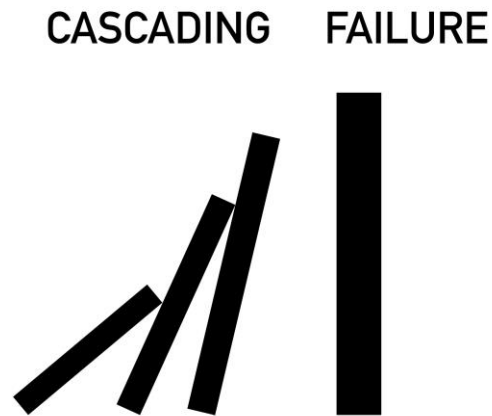


Welcome

- Stay on mute while listening.
- Interrupt me anytime you have a question or write your question in the chat box and Lewe will facilitate.
- If you want to be on our newsletter mailing list:
 - Email: briankeogh@me.com or lewis@hainescentreaustralia.com.au
 - or jot your email down in the chat box
- We will be starting shortly.

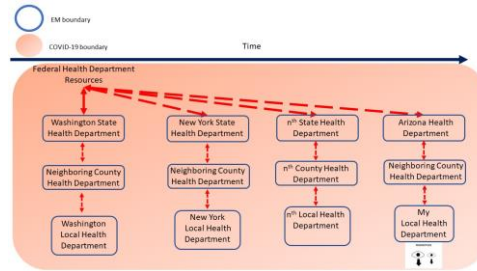
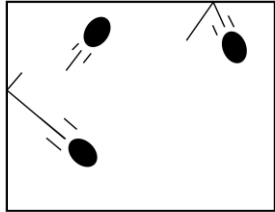
COVID-19 and Systems Thinking

Concepts: Cascading Failures/Events

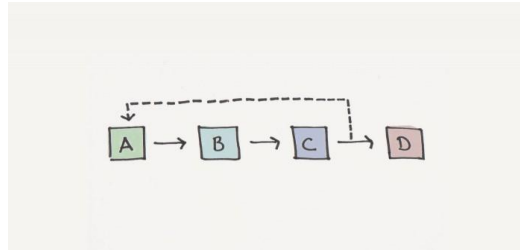
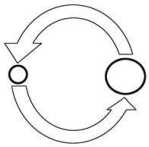


Systems Thinking: Understanding and Evaluating Relationships

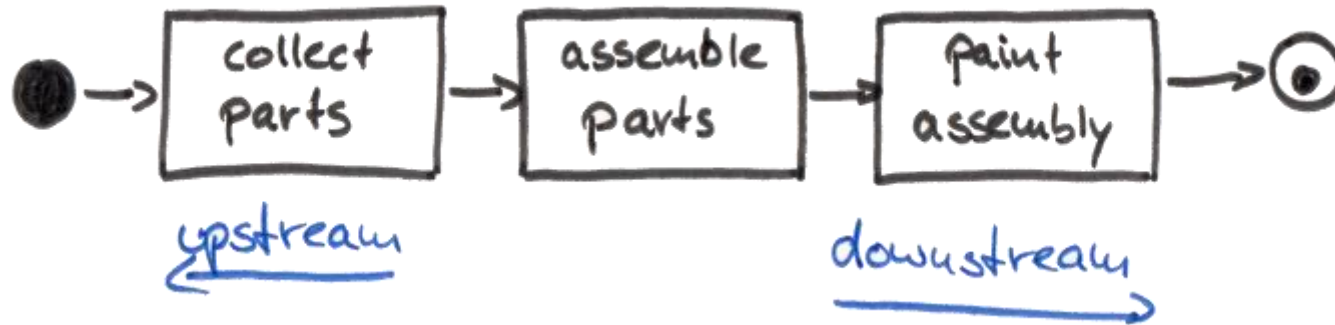
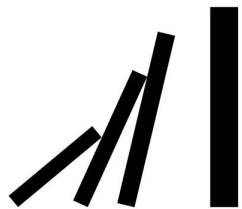
BOUNDARIES



FEEDBACK LOOP

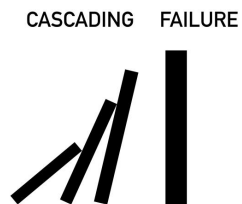
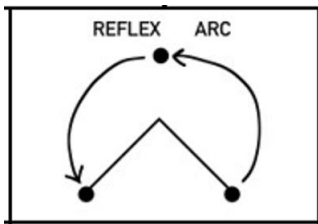
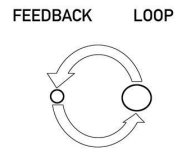
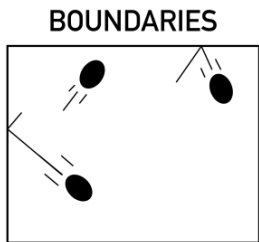


CASCADING FAILURE



COVID-19 Evaluation

- Do emergency management staff, who need to be analytical, apply system thinking skills?

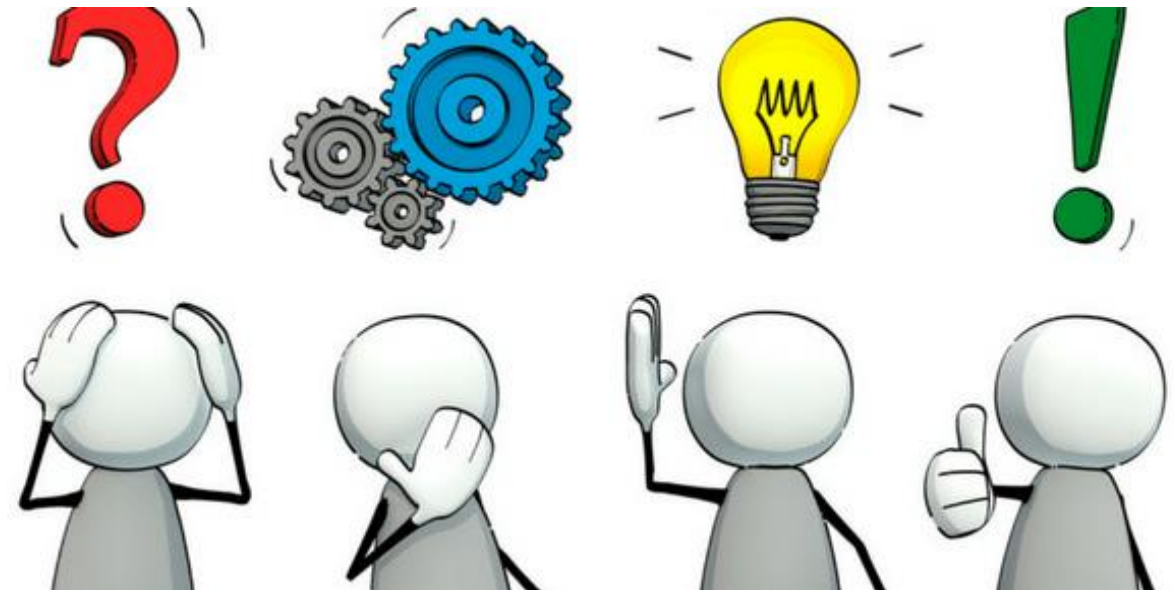




- Can she/he trouble shoot the source of a problem by looking upstream?



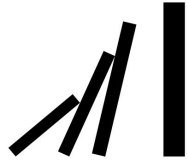
- Can she/he anticipate consequences of certain decisions by looking downstream?





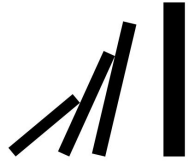
Problem Solve by Looking Upstream





Problem Solve by Looking Upstream





Problem Solve by Looking Upstream





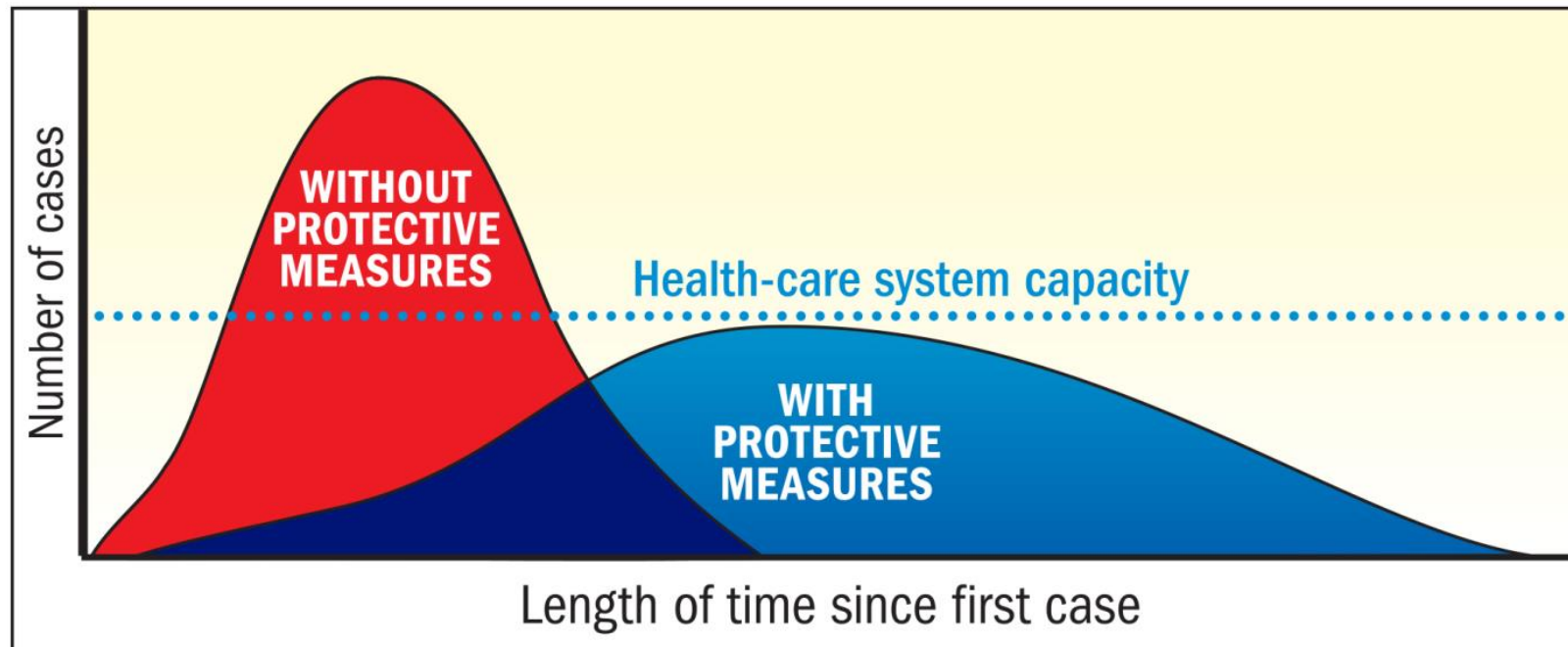
Problem Solve by Looking Upstream

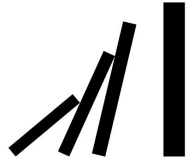


2018 Renger, R., & Granillo, B. Using Systems Evaluation Theory (SET) to Improve Points of Dispensing (POD) Planning, Training, and Evaluation. Journal of Emergency Management, 16 (3), 149-157.



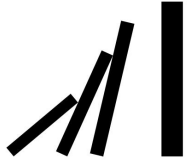
Anticipating Problems by Looking Downstream





Anticipating Problems by Looking Downstream





Anticipating Problems by Looking Downstream





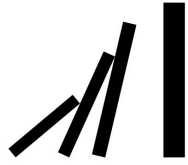
Anticipating Problems by Looking Downstream



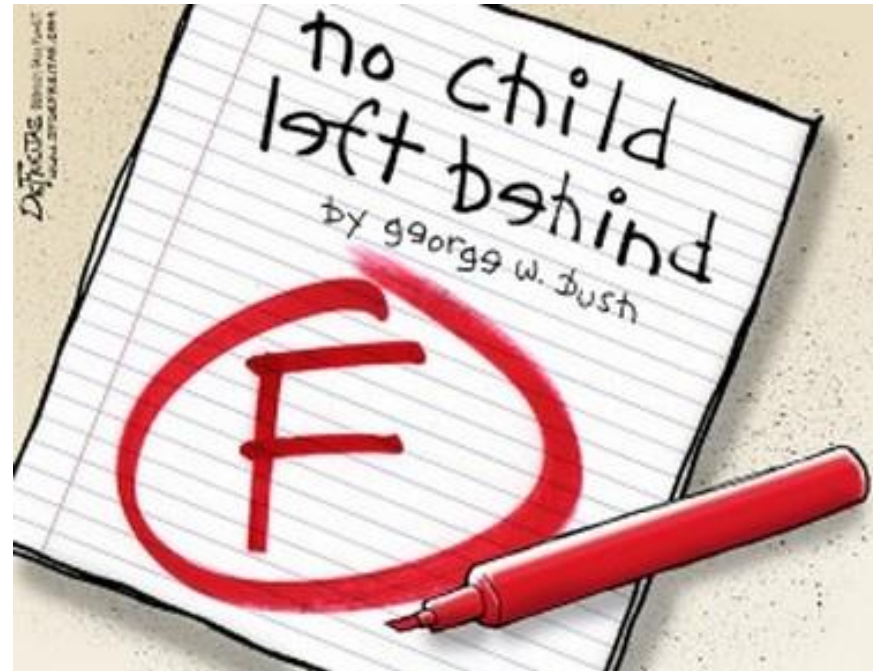


Anticipating Problems by Looking Downstream



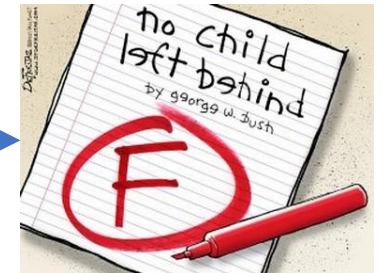


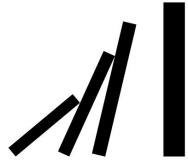
Anticipating Problems by Looking Downstream





Anticipating Problems by Looking Downstream

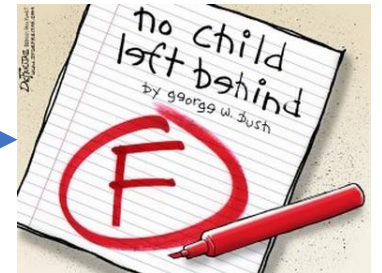


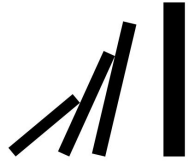


Anticipating Problems by Looking Downstream

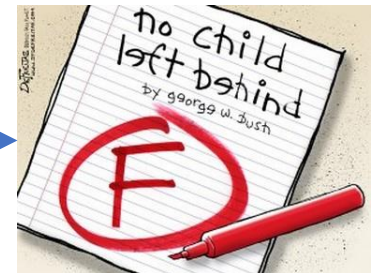


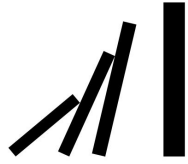
CORONAVIRUS
ALL SCHOOLS CLOSED



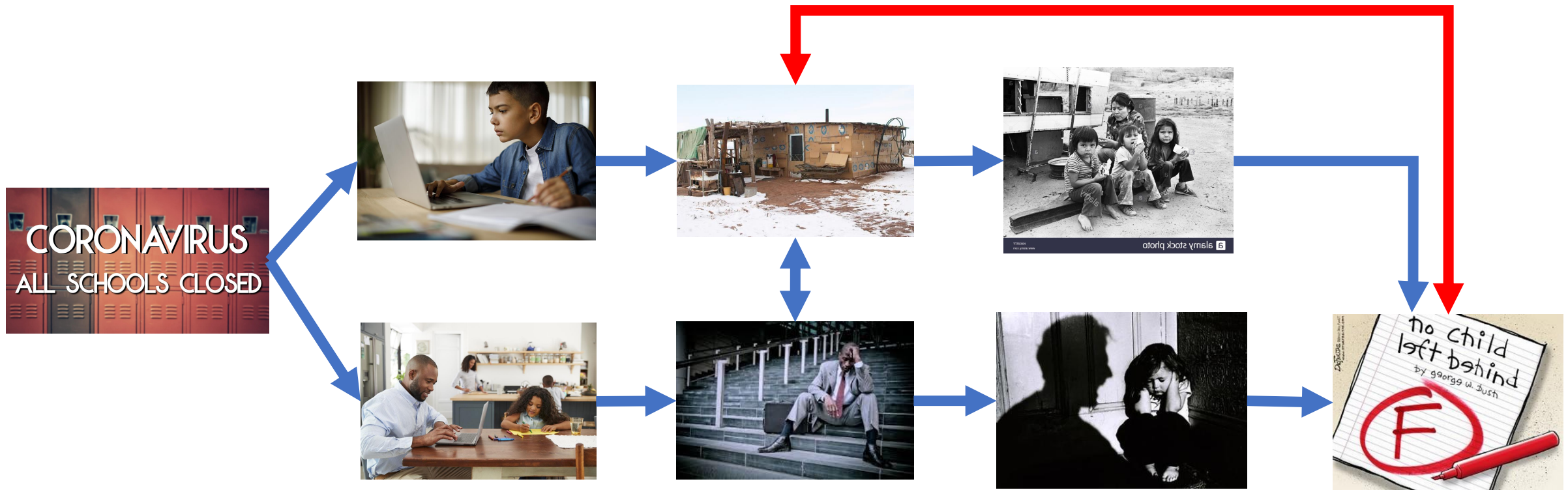


Anticipating Problems by Looking Downstream



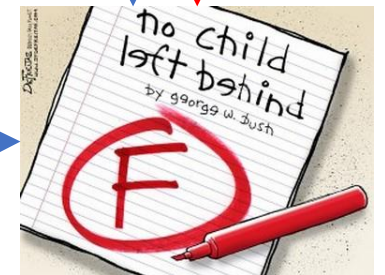


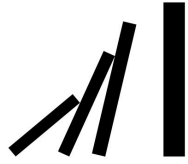
Anticipating Problems by Looking Downstream



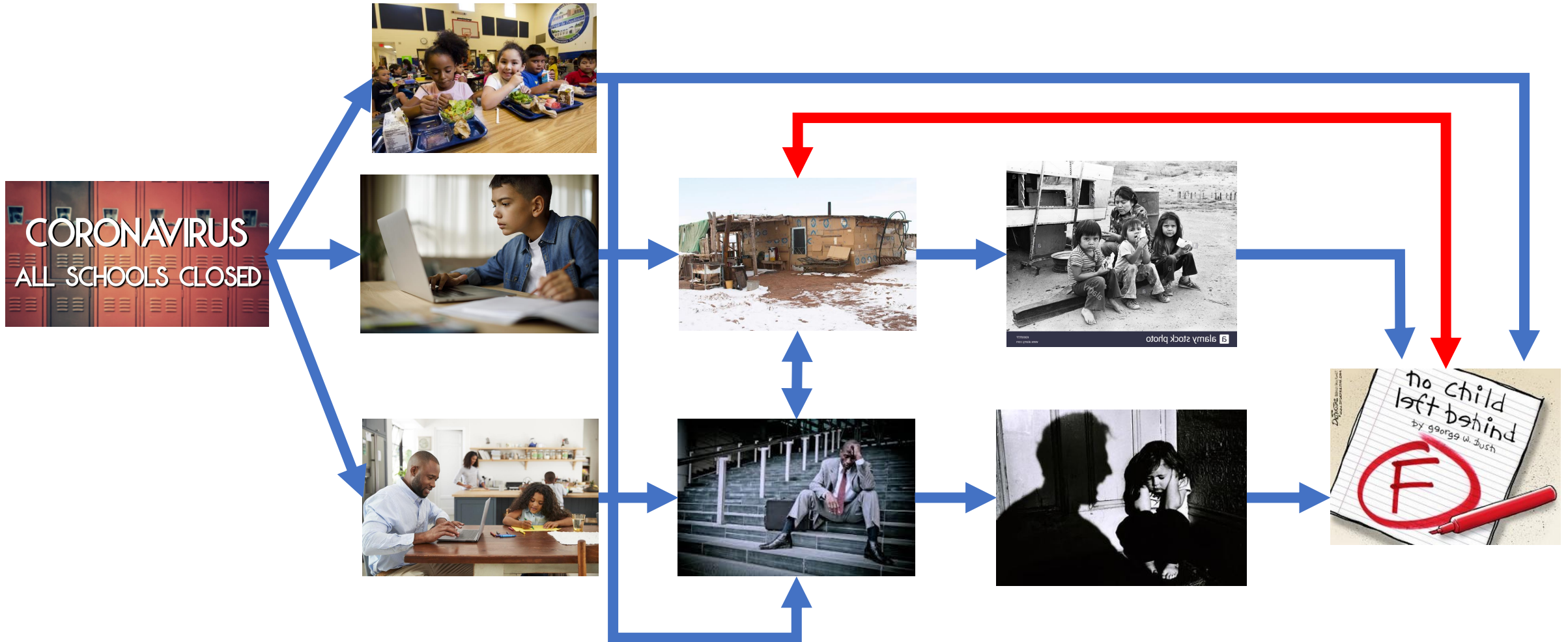


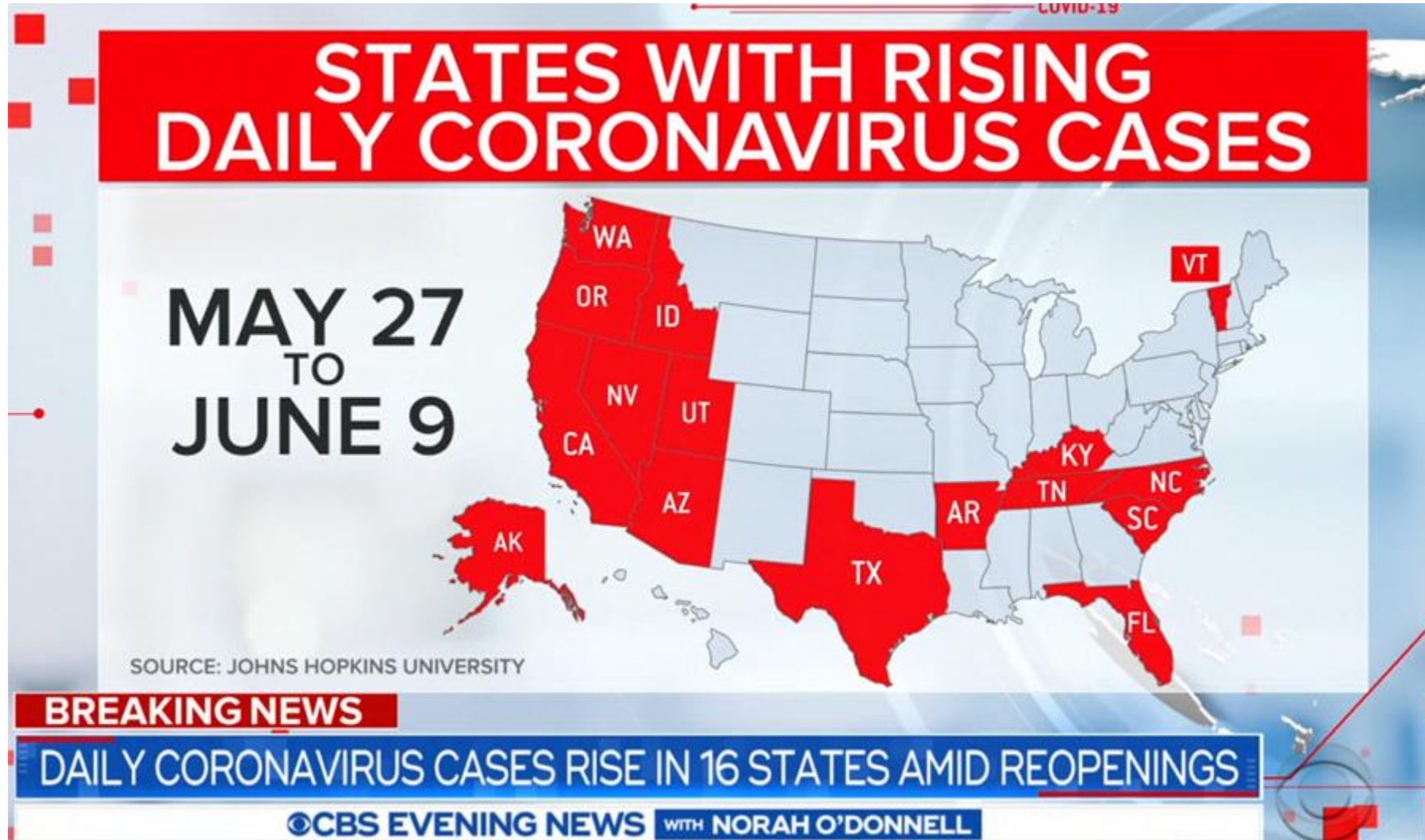
Anticipating Problems by Looking Downstream

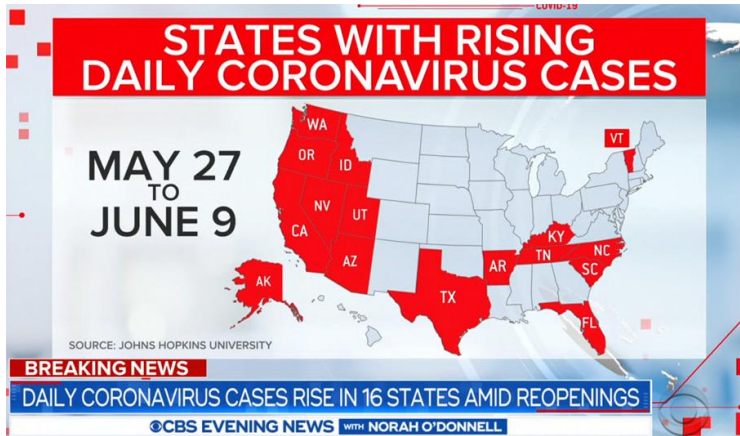




Anticipating Problems by Looking Downstream







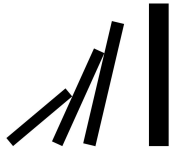


What did we find?

- Analyzed daily Incident Action Plan (IAP) from planning section.
 - We have many “single loop learners”. We don’t have double loop learners. (<https://youtu.be/TDYPW4haD48>)
 - We also have mimickers: just followed what other health departments were doing.
- Doomed to repeat mistakes.
- Now pitching systems thinking courses for staff.

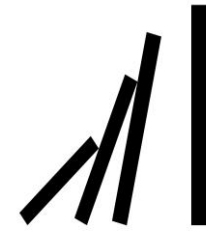
Lewe Example

- Melbourne lockdown

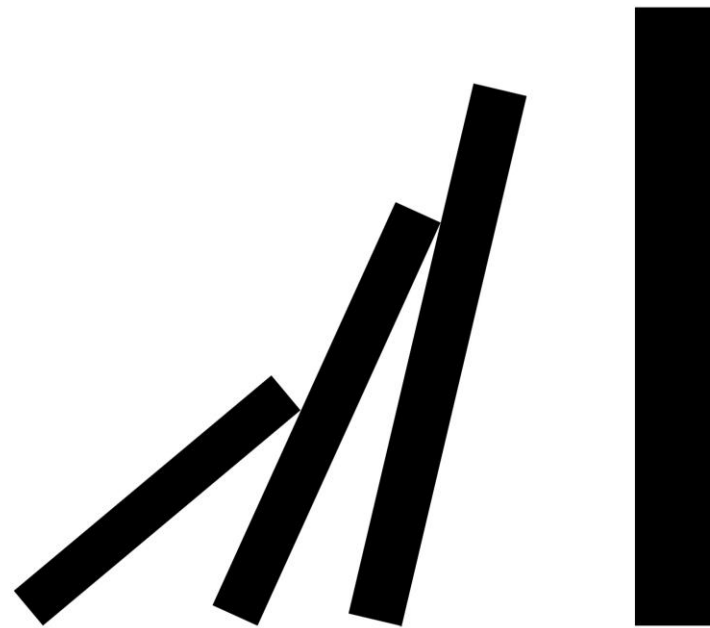


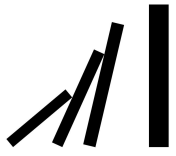
A cascading failure occurs when a problem is passed from one subsystem to a downstream system creating domino effect that undermines the efficiency and effectiveness of the whole system.

CASCADING FAILURE

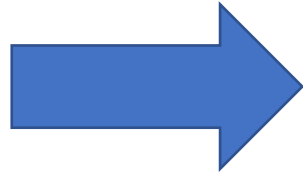


CASCADING FAILURE





Australians coming home to quarantine



Nicki home 19 March 2020

Since 29 March 2020

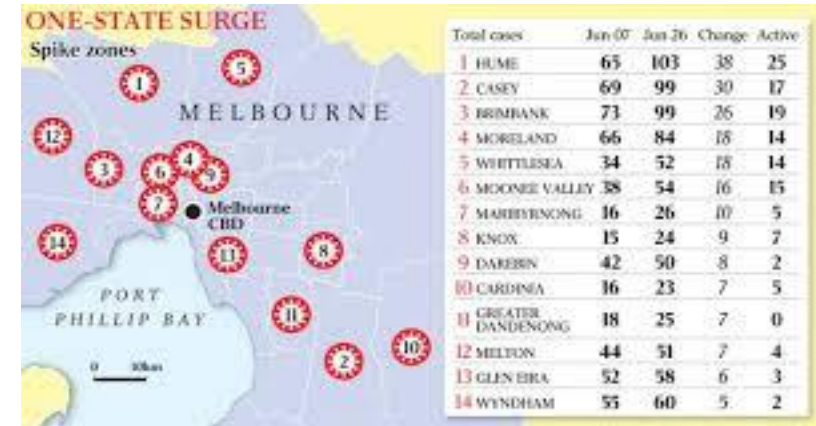


Sub-system: Victoria's hotel quarantine system

Victorian government contracted **MSS Security, Wilson Security and Unified Security**

Alleged procurement sub-sub-system failure #1 Unified – not part of a **pre-approved panel of service providers**

Alleged procurement sub-sub-system failure #2 at least one of the security companies **subcontracted work**



Estate	Street Number	Street Name	Suburb	Units	Unit Type	Number of Floors
FLEMINGTON	12	HOLLAND COURT	FLEMINGTON	179	Family	20
FLEMINGTON	120	RACECOURSE ROAD	FLEMINGTON	179	Family	20
FLEMINGTON	126	RACECOURSE	FLEMINGTON	178	Family	20

Overcrowding + Pandemic was always a disaster waiting to happen for our most vulnerable

NORTH MELBOURNE	33	ALFRED STREET	NORTH MELBOURNE	140	Family	12
NORTH MELBOURNE	159	MELROSE STREET	NORTH MELBOURNE	102	55yrs+	12
NORTH MELBOURNE	9	PAMPAS ST	NORTH MELBOURNE	59	55yrs+	6
NORTH MELBOURNE	76	CANNING ST	NORTH MELBOURNE	150	Family	20



Sub-system closure: 6 Week lockdown of a city of 5 million people

Statement
The Hon Dan Andrews MP
Premier



Tuesday, 7 July 2020

STATEMENT FROM THE PREMIER

2020 has not been the year any of us wanted.

Cancelled events. Plans put on pause. Uncertainty about what the future holds.

And I guess that's why so many people want to pretend this is over.

Others don't have that luxury. In the last 36 hours we lost two more Victorian lives to this deadly virus.

We don't yet know their names, their stories or the circumstances in which they died.

All we do know is that – except for the company and compassion of the medical staff who cared for them – they would have died alone.

No family. No friends. No holding hands. No goodbyes. Denied the last quiet moments that we all hope for.

That's how dangerous and infectious this disease is.

Thankfully, it's a fate that most Victorian families have not been asked to endure. And I think, for some, that's led to a creeping complacency.

But although today it's someone else – tomorrow it could be you, or me.

I know a lot of people aren't scared because this feels like something happening to other people in other parts of the world. But you should be scared of this. I'm scared of this. We all should be.

Yesterday, we reached a grim new milestone, the most cases in a single day. Today, we surpassed it.

It's clear we are on the cusp of our second wave – and we cannot let this virus cut through our communities.

It's why based on the advice of the Chief Health Officer, Stage 3 "Stay at Home" restrictions will be reinstated across metropolitan Melbourne and Mitchell Shire from 11:59pm on Wednesday 8 July.

For six weeks, and if you live in these areas, there'll be only four reasons to leave your home:

Shopping for food and essential items. Care and caregiving. Daily exercise. Work and study – if you can't do it from home.

Otherwise: Stay home. Stay home. Stay home. In case it needs repeating, stay home. We are fighting a global and deadly pandemic.

This Stay at Home direction will apply to your principal place of residence – that means no escaping to holiday homes.

And because we need to limit the spread of the virus across our state, there will only be three reasons to cross the border of these metropolitan areas: Shopping for food and essential items. Care and caregiving. Work and study – if you can't do it from home.

Unless you're a local, that means no fishing trips at Lakes Entrance. No four-hour hikes in the Grampians.

Businesses in metropolitan Melbourne and Mitchell Shire will also return to Stage 3 restrictions.

Restaurants and cafes will return to takeaway and delivery services only. Beauty and personal services will need to close. Entertainment and cultural venues will need to close. Community sport will need to stop.

I know just how tough this will be for these businesses and for their workers. I promise, we'll have more to say shortly about support to help get you through.

I also understand six weeks might feel like an eternity. But it's the time our health experts tell us they need to really get on top of this thing.

Many parents, teachers and students will be worried about what happens with the school year. I can confirm that all Year 11 and Year 12 students in metropolitan Melbourne and Mitchell Shire will go back to school for Term 3 as planned, along with our special schools.

For students Prep to Year 10, we're going to extend the school holidays by one week, so we can get more advice from our health experts. But I want to be upfront and let parents know that a return to remote learning for these kids is a possibility, if that's what they tell us is safest.

For people who live in regional Victoria, where case numbers remain low, current restrictions will remain the same for now.

We've talked about this virus being like a public health bushfire. By putting a ring around metropolitan Melbourne, we're essentially putting in place a perimeter to protect regional Victorians.

This is not where any of us wanted to be, but we have to face the reality of our situation. To do anything else would have deadly consequences.

I don't take this step lightly. And I know just how deeply frustrating this is for everyone.

But I'm asking you, please talk to your families. Talk to your friends. Talk to your neighbours. Talk to your communities.

This isn't over. And until there is a vaccine or a drug or a cure, there is no such thing as "normal".

For every restriction that you break and all the health advice that you ignore – the consequence may be someone's life.

Now more than ever, we need Victorians to play their part. Lives are counting on it.

Whole system closure: to ease
pressure on sub-systems 10 July

The National Cabinet agreed today
on a consistent national approach
to manage the flow of international
passengers into Australian airports.

The number of incoming
passengers will be restricted to
ease pressure on state and
territory quarantine facilities. If
you're overseas and wish to return
home, we encourage you to plan
your travel but be prepared for
possible delays.



Reflections

- Applying the system concept of cascading events in an “upstream,” mode to problem solve is akin to root cause analysis.
- Once you’ve anticipated problems using a “downstream” mode you could develop a causal loop diagram.
 - Likely not the time in a real event.
 - The cascading events being forecasted are common sense...and in real time that’s good enough for decision making.
 - Developing the loop diagram could still be useful for future emergency managers as reference tool.

Thank you

- Ralph Renger, PhD
- Website: justevaluation.com
- Email: ralph@justevaluation.com

