# The NIMBLE Approach to Adapt Colorectal Cancer Screening Programs

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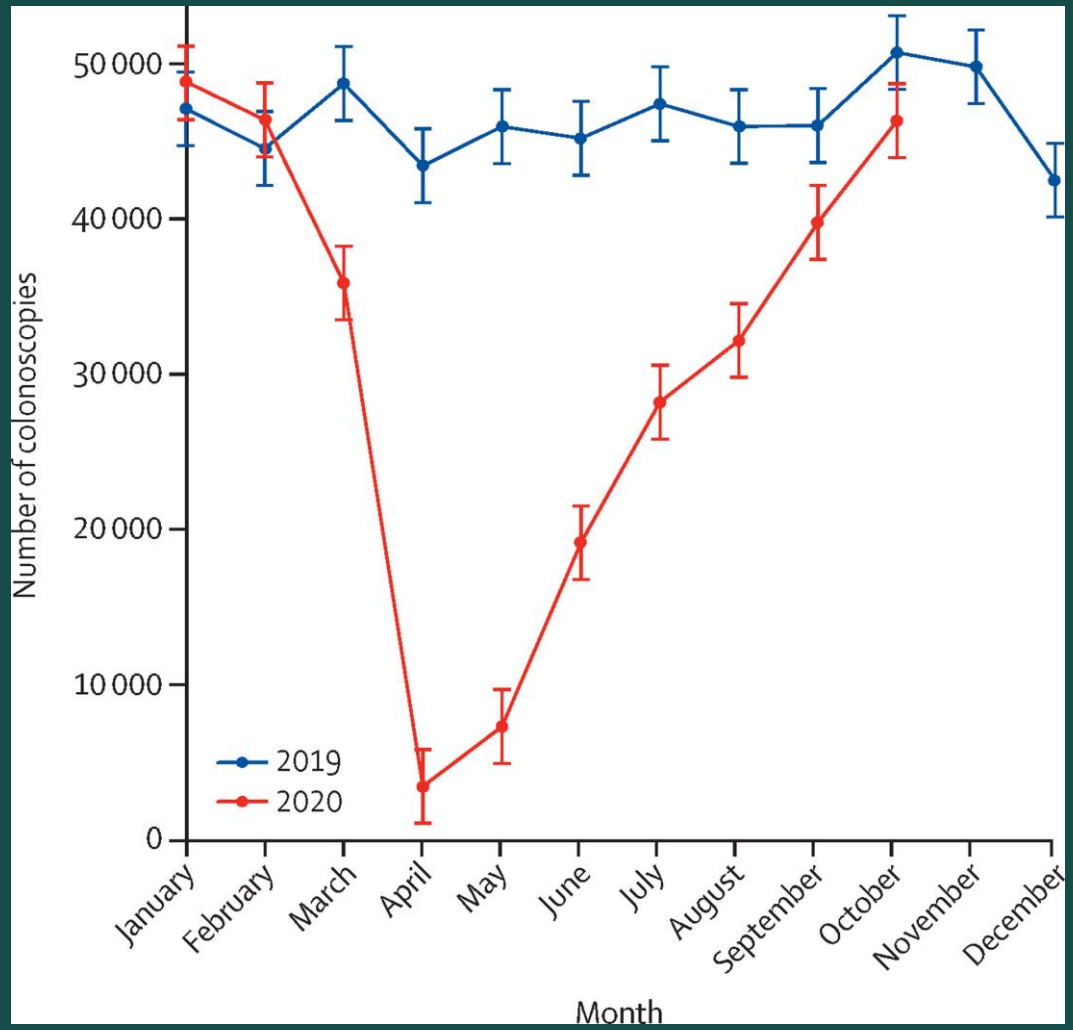


# April 2020
# 92% reduction in colonoscopy in England

www.thelancet.com/journals/langas/article/PIIS2468-1253(21)00005-4/fulltext

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CANADA

# COVID-19 has put routine cancer screening for many in Ontario on hold

Mammograms done as part of the Ontario Breast Cancer Screening Program were down by 49 per cent in March compared to the same time last year

By Theresa Boyle Staff Reporter
Tue., May 5, 2020 | 4 min. read

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# The Pandemic Is Delaying Cancer Screenings and Detection

The missed checkups could result in later, more severe diagnoses down the line

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Bowel cancer

# Doctors warn that thousands could die of bowel cancer after halt in screening

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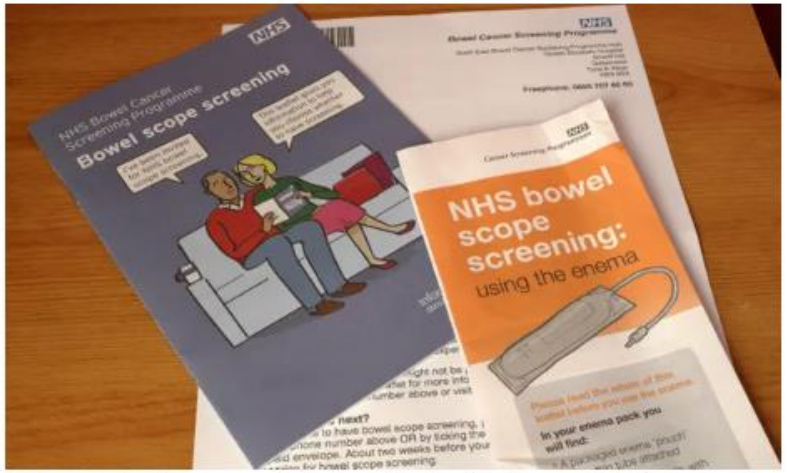
Robin McKie
Sat 13 Jun 2020 21.05 AEST




Life-saving bowel cancer screening has been effectively halted due to the Covid-19 pandemic, leaving many at serious risk. Photograph: Alamy

A dramatic rise in bowel cancer cases is set to sweep Britain in the wake of the Covid-19 outbreak, doctors and scientists have warned.

BMC Public Health

RESEARCH Open Access

# Using Facebook to promote the uptake of colorectal cancer screening

Arlinda Ruco[1,2*], Nancy N. Baxter[1,2,3], Jenna Jacobson[2,4], Jill Tinmouth[2,5,6] and Diego Llovet[2,5]

# How have programmatic screening programs adapated?

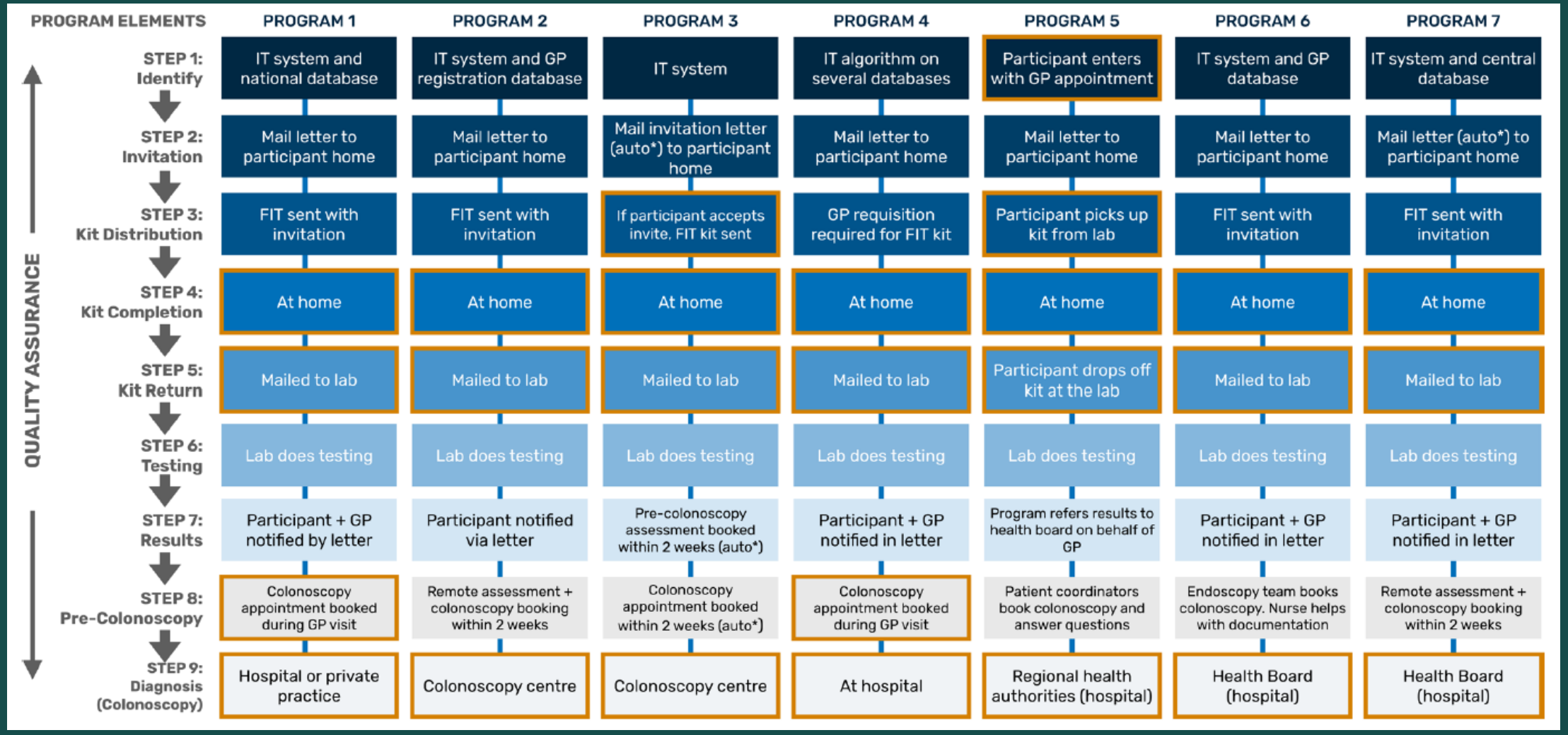
Marcia Facey, Arlinda Rucco, Natalie Baker, Anne Sorvari, Amina Benmessaoud, Catherine Dube, Linda Rabeneck, Jill Timouth

What can be learned for pandemic and disaster planning

# Methods

- Qualitative case studies
- Purposeful and snowball sampling of CRC screening program leaders
  - Canada, UK, Europe, Australia
  - Several perspectives from each program
- Semi-structured interviews continued to saturation
- Multiple levels of analysis
  - Descriptive coding
  - Development of key common concept “NIMBLE”
  - Exploring dimensions/categories and meaning of concept

# 7 programs
# 19 participants



# Nimble Approach

Fast

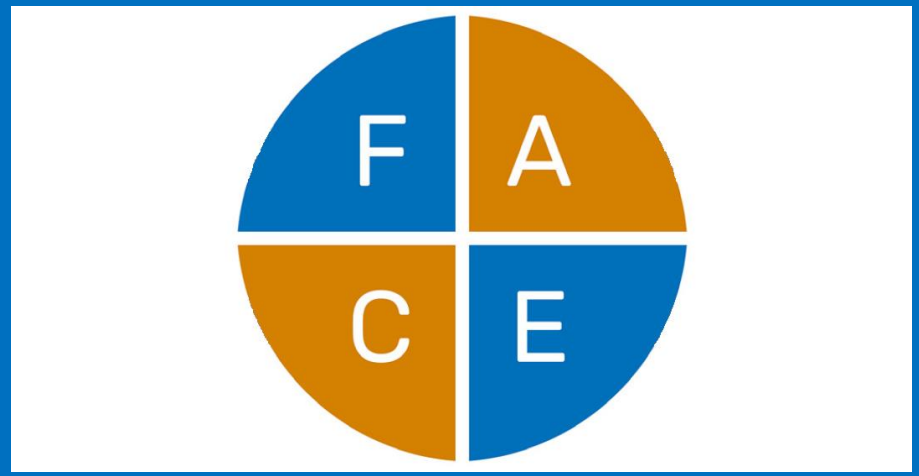
…you know, it's interesting to see how people responded but like we operate in a very large and bulky a cumbersome healthcare system, right? Like nothing happens fast in the healthcare, new decisions don't h quickly in the healthcare system. You know everything with COVID was happening like rapidly, in rapid like, you know, I kept on referring to COVID time like if you did something last week it was as if, in the t times, before COVID it would be like it was, you know, years old but last week would be equivalently old know, years old, so trying to sort of be nimble in the way that we needed to be nimble is very challenging healthcare system.

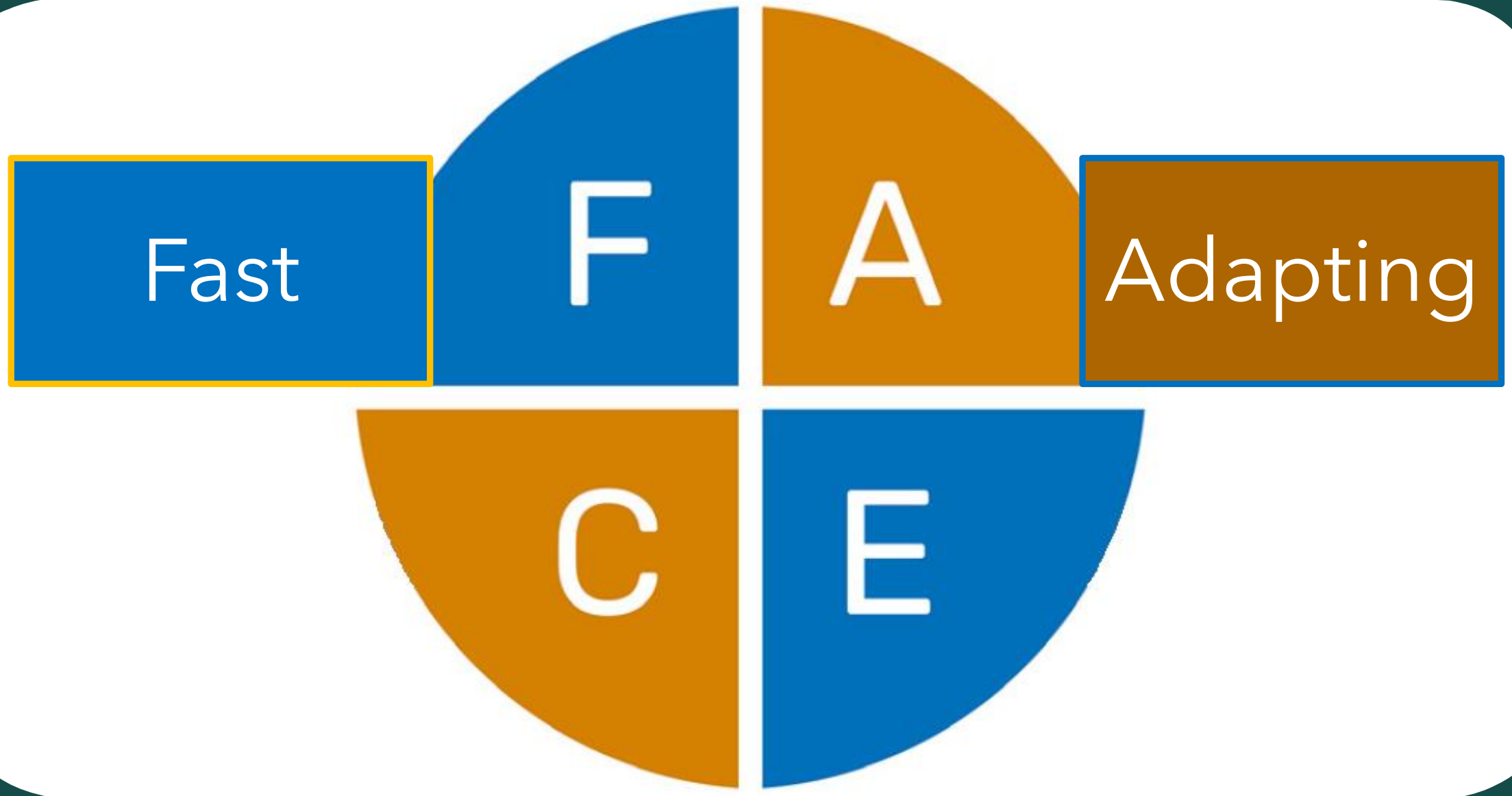
I think really the lack of information, that no one had about what was going to happen and what the future felt like things were, you know we were having to sort of re-evaluate where we were at constantly because would be new information coming through.

… Flexible and nimble and just listening to, you know, see on a daily basis what's going on, what the env like. I don't think any of these things are etched in. And we're all living- learning to live with a little bit of uncertainty.

## Fast

**Acting to address rapidly accelerating crisis, making decisions about program status using "quick" communication strategies**




Fast
F
A
Adapting
C
E

So first time around, as I say we were, you know, having to adopt and adapt, you know, almost- and things, po changing and evolving and being consolidated pretty much day-by-day.

…It wasn't the easiest of things to do but we did go, we, we attempted to set national guidelines as to how that [*prioritisation*] should be done. But basically, we, we were able to ask screening centres to identify all those indi who had submitted a test and had been told that they had a positive test and that they needed to have something that immediately starts to narrow it down to all those that had a positive FIT test. And then we said, "Fine. Can y tell us how high was their FIT test and whether this was their first, or second, or third, or fourth, or fifth round of screening? [Okay] Because clearly, if people had been through a previous round, so for example, you know we c up every two years so if people had had a test two years ago that had led to a colonoscopy, [Right] and the colon was normal, we advised that those individuals, regardless of their level of their FIT test, probably did not need to for another colonoscopy urgently.

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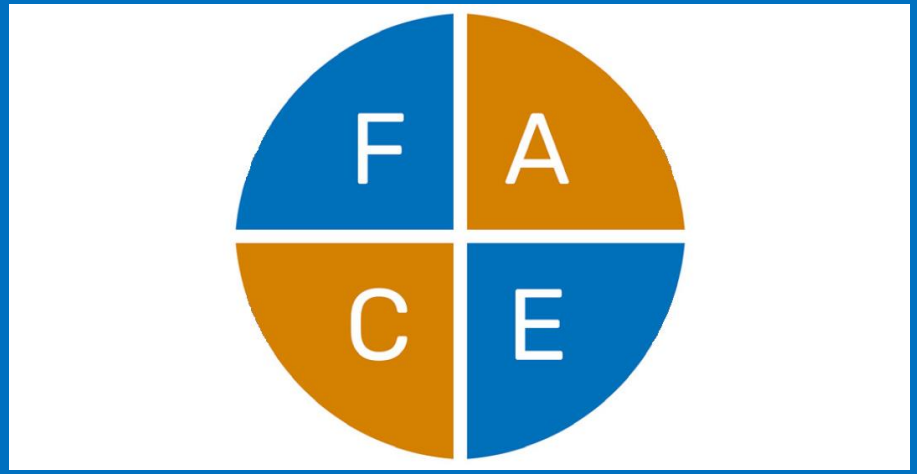
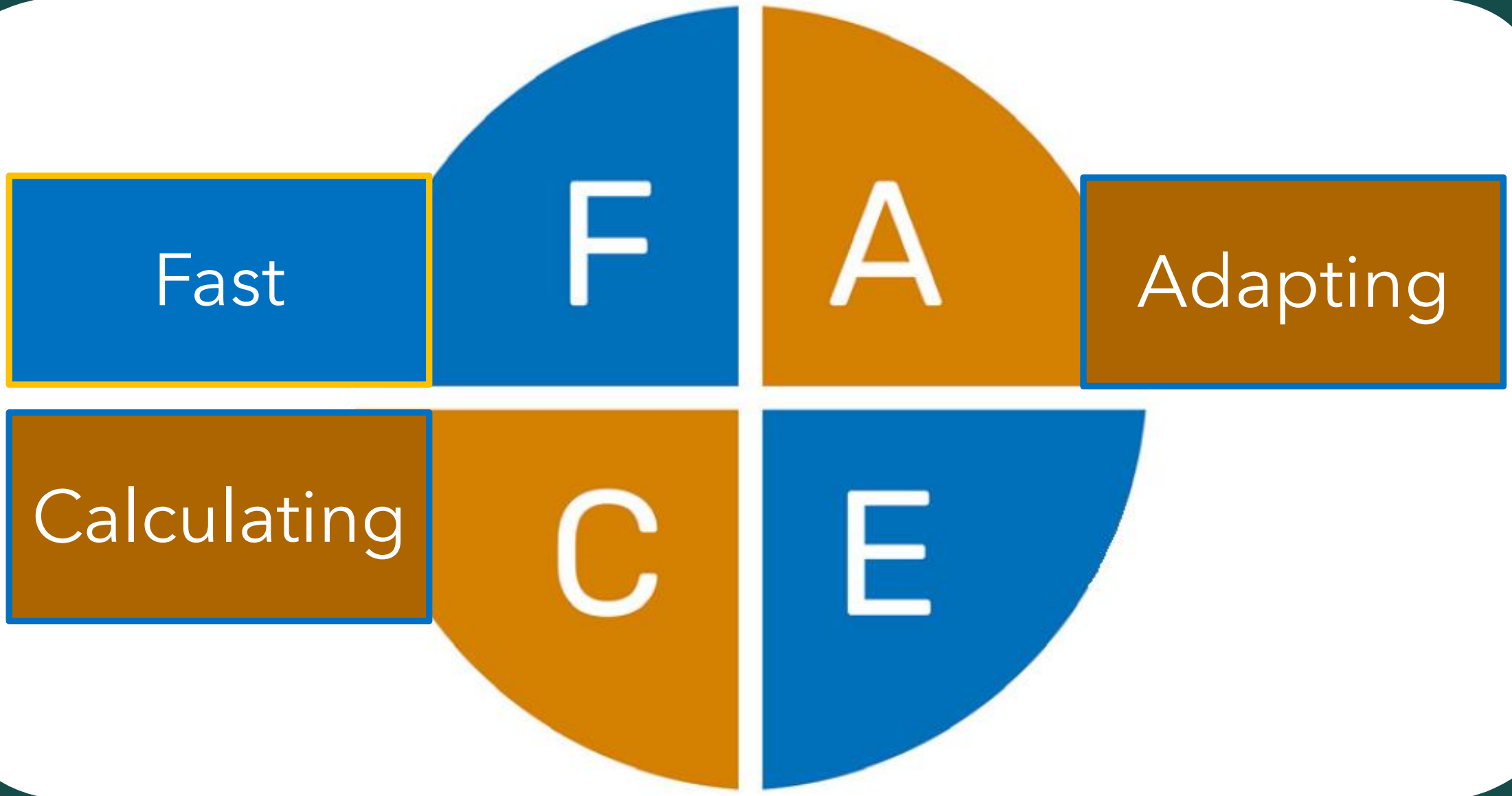
I mean, normally we're not told what the person's actual numerical FIT value was, we just know this list of peopl FIT value of at least 120. But for a period of time, we were told the numerical value so that we could start scopin highest FIT values first of all, if required.

# Adapting

**Responding flexibly and creatively to to manage challenges brought by the pandemic.**




Fast
F
A
Adapting
Calculating
C
E

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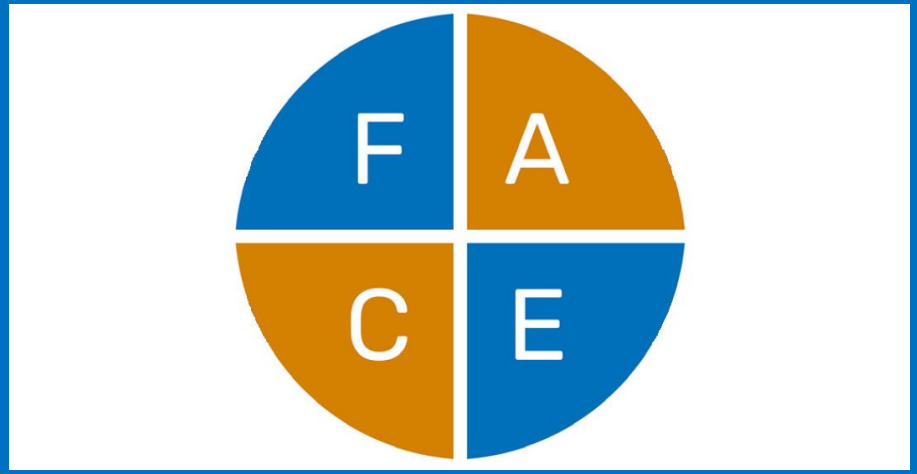
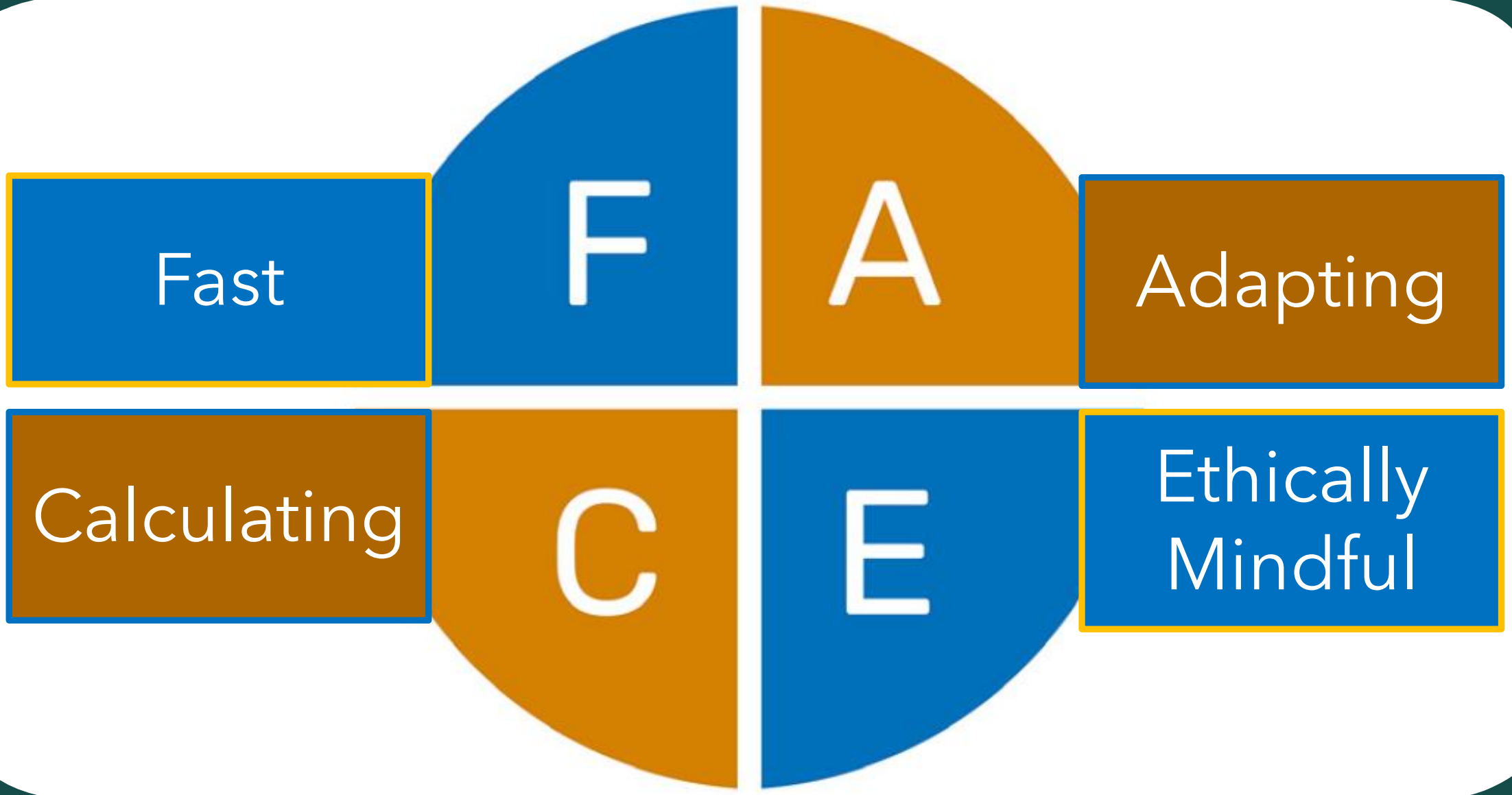
| And then, what we've been doing is we've conducted some modelling to understand the backlog of colonoscopies in the system to help us understand, as the system ramps up procedures, how long is that going to take and what capacity does the system have… we've done some modeling and looking at it, [catching up on backlogs] and we do feel that eventually we will. I think how soon depends on "do we have more than one wave, um, of the pandemic", as well as how soon do we get a vaccination such that the reduced capacity due to physical distancing at hospitals, etcetera, is no longer impacting care. So, I think that at some point in time we will catch up, but how soon that is, is, ah, depends on many factors that are yet to be seen. |
| So we actually just did an analysis with our macro-simulation model where we looked at, ahm, 'what if there would be a second wave and we wouldn't have full colonoscopy capacity again?' We could do three things, basically. We could say, 'okay, to meet these lower capacity' we could, as I said, 'increase the cutoff for a positive FIT', so increase when we think somebody's positive because that automatically means fewer people are referred. Of course it means that cancers will be missed. The other thing we can do is delay the invitations temporarily so rather than inviting people every two years we're going to invite them every two and a half years, for example, after two and half years. And the third thing we can do, and these are all temporary measures, of course, the third thing we could do is maybe not invite the 55-year-olds yet and wait until they're 57. Or if people have had two negative screens not invite the 61 or 63-year-olds at this time but invite them two years later. So those are all three measures that we could take if we wanted to reduce the colonoscopy demand. And so we used the model to look at these three different measures. |

# Calculating

**Modelling and monitoring programs to inform decision-making and support program quality.**

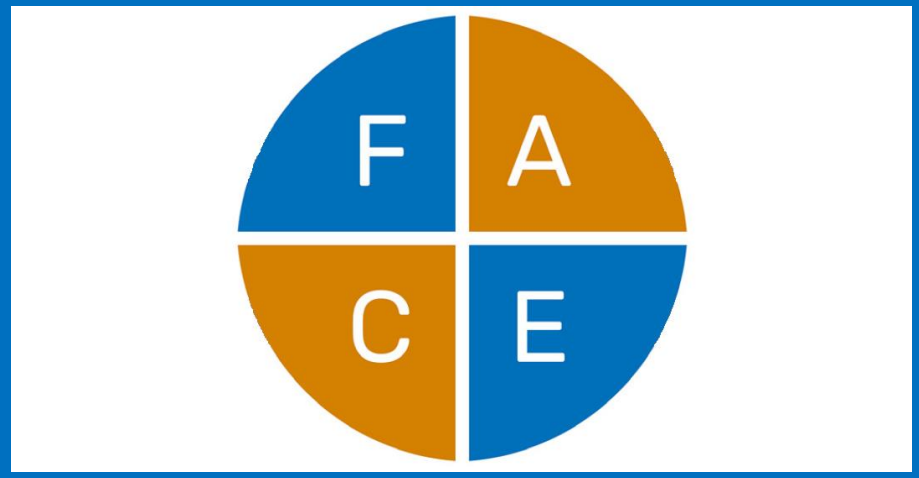



Fast
F
A
Adapting
Calculating
C
E
Ethically Mindful

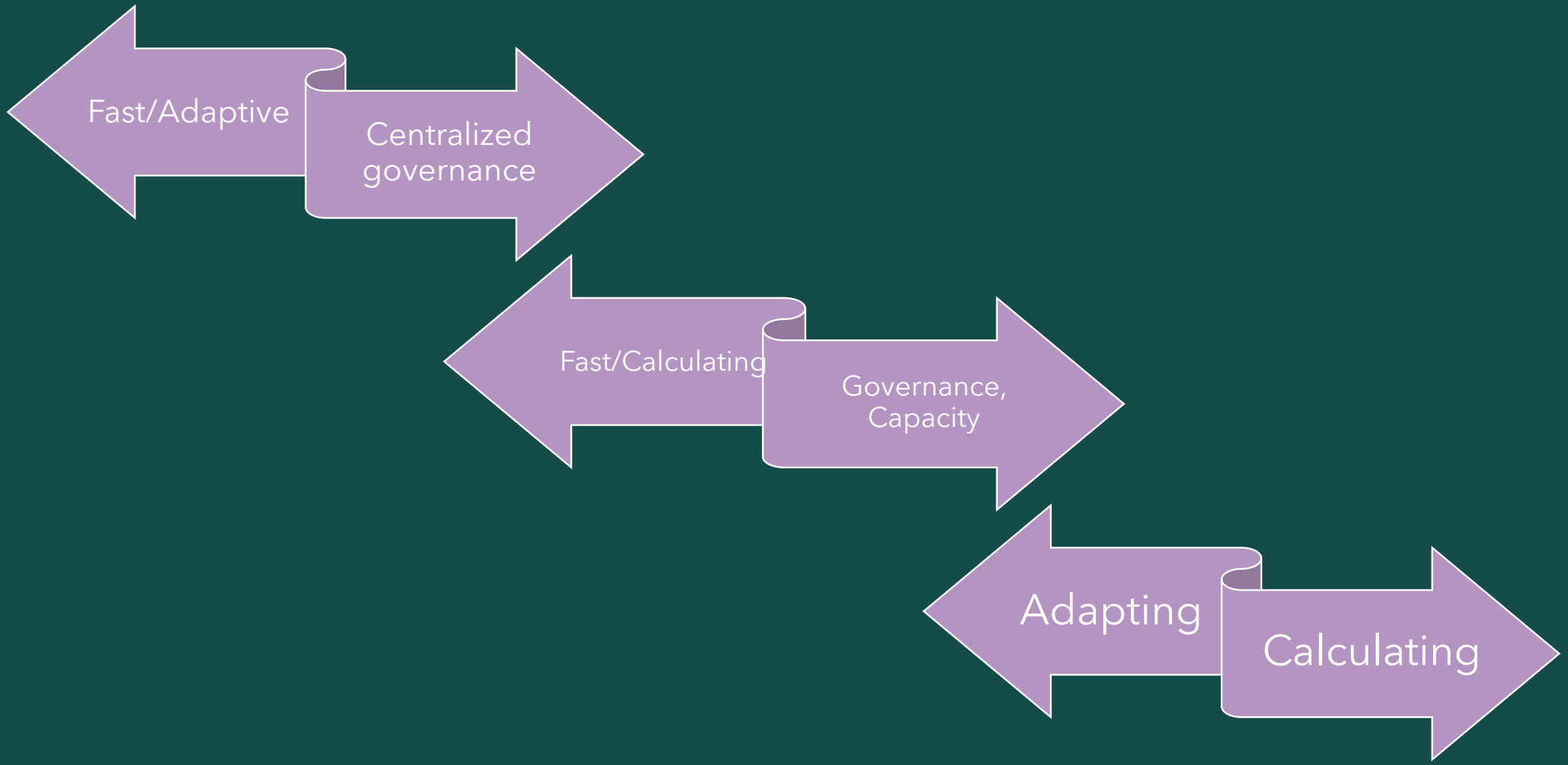
| |
|---|
| It became very clear early on in the pandemic that colonoscopy had just stopped. People weren't getting colonoscopies, except under extreme emergency situations. And it became, you know, pretty clear that we were building up a backlog of people who weren't going to get their colonoscopy for the foreseeable future…. I think it's ethically unsound to say to somebody, "You've got a positive test but it's not very positive, so you'll just have to wait" because you're going to engender a lot of anxiety by doing that. |
| …The big concern… their main concern is that they have not seen as many new cases as they are used to. … it's the knowledge of those undiagnosed cancers out there, [Yeah] that we know are out there, that we're not getting to. … we know these diseases are there and we know they're building up and they're progressing, you know. |
| … I think the ethical question was more, "okay, can we guarantee if someone has an, an inconclusive result that there's still a spot at the colonoscopy centre, so that we can still help that individual and that we do not have this individual unnecessarily worrying about the potential colon cancer"… how much do you let individuals unnecessarily worry?<br><br>... how can WE guarantee that if somebody steps into a colonoscopy centre, that there is no CORONA virus, that the colonoscopy centre can guarantee 1-1/2 meters distance, et cetera. |

## Ethically Mindful

**Modelling and monitoring programs to inform decision-making and support program quality.**



# Tensions


Fast/Adaptive
Centralized governance
Fast/Calculating
Governance, Capacity
Adapting
Calculating

# Characteristics of more “Nimble” programs

- Managed entire screening process
- Integrated communication systems
- Monitoring and modelling resources
- Highly automated
- Flexibility
- Smaller populations

# Conclusions

- Pandemic response required a ‘Nimble Approach’
  - Fast, Adapting, Calculating, Ethically Mindful
- Best positioned programs
  - Highly integrated and organized
  - Managed more aspects of screening process
- Framework to help programmes address emergent and unpredictable challenges.