

COVID-19 and Vaccination

September 2021

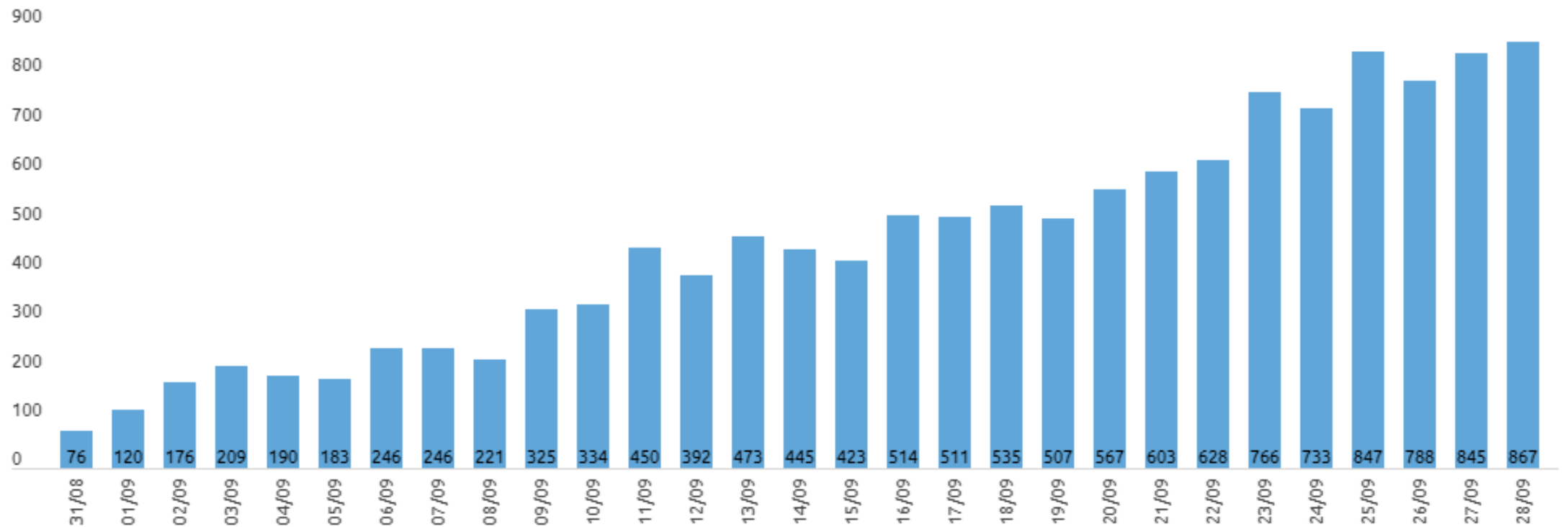
Professor Rhonda L Stuart MBBS, FRACP, PhD

Director South East Public Health Unit

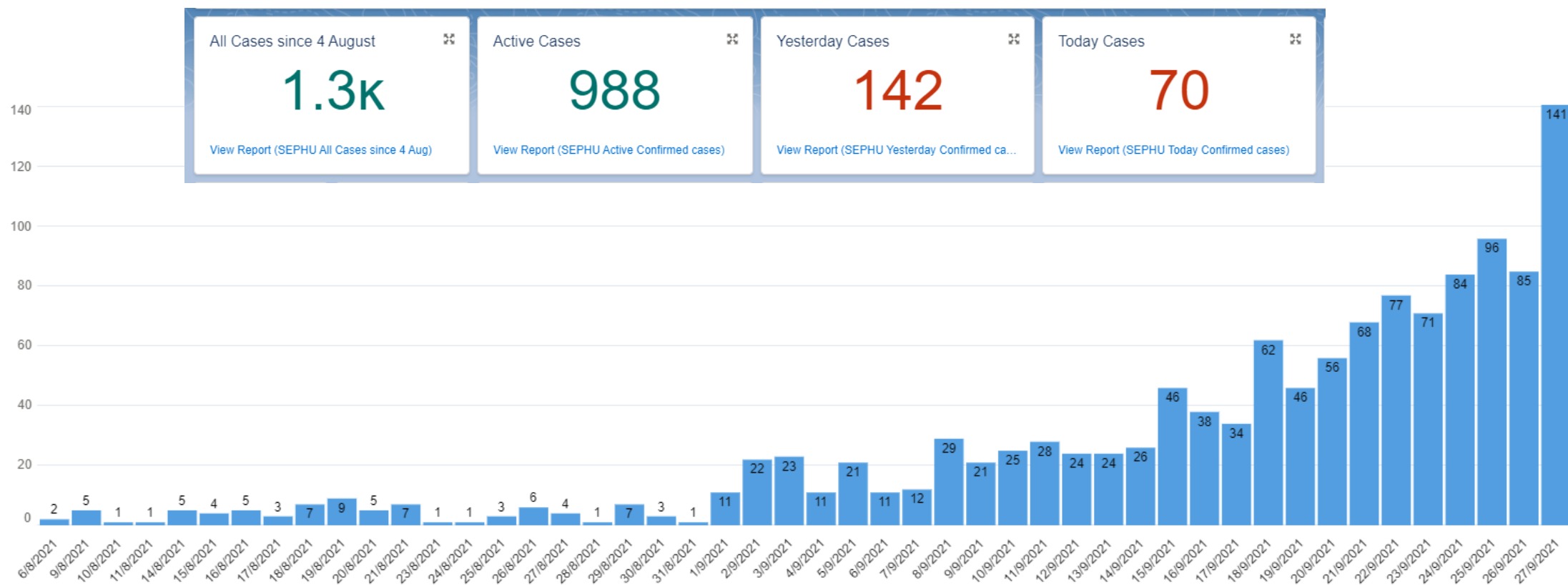
Director, Infection Prevention & Epidemiology, Monash Health

Adjunct Clinical Professor, Faculty of Medicine, Monash University

Victorian cases

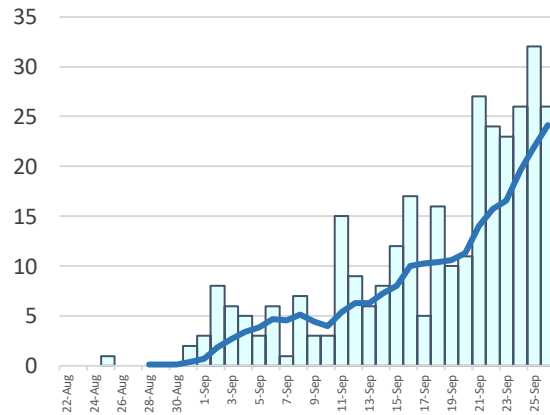


SEPHU cases

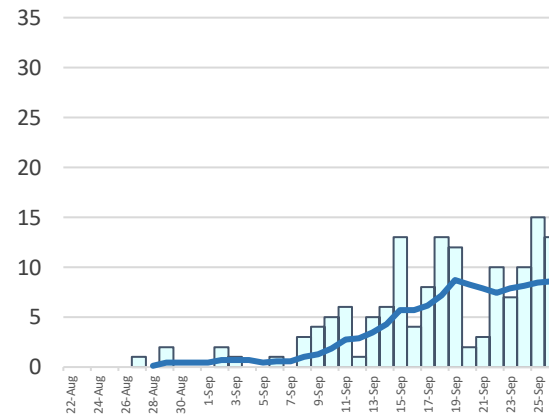


SEPHU – LGAs with most cases

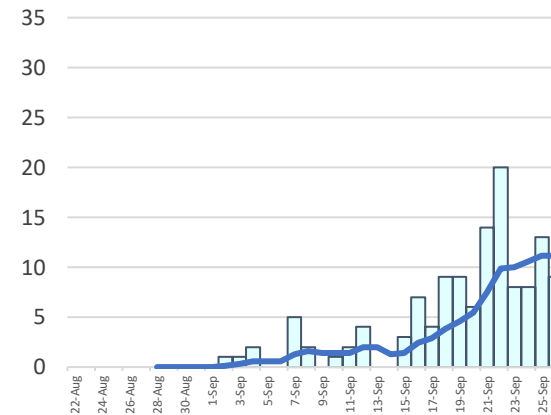
Casey



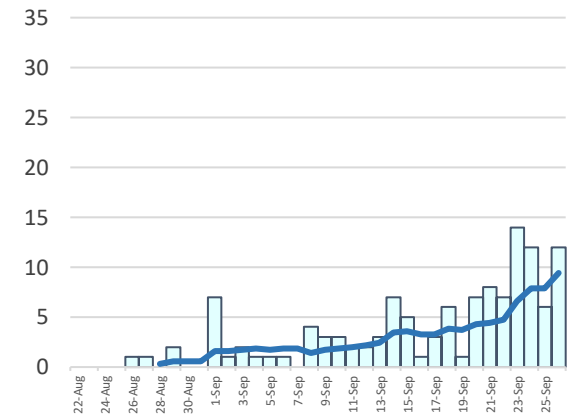
Greater Dandenong



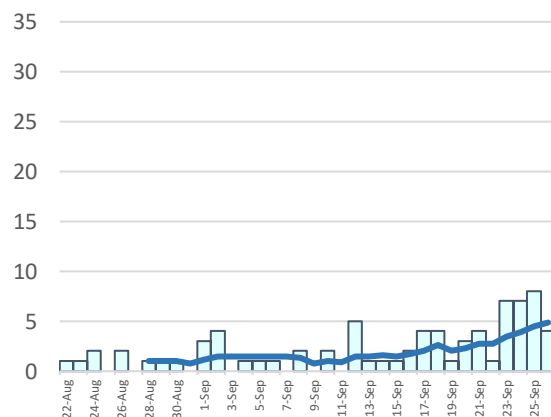
Cardinia



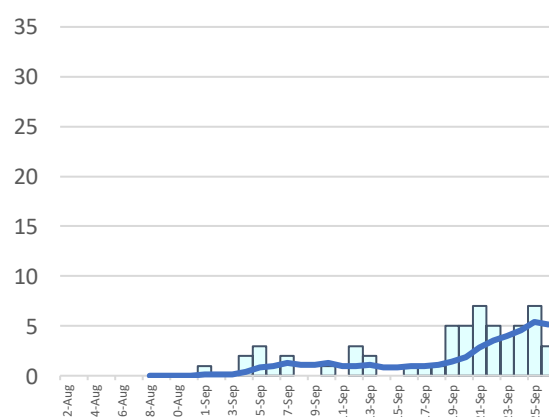
Port Phillip



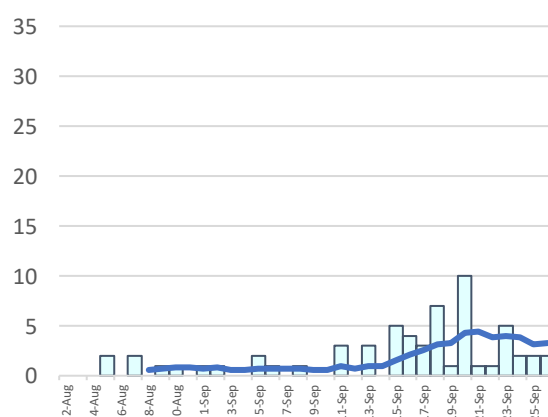
Monash



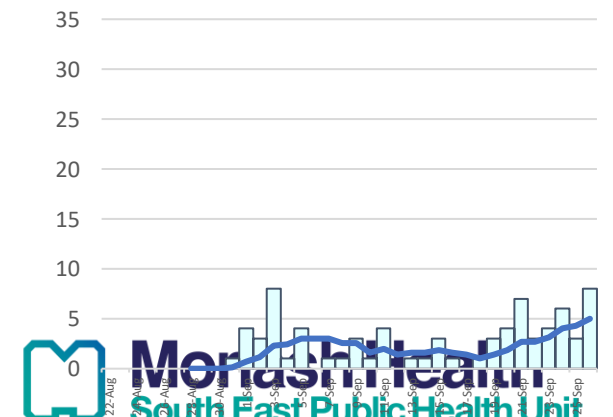
Kingston



Glen Eira



Stonnington



Worldwide

There have been approximately*

6,183,955,037 vaccine doses

administered for COVID-19, currently at rate of about **329.23/second** or **28,445,505** each day. That is about **78.82** doses per hundred people (~7.85 billion). At this rate, 70% of the population could be vaccinated (2 doses) in **169 days** (or by Mar 14, 2022). There are **219** countries that have started reporting vaccinations.

Country	Total Doses*	per 100 people ↑	Reported Doses	Cur. Daily Doses	70% Vaccinated (2 doses)
Australia	27,233,219	105.60	26,660,961 (Sep 26, 2021)	291,641 (3.38/s)	30 days (Oct 27, 2021)

Covidvax.live

COVID Vaccinations



Decrease acquisition

Decrease transmission

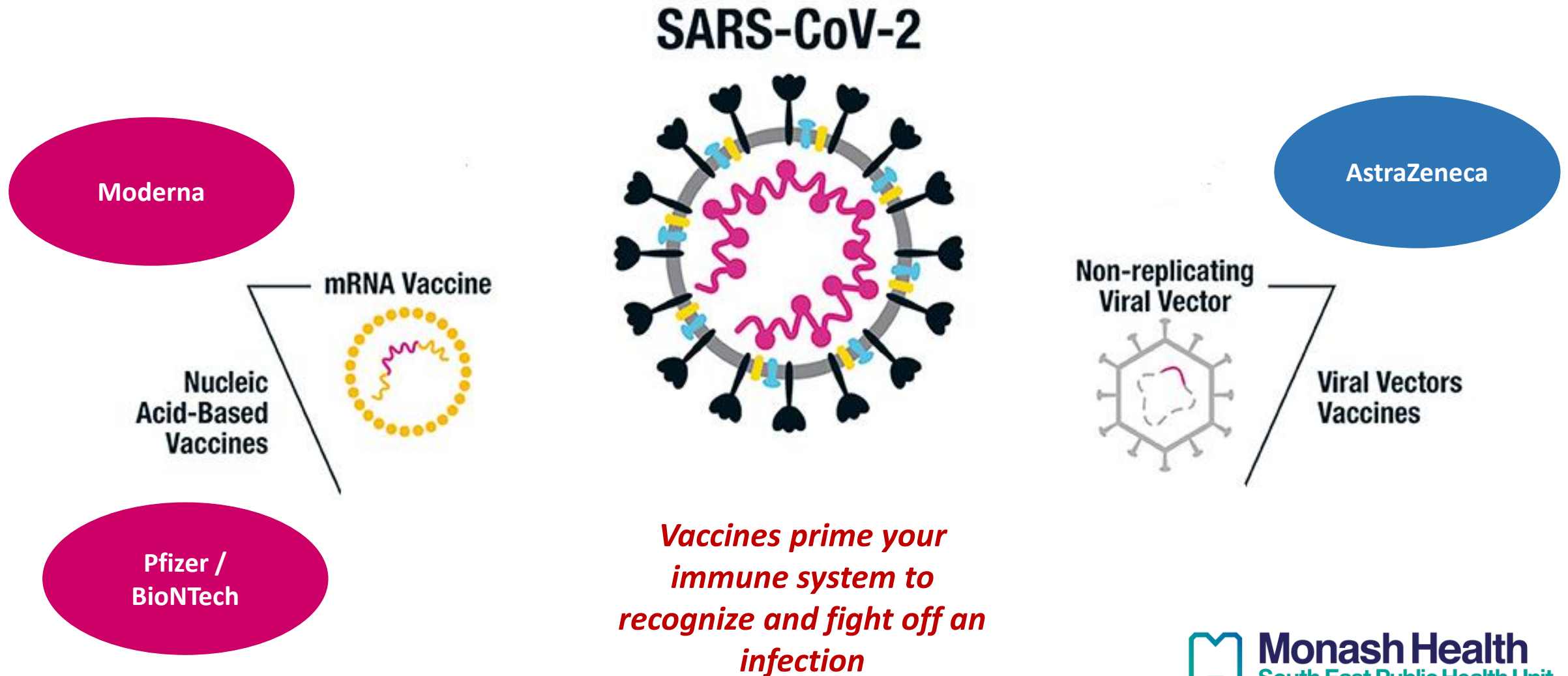
Decrease long COVID

Decrease hospitalisations

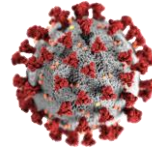
Decrease death

Few adverse events

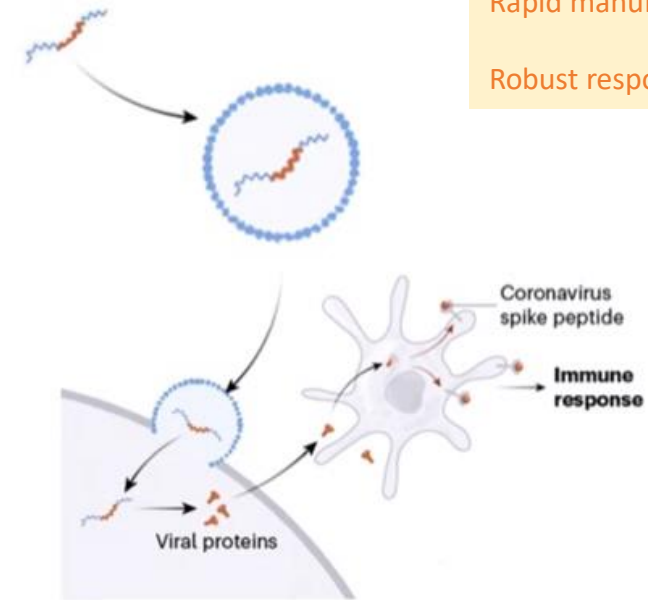
SARS-CoV-2 Vaccines available



mRNA Vaccines



- mRNA
 - Instructs our cells to make proteins
- Enters cells
 - Cell makes the “viral” proteins
- Viral proteins released & mRNA digested by enzymes
 - Immune response triggered
- Immunity
 - To viruses entering the body that have these spike proteins



Easy design

Rapid manufacture

Robust response

Covid Protection

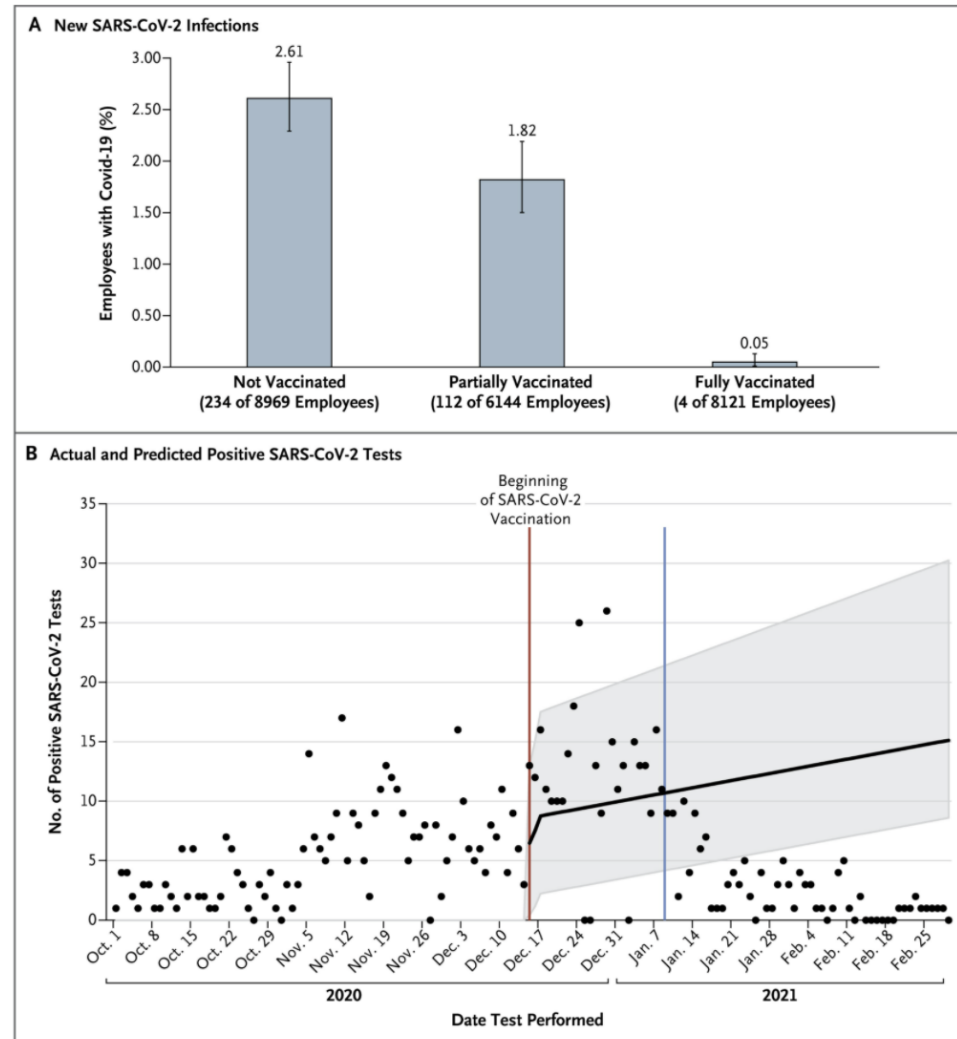
- Breakthrough infections
 - Milder
 - Often asymptomatic
 - Shortened duration

> 70% effective against infection from any strain

> 95% effective against hospitalisation

> 97% effective for COVID-19 related death

New Covid-19 in HCWs in Texas



Covid Transmission

Widespread vaccination reduces transmission risk

- Less population to spread virus

In breakthrough infections

- Virus level in upper airways in delta infection may remain high
- Levels of virus decrease rapidly
- So duration of infectiousness is decreased

Long COVID

- Long COVID
 - Long term symptoms after COVID
 - Including fatigue, anosmia, hair loss,
- In unvaccinated
 - 11% of those with COVID have symptoms for more than 8 weeks
- Double vaccination decreases the risk of long lasting symptoms
 - 50% less chance to have ongoing symptoms
 - More likely in frail older patients

Victorians Hospitalised with COVID Saturday 18th September 2021



180 (87%)
Not vaccinated



25 (12%)
Partially vaccinated



2 (1%)
Fully vaccinated



= vaccines
save
lives

Not vaccinated
180 (87%)



Partially vaccinated
25 (12%)



Fully vaccinated
2 (1%)



Monash Health
South East Public Health Unit

Vaccines and faith

COVID-19 vaccination supported by a huge range of faiths and religious leaders globally

COVID-19 vaccines are **Halal** (Australian Fatwa Council)

COVID-19 vaccines do not contain any human or animal tissue or cells derived from human or animal tissue

Vaccine safety for women

Planning pregnancy: No evidence of increased risk of pregnancy complications in women who become pregnant after vaccination. COVID-19 vaccines have no effect on fertility.

Breastfeeding: It is safe to continue breastfeeding before or after COVID-19 vaccination. No evidence of any side effects or any harm to the woman or her infant.

Currently pregnant: RANZCOG and ATAGI recommend that pregnant women are routinely offered Pfizer vaccine at any stage of pregnancy. There are no safety concerns for the woman or her baby and helps protect against the risk of COVID-19 infection to protect both the woman and her baby.

Take away messages about vaccine safety

6 billion+ doses of COVID-19 vaccines already given

Vaccine safety is constantly being monitored

Safety issues are rare

Vaccination protects against infection, transmission, severe disease and death

Safe for young and old, MUCH safer than getting COVID

Media headlines may be misleading

Boosters

No evidence currently required

Higher antibody levels than natural infection

Memory after vaccination

- Antibody levels may not predict protection against severe disease

Immunosuppressed an exception