

Rural Medicine Australia 2017

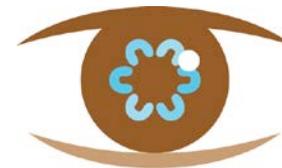
Melbourne

20 October 2017

Enhancing the role of primary health care in Indigenous eye care

Anjou MD, Gildden R, Schubert NS, Roberts PI, Taylor HR

Indigenous Eye Health
Centre for Health Equity
Melbourne School of Population and Global Health
Faculty of Medicine, Dentistry and Health Sciences
The University of Melbourne



Minum Barreng
Indigenous Eye Health
Melbourne School of Population and Global Health



THE UNIVERSITY OF
MELBOURNE



- led by Professor Hugh Taylor
- funded by philanthropy and Commonwealth Government
- health systems reform and translational research
- advocacy, technical advice and support
- health promotion
- our goal...



CHECK TODAY. SEE TOMORROW

CLEAN FACES, STRONG EYES!

- cataract
- diabetic retinopathy
- refractive error
- trachoma



to Close the Gap for Vision for Indigenous Australians

Partners...collaborators...fellow travelers

- Australian Government
 - DoH, DPMC, DE
- NACCHO
- Optometry Australia
- RANZCO
- Vision 2020 Australia
- VACCHO
- Victorian Government
- Brien Holden Vision Institute
- Fred Hollows Foundation
- Australian College of Optometry
- Lions Outback Vision/Lions Eye Institute
- Institute Urban Indigenous Health
- Outback Eye Service
- RACGP
- Diabetes Australia
- Primary Health Networks
- State and territory governments
- State fund holders
- ACCHO State affiliates
- ACCHOs, AHSs, AMSs
- State Indigenous eye health committees
- VIC, NSW, NT, QLD, TAS
- Regional Indigenous eye health committees
 - VIC: 11 regions
 - NT: Central Australia/Barkly, Top End
 - NSW: 10 regions
 - QLD: South West QLD, Palm Island
- Aboriginal Health Workers, GPs, care coordinators
- Optometrists, ophthalmologists
- NTSRU
- State/territory trachoma agencies/groups



National Indigenous Eye Health Survey 2008

Vision Loss in Children

One fifth as common as in mainstream

Vision Loss in Adults

Blindness is 6 times more common

Low Vision is nearly 3 times more common

Causes of Blindness in Adults

32% Cataract

14% Refractive Error and Optic Atrophy

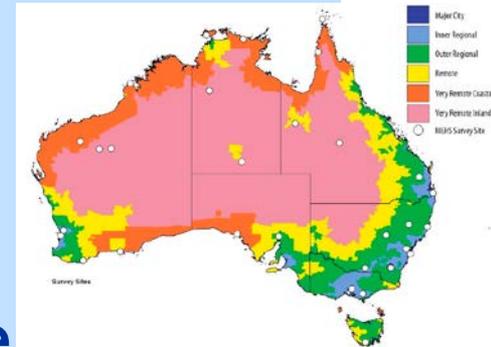
9% Trachoma and Diabetic Eye Disease

**Overall 94% of Vision Impairment is avoidable
...and 35% have never had an eye exam**

National Indigenous
Eye Health Survey



Minum Barreng (Tracking Eyes)



We know what we need to do...

Trachoma



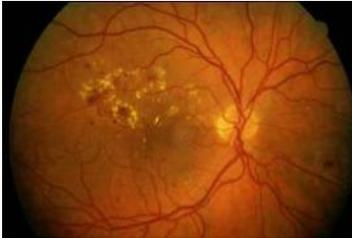
- Implement the SAFE Strategy
→ Ensure SAFE until eliminated

Cataract



- If VA is $<6/12$ or impaired function refer for assessment
→ Ensure provision of surgery

Diabetes



- Retinal assessment for those with diabetes (every 12 months)
→ Ensure provision of laser treatment

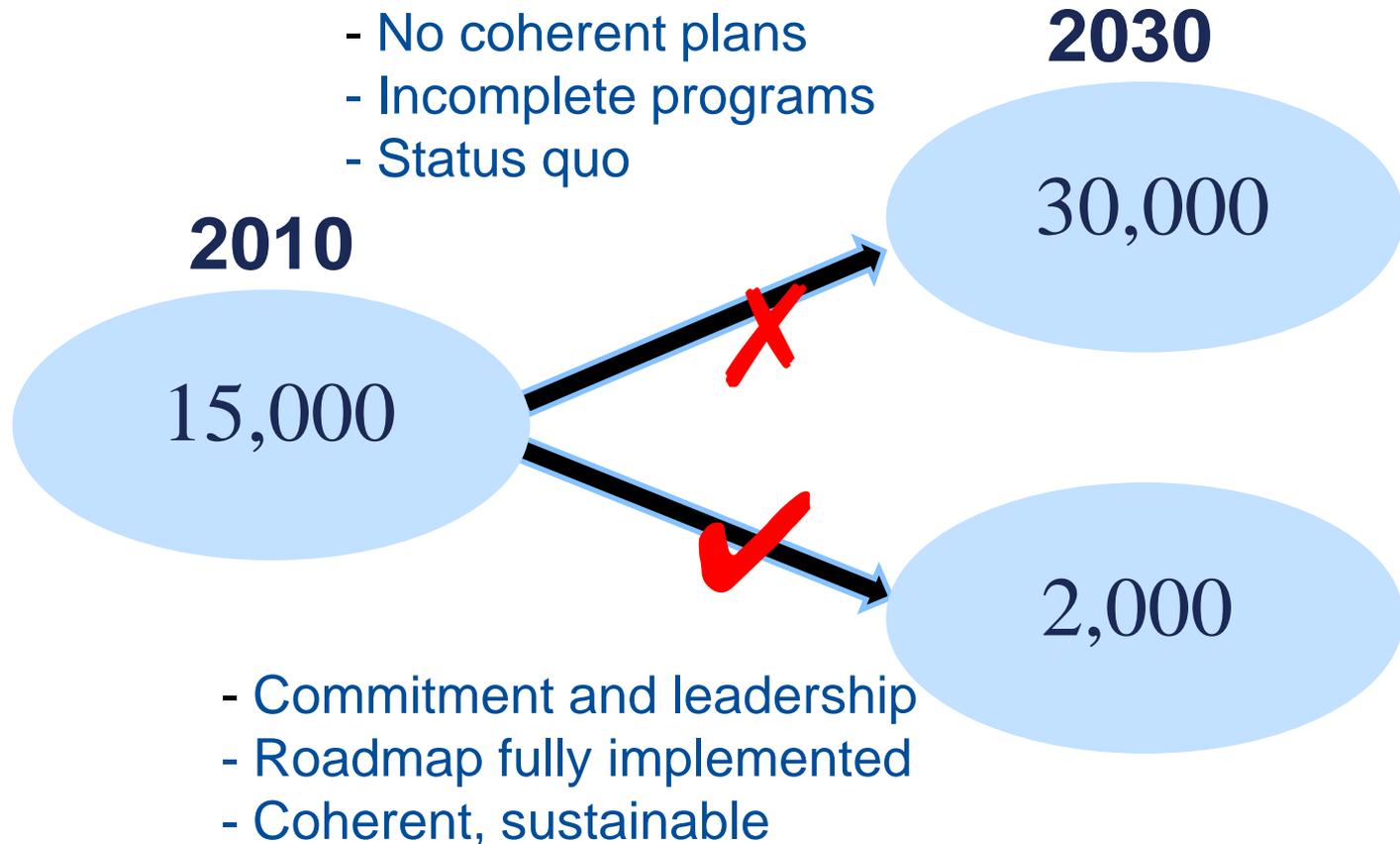
Refractive Error



- Screening for VA (near and distance vision) refer to optometry
→ Ensure provision of spectacles

but...if it was easy, it would have been done long ago

Number of Blind and Visually Impaired Indigenous Australians



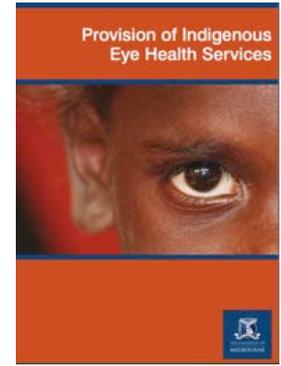
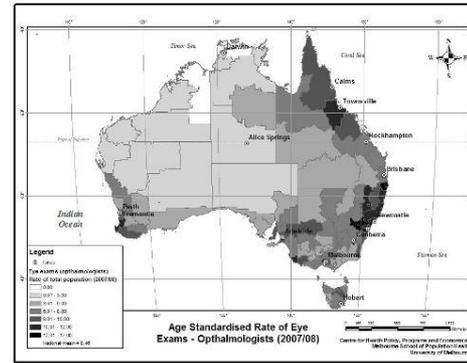
Stakeholder Consultation 2010-2011

- Field Consultations
 - 21 sites across the country
- Focus Groups
 - 10 held in 7 locations in Victoria
- Stakeholder Workshops
 - 3 with 84 people attending at least one
- Community Controlled Sector
 - NACCHO and each state affiliate
- Ministries and Departments
 - In each jurisdiction

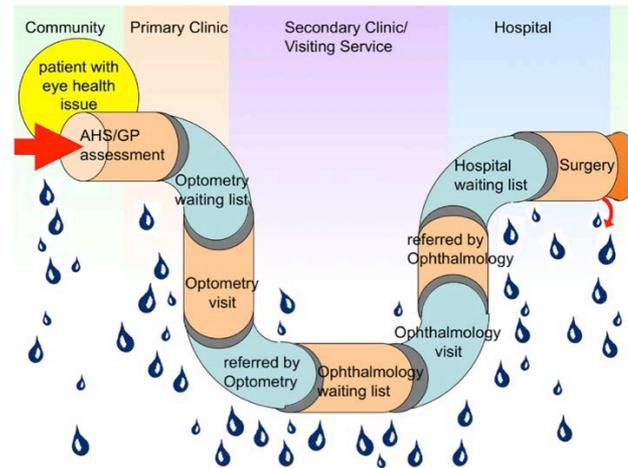


In all some 530 people were involved

➔ We need to increase eye care visits 3 to 4 fold

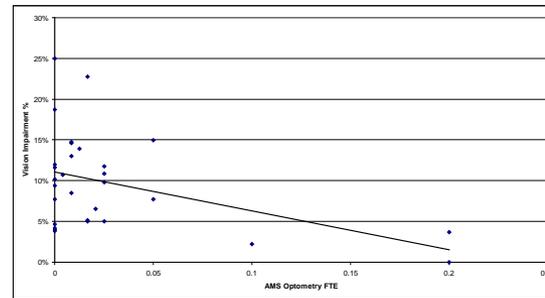


➔ Well co-ordinated services work better... and cost less



The patient journey is like a leaky pipe

➔ Eye services within AMS reduce vision loss



The Roadmap

Launched 2012

42 recommendations...

across 9 domains...

a 'whole of system' approach

...to close the gap for vision

Endorsed by:

NACCHO National Aboriginal Community Controlled Health Organisation

OA Optometry Australia

RANZCO Royal Australian and New Zealand College of Ophthalmologists

Vision 2020 Australia



Roadmap progress

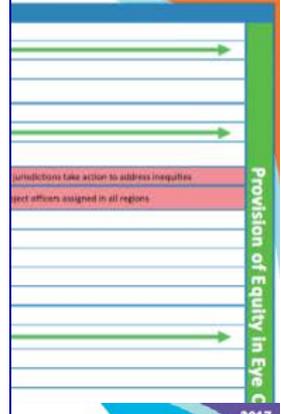
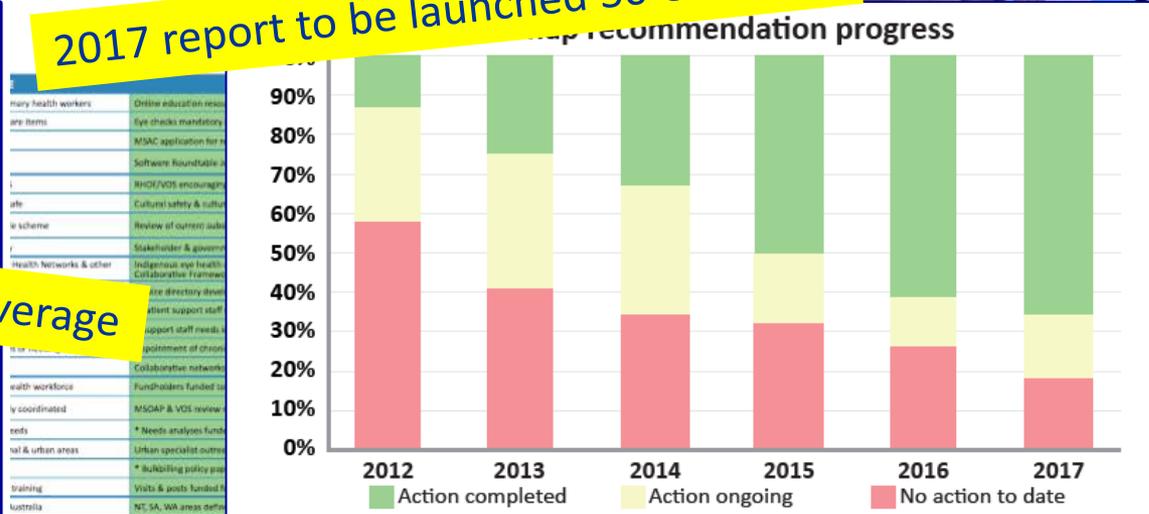
- 16/42 recommendations completed
- all 42 recommendations commenced
- 67% steps completed



2017 report to be launched 30 October



expanding geographic coverage



The Roadmap to Close the Gap for Vision

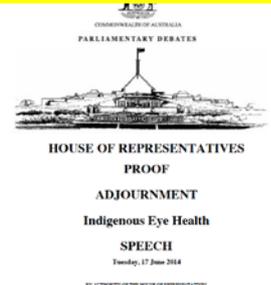
7 editions... over 4,500 copies

Vision loss is 11% of the budgeted health gap. This gap can be closed for \$20 million per year.

multipartisan support

Annual update since 2012

2012	2013	2014	2015	2016	2017
Advocacy & ongoing funding for NTRM					
TF rates <5% in all screened communities					
Acidotic treatment stopped in all endemic communities					
Surveys confirm trachoma eliminated					



2017 Annual Update on the Implementation of The Roadmap to Close the Gap for Vision

We will Close the Gap in Vision by 2020 if we ramp up efforts and work together

National Indigenous Eye Health Survey 2008

National Indigenous Eye Health Survey

National Eye Health Survey 2016

Vision Loss in Children

One fifth as common as in mainstream

Vision Loss in Adults

Blindness is 6 times more common

Low Vision is nearly 3 times more common

now 3x (NEHS 2016)

Causes of Blindness in Adults

32% Cataract

14% Refractive Error and Optic Atrophy

8% Trachoma and Diabetic Eye

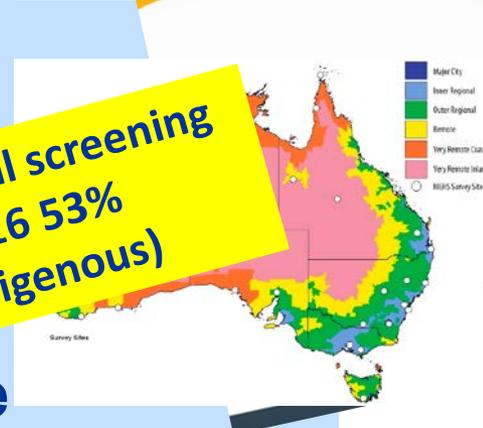
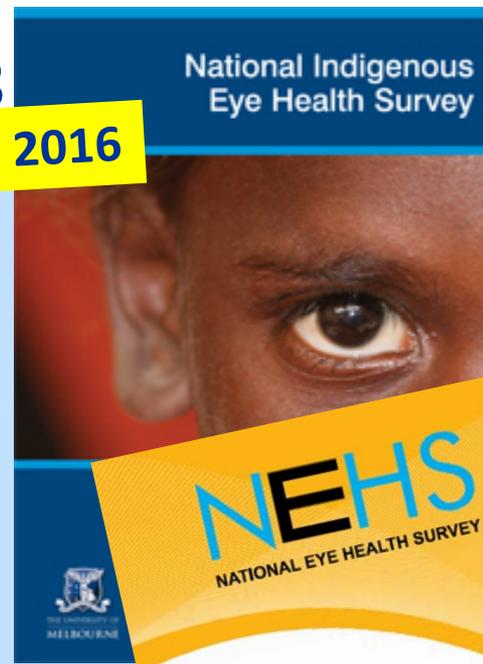
**Diabetes retinal screening
2008 20%; 2016 53%
(78% non-Indigenous)**

**Trachoma prevalence
2008 21%; 2015 <5%**

Overall 94% of Vision Impairment is avoidable

...and 35% have never had an eye exam

now 8% (NEHS 2016)



MBS mandatory eye checks in Health Assessments for Aboriginal and Torres Strait Islander adults and older people

For GPs, nurses, AHWs

MBS Item 715

What to check for an eye check?

- 1. (History) Problem with vision or eyes?
- 2. (VA) Visual acuity (near and distance)
- 3. (Exam) Include trichiasis
- 4. (Refer) People with diabetes require annual retinal exams

MBS Item 715 Aboriginal and Torres Strait Islander Health Assessment

Key steps for GPs and others providing eye and vision screening in health assessments

STEP 1: History

- Ask about problems or difficulties with vision or eyes:
 - Consider 'sore or watery eye' as a possible symptom of trichiasis
- Ask about problems with glasses or contact lenses
- Ask "Can you see clearly and comfortably?"
 - When looking at things up close (e.g. when held in your hands)?
 - When looking at things far away?
- Ask/check whether the person has diabetes

STEP 2: Vision Test/Visual Acuity

(See reverse side)

- Test near vision:
 - Test both eyes together, with glasses if normally worn, using near test
- Test distance vision:
 - Test one eye at a time, with glasses if normally worn, using distance chart

STEP 3: Eye Examination

- Check eye movements
- Check pupils
- Check the front of the eye:
 - Lids, lashes, conjunctiva, cornea
 - Consider trichiasis (from trachoma). Remember the 3 T's – Think, Thumb, Torch
- For people with diabetes check the retina each year:
 - Non-mydiatric retinal photography (Medicare Item 12325) or dilated ophthalmoscopy or refer

STEP 4: Refer

- Refer to an optometrist or ophthalmologist if:
 - Vision or eye problems including a change in vision
 - Reduced vision at near (worse than N8) or distance (worse than 6/12)
 - Retinal photography shows signs of diabetic retinopathy
 - Retinal examination is needed for person with diabetes

The Online Diabetic Retinopathy Grading Course and Diabetic Retinopathy Screening Card are available on our website: www.iehu.unimelb.edu.au



The Royal Australian
College of General
Practitioners



THE UNIVERSITY OF
MELBOURNE

Introducing the 715/12325 visual acuity screening chart



CHECK TODAY. SEE TOMORROW
MBS Item 12325
Non-mydratric Retinal Photography
for Detection of Diabetic Retinopathy

Key steps for GPs and others providing diabetic retinopathy screening for people with diabetes

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(See Diabetic Retinopathy Screening Card)

- Normal or Minimal Non Proliferative
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- Abnormal or Moderate Non Proliferative/Diabetic Macular Oedema*
Non-urgent referral (to be seen within 90 days)
- Sight-threatening or Severe Non Proliferative/Proliferative/Diabetic Macular Oedema*
Urgent referral (to be seen within 30 days)

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 - Visual acuity difference greater than 2 lines between the eyes
 - Patients with a previous medical diagnosis of diabetic retinopathy not under the care of an optometrist or ophthalmologist
 - Patient shows signs of diabetic retinopathy
 - Poor image quality

*Mild Macular Oedema distant from the macula but within posterior pole
 *Moderate/Severe Macular Oedema at or near the macula

MBS Item 715
Aboriginal and Torres Strait Islander
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The Online Diabetic Retinopathy Grading Course and Diabetic Retinopathy Screening Card are available on our website: www.ieh.unimelb.edu.au



Check Near Vision

Reading glasses on (if usually worn)

Test conducted at patients preferred near reading distance with both eyes open

- STEP 1:** Ask patient to hold the chart at their preferred reading distance
Start with middle row (N20)
- STEP 2:** Ask the patient to indicate direction legs of E are pointing (up, down, left or right)
- STEP 3:** If patient correctly identifies three out of the four E's, test with smallest row (N8)
If not, test with largest row (N48)
- STEP 4:** Record N point score of smallest sized E's correctly identified
- STEP 5:** Refer for assessment if patient cannot read N8

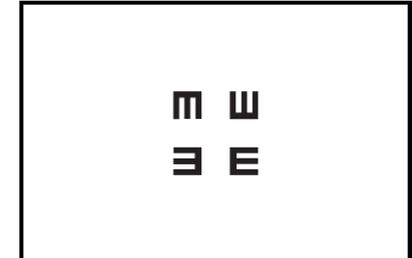


Check Distance Vision

Distance glasses on (if usually worn)

Test one eye at a time from a distance of 3 metres in adequate lighting

- STEP 1:** Cover non-testing eye with occluder or get patient to cover eye with hand (ensure patient cannot see between fingers)
- STEP 2:** Ask the patient to indicate direction legs of E are pointing (up, down, left or right)
- STEP 3:** If the patient correctly identifies three out of four E's record distance vision as 6/12. If not, record distance vision as worse than 6/12
- STEP 4:** Repeat above process for other eye
- STEP 5:** Refer for assessment if patient cannot read 6/12



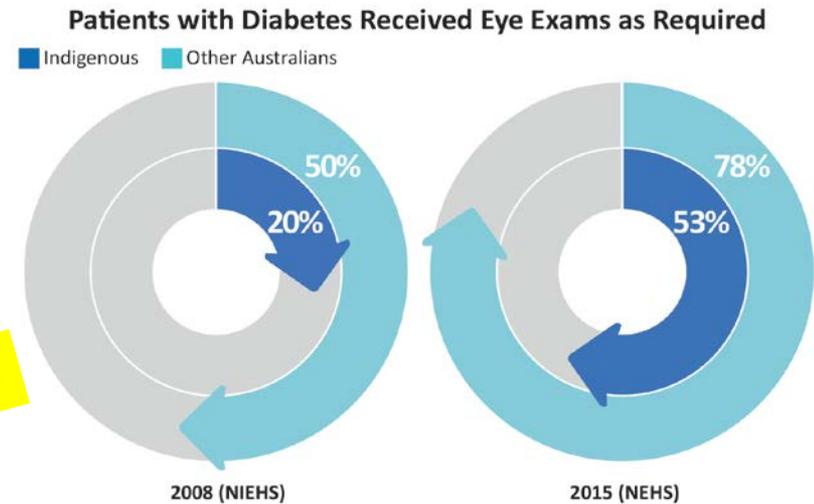
Diabetes Retinal Examination (NHMRC guidelines)

- At diagnosis of diabetes
- **Every 12 months for Indigenous people with diabetes; two years otherwise**



- Visual acuity
- Ophthalmoscopy
- Retinal photography
- Refer to optometrist or ophthalmologist

MBS 12325/12326



New MBS items for NMRP

non-mydratiac retinal photography

MBS 12325/12326



Fully automated alignment, focus and image capture ✓

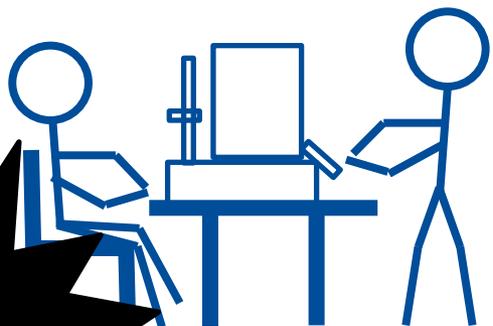
\$15-20k

Weight 19 kg

Size 580 x 550 x 330 mm ✓



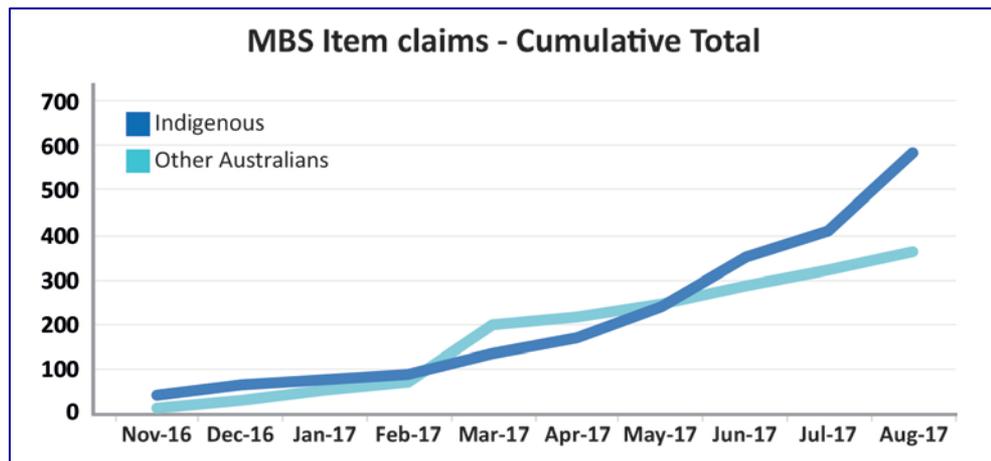
Less than 10 minutes per person ✓



~700 mm ✓

dark room for dilation

~1500 mm ✓



Diabetic Retinopathy Screening Card



CHECK TODAY. SEE TOMORROW

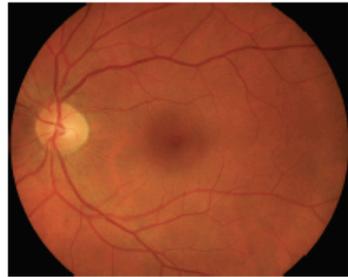
Diabetic Retinopathy Screening Card

Check for **Red and White Signs***. Look at where they are located and how much of the retina is affected – does the retina look normal, abnormal or sight-threatening? *See other side

Normal

Vision
Presenting vision 6/12 or better in each eye

Retina
No signs of Diabetic Retinopathy



Routine eye examination
(Indigenous within 12 months,
Non-Indigenous within 2 years)

Abnormal

Vision
Presenting vision worse than 6/12 in either eye or

Retina
Unable to View Retina or
Diabetic Retinopathy showing any:

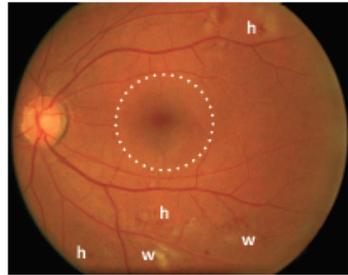
Red Signs

- Haemorrhages (**h**) in less than 4 quadrants
- Venous beading (**v**) in 1 quadrant*

White Signs

- Cotton wool spots (**w**)
- Hard exudates (**e**) more than 1 optic disc diameter from macula (as outlined with dots)

Refer to optometrist or ophthalmologist
(to be seen within 90 days)



Sight-threatening

Retina
Severe Diabetic Retinopathy or
Macular Oedema showing any:

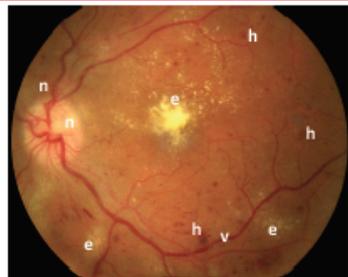
Red Signs

- New blood vessels (**n**) on optic disc or elsewhere
- Venous beading (**v**) in 2 or more quadrants
- Haemorrhages (**h**) in all 4 quadrants
- Intra retinal microvascular abnormalities*
- Vitreous haemorrhage*

White Signs

- Hard exudates (**e**) within 1 optic disc diameter of macula

Refer urgently to the ophthalmologist
(to be seen within 30 days)



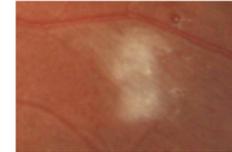
CHECK TODAY. SEE TOMORROW

Diabetic Retinopathy Signs

Retinopathy Signs - to be seen within 90 days



Intraretinal haemorrhages (h)
Haemorrhages are seen as red lesions in the retina and can vary in shape. They can be small red dots, larger blot lesions with round, blurred or irregular edges, or flame shaped. Haemorrhages in all 4 quadrants require urgent referral.



Cotton wool spots (w)
Cotton wool spots appear as grayish/whitish spots with soft, fuzzy edges, giving them a resemblance to a ball of cotton wool. They do not usually appear in clusters like hard exudate.

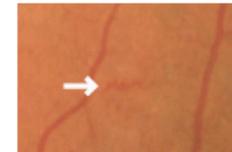


Venous beading (v)
Venous beading has an appearance ranging from slight irregularity of the venule caliber, to a sausage-like dilatation. Venous beading in 2 or more quadrants requires an urgent referral.

Sight-threatening Retinopathy Signs - to be seen within 30 days



Hard exudates (e)
Hard exudates are pale yellow, waxy looking lesions in the retina. Where there is evidence of hard exudate within 1 optic disc diameter (1500 microns) of the macula, an urgent referral is required.



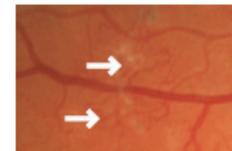
Intraretinal microvascular abnormalities (irma)
Intraretinal microvascular abnormalities often appear as small red squiggles in areas between major vessels and stand apart from the more regular array and branching of retinal vessels due to their delicate and jagged appearance.



Vitreous haemorrhage
Small vitreous haemorrhages may appear as dark "floaters" in the vitreous. Large haemorrhages may obscure the retina entirely. These lie under the surface membrane of the retina and may be boat shaped due to the effect of gravity.



New blood vessels (n)
New vessels can be seen on or around the optic disc, or elsewhere in the retina. The appearance of new vessels can vary, but new vessels always form loops and nets whereas normal retinal vessels never form loops.



This card can be downloaded:
www.iehu.unimelb.edu.au

Free online Retinopathy Grading Course: drgrading.iehu.unimelb.edu.au



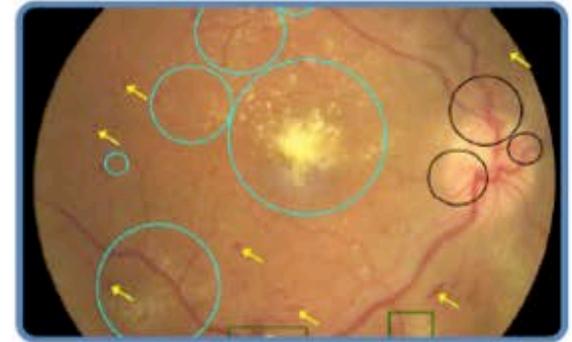
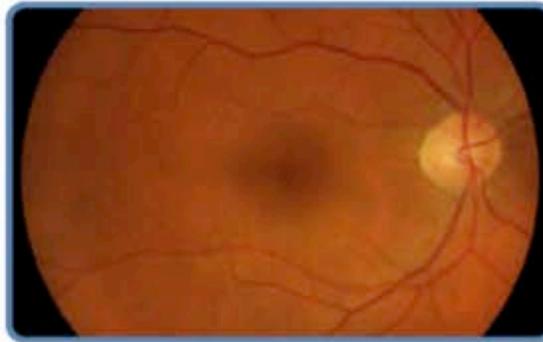
On-line Diabetic Retinopathy Grading Course



Now Available Online and at No Cost
in English, Chinese, Portuguese & Spanish



Certificate of Competency Provided after Successful Completion
drgrading.iehu.unimelb.edu.au



DIABETIC RETINOPATHY GRADING

drgrading.iehu.unimelb.edu.au

When to refer?

for further examination (comprehensive eye examination optometry/ophthalmology)

- Any change in vision
- Vision less than 6/12
- VA difference greater than 2 lines
- DR retinal abnormalities
- Cannot examine/capture image

CHECK TODAY. SEE TOMORROW
MBS Item 12325
Non-mydratric Retinal Photography
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Key steps for GPs and others providing diabetic retinopathy screening for people with diabetes

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 - When looking at things far away?
- **Always** check whether the person has diabetes

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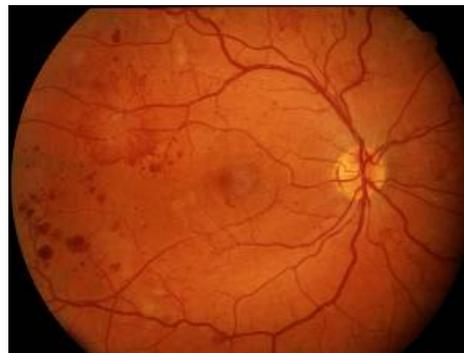
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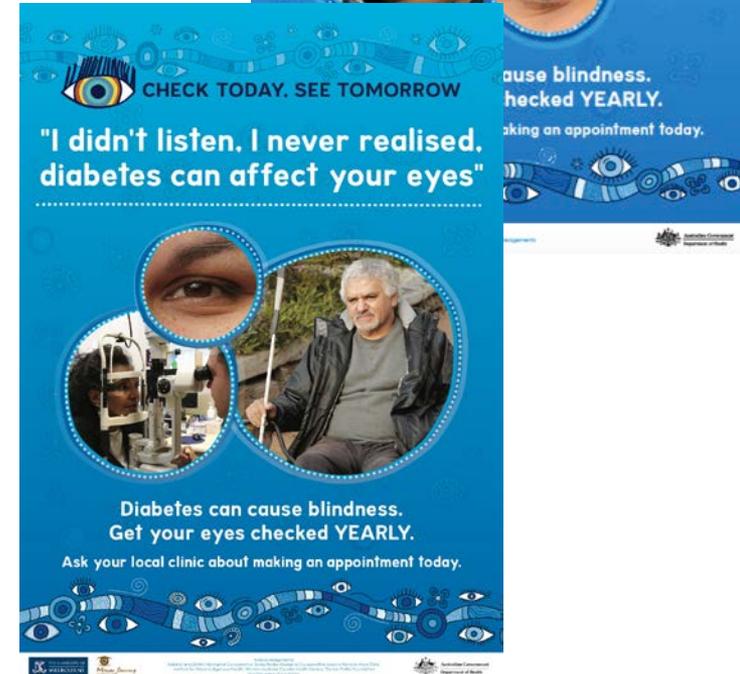




CHECK TODAY. SEE TOMORROW

'Check Today, See Tomorrow' resources supports the key diabetes eye care messages

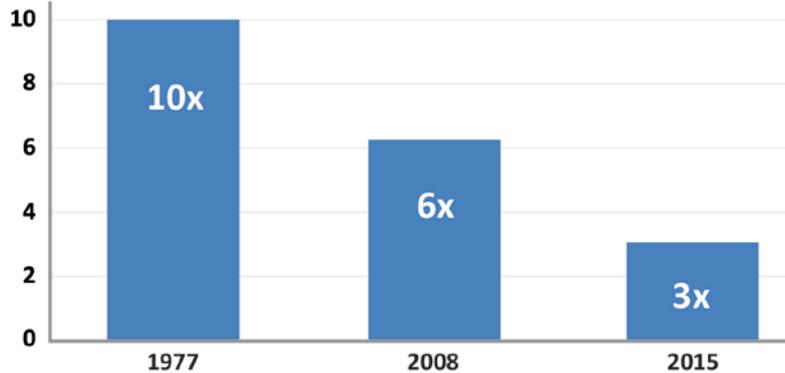
- Promoting annual eye exams for those with diabetes, includes print, multi and social media resources



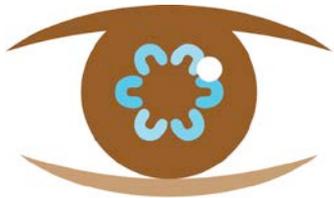
Primary care is key to eliminate unnecessary vision loss for Indigenous Australians...

...with your help...

Indigenous Rate Compared with Rate for Other Australians



...we can close
the gap for vision
...by 2020!



Minum Barreng

Indigenous Eye Health
Melbourne School of Population and Global Health

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