Systems Thinking Tools for RCORP Grantees

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Agenda

- Systems thinking, the iceberg metaphor, and variable naming
- The iceberg activity
- Activity debrief and next steps

Systems Thinking & the Iceberg Metaphor

Definitions

System: A set of elements interconnected in a structure that produces characteristic results

Systems mindset: Recognition that an observed outcome trend is the result of a system
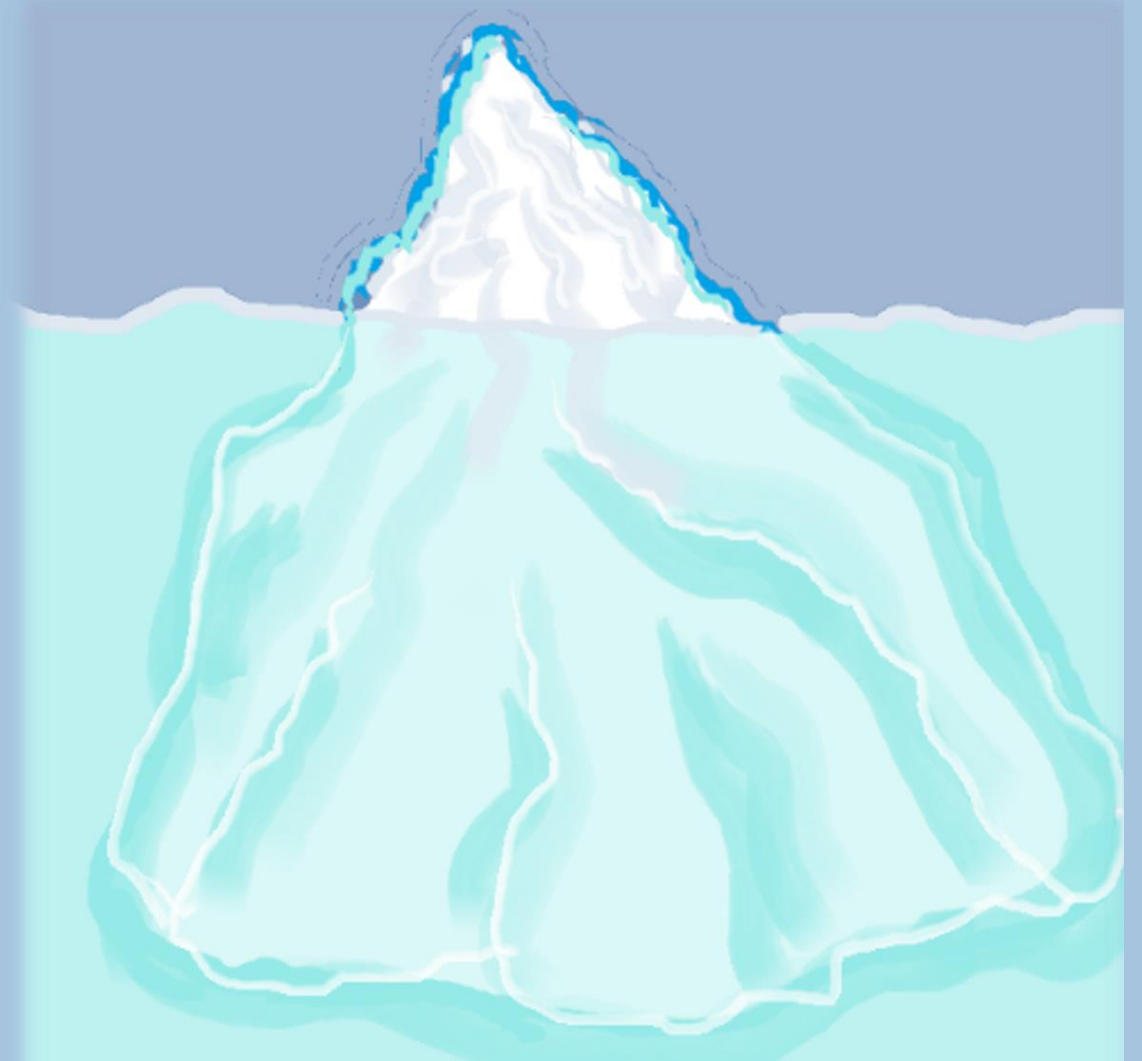
Systems thinking: The skill of accurately discerning the system that is driving certain results and projecting impacts of changes to it

Why We Need Systems Thinking

- Cognitive CAPACITY
  - Extent of knowledge
  - Ability to mentally simulate likely futures
- Cognitive BIAS
  - Selective memory
  - Confirmation bias
  - Others!

The Iceberg Metaphor

A visual metaphor for the concept that systems have progressively deeper causes, and therefore leverage points for change
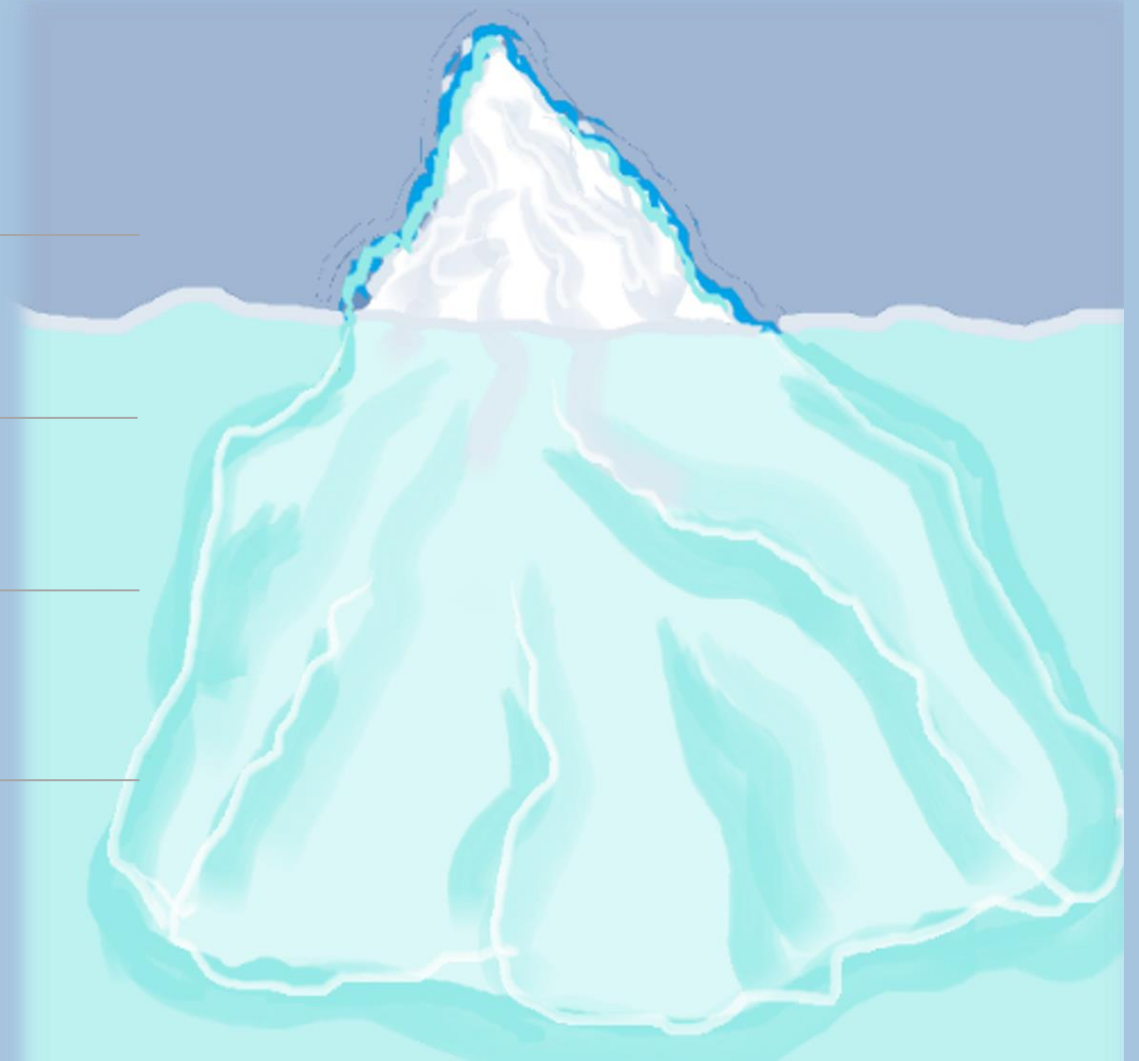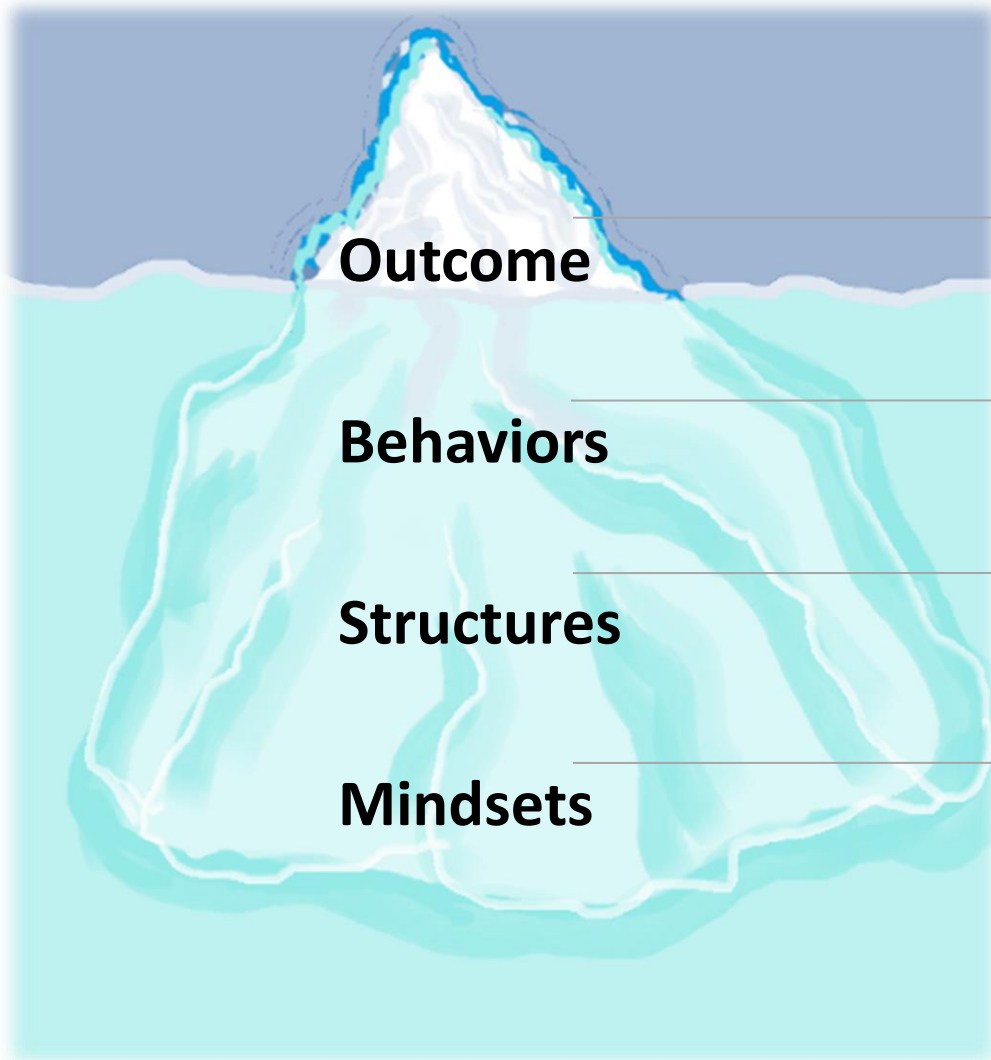
The Iceberg Metaphor

Outcome

Behaviors

Structures

Mindsets

The Iceberg Activity

Outcome — The observed, population-level outcome trend of concern

Behaviors — Community trends in actions that influence the outcome trend

Structures — Existence of rules and relationships that shape the likelihood of the behaviors

Mindsets — Trends in attitudes, beliefs, and norms that inform decisions about rules and relationships

The Iceberg Activity
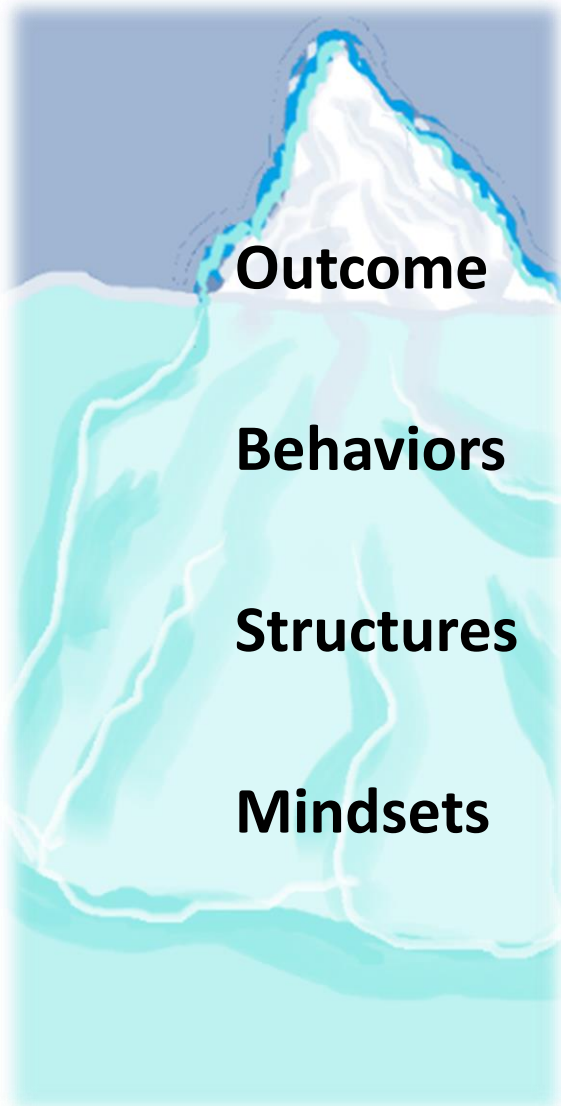

Outcome & Causes
COVID-19 death rate
Community mask-wearing rates
Existence of mask-wearing policies
Relative weight placed on individual freedom versus public health in community mindset

The Iceberg Activity

	COVID-19 death rate	**Provide health care for COVID-19 patients**
Outcome	Community mask-wearing rates	Promote mask wearing through public education
Behaviors		
	Existence of mask-wearing policies	Implement a mask mandate
Structures		
Mindsets	Relative weight placed on individual freedom versus public health in community mindset	Promote the mindset that public health is a community priority

Naming Variables

Naming Variables

System variables are

- **SPECIFIC** (well-defined)

- **AGGREGATE** (not individual-level)

- **QUANTITIES** (not unquantifiable or comparative)

Naming Variables

Aggregate	Not individual

- **Overall trend** in something across the community

- **Generalize** to understand and address systemic causes

Naming Variables

Quantities	Not unquantifiable or comparative

- o **Unquantifiable:** Attitudes about…

- ✓ **Quantifiable:** Prevalence of attitude that…

- o **Comparative:** Increase in…

- ✓ **Absolute:** Level of…

Naming Variables

Be specific!

- **Type of quantity:**
  - ✓ Prevalence of
  - ✓ Rates of
  - ✓ Strength of
  - ✓ Cost of
  - ✓ Existence of

- **Population or subgroup:**
  - ✓ Children under age 12
  - ✓ Adults entering treatment for the first time
  - ✓ Primary care providers prescribing alternative pain mgt strategies first
  - ✓ People who live >5 miles from a treatment center

Naming Variables

TIPS

✓ **Include a quantifier**

✓ **Remove comparators**

✓ **Add specifics**

TEST:

_____ can change (go up/down) over time

Naming Variables

Strong stigma about drug use

Naming Variables

✓ Include a quantifier	✓ Remove comparators	✓ Add specifics
	Strong stigma about drug use	
Prevalence of	the belief that people with opioid use disorder are to blame for their addiction	among medical providers

Naming Variables

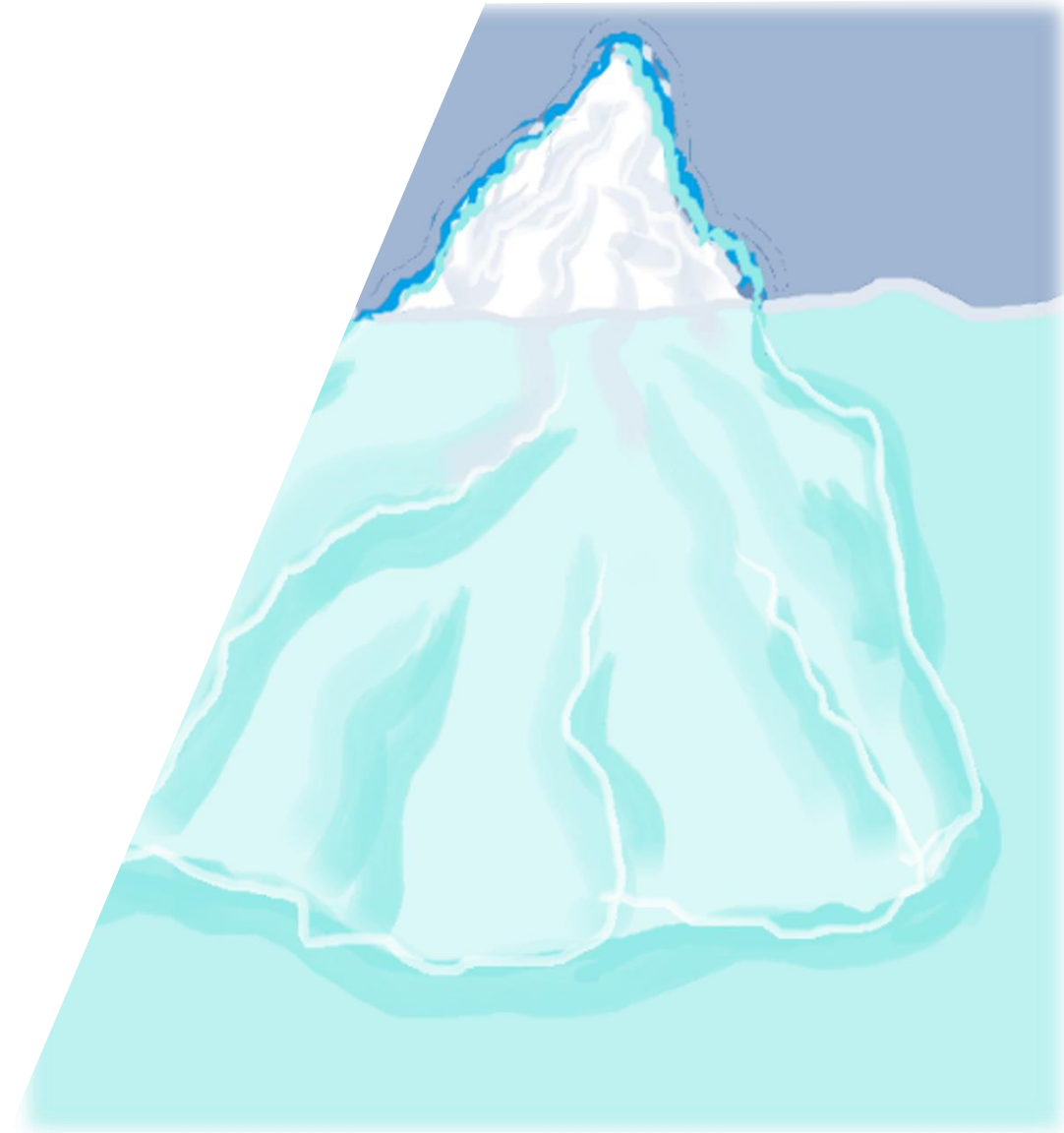| ✓ Include a quantifier	✓ Remove comparators	✓ Add specifics
	Isolation during the pandemic	
	Policies about harm reduction	
	Loss of funding	
	Access to treatment	

The Iceberg Activity

A Note About Stigma

Outcome	All-age opioid use disorder (OUD) mortality rate
Behaviors	Level of respect shown to people with OUD by medical providers
Structures	Emphasis on individual responsibility for OUD in medical school curriculum
Mindsets	Prevalence of belief that people with OUD are to blame for their addiction

Group Brainstorming Activity

1. Write the **outcome** of concern at the top of the iceberg.

2. Identify **behaviors** that lead to those outcomes: Who (what group) does or does not do what (behavior) that influences the level of the outcome?

3. What **structures** force, obstruct, or enable those behaviors?

4. What **mindsets** (knowledge, beliefs, attitudes, norms) lead to those structures?

Outcome

Behaviors

Structures

Mindsets

Debrief and Synthesize

- What factors do we have the power to change?
- Which will have the most effect?
- What are some possible interventions that some entity could do on these factors?
- Who is/should be working on those?
- What groups have a stake in each of the causes mentioned?

So What….?

- What did we learn?

- What does it mean for our project going forward?

- Are there leverage points that we might be missing in our current efforts?