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COVID-19 and the gap for vision

Presented at the National Aboriginal and Torres Strait Islander Eye Health Conference: The Gap and Beyond, April 20-22 2021

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Content

Acknowledgement: I acknowledge that I am connecting to you today from the lands of the Wurundjeri People of the Kulin Nation, whose sovereignty over the land has never been ceded. I would also I acknowledge and pay my respects to all Elders past and present.

Exploration question: How did COVID-19 impact on the equity gap for vision?

1. Introduction: What do we know about the equity gap for vision?
2. How was access impacted during COVID-19? Exploration of the data
3. Existing strategies and recommendations to improve access
4. Conclusions

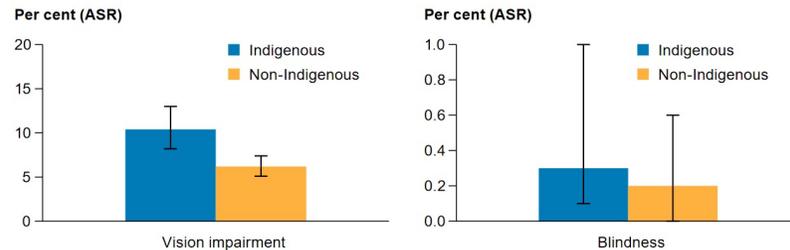


1. Introduction: What do we know about the equity gap for vision?

The gap for vision

- The conditions causing most blindness and vision loss for Aboriginal and Torres Strait Islander Australians remain refractive error, cataract, and diabetic retinopathy.
- This data exploration focuses on the conditions that require treatment (cataract and DR).

Figure 2.1: Rates of vision loss, by type of vision loss and Indigenous status, 2016

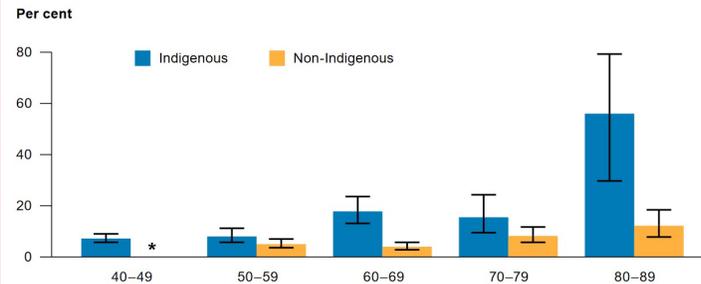


Notes

1. ASR refers to the age-standardised rate. Results reported are survey weighted to account for sampling protocol.
2. Error bars are 95% confidence intervals.
3. The National Eye Health Survey included Indigenous Australians aged 40 and over and non-Indigenous Australians aged 50 and over.
4. Data for this figure are available in the supplementary tables.

Source: Foreman unpublished analysis of National Eye Health Survey 2016.

Figure 2.2: Proportion of vision loss, by Indigenous status and age group, 2016



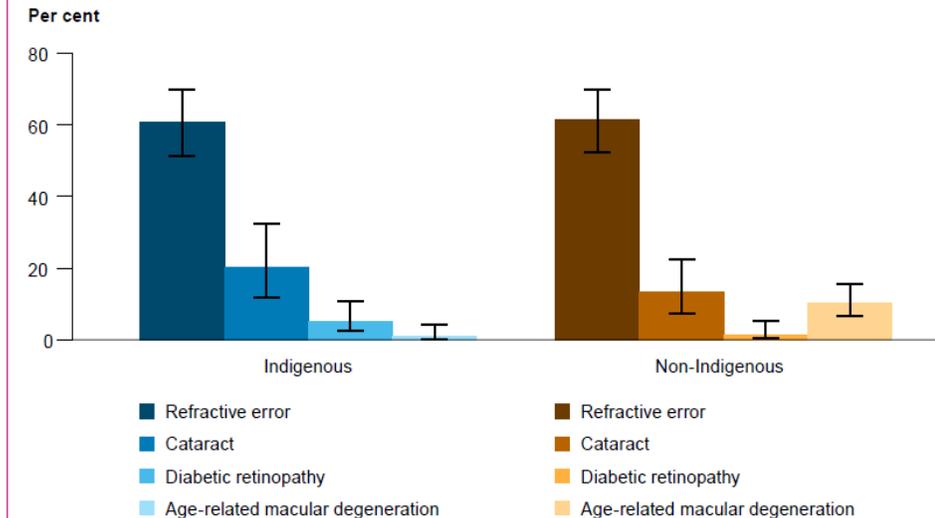
* Data are not available for non-Indigenous Australians aged 40-49 (see footnote 3).

Notes

1. Results reported are survey weighted to account for sampling protocol.
2. Error bars are 95% confidence intervals.
3. The National Eye Health Survey included Indigenous Australians aged 40 and over and non-Indigenous Australians aged 50 and over.
4. Data for this figure are available in the supplementary tables.

Source: Foreman et al. 2017 analysis of National Eye Health Survey 2016.

Figure 2.3: Main causes of vision loss, by Indigenous status, 2016



Notes

1. Results reported are survey weighted to account for sampling protocol.
2. Error bars are 95% confidence intervals.
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4. Data for this figure are available in the supplementary tables.

Source: Foreman et al. 2017 analysis of National Eye Health Survey 2016.

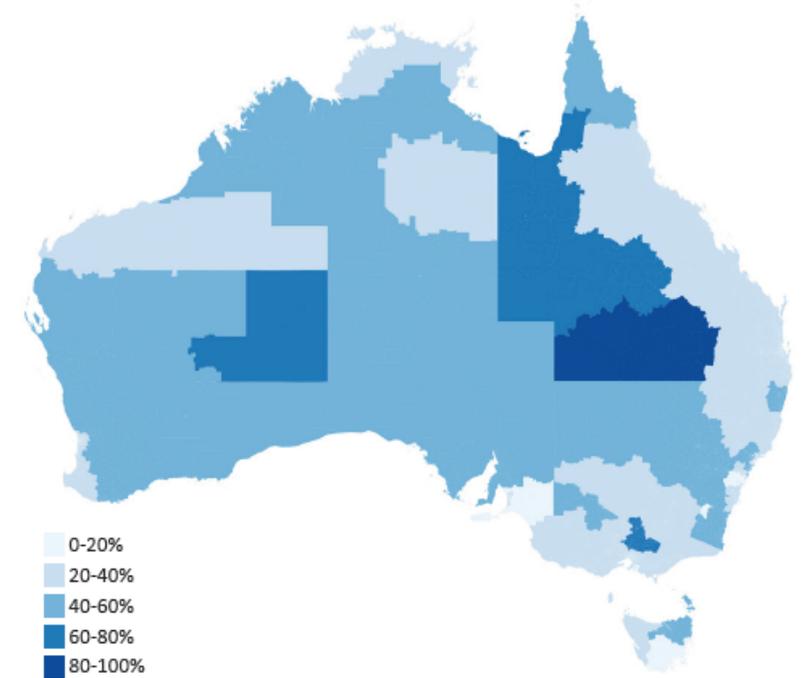


Access equity pre-2020 1/2

- Urban vs regional/remote
- Higher reliance on public hospitals
- Persisting wait time equity gap
- AIHW analysis of cataract surgical rates suggests age-standardised CSR gap is narrowing
- Data suggests moderate improvement in access to cataract surgery over past decade

Cataract

Cataract surgery: Indigenous % of need met by Roadmap regions 2016-2018 (AIHW 2020)



Median wait time (days) between specialist appointment and surgery, public hospitals, 2015-2020

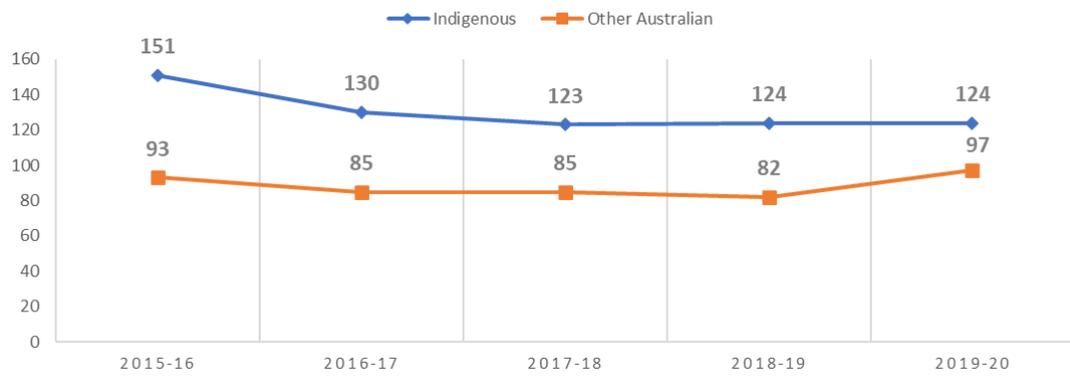
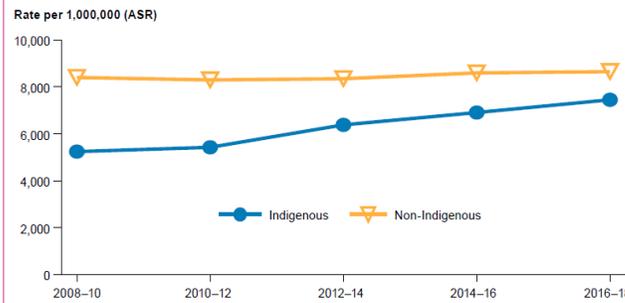


Figure 4.9: Trends in cataract surgery rates, by Indigenous status, 2008-10 to 2016-18



Notes
 1. ASR refers to the age-standardised rate.
 2. Data are for NSW, Vic, Qld, WA, SA and the NT combined.
 3. Data for this figure are available in the supplementary tables.
 Source: AIHW National Hospital Morbidity Database.

Elective surgery (2018-19)	% public	% private
Indigenous Australian	70.4%	29.6%
Other Australian	33.5%	66.5%

Source: Calculated from data via AIHW 2018/19 elective surgery statistics, table 6.17

Source: <https://www.aihw.gov.au/reports/indigenous-australians/indigenous-eye-health-measures-2020/summary>

Source: analysis of annual AIHW Elective Surgery and Hospital Statistics, 2015-2020

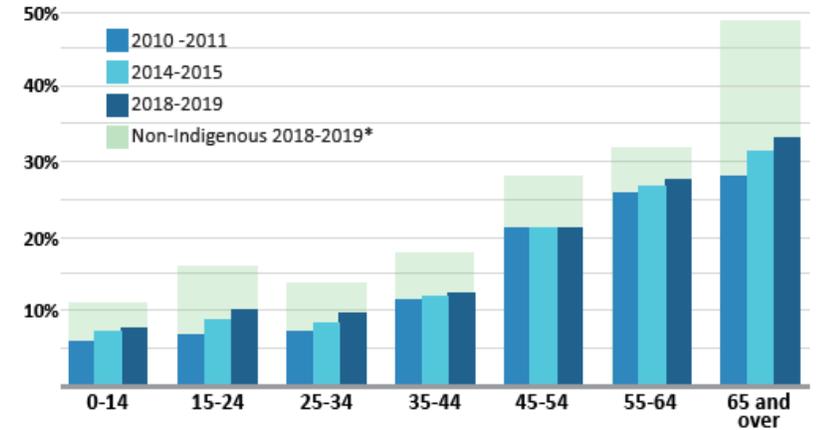


Access equity pre-2020 2/2

- Moderate improvement of DR screening rates and eye examinations not matching improvement for non-Indigenous patients
- Data still not showing real improvement in access to DR treatment – though data is not clearly accessible.

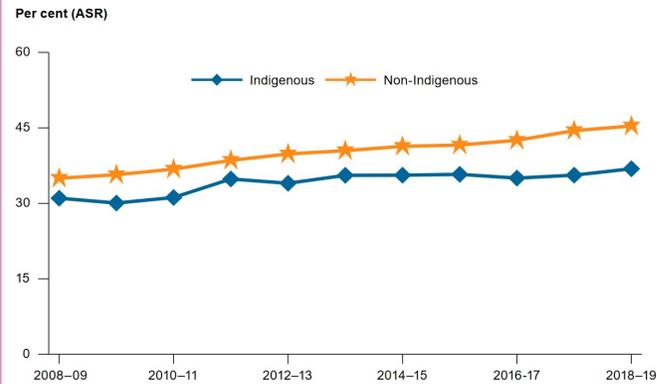
Eye Examinations

Eye examinations by age: % of Indigenous population per year (AIHW 2020)



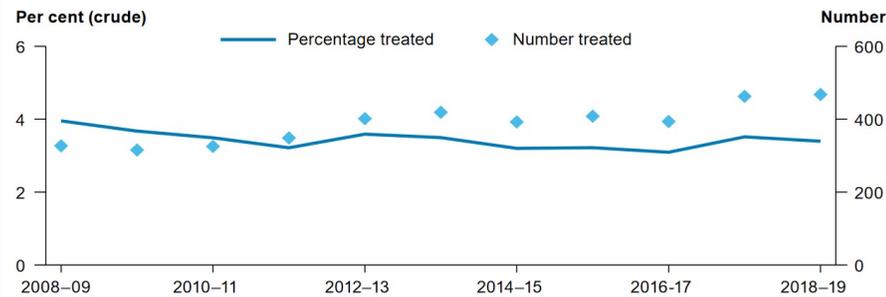
*The percentage for non-Indigenous population in 2018-2019 is indicated by the green shaded area for each age group

Figure 6.1: Proportion who had a diabetes test who also had an eye examination, by Indigenous status, 2008-09 to 2018-19



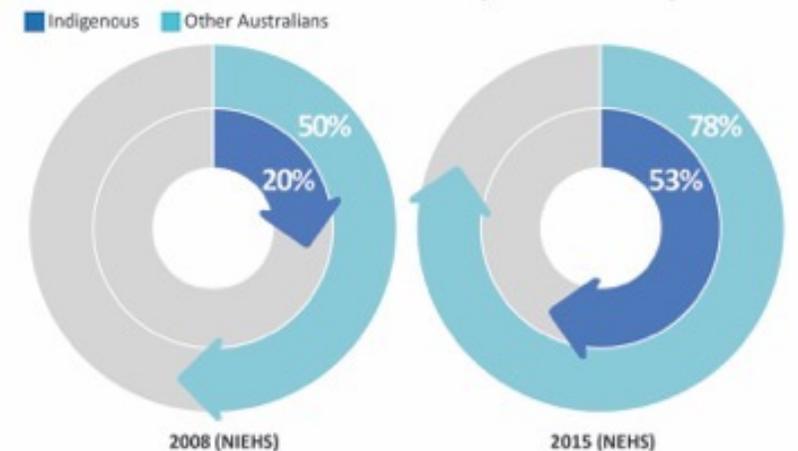
Notes
 1. ASR refers to the age-standardised rate.
 2. Data for this figure are available in the supplementary tables.
 Source: AIHW analysis of MBS data.

Figure 6.3: Proportion of Indigenous Australians who were screened for diabetic retinopathy who underwent treatment, 2008-09 to 2018-19



Note: Data for this figure are available in the supplementary tables.
 Source: AIHW analysis of MBS data.

Patients with Diabetes Received Eye Exams as Required





2. How was access impacted during COVID-19? Exploration of the data



Emerging concerns

- Aboriginal and Torres Strait Islander Peoples, through ACCOs, lead the way in response to COVID, with successful community protections. (Crooks, Casey, Ward, 2020)
- At the same time, limited access to non-emergency care was noted as a concern by many in the sector. Follent et al (2021) writing in MJA about indirect health impacts of COVID on Aboriginal and Torres Strait Islander Australians, inc. increased difficulty of accessing healthcare, and the limitations of telehealth.

“If the mob aren’t receiving health related treatment, how this is feeding into direct or indirect impacts on disabilities. And how we can pick this up through the health system as disability is not in closing the gap. If we aren’t addressing it at a higher level, we are never going to address it at the ground level.”



Elective surgery policy timeline

1

26/3 National freeze on 'non-urgent' electives

2

27/4 Partial resumptions, mostly 25% then gradual increase.

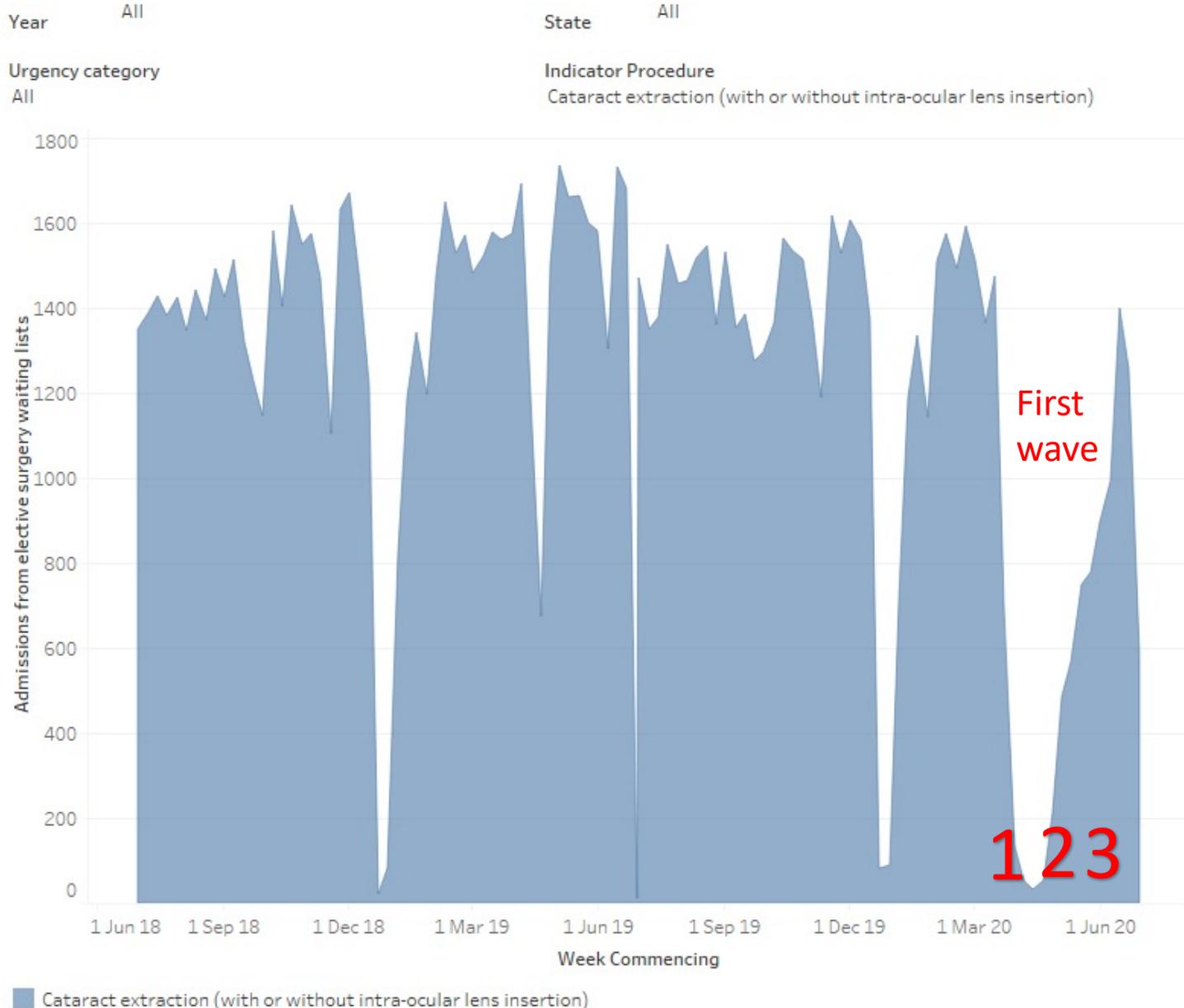
3

15/5: Electives allowed to resume, but capacity resumption staged differently across jurisdictions

28/7: VIC full freeze then gradual return to Oct. Other jurisdictions return to full capacity.

Current: full capacity, mostly kept even during local/jurisdictional short-term lockdowns

Admissions, by week, from public hospital elective surgery waiting lists by Indicator procedure and urgency category, States and territories, 2018-19 to 2019-20



Cataract surgery (private)

Rates of MBS 42702 (cataract surgery) compared with equivalent period a year prior (%)									
	NSW	VIC	QLD	SA	WA	TAS	ACT	NT	Aus
Mar-20	96.44	102.65	103.15	96.55	95.62	104.54	99.00	133.33	99.68
Apr-20	36.49	26.70	36.80	38.85	33.79	32.97	33.16	81.58	34.38
May-20	50.69	42.44	61.08	64.62	61.42	64.84	83.49	33.33	54.15
Jun-20	86.79	80.20	93.00	107.61	81.72	112.69	100.00	84.78	88.85
Jul-20	110.79	98.59	109.72	119.43	108.29	92.79	117.14	157.50	107.96
Aug-20	98.30	40.13	95.18	104.87	99.63	97.35	102.83	122.95	85.76
Sep-20	114.08	30.68	132.96	139.73	118.36	109.85	121.95	130.85	103.44
Oct-20	102.43	81.94	105.38	95.96	116.35	132.93	125.81	56.25	99.68
Nov-20	114.73	105.58	113.69	100.55	120.18	97.89	102.37	102.30	111.33
Dec-20	118.02	120.90	139.28	126.16	128.31	109.61	117.20	100.00	124.24
Jan-21	100.62	116.01	93.80	80.24	105.28	74.93	64.53	72.55	98.98
Feb-21	109.29	106.79	113.97	113.40	93.50	107.38	116.09	156.96	108.87
COVID year total (Mar-Feb)	94.35	77.95	99.29	98.91	96.22	95.30	97.83	100.41	92.59

Legend (%)
-50
50-75
75-95
95-105
105-125
125-150
150+

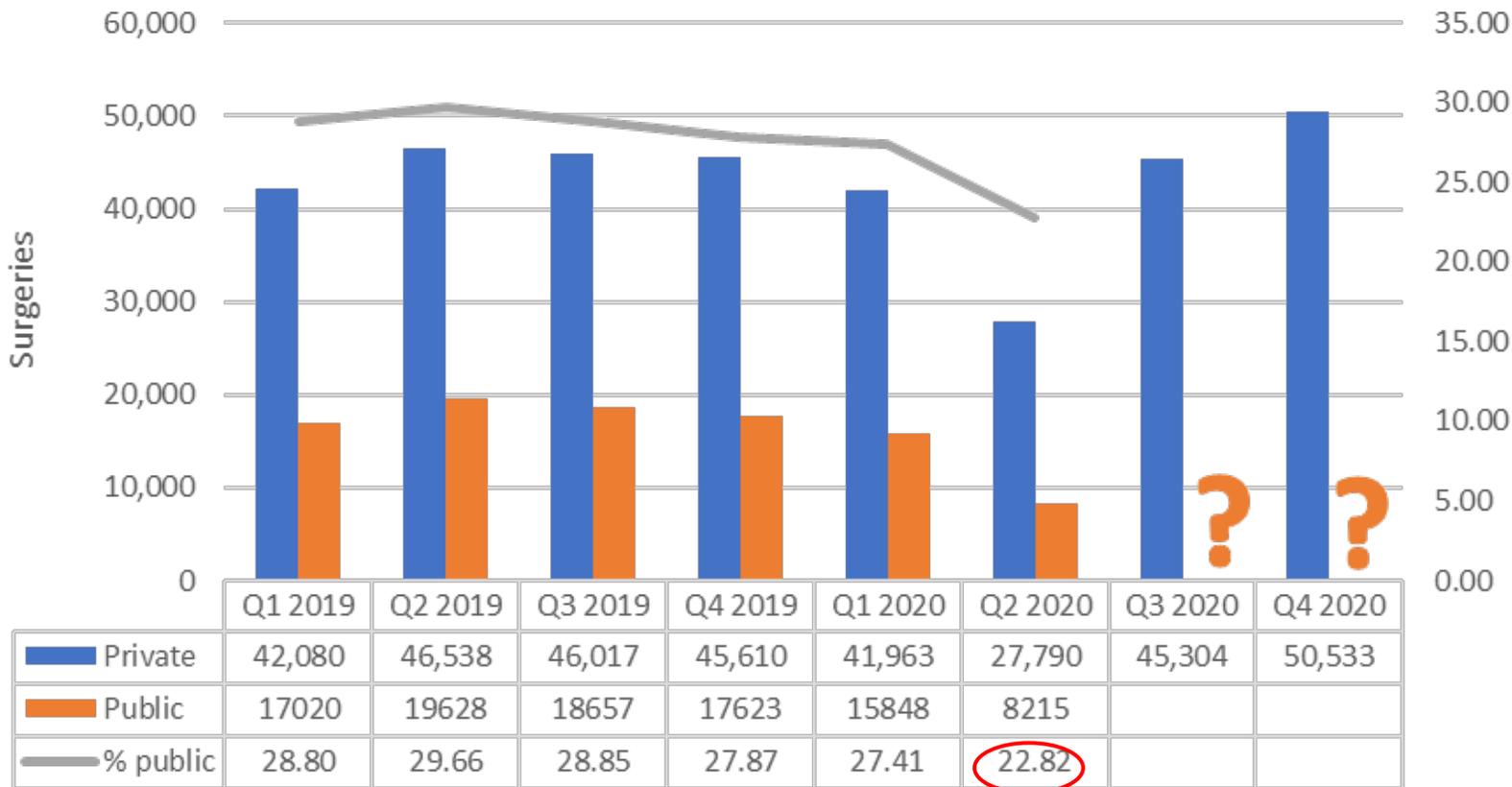
Average annual growth (5-year average 2014-19): 2.3%



Cataract surgery (private and public): National

- Combining national public and private data, we see that the drop in surgeries in Q2 2020 also reduced the share of public cataract surgery from total.
- Currently AIHW

Cataract surgery - public and private (national)



Source for data underlying charts:

MBS data:
<http://medicarestatistics.humanservices.gov.au>
 AIHW data:
<https://www.aihw.gov.au/reports-data/myhospitals/intersection/activity/eswt>
 NSW data:
https://www.bhi.nsw.gov.au/Healthcare_Observer/
 VIC data:
<https://vahi.vic.gov.au/elective-surgery/patients-treated-surgical-specialty>



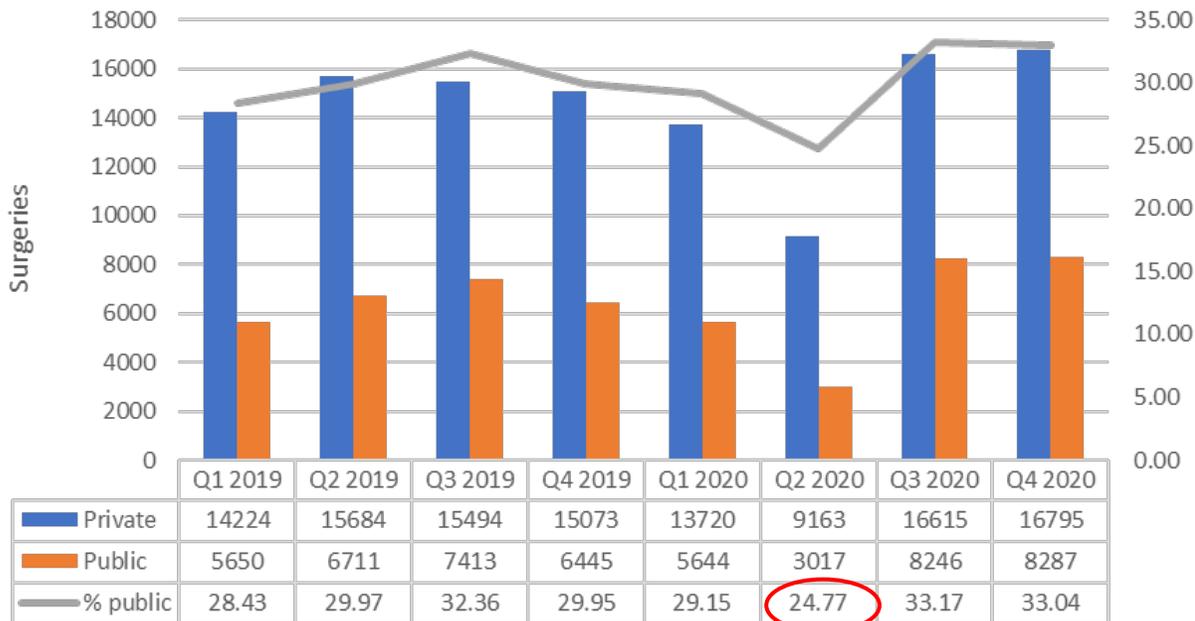
Cataract surgery (private and public): Jurisdictional

- While most jurisdictional data not available to the same level as MBS data, specific NSW case study shows a bigger increase in public compared to private for Q3-4. VIC 2nd wave (Q3) had an even deeper impact on the share of public.
- This analysis is relevant given the differing rates of reliance on public, and also speaks to the capacity of the system to recover.

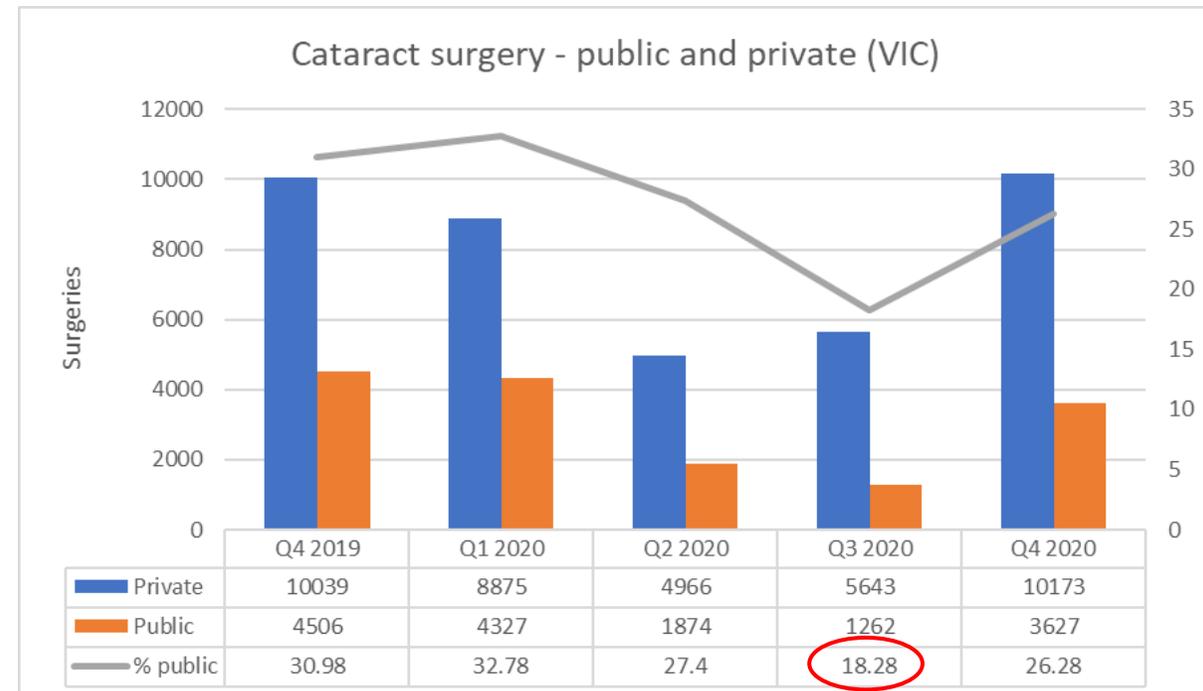
Source for data underlying charts:

MBS data: <http://medicarestatistics.humanservices.gov.au>
 AIHW data: <https://www.aihw.gov.au/reports-data/myhospitals/intersection/activity/eswt>
 NSW data: https://www.bhi.nsw.gov.au/Healthcare_Observer/
 VIC data: <https://vahi.vic.gov.au/elective-surgery/patients-treated-surgical-specialty>

Cataract surgery - public and private (NSW)



Cataract surgery - public and private (VIC)





Indigenous-specific screening MBS items

Rates of 715 health checks compared with equivalent period a year prior (%)

	NSW	VIC	QLD	SA	WA	TAS	ACT	NT	Aust
Mar-20	92.10	70.41	79.63	78.42	72.00	107.47	78.57	75.38	81.92
Apr-20	59.39	35.09	60.12	64.72	51.39	53.74	75.00	76.72	59.93
May-20	68.40	51.08	72.44	78.61	66.09	78.34	75.50	81.45	70.83
Jun-20	87.65	100.60	91.70	94.83	93.75	89.95	76.88	84.16	89.91
Jul-20	87.57	73.25	92.90	95.85	85.73	102.41	72.20	81.69	88.35
Aug-20	75.99	51.59	74.93	92.85	90.76	89.63	103.45	90.90	78.71
Sep-20	88.46	73.97	88.85	105.85	100.53	103.61	116.20	95.90	91.34
Oct-20	85.97	81.74	90.59	95.58	80.42	108.21	64.63	83.24	86.96
Nov-20	102.13	96.51	100.74	90.64	84.10	94.77	133.04	79.62	95.92
Dec-20	103.95	92.44	106.81	93.04	100.12	116.12	88.52	83.86	101.10
Jan-21	84.48	99.31	85.25	82.75	93.29	100.60	90.00	97.33	87.89
Feb-21	91.19	95.39	96.99	107.43	93.72	109.64	63.20	92.00	94.53
COVID year total (Mar-Feb)	85.35	74.93	86.08	89.93	83.21	96.42	84.89	84.59	85.21

Legend (%)

-50
50-75
75-95
95-105
105-125
125-150
150+

Average annual growth
(5-year average 2014-19): 10.1%

Rates of 12325 retinal screening compared with equivalent period a year prior (%)*

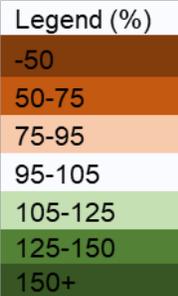
	NSW	VIC	QLD	SA	WA	NT	Aust
Mar-20	44.44	75.00	43.21	10.00	54.05	2.90	31.90
Apr-20	40.00	6.25	16.67	-	32.56	100.00	24.56
May-20	25.00	33.33	56.82	16.67	14.12	20.37	26.67
Jun-20	7.69	52.38	184.21	61.11	62.50	350.00	74.63
Jul-20	100.00	178.57	105.56	0.00	48.84	75.00	84.85
Aug-20	0.00	63.64	64.00	60.00	63.64	150.00	72.06
Sep-20	161.11	30.00	108.57	0.00	138.00	650.00	148.33
Oct-20	100.00	200.00	82.14	200.00	123.53	74.07	109.77
Nov-20	271.43	0.00	80.95	24.00	113.51	137.50	91.30
Dec-20	33.33	0.00	88.89	25.00	96.15	233.33	87.95
Jan-21	333.33	8.70	129.41	300.00	79.55	63.33	90.32
Feb-21	114.29	50.00	44.44	1100.00	187.50	0.00	91.67
COVID year total (Mar-Feb)	85.94	47.37	68.26	69.62	77.31	77.90	72.93

* Tasmania and ACT were excluded due to lack of claims in 2019

Intravitreal injections (private)

Rates of intravitreal injections (42738-9) compared with equivalent period a year prior (%)

	NSW	VIC	QLD	SA	WA	TAS	ACT	NT	Aust
Mar-20	103.78	111.99	109.82	108.36	109.03	93.70	95.33	159.18	106.63
Apr-20	105.70	109.08	104.25	106.27	105.64	96.98	114.33	146.00	106.04
May-20	91.10	94.30	83.99	93.91	86.12	106.04	106.13	93.51	91.02
Jun-20	111.73	120.57	111.87	114.72	115.18	113.24	99.01	135.71	113.79
Jul-20	114.60	114.00	106.52	116.36	110.32	101.59	111.29	166.67	112.50
Aug-20	96.34	99.61	96.66	98.42	96.06	102.20	107.14	149.15	97.56
Sep-20	119.34	124.32	120.78	113.73	108.63	120.95	105.74	120.59	119.04
Oct-20	101.08	109.34	108.32	105.26	109.86	110.07	106.49	133.33	105.32
Nov-20	111.36	119.42	109.97	108.10	101.96	97.28	111.38	201.85	111.26
Dec-20	111.68	118.69	108.40	114.56	126.40	128.51	102.53	107.25	114.13
Jan-21	98.15	107.29	100.49	96.89	105.67	91.52	96.90	131.17	100.58
Feb-21	109.00	113.21	110.39	111.94	111.62	119.02	107.20	123.46	110.80
COVID year total (Mar-Feb)	105.81	111.47	105.55	106.95	106.57	106.30	105.33	135.63	107.06



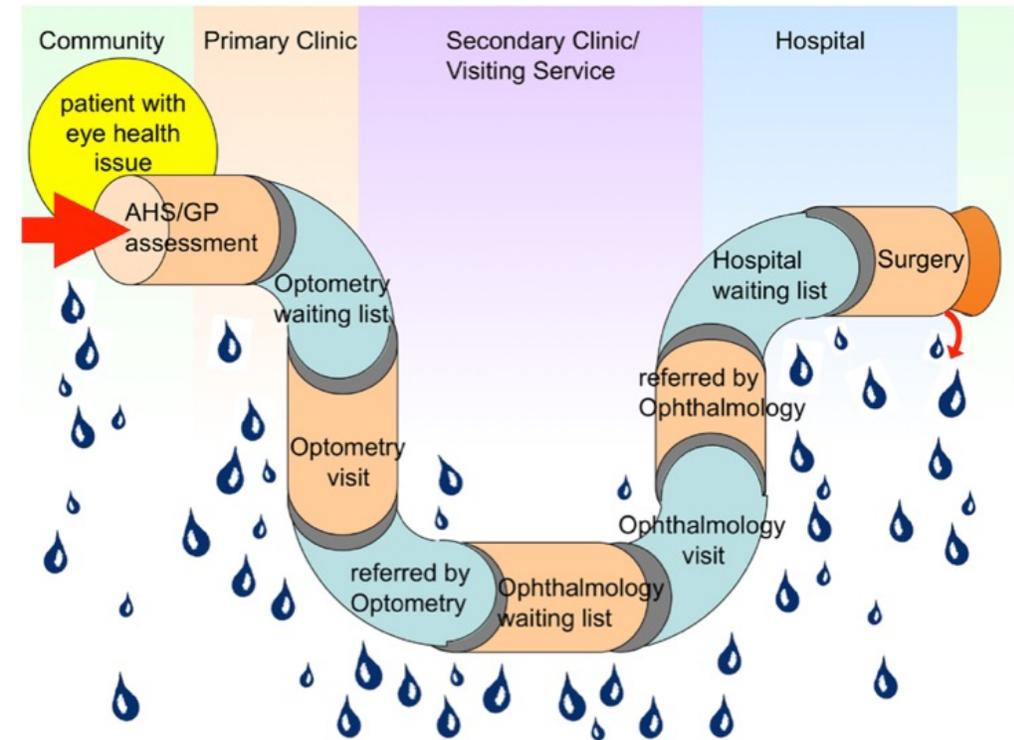
Average annual growth
(5-year average 2014-
19): 12.3%



Does the data tell us whether COVID impacted on the gap for vision?

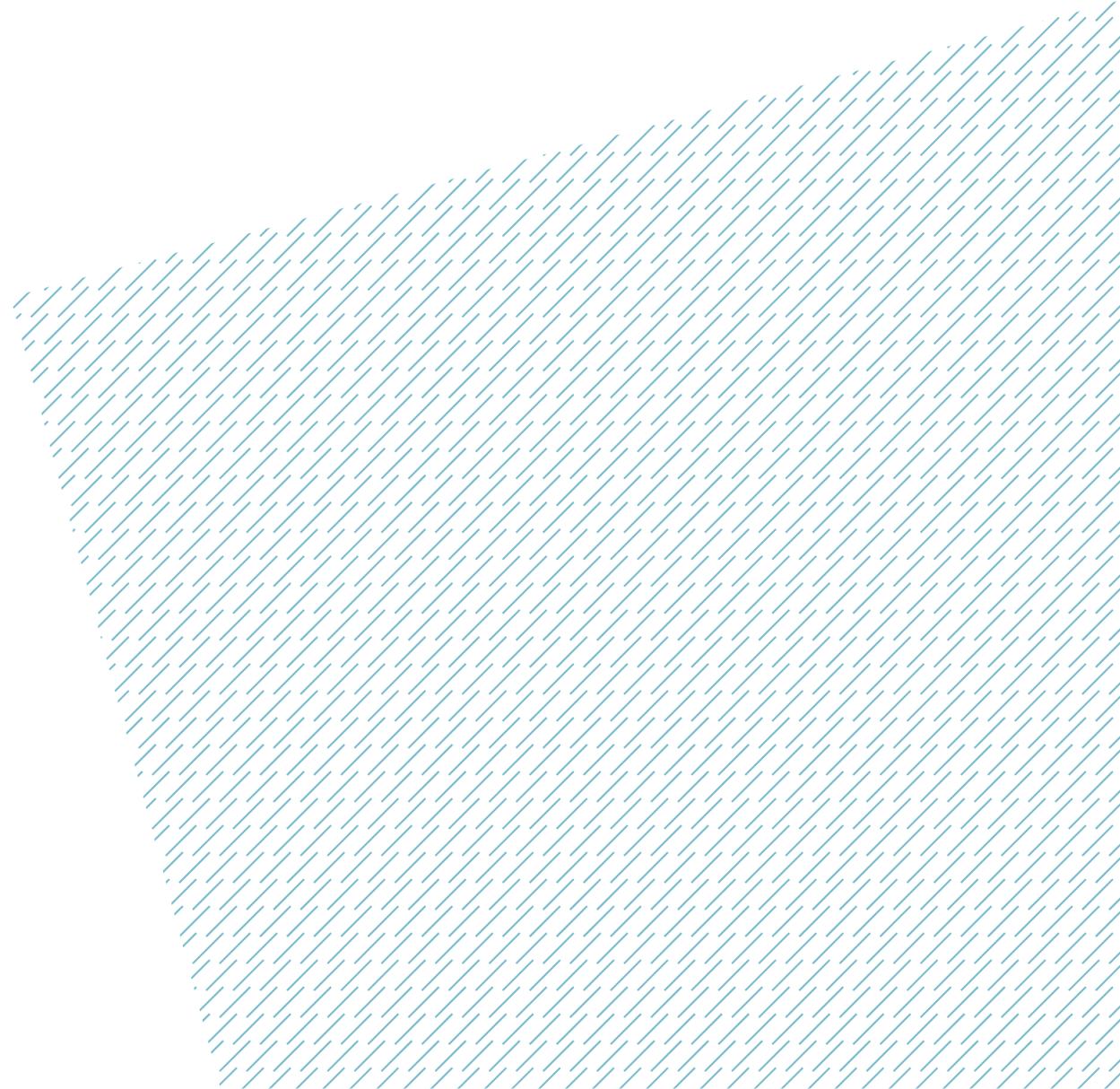
Not yet, but there are some important clues in the data.

- Whole-of-population reduction in elective surgery loads
- Differing impact on public/private, coupled with differing reliance on public and enduring inequity in public system waiting time
- We should consider the impact of COVID-19 on all parts of the pathway (the 'leaky pipe' concept).
- Potentially higher impact on screening/detection for Indigenous patients may not reflect in whole-of-pop treatment, but can potentially worsen outcomes in future.





3. Existing strategies and recommendations to improve access





Existing strategies and recommendations

Local/regional strategies

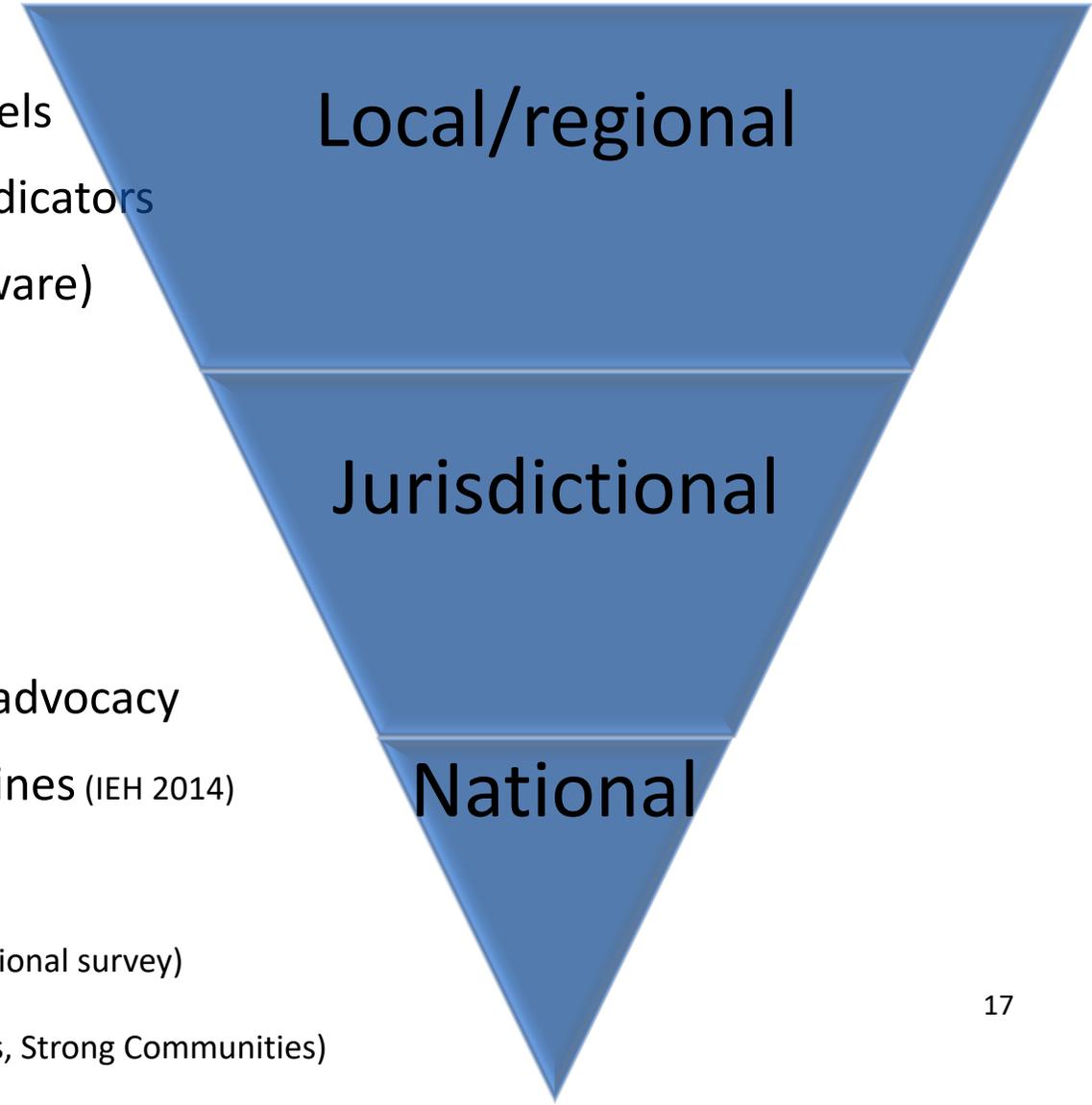
- Regional groups developing local pathways and service models
- Local data ownership, sharing and analysis using updated indicators
- Improved Indigenous identification (AtQ, referrals, clin software)
- ACCHO-centered approaches / building on COVID success
- Cultural safety (Tremblay et al 2020)

Jurisdictional-level strategies

- Jurisdictional advisory groups identifying issues and shared advocacy
- Inclusion of Indigenous status in clinical prioritisation guidelines (IEH 2014)

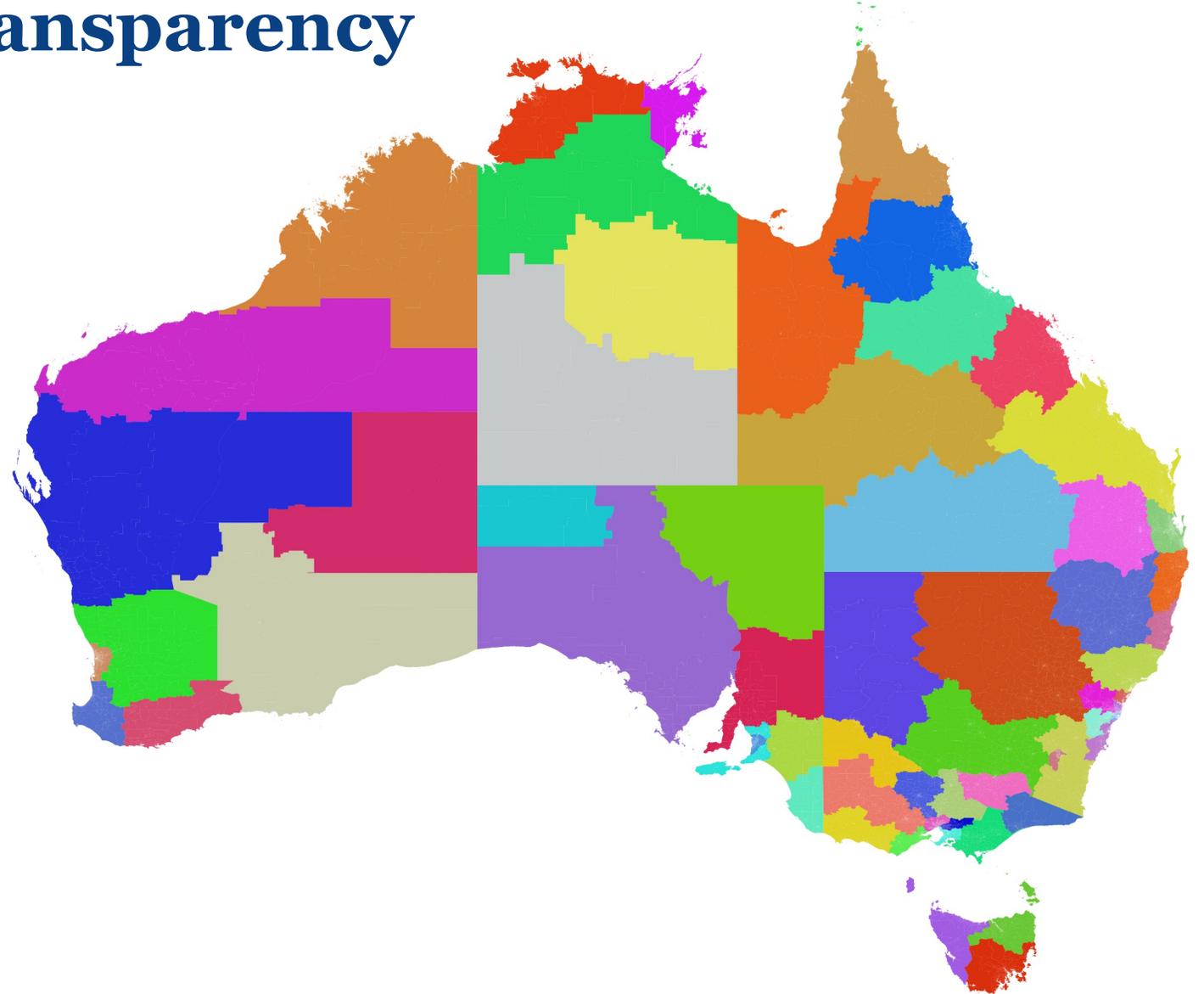
National-level strategies

- Embedding eye health data reporting and analysis (eg AIHW, national survey)
- Advocacy to fund existing sector recommendations (Strong Eyes, Strong Communities)



Data flow and transparency

- Data flow between the different levels provides a way to 'triangulate' data
- Data work use must be linked to service planning and continuous system improvement
- Transparent data flow both requires and supports local collaborations
- Transparent data flow empowers ACCHOs and regional collaborations to design, maintain, advocate for, and improve local eye care pathways





Final thought on health data...

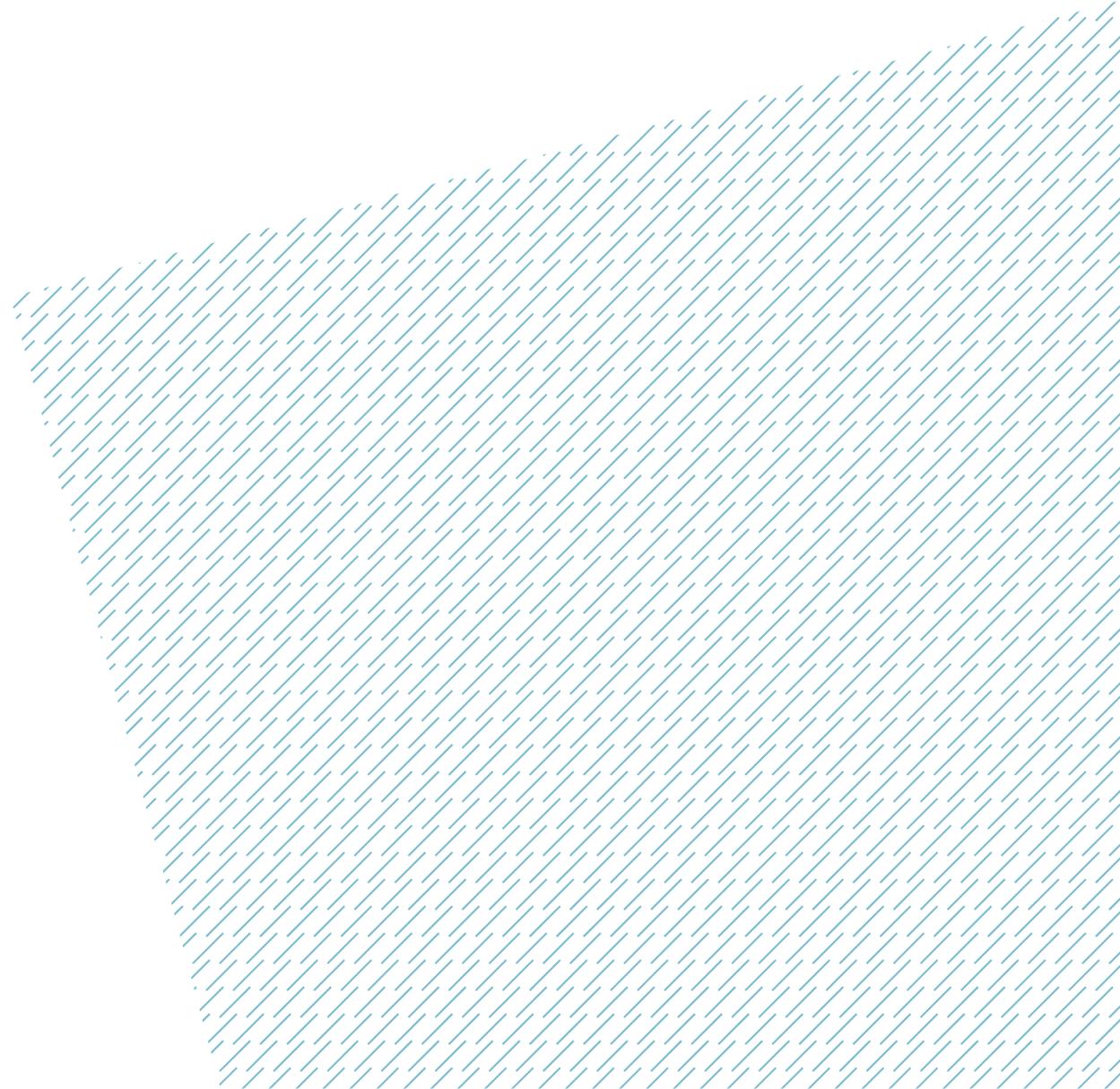
From a new article: In the pursuit of equity: COVID-19, data and Aboriginal and Torres Strait Islander people in Australia

(Kalinda Griffiths, Ian Ring, Richard Madden, and Lisa Jackson-Pulver, 2021)

"There are still many data issues regarding Aboriginal and Torres Strait Islander identification and reporting in pandemic surveillance. We have seen that the lack of identifier of pathology request forms results in no information for the crucial issue of testing rates. As we look to the future, data issues may also arise again with regards to vaccine coverage. A potential solution to this is to invest in population specific data governance within nations. For Aboriginal and Torres Strait Islander people, this is enacting self-determination in the collection and use of data."



4. Conclusions





Conclusions

- More evidence is needed to understand and measure the impact of COVID-19 on the gap for vision.
- However, higher impact on screening/assessment than treatment items, coupled with high reliance on public hospitals and enduring wait times inequities, all point to possibly differing impact.
- Pre-COVID, outcomes not equitable, so we need to do better than return to “business as usual” – normal capacity won’t close the COVID gap as it didn’t close the pre-COVID equity gap.
- Early evidence hints to a bigger impact on screening than treatment, which may mean further delays in diagnosis and treatment down the line.
- Therefore, **we can still reduce the impact of COVID-19 on the gap for vision**, by strengthening screening and reducing delays in treatment.
- Strengthening the data, and local data ownership
- Particular data gap noted for DR access to treatment
- Existing recommendations and strategies for improving equity are still only partially implemented/ funded
- Momentum of collaboration on all 3 levels key to address access disruptions



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Thank you

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