



‘Arntarnte-areme ingke’ *(Looking after foot)*

Foot wound offloading in
Central Australia


Acknowledgement of Country

We acknowledge and pay respect to the Aboriginal and Torres Strait Islander people as the traditional custodians of the lands on which we meet today. We also acknowledge the deep feelings of attachment and the relationship of Aboriginal and Torres Strait Islander people to their country. We pay our respects to the ancestors, elders and leaders past, present and future.



Today's session

- Determinants of Diabetes-related Foot Complications in Central Australia
- A person's journey to accessing foot wound offloading '**Arntarnte-areme ingke**' Aboriginal and Torres Strait Island Diabetes Related Foot Complications Program – Central Australia
- Offloading kits and clinic support (telehealth and workforce capacity strengthening)



Determinants of Diabetes Related Foot Complications in Central Australia

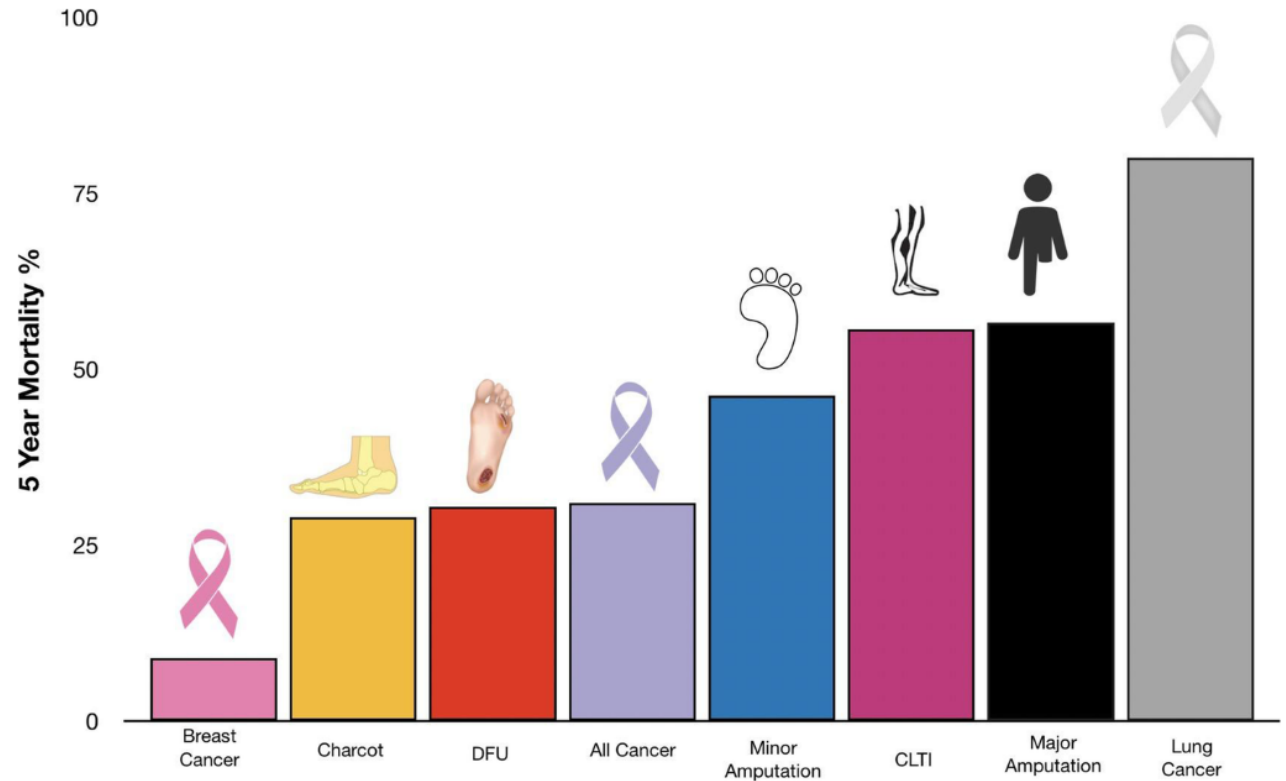
Burden of Diabetes

DRFC leading cause of diabetes-related hospitalisations and amputation globally

Australia (p.a.)

- 27,600 public hospital admissions
- 4,400 lower extremity amputations
- 1,700 deaths
- \$1.6 billion health care costs

Armstrong et al (2020), Five year mortality and direct costs of care for people with diabetes-related foot complications are comparable to cancer



Amputation rates

Australian Institute of Health and Welfare 2017. Burden of lower limb amputations due to diabetes in Australia: Australian Burden of Disease Study 2011. Australian Burden of Disease Study series no. 10. BOD 11. Canberra: AIHW

Diabetes-related lower limb amputation hospital admissions 18 years and over

Figure 136: Number of diabetes-related lower limb amputation admissions to hospital per 100,000 people aged 18 years and over, age standardised, by local area, 2012–13

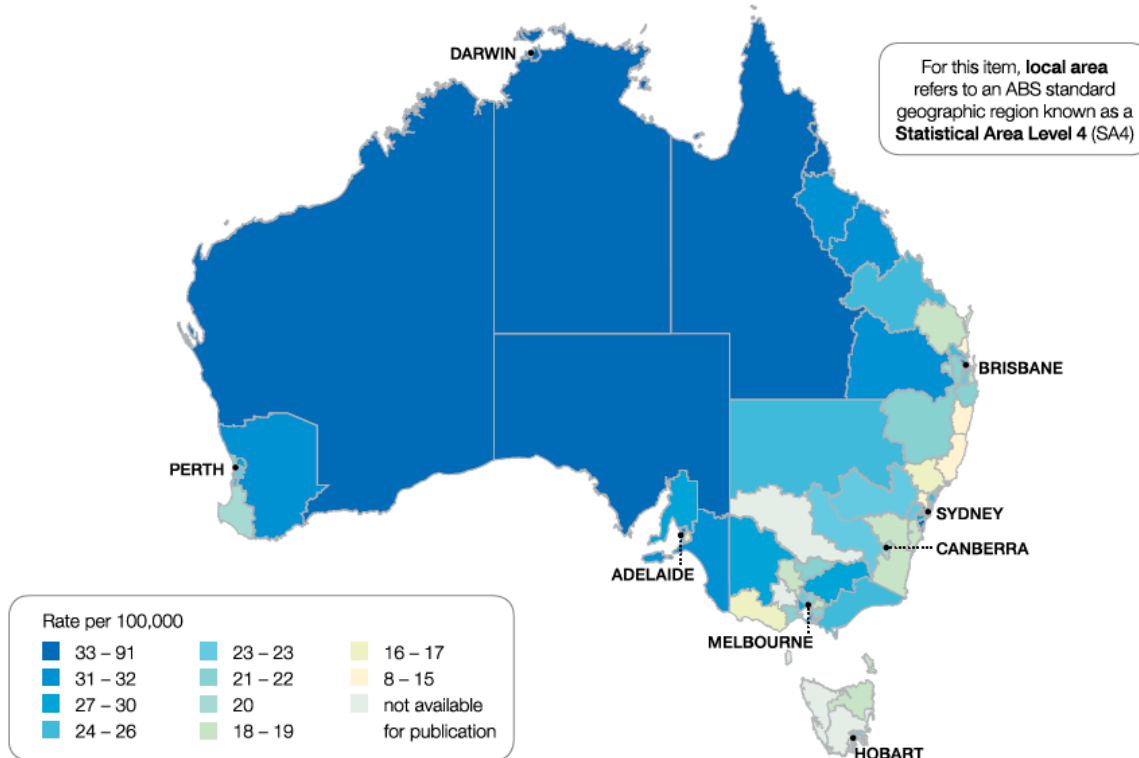
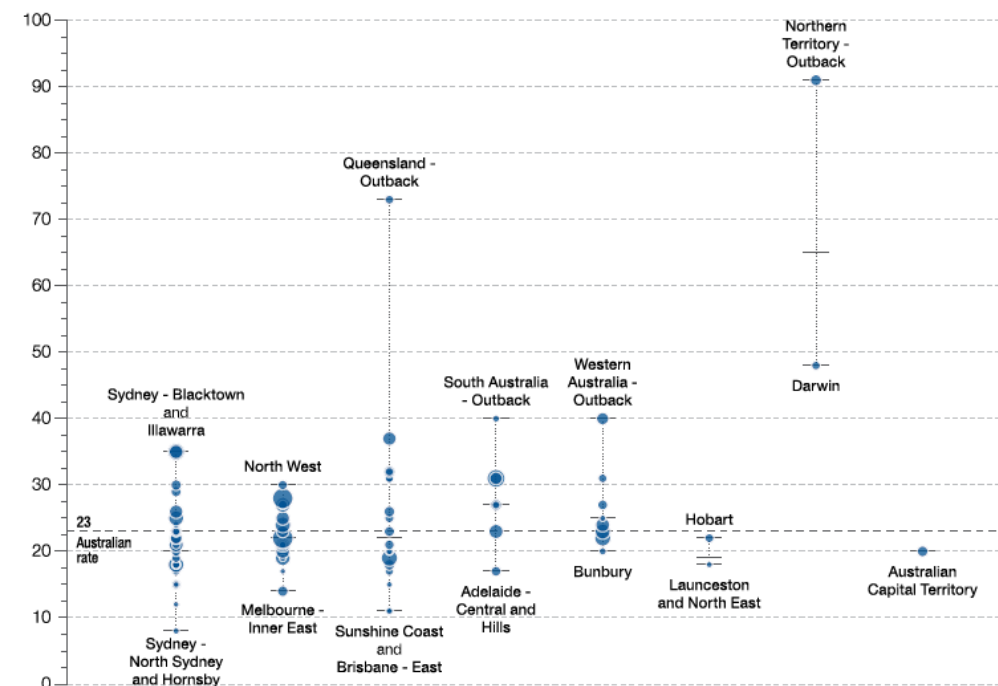


Figure 137: Number of diabetes-related lower limb amputation admissions to hospital per 100,000 people aged 18 years and over, age standardised, by local area, state and territory, 2012–13

	NSW	Vic	Qld	SA	WA	Tas	NT	ACT
Highest rate	35	30	73	40	40	22	91	–
State/territory	20	22	22	27	25	19	65	20
Lowest rate	8	14	11	17	20	18	48	–
No. admissions	1,331	1,081	834	417	480	88	99	55



Disparities for Aboriginal and Torres Strait Islander People

Diabetes rates (over 25 years): 20% vs 6-8%

National Aboriginal and Torres Strait Islander Health Measures Survey (2012–13)

DRFC 3 to 6-fold and lower limb amputation 38 times higher

West, M et al (2017), Defining the gap: a systematic review of the difference in rates of diabetes-related foot complications in Aboriginal and Torres Strait Islander Australians and non-Indigenous Australians, Journal of Foot and Ankle Research, vol.10, article 48, available at <https://jfootankleres.biomedcentral.com/articles/10.1186/s13047-017-0230-5>

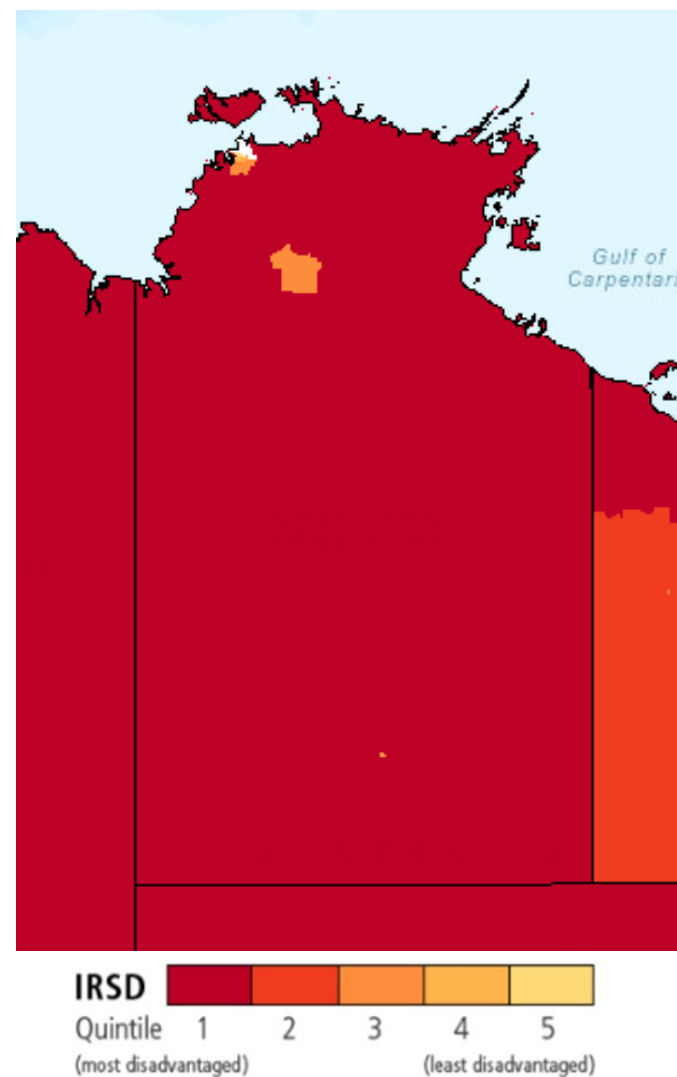
Hospitalisations for amputation x11 (f) and x5 (m); x3 remote

Australian National Diabetes Strategy 2016-2020

Drivers of disparities

- historical and cultural factors – e.g. colonisation and racism
- social determinants of health
- lack of community engagement and empowerment
- systems factors, incl. a lack of holistic, culturally safe care; fragmentation, workforce, data

Social determinants of health



12 x

The NT has **12 times** the national average rate of homelessness.



20%

20% of **Aboriginal people** in the NT are experiencing homelessness



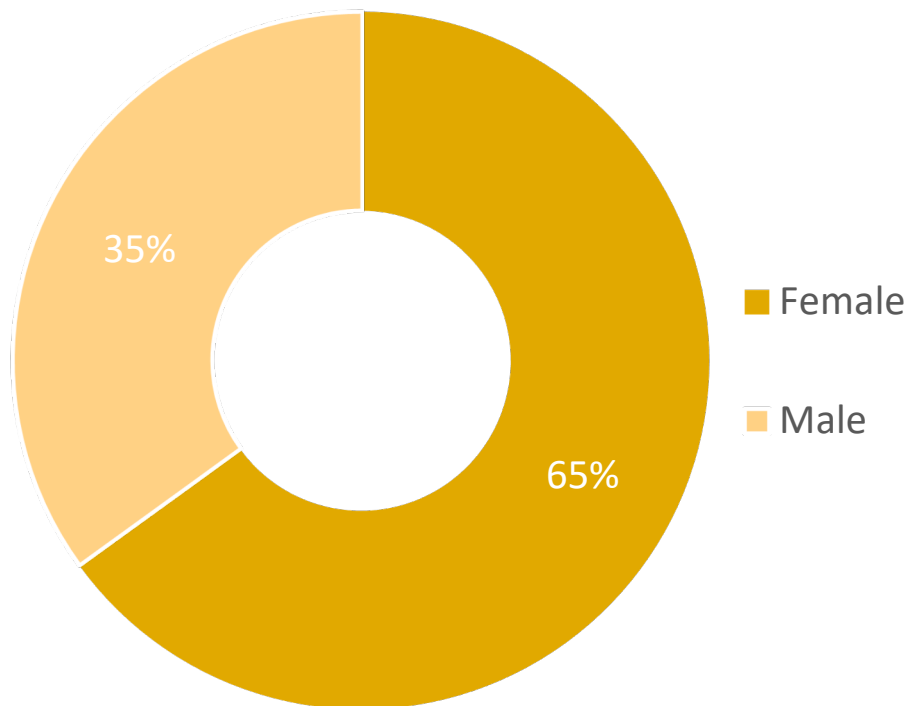
81%

81% of people defined as homeless in the NT live in **severely crowded dwellings**.

Cultural determinants of health



T2DM DIAGNOSIS BY GENDER



One in three females
>15 years old, who live in remote
communities, are people living with
T2DM



This increases to one in two
for females > 45 years old

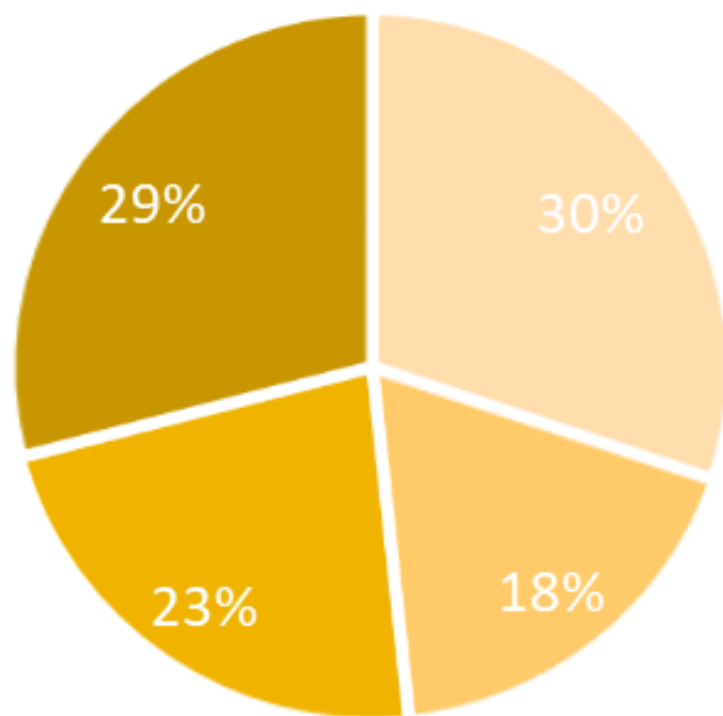


One in four males
>15 years old, who live in remote
communities, are people living with T2DM



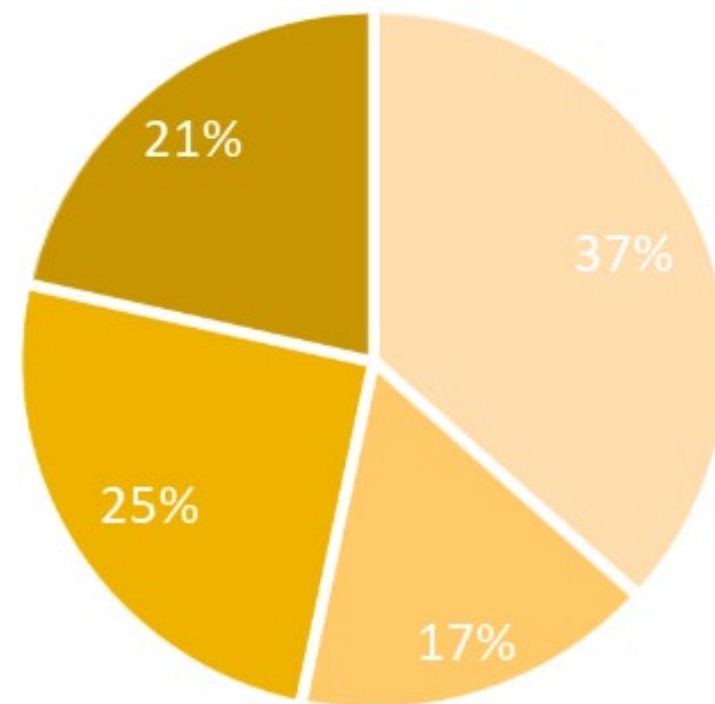
This increases to one in two for
males > 45 years old

HBA1C STATUS: FEMALES

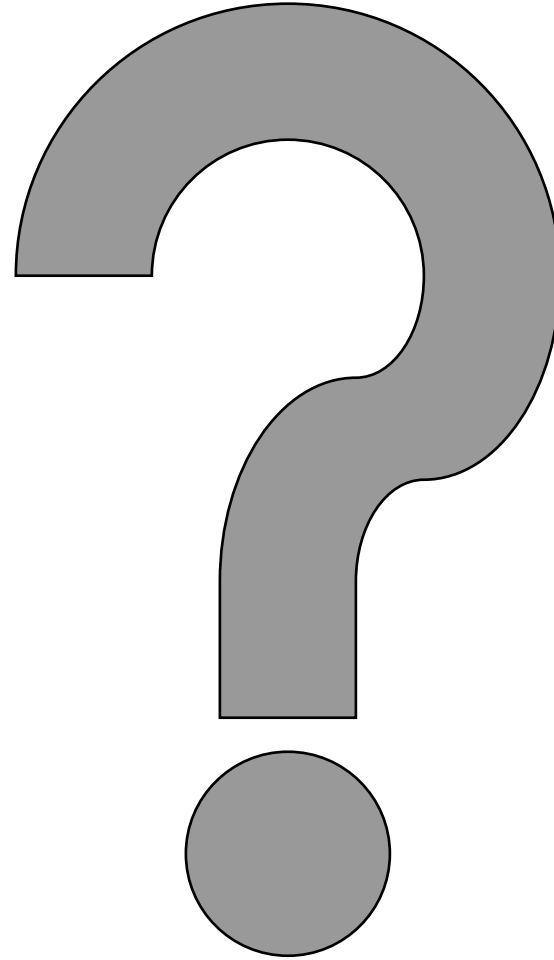


- HbA1c ≤ 7 (< 53 mmol/mol)
- HbA1c > 7 (54-64 mmol/mol)
- HbA1c > 8 (65-85 mmol/mol)
- HbA1c > 10 (⇒ 86 mmol/mol)

HBA1C STATUS: MALES

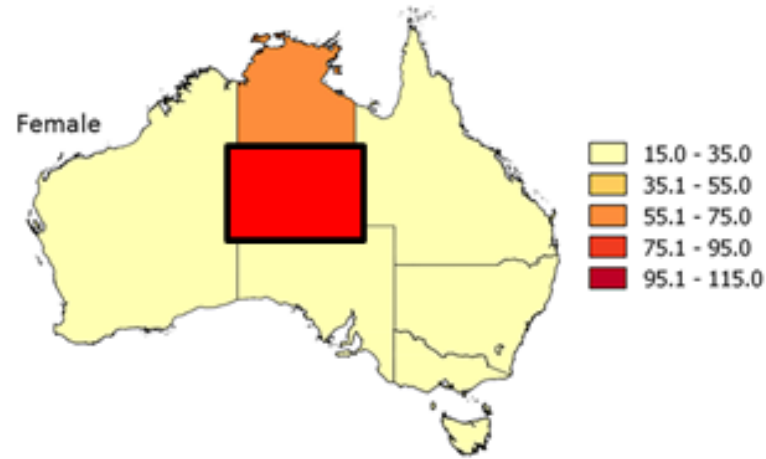


Baseline Report: Diabetes Related Foot Complications



GENDER DISTRIBUTION OF ABORIGINAL AUSTRALIANS WHO UNDERWENT AMPUTATION

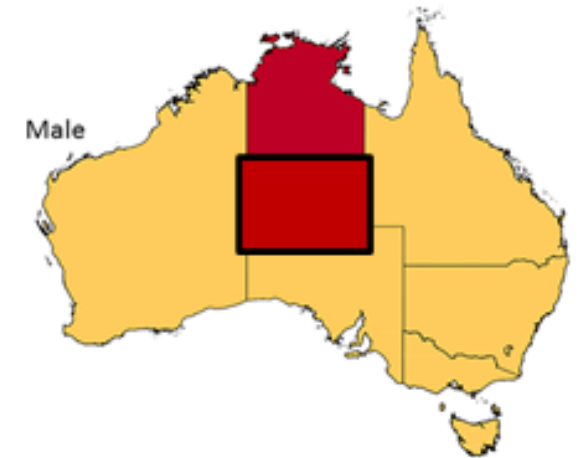
54% Female; 46% Male



Female: 87.4 amputations
per 100,000 people

Nationally: 19/100,00

NT: 59.3/100,000



Male: 104.6 amputations
per 100,000 people

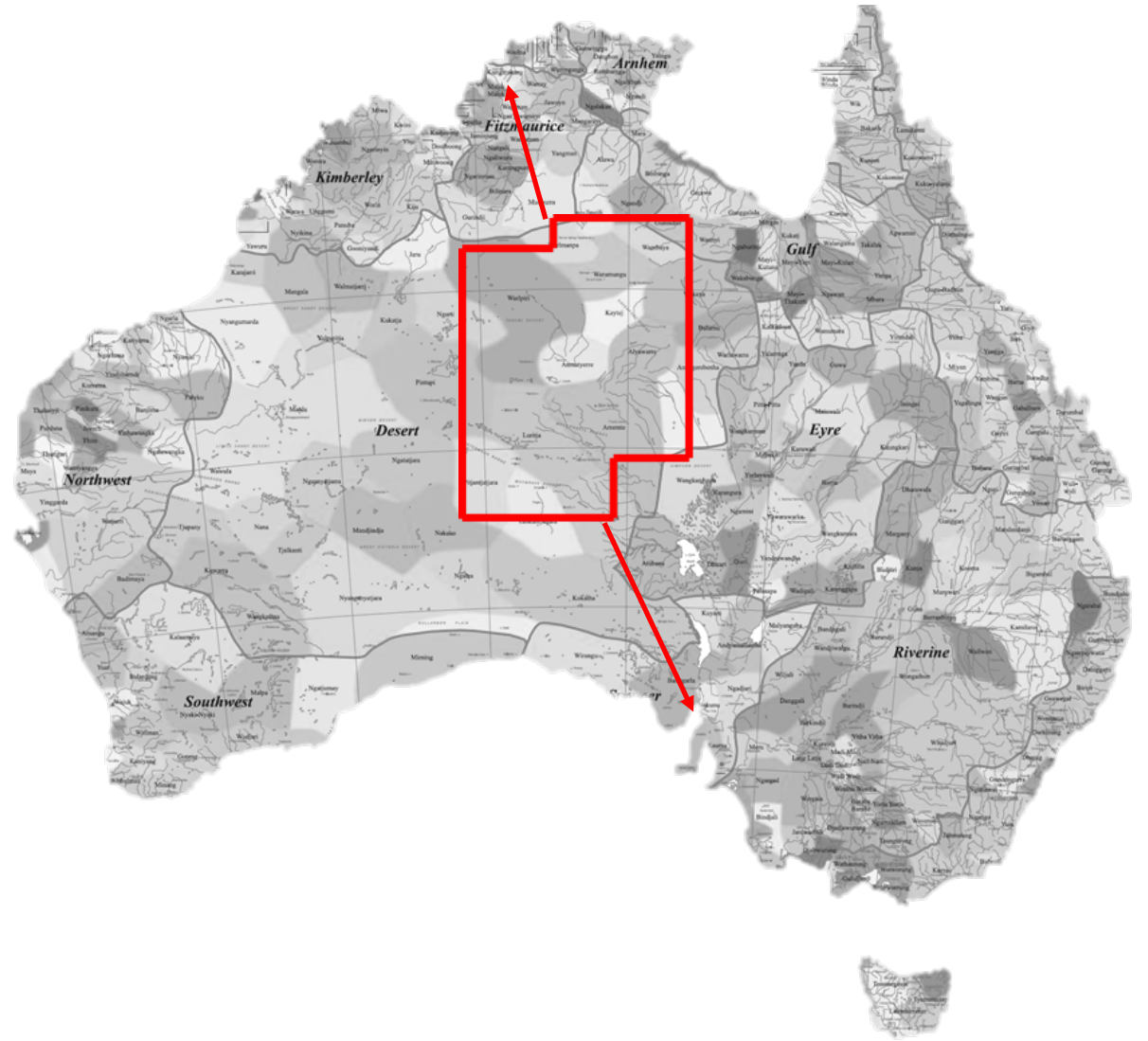
Nationally: 40.3/100,000

NT: 100,1/100,000

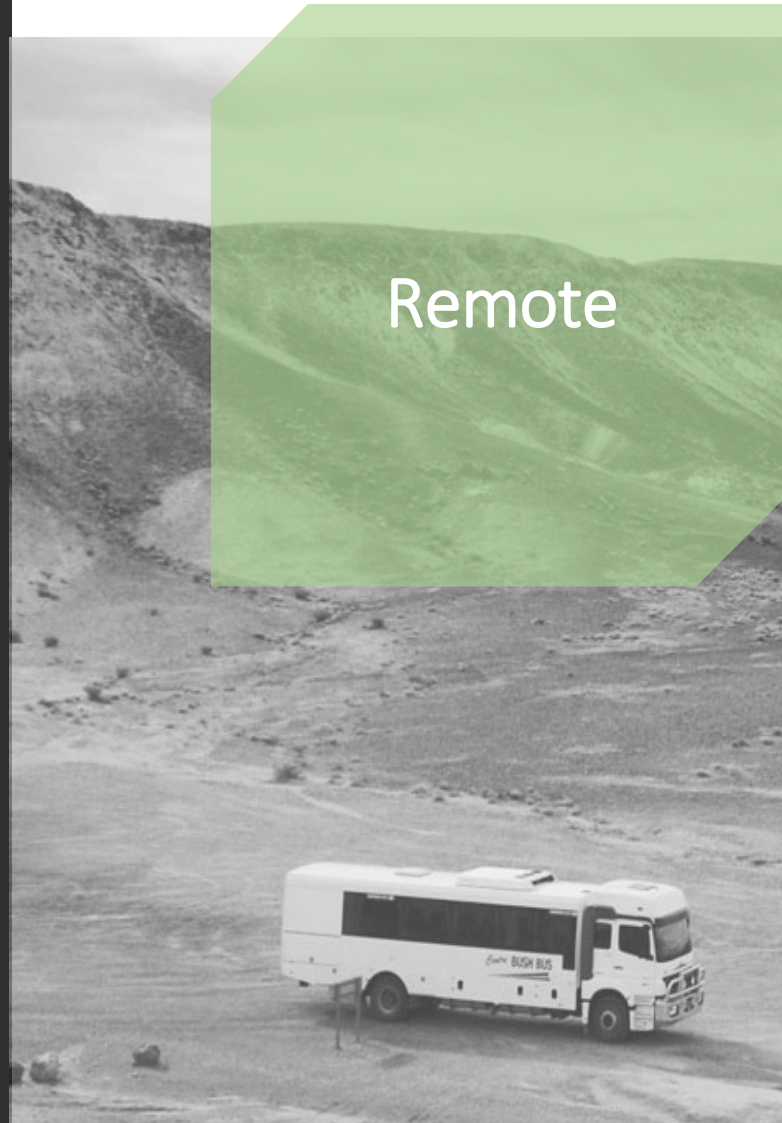


A person's journey to accessing
foot wound offloading

Service provision in Central Australia



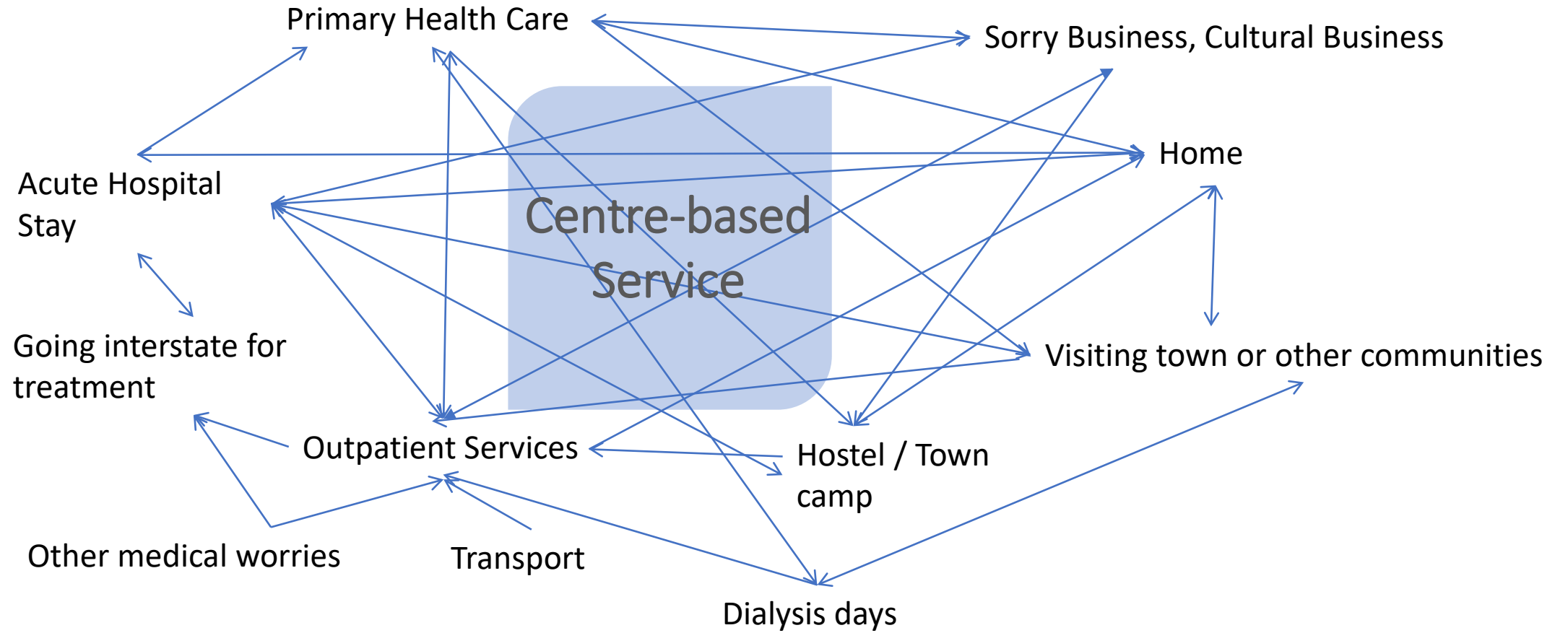
Offloading
with limited
resources;
Access



Remote



Urban



Offloading with limited resources; **Availability**

- Multidisciplinary care
- Specialists (Vascular Surgeons)
- Offloading
- Follow up
- Interpreting services
- Aboriginal Health Practitioners
- Podiatrists
- Funding
- Transience of workforce

Strategies; Access & Availability



- Bi-valved TCCs
- Removable above-ankle walkers made non-removable
- Total contact shoes within removable above ankle walkers
- EVA with cutouts as an alternative to adhesive felt
- CAD CAM offloading innersoles for wound offloading
- Accessible funding

Strategies; Engagement & Cultural Safety





CENTRAL
AUSTRALIAN
**ABORIGINAL
CONGRESS**
ABORIGINAL CORPORATION



‘Arntarnte-areme ingke’

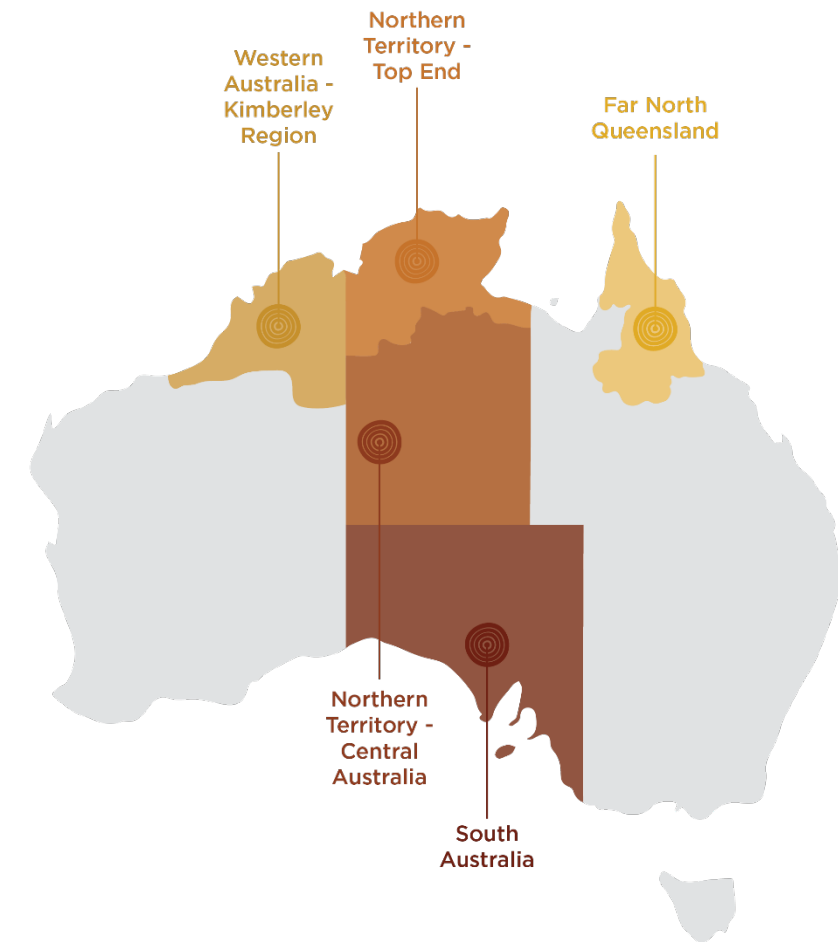
Aboriginal and Torres Strait Island
Diabetes Related Foot Complications
Program – Central Australia

Aboriginal and Torres Strait Islander Diabetes-related Foot Complications Program

2 ½ years, \$6m, 5 regions

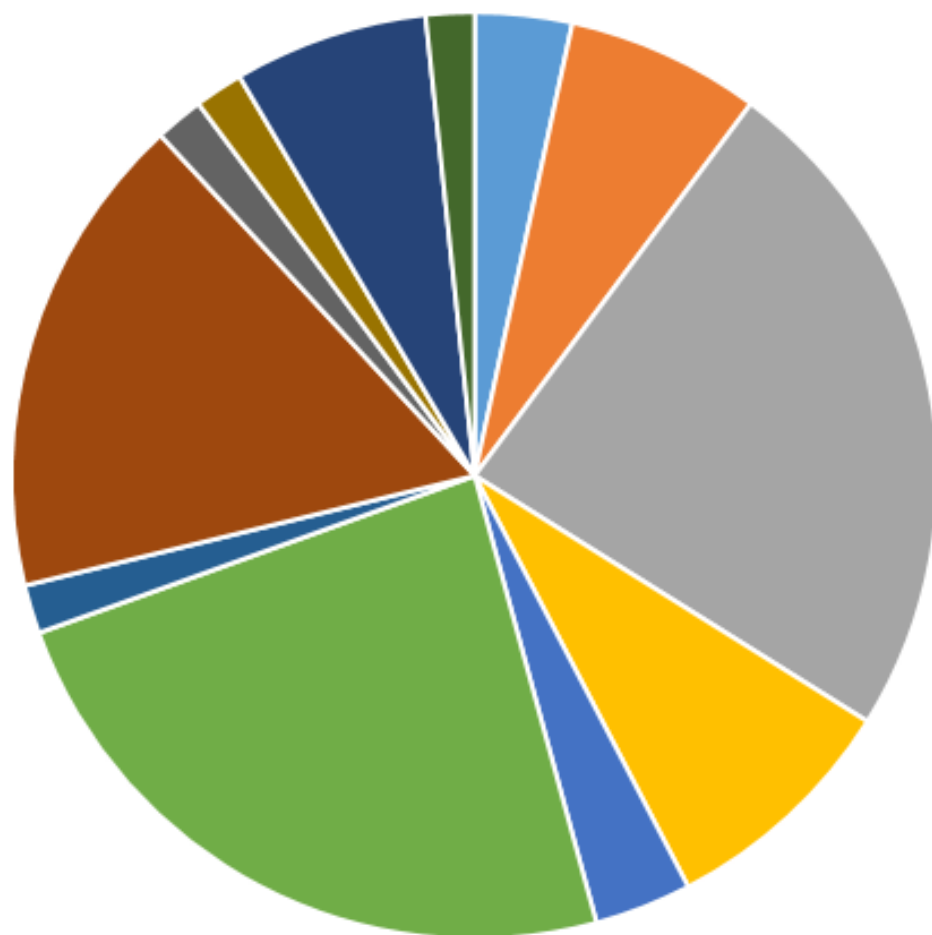
6 activities

1. baseline report
2. best-practice models of care and new approaches
3. increase access to multidisciplinary care
4. develop a best practice community-based workforce model
5. training and support for Aboriginal and non-Aboriginal health workforce
6. an evaluation framework to facilitate future monitoring of the effect of health care and system initiatives





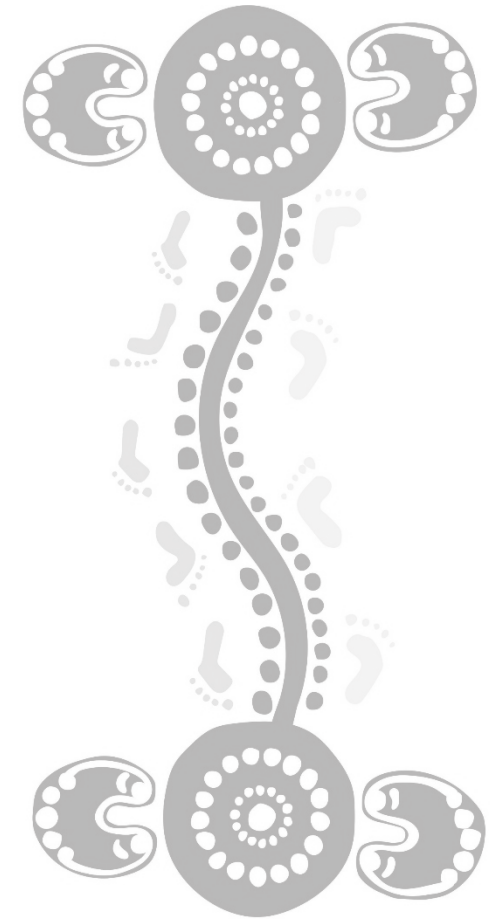
We thank the community members, health professionals, and expert service providers for their time, their knowledge sharing, and contributions to the development of this program implementation plan.



- Aboriginal Cultural Advisor
- Aboriginal Health Practitioner
- Consumer/Carer
- Diabetes Educator
- Endocrinology Registrar
- Executive Staff
- Physiotherapist
- Podiatrist
- Primary Health Care Manager
- Prosthetist/Orthotist
- Remote Area Nurse/Remote Clinic Manager
- Wound Care Nurse

Stakeholder Recommendations

- Diabetes-related foot complications services development and integration
- Telehealth and clinical coordination, including defining referral pathways
- Provision of offloading kits to remote community clinics
- Increasing access to multidisciplinary team care
- Workforce capacity strengthening and resource development
- Community awareness campaign – resources in language
- Increasing access to appropriate and affordable footwear
- Ongoing consumer engagement



Aboriginal and Torres Strait Islander Diabetes-related Foot Complications Program

- Community awareness and capacity strengthening
- **Workforce capacity strengthening and resource development**
- Telehealth





Offloading kits and clinic support
(telehealth and workforce
capacity strengthening)



Telehealth



**Does your client have a
FOOT concern?**

**CENTRAL AUSTRALIA
ON CALL PODIATRY
Mon – Fri 0900 - 1600**

The On Call Podiatrist can provide advice and guidance for:

- Assessment of a foot wound
- Wound management or dressing choice
- Wound offloading
- Support and co-ordination of foot complications
- Diabetes Foot education
- Footwear
- Foot pain
- Any other foot concerns.

Videoconference or Phone-only consult available

Call: 0477 002 273

email: podiatry.telehealth@caac.org.au

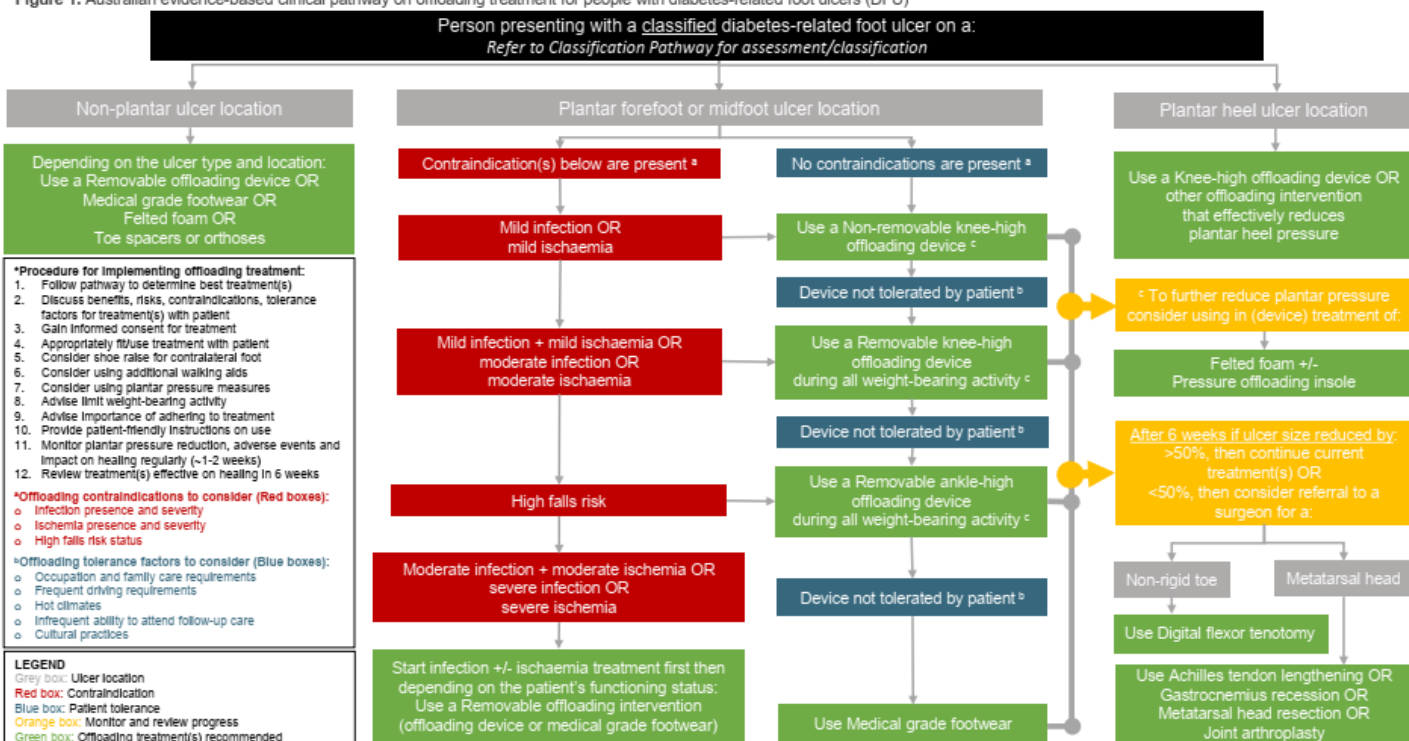




OFFLOADING

Australian guideline on offloading treatment for foot ulcers

Figure 1. Australian evidence-based clinical pathway on offloading treatment for people with diabetes-related foot ulcers (DFU) **



**Please refer to the Australian guideline on offloading treatments for foot ulcers for full details



OFFLOADING AUSTRALIAN RECOMMENDATIONS LIST

In a person with diabetes and a neuropathic plantar forefoot or midfoot ulcer:

- 1A** In a person with diabetes and a neuropathic plantar forefoot or midfoot ulcer, use a non-removable knee-high offloading device rather than a removable offloading device to promote healing of the ulcer (GRADE strength of recommendation: Strong; Quality of evidence: Moderate).
- 1B** When using a non-removable knee-high offloading device to heal a neuropathic plantar forefoot or midfoot ulcer in a person with diabetes, consider using either a total contact cast or non-removable knee-high walker, with the choice dependent on the local resources and technical skills available, and the person's preference and extent of foot deformity (Weak; Low).
- 2** In a person with diabetes and a neuropathic plantar forefoot or midfoot ulcer, when non-removable knee-high offloading devices are contraindicated or not tolerated, consider using a removable knee-high offloading device (and explain the importance of using) during all weight-bearing activities rather than a removable ankle-high offloading device to reduce plantar pressure and promote healing of the ulcer (Weak; Low).
- 3** In a person with diabetes and a neuropathic plantar forefoot or midfoot ulcer, when knee-high offloading devices are contraindicated or not tolerated, use a removable ankle-high offloading device (and explain the importance of using) during all weight-bearing activities rather than medical grade footwear to promote healing of the ulcer (Strong; Very low).
- 4** In a person with diabetes and a neuropathic plantar forefoot or midfoot ulcer, when ankle-high offloading devices are contraindicated or not tolerated, use medical grade footwear rather than other footwear types or no footwear to promote healing of the ulcer (Strong; Low).
- 5** In a person with diabetes and a neuropathic plantar forefoot or midfoot ulcer, consider using felted foam in combination with an offloading device or footwear rather than using the offloading device or footwear alone to further reduce plantar pressure and promote healing of the ulcer (Weak; Very Low).

If the best recommended offloading device option fails to heal a person with diabetes and:

- 6A** If the best recommended offloading device option fails to heal a person with diabetes and a neuropathic plantar metatarsal head ulcer, consider using Achilles tendon lengthening or Gastrocnemius recession, metatarsal head resection(s), or joint arthroplasty to promote healing of the ulcer (Weak; Low).
- 6B** If the best recommended offloading device option fails to heal a person with diabetes and a neuropathic plantar or apical ulcer on a non-rigid toe, consider using digital flexor tenotomy to promote healing of the ulcer (Weak; Low).

In a person with diabetes and a neuropathic plantar forefoot or midfoot ulcer (complicated) with:

- 7A** In a person with diabetes and a neuropathic plantar forefoot or midfoot ulcer with either mild infection or mild ischaemia, consider using a non-removable knee-high offloading device to promote healing of the ulcer (Weak; Low).
- 7B** In a person with diabetes and a neuropathic plantar forefoot or midfoot ulcer with both mild infection and mild ischaemia, or with either moderate infection or moderate ischaemia, consider using a removable knee-high offloading device to promote healing of the ulcer. (Weak; Low).
- 7C** In a person with diabetes and a neuropathic plantar forefoot or midfoot ulcer with both moderate infection and moderate ischaemia, or with either severe infection or severe ischaemia, primarily address the infection and/or ischaemia, and consider using a removable offloading intervention based on the patient's functioning, ambulatory status and activity level, to promote healing of the ulcer (Weak; Low).

In a person with diabetes and a neuropathic plantar heel ulcer:

- 8** In a person with diabetes and a neuropathic plantar heel ulcer, consider using a knee-high offloading device or other offloading intervention that effectively reduces plantar pressure on the heel and is tolerated by the patient, to promote healing of the ulcer. (Weak; Low).

In a person with diabetes and a non-plantar foot ulcer:

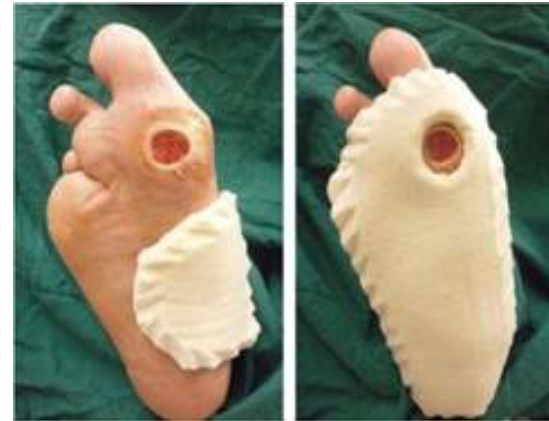
- 9** In a person with diabetes and a non-plantar foot ulcer, use a removable offloading device, medical grade footwear, felted foam, toe spacers or orthoses, depending on the type and location of the foot ulcer, rather than no offloading intervention to promote healing of the ulcer and to prevent further ulceration (Strong; Very Low).



Offloading kit; Distribution



Offloading kit; Contents



DARCO







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A person is walking on a tightrope that stretches diagonally across the frame from the bottom left to the top right. The person is positioned in the upper right quadrant, appearing small against the vast, cloudy sky. The background is a bright, overcast sky with soft, white clouds. A dark, rounded rectangular shape is overlaid on the left side of the image, containing the text "Questions?".

Questions?