

# Immunisation update

Prepared by Nepean Blue Mountains LHD  
Public Health

August 2020

TOGETHER  
**ACHIEVING**  
BETTER HEALTH



**Health**  
Nepean Blue Mountains  
Local Health District

# What I will cover

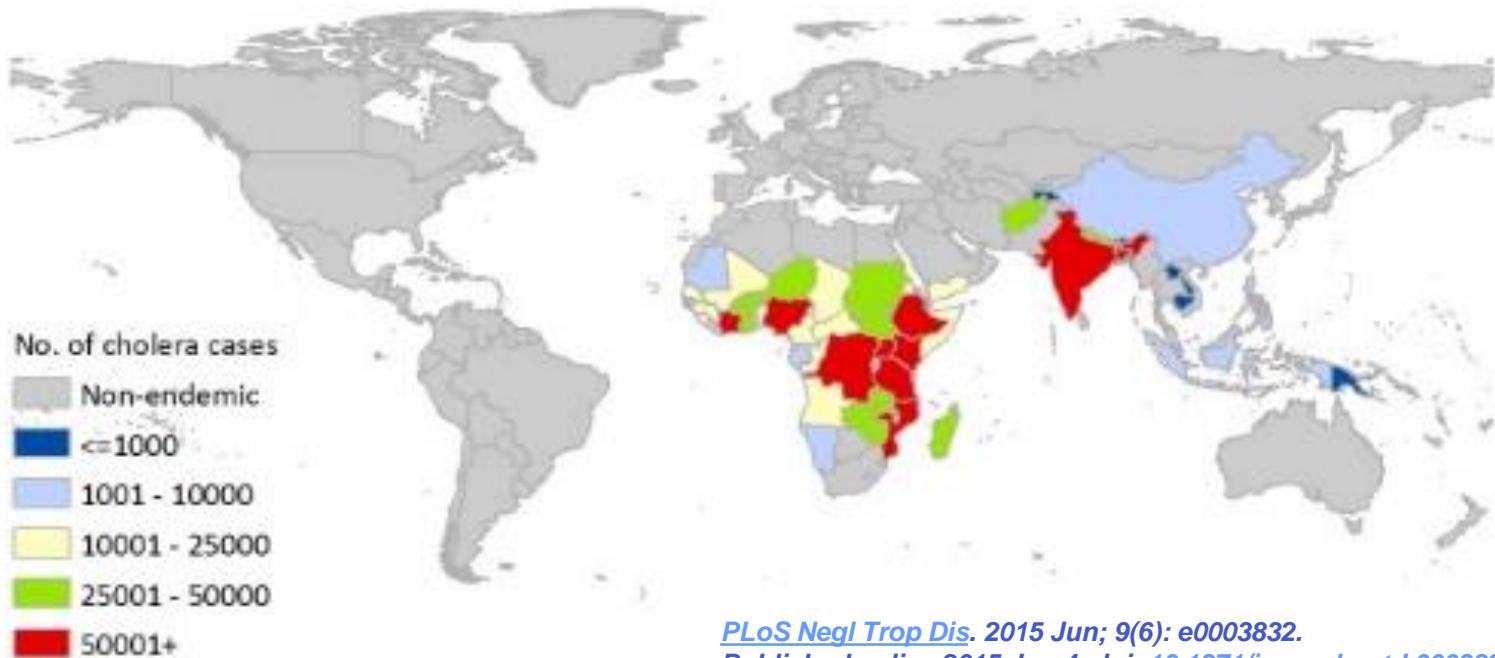
- Vaccine preventable diseases of global significance
- Vaccinations and vaccine preventable diseases of local significance
  - Most common
- Local Influenza and Pertussis
- Emerging and re-emerging diseases
  - SARS-CoV-2 (COVID-19)

# Cholera

- Acute diarrhoeal disease can kill within hours
- Estimate 1.3 to 4.0 million cases per year
- Estimate 21,000 to 143,000 deaths per year
- Sanitation, safe water supply, hydration
- However, safe oral vaccine

*who.int*

# Cholera



*PLoS Negl Trop Dis.* 2015 Jun; 9(6): e0003832.

Published online 2015 Jun 4. doi: [10.1371/journal.pntd.0003832](https://doi.org/10.1371/journal.pntd.0003832)

# Measles

- Highly contagious
- Vaccination resulted in 73% drop in measles deaths from 2000 to 2018 worldwide
- However estimated 140,000 people died from measles in 2018
- Poorer countries more impacted

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# Measles

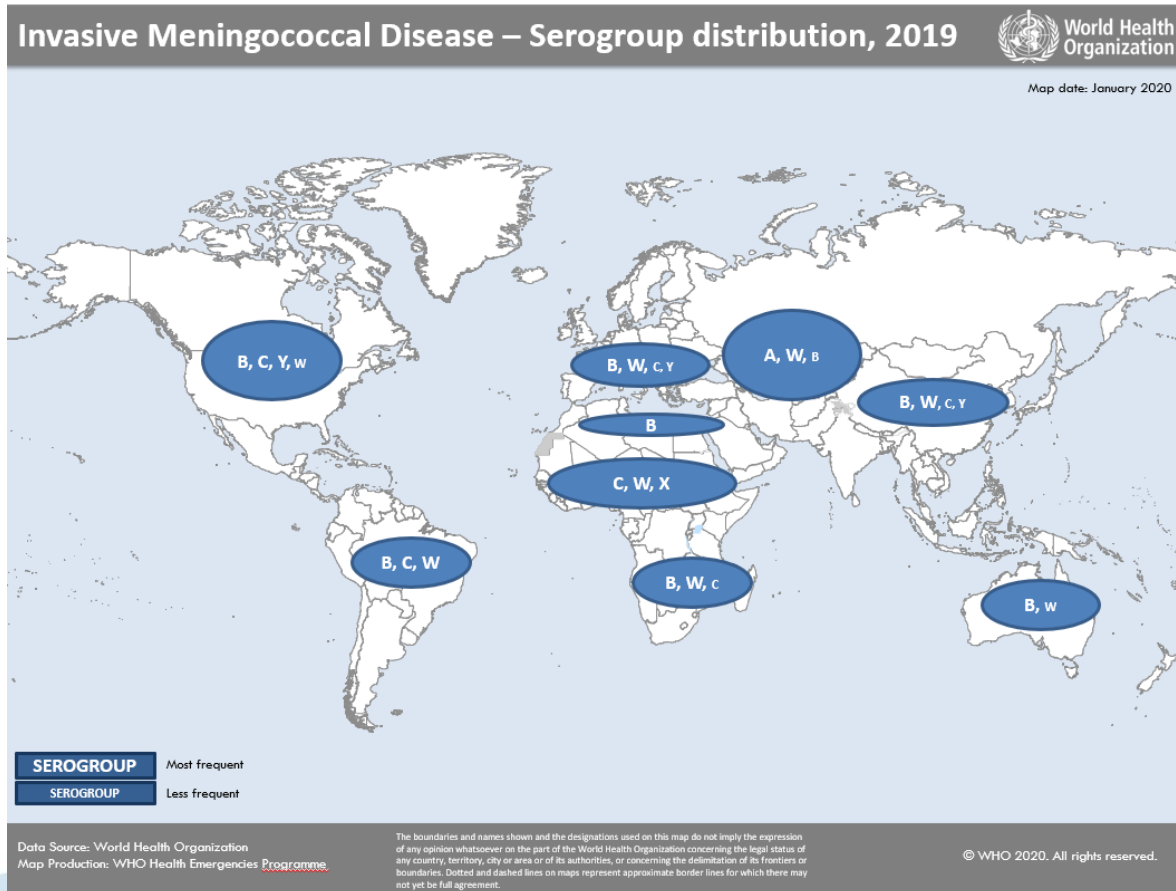
2019						
WHO Region	Member States Reported (expected)	Total Suspected	Total measles	Clinically confirmed	Epidemiologically Linked	Laboratory-confirmed
African Region	45 (47)	325562	289746	23148	250884	15714
Region of the Americas	33 (35)		23258	12	19	23227
Eastern Mediterranean Region	20 (21)	53588	26028	11556	6185	8287
European Region	53 (53)	120345	104554	58277	8980	37297
South-East Asia Region	11 (11)	73285	29707	6511	6238	16958
Western Pacific Region	26 (27)	165464	63797	43893	3578	16326
Total	188 (194)		537090	143397	275884	117809
2020						
WHO Region	Member States Reported (expected)	Total Suspected	Total measles	Clinically confirmed	Epidemiologically Linked	Laboratory-confirmed
African Region	42 (47)	54988	40439	8352	23045	9042
Region of the Americas	25 (35)		10293	2589	12	7692
Eastern Mediterranean Region	19 (21)	8205	3090	1245	252	1593
European Region	52 (53)	14900	12028	4651	1816	5561
South-East Asia Region	11 (11)	21013	8186	4125	974	3087
Western Pacific Region	24 (27)	20336	5099	2789	211	2099
Total	173 (194)		79135	23751	26310	29074

# Meningococcal Disease

- *Neisseria meningitidis*
- 12 serogroups with 6 able to cause epidemics (A, B, C, W, X, and Y)
- Endemic and non-endemic countries
- Currently no countries experiences an epidemic

*who.int*

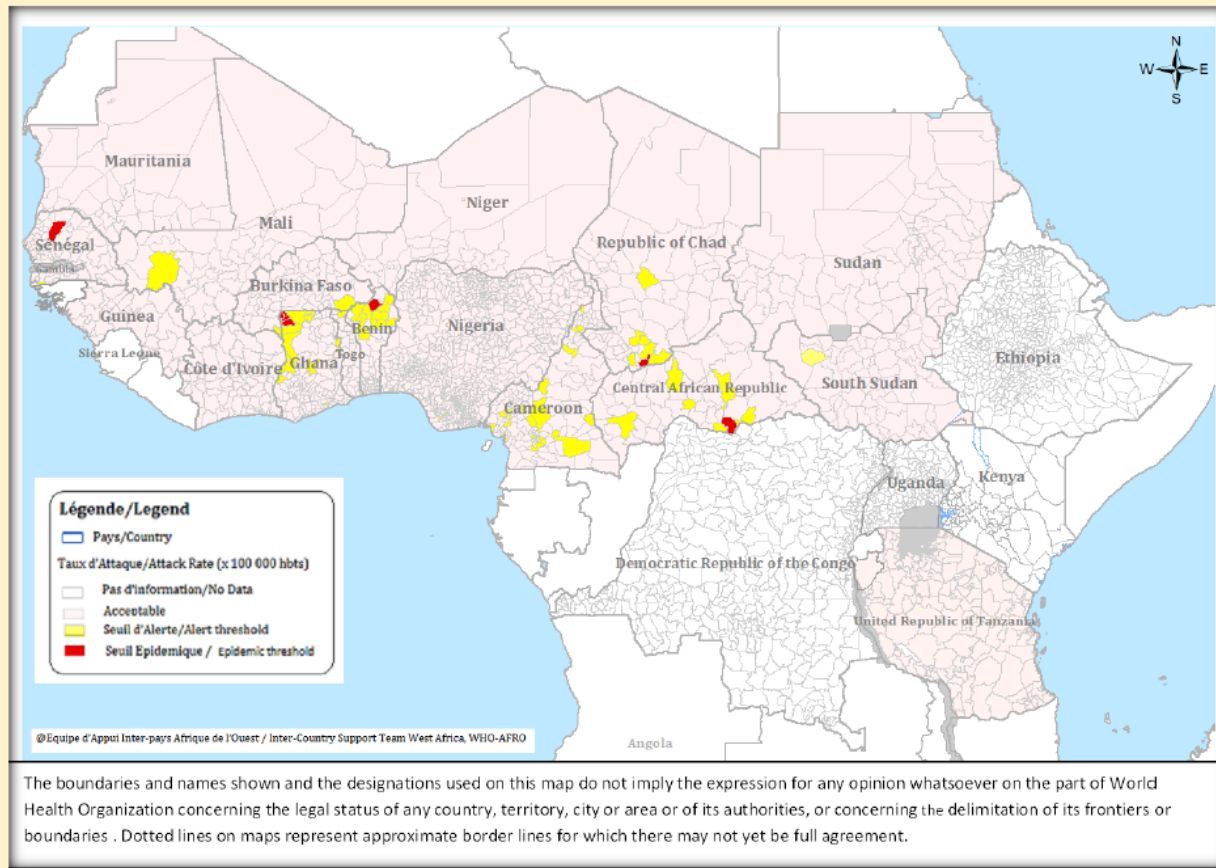
# Meningococcal Disease





# Meningitis belt

(Semaine / Week 01 - 26), 2020

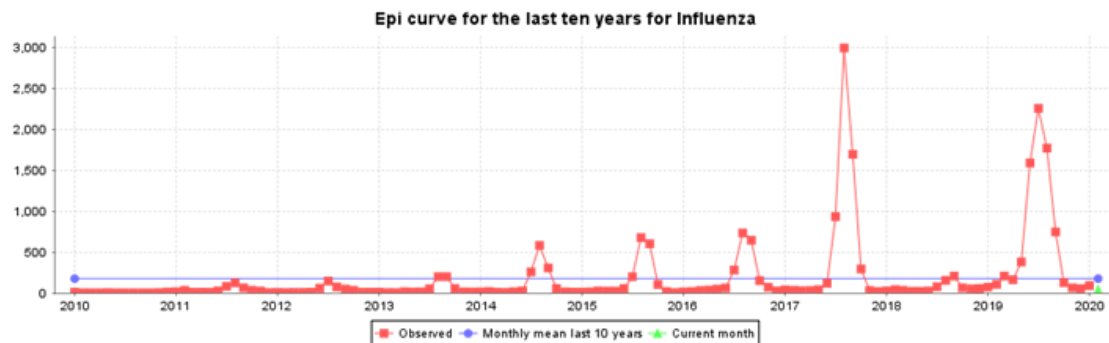


# VPDs of local significance

- Influenza.
- Pertussis.
- Rotavirus.
- Hepatitis B.
- IPD.

Condition	2018	2019
Influenza	731	7454
Chlamydia	1069	1177
Pertussis	226	552
Gonorrhoea	312	350
Giardiasis	103	165
Salmonellosis	133	138
Hepatitis C - Unspecified	186	117
Rotavirus	31	103
Hepatitis B - Unspecified	54	50
Syphilis - Infectious	32	32
Pneumococcal Disease (Invasive)	45	30
Cryptosporidiosis	27	30
Shigellosis	17	22

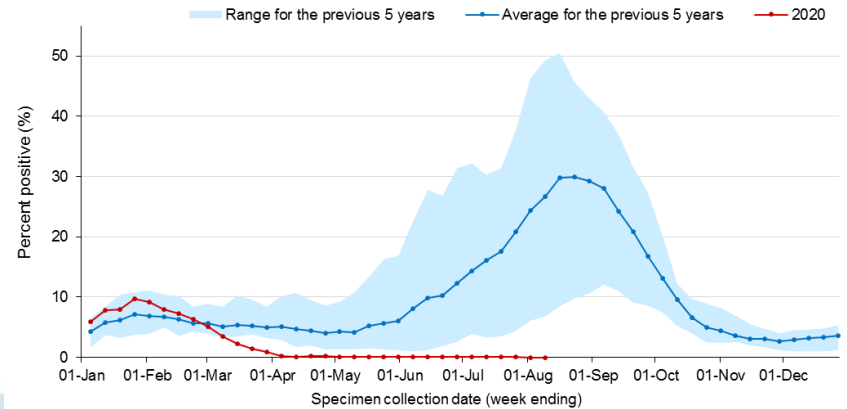
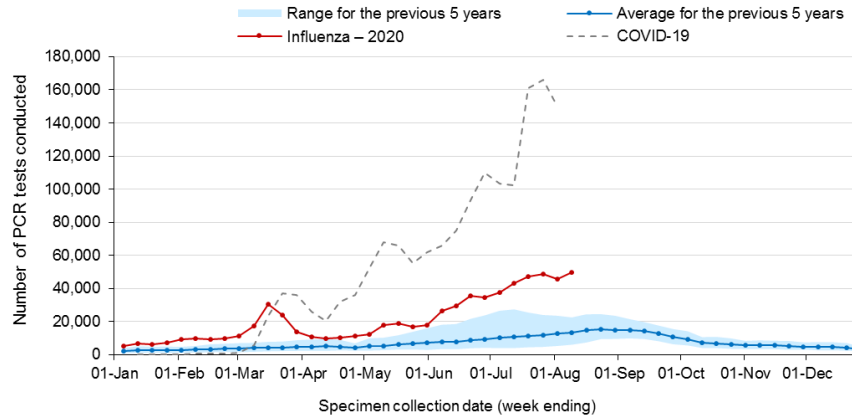
# Influenza



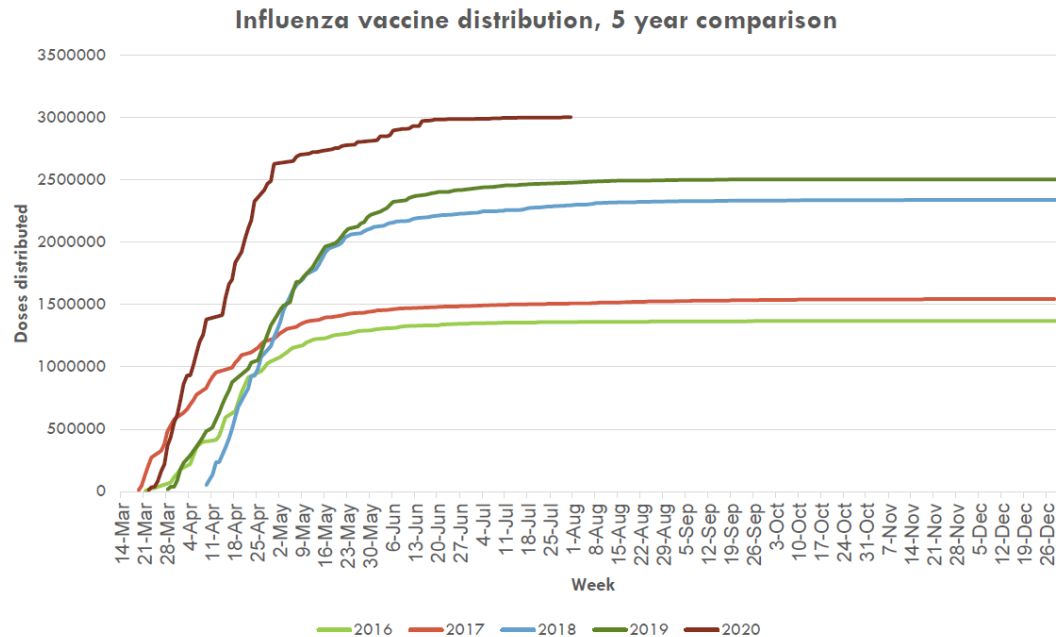
## NOTIFIABLE CONDITIONS FOR NEPEAN BLUE MOUNTAINS LHD (confirmed and probable)

Condition	2015/19		2019		2020												
	June	YTD	June	YTD	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
Respiratory Diseases																	
Influenza	365	644	1574	2479	91	103	115	6	4	2							321

# Influenza: More 2020



# Influenza: 2020

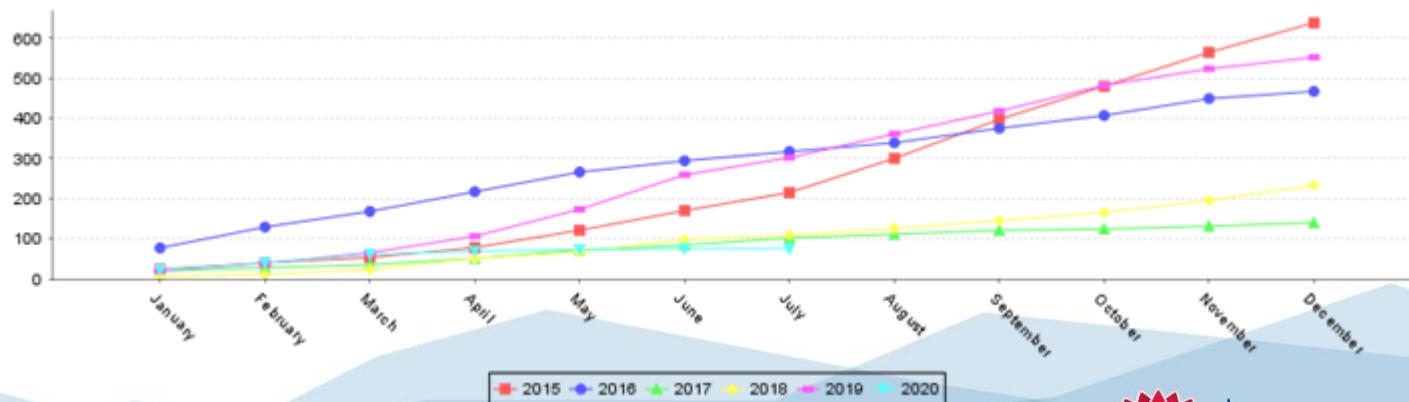


# Pertussis

Epi curve for the last ten years for Pertussis



Cumulative Total for Pertussis



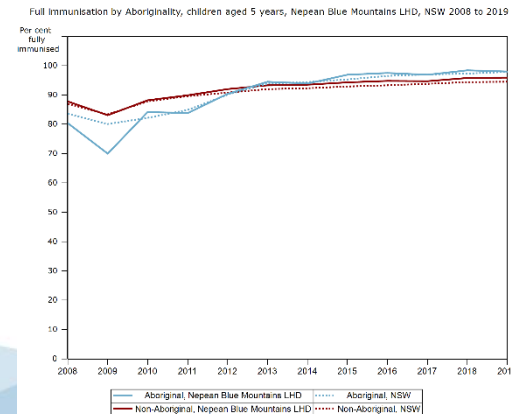
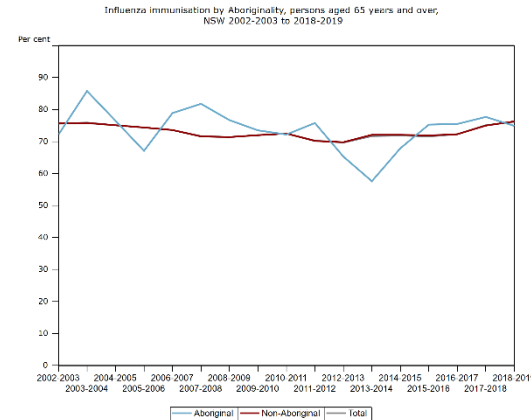
# Vulnerable people

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- Aboriginal and/ or Torres Strait Islanders.
- Young children.
- Pregnant women.
- Medically at-risk patients.
- People  $\geq 65$  years of age.
- HCW and students.

# Aboriginal and/or Torres Strait Islanders

- Gap between Aboriginal and/or Torres Strait Islanders and non-indigenous greatly diminished.
- Active followup by Public Health.

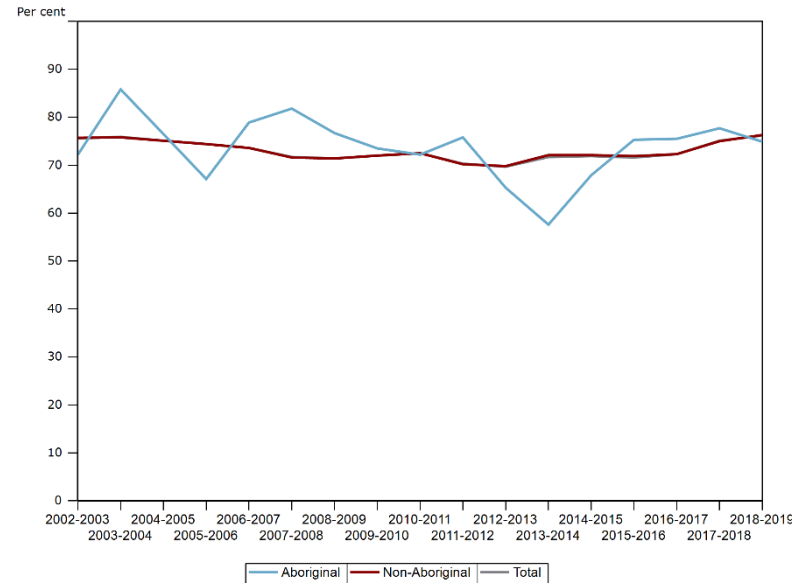




# Aboriginal and/or Torres Strait Islanders

- There is no gap between Aboriginal and/or Torres Strait Islanders and non-Aboriginal and/or Torres Strait Islanders for adults based on statewide data.

Influenza immunisation by Aboriginality, persons aged 65 years and over, NSW 2002-2003 to 2018-2019



# COVID-19

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- Actually, Severe Acute Respiratory Syndrome – CoronaVirus - 2 (SARS-CoV-2)
- Potentially vaccine preventable
- Australia has signed agreements to access vaccines
- Multiple mechanisms likely to be used to vaccinate

# COVID-19: Guidelines

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## COVID-19 Vaccination Program Options



Issue date: Month-20

GL2020\_XXX



# COVID-19: Possible rollout

1. Physicians and nurses in immediate patient care, plus police and comparable public security officers in immediate contact with the general public
2. Documented recipients of organ transplants under ongoing immunosuppressive medication
3. All other persons, ordered by DOB from old to young, without any exception, and most notably, irrespective of health insurance/economic status

Henn, 2020

And finally, my last words of wisdom from last year ...

- *Be prepared to see new VPDs as diseases re-emerging and emerging.*