

### Infection Prevention through Complexity Science

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#### Front-Line Ownership

- Complexity science-based approach
- Engage those who are "touching the problem" to arrive at local solutions
- Fostering ownership not "buy-in"

We know what we need to do but often do not know how to do it

## culture eats strategy for breakfast

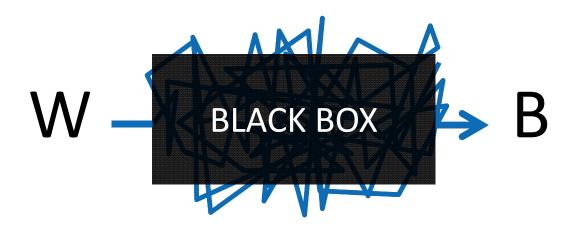
#### **Traditional Healthcare Culture**

- Need to get things done immediately
- Evidence-based practice (scientific proof)
- Information and data are trusted
- Culture change is complicated
- Leaders need to 'step-up'
- Top-down leadership
- "Standardize and roll it out"

How we tend to view the healthcare world:



What it tends to be like:



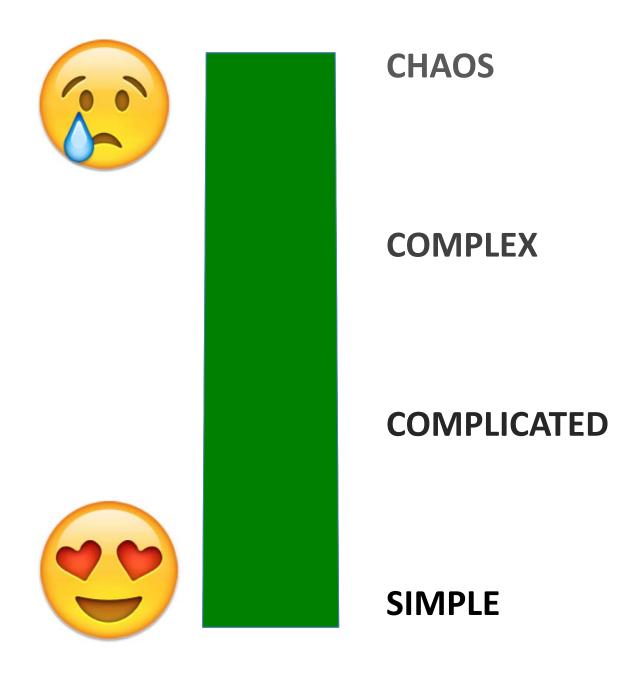


- ♦ Order
- **♦** Rules
- ♦ Certainty

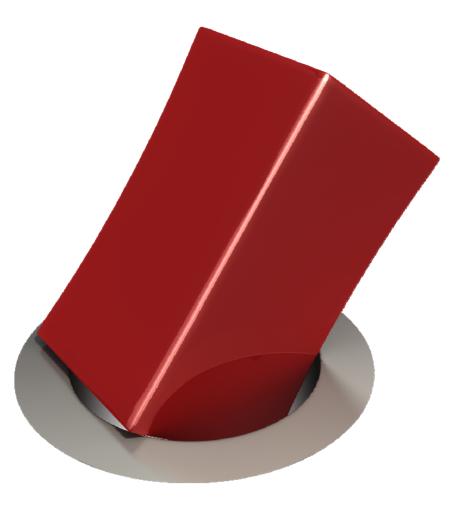
**COMPLEX** 

**COMPLICATED** 

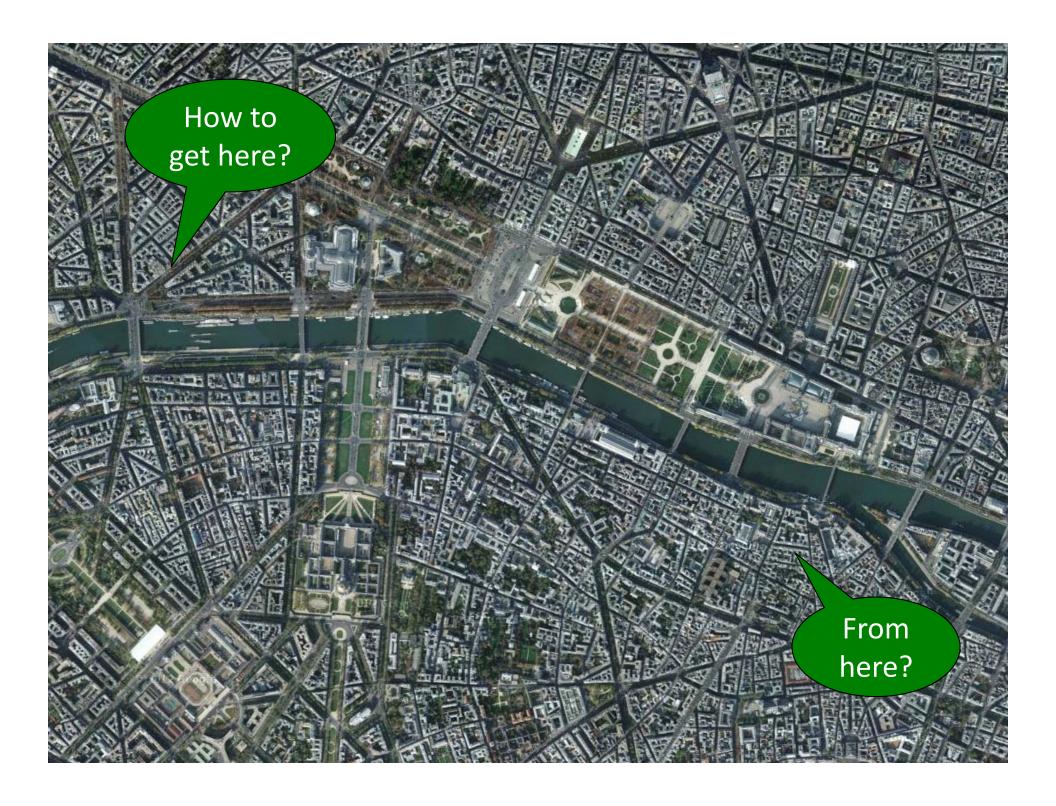
**SIMPLE** 



Many of our healthcare problems are complex, but we keep using tools meant for simpler problems



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#### How to improve safety in a complex world?

#### Prevention ~

- Education

   (knowledge,
   training, etc.)
- System design (supply, use, etc)
- Reminders (signs etc)

#### Resilience

- Culture of Support (Ability to contain)
- Invitations (Ask me)
- Reminders (nudges, Codes: Nurse Jackson)

#### Need Both for a Truly Safe Culture

## Minimum Specifications (simple rules)

rather than

Maximum Specifications (over specification)

#### Principles of This Work

- Participation is voluntary everyone can opt in or opt out
- Bottom up, top down and sideways
- Make the invisible visible
- Include the unusual suspects
- Go slow to go fast
- Nothing about me without me
- Act your way into a new way of thinking

#### Culture SHIFT

- Taking time to think
- Practice-based evidence (social proof)
- Stories and relationships are trusted
- Culture change is simple
- Leaders need to step back
- Bottom up leadership from the front-line



#### TRIZ



#### 15% Solution



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