

Pathways from Outcomes

Theories & Frameworks

Pathways and Determinants Interactions

2026-02-04

Health outcomes
different levels of



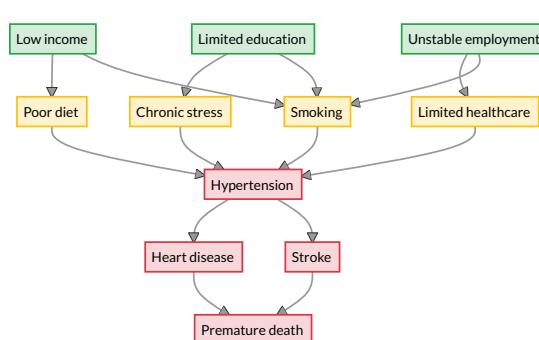
Root causes

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Example: SES → Cardiovascular Disease

How Do Det...

Understanding health together:



1. Mediators: Variables

2. Moderators: Variables that change relationships (t)

3. Feedback loops: Effects that reinforce or reduce initial effects

4. Threshold effects: When variables reach certain levels they produce large increases in other variables

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Mediators: Explaining the Pathway

Definition: A mediator is *on the causal pathway* between X and Y



Example: Education → Health Literacy → Better Health Outcomes

"Through what mechanism does X affect Y?"

Moderators:

Definition: A moderator is a variable that *changes the strength or direction of the relationship between X and Y*

Low Social Support



Strong negative correlation

"For whom it matters"

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Feedback Loops in Health

Threshold Effects

Small changes can have large effects

Positive Loop (amplifying)



Vicious cycle

Negative Loop (stabilizing)



Resilience

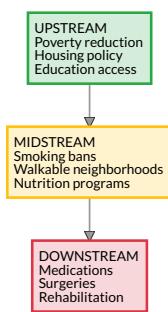
Implication: Early intervention

Loops explain **persistent inequities** (positive) and **resilience** (negative)

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Types of Interventions

Effective public health requires **multi-level action**



Which Level?

Upstream interventions

- Harder to implement (political will, resources)
- Greater population impact
- Prevent problems before they start

Best approach: Combining all three levels

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Transition to Practice

You've learned the concepts:

- Pathways (upstream → intermediate → downstream)
- Mediators and moderators
- Feedback loops and thresholds
- Intervention levels

Now: Apply these frameworks to real health problems

Group Exercise

Task: You'll receive a scenario about an exposure and disease. Answer the following questions:

1. Identify what might be the pathway)
2. Identify what might be stronger/weaker)
3. Explain your reasoning

Time: 10 minutes

Group Assignments

Snow Group: Low income → Childhood asthma

Pasteur Group: Rural residence → Type 2 diabetes

Nightingale Group: Academic pressure → Depression

Gupta Group: Discrimination → Cardiovascular disease

Fauci Group: Job loss → Opioid overdose

Instructions

1. Look at your exposure
2. Brainstorm mediators in this pathway? (How does it work?)
3. Brainstorm moderators? (What makes it stronger or weaker?)
4. Choose your topic
5. Be ready to present (2 minutes)

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Presenting Your Work

Each group will share:

- Your exposure → outcome
- Your **mediator(s)** and why they're mediators
- Your **moderator(s)** and why they're moderators
- Brief discussion of the pathway

Time: 2 minutes per group max

Key Takeaways

- Health pathways
- Understanding modifiable risk factors
- Identifying most vulnerable populations
- Feedback loops
- Effective interventions downstream from exposures

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Reflection Questions

Consider for yourself:

1. What upstream determinants most strongly shape health in your own community?
2. Can you identify a mediator or moderator in your own health behaviors?
3. Where would you intervene to create the greatest population health impact?