

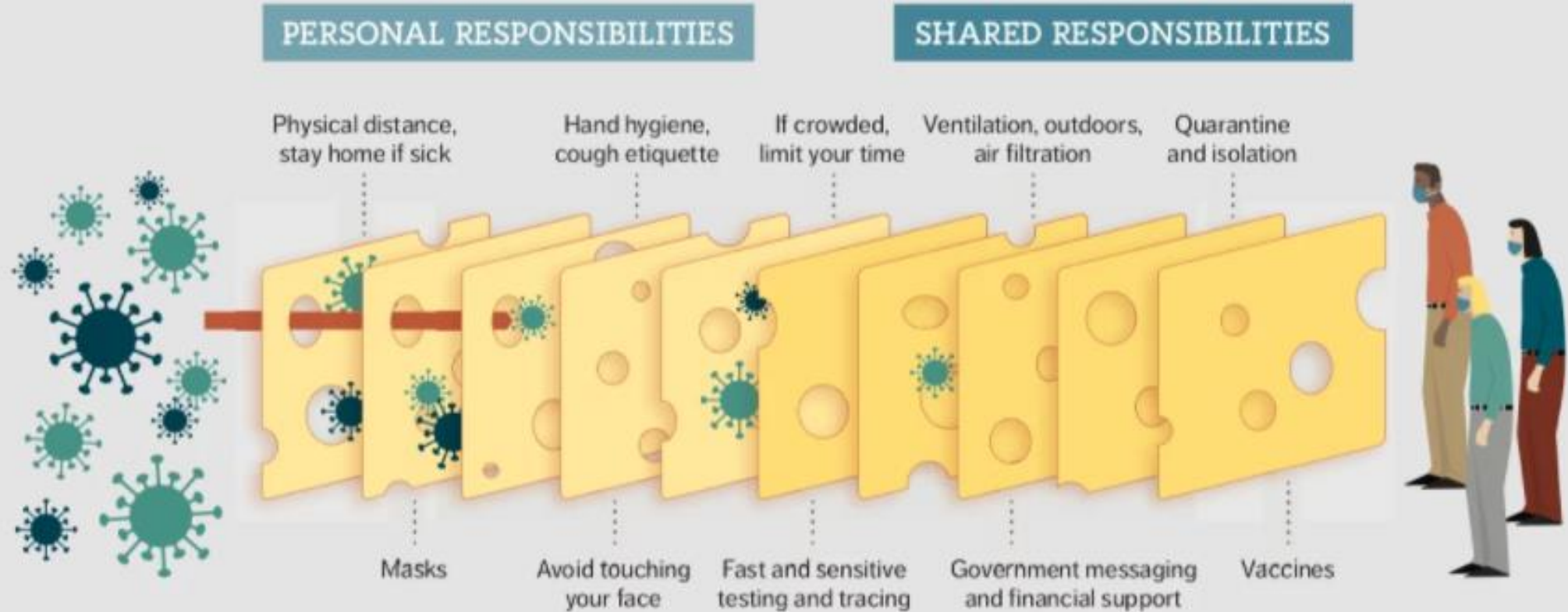
COVID-19 Vaccine

Dr Nicola Beamish, Medical Officer, Public Health Services

Thanks to Dr Shannon Melody for resources for this talk



THE SWISS CHEESE MODEL



Source: Adapted from Ian M. Mackay (virologydownunder.com) and James T. Reason

COVID-19 VACCINATION PROGRAM

SAFE ✓ EFFECTIVE ✓ FREE ✓

Vaccine Development

Pre-clinical: In vitro, Animal Models

Phase 1: Safety & Immunogenicity, <100

Phase 2: Safety & Immunogenicity, <1,000

Phase 3: Safety & Efficacy, 1,000s – 10,000s

Regulatory Approval: Provisional or Full Registration with TGA

Phase 4: Post-licensure Safety Monitoring

Global snapshot

as of 14 April 2021



184

vaccine candidates in pre-clinical development



88

vaccine candidates in human clinical trials, including phase I, II and III



16

vaccine candidates in phase III clinical trials



4

vaccine candidates in phase IV post-licensure surveillance

COVID-19 Vaccines in Australia

Current licences

- Pfizer
- AstraZeneca

Going forward:

Moderna: likely later in the year.

Why is the vaccine given to some groups first?

Vaccine is prioritised in groups of people

1. Who have increased risk of developing severe disease
2. Who have increased risk of exposure, being infected with and transmitting the virus
3. Who work in services that are critical to keeping our society running.

COVID-19 vaccine national roll-out strategy

Phase 1a – up to 1.4m doses

Commencing 22 February 2021

Quarantine and border workers	70,000
Frontline health care worker sub-groups for prioritisation	100,000
Aged care and disability care staff	318,000
Aged care and disability care residents	190,000
Total	678,000

Phase 1b – up to 14.8m doses

Elderly adults aged 80 years and over	1,045,000
Elderly adults aged 70-79 years	1,858,000
Other health care workers	953,000
Aboriginal and Torres Strait Islander people > 55	87,000
Younger adults with an underlying medical condition, including those with a disability	2,000,000
Critical and high risk workers including defence, police, fire, emergency services and meat processing	196,000
Total	6,139,000

Phase 2a – up to 15.8m doses

Adults aged 60-69 years	2,650,000
Adults aged 50-59 years	3,080,000
Aboriginal and Torres Strait Islander people 18- 54	387,000
Other critical and high risk workers	453,000
Total	6,570,000

Phase 2b – up to 16m doses

Balance of adult population	6,643,000
<i>Catch up any unvaccinated Australians from previous phases</i>	

Phase 3 – up to 13.6m doses

< 18 if recommended*	5,670,000
----------------------	-----------

Population numbers are current estimates for each category.
* 16 and 17 year olds will be able to access the Pfizer vaccine in line with the relevant cohort.

Where can people be vaccinated in Tasmania?

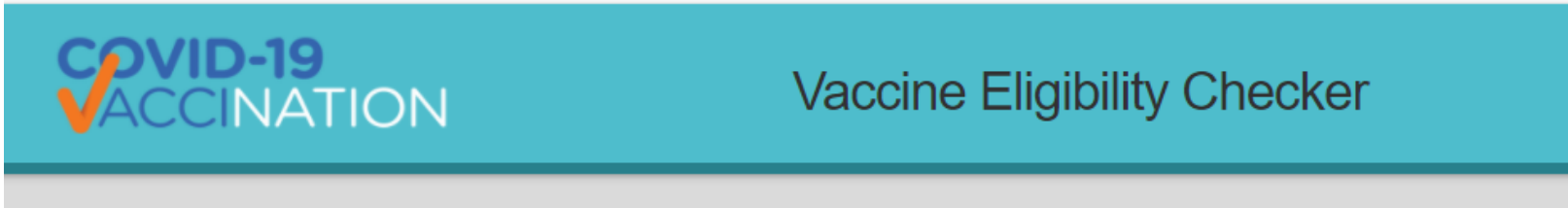
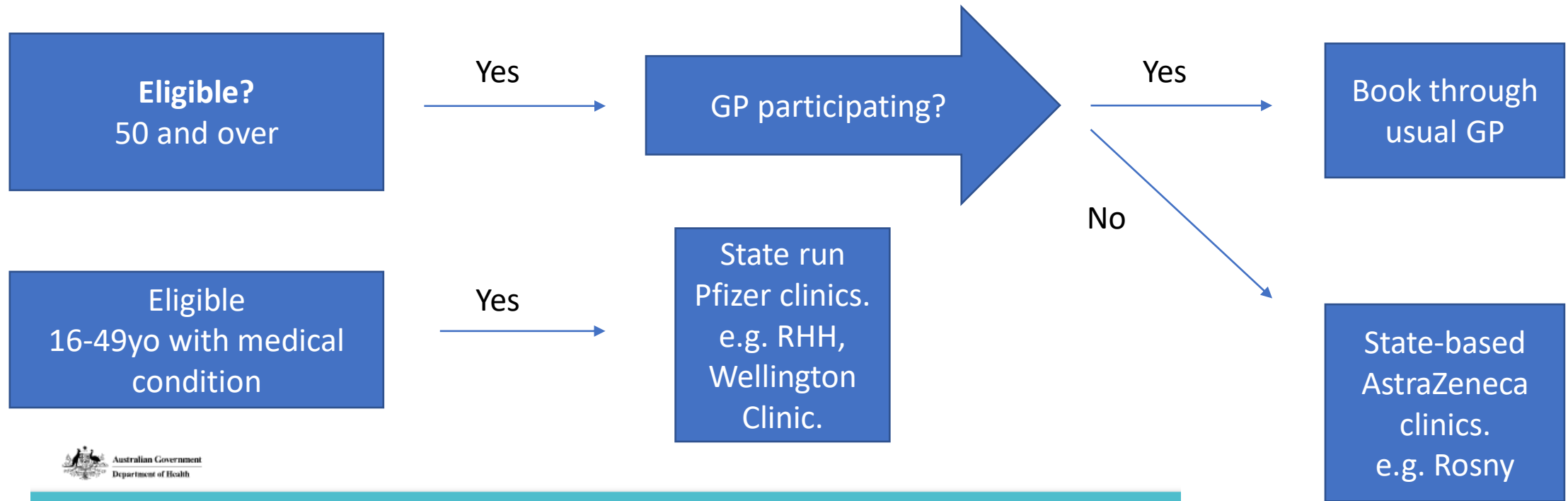
Some General Practises

Aboriginal Community
Controlled Health
Services

State Government
Clinics

Federal Government in-
reach (Aged care and
Disability Services)

How can people book their vaccination in Tasmania?



What are the common side effects?

Pain in your arm.

Tiredness

Headache

Muscle/body aches

Swelling in injection site

Joint aches

Fever and chills

Nausea (feeling sick in stomach)

Half get no side effects.

Most are mild and pass in 1-2 days.

We have found that about 1/3 of people have a day off work after the jab.

How does the Vaccine rollout monitor for side effects?

Surveillance

1. Reports from health care provider to State Health Departments and expert advisory bodies.
2. Ausvaxsafety

Gather and interpret data

Across Australia we assess for any safety signal and collate this nationally.

Ausvaxsafety

How does it work?



Day 0

You receive a COVID-19 vaccine at a participating immunisation clinic



Day 3

You will get the first survey from your state/territory health department or your immunisation provider



Day 8

You will get the 2nd survey from your state/territory health department or your immunisation provider



6 weeks

after your 2nd dose of COVID-19 vaccine you will get the final survey

We monitor for ALL side effects

Adverse Event are followed up and shared

Reporting rates per 1000 doses by jurisdiction

Australian Capital Territory	5.2	New South Wales	4.2
Northern Territory	6.2	Queensland	5.5
South Australia	5.2	Tasmania	7.9
Victoria	9.4	Western Australia	4.2

How do I tell someone if I have an adverse event after vaccination?

How to report

- Online form: [Getting vaccinated | Coronavirus disease \(COVID-19\)](#) or [Reporting Adverse Events Following Immunisation \(AEFI\) | Public Health \(dhhs.tas.gov.au\)](#)
- Email the form to tas.aefi@health.tas.gov.au or fax on (03) 6173 0821
- Or call the Public Health Hotline to speak with a Clinical Nurse Consultant in immunisation on 1800 671 738

What about the clotting illness after vaccination with AstraZeneca?

- Thrombosis with Thrombocytopenia syndrome (TTS) is a rare illness after vaccination
- More often in under 50 year olds
 - Under 50s 2.8/100,000 people
 - Over 50s 1.4/100,000 people
- Not like common clotting problems (leg and lung clots in veins)
- Likely caused by an immune response to the vaccine.
- Other than some very rare illness, we don't know why some people get it.
- Cases have occurred following the first dose
- 20 definite cases and 3 possible in Australia to date (20th May 2021)

Why is AstraZeneca only for over 50?

Scenario 2 – Exposure risk similar to second wave of COVID-19 in Victoria for severe COVID-19 disease requiring ICU admission (in a 16 week period)

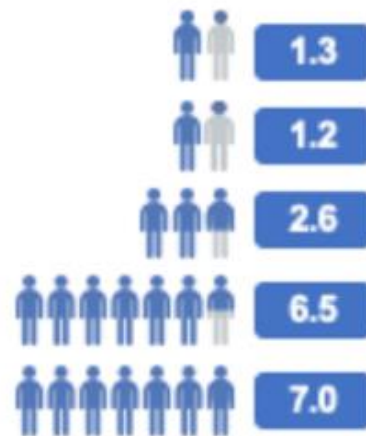
Weighing up the potential benefits and harms of the Astra-Zeneca COVID-19 vaccine

Potential benefits

For 100,000 people with low exposure risk

Potential harms

ICU admissions due to COVID-19 prevented every 16 weeks:



Age group

Specific blood clots due to the vaccine:



Who can have AstraZeneca?

Anyone over 50 years old

Including people with:

- History of blood clots in common places like legs and lungs.
- An increased risk of blood clots in common places.
- Family history of blood clots.
- History of heart attacks or stroke.
- Current or past low platelet counts.
- Taking blood thinning medication.

Who needs to have Pfizer

- People aged 16-49 years old
- People with severe allergy (anaphylaxis) to AstraZeneca
- People who have had thrombosis with thrombocytopenia occurring after the first dose of COVID-19 Vaccine AstraZeneca
- People with 4 rare medical conditions
 - A past history of cerebral venous sinus thrombosis (CVST)
 - A past history of heparin-induced thrombocytopenia (HIT)
 - A past history of idiopathic splanchnic (mesenteric, portal and splenic) venous thrombosis
 - Anti-phospholipid syndrome with thrombosis

If I'm vaccinated, do I need to get tested for COVID in future? YES YES and YES

First two days after vaccine I have a fever, tiredness or headache

Any other time: I have fever, tiredness or headache, runny nose, sore throat, cough

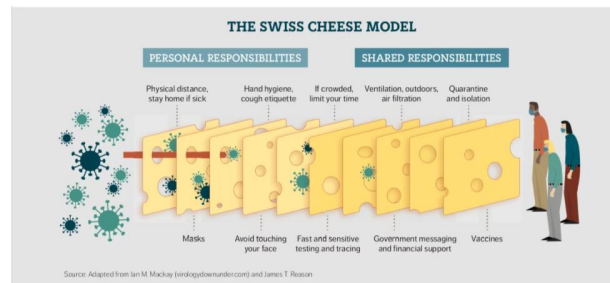
Do you also have a runny nose, sore throat, cough

Yes

No

Get tested

No need to test if symptoms pass

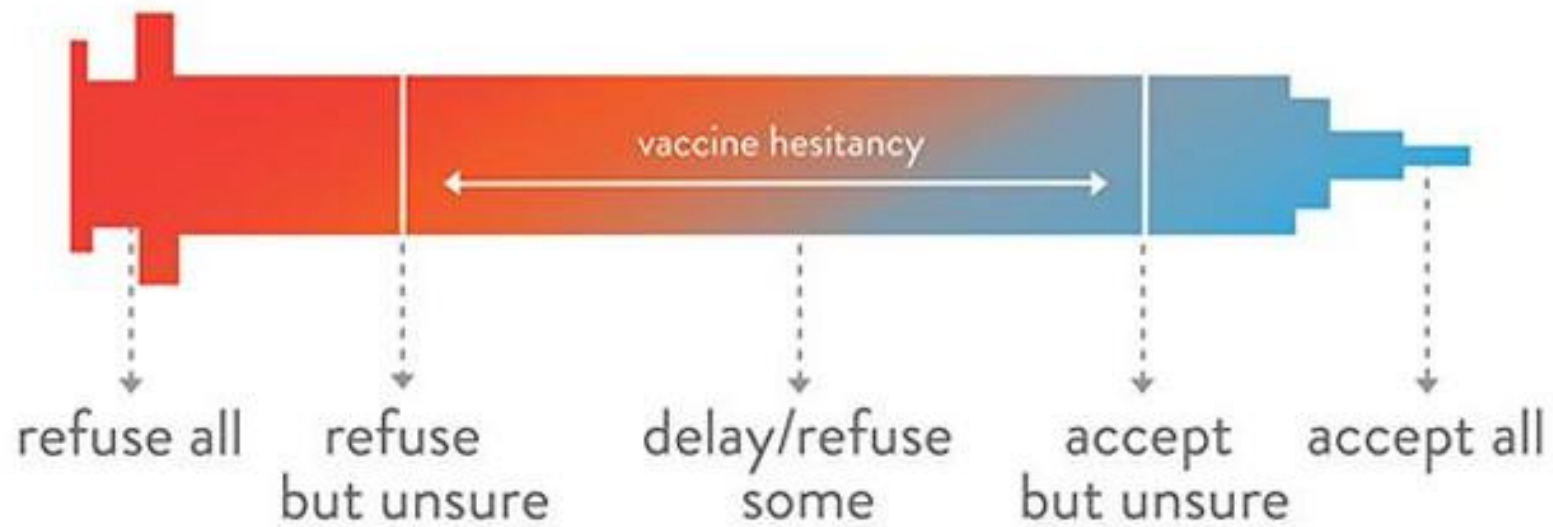


Always get tested

COVID-19 vaccination works to stop severe disease but might not stop mild symptoms or you spreading it to others.

What if I am not sure if I want to be vaccinated?

It is normal for people to have questions about vaccination, especially for new vaccines



COVID-19 VACCINATION PROGRAM

SAFE ✓ EFFECTIVE ✓ FREE ✓

How do I talk to friends and family feeling unsure about COVID-19 vaccines?

Health, Olivia Willis

It's important people feel respected, even when you don't agree with them.

✓ Listen to what they're saying.

✗ Avoid judgemental language.

✓ Be curious.

✗ Try not to come across as patronising.

How to talk to friends and family feeling unsure about COVID-19 vaccines - ABC News

COVID-19 VACCINATION PROGRAM

SAFE ✓ EFFECTIVE ✓ FREE ✓

Any questions?

COVID-19 VACCINATION PROGRAM

SAFE ✓ EFFECTIVE ✓ FREE ✓

Useful resources

- Technical advice:
 - ATAGI [COVID-19 vaccination – ATAGI clinical guidance on COVID-19 vaccine in Australia in 2021 | Australian Government Department of Health](#)
 - National Centre for Immunisation Research and Surveillance (NCIRS) [COVID-19 vaccines: Frequently asked questions | NCIRS](#)
 - Melbourne Vaccine Education Centre (MVEC) [COVID-19 - The Melbourne Vaccine Education Centre \(MVEC\) \(mcri.edu.au\)](#)
- Specific questions:
 - Allergy: ASCIA (Australian Society of Clinical Immunology and Allergy) [ASCIA COVID-19 Information - Australasian Society of Clinical Immunology and Allergy \(ASCIA\)](#)
 - Cancer: Cancer Australia [COVID-19 vaccines and cancer | Cancer Australia](#)
 - Pregnancy and breastfeeding: [COVID-19 vaccination decision guide for women who are pregnant, breastfeeding, or planning pregnancy \(health.gov.au\)](#)
- Specific resources:
 - Aboriginal and Torres Strait Islanders [Information for Aboriginal and Torres Strait Islander peoples about COVID-19 vaccines | Australian Government Department of Health](#)
- Decision making in relation to vaccination
 - Ask, Share, Know – informed decision making: [ASK – Ask Share Know](#)
 - SKAI (sharing knowledge about immunisation): [Home | Sharing Knowledge about Immunisation | SKAI \(talkingaboutimmunisation.org.au\)](#)
- General questions about the roll-out:
 - Australian Department of Health [Australian Government Department of Health](#)
 - Tasmanian Coronavirus webpage [Coronavirus disease \(COVID-19\)](#)



Tasmanian
Government