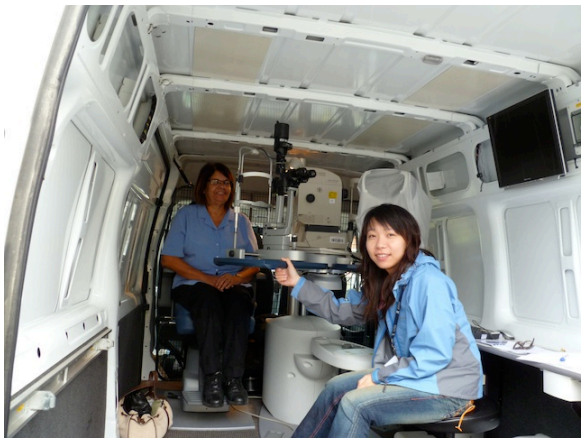
EVALUATION OF THE VICTORIAN ABORIGINAL SPECTACLES SUBSIDY SCHEME

2016 Report



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By

Minne-Merri Consultants

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Title page photographs

- Left – VASSS frame sample
- Right – Inside the ACO Outreach mobile clinical services van

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ABBREVIATIONS AND DEFINITIONS

ABS	Australian Bureau of Statistics
ACO	Australian College of Optometry
ACCHO	Aboriginal Community Controlled Health Organisation
AHW	Aboriginal Health Worker
BF	Glasses with bifocal spectacle lenses
CHC	Community Health Centre
DHHS	Victorian Government Department of Health and Human Services
GBD	Global Burden of Disease studies
HCC	Health Care Card
IEH	Indigenous Eye Health, University of Melbourne
LGA	Local Government Area
MF	Glasses with multifocal spectacle lenses (same as a PAL)
PAL	Glasses with Progressive Addition Lenses (same as a MF)
PCC	Pensioner Concession Card
RAP	Reconciliation Action Plan
RWAV	Rural Workforce Agency Victoria
SV (& SVD/SVN)	Glasses with single vision spectacle lenses (for distance or near vision)
URE	Uncorrected Refractive Error (poor vision that is correctable with visual aids such as glasses or contact lenses)
VACCHO	Victorian Aboriginal Community Controlled Health Organisation
VA	Visual Acuity (a measure of clarity of sight)
VAHS	Victorian Aboriginal Health Service
VASSS	Victorian Aboriginal Spectacles Subsidy Scheme
VES	Victorian Eyecare Service
VES Rural practice	Privately owned and operated eye care practice, with some services subsidised by VES and VASSS via funding coordinated by ACO
VI	Vision Impairment
VOS	Visiting Optometrists Scheme
WHO	World Health Organization

EXECUTIVE SUMMARY

The Victorian Aboriginal Spectacles Subsidy Scheme (VASSS), a Victorian State Government initiative introduced in 2010, is an additional subsidy of the statewide Victorian Eyecare Service (VES) managed by the Australian College of Optometry (ACO). The VASSS aims to improve access by Aboriginal Victorians to high quality glasses, and in doing so, seeks to contribute to broader aspects of closing the gap in vision between Aboriginal and non-Aboriginal Victorians.

The 2016 VASSS Evaluation sought to build on the 2012 Department of Health and Human Services (DHHS) VASSS evaluation, and fit within the 2015 DHHS evaluation plan for the Koolin Balit. The Evaluation aimed to assess the Scheme's effects on access to glasses for Aboriginal Victorians, Aboriginal uptake of primary eye care, identification of vision-threatening eye disease, referral of eye disease treatable by ophthalmologists, Aboriginal community involvement in the process of eye health planning, and awareness of eye health risks within the Victorian Aboriginal community. The 2016 VASSS Evaluation Report is structured around these aims.

Findings

The Evaluation demonstrates that the VASSS is very well received by stakeholders and continues to successfully fulfil its main objective (improved access to high quality affordable glasses for Aboriginal Victorians) and its first additional outcome (increased Aboriginal uptake of primary eye care). The success appears to be due to a combination of flexible funding from DHHS Aboriginal Health and Well-Being Branch, the long-term stability of VES funding, the diligence, hard work and networks of the ACO and its staff, the contributions of VES Rural practitioners, Visiting Optometrists Scheme (VOS) funding, the efforts of partner agencies, concurrent programs such as the Victorian Aboriginal Community Controlled Health Organisation's (VACCHO's) State-wide Eye Health Project Officer role, policy leadership from Indigenous Eye Health at the University of Melbourne (IEH), and coordination via the Statewide Aboriginal Eye Health committee. In short it appears to be a highly successful collaboration that all partners have invested in and played an important role in. Some highlights include:

Access to refractive care (uptake of primary eye care and access to high quality visual aids)

- In the 3 years pre-VASSS, the number of ACO eye examinations for Aboriginal Victorians[i] was steady between 300 and 350 annually, but has gradually increased during the 6.5 VASSS years[ii] to reach almost 3,200 examinations in the last year (Figure 1)

- Almost 11,000 VASSS co-funded visual aids have been delivered to date, meaning the program is on target[iii] to surpass the DHHS commitment of 12,712[iv] VASSS visual aids from 1 July 2010 – 30 June 2017 (Figure 2)

- Initial growth in VASSS visual aid deliveries (2010-11) was driven by the ACO's direct service delivery, while more recent growth has been from delivery in partnership with VES Rural practices (Figure 2). In addition to the ACO's work and collaborations, the benefits of regional programs such as the Koolin Balit Regional Aboriginal Eye Health Projects are apparent in the changes over time (Figures 8-14)

- The spread of eye examinations and VASSS visual aid deliveries has been mapped (Figures 3 – 6). As a ratio to Aboriginal population, the northern and western Melbourne metropolitan communities have had better access opportunities than the southern and eastern metropolitan communities.

[i] This includes only VASSS-related ACO eye examinations; it does not include VASSS-related VES Rural eye examinations due to the limitations of data collection from VES Rural practices

[ii] The VASSS was not an isolated intervention so all change cannot be ascribed to it, however it does appear a core part of the positive change

[iii] 13,049 visual aid deliveries by 30 June 2017 based on a 3 year average, or 13,255 based on the last 12 months only

[iv] This includes original Close the Gap funding for 1800 metro visual aid deliveries (ASSS Grant A), additional funding for 1069 rural deliveries (ASSS Grant B), 1125 top-up funding (Continuity Funding from April 2012), Koolin Balit funding for 6618 deliveries, then a top-up of 2100 deliveries (committed October 2015) = 12,712

- The $10 co-payment is reported as fair and reasonable, and appears to assist developing a sense of self-agency in approaching health care that could have wider benefits ("Cost" subsection of "Achievements against the main objective of the VASSS")

- There is no one-size-fits-all service delivery model that could be applied across the state – there are different opportunities and different challenges in each place. Different mixes of visiting optometry services and VES Rural practices work well in different places (Figures 8-14)

- Most participating VES rural practices chose to join the VASSS to contribute to Aboriginal eye and vision health, however other financial, time and physical stressors (e.g. Medicare freeze, client non-attendance, limited space) can impact on sustainability/ participation in the scheme ("VES Rural Practice participation" subsection of "Review the service delivery model")

- While positive stories show that VES Rural practices can be a critical part of successful service delivery of Aboriginal eye care, other VES Rural practices do not yet present a culturally safe place for Aboriginal people ("Review the service delivery model")

- The VASSS frame range is mostly well received, but some Aboriginal community stakeholders see a role for broader input from more diverse ages, regions and genders in selecting the frames ("Spectacle frame suitability" subsection of "Achievements against the main objective of VASSS")

Identification of vision threatening eye disease, and awareness of eye health risks

- The ACO and partner agencies have achieved a great deal in the last 6.5 years, but there is room for more selective targeting of patients, depending on which risks/barriers to care are to be prioritised (refractive, eye disease, systemic disease, disabilities, incarceration history, etc) (Figure 18)

- The VASSS appears to raise awareness of eye health risks within Aboriginal communities, although health promotion by service providers may need to better accommodate a range of health literacy levels ("Achievements against VASSS additional intention 5")

Referral of eye disease treatable by ophthalmologists

- There are challenges for Aboriginal Victorians with vision-threatening eye disease to attend appropriate ophthalmologic services, particularly in rural and regional areas. But when primary eye care is facilitated to detect disease, and supportive ACCHOs have access to the necessary funding sources, good outcomes are achieved ("Achievements against VASSS additional intention 3")

Aboriginal community involvement and broader effects

- Aboriginal community stakeholders noted that deeper, broader and genuine interactions and input into the process of planning eye health strategies at the ACO would be welcomed ("Achievements against VASSS additional intention 4")

- VASSS appears to generate broader benefits than correcting vision and detecting eye disease – it is commonly described that this simple, positive outcome (getting glasses, seeing better) from having an eye examination, improves self-agency, engagement with culture and community, and broad aspects of Aboriginal (holistic) health ("Aboriginal health" subsection of "VASSS Impact")

- The ACCHOs and other agencies that host visiting services provide support that is critical to achieving eye care access, particularly for the most complex clients ("ACO visiting services")

Additional analysis

- While based on aspirational economic data, a standard health economics calculation suggests that the VASSS investment may return greater value to Victoria in productivity gains than it has cost ("Health economics" subsection of "VASSS Impact")

- VASSS substantively conforms to sector-endorsed principles for supply of subsidised spectacles to Aboriginal peoples ("Comparison of VASSS to sector-endorsed principles" subsection)

- The number of Aboriginal Victorians (all ages) accessing VASSS visual aids over the 2015-16 financial year was estimated to be 2,186, compared to the IEH calculator estimated number of people over 40 requiring glasses each year of 2,411[v] ("Comparing current service delivery to need" subsection of "Review of the service delivery model")

- The ACO performed 3,182 comprehensive eye examinations for Aboriginal Victorians over the 2015-16 financial year, compared to the IEH calculator estimated annual need for eye examinations of 6,409 for Aboriginal Victorians[vi] ("Comparing current service delivery to need" subsection of "Review of the service delivery model")

Main Messages

The Evaluation findings lead to the following conclusions[vii]:

1. The overarching conclusion is that continuing the VASSS is imperative to achieving equitable access to visual aids by Aboriginal Victorians, and the direct and indirect benefits to health, Aboriginal health, productivity and quality of life that result

2. VASSS funding should be increased to the level of need, or, *only if budget necessitates*, restricted in a way that is most likely to fulfil a policy aim (e.g. preferentially encouraging access by those with the greatest vision impairment from uncorrected refractive error and/or at highest risk of vision-threatening eye disease, and/or by those in greatest financial stress, while discouraging others)

3. The VASSS patient co-payment should remain at $10, with consideration of co-payment tiers *only if needed* to limit access and drive targeting towards those in highest need or at greatest risk

4. Funding flexibility through VASSS and/or VOS is likely to be needed to continue, improve and expand on the role of regionally-based practitioners, who are a useful component in enabling service delivery models to be reactive to local need, preference and opportunity, thereby improving the likelihood of continued success and sustainability

5. Regional Aboriginal Eye Health Projects appear to be significant enablers of the VASSS and should continue where possible

6. DHHS Aboriginal Health and Well-Being Branch should consider adding a Monitoring, Evaluation and Learning component to the VASSS funding and contract with the ACO, to facilitate:
    - continuous quality improvement and service prioritisation via ongoing monitoring of variables such as geographic distribution of VASSS visual aids and eye examinations by all providers
    - annual program-wide reviews with a panel representative of Victorian Aboriginal Communities, practitioner peer-peer review of problems/successes encountered during VASSS work, and open fora for participating VES Rural practices
    - the ability of VASSS monitoring and evaluation to influence future decision-making at DHHS by improving ACO and VES Rural data collection systems to overcome current limitations

[v] Based on 2011 ABS Census data, and noting that the IEH calculator does not give a direct estimate of the need for VASSS because it does not include people younger than 40, and we do not know what proportion of the Aboriginal community choose to access visual aids privately as opposed to via the VASSS

[vi] Based on 2011 ABS Census data, and noting that we don't know whether the VASSS is supporting (via decreased barriers to care, etc.) the right number of comprehensive eye examinations because we don't know how many examinations it supports in VES Rural practices, nor the proportion of the Aboriginal community who choose to access their eye examinations privately as opposed to via VES with VASSS facilitation

[vii] References supporting all points are provided in the "Conclusions" section of the full Evaluation Report

7. Consider funding slit lamp biomicroscopes for ACCHOs, as they are a powerful and important piece of equipment in the identification of (and management of some) vision threatening eye disease

8. Consider funding options for the eye disease diagnostic procedures conducted in VES Rural practices that are not covered by Medicare

9. Include a health promotion and education component in the Scheme to:

    - support optometry access pathways that encourage the Aboriginal Victorians at highest risk of vision impairment to make and attend VASSS-supported comprehensive eye examinations
    - investigate, in consultation with VACCHO, options to train a group of AHWs to deliver glasses (frame adjustments and vision check) and do some minor repairs, and support them to fulfil the role of delivering glasses at their ACCHO over time

BACKGROUND

The Victorian Aboriginal Spectacles Subsidy Scheme (VASSS) is an additional subsidy to the statewide Victorian Eyecare Service (VES)**.** The VES is funded through the Department of Health and Human Services (DHHS) Ageing and Aged Care Branch and administered by the Australian College of Optometry (ACO). VES funding covers the provision of services, costs not met by Medicare, visual aid subsidies, and the targeting, liaison and engagement of specific client groups. VES is available to residents of Victoria who have a current Health Care or Pensioner Concession Card, care involving Child Protection services, identify as an Aboriginal or Torres Strait Islander, or belong to another specific client group identified as experiencing barriers to accessing eye care.

The VASSS is funded through the DHHS Aboriginal Health and Well-Being Branch. It originated from a stakeholder suggestion at the invitation of then Victorian Health Minister Daniel Andrews, commencing in July 2010 with three years of Closing the Health Gap funding. It has been supported and funded by successive governments, with Koolin Balit funding from 2013 to 2017. The Statewide Aboriginal Eye Health committee has provided policy leadership and coordination, and has facilitated partnerships. The main objective of the VASSS is to improve access to high quality affordable glasses for Aboriginal Victorians. Additional intended outcomes are to:

1. increase Aboriginal uptake of primary eye care;
2. identify vision-threatening eye disease (e.g. cataract and diabetic retinopathy);
3. improve onward referral of eye disease treatable by ophthalmologists;
4. involve Aboriginal communities in the process of eye health planning; and
5. increase awareness of eye health risks within the Victorian Aboriginal community.

The VASSS encourages Aboriginal Victorians to routinely access vision assessments by reducing barriers associated with being prescribed spectacles. The VASSS:

- provides an expanded range of spectacle frames to those available through the VES, to improve patient choice and uptake of eye examinations and glasses. The frames were selected with input from community elders, facilitated by the Victorian Aboriginal Health Service (VAHS);
- provides visual aids at a patient contribution of $10.00 per aid (this includes single vision reading and distance glasses, or bifocals, or multifocals)[viii], and
- is available to all Aboriginal and Torres Strait Islander Victorians, regardless of Pensioner Concession Card or Health Care Card entitlements.

The 2016 VASSS evaluation was conducted by Minne-Merri Consultants for the ACO under contract with DHHS.

Aims of the evaluation

The DHHS published an evaluation plan for the Koolin Balit investment in March 2015. The plan identified the VASSS as one of the Koolin Balit's long-term investments that could potentially produce a case study demonstrating outcomes and achievements.

An earlier evaluation of the VASSS in 2012 found that the scheme was effectively facilitating access to spectacles and eye health examinations[ix] for Aboriginal people.[1] In addition, there was evidence of early identification of vision-threatening eye disease, and thus prevention of blindness beyond correction of uncorrected refractive error.[1] The 2016 evaluation sought to build on the 2012 evaluation, by reviewing the VASSS and trying to understand its effects on the health and wellbeing of Aboriginal Victorians.

[viii] The $10 patient copayment refers to clear lenses; photosensitive lenses and other extras are available at additional cost

[ix] NB: "Eye health examinations" in this context means comprehensive examination by a registered optometrist, which may or may not lead to prescription of glasses and hence direct access to the VASSS. This is distinct from an eye health check that might occur with a general practitioner in MBS item 715 Aboriginal Health Check or a chronic disease assessment item

The primary aim of the 2016 VASSS evaluation was to assess the effects of the VASSS against its intended core objectives and outcomes, which are affordability and cost certainty in access to high quality eye examinations and spectacles, a suitable choice in spectacle frames, and increased uptake of eye care services.

The primary evaluation objectives were therefore to:

- review the service delivery model, with a comparison of the VASSS against sector-endorsed principles for the national provision of eye care to Aboriginal people, including cultural appropriateness, linkage with existing providers and infrastructure, continuity, affordable spectacles, sustainable referral methods and provision of continuing education to local eye health workers;
- describe the VASSS's reach, successes, limitations and barriers, including geographic extent/access points, community engagement and community awareness;
- explore and compare advantages, disadvantages, staff experiences and cultural appropriateness of service delivery by a range of service models (e.g. ACO staff within ACCHOs or Community Health Centres (CHCs), private optometrists within ACCHOs or CHCs, private optometrists within their own practices, ACO staff within ACO facilities);
- consult with community members to capture consumer experiences of the VASSS that relate to the broader concept and objectives of Aboriginal holistic health[x];
- identify opportunities and recommend future improvements for the VASSS.

Given the broader associated objectives of the VASSS, secondary objectives of the 2016 VASSS evaluation were to explore and comment on:

- whether the impact of the VASSS can be isolated from other environmental factors, such as eye health projects and programs servicing the same population group, as well as dependencies such as the VES and Visiting Optometrists Scheme (VOS) through which the VASSS is delivered;
- the impact the VASSS may be having on prevention of vision loss through correction of refractive error and earlier identification of vision-threatening eye disease;
- the impact that provision of spectacles has on individual and community health and well-being;
- the opinions of partner organisations (e.g. ACCHOs, private optometrists), and
- the alignment of the VASSS with relevant national indicators for eye health.

[x] The National Aboriginal Community Controlled Health Organisation's definition of "Aboriginal health" is broader than the physical well-being of an individual – it includes a holistic view of the social, emotional and cultural wellbeing of the whole community in which each individual is able to achieve their full potential as a human being

METHODOLOGY

The evaluation:

- built on the work of the 2012 VASSS evaluation;
- was guided by the Project Steering Group, which included representatives of Victorian Aboriginal communities, DHHS, ACO, and experts in the conduct of evaluation with Victorian Aboriginal communities; and
- received input from people with experience conducting qualitative evaluation research and/or evaluation with Victorian Aboriginal communities.

The mixed methods approach to collection of both quantitative and qualitative data, with the intention of fulfilling the aim and objectives of the 2016 evaluation, included:

- document review and selective literature review, with all references listed in Appendix 3
- descriptive statistical analyses of ACO service delivery data, including geographic mapping and temporal trends;
- discussions, semi-structured interviews, and/or focus groups with
    - 3 VACCHO staff
    - 20 ACCHO staff across 9 sites including CEOs, nurses, chronic care coordinators, Aboriginal Health Workers, reception, drivers, GPs, administrators, managers, researchers and a youth engagement officer
    - 10 ACCHO clients
    - 13 optometrists and other staff from 8 different VES Rural practices (with one key informant who doesn't offer the VASSS included for contrast)
    - 13 optometrists and other staff from the ACO
    - 6 government and/or policy people with special interest in the area,

and

- a survey of all (consenting) VES Rural practices who deliver the VASSS (n = 22 consenting, out of 26 total).

The evaluation was performed in adherence with the tenets of the Declaration of Helsinki, receiving approval from the ACO's Human Research Ethics Committee (HREC) – Project Number H16-001, with Tim Fricke and Sharon Bentley as Principal Investigators, approved on 14 June 2016. Additional advice on the ethical conduct of this evaluation was sought and received from the VACCHO Health Evidence Team. Aboriginal Community was engaged, and an iterative approach used, to ensure that questions asked and information supplied during and after the evaluation were appropriate and relevant to Community needs.

Key stakeholders, including the Aboriginal community, were engaged via individually appropriate mediums (face-to-face discussions or interviews, telephone discussions or interviews, focus groups, email, survey), utilizing common contacts for introduction. The goal was to create necessary space and time for reflective analysis and "sense making", with flexibility to influence the direction of the evaluation (e.g. in reaction to responses to a question such as, "How could the VASSS be changed to help you address eye care issues in your community?"). Immediate feedback was provided to communities during and after interviews, followed by community summary reports at the end of the evaluation process.

People can do more when they have better vision. Health economists describe such productivity changes in dollar terms, allowing analysis of how much of the cost of VASSS investment has been offset by the outcome of the VASSS investment. An estimate of potential productivity gains in people with vision improved by the VASSS and related services was performed using standard health economics methodology.[2]

The estimate of productivity change due to the VASSS was based on:

- the number of eye examinations that ACO optometrists have performed for Aboriginal Victorians from the start of the VASSS until 30 June 2016
- results of an ACO audit covering record cards of adult Aboriginal Victorians consecutively presenting for eye examinations, describing how many had near and/or distance vision impairment (VI) to different levels
- the assumption that this card audit was representative of all ACO eye examinations for Aboriginal Victorians from the start of the VASSS until 30 June 2016
- GBD 2015 disability weights[3]
    - 0.003 for mild distance VI, 0.031 for moderate distance VI, 0.184 for severe distance VI, 0.187 for distance blindness, and 0.011 for uncorrected presbyopia
- the 2014 Australia-wide all-ages labour force participation and employment rates from the World Bank, and gross state product per capita for Victoria 2013-14 financial year from the ABS to represent income
    - All of these figures are higher than those currently representing Aboriginal Victorians. They were used to generate an aspirational estimate of productivity gain in the community due to the VASSS investment
    - The estimate will only be realistic when the gap between Aboriginal and non-Aboriginal Victorians is closed for labour force participation, employment and gross state product per capita

The current number of comprehensive eye examinations and spectacles prescribed were compared to need. Need was estimated using the Indigenous Eye Health University of Melbourne (IEH) Calculator.[4] The IEH Calculator for the number of comprehensive eye examinations is based on achieving equality with non-Aboriginal Victorians (17% of whom access a comprehensive optometry examination each year[xi]).

Study limitations:

- Sampling for qualitative data was by opportunity and convenience, with attempts to cover known issues; it was not random nor systematic
- No systematic thematic analysis was done
- ACO supplied data were accepted without check
- Limited data could be obtained from VES Rural practices
- Several caveats on the estimation of need for comprehensive eye examinations and spectacles are discussed in the relevant section of Findings ("*Comparing current delivery to need*", in "*Review of service delivery model*")

[xi] Data provided by IEH in support of 17% annual eye examinations: there were 3.75million comprehensive optometry exams (Medicare items 10900 and 10912/3/4/5) provided to 22.1million Australians in 2010

FINDINGS

Access to and quality of refractive care for Aboriginal Victorians

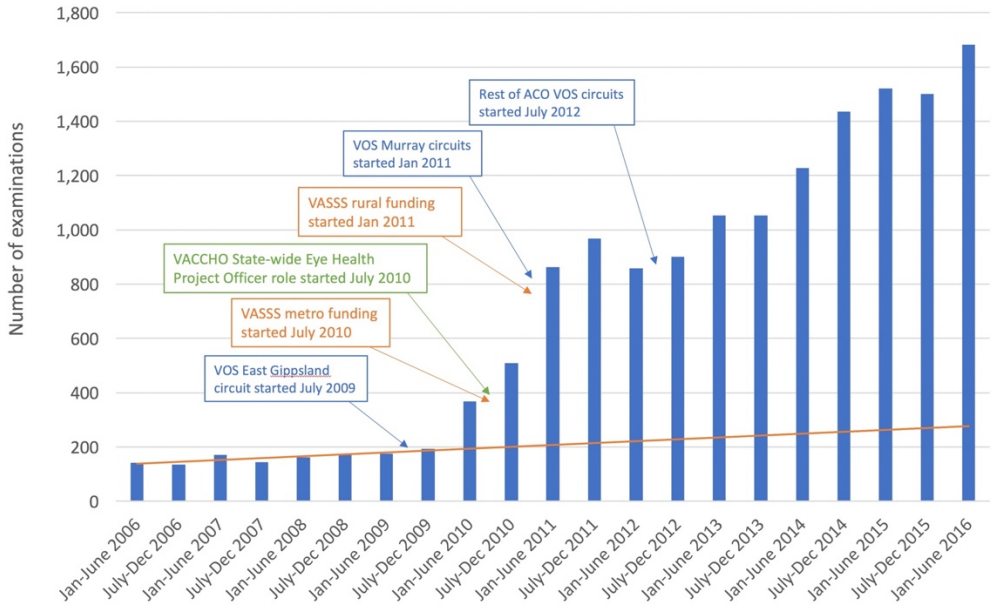
To achieve the main objective of the VASSS – to improve access to high quality affordable glasses for Aboriginal Victorians – a range of factors needed to coalesce to create a broader change: improved access to and quality of refractive care. The following sections analyse each of the factors that describe or contribute to access and quality of refractive care: service and delivery numbers, the geographic spread of services and deliveries, cost, cultural appropriateness of access points, visual aid type, and frame suitability.

Analysis of eye examination numbers

High quality glasses require access to detailed eye examinations. So the effect of VASSS on the number of detailed eye examinations provided to Aboriginal people by the ACO[xii] provides a measure of opportunity to access high quality glasses. Additionally, the number of eye examinations provided to Aboriginal people by the ACO is the best metric available for tracking the change in activity caused by the introduction of the VASSS – most other metrics only start at the time VASSS was introduced.

Data was obtainable for the number of eye examinations performed for Aboriginal Victorians for the period 1 January 2006 – 30 June 2016. Figure 1 shows a clear and distinct change in the trend in examination numbers at about the time VASSS was introduced.

Figure 1. Number of eye examinations conducted by ACO optometrists (i.e. not including those conducted in VES Rural practices) for Aboriginal Victorians over time. The blue columns show the actual number of examinations in each 6-month period from January 2006 to June 2016. The orange line is the linear trend of examination numbers for the period prior to the start of the VASSS, projected forward as a "no-intervention prediction" to June 2016. The start dates of relevant interventions are marked.



Of course, introduction of the VASSS is not the only change that has been made over this period. Amongst other things over the same period:

[xii] NB: All analysis of eye examination numbers is based only on vision care delivered by ACO staff for Aboriginal people around the state. Eye examinations for Aboriginal people in VES Rural practices, delivered by privately employed eye care practitioners in rural and regional Victoria, are not included as the data are not currently available.

- VACCHO's dedicated State-wide Eye Health Project Officer has significantly influenced community awareness and facilitated community relations
- IEH, Vision 2020 and the Statewide Aboriginal Eye Health committee convened by DHHS have provided policy leadership, coordination and partnership facilitation
- ACO partnerships with other agencies to provide examinations within communities have been increased (VES and VOS funding have been particularly important facilitators of services in Aboriginal communities)
- VES Enhancement funding enabled the ACO to employ an Aboriginal Liaison Officer, and
- the ACO committed to dedicated community engagement by appointing a Manager of Aboriginal Services.

In fact, there is an upturn in the number of consultations in the 6 months prior to the introduction of the VASSS, probably due to introduction of a VOS circuit at that time. However, the timing and sustained strength of the change in trend together with community comments regarding the effect of VASSS in overcoming barriers to care, suggest the VASSS is at the core of the change and essential to maintaining the improvement in access.

Projecting the 3-year trend prior to VASSS introduction (January 2006 – December 2009) through to June 2016 predicts the ACO would be providing about 280 eye examinations to Aboriginal people in the first half of 2016. The strong, steady and clearly different growth that starts at about the time point that VASSS was introduced, actually resulted in 1682 eye examinations being delivered – an impressive 6 times higher than the pre-VASSS trend would predict.

Comparing the linear growth trends in eye examination numbers before and after the introduction of the VASSS:

- 3 year linear growth before VASSS introduction = 7*(time period) + 131 (R^2 = 0.73)
- 6.5 year linear growth after VASSS introduction = 103*(time period) + 235 (R^2 = 0.94)
- i.e. year-by-year growth in eye examination numbers has been almost 15 times greater since VASSS was introduced compared to the 3 years prior to introduction

Projecting forwards, there is no indication that service demand will stop growing at the current funding level. The likely future level of demand and the appropriate size of this program are discussed in later sections (under "Review of the Service Delivery Model").

Summary:

- The VASSS has combined with concurrent efforts and projects to create genuinely improved access to eye examinations for Aboriginal Victorians since starting in mid-2010.

Analysis of visual aid delivery numbers

Delivery of visual aids to Aboriginal Victorians is the core contractual obligation of the VASSS agreements between state government and the ACO. The evaluator's understanding of DHHS-ACO agreements is:

- Close the Gap Aboriginal Spectacle Scheme Grant A – August 2010 agreement to deliver 1800 visual aids to Aboriginal people in metropolitan Melbourne
- Close the Gap Aboriginal Spectacle Scheme Grant B – February 2011 agreement to deliver 1069 visual aids to Aboriginal people in rural and regional Victoria

- Close the Gap Aboriginal Spectacle Scheme Continuity Funding – April 2012 agreement to deliver an additional 1125 visual aids to Aboriginal people as needed throughout Victoria (top-up to ensure uninterrupted service to 30 June 2013)
- Koolin Balit VASSS Funding – July 2013 agreement to deliver 6618 visual aids to Aboriginal people as needed throughout Victoria over 4 years (originally expressed as a minimum of 5700 visual aid deliveries)
- Koolin Balit VASSS Continuity Funding – October 2015 commitment to deliver an additional 2100 visual aids to Aboriginal people as needed throughout Victoria (top-up to ensure uninterrupted service to 30 June 2017).

These agreements total to first-pass commitments to deliver 1800+1069+5700 = 8,569 visual aids to Aboriginal people in Victoria between 1 July 2010 and 30 June 2017. The first-pass commitments were increased in 2012, 2013 and 2015 in response to delivery achievements, giving a total commitment to deliver 1800+1069+1125+6618+2100 = 12,712 visual aids to Aboriginal people in Victoria over the period.

In reality, the ACO and partners have delivered between 10,853 and 11,123 VASSS visual aids[xiii] across all ACO services plus VES Rural practices up to the end of June 2016. This included 4,940 visual aids by ACO directly, and 5,913 in VES Rural. The program is on target to deliver between 13,049 and 13,255 visual aids by 30 June 2017, based on a 3-year average or only the last 12 months to 30 June 2016 respectively. Each projection surpasses the DHHS commitment of 12,712 VASSS visual aids from 1 July 2010 to 30 June 2017. ACO internal calculations are projecting similarly and in response, they have acted to limit VASSS visual aid deliveries with communications to all involved optometrists in November 2016. They are aiming for a "soft" reduction (e.g. discouraging marginal prescriptions, repairing old pairs whenever possible) over 8 months rather than a hard stop in the last couple of months of the funding period. Even this soft approach to staying within DHHS funding limits has caused some dismay[xiv] amongst some partner organisations.

These numbers include multiple counts for patients who accessed more than one pair of spectacles (e.g. a pair for near vision and a pair for distance vision) at one time. It is only possible to exclude second and subsequent items on a single account (i.e. count the number of times patients received a refractive outcome, rather than the total number of spectacles they received) for ACO direct services. There were 4,497 separate times that patients received a refractive outcome, as compared to the 4,940 total visual aids delivered by the ACO directly (i.e. a 9% difference between the two indices). Most of the difference is likely due to people purchasing two pairs of single vision glasses – one for near and one for distance viewing. While there are some advantages (e.g. accessibility considerations) to counting the number of separate times that patients received a refractive outcome, the advantages were considered outweighed by the disadvantage of skewing analysis because of the inability to exclude second and subsequent items from a single account in VES Rural practices. That is, all subsequent analysis of visual aids delivered is based on the total aids delivered.

Figure 2 shows an initial growth phase driven by an increase in ACO direct visual aid deliveries from none to around 500/half year, then steady growth from 2012 deriving from increasing partnerships with VES Rural practices. VASSS dispensing directly by ACO has been essentially stable since the initial growth phase. The number of visual aids delivered compared to ACO-direct eye examinations performed in equivalent periods early in VASSS compared to more recently, suggests there has been growth in both VES Rural practices providing complete eye and refractive care, as well as ACO eye examinations generating dispensing for VES Rural practices.

[xiii] NB: The ACO systems can count a variety of metrics (e.g. frames, lenses, patients) but none provides a perfect representation of the number of visual aids delivered. For example, if analysis of the number of visual aids is based on frames delivered as part of the VASSS, an Aboriginal person receiving new lenses to their own frame, or contact lenses, or certain low vision aids, would not be counted. An Aboriginal person receiving a new frame for their old lenses would be counted, without necessarily improving their vision. Additionally, it appears difficult to do multi-level counts (e.g. count frames, then count lens pairs that were delivered into own frame, etc.). On balance, it was agreed that, of the metrics the ACO systems can count, frame number provided the best indication of the number of high quality visual aids delivered to Aboriginal Victorians.

[xiv] It appears difficult for some partners to switch from attempts at expanding reach and improving access, to trying (to some extent) to limit them.

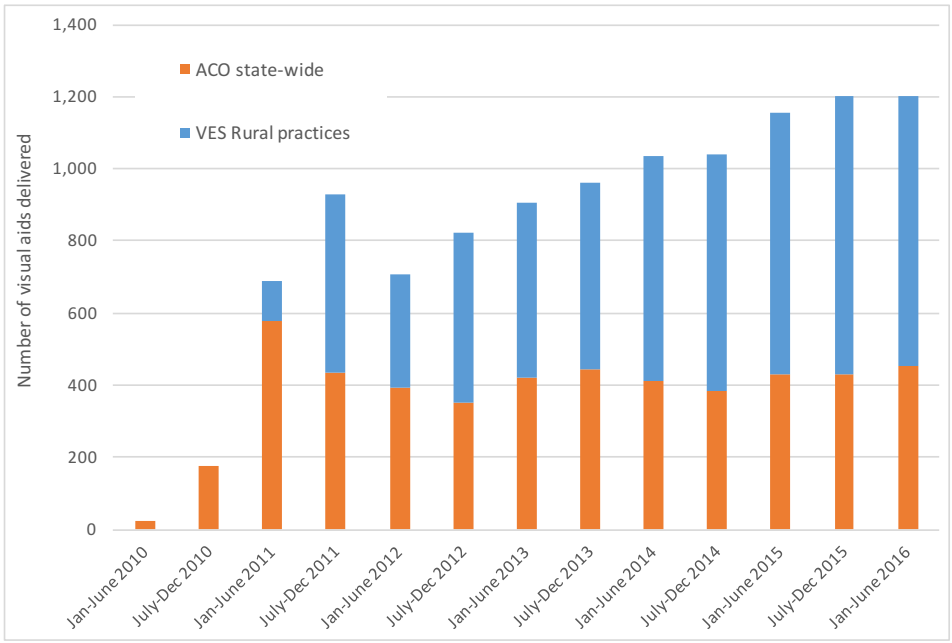


Figure 2. VASSS visual aid dispensing over time, divided into those delivered by ACO directly and those delivered by VES Rural practices (coordinated and supported (sometimes with provision of comprehensive eye examinations and spectacle prescriptions) by ACO)

Discussions with community bears out reasons for this growth. The following were common sentiments:

- "VES was an ordeal[xv] – the paperwork, the wait time to find out if a client was eligible, getting an appointment and keeping it, then most people didn't like the frames. There were so many steps that our service was unable to help clients navigate through it. The result was that most people didn't get glasses." (ACCHO Care Coordinator)

- "Glasses were very difficult to get before VASSS started. Twelve years ago, our people had to go to VAHS (an hour or 2 away) to get VES glasses that they usually didn't like. About 10 years ago, a local practice started offering VES, but people still didn't like the glasses. The VASSS has been amazing." (ACCHO Clinic Coordinator)

- "Before VASSS, people just used magnifiers from the $2 shop without having a test at all. This made glasses shameful – they were a symbol of weakness rather than strength. The VASSS means that people are getting a proper eye check and proper glasses. So, it has become a symbol of your ability to look after yourself – of strength" (ACCHO CEO)

- "The only major change that is needed in the VASSS is to make sure it can cater for growth" (ACCHO CEO)

Summary:

- The ACO is well on target to fulfil its core contractual obligations of the VASSS agreements with DHHS to 30 June 2017. The VASSS has combined with concurrent efforts and projects to create genuinely improved access to vision corrections for Aboriginal Victorians since starting in mid-2010.

Geographic distribution across Victoria

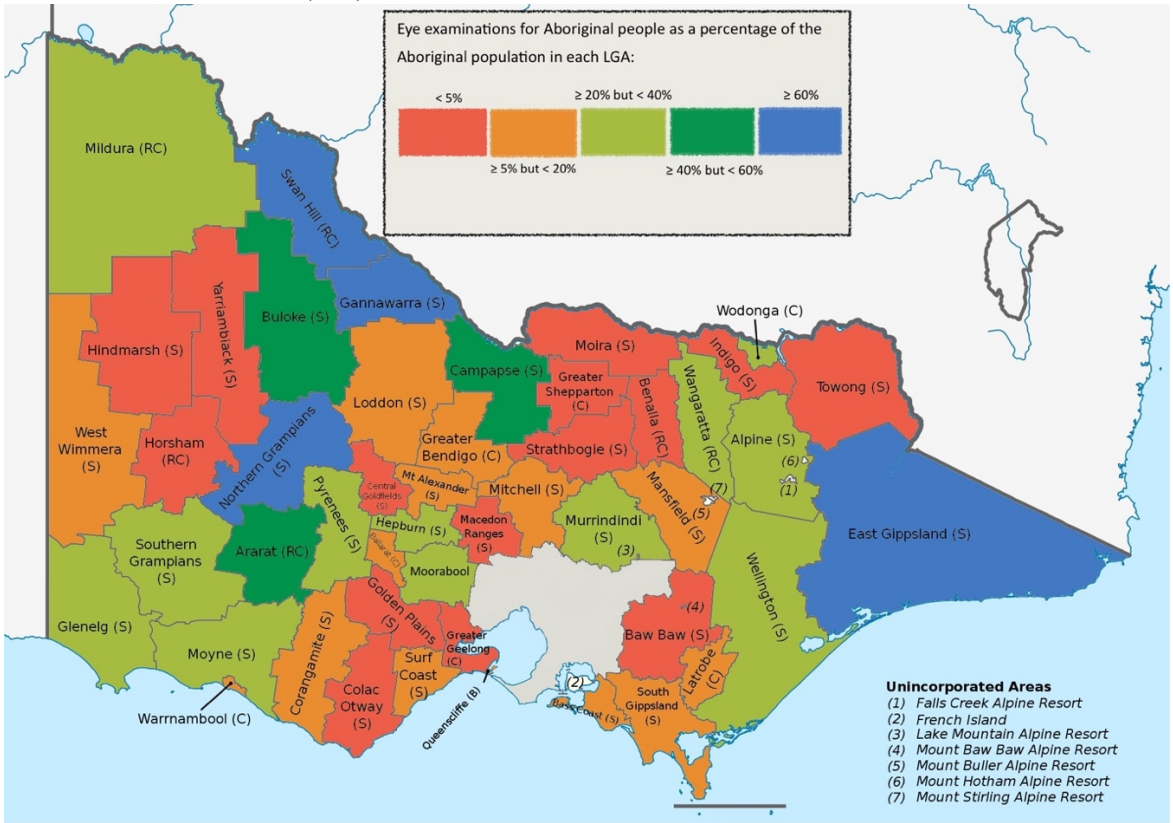
The following maps are based on the ACO database at the end of each 6-month period from VASSS being established until 30 June 2016. LGA and state borders are convenient but artificial divisions for assessing VASSS

[xv] The VES has also improved in multiple ways over the past 6.5 years, including online application with faster and easier approval. However, the VASSS, in recognition of the additional barriers to eye care for Aboriginal Victorians, is easier again to navigate.

deliveries. LGA borders do not always match postcode borders – split postcodes were mapped to the larger LGA for ACO services, and were portioned across LGAs in the ratio of the Aboriginal populations of each LGA for VES Rural services. Some people work in and/or associate with one jurisdiction but have their long-term address in another. Limitations in data collection options mean there are both flaws and advantages to analysing distribution of eye examinations and distribution of visual aid delivery. It should also be noted that:

- This data and analysis show where VASSS-related activity has occurred, but cannot be equated to the concepts of "coverage" or "accessibility", as the level of "need" is unknown and outside the scope of this evaluation (even if recommended examination review times, and likely visual aid re-prescription times, could be agreed on for each age group, systemic health condition and eye condition in the Victorian Aboriginal population, we still wouldn't know the proportion of the community who are choosing to access eye care and refractive services through the VASSS/VES as opposed to private or hospital options)
- Eye examination data could be argued to give a cleaner indication of opportunity to address eye care and vision needs (while it would miss an Aboriginal person who was impeded from accessing vision correction after having attended an eye examination, it does include Aboriginal people who found they did not need glasses and/or found they needed other forms of eye care such as drops or surgery)
- Eye examination data includes ACO direct services only – it was not possible to establish the geographic distribution of eye examinations in VES Rural practices
- Eye examinations are always mapped to patient address at the end of each 6-month period
- Visual aid delivery from is mapped to patient address at the end of each 6-month period when delivered by the ACO directly, but mapped to practice address for VES Rural
- Data provided was unable to distinguish the number of different individuals who had eye examinations, as opposed to the number of eye examinations (e.g. a person with diabetes having eye examinations at VAHS each year for six years would be counted as "6", the same as six different people each accessing a service once in six years)

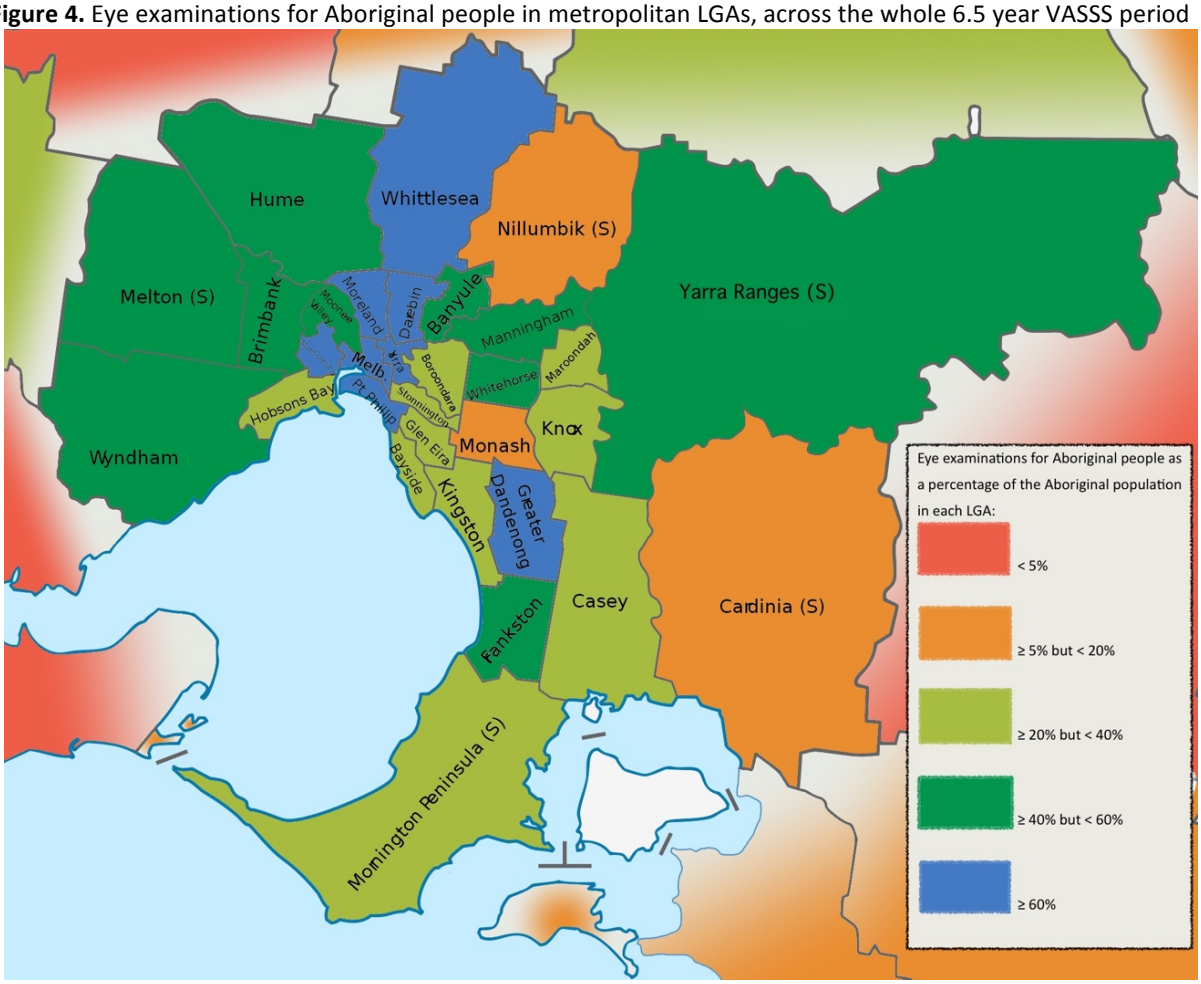
Figure 3. Eye examinations for Aboriginal people in rural and regional LGAs (ACO direct services only), across the whole 6.5 year VASSS period. The Aboriginal population of each LGA was taken as a static value from the 2011 Australian Bureau of Statistics (ABS) Census



It is worth noting that:

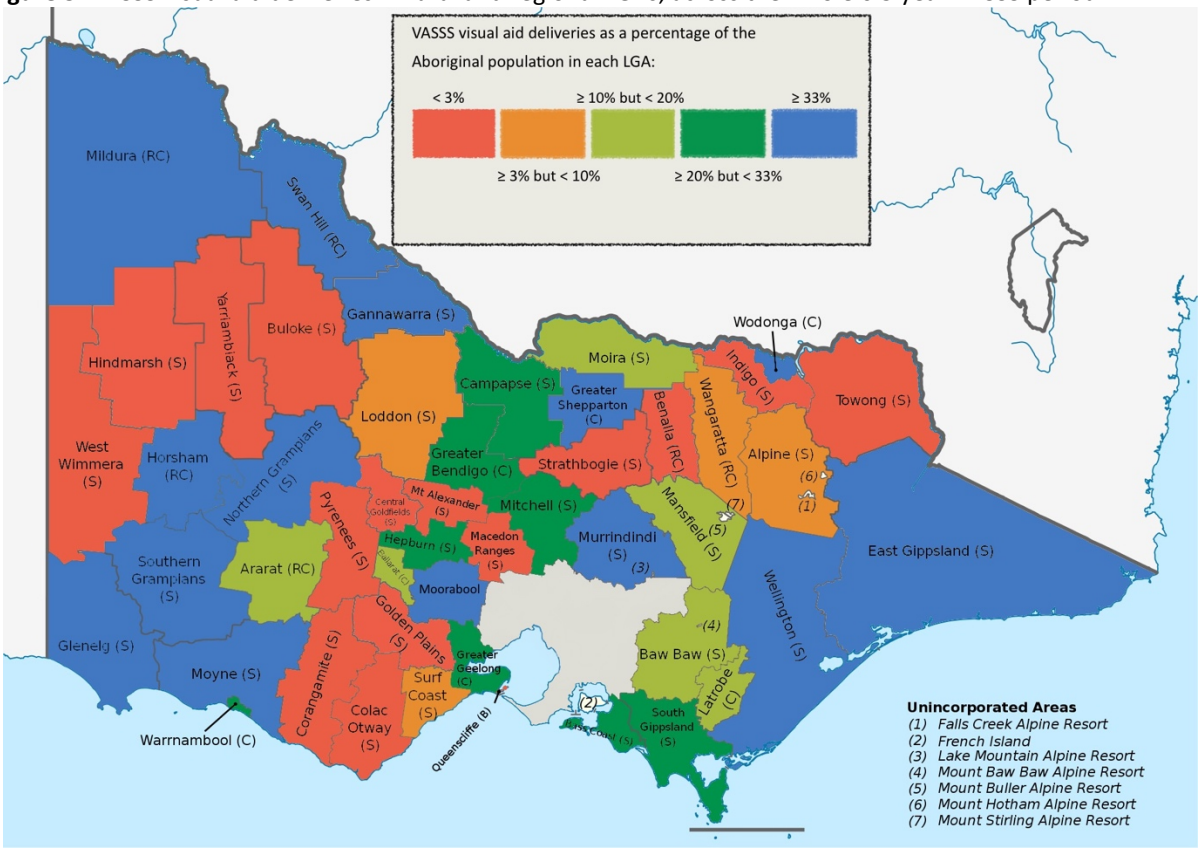
- this only includes eye examinations conducted by ACO directly; it does not include eye examinations conducted at VES Rural practices (because there is no facility for counting these)
- an additional 146 eye examinations were provided to Aboriginal people who live along the South Australian border
- an additional 440 eye examinations were provided to Aboriginal people who live in NSW bordering Mildura
- an additional 64 eye examinations were provided to Aboriginal people who live in NSW bordering Echuca
- an additional 89 eye examinations were provided to Aboriginal people who live in NSW bordering Wodonga.

Figure 4. Eye examinations for Aboriginal people in metropolitan LGAs, across the whole 6.5 year VASSS period



Rural and regional LGAs that border Metropolitan Melbourne have been coloured with a gradient to facilitate comparison at the metropolitan-rural/regional boundary. Eye examination access rates generally appear lower on the rural/regional side of the boundary. However, VES Rural services are not included in these numbers as the data could not be supplied. Counting VES Rural services would decrease, or reverse, the difference by an unknown amount, i.e. the true comparison is unknown.

Figure 5. VASSS visual aid deliveries in rural and regional LGAs, across the whole 6.5 year VASSS period



It is worth noting that:

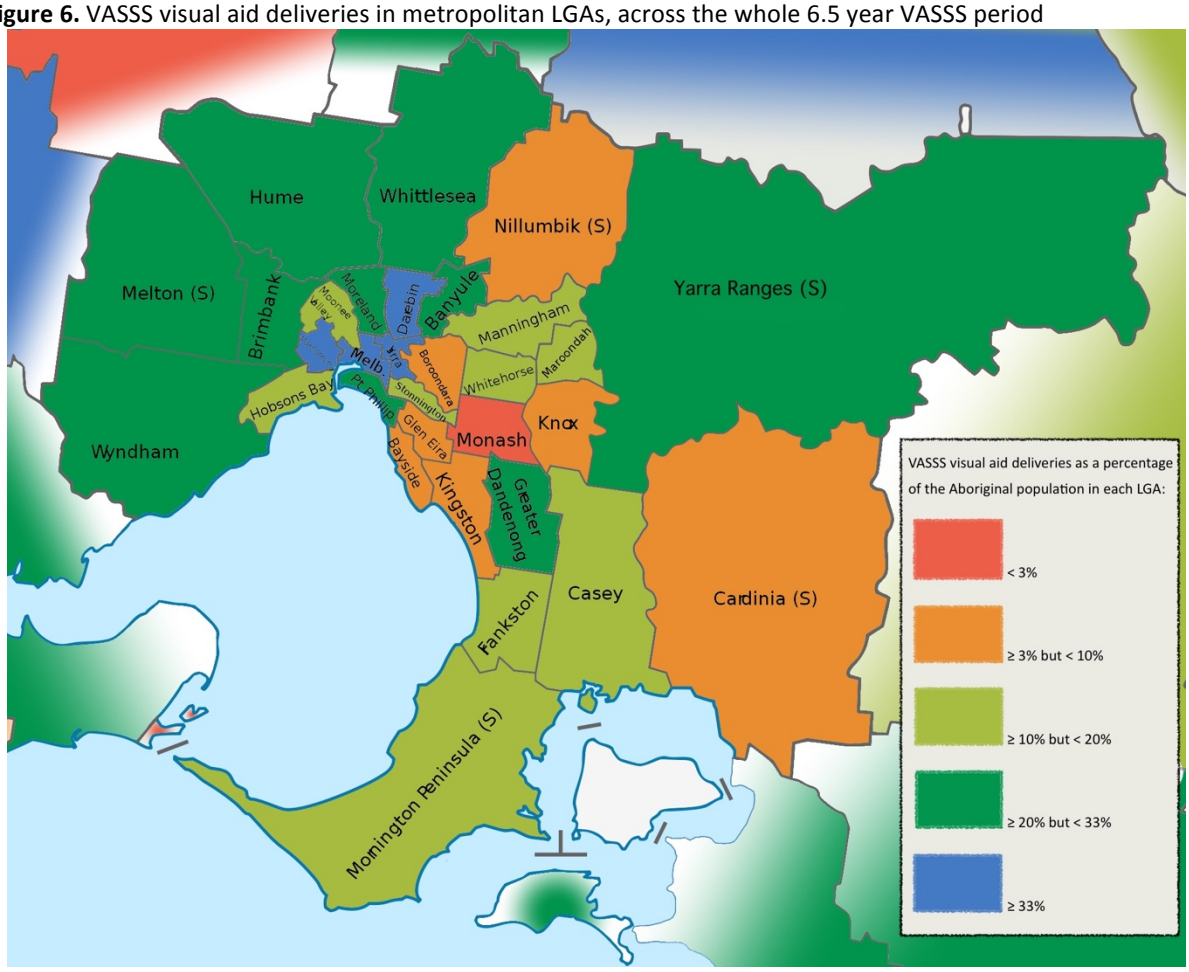
- while 739 eye examinations have been completed for Aboriginal people from outside Victoria, mostly at border towns, only 44[xvi] visual aids were delivered to interstate people, indicating appropriate demarcation and usage of spectacle schemes from different states
- VES Rural practices delivered 746 VASSS visual aids in the first six months of 2016[xvii]
- a significant percentage (unknown across the entire period, but 42% in the first 9 months of 2016) of the visual aids delivered by VES Rural practices were based on spectacle prescriptions generated by ACO optometrists working in visiting partnerships in the same rural or regional area as the practice
- the "red" areas on this rural and regional Victoria map are 16 of the 17 (there is one in metropolitan Melbourne) statewide LGAs in the lowest category of VASSS visual aid deliveries as a proportion of Aboriginal population. Eight of these LGAs (Queenscliffe, Hindmarsh, Pyrenees, West Wimmera, Yarriambiack, Strathbogie, Towong and Buloke) had Aboriginal populations of less than 100 in the 2011 ABS Census.
- the "red" areas on the rural and regional Victoria map with Aboriginal populations greater than 100, but zero or one VASSS access point within the LGA are Colac-Otway (1 VASSS access point; Aboriginal population by 2011 ABS Census 182), Corangamite (1; 121), Benalla (0; 167), Central Goldfields (1; 146) and Mount Alexander (1; 173)
- Macedon Ranges presents an interesting case suggesting that access points don't necessarily create good access. It has an Aboriginal population of 194, only 1% of whom have accessed a VASSS visual aid anytime over the 6.5 years of the Scheme, even though there are five VES Rural practices with postcodes within the LGA who are signed onto the scheme (four of whom have never used it, and one

[xvi] NB: 34 of these 44 were delivered before the end of 2011, while systems and arrangements were still being developed, leaving only 10 more being delivered to people with an interstate address over the last 4.5 years

[xvii] 746 VASSS visual aids out of the 794 total in rural and regional areas, or the 1200 delivered state-wide

that has prescribed 5 VASSS visual aids). The discrepancy may be explained by one specifically active private practice in Sunbury who self-subsidises visual aids equivalent to VASSS for Aboriginal patients.

Figure 6. VASSS visual aid deliveries in metropolitan LGAs, across the whole 6.5 year VASSS period



It is worth noting that:

- VASSS appears to have stronger penetration (as a proportion of Aboriginal population) in the north and west of metropolitan Melbourne (Nillumbik is an exception) than the south and east (Yarra Ranges and Greater Dandenong are exceptions)
- Monash, the only "red" metro LGA fitting into the lowest category of VASSS visual aid deliveries as a proportion of Aboriginal population, recorded an Aboriginal population of 357 in the 2011 ABS Census. Interestingly, eye examinations as a percentage of Aboriginal population was 17%, while VASSS visual aid deliveries as a percentage of the Aboriginal population was 2.8%
- Of the "orange" areas, Knox recorded the largest Aboriginal population at the 2011 ABS Census (541) but is only borderline "orange" – VASSS visual aid deliveries as a percentage of the Aboriginal population was 9.98%. Cardinia has the next largest population (426), and VASSS visual aid deliveries as a percentage of the Aboriginal population of 6%, followed by Kingston (381, and 8%)

Regional changes over time

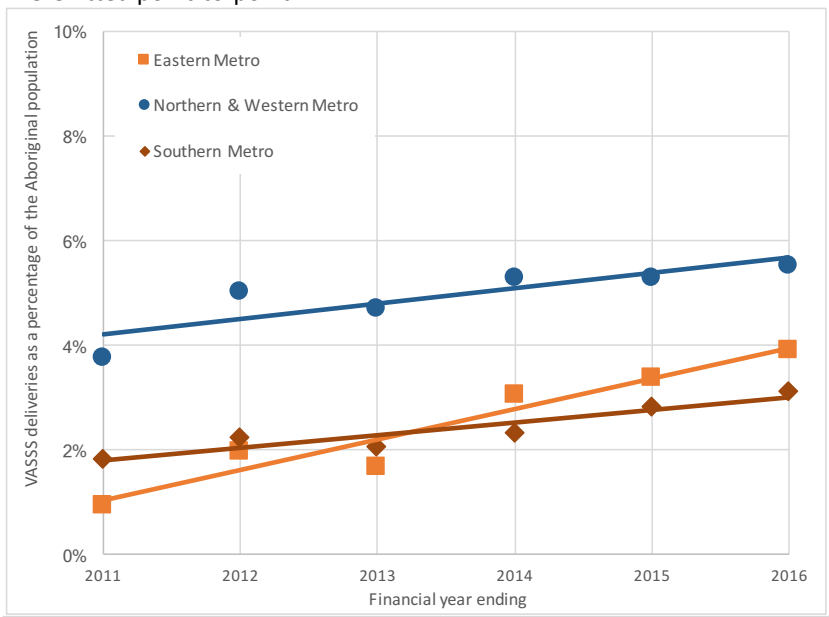
VASSS visual aid delivery numbers have grown reasonably linearly[xviii] in all regions except Gippsland[xix]. Figure 7 shows that the Northern and Western Metro region, which has the largest Aboriginal population (9085) in Victoria, had a particularly strong start. Since inception, the non-metropolitan regions have grown more quickly

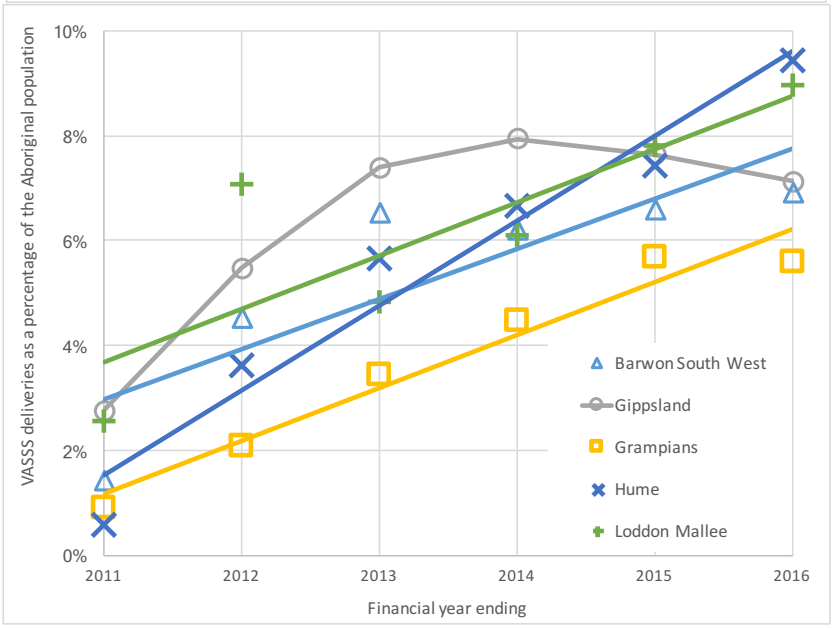
[xviii] Taken as an R^2 value ≥0.65 for a linear regression
[xix] $R^2 = 0.61$

than the metropolitan regions, and VASSS deliveries as a percentage of the Aboriginal population was higher in all non-metropolitan regions than any metropolitan region by the first half of 2016. Hume (Aboriginal population 4564) has grown particularly quickly – ending with the highest percentage after starting with the lowest. Growth in Gippsland was the fastest of all regions in the first three years, but has then tapered off, giving a distinct non-linearity.

All raw, regional level temporal data is provided in Data Tables A1 and A2 of Appendix 1.

Figure 7. Regional trends over time in VASSS visual aid deliveries. **A)** Metropolitan regions; **B)** Non-metropolitan regions. Regions are fitted with a linear trendline whenever that trendline had an R^2 value ≥0.65; regions exhibiting less linearity were fitted point-to-point





Regional details

The following discussion provides regional level details with one, two or three case-study LGAs per region that demonstrate indicative trends. All raw, LGA-level temporal data is provided in Data Tables A3 and A4 of Appendix 1.

Barwon South West Over the first 6.5 years of the scheme, the number of ACO eye examinations provided to Aboriginal people, and the total number of VASSS visual aids dispensed, was equivalent to 9% and 32% of the Aboriginal population of the Barwon South West region respectively. The higher rate of VASSS visual aids dispensed compared to ACO eye examinations completed suggests that VES Rural practices are actively participating in this region. ACO eye examinations and VASSS visual aid dispensing show little growth from a low base in Colac-Otway, Corangamite, Queenscliffe and Surf Coast, but have grown in Glenelg, Greater Geelong, Moyne, Southern Grampians and Warrnambool.

The Regional Eye and Ear Coordinator position at Windamara has been continuous through the VASSS period and prior. This data is unable to distinguish the impact of this position.

Barwon South West case study LGAs – Greater Geelong, and Southern Grampians

- Greater Geelong has the largest Aboriginal community in the region (1788 Aboriginal Victorians identified in the 2011 ABS Census). Annual ACO direct eye examination numbers only amount to about 0.5% of this community since 2010, with no discernible upwards or downwards trend (Figure 8A). However, while eye consultations conducted in VES Rural practices cannot be quantified, they must be occurring as there has been a steadily increasing number of people accessing VASSS visual aids each year – reaching about 7% in the financial year ending June 2016 (Figure 8B). In fact, it was reported that the ACO has been in regular contact with the local ACCHO, which has declined offers of visiting optometry services due to lack of space and their satisfaction with their referral pathway to a local VES/VASSS practice in Corio.
- The Southern Grampians is a smaller community (188 Aboriginal Victorians identified in the 2011 ABS Census), but it shows an interesting two-phase growth in both access to ACO eye examinations and VASSS visual aid dispensing (Figure 8). It appears that both ACO and VES Rural practices have been increasingly active in the area, since the proportion of community accessing VASSS visual aids exceeds ACO eye examinations (Figure 8B). The strong growth has coincided with involvement of an increasingly active local VES Rural practice.

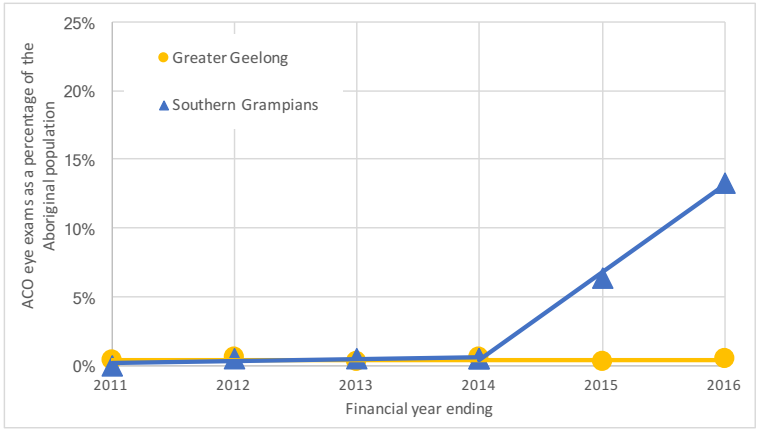
Figure 8. Trends over time in the Barwon South West case study LGAs:

A) Aboriginal eye examinations by the ACO in each financial year as percentage of Aboriginal population;

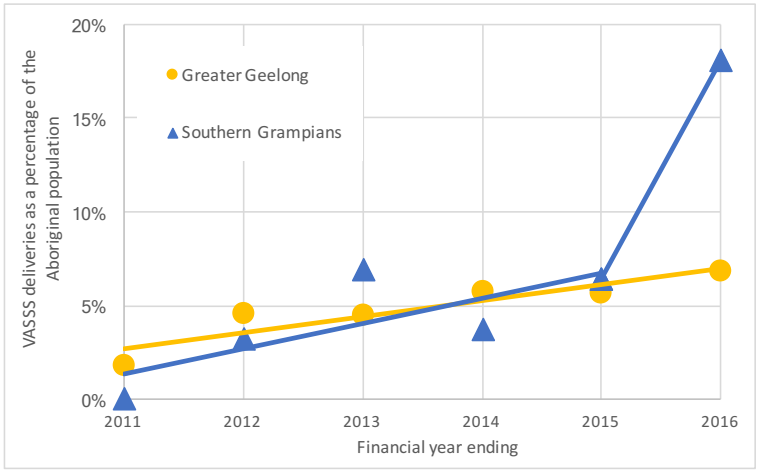
B) VASSS deliveries in each financial year as a percentage of the Aboriginal population.

Whole VASSS-era linear trendlines give R^2 ≥0.65 for Geelong but <0.65 for Southern Grampians. Southern Grampians achieves R^2 ≥0.65 when plotted with a 2-part linear function

A)



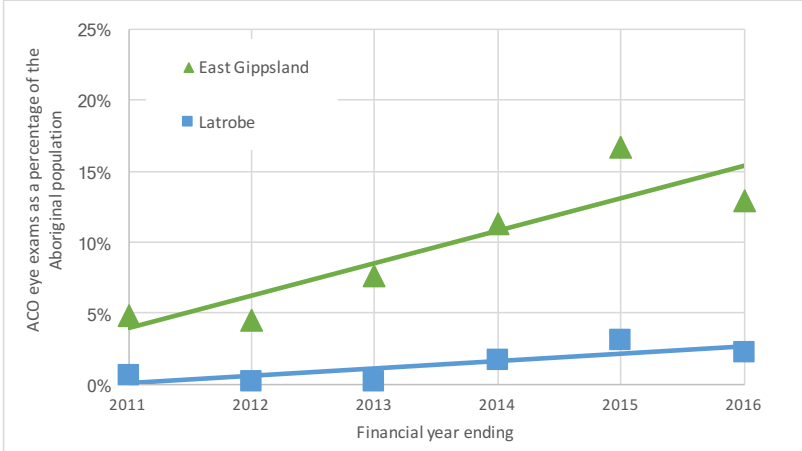
B)



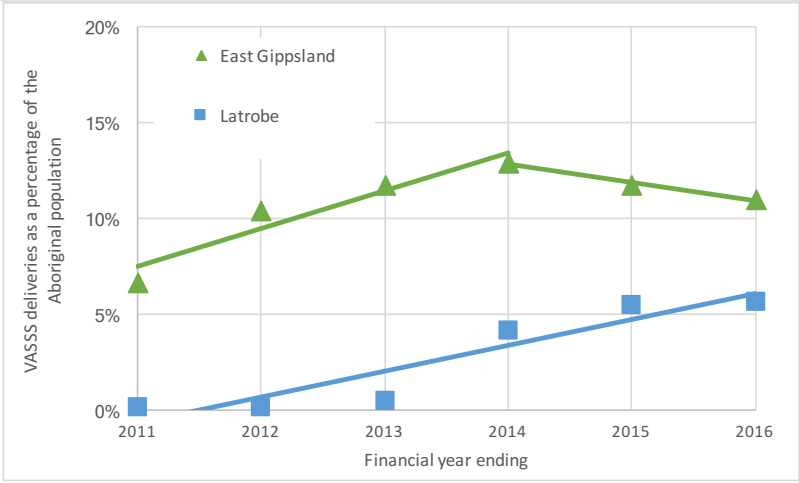
Gippsland Over the first 6.5 years of the scheme, the number of ACO eye examinations provided to Aboriginal people, and the total number of VASSS visual aids dispensed, was equivalent to 27% and 38% of the Aboriginal population of the Gippsland region respectively. The higher rate of VASSS visual aids dispensed compared to ACO eye examinations completed suggests that VES Rural practices are actively participating in this region. ACO eye examinations have been steady or trending upwards over time in all LGAs in the region. Trends for East Gippsland and Latrobe are shown in Figure 9A as these have by far the largest Aboriginal communities in this region (populations of 1352 and 1055 people respectively). VASSS visual aid dispensing shows a similar trend in several LGAs in the region (illustrated by Latrobe in Figure 9B), while several other LGAs show a peak in 2012-14 then decline (illustrated by East Gippsland in Figure 9B).

Figure 9. Trends over time in the Gippsland LGAs with the largest Aboriginal communities. **A)** Aboriginal eye examinations by the ACO in each financial year as percentage of Aboriginal population; **B)** VASSS deliveries in each financial year as a percentage of the Aboriginal population. Whole VASSS-era linear trendlines give R^2 ≥0.65 for both LGAs for ACO eye examination numbers, but only Latrobe for visual aid deliveries. East Gippsland visual aid deliveries achieves R^2 ≥0.65 when plotted with a 2-part linear function

A)



B)



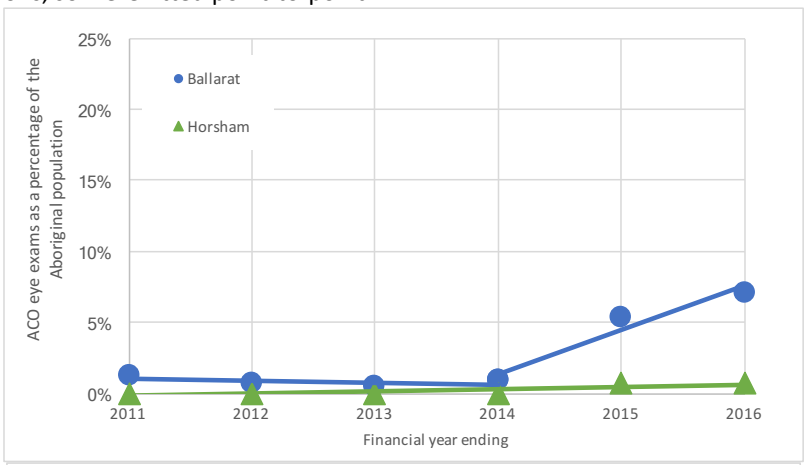
Grampians Over the first 6.5 years of the scheme, the number of ACO eye examinations provided to Aboriginal people, and the total number of VASSS visual aids dispensed, was equivalent to 18% and 22% of the Aboriginal population of the Grampians region respectively. The rate of VASSS visual aids dispensed compared to ACO eye examinations completed suggests that VES Rural practices are participating in this region. ACO eye examinations have been steady or trending slightly upwards over time in most LGAs in the region, with steeper trends in Ararat, Ballarat and Northern Grampians. VASSS visual aid dispensing has a more complex function over time as shown in Figure 10B.

The steeper growth trends approximately mirror the geographic footprint and timeline of the active and successful Grampians Region Aboriginal Eye Health Project (2014-2016). This project was talked about extremely positively by many ACCHO staff.

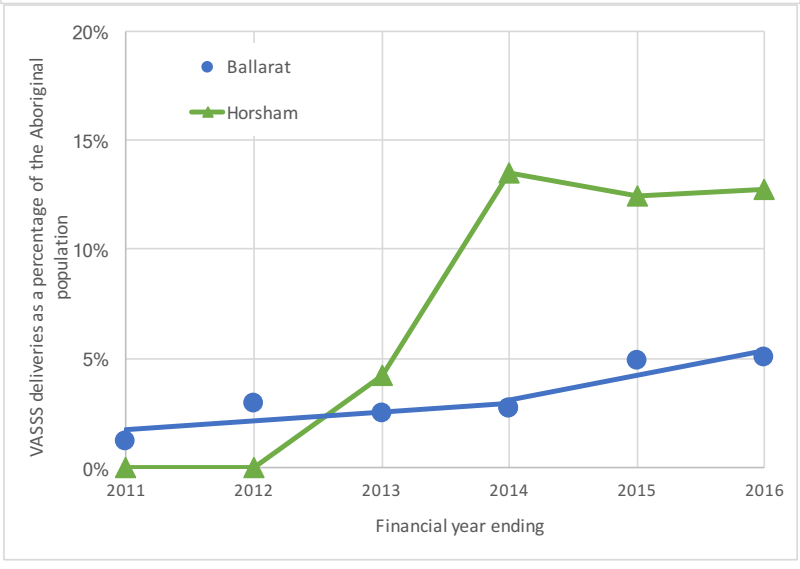
Grampians case study LGAs – Ballarat and Horsham

- Ballarat has the largest Aboriginal community in the region (1140 Aboriginal Victorians identified in the 2011 ABS Census). The rate of accessing ACO eye examinations was steadily below 1% from the start of the scheme until mid 2014, then has started to rise. VASSS deliveries as a percentage of population follow a very similar but smoother trend. The rise coincides with a combination of increased visiting services and improved coordination through the Grampians Regional Project
- Horsham (population 282) show significant growth in VASSS deliveries over the past 3.5 years, with near zero ACO eye examinations, indicating significant involvement of Wimmera Eye Care, the only VES Rural practices in the area. The local ACCHO had declined visiting services until very recently, during active engagement as part of the Grampians Regional Project.

Figure 10. Trends over time in the Grampians case study LGAs. **A)** Aboriginal eye examinations by the ACO in each financial year as percentage of Aboriginal population; **B)** VASSS deliveries in each financial year as a percentage of the Aboriginal population. Whole VASSS-era linear trendlines gave R^2 ≥0.65 only for ACO eye examination numbers in Horsham. ACO eye examination numbers and visual aid deliveries both achieved R^2 ≥0.65 when plotted with a 2-part linear function for Ballarat. Visual aid deliveries in Horsham had R^2 <0.65 with 1- or 2-part linear functions, so were fitted point-to-point.



A)

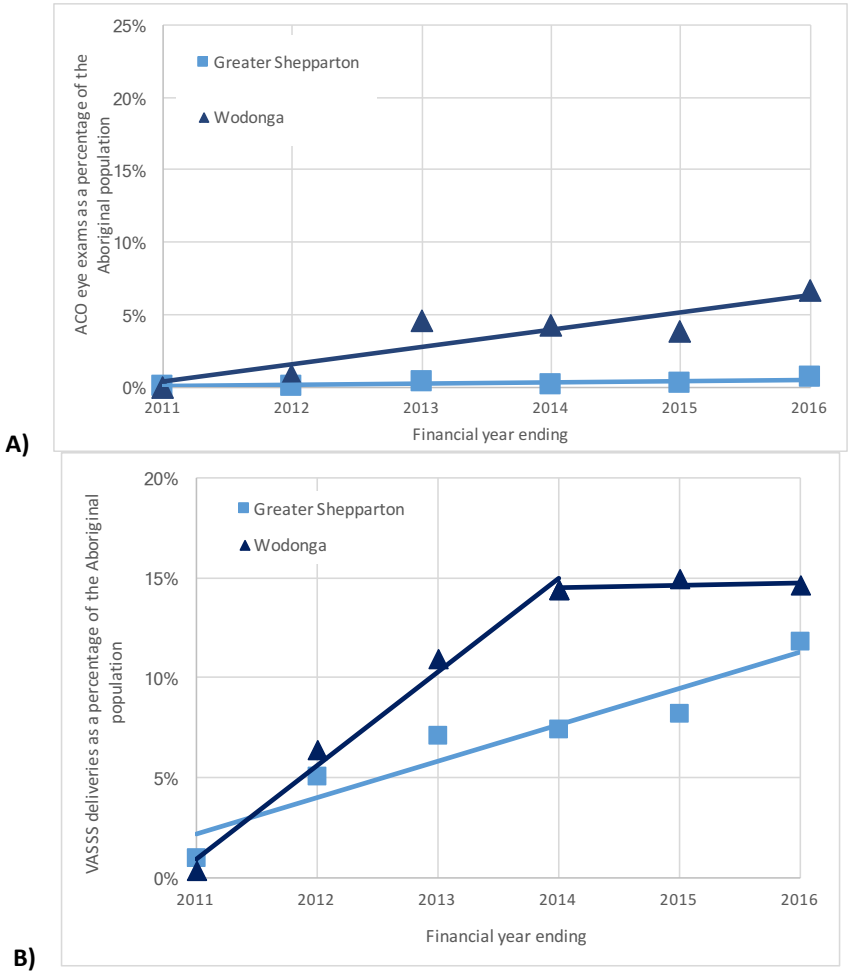


B)

Hume Over the first 6.5 years of the scheme, the number of ACO eye examinations provided to Aboriginal people, and the total number of VASSS visual aids dispensed, was equivalent to 9% and 33% of the Aboriginal population of the Hume region respectively. The higher rate of VASSS visual aids dispensed compared to ACO eye examinations completed suggests that VES Rural practices are actively participating in this region. Both ACO eye examinations and VASSS visual aid dispensing have been steady or trending upwards over time in all LGAs in the region. Trends for Greater Shepparton and Wodonga are shown in Figure 11 as these have by far the largest Aboriginal communities in this region (2082 and 705 people respectively).

- ACO examination numbers have been growing in Wodonga, but not in Greater Shepparton where they remain well below 1% of the Aboriginal community per year due to the local VES/VASSS practice providing visiting services until March 2016
- VASSS visual aid delivery has grown strongly in both Greater Shepparton and Wodonga indicating significant involvement from VES Rural practices, particularly Graham Hill Eye Care in Shepparton, Horsfalls Optometrists in Kyabram and Peachey Optometry Clinic in Wodonga

Figure 11. ACO eye examination **(A)** and VASSS visual aid delivery **(B)** trends over time in the Hume LGAs with the largest Aboriginal communities. Whole VASSS-era linear trendlines give R^2 ≥0.65 for both LGAs for ACO eye examination numbers, but only Greater Shepparton for visual aid deliveries. Wodonga visual aid deliveries achieves R^2 ≥0.65 when plotted with a 2-part linear function

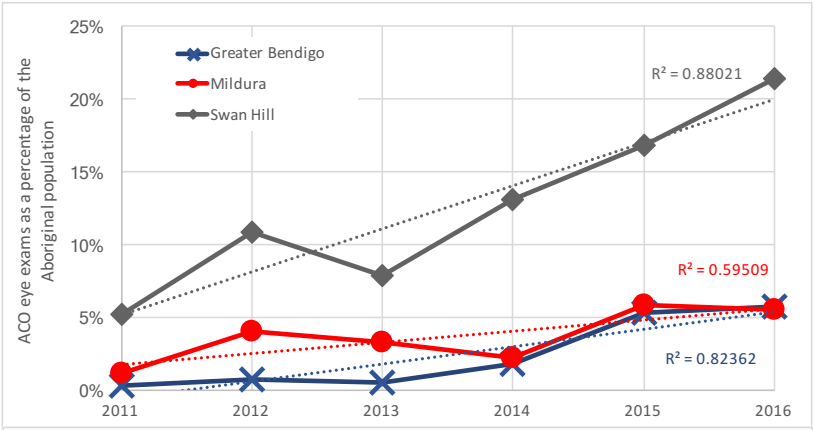


Loddon Mallee Over the first 6.5 years of the scheme, the number of ACO eye examinations provided to Aboriginal people, and the total number of VASSS visual aids dispensed, was equivalent to 32% and 37% of the Aboriginal population of the Loddon Mallee region respectively. Both ACO eye examinations and VASSS visual aid dispensing have been steady or trending upwards over time in all LGAs in the region. Trends for the three LGAs with the largest Aboriginal communities, Mildura (1836), Greater Bendigo (1441) and Swan Hill (885), are shown in Figure 12. ACO eye examination numbers have grown particularly strongly in Swan Hill, which has had VOS funding since late 2011. Strong growth in VASSS visual aid delivery numbers in all LGAs over the last 4 years indicates significant involvement of VES Rural practices, particularly Eyecare Sunraysia in Mildura, Cartwright and Associates in Bendigo, Kerang Optical and Swan Hill Optical. Kerang Optical and Swan Hill Optical have only participated since 2014, but have contributed strongly since then with the immediately high activity perhaps due to partnership with the ACO (ACO providing eye examinations in local ACCHOs with Kerang and Swan Hill Optical providing dispensing services).

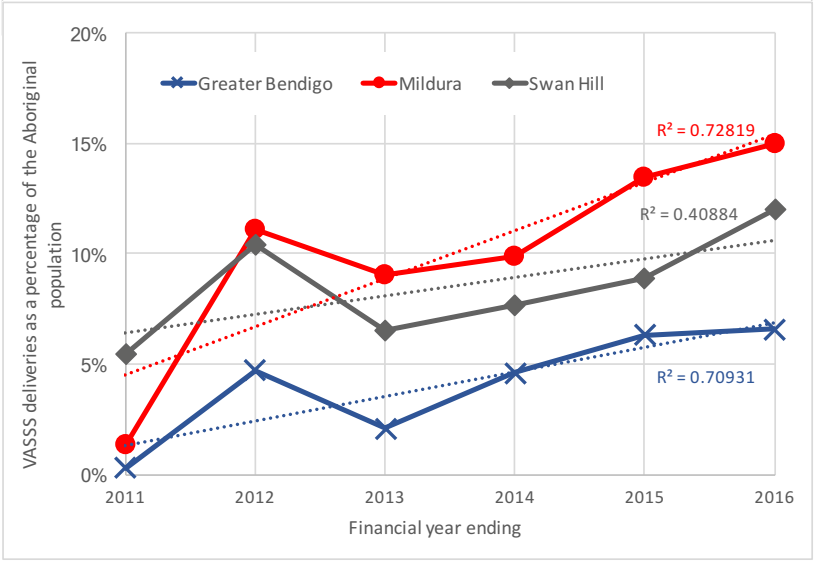
Figure 12. ACO eye examination **(A)** and VASSS visual aid delivery **(B)** trends over time in the Loddon Mallee LGAs with the largest Aboriginal communities.

The VASSS-era trendlines give a mix of linearity – in the interest of comparability, point-to-point, one-part linear trendline and R^2 value are all given.

A)

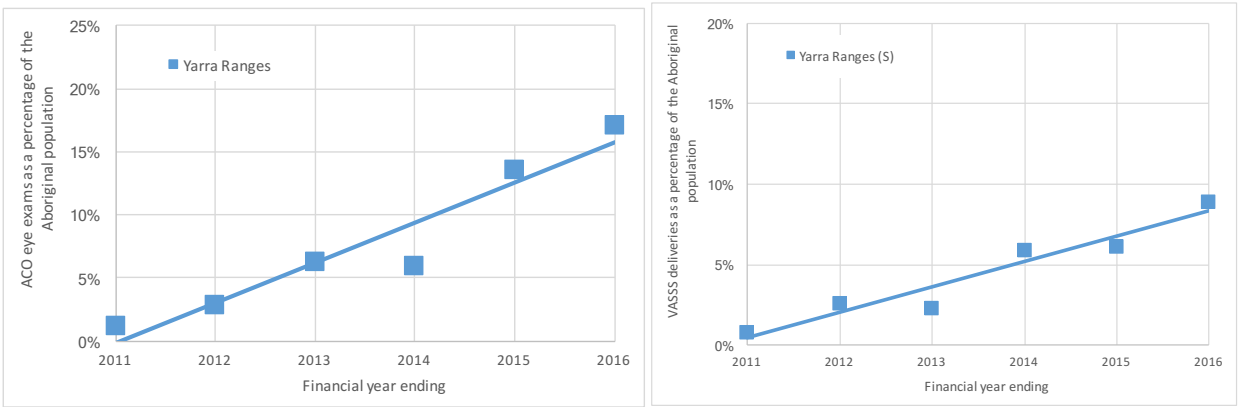


B)



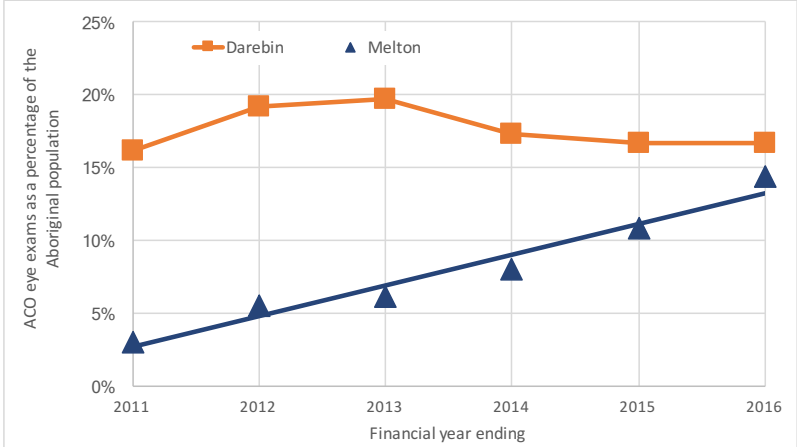
Eastern Metro Over the first 6.5 years of the scheme, the number of ACO eye examinations provided to Aboriginal people, and the number of VASSS visual aids dispensed, was equivalent to 36% and 15% of the Aboriginal population of the Eastern Metro region respectively. ACO eye examinations and VASSS visual aid dispensing have been steady or trending slightly upwards over time in all LGAs in the region except Yarra Ranges. Yarra Ranges has the largest Aboriginal community in the Eastern Metro Region (969 by the 2011 ABS Census), so the extremely strong growth it has shown over the past 6 years is regionally significant. Yarra Ranges growth is most likely associated with productive collaborations with Yarra Valley Community Health Aboriginal Program and Worowa College in Healesville.

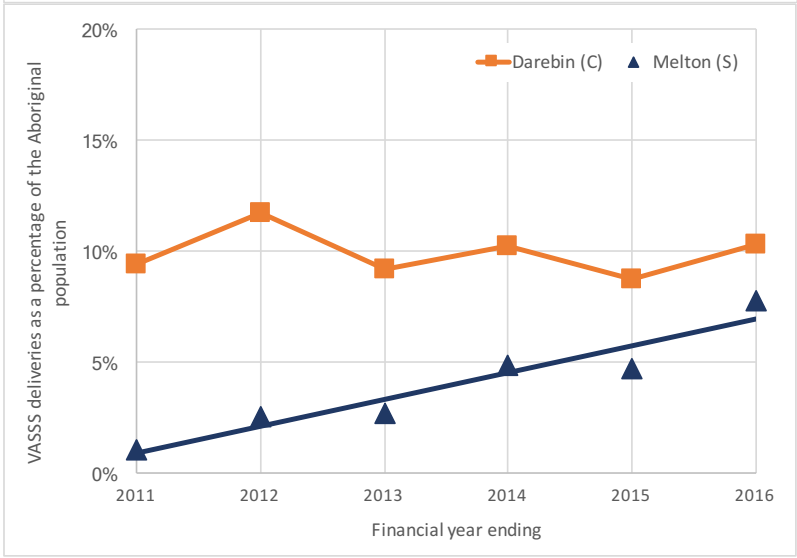
Figure 13. ACO eye examination **(L)** and VASSS visual aid delivery **(R)** trends over time in Yarra Ranges LGA



Northern and Western Metro Over the first 6.5 years of the scheme, the number of ACO eye examinations provided to Aboriginal people, and the number of VASSS visual aids dispensed, was equivalent to 65% and 30% of the Aboriginal population of the Northern and Western Metro region respectively. These are amongst the highest access rates of any region in Victoria, and the region also has by far the largest Aboriginal community of any region in Victoria (9085), making this a key driver of the success of the scheme. Access rates were generally high from commencement (e.g. ACO eye examinations were over 16%, and VASSS visual aid deliveries were about 10%, of the 1156-strong Aboriginal community of Darebin in the first year), and have stayed high since. Melton, the fifth largest Aboriginal community in the region with 789, is the exception – eye examination and VASSS delivery numbers started relatively low and have grown strongly since, with the addition of visiting services there.

Figure 14. ACO eye examination **(A)** and VASSS visual aid delivery **(B)** trends over time in two Northern and Western Metro case study LGAs. VASSS-era linear trendlines gave R^2 ≥0.65 for both ACO eye examination numbers and visual aid deliveries in Melton. R^2 was <0.65 for both quantities in Darebin, and two-part functions did not help, so both were fitted point-to-point.





Southern Metro Over the first 6.5 years of the scheme, the number of ACO eye examinations provided to Aboriginal people, and the number of VASSS visual aids dispensed, was equivalent to 38% and 14% of the Aboriginal population of the Southern Metro region respectively. ACO eye examinations and VASSS visual aid dispensing have been steady or trending slightly upwards over time in all LGAs in the region, without significant exception.

Summary:

- Various combinations of services in ACCHOs, ACO facilities, Community Health Services, VES Rural practices and other services can all add, when tailored to community needs and preferences, to improved access to eye care and refractive services
- Concurrent projects such as the Regional Aboriginal Eye Health Projects appear to make a difference
- While this analysis doesn't give a direct indication of accessibility to eye or refractive care (because we don't know what proportion of Aboriginal people want to access the VASSS as compared to private services, eye examinations in VES Rural practices are not counted, etc) local trends indicate influences on rates of access, and relative differences indicate areas that should be considered for targeting if funding was expanded

Cost

Focus group discussions and interviews with a range of stakeholders consistently reported that the $10 co-payment is fair and reasonable. ACCHO staff and clients generally felt that indexation would be detrimental to affordability and access. A representative comment was:

- "The $10 co-payment works well at our ACCHO. It is a fair and reasonable cost for our community. And it is not too hard to collect" (ACCHO Clinic Coordinator)

Clients pay the co-payment in many areas, while ACCHOs pay in others. There was no indication that co-payment by clients versus co-payment by ACCHO leads to different outcomes in spectacle care or wear, or replacement rates due to breakage or loss. This argues (anecdotally) against the idea that a payment is needed to create a sense of ownership or responsibility. However, more importantly than that paternalistic concept, paying for glasses commonly appeared to engender a sense of self agency – clients expressed pride in their ability to take control of a health problem and solve it by engaging with the service and paying a fee. Numerous ACCHO staff commented they have observed that this increased sense of self agency has had positive effects on other areas, including health seeking (e.g. seeing a GP) and risk prevention strategies (e.g. trying to quit smoking).

Some VES Rural practices felt that concession cards should be required for access to the VASSS. This was generally (but not universally) opposed by clients and ACCHO staff. For example:

- "VASSS should ***NOT*** be restricted to HCC/PCC holders. Pretty much all other members of our community are under financial stress too – because of broad family responsibilities, low paying jobs, and intergenerational poverty" (ACCHO Clinic Coordinator)

Explaining the replacement surcharge[xx] for glasses lost or broken within 2 years was noted to cause problems in many places. Most agreed that communicating the rules upfront (not at the eye examination, but when the first glasses are dispensed) would be the fairest thing to do.

- Some expressed concern that this could result in people not returning after a loss or breakage of glasses. But those who already make a point of stating the rules upfront say this is not a problem

Summary:

- The $10 patient co-payment of the VASSS is fair and reasonable

[xx] An additional $18 (so a total of $28) is charged for replacement of glasses lost or broken within 2 years unless there is also a significant change in refraction.

- There would be value in a simply worded, community friendly, positive[xxi] statement explaining the VASSS replacement charges. The statement should be reproducible (on small photocopier-friendly slips) at each site that dispenses VASSS glasses. It should be the decision of each site whether to explain the surcharges and/or to hand out the slip or not

Cultural appropriateness of access points/care

Cultural appropriateness of access points, eye care and delivery of glasses was observed to be site specific. This is due to both community preference (some communities are very focused around their ACCHO, others less so) and the services that are available (frequency of visiting services, appropriateness of local practices). The following summaries and quotes are representative:

- ACCHO staff report that some VES Rural private practices hide their entire VASSS frame range (which can be just a few frames in a cardboard box) in a cupboard or drawer and don't give good, patient-centred opportunities to choose – they just pull out one and say "How about this?"

- Other VES Rural private practices are justifiably proud of high quality, equitable frame displays that place patients at the centre of the choices that are available to them

- "The visiting optometrists who come into our service are great – all our staff and clients like them. But our local VES Rural practice is good too. Each works well for different clients and situations" (ACCHO Chronic Care Coordinator)

- "I used to go to the local (VES Rural) practice – it was okay, but it's much more comfortable coming to the ACCHO. It's easier to pick up the phone and ask for an appointment – I feel more confident, happy, free, less anxious coming here" (ACCHO Client)

Summary:

- Access is assisted by a flexible and location-specific mix of visiting services in ACCHOs and VES Rural practices

Analysis of visual aid type

Visual aids can be provided as single vision, bifocal or multifocal (progressive addition) lenses in a spectacle frame, as contact lenses, or as low vision[xxii] aids. There were insignificant numbers of contact lenses or low vision aids prescribed under the VASSS, so this analysis focusses on spectacle type. One spectacle type is not inherently better than another – they should be prescribed for an individual to solve a specific or general problem with vision, with appropriate decision-making participation from both patient and practitioner. If there are differences in preference, activities and/or refractive error type between Aboriginal and non-Aboriginal patients, or between patients seen in VES Rural versus ACO direct clinics, then it is entirely reasonable that different proportions of lens types be prescribed in these different communities. With these possibilities in mind, proportions of lens types were analysed between different practitioner groups and different communities to explore prescribing patterns.

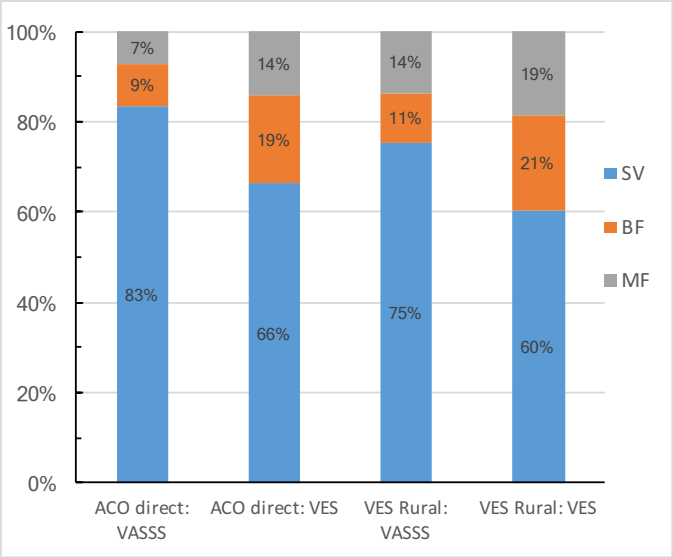
VES-VASSS comparison Optometrists prescribe bifocal or multifocal lenses less often under the VASSS than under the regular VES, as can be seen in Figure 15. This is the case for ACO optometrists as well as VES

[xxi] Framed around concepts of fairness and health self-agency rather than a punishment for irresponsibility, and making the point that, if glasses have been lost, broken or don't work, it is worth arranging an examination to find out if vision/refraction/eye health has changed

[xxii] Low vision implies that a person is vision impaired even after management of any treatable conditions (e.g. correction of refractive error, or cataract surgery), but has the potential with the aid of special devices, to use vision for planning and/or execution of tasks.

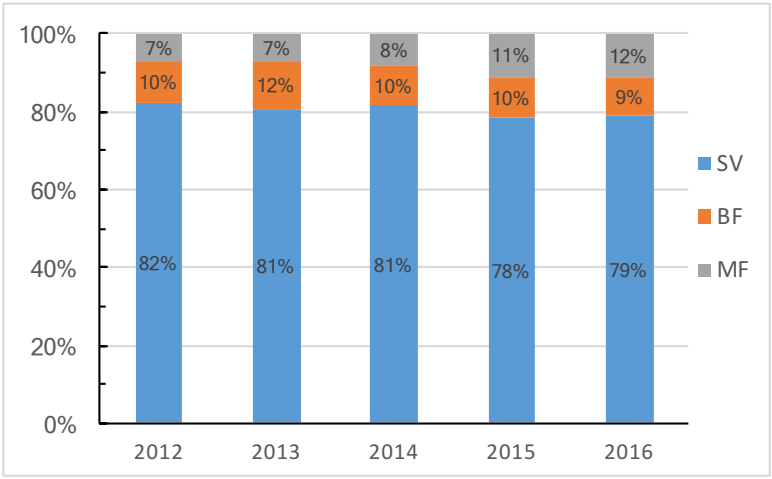
Rural practice optometrists. Practitioners cite different refractive profiles (Aboriginal patients being less likely to need both and distance and near corrections), and patient preference (Aboriginal patients being more likely to prefer single vision lenses) as the likely reasons. VES Rural practitioners are more likely to prescribe multifocal and bifocal spectacles compared to ACO optometrists, and this appears consistent between Aboriginal and non-Aboriginal patients.

Figure 15. Comparison of the proportion of spectacle lens types prescribed in 2015 for Aboriginal (VASSS) and non-Aboriginal (VES) patients, and in ACO direct services compared to VES Rural services. SV = single vision, BF = bifocal, and MF = multifocal = progressive addition lens.



VASSS change over time There has been a small drift over time towards multifocal lenses in the VASSS, away from single vision and bifocal, as seen in Figure 16. This trend is in the same direction as in the non-Aboriginal community. The finding may be confounded by the trend over the same time towards a greater proportion of spectacles being prescribed in VES Rural practices rather than by the ACO directly.

Figure 16. VASSS spectacle lens supply trend, where SV = single vision, BF = bifocal, and MF = multifocal or progressive addition lens. This is the combined data for ACO direct and VES Rural prescriptions.



Some people felt the VASSS should be extended or modified in the following ways:

- "I can't see my computer with my bifocals – the screen is between the 2 pieces. If I could get a second pair for using a computer I might be able to work, but the scheme doesn't allow for it" (ACCHO Client)

- "The optometrist told me I should wear sunglasses to stop damaging my eyes. But the scheme doesn't cover sunglasses" (ACCHO Client)

- "I need progressive lenses for my work, but our local VES Rural practice told me I had to wait because their progressive lens quota had run out or something. I feel impaired now!" (ACCHO Client)

Spectacle frame suitability

Figure 17. Part of the 2016 VASSS frame selection.

Community attitudes/feelings about the VASSS frame range included:

- "The frames that visiting optometrists bring to our service are good. But our local VES Rural practice doesn't show a wide range – they just pull 2 or 3 out of a box, without genuine opportunity for personal choice" (ACCHO Clinic Coordinator)

- "Communities should have more say in choosing the frame selection – they're not bad, but the process is important. It would be good to have an Aboriginal design on cases or lens cloths too – maybe VACCHO could run a competition for a design?" (ACCHO CEO)

- "Regional input to frames would be appreciated. And while we respect our elders, frame choices should be from a diverse mix of age groups. Also, annual updating of the frames is important – it was a good range in 2010 when the VASSS started but I'm not sure it is keeping up with the world" (ACCHO Care Coordinator)

Summary:

- Several stakeholders suggested that VACCHO holds a competition for an Aboriginal design to be printed on spectacle cases and/or lens cloths

- Funding of Monitoring, Evaluation and Learning could facilitate annual review activities such as

a. a roundtable discussion between practitioners regarding prescribing attitudes and review of cases, to consider bias as a cause of differential prescribing habits

b. program-wide review with a panel representative (across regions, ages and genders) of the Victorian Aboriginal Community

VASSS additional intention 1 – increase Aboriginal uptake of primary eye care

Figure 1 shows a distinct change in trend in ACO consultation numbers for Aboriginal people at the time VASSS was introduced. Projections and growth rates for the data before and after the introduction of the VASSS are calculated in the section "Access to and quality of refractive care for Aboriginal Victorians", subsection "Analysis of eye examination numbers". It is also noted that the introduction of the VASSS is not the only change that has been made over this period. However, the timing and sustained strength of the change in trend together with community comments regarding the effect of VASSS in overcoming barriers to care, suggest the VASSS is at the core of the change and essential to maintaining the improvement in access.

ACCHO staff repeatedly and consistently report that VASSS has positively impacted on their ability to get community members to make and attend eye care appointments:

- "The Scheme is the best thing that has happened in the community for years" (ACCHO AHW)
- "The Scheme is a game changer – the $10 cost certainty has changed the conversation I have with clients from a real battle to get them to agree to make an appointment to a positive discussion about taking care of themselves" (ACCHO Care Coordinator, and CEO)
- "The Scheme has been a great way to get community to have eye exams" (ACCHO Clinic Coordinator)
- "Keep funding this program – it has been amazing, and it would be terrible if it ceased" (ACCHO Care Coordinator)
- "The Scheme has been good – people ask for it. People say they haven't had an eye test in ages… or forever. But the scheme gives them confidence to ask for a test" (ACCHO Clinic Coordinator)
- "I hope the Scheme can continue. It has helped early detection and treatment of a range of problems" (ACCHO Clinic Coordinator)
- "The Scheme is fantastic and MUST continue. Anyone stopping it would be crazy – it would have a devastating effect on the 'cycle of care' that we promote with our clients – it would decrease our numbers. The number of people it brings who then access other services is great" (ACCHO CEO)

Children's vision issues

There are questions regarding the importance of children's vision issues in the Aboriginal community:

- There is general agreement that there is less refractive error and less strabismus (eye turn) in Aboriginal children than non-Aboriginal children.[5,6] This does not mean that Aboriginal children have NO refractive error or strabismus. There are also reports that more subtle, near-point focusing and eye coordination issues occur more frequently in Aboriginal children,[6] but there is no agreement on whether these are of any importance in the lives of Aboriginal children. Some observers consider them to be incidental effects of other developmental issues, while other observers consider them to be critical causes of

educational issues. There is no evidence to prove them either way. Each may be true in different children.

- Numerous ACCHO staff think VASSS has been highly beneficial to children (potentially via real therapeutic effects, or potentially via placebo). Others note that we need a generational shift in health-seeking attitudes and habits – so it's not important whether children have eye problems or not, what is important is that they develop the habit of seeking regular eye examinations.

- It is difficult for this evaluation to recommend for or against greater focusing of VASSS on children versus adults, due to lack of evidence. Broad school screenings of Aboriginal children are almost certainly a poor use of resources (as screenings only look for the problems that everyone agrees are less common in Aboriginal children), but targeted work with teachers who identify children they think might have eye/vision problems (as ACO does with Worowa College) *may* be of value.

Summary:

- VASSS is very well received by Victorian Aboriginal communities and appears to have shifted the paradigm from "Why should I get my eyes tests? It's too hard and I can't afford it" to "Now that I've fixed my eyes/vision, what other health problems can I address?"

- Targeting children with the VASSS is unlikely to be a directly efficient way of preventing or treating vision impairment in the Aboriginal community. However, there is a widely-held community belief that children's vision is important and that VASSS is contributing to improvements in children's vision. Evidence of the effects of managing children's vision disorders in Aboriginal communities is needed before any specific recommendation could be given.

VASSS additional intention 2 – identification of vision-threatening eye disease

The VASSS agreement between DHHS and ACO, aside from noting this additional intention, has no specific funding or contractual mechanism for achieving identification of vision-threatening eye disease. It is based on a sound idea – that high quality and accessible refractive care is a good mechanism for increasing access to high quality eye care that detects eye disease and systemic disease with eye-related complications, and prevents blindness and other complications via appropriate management or referral. It has an element of paternalism in not trusting individuals to specifically seek an eye health examination at the appropriate time, but it is commonly applied across various communities and given the specific vision and eye health gap between Aboriginal and non-Aboriginal Australians, the public policy attraction is obvious.

Three main elements need to be in place for the VASSS to successfully and efficiently (i.e. above chance attendance by someone with an eye disease) improve the identification of vision-threatening eye disease:

1. That more Aboriginal Victorians receive eye examinations
2. That the "right" Aboriginal Victorians receive eye examinations (targeting to those at highest risk)
3. That the eye examinations conducted can detect vision-threatening eye disease

As discussed in the "Additional intention 1" section, there is no doubt that the ACO has conducted more eye examinations for Aboriginal Victorians over the past 6.5 years than it would have without the VASSS and other new initiatives (e.g. the VACCHO State-Wide Eye Health Coordinator, funding to work in community settings, IEH activities). Anecdotal evidence from optometrists, practice staff, ACCHO staff and clients suggest a significant number of these eye examinations would not have happened without the VASSS.

Determining whether VASSS-related services have been targeted at the Aboriginal Victorians at highest risk of vision threatening eye disease is difficult. It is important to note that refractive problems overlap considerably, but not exactly, with risk of vision threatening eye disease. As the VASSS fundamentally funds refractive care

outcomes, there is some level of incompatibility here. Two population level indicators that imply something about the risk of both refractive problems and vision threatening eye disease are age and illness.

Age

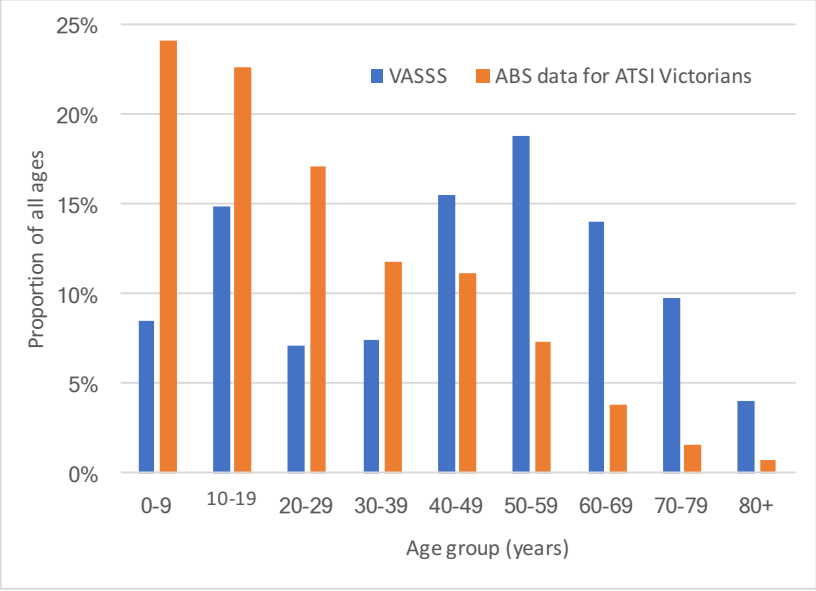
Some young Aboriginal people have refractive problems,[6] but the prevalence of refractive problems rises dramatically with age from about 40 years, when people start to need reading glasses and have refractive changes related to cataract formation. Rates of vision-threatening eye disease are very low in young Aboriginal people, but increase with age, generally a little later than the rise of refractive problems.[5] The more the age profile of VASSS patients is skewed towards older age groups, the more efficiently it is likely to target vision threatening eye disease. However, a mix of ages should be seen for equitable refractive care.

Figure 18 shows that the VASSS age profile is skewed towards older age groups compared to the Victorian Aboriginal community as a whole. It may be appropriate for targeting refractive problems, with a distinct jump at 40 years of age. The median age of VASSS patients is 48.0 years, whereas the median age of the Victorian Aboriginal community is 21.7 years. However, it is not possible to definitively know whether the age profile is appropriate for refractive equity, as there are no published whole-of-life refractive profiles for Aboriginal Victorians.

The VASSS age profile is not skewed far enough towards the elderly for the purpose of *specifically targeting* vision threatening eye disease.[5] However, in addition to the efficient targeting of vision impairment from refractive error, another reason for having a mix of ages accessing eye examinations is to embed a generational shift in eye care access habits. This is discussed further in the "Additional intentions 1" section, but as one ACCHO Clinic Coordinator put it:

- "We need the next generation to have a different attitude to health care and looking after ourselves. 'Cycle of care' habits should be setup early in life".

Figure 18. Age profile of Aboriginal Victorians accessing the VASSS, and that of the Victorian Aboriginal community as a whole. Minor variations were present between regions – the full data set is provided in Appendix 1, Table A5.



Illness

Rates of vision-threatening eye disease are higher in less healthy people – those who smoke and those who have diabetes are the clearest and most measurable examples.[5] Refractive problems tend to occur more frequently in

people who smoke and people who have diabetes too.[7-10] So it would be appropriate for VASSS to target these two groups. Data on smoking was not able to be collected.

- ACO data show that they conducted 1830 eye examinations for Aboriginal Victorians who have diabetes from the start of the VASSS to 30 June 2016. This means that every 7th or 8th examination they do for an Aboriginal Victorian, or about 13% of the total examinations, is for someone with diabetes. This is just above the all ages prevalence of diabetes in the Aboriginal community, but well below the over 40-year-old prevalence of 37%.

Targeting

The patient-base profile for ACO services is substantially dependent on Clinic Coordinators, Care Coordinators and AHWs in partner organisations. Data on the number of eye examinations and visual aids delivered shows that these people in partner organisations have been highly successful at booking patients and having them attend. However, it could be argued that more work could be done to selectively target people with, or at risk of, vision impairment, either from uncorrected refractive error or eye disease. Selective targeting would increase the efficiency of preventing or correcting vision impairment via the VASSS investment. Selective targeting could be achieved by:

- identifying and encouraging to have an eye examination people with systemic diseases such as diabetes, people who smoke, and older people

- screening

    - some coordinators prioritise who they book to see an optometrist using a visual acuity screening that is done by either the GP or an AHW (the worse the client's VA, the higher the priority given)

    - retinal photography (interestingly, two ACCHO sites visited have an ocular fundus camera onsite; neither use it regularly – the cameras were used for a while after delivery and training, but fell out of use due to the difficulty involved; they are now only used by the visiting optometrists, so the cameras currently do not provide any useful mechanism for prioritizing optometry (or ophthalmology) appointments).

Most optometrists (both ACO and VES Rural) would prefer the VASSS to have a greater emphasis on detection and management of vision impairment – caused by either significant uncorrected refractive error or sight threatening eye disease – rather than specifically focusing on visual aids.

All evidence suggests the ACO and other VES eye care practitioners are equipped and able to detect vision-threatening eye disease in any patients they see, and that examinations are conducted in a way that would achieve this. Two issues with potential to compromise this were noted:

- Access to full-sized slit-lamp biomicroscopes in visiting services – one ACCHO site visited had a permanent slit lamp, but all visiting optometrists (ACO employed and private) and many GPs across all sites visited expressed their desire and the advantages of having a permanent full-sized slit-lamp at each ACCHO; they consistently feel this will do more for delivery of good eye care and eye disease detection in the Aboriginal community than retinal cameras in ACCHOs

- Access to specialized eye disease diagnostic procedures – there are several eye disease diagnostic procedures conducted in optometry practices (e.g. retinal photography and OCT) that are not covered by Medicare[xxiii]

[xxiii] It should be noted that retinal cameras used for screening by non-specialised staff in general health facilities have a distinctly different intent and usage to retinal cameras used for monitoring and management of eye disease by an eye care practitioner

- Within metropolitan Melbourne, the ACO conducts these procedures under VES funding, however there is no funding mechanism to cover them in rural and regional Victoria
- Most private practices charge private fees for these procedures, and several ACCHO staff report that this is creating a barrier to care for their clients at their local VES Rural practice
- One VES Rural practice suggested that VASSS funding be spread to cover retinal photography and OCT. This would assist the identification and diagnosis/management of vision-threatening eye disease, overcome a metropolitan/rural and regional inequity, and be in line with the desire of most VES Rural optometrists to emphasize their eye disease detection and management role (see "VES Rural practice participation" section).

Interviews identified two other high-risk groups as worthwhile targets for the VASSS: Aboriginal Victorians with disabilities, and Aboriginal Victorians either in prison or recently released. Targeting of these groups would require specific collaborations.

Summary:

- "Additional Intention 2" of the VASSS is sensible, is occurring in a passive way, but would benefit from specific funding and contractual rigour to make it a more active process
- The ACO, partner agencies and other health care providers have already achieved a great deal, but there is room for more selective targeting of patients, depending on which risks are to be prioritised (refractive, eye disease, systemic disease, disabilities, incarceration, other specific risks/barriers to care)
- Slit lamp biomicroscopes are a powerful and important piece of equipment in the identification of (and management of some) vision threatening eye disease, and would be a useful addition to ACCHOs
- Consideration should be given to funding options for the eye disease diagnostic procedures conducted in optometry practices that are not covered by Medicare

VASSS additional intention 3 – improved management of eye disease

The VASSS agreement between DHHS and ACO, aside from noting this additional intention, has no funding or contractual mechanism for achieving improved onward referral of eye disease treatable by ophthalmologists. As with additional intention 2, it is based on a sound idea – that if people attend an optometrist for refractive care, any eye disease present will be detected and managed appropriately. Appropriate management of eye disease, including referral to ophthalmology as indicated, is likely to be dependent on the same elements as additional intention 2, plus:

- An understanding of which diseases, and how, to manage versus when to refer
- A knowledge of how and who to refer to
- Functional and affordable services to refer to
- A knowledge of systems that exist to assist attendance at specialist services

All evidence suggests the ACO and other VES eye care practitioners have appropriate knowledge and skills to decide which eye diseases to manage, how to manage them, and which and when to refer. They have sensible clinical protocols and practice guidelines, and are registered practitioners who follow continuing professional development regulations. Evidence suggests that ACO and other VES eye care practitioners know how and who to refer to – ACO optometrists share VOS circuit notes that describe local options, and VES Rural practitioners have additional local knowledge that they share with visiting optometrists.

The existence of functional ophthalmologic services is location specific. One ACCHO Care Coordinator noted:

- "VASSS provides a good starting point for managing eye disease, but ophthalmology services are still difficult. Our local public ophthalmology clinic is non-functional. Private ophthalmology services need upfront fee payment, which is a difficult barrier, although RWAV can sometimes cover it"

Regarding systems to assist attendance at specialist services, ACO optometrists generally work in ACCHOs and appear to have good collegiate relationships with the Aboriginal Health Workers and Clinic Coordinators who facilitate client access to specialist services. Other VES practitioners appear less uniform in their approach – some coordinate with their local ACCHO, others leave it up to the self-agency of patients, which can lead to loss of follow-up.

- "My left eye has gone bonkers. But I saw the eye woman (optometrist) here (at the ACCHO) today and she said I need to see someone else (an ophthalmologist). (The Chronic Care Coordinator) will help me get there. It will be okay" (ACCHO client)

- "Ophthalmology referrals are workable because of the layers of care and support provided by the ACCHO. It would not be possible if we didn't arrange appointments, funding, payments, transport etc – our individual clients could not do it themselves" (ACCHO CEO)

- "We have a good local VES Rural optometry practice that can provide further diagnostic testing than our visiting service can – they charge a fee that our Chronic Care Program can cover if the patient has a chronic problem (e.g. diabetes), but otherwise it is a problem. We have 2 good ophthalmologists who visit the local hospital but they charge a lot. RWAV sometimes pays, but they are running out of money, and we are only 5 months into the financial year!" (ACCHO Care Coordinator)

A detailed story of the many components involved in some referrals emerged from discussions with a client, a care coordinator and an optometrist in one ACCHO site:

- The care coordinator noted the client has anxiety issues and wouldn't attend the local VES Rural private practice even though his vision was obviously declining rapidly. The client agreed to see the ACO optometrist visiting the ACCHO on the proviso that the care coordinator would attend the appointment with him. The optometrist allowed the care coordinator to attend, diagnosed cataracts, took time to talk through the process of having them fixed and to deal with the initial anxiety that resulted. Referral was arranged, the coordinator supported the client through the wait time, the ophthalmology assessment (in the same town) and the cataract surgery (in a nearby town), post-surgical care, and obtaining post-surgical glasses. The coordinator is pleased that the client's quality of life and participation in community is vastly improved from all the efforts getting to this point.

- The client noted that he was surprised how young and quickly he got cataract. (He has diabetes and has gone through stages of poor glucose control.) He was working, but had to stop as his vision "faded away really quickly". After a couple of months of increasing worry, he told the care coordinator at the local ACCHO. She organized an appointment for him but he couldn't attend due to anxiety issues. He agreed to see the visiting optometrist at the ACCHO if the care coordinator would attend with him. This appointment went well, as did the follow up with an ophthalmologist, the surgery and the post-surgical care. Having the vision problem made him anxious, as did seeing the eye people about the problem. But he is proud that he was able to step up and do something about it, and is hopeful for the future. He intends to restart work with new confidence.

- The optometrist noted that some examinations take additional time. It takes time, and communication and cultural skills to convey some problems and what should be done about them in a supportive way. Sometimes we need to be flexible (e.g. allowing the care coordinator in the room during an examination, who and how to refer to) to accommodate client and/or community needs. The complexity and flexibility need to be reflected in booking schedules. Diagnosis is assisted when a full-size slit lamp is available onsite.

Summary:

- VASSS optometrists and partner agencies are generally adaptable in finding ways to enable Aboriginal people with treatable eye disease to see an ophthalmologist. There are, however, difficulties and barriers, and an understanding of the time taken is warranted.

VASSS additional intention 4 – Aboriginal community involvement

The VASSS agreement between DHHS and ACO, aside from noting this additional intention, has no funding or contractual mechanism for achieving involvement of Aboriginal communities in the process of eye health planning. In fulfilling their role administering and delivering the VASSS, ACO staff appear committed to pursuing this intention however there are some suggestions that the structural commitment could be strengthened.

Activities, observations and comments include:

- ACO consulted with VAHS elders and senior staff to select the original VASSS frame range in 2010, and has repeated this since. Partnership with VAHS, and deference to elders and senior staff, are both understandable, however spectacle frame preferences are very likely to vary with age, gender and possibly also with location. Given that spectacle frame appearance is important in personal and community acceptance, it makes sense to consult as widely as practical

- The ACO employed its first Aboriginal Liaison Officer, assisted by VES Enhancement funds, during the period covered by this evaluation. This position has ceased; there were some questions over the most appropriate use and facilitation of the role, which the ACO has addressed via an internal review

- ACO has actively pursued collaborations with Aboriginal agencies, however limited examples could be identified of Aboriginal people or representatives sitting on ACO committees or review/decision structures. A VACCHO representative does sit on the VES Advisory Committee, and Aboriginal community representatives were initially involved in the Steering Committee of this evaluation

- Comments received suggest there are Aboriginal community representatives who would appreciate deeper and broader input to the process of planning eye health strategies at the ACO, and that this could be important for achieving genuine progress. Comments received suggest there is also some nervousness about tokenistic inclusion.

- “The community should have more say in the frame choices” (ACCHO CEO)

A new name to replace “VASSS”?

Interviews gave a general impression that neither the “Victorian Aboriginal Spectacles Subsidy Scheme” nor the “VASSS” resonate with the community as program names. Many community members refer to the program as “The $10 Spec Scheme”, which is simple and direct, but lacks emphasis on any of the broader goals, is opposed by the service providers, and is at-risk from any potential future price change.

Suggestions from interviewees regarding new names, or developing ideas for names, for the VASSS include:

- “‘Service’ or ‘program’ would sound better than ‘scheme’ – scheme sounds like a plot to trick someone” (ACCHO researcher)

- “The name should emphasize health and should resonate with community” (ACCHO Care Coordinator)

- “VACCHO could hold a naming competition – that would be a good way to find the next name” (ACCHO Clinic Coordinator)

- "Having a name in an Aboriginal language would be problematic at state-wide level. It works well at a local level, but no language covers the whole state" (ACCHO Client)
- "The Aboriginal Eye Health Service" (ACCHO Client)
- "The Aboriginal Eye Care Service" (ACCHO Chronic Care Coordinator)
- "The name should have meaning to the system operators and the Aboriginal community. The community should feel good about it. Neither 'VASSS' nor 'The $10 spec scheme' do all of this. Maybe 'Aboriginal Eye Support' would work?" (Researcher)
- "I think it should be called 'Aboriginal Vision'. People could call and say 'I want Aboriginal Vision'. It would help us think positively about identity and asking for help" (ACCHO Client)

Summary:

- Aboriginal community feedback suggests there is a desire for genuine, broader interactions with the ACO but some concern about tokenistic inclusion. Development of a Reconciliation Action Plan (RAP) by the ACO, that can guide more than "involvement of Aboriginal communities in the process of eye health planning" for the VASSS, may allay concerns and assist progress
- Additional intention 4 of the VASSS is sensible, but would benefit from DHHS funding. One option would be to mandate (through contract, and inclusion of a Monitoring, Evaluation and Learning budget) annual review with a panel representative of the Victorian Aboriginal Community. Discussions should include frame range, but certainly not be limited to that.
- Renaming the VASSS should be considered, either via some form of sector or community consultation, or considering "Aboriginal Vision", "Aboriginal Eye Support", "Aboriginal eye care service" or "Aboriginal eye health service".

VASSS additional intention 5 – awareness of eye health risks

The ACO has worked to increase awareness of eye health risks within the Victorian Aboriginal community by participating in many conferences and discussions, writing papers,[11] and contributing to the efforts of partner organisations (e.g. VACCHO's eye health promotion work). It appears clear that the ACO is well-networked in this area and actively seeks opportunities to interact further. The approach aims to educate and empower leaders in the Aboriginal community to spread information through their communities. There is undoubtedly a role for this top-down style approach. While it is outside the scope of this evaluation to measure the impact of these activities, particularly how they penetrate through to the community members who need it, anecdotes heard from community members are promising, e.g.:

- "Health literacy has increased in the community over the past 5-6 years. Improved access to eye care has contributed to that." (ACCHO staff)

Anecdotally, it appeared that top-down approaches dominated. However, there is also an important role here for more bottom-up approaches, such as education at every occasion of service. When an eye examination is performed, there is an opportunity for education of the patient, along with anyone who assists with their care (including parents, carers, GP, nurses, AHWs, care coordinators). This is of specific relevance to the specific patient at the specific time if they have an eye disease (e.g. glaucoma or macular degeneration) or systemic risks or conditions (e.g. smoking, diabetes), where education aims to manage or modify the risks of vision loss in the individual.

Patient education can also be used in a more general way. For example, the child-to-family approach[xxiv] seeks to enlist children (either at their own eye examination or at a school screening or school talk) as "case detectors/protectors" of people in their families or communities who need eye services (e.g. conveying that annual eye examinations prevent blindness in people with diabetes, or that smoking causes cataract).

- "VASSS brings more people to our ACCHO – it opens the door to general health care, other visiting services, harm reduction initiatives. It is great for diabetic care that the optometry service is in-house – people come for glasses, and tap into other services" (ACCHO Clinic Coordinator)

Optometrists who deliver the VASSS express their belief that they take every opportunity to raise awareness of eye health risks at eye examinations for Aboriginal Victorians. Care coordinators have expressed some missed opportunities:

- "There is a lack of feedback from our local VES practice. Sometimes they send a report to the GP, but often there is nothing." (ACCHO Care Coordinator)

- "Coordination requires an understandable summary to be written, or a report to the GP. Some optometrists write in jargon/code, which is not understandable to others." (ACCHO Care Coordinator)

Summary:

- While considerable achievements have been realised, there is room for the optometry team to consider and apply as many different mechanisms/activities as practical (bottom-up as well as top-down) for increasing awareness of eye health risks within the Victorian Aboriginal community

- While considerable achievements have been realised, there is room for further work by VACCHO, Regional eye and ear coordinators, Regional Projects, and/or an ACO ALO to further increase awareness of eye health risks and assist the connection of these risks with funded optometry services

VASSS impact

Health economics

The major direct impact of VASSS (sight restoration via supply of visual aids) on productivity within the Victorian community was estimated using standard health economics methodology, described in the Methodology section. It was based on:

- an ACO audit of record cards of adult Aboriginal Victorians consecutively presenting for eye examinations, with an average age of 48 years, and an age range of 18 – 80 years, found the following causes and proportions of vision impairment (VI) by World Health Organization (WHO) definitions[12]:
    - 8.1% had mild distance VI from uncorrected refractive error (URE)
    - 6.9% and 4.0% had moderate distance VI from URE and other causes respectively
    - 0.0% had severe distance VI, and 0.6% was blind from URE
- additionally, the ACO card audit found the following had habitual near VI by Global Burden of Disease (GBD) definitions[3]

[xxiv] The Child-to-Family and Child-to-Child approaches use child-centered, active learning approaches to engage children on health issues – children then disseminate their learnings to other children, their families and their wider communities. The approach has been used successfully in a range of activities including sanitation development in Indonesia and vision screening in the Eastern Mediterranean Region. An accessible place to learn more about the approach is http://www.child-to-child.org/, the website of the Child-to-Child Trust which has been promoting the benefit of the approach since 1987.

    - 19.1% had GBD defined uncorrected presbyopia
- the number of eye examinations (13,933) that ACO optometrists have performed for Aboriginal Victorians from the start of the VASSS until 30 June 2016
- the assumption that the card audit was representative across the whole 13,933 eye examinations
- GBD 2015 disability weights[3]
    - 0.003 for mild distance VI, 0.031 for moderate distance VI, 0.184 for severe distance VI, 0.187 for distance blindness, and 0.011 for uncorrected presbyopia
- 2014 Australia-wide all-ages labour force participation rate of 77%
- 2014 Australia-wide all-ages employment rate of 94%
- gross state product per capita for Victoria 2013-14 financial year of AU$60,413

The resulting estimate is aspirational in that it assumes no gap between Aboriginal and non-Aboriginal Victorians in their labour force participation, employment rates or gross state product per capita. It estimates a productivity gain in the community from the VASSS investment that will only be realistic when the gap between Aboriginal and non-Aboriginal Victorians is closed for labour force participation, employment and gross state product per capita. With these assumptions in mind, the findings are:

- AU$6.285million of productivity is gained annually in the community from the additional work that people can achieve through seeing better as a direct result of the VASSS investment
- AU$283,000 of productivity is gained annually in the community from the additional work that people can achieve through not having to care for people whose vision has been improved as a direct result of the VASSS investment
- The direct effect and the reduced carer costs add to AU$6.6million of annual productivity gain resulting from VASSS.

These calculations relate solely to correcting vision impairment from (previously uncorrected) refractive error. Additional economic impact will have occurred from identification and treatment of eye diseases.

Aboriginal (holistic) Health

“Education helps break into generational poverty and vision is enabling that process.” Kovin Naidoo, TEDx talk 2016

- “Young kids get a lot from the VASSS. Parents used to avoid eye examinations for children because of fear of the cost of glasses, and that if glasses were advised and they couldn’t afford them, they would be seen as bad parents. Now there’s no problem. And lots of people say their kids concentrate better, behave better and do better at school” (ACCHO Care Coordinator)

Clients and ACCHO staff repeatedly note benefits to personal agency in health seeking, health and beyond:

- “VASSS has made a big difference to understanding diabetes and medications. Being able to see makes a big difference to engagement with life! People can see food properly, and this helps people make good dietary choices” (ACCHO Care Coordinator)
- “Seeing better with glasses is an easy fix – clients can see an optometrist, get glasses, and see better. Achieving this makes people feel better – they realise that things can be *done*, things can be *fixed*. There is value in a person realizing a positive outcome from having an eye examination. It helps people *own their health*, which changes their approach to solving health problems.” (ACCHO staff)

- "The Scheme has been really well received by community. Our (ACCHO) service emphasize health education and promotion, and setting good habits for regular checks across all health areas. We believe it's good to make a habit of the 'cycle of health' – having an eye test is part of this, and the Scheme has made it easier for us" (ACHO Chronic Care Coordinator)

Relating to this idea of increasing personal agency, one ACCHO Chronic Care Coordinator has a quote from the poem *Invictus* by William Ernest Henley on her wall which describes her aim with clients, and which she reports that VASSS helps her to achieve:

> "I am the master of my fate
> I am the captain of my soul."

Other effects described:

- "The glasses I was able to get through the scheme has improved my work. I research using computers and books, and now I can help more clients" (ACCHO Client)

- "Our service promotes the motto that 'Healthy eyes give healthy life' – eyesight is important to seeing country and being part of community" (ACCHO CEO)

- "Aboriginal designs on cases, cords, or lens cloths would be good – they would improve ownership, increase pride and community spirit – it would promote the idea of valuing culture" (ACCHO Clinic Coordinator)

- "Poor vision depresses people. I think that VASSS contributes broadly to community well-being. When you improve vision you improve access to health care, ability to follow advice, take medications, have confidence in yourself and others" (ACCHO Chronic Care Coordinator)

- "Glasses sometimes make a massive difference to kids' behavior. And they enable older people get out and do things – things that might not seem too important, like bingo, but doing these social things are really important to people's wellbeing. Without the right glasses they can't do it" (ACCHO Care Coordinator)

Epidemiology

The results of the National Eye Health Survey have recently been released.[13] Comparison of these 2016 results with the National Indigenous Eye Health Survey from 2009 gives some indication of progress at the community-wide, epidemiological level.[5]

- In 2009, prevalence of Australia-wide age-adjusted adult bilateral presenting VI (VA <6/12-6/60) in the Indigenous community was found to be 14.42%.[5] In 2016, this has reduced slightly to 13.60%.[13]

- In 2009, prevalence of Australia-wide age-adjusted adult bilateral presenting blindness (VA<6/60) in the Indigenous community was found to be 2.79%.[5] In 2016, this has reduced significantly to 0.36%.[13]

These Australia-wide changes obviously dilute any effect of the VASSS, which only covers Victoria. Victoria-specific figures are based on small sample sizes and are inherently unstable and unreliable. With this in mind, the Victorian figures also appear positive, with crude prevalence of adult bilateral presenting VI in Indigenous Victorians decreasing from 6.9% in 2009 to 5.1% in 2016.[5,13]

Even in Victoria, far too much has happened between 2009 and 2016 to attribute changes to any one program. However, it is useful to know that prevalence of vision impairment and blindness in Indigenous Australians appears to have moved in the right direction during the time the VASSS has been operational. As Mahatma Ghandi noted:

> "You may never know what results come of your actions, but if you do nothing, there will be no results."

Summary:

- While based on aspirational economic data, a standard health economics calculation suggests that the VASSS investment may return far greater value to Victoria in productivity gains than it has cost
- VASSS appears to generate broader benefits than correcting vision and detecting eye disease – it is commonly described as improving self-agency, engagement with culture and community, and broad aspects of Aboriginal (holistic) health

Review of the service delivery model

The core element of VASSS is state government funding that adds to the VES to facilitate supply, through the VES network, of visual aids at a fixed price, to an expanded and community-accepted range of spectacle frames, to any Aboriginal Victorian regardless of Pensioner Concession or Health Care Card status. This core element, which is contracted and funded, has been successfully delivered and is suggested to continue. There has also been a distinctly measurable, although potentially confounded, effect on Aboriginal uptake of primary eye care (additional intention 1). Provision of primary and secondary eye care, covering additional intentions 1, 2 and 3, is part of optometry's core model of care and is substantially funded[xxv] by Medicare. These elements are also likely to have been successfully delivered, within the caveats discussed in the sections relating to each additional intention.

The other two additional intentions (4 and 5) posed by DHHS are both sensible, but have no funding or contractual elements in the VASSS to give obligation or incentive (aside from being good ideas and good practice) for the ACO to pursue them. This is not to say they have not been pursued, but it is likely to make them difficult to prioritise and sustain. In general terms, they fit within the ACO's approach to clinical excellence, which includes clinical audits, professional development, mentoring and leadership.

Within the funding that is provided, there is room for adjusting the mix of service delivery via local, VES Rural private practices, versus visiting services (by metropolitan-based public health optometrists, or locally-based private optometrists) within community facilities. Local, VES Rural private practices have an immediate appeal in terms of ongoing, sustainable care provision, equipment suites, and local knowledge and referral networks. Visiting services have an appeal in terms of accessibility and concepts of self-determination.

Sustainability of rural and regional access, with a locally-appropriate mix of visiting service and VES Rural practice involvement, is likely to require specific investments. VES Rural practitioners generally accept the VASSS subsidy and patient co-payment as fair and reasonable payment specifically for the supply and delivery of glasses. However, in many cases they feel they are subsidising the overall process of refractive and eye health service delivery. The following reasons were cited:

- Many practices charge full Medicare fees to most patients, but need to bulk-bill patients accessing VES or VASSS (15% loss of income)
- Many practices usually charge private fees for specific diagnostic procedures, but there are issues doing so for patients accessing VES or VASSS (additional loss of income)
- Aboriginal patients are considered more complex than non-Aboriginal patients (e.g. due to higher rates of presenting vision impairment) and are consequently thought to take greater average "chair time"
- "No show" rates are higher for Aboriginal patients, leading to a direct loss of Medicare income

[xxv] Historically, Medicare has been accepted as reasonably complete funding of a comprehensive eye examination by an optometrist. However, the Medicare freeze that has been in place for several years, plus other changes in Medicare items for optometrists, which are all set to continue for several more years under current federal government policy, have eroded this assumption

- VOS funding can be used to subsidise travel expenses for Melbourne-based optometrists to work at regional clinics, but cannot be used to encourage local practitioners to work at their local ACCHO

    - The most common funding flexibilities that regional practitioners mentioned would make them more likely to work at their local ACCHO, were a sessional fee (making income unrelated to attendance rate, which they have no control over), and supply of a full-sized permanent slit lamp at the ACCHO

- Monitoring data (currently not supplied, but would be valuable to help complete the picture of VASSS activity, successes and failures) would take time to collect and pass on

Investments in cultural safety training, or encouraging broader interactions between practices and local communities, would also be beneficial in many places. The following comments were collected during visits around the state:

- "The front-of-house staff (at our local VES Rural practice) are rude on the phone and in person. They don't make us or our clients welcome. It looks very commercial, and that makes people think they will get up-sold and it will be unaffordable. The staff didn't attend cultural training when it was available (for free). We have also invited the optometrist to talk to community about diabetic eye disease, but he declined. We have been much happier with the visiting service from the ACO – the optometrists are very good, they are flexible and look after our clients very well." (ACCHO Care Coordinator)

- "It would be good if VES Rural practices could display an Aboriginal flag and/or poster" (ACCHO AHW)

Some ACCHO staff mentioned issues with enabling non-Aboriginal partners of Aboriginal people to access the VASSS:

- "Some visiting optometrists have encouraged partners to use the VASSS because it fits with their understanding of identifying as Aboriginal. But local staff should decide – some "partners" come and go very rapidly and using the VASSS this way can cause resentment" (ACCHO Clinic Coordinator)

Some ACCHO staff mentioned issues with organising review appointments for visiting optometrists. The ACO should ensure clear responsibility for who and how reviews are organised, with a realistic view to the capacity of host agencies.

Some ACCHO staff mentioned that as glasses are delivered at the ACCHO, without an optometrist or optical dispenser present, sometimes the fit is not ideal. "Glasses are uncomfortable if they are too tight or too loose. It would be a shame if the scheme got a poor reputation because of this simple issue" (ACCHO Clinic Coordinator).

Summary:

- A mix of service delivery models reactive to local need, preference and opportunity is most likely to result in continued success and sustainability. Funding flexibility through VASSS or VOS is likely to be needed to continue, improve and expand on the role of regionally-based practitioners

- While positive stories show that VES Rural practices can be a critical part of successful service delivery of Aboriginal eye care, other VES Rural practices do not yet present a culturally safe place for Aboriginal people. It is important to recognise that these practices are private enterprises with sensitivities to outside influence, and that a combination of engagement, understanding and flexibility is required for sustained participation. In encouraging Aboriginal cultural safety training, course fees should be covered by ACO/DHHS funding, the format should be appropriate to their work situation, and a flexible approach taken that recognises the diversity of staff (some have worked closely with their local Aboriginal community for decades, others are new to the interaction; some identify as Aboriginal themselves)

- Rules governing access by non-Aboriginal partners of Aboriginal people should be reviewed and clarified
- Responsibility for organising optometry reviews of patients at risk of vision threatening eye diseases appears to be ambiguous at some sites and should be clarified
- Glasses are delivered without a proper fit at some sites. Some community stakeholders suggested investigating options to train a group of AHWs to deliver glasses (frame adjustments, and vision check) and support them to fulfil the role of delivering glasses at their ACCHO over time.

Comparison of VASSS to sector-endorsed principles

It is worth comparing the VASSS to the principles for supply of subsidised spectacles to Aboriginal peoples endorsed by NACCHO, Vision 2020 Australia and Optometry Australia.[14] Principle 1 – aligning jurisdictional schemes for national consistency – has not been met. Subsidised spectacle schemes are operational in all jurisdictions across Australia, but all differ in eligibility, entitlement, product range, cost and payment systems. The differences result in a range of impacts, and potential confusion. However, aligning the different schemes is not in the control of the direct stakeholders in the VASSS and beyond this evaluation. The other principles are more relevant:

- Principle 2 – enable better access. Recommends eligibility for all patients who identify as Aboriginal or Torres Strait Islander. The VASSS provides this.
- Principle 3 – implemented through an ongoing process of community consultation. Recommends a standing advisory committee to advise on design and operation of the scheme, processes for broader consultation, and evaluation of the scheme. The VASSS broadly conforms to this, via the Statewide Aboriginal Eye Health Committee, however there appears room to refine the processes of community consultation and monitoring, evaluation and learning as discussed throughout this evaluation.
- Principle 4 – address financial barriers to access. Recommends a patient co-payment of no more than $15 (2016 value) for clinically-needed visual aids, with reasonable increases for subsequent aids in case of loss or breakage within 2 years. The VASSS provides this.
- Principle 5 – minimize practical barriers to patient and provider participation. Recommends fair reimbursement of optical dispensers, and delivery arrangements that minimize barriers to patients. The VASSS generally achieves this, however, broader elements of practitioner support are worth reviewing (e.g. elements of monitoring, evaluation and learning, cultural safety training) for program sustainability and overcoming some residual patient barriers.
- Principle 6 – offer choice within a quality framework. Recommends that visual aids should provide a suitably broad range for the physical environment, demographic and clinical needs of the jurisdiction, with review at least every third year including input from patients and providers. The VASSS broadly achieves this, although tweaks to the review process are noted elsewhere in this report.

Summary:

- VASSS substantively conforms to sector-endorsed principles for supply of subsidised spectacles to Aboriginal peoples, with adjustments suggested in the relevant sections

ACO visiting services

VASSS success depends on a range of concurrent programs, affiliations, collaborations and funding to enable the ACO to deliver services outside of its facilities and within Aboriginal communities. VES funding, Medicare, VACCHO support, and the $10 patient co-payment for visual aids all play important roles, however this section will focus on host agencies and specific travel funding. Each of the sessions quantified in Figure 19 depended on

a host organisation (an ACCHO, Community Health Service, other support agency, school etc.), and many (VOS and "other visiting services") depended on travel assistance.

Figure 19. Number of optometry sessions (half days) conducted by the ACO within Aboriginal Victorian communities since July 2011. VAHS and "other visiting services" (mostly VES-funded outreach) sessions have been stable over the period to June 2016, while VOS-funded visiting services have been growing.

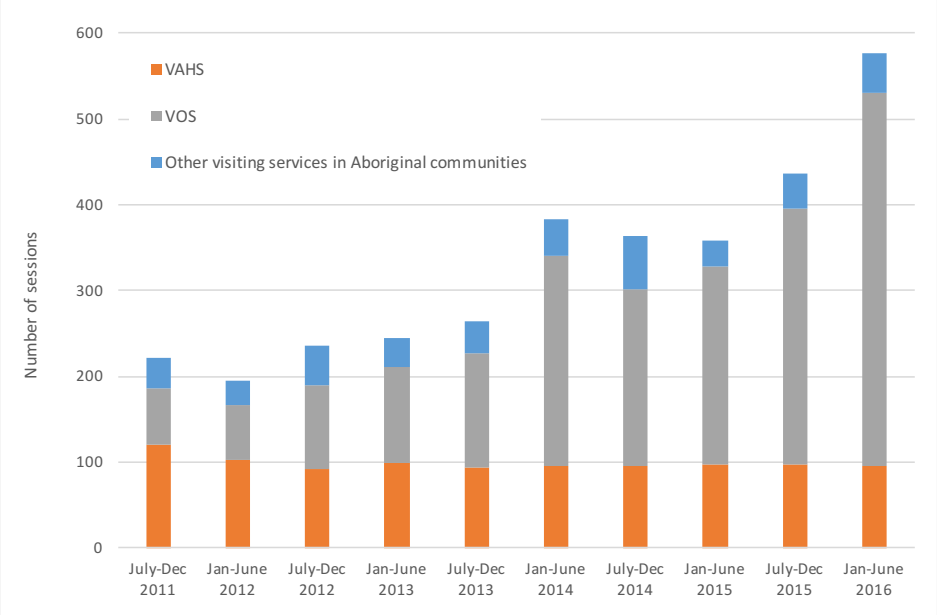
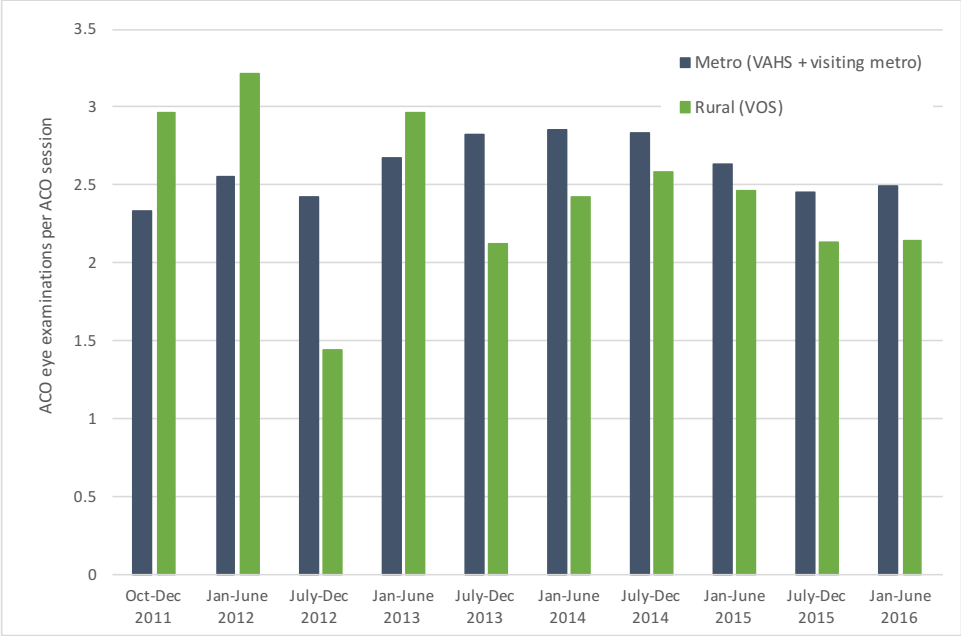


Figure 20. Eye examinations provided per session conducted by the ACO within Aboriginal Victorian communities since October 2011. No discernible trends are evident.



ACO staff acknowledge the critically important and diligent work carried out by ACCHO and other agency staff in making their visiting sessions work. The staff of host agencies book optometry appointments for clients, follow up issues, organise transport and a range of other support services. Without this support, ACO visiting services would not achieve the outcomes they have.

Isolated reports noted issues with glasses prescribed by some visiting optometrists. The consistency and type of problem sounds like some optometrists have not adjusted prescriptions to allow for doing their visiting refractions in some very small (e.g. 2.2m) rooms. Complaints have been received at the ACCHO from community, and these issues will be difficult to overcome (i.e. long-term reputational damage will occur) if they are not

addressed. Regular practitioner peer-peer review of successes, failures, things that work, and things that don't work in Aboriginal communities and/or visiting service situations (e.g. refraction techniques and prescription adjustments needed when working in very small (makeshift) consulting rooms) may be beneficial.

Summary:

- ACCHOs and other agencies that host visiting services provide support services that are critical to achieving access, particularly for the most complex clients
- Consider peer-peer review of things that work in situations encountered during VASSS work

VES Rural practice participation

An online survey was conducted of the VES Rural practices that participate in the VASSS. Of the 26 participating practices, 4 opted out of any involvement in the evaluation, so a survey invitation was sent to 22 practices. Ten practices completed the survey, an overall response rate of 38%. Results include:

- All practices choose to participate in VASSS delivery because they want to contribute to Aboriginal eye and vision health and close the gap in vision. No one participates to benefit their business. One felt obliged after being approached by the ACO who had had requests from local Aboriginal services.
- 60% of practices agreed (20%) or strongly agreed (40%) that the VASSS helps them to address eye care issues in the Aboriginal community. 30% were neutral, and one practice disagreed.
    - The practice who disagreed was asked to rank the things they think are missing from, or what could be changed about, the VASSS to help them address eye care issues in the Aboriginal community. The five highest priority things were:
        - a focus on attendance at appointments;
        - a greater focus on primary eye care;
        - an appreciation given to, and value placed on, eye health services rather than spectacles;
        - a greater focus on detection and management of eye diseases;
        - a focus on community education.
    - The practices who were neutral were asked to rank the things they think are missing from, or what could be changed about, the VASSS to help them better address eye care issues in the Aboriginal community. The five highest priority things were:
        - a different payment structure;
        - a different choice of frames;
        - requirement for card status (Pensioner Concession or Health Care Card) to access the VASSS;
        - a greater focus on detection and management of eye diseases;
        - a focus on attendance at appointments.
    - The practices who agreed or strongly agreed were asked to rank the things they think have helped them better address eye care issues in the Aboriginal community. The five highest priority things were:
        - it has helped a focus on community education;
        - the choice of frames is so much better;
        - it has helped increase attendance at appointments;
        - it has helped the community to focus on developmental issues in children;
        - it has increased the assistance from the local Aboriginal support agency (co-op, corporation, etc).

- All practices were asked to move a sliding scale to indicate how they felt about several propositions, where 0 means "strongly disagree" and 100 means "strongly agree". The following are the average scores across all practices:
  - The ACO and its administration of the VASSS has helped me to provide high quality, culturally-appropriate eye care to Aboriginal Victorians, 67 (range 25-85)
  - VASSS rules are easy for our practice to follow, 55 (range 0-84)
  - The VASSS frame range works well for our practice, 68 (range 35-88)
  - The VASSS frame range is appropriate for the Aboriginal community that our practice sees, 65 (range 30-86)
  - The financial reward for delivering the VASSS ($10 co-payment plus subsidy from ACO/state government) is fair and reasonable, 72 (range 50-100)

- 67% of practices prefer Aboriginal eye care to be delivered in optometry practices such as theirs, while 33% would prefer it to be delivered in local Aboriginal health clinics

- All practices were asked to move a sliding scale to indicate whether they see their practice remaining involved in delivering the VASSS over the next 4 years, where 0 means "strongly disagree" and 100 means "strongly agree".
  - The average result was 75, with a range of 50-85

- In response to open questions, replies included:
  - "We love the simplicity of the $10 co-payment regardless of SV/BF/MF"
  - "We disagree with availability to all Aboriginals regardless of financial status"
  - "ACO optometrists visit our local ACCHO and offer frames that we don't carry. We are then expected to get them to make the job, but this costs us time and money"
  - "The low cost can lead to abuse of the scheme"
  - "A fee for imaging (OCT/photography) would be the best way to focus on eye health rather than just glasses"
  - "Cut out non-disadvantaged clients and tighten the rules on spectacle remakes within 2 years"
  - "More stringent and concrete rules on what can/can't be obtained through the VASSS (more like VES) would help us"

Additionally, comments from discussions with VES Rural practices include:

- "Cultural training would be sensible for practice staff – everyone from front-of-house to optometrists. Greater understanding is always helpful. However, it should recognize that this is an extra cost to practices and be approached appropriately."

- "I recommend going to market for frames – I think you could cut costs significantly, while maintaining quality, warranty and promoting social enterprise"

- "The VASSS should be re-focused on comprehensive eye examinations, and the name of the program should reflect this. The Medicare freeze has made it very difficult to participate in this kind of program – I hesitate every year before signing the contract that says I can't charge any examination fee above the bulk-billed Medicare rate (which just doesn't cover our costs anymore). I have kept signing it, but I don't know how much longer I can do it."

- "We appreciate the ease and efficiency of the online application that started about 18 months ago. The VES phone helpers at the ACO are great"

- "There are grey areas in the rules – such as transitions and frames from outside the range. This makes the VASSS more difficult than the VES, which is more definite. Maybe make the rules the same as the VES, except VASSS frames, $10 co-payment, and no concession card needed?"

- Several practices expressed suspicion that some non-Aboriginal people might access the VASSS, just by saying they are Aboriginal (some ACCHOs agree that this probably happens). They acknowledge that the numbers are very small, but they get frustrated about it.

- "The men's frames don't include many with a wide bridge. Some of the frames are more suitable to a young Asian face than an older Aboriginal face."

- "Since the ACO started visiting services at the local ACCHO, I see mostly referrals for secondary care. But even so, there are too many clients who don't attend appointments"

- "Attendance for annual diabetic eye examinations is variable – we need greater support from the ACCHO and GPs to make these happen"

- "We don't have space to keep a stock of VASSS frames, so we order them on a per item basis. Most of the profit margin goes on postage/couriering! The incentive should be increased. Or, it would be simpler if we could just use the VES frames"
    - Another practice remarked that savings can be made if you know how.

- "A combination of the Medicare freeze, increasing VASSS and increasing VES, and the dwindling private payers increasingly taking their spectacle prescription to buy glasses online, means that our practice is under extreme financial pressure. We can't afford the no-shows and difficulties with the VASSS"

- A VES Rural practitioner who has chosen not to participate in the VASSS remarked that he would be happy to support a visiting service at a local ACCHO if there was a slit lamp and retinal camera onsite, and there was a sessional fee (rather than taking Medicare fees). He maintains the right to run his private practice in the way he wants – so couldn't sign onto the rules of VASSS, but wants to work for social good and would contribute if that were possible.

Summary:

- Individual approaches are needed in every location (e.g. those who feel the VASSS has helped address eye care issues in the Aboriginal community think the frames are great and attendance has improved, while those who feel the VASSS hasn't helped think the opposite)

- It would be worth considering annual open fora for participating practices to: 1) express any issues they experience with the Scheme and 2) propose frame ranges they believe would be as good or better than the current range but that might reduce costs to practices, and 3) propose models of dispensing (e.g. supply and fit) that might reduce costs to some practices (potentially changing the state-wide approach, or just providing peer-peer learning)

- Cultural safety training should be offered in a form that recognises the cost to practices and the reality of travel (note that webinars can be efficient and engaging in areas with sufficient connection speeds)

Comparing current delivery to need

The IEH provides a helpful calculator (http://dr-grading.iehu.unimelb.edu.au/ecwc/) for estimating eye care needs within an Aboriginal community.[4] The estimate it provides in relation to determining the need for VASSS visual aids or associated eye examinations is rough for several reasons:

1. We don't know what proportion of Aboriginal Victorians (or any subset) want to access VASSS supported care and glasses as compared to another form of care/glasses (e.g. hospital-based, or private optometry)[xxvi]

[xxvi] During this evaluation, ACCHO staff around the state were asked what proportion of their community they thought would want to access VASSS care and glasses, versus the proportion they thought would want to access a different form of care and

2. The IEH calculator includes all ages for comprehensive eye examinations but only people over the age of 40 years for spectacles (the VASSS and related comprehensive eye examinations are open to all age groups)

3. The most available population figure to enter into the calculator is the number of people identified as *having Aboriginal or Torres Strait Islander ancestry* on the ABS Census, which is likely to be a larger figure than those *who identify as Aboriginal or Torres Strait Islander* (the question that determines access to VASSS)

4. The Aboriginal population of Victoria is growing and the 2016 ABS Census is likely to have a larger figure than the currently available 2011 ABS Census

5. The Calculator for the number of comprehensive eye examinations is based on achieving equality with non-Aboriginal Australians (17% of whom access a comprehensive optometry examination each year); however we don't know if this under-, over- or accurately represents need in the non-Aboriginal community let alone the Aboriginal community who have both higher and lower risk factors in different areas of eye health and vision care

6. We don't know how well targeted the VASSS is – if the VASSS successfully targets less healthy people with worse vision, it would have a better chance of servicing the highest need with lower numbers.

Reasons 1 and 3 will tend to over-estimate need; reasons 2 and 4 will tend to under-estimate; reasons 5 and 6 could over- or under-estimate depending on unknown factors. On current data, it is unknown where the overall balance of these caveats lies. However, with the caveats in mind, the calculator is the best option available for comparing current services to some estimate of need:

- The number of Aboriginal Victorians (all ages) accessing VASSS visual aids over the 2015-16 financial year was estimated to be 2186, compared to the IEH calculator estimated number of people over 40 requiring glasses each year of 2411[xxvii]

- The ACO performed 3182 comprehensive eye examinations for Aboriginal Victorians over the 2015-16 financial year, compared to the IEH calculator estimated annual need for eye examinations of 6409 for Aboriginal Victorians[xxviii]. There is additional uncertainty in knowing whether the VASSS is supporting the right number of comprehensive eye examinations because, in addition to the caveats listed above, we don't know how many examinations VASSS supports in VES Rural practices.

Options for limiting need

NB: This evaluation only suggests acting to limit need if absolutely required due to budgetary constraint.

Option 1 – limit by a measurable indicator of ability to pay (e.g. concession card status):

Reason: to limit numbers for budgetary reasons without limiting access to those in greatest financial need

- Clients and ACCHO staff are almost universally opposed to this when it is framed as a choice between VASSS for $10 versus private fees
    - "Aboriginal people without HCC/PCC are often still financially limited due to family responsibilities, which extend further in the Aboriginal community than Centrelink acknowledges. I think that our people show their level of need by self-selecting VASSS-supported care versus private care – so a check on card status is unnecessary and would just create a barrier without solving any problem." (ACCHO staff)

glasses (e.g. hospital-based, or private optometry). Results are anecdotal, but varied from 80 (VASSS):20 (other) to 99.9 (VASSS): 0.1 (other)

[xxvii] Based on 2011 ABS Census data, and broadly expected to increase when 2016 ABS Census data is released

[xxviii] Based on 2011 ABS Census data, and broadly expected to increase when 2016 ABS Census data is released

- Several VES Rural practices have requested this change to VASSS accessibility
- The proportion of people accessing the VASSS who have a concession card is likely to be high, but we do not have exact data

Advice: this would increase paperwork and create potential barriers for what could be little benefit in terms of controlling numbers. A step-wise option may work better, where all Aboriginal Victorians can access VASSS, which costs $10 if you have a concession card or $50 (for example) if you don't, with commensurate decrease in subsidy for the latter.

Option 2 – limit by vision gain:

Reason: to limit numbers for budgetary reasons without limiting access to those in greatest need of vision correction or at greatest risk of vison-threatening eye diseases

- If vision is worse than an agreed cutoff, or refractive error is greater than an agreed amount, glasses would be provided for a co-payment of $10
- If vision is better than an agreed cutoff, or refractive error is less than an agreed amount, glasses would be provided for a higher co-payment (e.g. $50), with a commensurate decrease in government funding

Advice: this would add complexity to a scheme whose success has, to some extent, been based on a very simple message of cost surety. But it would encourage targeted care to those with the greatest vision problems

Option 3 – limit by maintaining funding at the current level, which appears to not cover need:

Reason: to create budgetary certainty without changing any rules of access

- ACO would need to limit services provided so that supply lasted through the funding period
    - This may create longer wait lists, which may bias the community who can potentially afford it to self-select towards private eye care and away from VASSS-supported eye care. Alternatively, it may simply discourage access to eye care in an indiscriminate way

Advice: while this would give budget certainty, it would be a poor policy mechanism for closing the gap in vision.

Summary:

- The number of Aboriginal Victorians (all ages) accessing VASSS visual aids over the 2015-16 financial year was estimated to be 2,186, compared to the IEH calculator estimated number of people over 40 requiring glasses each year of 2,411
- The ACO performed 3,182 comprehensive eye examinations for Aboriginal Victorians over the 2015-16 financial year, compared to the IEH calculator estimated annual need for eye examinations of 6,409 for Aboriginal Victorians
- The evaluator suggests increasing funding to the level of need, however three options for limiting the need for VASSS are discussed if budgets necessitate

CONCLUSIONS

Main messages

The Evaluation findings lead to the following conclusions, with references to the evaluation details on which they are based:

1. The overarching conclusion is that continuing the VASSS is imperative to achieving equitable access to visual aids by Aboriginal Victorians, and the direct and indirect benefits to health, productivity and quality of life that result – synthesis of all sections of Report

2. VASSS funding should be increased to the level of need[xxix], or, *only* if budget necessitates, restricted in a way that is most likely to fulfil a policy aim (e.g. preferentially encouraging access by those with the greatest vision impairment from uncorrected refractive error and/or at highest risk of vision-threatening eye disease, and/or by those in greatest financial stress, while discouraging all others) – combining findings in "Analysis of eye examination numbers" and "Analysis of visual aid delivery numbers" with "Comparing current service delivery to need" and "Options for limiting need"

3. The VASSS patient co-payment should remain at $10, with consideration of co-payment tiers *only* if needed to limit access and drive targeting towards those in highest need or at greatest risk – from "Cost" subsection of "Access to and quality of refractive care for Aboriginal Victorians"

4. Funding flexibility through VASSS and/or VOS is likely to be needed to continue, improve and expand on the role of regionally-based practitioners, who are a useful component in enabling service delivery models to be reactive to local need, preference and opportunity, thereby improving the likelihood of continued success and sustainability. – from "Regional changes over time", "Cultural appropriateness of access points/care" and "Review of the service delivery model"

5. Regional Aboriginal Eye Health Projects appear to be significant enablers of the VASSS and should continue where possible – from "Regional changes over time"

6. DHHS Aboriginal Health and Well-Being Branch should consider adding a Monitoring, Evaluation and Learning component to the VASSS funding and contract with the ACO; to facilitate:

    - continuous quality improvement and service prioritisation via ongoing monitoring of variables such as geographic distribution of VASSS visual aids and eye examinations by all providers
    - annual program-wide reviews with a panel representative of Victorian Aboriginal Communities
    - annual practitioner peer-peer review of problems/successes encountered during VASSS work
    - annual open fora for participating VES Rural practices to: 1) express any issues they experience with the Scheme, 2) propose frame ranges they believe would be as good or better than the current range, and 3) propose models of dispensing (e.g. supply and fit) that might reduce costs or increase quality (potentially changing the state-wide approach, or just providing peer-peer learning)
    - the ability of VASSS monitoring and evaluation to influence future decision-making at DHHS by improving ACO and VES Rural data collection systems to overcome current limitations

    From "Spectacle frame suitability", "ACO visiting services" and "VES Rural practice participation"

7. Consider funding slit lamp biomicroscopes for ACCHOs, as they are a powerful and important piece of equipment in the identification of (and management of some) vision threatening eye disease – from "VASSS additional intention 2"

[xxix] Estimates are made, with discussion of several significant unknowns in the calculations, along with options for limiting growth, in the section "Review of the service delivery model"

8. Consider funding options for the eye disease diagnostic procedures conducted in VES Rural practices that are not covered by Medicare – from "VASSS additional intention 3"

9. Include a health promotion and education component in the Scheme to:

   - support optometry access pathways that encourage the Aboriginal Victorians at highest risk of vision impairment to make and attend VASSS-supported comprehensive eye examinations[xxx]
   - investigate, in consultation with VACCHO, options to train a group of AHWs to deliver glasses (frame adjustments and vision check) and do some minor repairs, and support them to fulfil the role of delivering glasses at their ACCHO over time

   From "Review of the service delivery model"

Additional improvements and suggestions

While the scheme to date has met the overall aim, the following additional suggestions, with references to the evaluation details on which they are based, are provided for the purpose of ongoing sustainability and further improvement:

10. Pending expanded funding, appropriate checks and planning, the mapping component of this evaluation suggests targeting access improvements in Colac-Otway, Corangamite, Benalla, Central Goldfields, Macedon Ranges, Monash and Mount Alexander – from "Geographic distribution across Victoria"

11. the ACO continue to work with partner agencies to prioritise targeting of clients with the highest risks (of refractive problems, eye disease, and barriers to care) – from "VASSS additional intention 2"

12. consider renaming the VASSS, either via some form of sector or community consultation, or considering "Aboriginal Vision", "Aboriginal Eye Support", "Aboriginal eye care service" or "Aboriginal eye health service" – from "VASSS additional intention 4"

13. VES Rural practices are private enterprises with sensitivities to outside influence, so a combination of engagement, understanding and flexibility is required for sustained participation. In encouraging Aboriginal cultural safety training, course fees should be covered by ACO/DHHS funding, the format should be appropriate to their work situation, and a flexible approach taken that recognises the diversity of staff (some have worked closely with their local Aboriginal community for decades, others are new to the interaction; some identify as Aboriginal themselves) – from "VES Rural practice participation" and "Review of the service delivery model"

14. the ACO consider how it can achieve deeper, broader and genuine interactions and encourage input into the process of planning eye health strategies from Aboriginal community stakeholders. This may involve the ACO deciding to develop a Reconciliation Action Plan (RAP) or Aboriginal Inclusion Plan, then consulting with Aboriginal communities to develop a plan that can guide not only "involvement of Aboriginal communities in the process of eye health planning" for the VASSS, but also genuine, broader interactions of the ACO with Aboriginal people and communities (it is understood that the ACO is in the early stages of considering this) – from "VASSS additional intention 4"

15. the ACO produce a simply worded, community friendly, positive[xxxi] statement explaining the VASSS replacement charges, to be dispensed with new glasses at the discretion of each site – from "Cost"

[xxx] This could potentially be via additional collaboration with VACCHO, Regional Projects, Regional Coordinators, and/or an ALO position at the ACO. The aim would be to reach those most at risk with health promotion via a variety of awareness-raising activities including assisting optometrists with their educational messaging to community

[xxxi] Framed around concepts of fairness and health self-agency rather than a punishment for irresponsibility, and noting that, if glasses have been lost or broken, it is worth arranging an examination to find out if vision/refraction/eye health has changed. The statement should be prepared in consultation with an Aboriginal community stakeholder such as VACCHO.

16. there are conflicting opinions on the importance of children's vision issues in the Aboriginal (and wider) community – evidence of the effects of managing children's vision disorders in Aboriginal communities is needed before a recommendation can be given – from "VASSS additional intention 1"

17. review (site specific with partner agencies) the responsibility for organising optometry reviews and how this should be done – from "Review of the service delivery model"

18. consider holding (with VACCHO) a competition for an Aboriginal design to be printed on spectacle cases and/or lens cloths – from "Spectacle frame suitability"

19. review and clarify the rules governing access by non-Aboriginal partners of Aboriginal people – from "Review of the service delivery model"

APPENDIX 1 – Data Tables

Table A1 – ACO eye examinations for Aboriginal people in each Victorian region in each year since VASSS started (Regional level)

	Number of Aboriginal people living in region		Change in Aboriginal population from 2006 to 2011		Number of eye examinations in the financial year ending							Eye examinations as a percentage of the regional Aboriginal population in the financial year ending					
Region	2011 ABS Census	2006 ABS Census	#	%	2011	2012	2013	2014	2015	2016	Total	2011	2012	2013	2014	2015	2016
Barwon South West	3531	2776	755	27%	14	15	72	70	58	81	310	0.4%	0.4%	2.0%	2.0%	1.6%	2.3%
Eastern Metro	2966	2576	390	15%	94	114	147	148	249	282	1034	3.2%	3.8%	5.0%	5.0%	8.4%	9.5%
Gippsland	3816	3066	750	24%	81	71	145	201	304	234	1036	2.1%	1.9%	3.8%	5.3%	8.0%	6.1%
Grampians	2408	1762	646	37%	25	26	52	56	125	154	438	1.0%	1.1%	2.2%	2.3%	5.2%	6.4%
Hume	4564	3685	879	24%	11	35	56	72	72	156	402	0.2%	0.8%	1.2%	1.6%	1.6%	3.4%
Loddon Mallee	5794	4611	1183	26%	122	234	188	279	463	540	1826	2.1%	4.0%	3.2%	4.8%	8.0%	9.3%
Northern & Western Metro	9085	7274	1811	25%	709	919	888	972	1062	1075	5625	7.8%	10.1%	9.8%	10.7%	11.7%	11.8%
Southern Metro	5531	4278	1253	29%	254	325	289	311	421	425	2025	4.6%	5.9%	5.2%	5.6%	7.6%	7.7%
Other					60	88	116	170	201	235	870						
Total	37695	30028	7667	26%	1370	1827	1953	2279	2955	3182	13566	3.6%	4.8%	5.2%	6.0%	7.8%	8.4%

Table A2 – VASSS visual aid deliveries for Aboriginal people in each Victorian region in each year since VASSS started (Regional level)

	Number of Aboriginal people living in region		Change in Aboriginal population from 2006 to 2011		VASSS visual aid deliveries in the financial year ending							VASSS visual aid deliveries as a percentage of the regional Aboriginal population in the financial year ending					
Region	2011 ABS Census	2006 ABS Census	#	%	2011	2012	2013	2014	2015	2016	Total	2011	2012	2013	2014	2015	2016
Barwon South West	3531	2776	755	27%	50	160	231	219	233	244	1137	1.4%	4.5%	6.5%	6.2%	6.6%	6.9%
Eastern Metro	2966	2576	390	15%	28	59	50	91	100	116	444	0.9%	2.0%	1.7%	3.1%	3.4%	3.9%
Gippsland	3816	3066	750	24%	105	209	282	303	292	272	1463	2.8%	5.5%	7.4%	7.9%	7.7%	7.1%
Grampians	2408	1762	646	37%	22	50	83	108	137	135	535	0.9%	2.1%	3.4%	4.5%	5.7%	5.6%
Hume	4564	3685	879	24%	27	165	258	304	339	431	1525	0.6%	3.6%	5.7%	6.7%	7.4%	9.5%
Loddon Mallee	5794	4611	1183	26%	148	409	280	354	453	520	2163	2.6%	7.1%	4.8%	6.1%	7.8%	9.0%
Northern & Western Metro	9085	7274	1811	25%	341	456	428	481	481	503	2690	3.8%	5.0%	4.7%	5.3%	5.3%	5.5%
Southern Metro	5531	4278	1253	29%	101	124	114	128	156	173	796	1.8%	2.2%	2.1%	2.3%	2.8%	3.1%
Other					47	6	6	5	4	8	76						
Total	37695	30028	7667	26%	869	1638	1732	1993	2195	2402	10829	2.3%	4.3%	4.6%	5.3%	5.8%	6.4%

Table A3 – ACO eye examinations for Aboriginal people in each Victorian LGA in each year since VASSS started, organised under regions

		Number of Aboriginal people living in region		Change in Aboriginal population from 2006 to 2011		Number of eye examinations in the financial year ending							Eye examinations as a percentage of the regional Aboriginal population in the financial year ending					
Region	LGA	2011 ABS Census	2006 ABS Census	#	%	2011	2012	2013	2014	2015	2016	Total	2011	2012	2013	2014	2015	2016
Barwon SW	Colac-Otway	182	145	37	26%	1	2	0	2	0	1	6	0.5%	1.1%	0.0%	1.1%	0.0%	0.5%
Barwon SW	Corangamite	121	77	44	57%	2	0	0	0	2	3	7	1.7%	0.0%	0.0%	0.0%	1.7%	2.5%
Barwon SW	Glenelg	406	369	37	10%	1	1	32	30	4	11	80	0.2%	0.2%	7.9%	7.4%	1.0%	2.7%
Barwon SW	Greater Geelong	1788	1430	358	25%	7	10	5	10	6	9	48	0.4%	0.6%	0.3%	0.6%	0.3%	0.5%
Barwon SW	Moyne	191	159	32	20%	1	0	21	10	27	13	72	0.5%	0.0%	11.0%	5.2%	14.1%	6.8%
Barwon SW	Queenscliffe	16	11	5	45%	1	0	0	0	0	0	1	6.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Barwon SW	South Grampians	188	111	77	69%	0	1	1	1	12	25	40	0.0%	0.5%	0.5%	0.5%	6.4%	13.3%
Barwon SW	Surf Coast	143	81	62	77%	1	0	0	2	0	0	3	0.7%	0.0%	0.0%	1.4%	0.0%	0.0%
Barwon SW	Warrnambool	496	393	103	26%	0	1	13	15	7	19	55	0.0%	0.2%	2.6%	3.0%	1.4%	3.8%
Eastern Metro	Boroondara	221	167	54	32%	8	13	4	12	10	8	56	3.6%	5.9%	1.8%	5.4%	4.5%	3.6%
Eastern Metro	Knox	541	482	59	12%	26	14	20	19	28	33	143	4.8%	2.6%	3.7%	3.5%	5.2%	6.1%
Eastern Metro	Manningham	151	116	35	30%	11	10	9	12	11	11	72	7.3%	6.6%	6.0%	7.9%	7.3%	7.3%
Eastern Metro	Maroondah	412	337	75	22%	9	14	14	11	33	17	98	2.2%	3.4%	3.4%	2.7%	8.0%	4.1%
Eastern Metro	Monash	357	333	24	7%	8	13	11	4	10	11	61	2.2%	3.6%	3.1%	1.1%	2.8%	3.1%
Eastern Metro	Whitehorse	315	296	19	6%	21	22	28	33	26	36	172	6.7%	7.0%	8.9%	10.5%	8.3%	11.4%
Eastern Metro	Yarra Ranges	969	845	124	15%	11	28	61	57	131	166	460	1.1%	2.9%	6.3%	5.9%	13.5%	17.1%
Gippsland	Bass Coast	207	158	49	31%	0	4	2	1	6	6	19	0.0%	1.9%	1.0%	0.5%	2.9%	2.9%
Gippsland	Baw Baw	407	348	59	17%	3	3	0	4	1	4	15	0.7%	0.7%	0.0%	1.0%	0.2%	1.0%
Gippsland	East Gippsland	1352	1140	212	19%	66	61	103	153	226	174	792	4.9%	4.5%	7.6%	11.3%	16.7%	12.9%
Gippsland	Latrobe	1055	868	187	22%	7	2	2	18	33	24	87	0.7%	0.2%	0.2%	1.7%	3.1%	2.3%
Gippsland	South Gippsland	208	120	88	73%	3	1	3	1	2	1	11	1.4%	0.5%	1.4%	0.5%	1.0%	0.5%
Gippsland	Wellington	587	432	155	36%	2	0	35	24	36	25	122	0.3%	0.0%	6.0%	4.1%	6.1%	4.3%
Grampians	Ararat	109	80	29	36%	0	0	10	9	21	21	61	0.0%	0.0%	9.2%	8.3%	19.3%	19.3%
Grampians	Ballarat	1140	852	288	34%	14	8	5	10	61	81	181	1.2%	0.7%	0.4%	0.9%	5.4%	7.1%
Grampians	Golden Plains	129	92	37	40%	0	1	0	0	2	2	5	0.0%	0.8%	0.0%	0.0%	1.6%	1.6%
Grampians	Hepburn	91	89	2	2%	0	9	3	1	3	4	20	0.0%	9.9%	3.3%	1.1%	3.3%	4.4%

Grampians	Hindmarsh	87	61	26	43%	0	0	0	0	1	1	2	0.0%	0.0%	0.0%	0.0%	1.1%	1.1%
Grampians	Horsham	282	216	66	31%	0	0	0	0	2	2	4	0.0%	0.0%	0.0%	0.0%	0.7%	0.7%
Grampians	Moorabool	259	176	83	47%	8	6	7	7	15	10	53	3.1%	2.3%	2.7%	2.7%	5.8%	3.9%
Grampians	North Grampians	146	86	60	70%	0	0	24	27	17	28	96	0.0%	0.0%	16.4%	18.5%	11.6%	19.2%
Grampians	Pyrenees	63	35	28	80%	3	2	3	1	3	3	15	4.8%	3.2%	4.8%	1.6%	4.8%	4.8%
Grampians	West Wimmera	27	17	10	59%	0	0	0	1	0	2	3	0.0%	0.0%	0.0%	3.7%	0.0%	7.4%
Grampians	Yarriambiack	75	58	17	29%	0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Hume	Alpine	85	62	23	37%	1	1	1	1	0	13	17	1.2%	1.2%	1.2%	1.2%	0.0%	15.3%
Hume	Benalla	167	132	35	27%	0	2	0	2	0	1	6	0.0%	1.2%	0.0%	1.2%	0.0%	0.6%
Hume	Grtr Shepparton	2082	1819	263	14%	2	2	7	4	6	15	36	0.1%	0.1%	0.3%	0.2%	0.3%	0.7%
Hume	Indigo	144	94	50	53%	0	0	0	0	1	4	5	0.0%	0.0%	0.0%	0.0%	0.7%	2.8%
Hume	Mansfield	57	37	20	54%	0	0	1	0	0	8	9	0.0%	0.0%	1.8%	0.0%	0.0%	14.0%
Hume	Mitchell	401	344	57	17%	5	10	6	16	7	19	66	1.2%	2.5%	1.5%	4.0%	1.7%	4.7%
Hume	Moira	394	309	85	28%	1	1	0	5	3	7	17	0.3%	0.3%	0.0%	1.3%	0.8%	1.8%
Hume	Murrindindi	97	101	-4	-4%	2	5	3	3	7	11	32	2.1%	5.2%	3.1%	3.1%	7.2%	11.3%
Hume	Strathbogie	86	78	8	10%	0	1	0	2	1	0	4	0.0%	1.2%	0.0%	2.3%	1.2%	0.0%
Hume	Towong	85	47	38	81%	0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Hume	Wangaratta	261	208	53	25%	0	7	6	9	20	31	74	0.0%	2.7%	2.3%	3.4%	7.7%	11.9%
Hume	Wodonga	705	454	251	55%	0	6	32	30	27	47	142	0.0%	0.9%	4.5%	4.3%	3.8%	6.7%
Loddon Mallee	Buloke	35	48	-13	-27%	0	1	0	7	2	4	14	0.0%	2.9%	0.0%	20.0%	5.7%	11.4%
Loddon Mallee	Campaspe	816	658	158	24%	38	42	37	52	71	98	338	4.7%	5.1%	4.5%	6.4%	8.7%	12.0%
Loddon Mallee	Central Goldfields	146	109	37	34%	1	0	0	0	0	0	3	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Loddon Mallee	Gannawarra	167	157	10	6%	8	8	12	33	48	57	166	4.8%	4.8%	7.2%	19.8%	28.7%	34.1%
Loddon Mallee	Greater Bendigo	1441	1021	420	41%	4	11	7	25	76	82	205	0.3%	0.8%	0.5%	1.7%	5.3%	5.7%
Loddon Mallee	Loddon	101	81	20	25%	0	1	1	2	7	5	16	0.0%	1.0%	1.0%	2.0%	6.9%	5.0%
Loddon Mallee	Macedon Ranges	194	171	23	13%	2	0	0	2	1	2	8	1.0%	0.0%	0.0%	1.0%	0.5%	1.0%
Loddon Mallee	Mildura	1836	1431	405	28%	20	73	60	41	106	101	402	1.1%	4.0%	3.3%	2.2%	5.8%	5.5%
Loddon Mallee	Mount Alexander	173	129	44	34%	3	2	2	1	3	2	13	1.7%	1.2%	1.2%	0.6%	1.7%	1.2%
Loddon Mallee	Swan Hill	885	806	79	10%	46	96	69	116	149	189	665	5.2%	10.8%	7.8%	13.1%	16.8%	21.4%
N&W Metro	Banyule	618	518	100	19%	41	58	48	55	72	61	350	6.6%	9.4%	7.8%	8.9%	11.7%	9.9%

N&W Metro	Brimbank	700	567	133	23%	30	42	50	72	55	63	328	4.3%	6.0%	7.1%	10.3%	7.9%	9.0%
N&W Metro	Darebin	1156	1110	46	4%	186	221	228	200	192	192	1285	16.1%	19.1%	19.7%	17.3%	16.6%	16.6%
N&W Metro	Hobsons Bay	393	310	83	27%	24	22	20	29	23	25	157	6.1%	5.6%	5.1%	7.4%	5.9%	6.4%
N&W Metro	Hume	1046	892	154	17%	57	103	87	98	120	114	595	5.4%	9.8%	8.3%	9.4%	11.5%	10.9%
N&W Metro	Maribyrnong	324	258	66	26%	30	38	53	48	52	41	272	9.3%	11.7%	16.4%	14.8%	16.0%	12.7%
N&W Metro	Melbourne	262	208	54	26%	36	40	36	46	56	60	286	13.7%	15.3%	13.7%	17.6%	21.4%	22.9%
N&W Metro	Melton	789	508	281	55%	24	43	48	63	85	113	384	3.0%	5.4%	6.1%	8.0%	10.8%	14.3%
N&W Metro	Moonee Valley	315	324	-9	-3%	21	31	21	17	35	24	159	6.7%	9.8%	6.7%	5.4%	11.1%	7.6%
N&W Metro	Moreland	702	627	75	12%	70	94	64	67	87	94	495	10.0%	13.4%	9.1%	9.5%	12.4%	13.4%
N&W Metro	Nillumbik	193	155	38	25%	7	5	3	3	1	3	24	3.6%	2.6%	1.6%	1.6%	0.5%	1.6%
N&W Metro	Whittlesea	1125	843	282	33%	107	143	116	121	153	120	803	9.5%	12.7%	10.3%	10.8%	13.6%	10.7%
N&W Metro	Wyndham	1144	702	442	63%	56	33	76	103	84	126	481	4.9%	2.9%	6.6%	9.0%	7.3%	11.0%
N&W Metro	Yarra	318	252	66	26%	20	46	38	50	47	39	247	6.3%	14.5%	11.9%	15.7%	14.8%	12.3%
Sth Metro	Bayside	152	140	12	9%	8	3	8	5	8	2	36	5.3%	2.0%	5.3%	3.3%	5.3%	1.3%
Sth Metro	Cardinia	426	235	191	81%	8	16	11	12	19	12	83	1.9%	3.8%	2.6%	2.8%	4.5%	2.8%
Sth Metro	Casey	1402	1165	237	20%	55	77	62	65	106	108	488	3.9%	5.5%	4.4%	4.6%	7.6%	7.7%
Sth Metro	Frankston	1012	750	262	35%	74	69	81	71	106	108	531	7.3%	6.8%	8.0%	7.0%	10.5%	10.7%
Sth Metro	Glen Eira	232	170	62	36%	14	17	9	7	14	9	70	6.0%	7.3%	3.9%	3.0%	6.0%	3.9%
Sth Metro	Grtr Dandenong	492	488	4	1%	30	52	44	50	54	63	302	6.1%	10.6%	8.9%	10.2%	11.0%	12.8%
Sth Metro	Kingston	381	287	94	33%	10	22	15	21	18	18	106	2.6%	5.8%	3.9%	5.5%	4.7%	4.7%
Sth Metro	Mornington Pen	973	637	336	53%	20	32	27	39	49	55	227	2.1%	3.3%	2.8%	4.0%	5.0%	5.7%
Sth Metro	Port Phillip	284	236	48	20%	25	33	29	31	36	42	205	8.8%	11.6%	10.2%	10.9%	12.7%	14.8%
Sth Metro	Stonnington	177	170	7	4%	10	4	3	10	11	8	49	5.6%	2.3%	1.7%	5.6%	6.2%	4.5%
Unspecified, unknown or interstate						13	6	54	21	15	22	133						
NSW bordering Wodonga						1	3	17	17	18	33	89						
NSW bordering Mildura						40	75	38	88	88	111	440						
NSW bordering Echuca						6	4	7	11	14	22	64						
South Australian border						0	0	0	33	66	47	146						
Total		37,699	30,034	7,665	26%	1,370	1,827	1,953	2,279	2,955	3,182	13,933	3.6%	4.8%	5.2%	6.0%	7.8%	8.4%

Table A4 – VASSS visual aid deliveries for Aboriginal people in each Victorian LGA in each year since VASSS started, organised under regions

		Number of Aboriginal people living in region		Change in Aboriginal population from 2006 to 2011		VASSS visual aid deliveries in the financial year ending							VASSS visual aid deliveries as a percentage of the regional Aboriginal population in the financial year ending					
Region	LGA	2011 ABS Census	2006 ABS Census	#	%	2011	2012	2013	2014	2015	2016	Total	2011	2012	2013	2014	2015	2016
Barwon SW	Colac-Otway	182	145	37	26%	0	0	0	0	1	2	3	0.0%	0.0%	0.0%	0.0%	0.4%	1.1%
Barwon SW	Corangamite	121	77	44	57%	0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%
Barwon SW	Glenelg	406	369	37	10%	5	33	82	58	64	45	287	1.2%	8.1%	20.2%	14.3%	15.8%	11.1%
Barwon SW	Grtr Geelong	1788	1430	358	25%	33	82	81	103	101	122	521	1.8%	4.6%	4.5%	5.7%	5.6%	6.9%
Barwon SW	Moyne	191	159	32	20%	4	11	18	16	24	11	85	2.1%	5.5%	9.7%	8.6%	12.5%	5.9%
Barwon SW	Queenscliffe	16	11	5	45%	0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
Barwon SW	Sth Grampians	188	111	77	69%	0	6	13	7	12	34	72	0.0%	3.2%	6.9%	3.7%	6.4%	18.1%
Barwon SW	Surf Coast	143	81	62	77%	0	1	1	2	1	1	8	0.2%	1.0%	0.9%	1.6%	0.7%	1.0%
Barwon SW	Warrnambool	496	393	103	26%	8	27	36	33	30	28	161	1.6%	5.5%	7.2%	6.6%	6.0%	5.6%
Eastern Metro	Boroondara	221	167	54	32%	4	2	1	4	3	7	21	1.8%	0.9%	0.5%	1.8%	1.4%	3.2%
Eastern Metro	Knox	541	482	59	12%	10	10	4	8	13	9	54	1.8%	1.8%	0.7%	1.5%	2.4%	1.7%
Eastern Metro	Manningham	151	116	35	30%	3	2	1	6	3	1	16	2.0%	1.3%	0.7%	4.0%	2.0%	0.7%
Eastern Metro	Maroondah	412	337	75	22%	4	12	11	8	13	7	55	1.0%	2.9%	2.7%	1.9%	3.2%	1.7%
Eastern Metro	Monash	357	333	24	7%	0	2	4	1	2	1	10	0.0%	0.6%	1.1%	0.3%	0.6%	0.3%
Eastern Metro	Whitehorse	315	296	19	6%	0	6	7	7	7	5	32	0.0%	1.9%	2.2%	2.2%	2.2%	1.6%
Eastern Metro	Yarra Ranges	969	845	124	15%	7	25	22	57	59	86	256	0.7%	2.6%	2.3%	5.9%	6.1%	8.9%
Gippsland	Bass Coast	207	158	49	31%	2	21	21	9	8	6	68	1.2%	10.4%	10.1%	4.3%	3.9%	2.9%
Gippsland	Baw Baw	407	348	59	17%	1	1	2	15	22	22	63	0.2%	0.2%	0.5%	3.8%	5.3%	5.5%
Gippsland	East Gippsland	1352	1140	212	19%	91	141	159	174	158	149	872	6.7%	10.4%	11.8%	12.9%	11.7%	11.0%
Gippsland	Latrobe	1055	868	187	22%	2	2	5	44	58	60	171	0.2%	0.2%	0.5%	4.2%	5.5%	5.7%
Gippsland	Sth Gippsland	208	120	88	73%	3	22	19	8	7	5	63	1.2%	10.4%	9.2%	4.0%	3.4%	2.4%
Gippsland	Wellington	587	432	155	36%	6	22	76	52	39	30	225	1.1%	3.8%	12.9%	8.9%	6.6%	5.0%
Grampians	Ararat	109	80	29	36%	0	0	6	5	0	0	11	0.0%	0.0%	5.5%	4.6%	0.0%	0.0%
Grampians	Ballarat	1140	852	288	34%	14	33	28	31	56	57	221	1.2%	2.9%	2.5%	2.8%	4.9%	5.0%
Grampians	Golden Plains	129	92	37	40%	0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grampians	Hepburn	91	89	2	2%	1	5	2	5	4	5	22	0.8%	4.9%	2.5%	4.9%	4.8%	5.9%

Grampians	Hindmarsh	87	61	26	43%	0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grampians	Horsham	282	216	66	31%	0	0	12	38	35	36	121	0.0%	0.0%	4.3%	13.5%	12.4%	12.8%
Grampians	Moorabool	259	176	83	47%	7	12	12	14	24	19	89	2.7%	4.7%	4.8%	5.5%	9.4%	7.5%
Grampians	Nth Grampians	146	86	60	70%	0	0	22	15	17	17	71	0.0%	0.0%	15.1%	10.3%	11.6%	11.6%
Grampians	Pyrenees	63	35	28	80%	0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grampians	Wst Wimmera	27	17	10	59%	0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Grampians	Yarriambiack	75	58	17	29%	0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Hume	Alpine	85	62	23	37%	1	1	0	0	0	3	5	1.2%	1.2%	0.0%	0.0%	0.0%	3.5%
Hume	Benalla	167	132	35	27%	0	0	0	1	0	0	1	0.0%	0.0%	0.0%	0.6%	0.0%	0.0%
Hume	Grt Shepparton	2082	1819	263	14%	20	105	147	154	169	244	839	1.0%	5.0%	7.1%	7.4%	8.1%	11.7%
Hume	Indigo	144	94	50	53%	0	0	2	0	0	2	4	0.0%	0.0%	1.4%	0.0%	0.0%	1.5%
Hume	Mansfield	57	37	20	54%	0	0	0	0	0	7	7	0.0%	0.0%	0.0%	0.0%	0.0%	12.3%
Hume	Mitchell	401	344	57	17%	4	9	19	26	33	38	129	1.0%	2.2%	4.8%	6.4%	8.3%	9.5%
Hume	Moira	394	309	85	28%	0	1	7	12	10	13	43	0.0%	0.3%	1.7%	3.2%	2.6%	3.3%
Hume	Murrindindi	97	101	-4	-4%	0	2	3	6	13	11	36	0.0%	2.1%	2.8%	6.7%	13.8%	11.8%
Hume	Strathbogie	86	78	8	10%	0	0	0	1	1	0	2	0.0%	0.0%	0.0%	1.2%	1.2%	0.0%
Hume	Towong	85	47	38	81%	0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Hume	Wangaratta	261	208	53	25%	0	2	4	3	7	9	25	0.0%	0.8%	1.5%	1.1%	2.7%	3.6%
Hume	Wodonga	705	454	251	55%	2	45	77	101	105	103	433	0.3%	6.4%	10.9%	14.3%	14.9%	14.6%
Loddon Mallee	Buloke	35	48	-13	-27%	0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Loddon Mallee	Campaspe	816	658	158	24%	65	39	17	27	22	21	191	8.0%	4.8%	2.0%	3.3%	2.7%	2.6%
Loddon Mallee	Cntrl Goldfields	146	109	37	34%	0	0	0	0	0	0	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Loddon Mallee	Gannawarra	167	157	10	6%	5	6	9	11	10	16	58	3.0%	3.6%	5.4%	6.8%	6.2%	9.7%
Loddon Mallee	Grtr Bendigo	1441	1021	420	41%	4	68	30	66	91	95	354	0.3%	4.7%	2.1%	4.6%	6.3%	6.6%
Loddon Mallee	Loddon	101	81	20	25%	0	0	0	0	1	5	7	0.0%	0.0%	0.0%	0.4%	1.5%	4.6%
Loddon Mallee	Macedon Rngs	194	171	23	13%	0	0	0	0	1	0	2	0.0%	0.0%	0.0%	0.0%	0.7%	0.2%
Loddon Mallee	Mildura	1836	1431	405	28%	24	204	166	181	247	276	1099	1.3%	11.1%	9.1%	9.9%	13.5%	15.0%
Loddon Mallee	Mt Alexander	173	129	44	34%	2	0	0	0	0	0	2	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Loddon Mallee	Swan Hill	885	806	79	10%	48	92	58	68	79	106	451	5.4%	10.4%	6.5%	7.6%	8.9%	12.0%
N&W Metro	Banyule	618	518	100	19%	17	30	32	33	32	30	175	2.8%	4.9%	5.2%	5.3%	5.2%	4.9%

N&W Metro	Brimbank	700	567	133	23%	24	25	27	35	24	23	158	3.4%	3.6%	3.9%	5.0%	3.4%	3.3%
N&W Metro	Darebin	1156	1110	46	4%	109	135	106	118	101	119	695	9.4%	11.7%	9.2%	10.2%	8.7%	10.3%
N&W Metro	Hobsons Bay	393	310	83	27%	11	10	8	19	12	14	75	2.8%	2.5%	2.0%	4.8%	3.1%	3.6%
N&W Metro	Hume	1046	892	154	17%	18	28	38	35	50	41	210	1.7%	2.7%	3.6%	3.3%	4.8%	3.9%
N&W Metro	Maribyrnong	324	258	66	26%	17	24	24	31	16	11	123	5.2%	7.4%	7.4%	9.6%	4.9%	3.4%
N&W Metro	Melbourne	262	208	54	26%	15	18	12	9	21	18	96	5.7%	6.9%	4.6%	3.4%	8.0%	6.9%
N&W Metro	Melton	789	508	281	55%	8	20	21	38	37	61	185	1.0%	2.5%	2.7%	4.8%	4.7%	7.7%
N&W Metro	Moonee Valley	315	324	-9	-3%	5	14	7	7	6	9	48	1.6%	4.4%	2.2%	2.2%	1.9%	2.9%
N&W Metro	Moreland	702	627	75	12%	36	36	23	32	30	37	195	5.1%	5.1%	3.3%	4.6%	4.3%	5.3%
N&W Metro	Nillumbik	193	155	38	25%	1	1	1	0	0	3	6	0.5%	0.5%	0.5%	0.0%	0.0%	1.6%
N&W Metro	Whittlesea	1125	843	282	33%	34	66	61	49	74	52	342	3.0%	5.9%	5.4%	4.4%	6.6%	4.6%
N&W Metro	Wyndham	1144	702	442	63%	23	15	36	55	53	64	246	2.0%	1.3%	3.1%	4.8%	4.6%	5.6%
N&W Metro	Yarra	318	252	66	26%	23	34	32	20	25	21	155	7.2%	10.7%	10.1%	6.3%	7.9%	6.6%
Sth Metro	Bayside	152	140	12	9%	2	2	0	2	6	2	14	1.3%	1.3%	0.0%	1.3%	3.9%	1.3%
Sth Metro	Cardinia	426	235	191	81%	3	6	4	4	7	2	26	0.7%	1.4%	0.9%	0.9%	1.6%	0.5%
Sth Metro	Casey	1402	1165	237	20%	27	40	26	29	44	54	220	1.9%	2.9%	1.9%	2.1%	3.1%	3.9%
Sth Metro	Frankston	1012	750	262	35%	14	16	24	21	37	38	152	1.4%	1.6%	2.4%	2.1%	3.7%	3.8%
Sth Metro	Glen Eira	232	170	62	36%	1	5	1	4	5	4	20	0.4%	2.2%	0.4%	1.7%	2.2%	1.7%
Sth Metro	Grt Dandenong	492	488	4	1%	28	20	16	18	21	26	132	5.7%	4.1%	3.3%	3.7%	4.3%	5.3%
Sth Metro	Kingston	381	287	94	33%	6	4	6	8	2	4	30	1.6%	1.0%	1.6%	2.1%	0.5%	1.0%
Sth Metro	Morningtn Pen	973	637	336	53%	11	16	18	18	18	26	107	1.1%	1.6%	1.8%	1.8%	1.8%	2.7%
Sth Metro	Port Phillip	284	236	48	20%	5	9	12	17	13	13	69	1.8%	3.2%	4.2%	6.0%	4.6%	4.6%
Sth Metro	Stonnington	177	170	7	4%	4	6	7	7	3	4	31	2.3%	3.4%	4.0%	4.0%	1.7%	2.3%
Unspecified, unknown or interstate						14	2	4	3	4	5	32						
NSW bordering Wodonga						0	1	0	0	0	0	1						
NSW bordering Mildura						26	0	1	1	0	1	29						
NSW bordering Echuca						7	3	1	1	0	1	13						
South Australian border						0	0	0	0	0	1	1						
Total		37,699	30,034	7,665	26%	869	1,638	1,732	1,993	2,195	2,402	10,853	2.3%	4.3%	4.6%	5.3%	5.8%	6.4%

Table A5 – Age profile of Aboriginal patients who have seen ACO optometrists over the 6.5 years of the VASSS – percentages show the proportion of patients in a specific age group in a specific region compared to the region as a whole. In addition to each region, the statewide data is also provided, along with the ABS Census data for Aboriginal and Torres Strait Islander Victorians as a comparison.

Age group (years)	Barwon Sth West	Eastern Metro	Gippsland	Grampians	Hume	Loddon Mallee	Nth West Metro	Sth Metro	VASSS statewide	ABS data for ATSI Victorians
0-9	5%	2%	18%	6%	8%	6%	9%	8%	9%	24%
10-19	15%	31%	20%	15%	17%	11%	14%	10%	15%	23%
20-29	19%	3%	7%	3%	7%	8%	8%	6%	7%	17%
30-39	8%	4%	4%	13%	7%	11%	7%	8%	7%	12%
40-49	12%	14%	15%	16%	18%	17%	14%	18%	15%	11%
50-59	19%	14%	17%	23%	28%	19%	19%	18%	19%	7%
60-69	11%	13%	14%	13%	9%	15%	14%	14%	14%	4%
70-79	4%	14%	4%	6%	2%	8%	10%	13%	10%	2%
80+	5%	6%	1%	6%	3%	4%	4%	4%	4%	1%

APPENDIX 2 – VES Rural Practices Survey

Email to participating practices who did not withdrawer in 2 weeks after letter from ACO CEO:

Subject: Aboriginal spectacles scheme

Dear colleague

I am conducting a survey as part of an independent evaluation of the Victorian Aboriginal Spectacles Subsidy Scheme (VASSS). The VASSS has been running for over 6 years, and the Australian College of Optometry (ACO) has identified you as a practice currently delivering the scheme. Maureen O'Keefe, ACO CEO, sent you a letter on 28 September 2016 enabling you to opt out of this evaluation. I have either spoken with you since, or not heard from you. I have had helpful feedback from several practices, and would like to check the representativeness of those views with this short (10 minute) survey. Please consider participation before Friday 16 December 2016 by clicking on the link below.

This evaluation has been approved by the Human Research Ethics Committee of the ACO – Project Number H16 001, approved 14 June 2016, principal investigators Tim Fricke and Sharon Bentley. The conditions of the project are as follows:

1. The details of the project have been provided to me (attached Word document), and I consent to participate.
2. I acknowledge that:
    - (a) No procedures will be done during these discussions – I understand that this is not an eye test;
    - (b) I understand that I am free to withdraw from the project at any time and that my withdrawal will not have any effect on my relationship with the ACO;
    - (c) The discussions are for the purpose of program evaluation and not for treatment;
    - (d) The information I provide will be treated confidentially and anonymously;
    - (e) I understand that I may receive a summary of the research results if I request it;
    - (f) I may at any time during the project express any concerns to the Human Research Ethics Committee (HREC) whose address appears below; *
    - (g) the ACO HREC may access records associated with this project.

By clicking the link to the survey, you are providing Informed Consent to these conditions:
https://www.surveymonkey.com/r/VASSS2016

Human Research Ethics Committee address

* Secretary, Human Research Ethics Committee
Australian College of Optometry
Cnr Keppel & Cardigan Street
CARLTON VIC 3053 Phone 9349 7400

Survey Monkey text:

Thank you for agreeing to participate in the Victorian Aboriginal Spectacles Subsidy Scheme (VASSS) survey. Participating VES Rural practices are a core part of delivering the VASSS, and I'm interested in your experiences, opinions and ideas. This is an opportunity to make the VASSS better and more sustainable by identifying problems, highlighting success, looking for opportunities, learning about and changing the scheme. All responses are anonymous.

1. How did your practice become involved in delivering the VASSS?
   - ☐ We chose to participate so that we could contribute to Aboriginal eye and vision health
   - ☐ It seemed like it would be good for our business
   - ☐ We were already providing Aboriginal eye care and the VASSS seemed like it would assist
   - ☐ Another reason (please specify): _____
2. The VASSS helps us to address eye care issues in the Aboriginal community:

   Five point scale from "strongly disagree" to "strongly agree"

Answer to 2) determines phrasing of 3). All versions are ranking tasks.

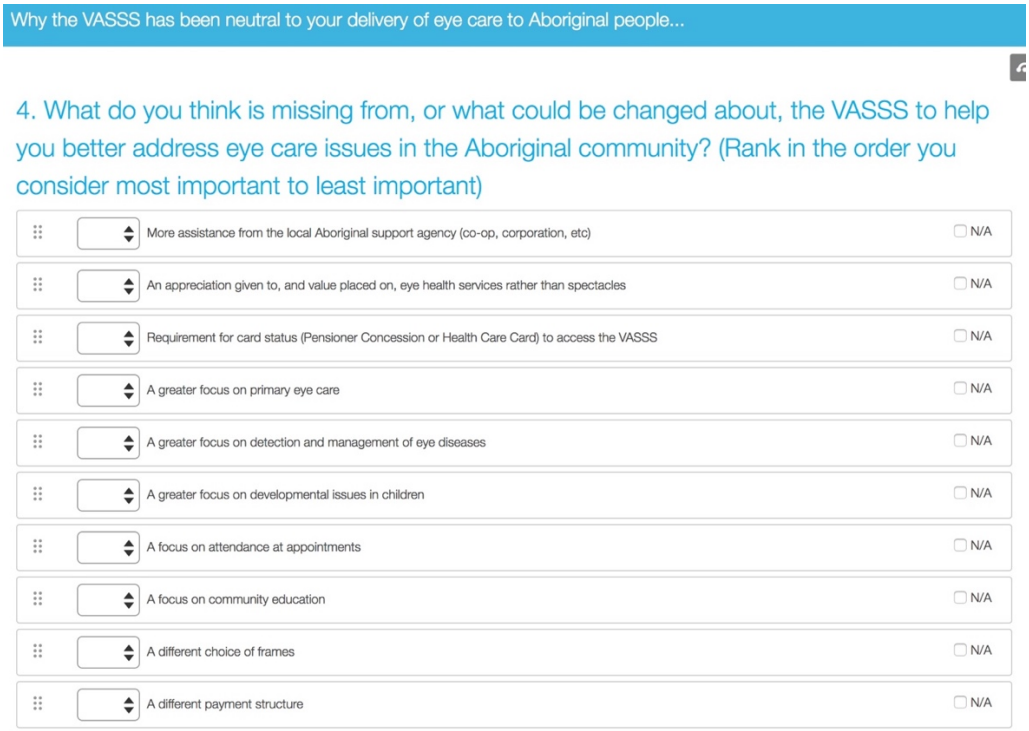
If "strongly disagree" or "disagree" with 2), then:

Why the VASSS has NOT helped you deliver care...

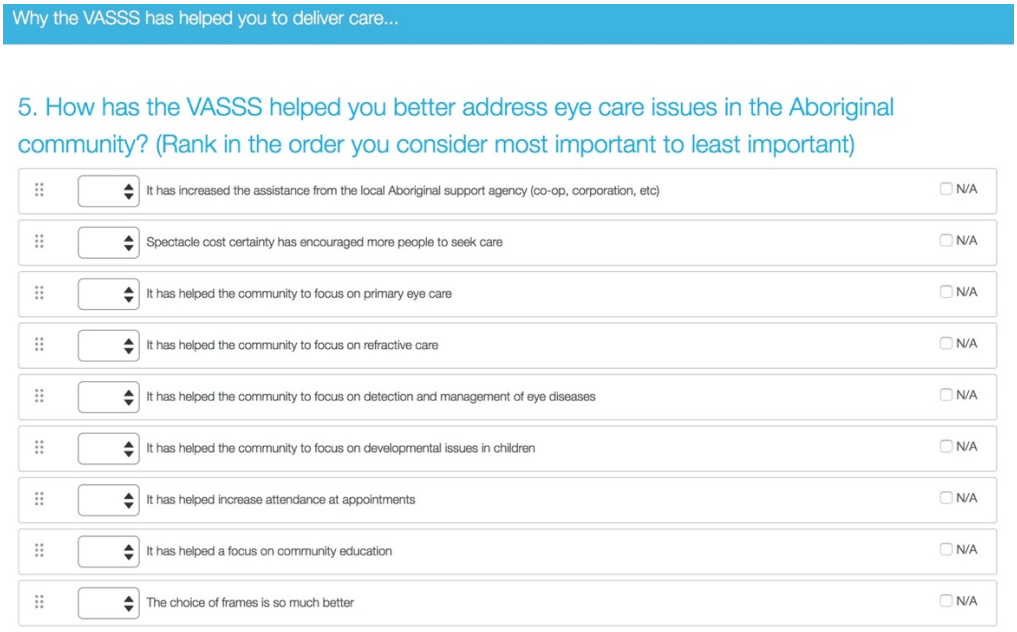
3. What do you think is missing from, or what could be changed about, the VASSS to help you address eye care issues in the Aboriginal community? (Rank in the order you consider most important to least important)

More assistance from the local Aboriginal support agency (co-op, corporation, etc)	N/A
An appreciation given to, and value placed on, eye health services rather than spectacles	N/A
Requirement for card status (Pensioner Concession or Health Care Card) to access the VASSS	N/A
A greater focus on primary eye care	N/A
A greater focus on detection and management of eye diseases	N/A
A greater focus on developmental issues in children	N/A
A focus on attendance at appointments	N/A
A focus on community education	N/A
A different choice of frames	N/A
A different payment structure	N/A

If "neutral", then:



If “agree” or “strongly agree”, then:



4. The ACO and its administration of the VASSS has helped me to provide high quality, culturally-appropriate eye care to Aboriginal Victorians

   ☐ Sliding scale from “strongly disagree” to “strongly agree”

5. VASSS rules are easy for our practice to follow

   ☐ Sliding scale from “strongly disagree” to “strongly agree”

6. The VASSS frame range works well for our practice

   ☐ Sliding scale from “strongly disagree” to “strongly agree”

7. The VASSS frame range is appropriate for the Aboriginal community that our practice sees

   ☐ Sliding scale from “strongly disagree” to “strongly agree”

8. The financial reward for delivering the VASSS ($10 co-payment plus subsidy from ACO/state government) is fair and reasonable

   ☐ Sliding scale from “strongly disagree” to “strongly agree”

9. We would prefer Aboriginal eye care to be provided as much as possible in:

   ☐ Optometry practices such as ours

   ☐ Local Aboriginal health clinics

   ☐ Local community health clinics

   ☐ Another place, please specify _____

10. We see our practice remaining involved in delivering the VASSS over the next 4 years

    ☐ Sliding scale from “strongly disagree” to “strongly agree”

11. Is there anything else you would like to tell us about the VASSS? Or anything else you think we should know about the VASSS? Or changes you would make to the VASSS?

APPENDIX 3 – REFERENCES

Specifically referenced papers

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