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Briefing

Expanding the 'Feet for Life' renal care initiative

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То:	Hon Dr Shane Reti, Minister of Health		
Consulted:	Health New Zealand: 🗵]	

Contact for telephone discussion

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Minister's office to complete:

□ Approved	\Box Decline	□ Noted
\Box Needs change	□ Seen	\Box Overtaken by events
□ See Minister's Notes	□ Withdrawn	
Comment:		

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Purpose of report

1. This briefing provides you with requested advice on the 'Feet for Life' renal care initiative at Middlemore Hospital. This advice includes a summary of the service model, its outcomes and benefits, and feasibility of implementing this model nationally.

Summary

- 2. Diabetic foot disease places individuals with diabetes at higher risk of lower limb amputation and mortality. While these outcomes are avoidable through access to podiatric services, studies have shown that only 33-35% of patients admitted to hospital for diabetes-related lower limb amputations have previously seen a podiatrist or accessed a foot specialist service.
- 3. The 'Feet for Life' service was initiated within the Te Rito renal dialysis unit at Middlemore Hospital in 2013. The service has resulted in significant improvements including prevention of lower limb amputation, hospital admission avoidance, increased access to and efficiency of podiatric services, and increased ability for patients to effectively selfmanage their foot conditions at home.
- 4. There are several key enablers that can support the expansion of the 'Feet for Life' service model across New Zealand. These include the availability of appropriate data to inform decision-making, the development of a footcare assistant workforce, and integration of a podiatry clinical lead role into the Diabetes Clinical Network within Health New Zealand (Health NZ).
- 5. Diabetes is one of the five non-communicable diseases that the government is focused on accelerating action to address. Improved prevention of these non-communicable diseases will be achieved through addressing five modifiable risk factors:
 - alcohol
 - tobacco
 - poor nutrition
 - physical inactivity
 - and adverse social and environmental factors.

Recommendations

We recommend you:

- a) **note** the barriers and enablers to implementing the 'Feet for Life' service **Noted** model nationally which have been outlined in this briefing
- agree that Health New Zealand lead the planning for implementing the 'Feet for Life' service model nationally and keep you updated on progress toward this aim
- c) **agree** that the Ministry of Health Chief Allied Health Professions Officer will convene with relevant stakeholders (including Health New Zealand representatives, the Podiatrists Board of New Zealand, Podiatry New Zealand, and tertiary education providers) to ensure delivery of the enablers outlined in this briefing

Dr Diana Sarfati Director-General of Health Te Tumu Whakarae mō te Hauora Date: 17 July 2024 Hon Dr Shane Reti, Minister of Health

Date:

Yes/No

Yes/No

Expanding the 'Feet for Life' renal care initiative

Background

- 6. Following your meeting on 5 June with podiatrists and members of the Podiatrists Board of New Zealand, you requested advice on the 'Feet for Life' renal care initiative at Middlemore Hospital. You also asked for advice about the potential to roll the model out nationally.
- 7. From 2013-2022, New Zealand saw a significant increase in the prevalence of diabetes (from 36.6 per 1000 population in 2013 to 43.1 per 1000 population in 2022. In 2022 an estimated 307,400 people had diabetes.
- 8. While lower limb amputations impact a small percentage of those living with diabetes, over 720 individuals with diabetes lost a part of their lower limb in 2022.
- 9. Podiatrists play a critical role in preventing lower limb amputations and hospitalisations for people with diabetes. There is a strong evidence base supporting early referrals to podiatric services for individuals diagnosed with diabetes. Despite this, studies have shown that only 33-35% of patients admitted to hospital for diabetes-related lower limb amputations had previously seen a podiatrist or accessed a foot specialist service.
- 10. People with chronic kidney disease and end stage renal failure ace and elevated risk of lower limb amputation which increases 10-fold when diabetes is also present. There is potential to increase access to podiatric services by integrating podiatrists into renal services, given that up to 70% of patients on dialysis have diabetes. This service model has been established at Middlemore Hospital and has reduced the incidence of lower limb amputations by over 10%.

Overview and outcomes of the 'Feet for Life' Initiative

The 'Feet for Life' service model

- 11. The 'Feet for Life' model of care was established in 2013 in the Te Rito dialysis unit at Middlemore Hospital. This model provides a permanent on-site renal podiatry service for diabetic patients attending the dialysis unit.
- 12. This model allows podiatrists to access patients and whānau while they receive their dialysis treatment. Through the 'Feet for Life' model, podiatrists can provide a range of services including patient and staff education, wound management and prevention, and provision of orthotics and offloading footwear to support weight distribution.

Outcomes of 'Feet for Life' and Middlemore Hospital

13. Placing a podiatry service within the Te Rito dialysis unit resulted in a significant improvement in access to podiatry for this patient population. The average wait time to see a podiatrist reduced from 42 days to 5 days. Additionally, patient rates of non-attendance for podiatry clinics reduced by 81% which also resulted in greater efficiency for this podiatric service.

- 14. The 'Feet for Life' model has also resulted in significant prevention of lower limb amputations (82% of potential amputations were prevented from 2013-2015). Lower limb amputations within the diabetic population are associated with increased risk of mortality (from 13% mortality in the first year post amputation to 80% mortality after five years).
- 15. In 2015 the 'Feet for Life' project team reported a proven cost savings of \$440,000 from avoided below-knee amputations, a probable savings of \$1,100,000 on other high risk foot complications, and a proven savings of \$105,950 from reduced non-attendance rates.
- 16. Through the provision of patient education services, the 'Feet for Life' service has also improved health literacy for patients and whānau, enabling them to effectively self-manage their foot conditions at home.

Prevalence of diabetes and kidney disease in high needs populations

- 17. Diabetes affects 12.5 % of the Pacific population, 9.5% of the Indian population, and 7% of the Māori population. This is in comparison with a 6.4% prevalence across New Zealand.
- 18. The incidence (new patients per million population [pmp]) of kidney replacement therapy is markedly higher among Pacific peoples (475 pmp) and Māori (253 pmp), compared with Asian (99 pmp) and European and other ethnicities (79 pmp).
- 19. Māori experience higher rates of hospital admissions for diabetes-related conditions such as lower limb complications. A recent audit of lower limb amputation rates in the Northern Region found that amputation rates were 2.8 and 1.5 times higher, respectively for Māori and Pacific people than non-Māori, non-Pacific people.
- 20. Improving access to podiatry services by integrating them into renal services can improve foot health outcomes for people with diabetes. Given that Māori and Pacific people experience higher rates of diabetes and kidney disease and subsequent lower limb amputations, this service model can also improve equitable health outcomes.

Considerations for expanding the 'Feet for Life' model nationally

Potential barriers

- 21. As of March 2023, there were a total of 474 registered podiatrists in New Zealand. Given the relatively small number of podiatrists, workforce capacity may present a significant challenge to delivering the 'Feet for Life' model nationally.
- 22. In light of workforce constraints, national data providing insights on rates of amputation in people with end stage renal disease and diabetes-related lower limb amputations and other risk factors for diabetes-related Foot disease by region would assist in prioritising resources to implement the 'Feet for Life' model. This data, however, is not readily available.
- 23. Funding to support the establishment of podiatry roles within renal services may be limited in the current fiscal environment. Therefore, it is important to highlight that the 'Feet for Life' model demonstrated that employing a single podiatrist into a renal service (annual salary ranging from roughly \$100,000 \$147,000) can result in a savings of up to \$1,600,000 within a year.

Enablers

- 24. The development of a footcare assistant workforce can make a substantial impact on access to podiatric services and can increase the podiatry workforce. A separate briefing on the development of a footcare assistant workforce will soon be with you (H2024046092) which offers more detailed insights on the benefits and considerations for establishing this workforce.
- 25. Establishing a clinical podiatry lead within Health NZ's Diabetes Clinical Network will also support the integration of podiatrists into renal services throughout New Zealand. Ministry of Health officials are working with representatives for the Diabetes Clinical Network and Health NZ to support the integration of a designated podiatry lead.
- 26. Assessing the efficacy and outcomes of the 'Feet for Life' programme and prioritising allocation of podiatry resource to do so requires data that is not currently readily available.
- 27. Appendix 1 outlines the data and outcome measures which would be most useful in supporting national implementation of the 'Feet for Life' service model.

Next steps

- 28. We propose that Health NZ lead the process of planning for implementing the 'Feet for Life' service model nationally and keep you updated on progress toward this aim.
- 29. With your approval, the Ministry of Health's Chief Allied Health Professions Officer will convene with relevant stakeholders (including Health NZ representatives, the Podiatrists Board of New Zealand, Podiatry New Zealand, and tertiary education providers) to support the delivery of the enablers outlined in this briefing.

ENDS.

Briefing: H2024045994

Appendix 1: Data and outcome measures required to support national implementation of the 'Feet for Life' service model

The following data will support prioritisation of resource and decision-making to guide the expansion of the Feet for Life service model. This data will also provide means by which the efficacy of the service/s can be assessed and monitored for the purposes of continuous quality improvement.

NZ	Based on Stats NZ population estimates	
Population		
Number of	Single count NHI	
people		
presenting		
Number of	Count of admissions associated with amputation	
admissions		
with		
amputation		
Age	Average age at discharge	
Amputation	Count	
procedures		
Pop/100,000	NZ Pop/all ages	
	Major amputation through ankle and above (including	
Major	hip level)	
Minor	Minor amputation below ankle	
LOS	Cumulative Length of stay for all amputations	
Cost	cumulative estimated cost per admission	

The following national and district-level information is required:

This data needs to be able to be further analysed by:

- Number of Diabetes-Related Lower Extremity Amputations (DRLEA)
- Number of lower extremity amputations in individuals on renal replacement therapy
- Ethnicity
- Age (with adjustable groupings)
- Gender

A similar report for DFD caused hospital admissions with the addition of reporting by suburb will provide insights on areas of greatest need and opportunity for preventative services. This data can guide decision-making regarding prioritisation and allocation of resources.

Additionally reporting on diabetes annual foot screening coverage and foot risk score results would provide much needed population level data to guide service planning and delivery.

Minister's Notes