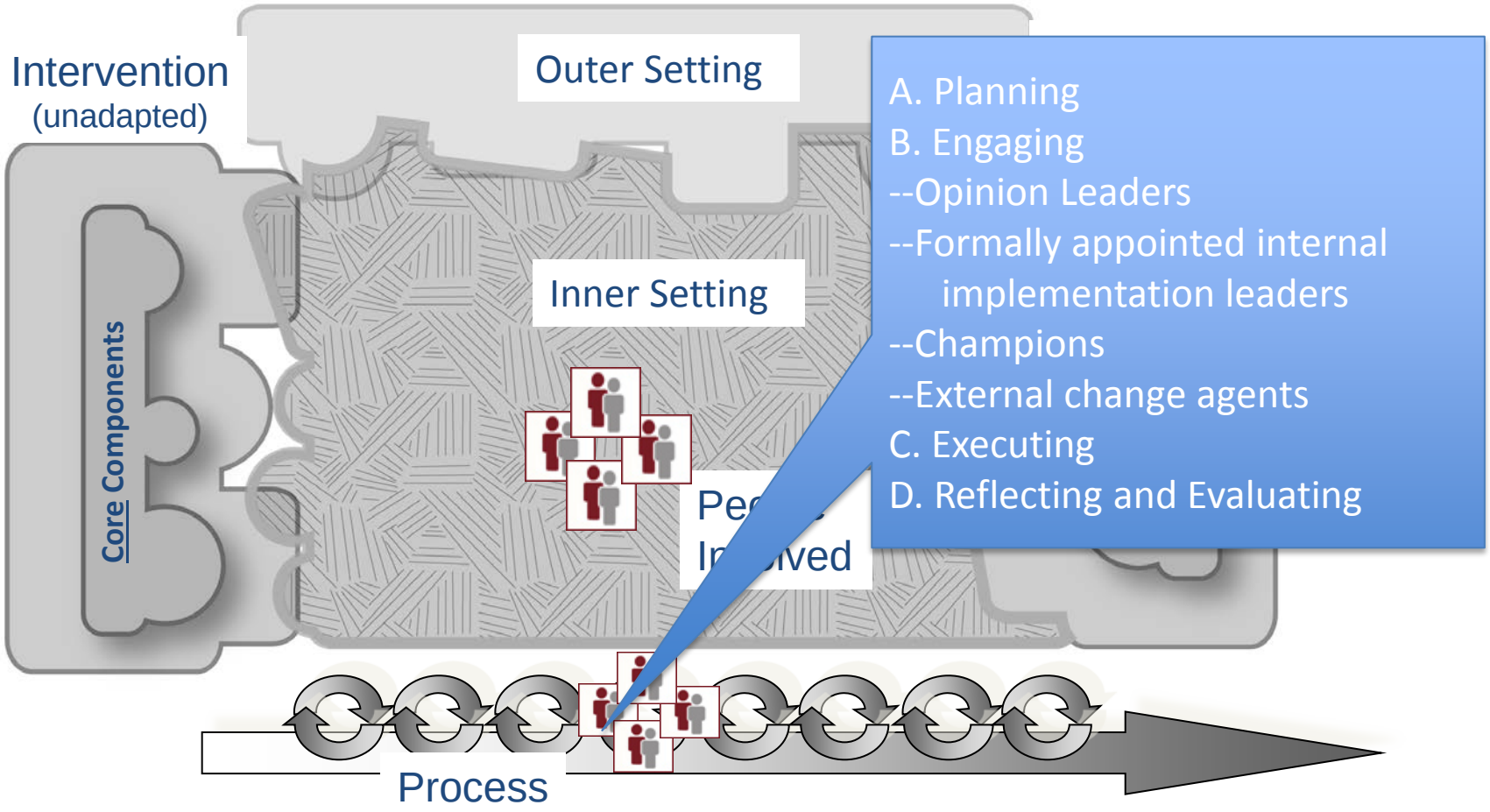


A. Structural Characteristics
B. Networks & Communications
C. Culture
D. Implementation Climate
--Tension for Change
--Compatibility
--Relative Priority
--Organizational Incentives & Rewards
--Goals and Feedback
--Learning Climate
E. Readiness for Implementation
--Leadership Engagement
--Available Resources
--Access to Knowledge and Information

CFIR: Consolidated Framework for implementation Research



CFIR: Consolidated Framework for implementation Research



CFIR: Consolidated Framework for Implementation Research

Strengths

- comprehensive
- helps guide evaluations at all stages
- helps track key implementation processes

Weaknesses

- how to decide whether/at what level to apply theoretical constructs
- which theory or theories to apply

Summary

- Make the case for evidence translation
- Behavior change is critical for evidence translation
- Planning models useful to guide systematic problem assessment and design/implementation/evaluation of behavior change interventions