Home haemodialysis : where to from here?

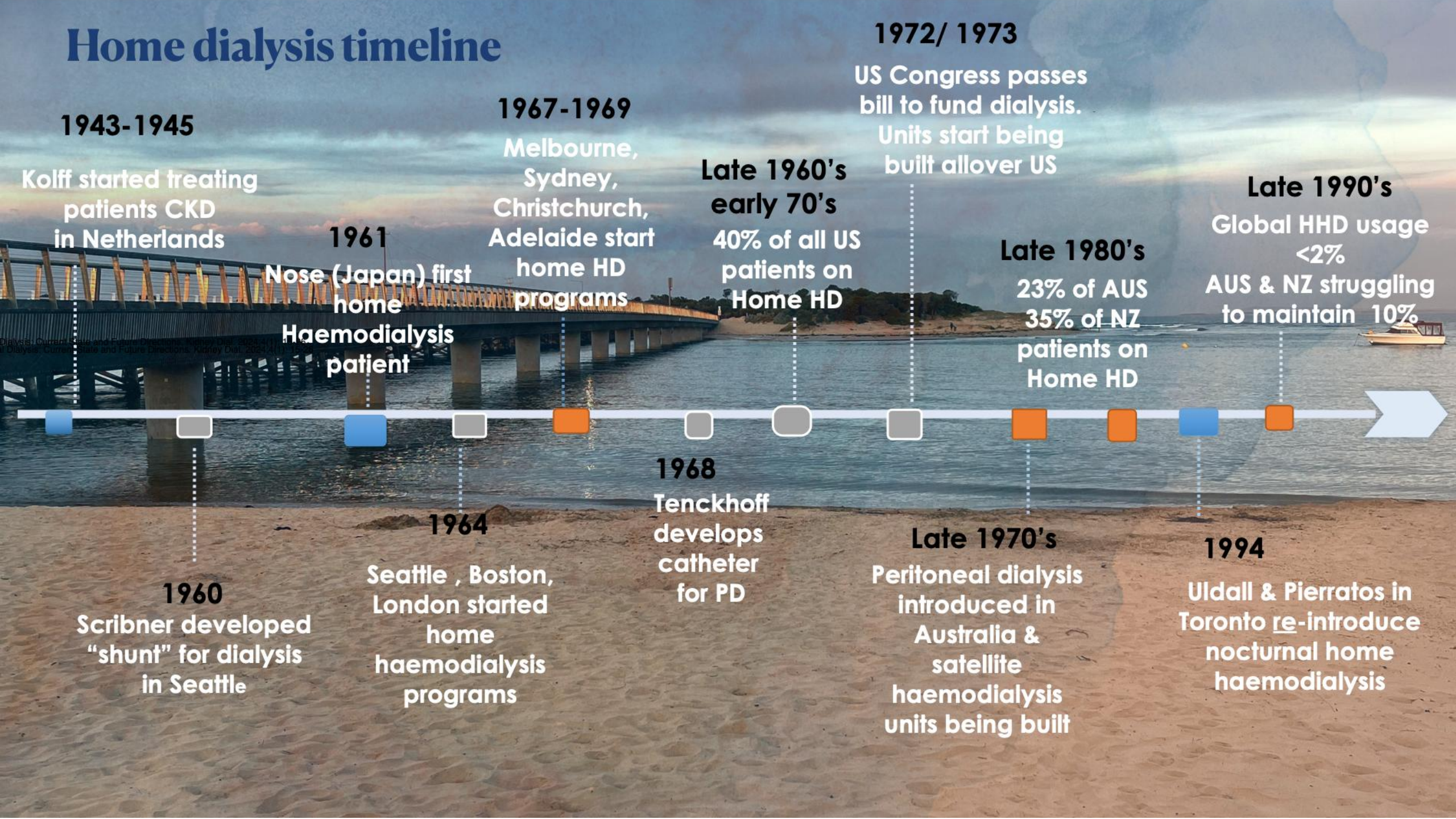
Rosie Simmonds

Barwon Health

RSA June 2026 , Christchurch



Home dialysis timeline



1943-1945

Kolff started treating patients CKD in Netherlands

1960

Scribner developed "shunt" for dialysis in Seattle

1961

Nose (Japan) first home Haemodialysis patient

1964

Seattle , Boston, London started home haemodialysis programs

1967-1969

Melbourne, Sydney, Christchurch, Adelaide start home HD programs

1968

Tenckhoff develops catheter for PD

Late 1960's early 70's

40% of all US patients on Home HD

1972/ 1973

US Congress passes bill to fund dialysis. Units start being built allover US

Late 1970's

Peritoneal dialysis introduced in Australia & satellite haemodialysis units being built

Late 1980's

23% of AUS
35% of NZ
patients on Home HD

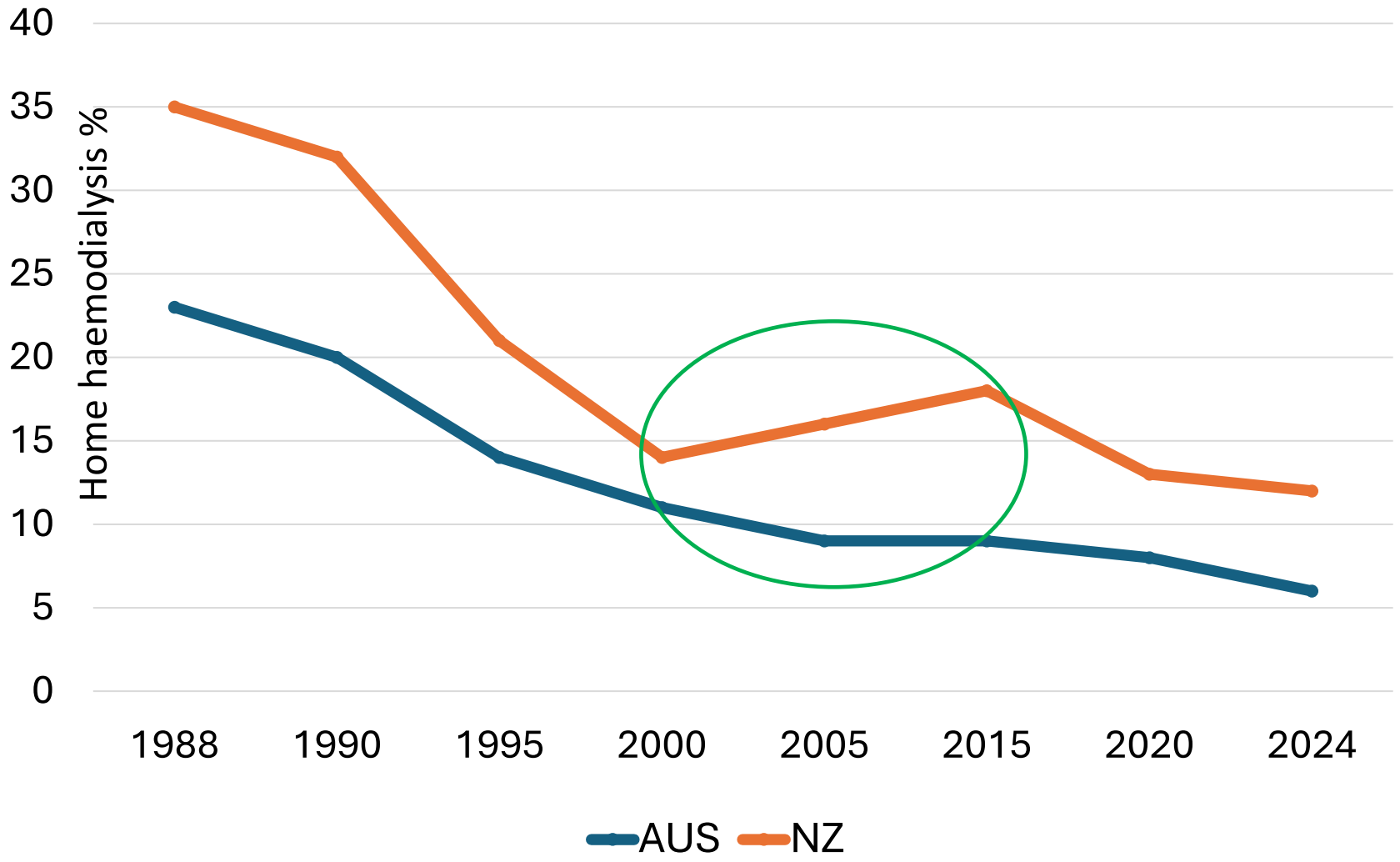
1994

Uldall & Pierratos in Toronto re-introduce nocturnal home haemodialysis

Late 1990's

Global HHD usage <2%
AUS & NZ struggling to maintain 10%

Home haemodialysis decline over the years ……



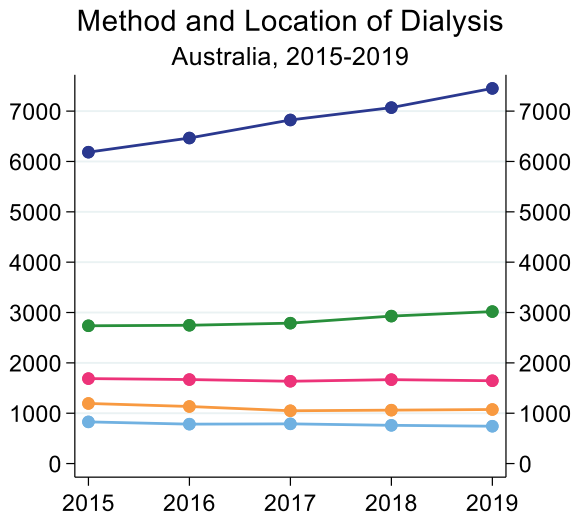
ANZDATA 48th Report 2025

New Zealand 12%

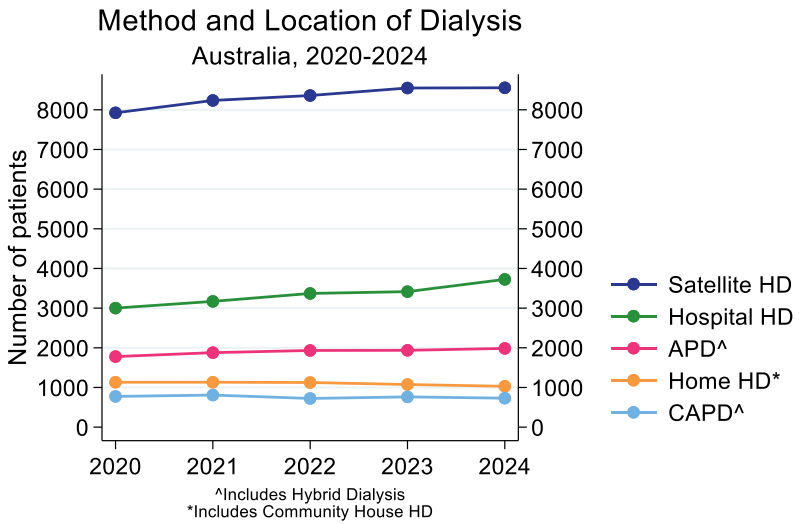
Australia 6%

Adapted from ANZDATA Reports 1989 - 2025

Australia



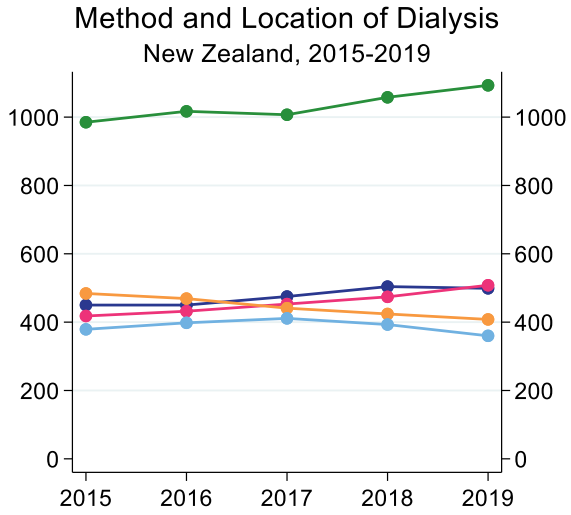
2020 ANZDATA Annual Report, Figure 2.9.1



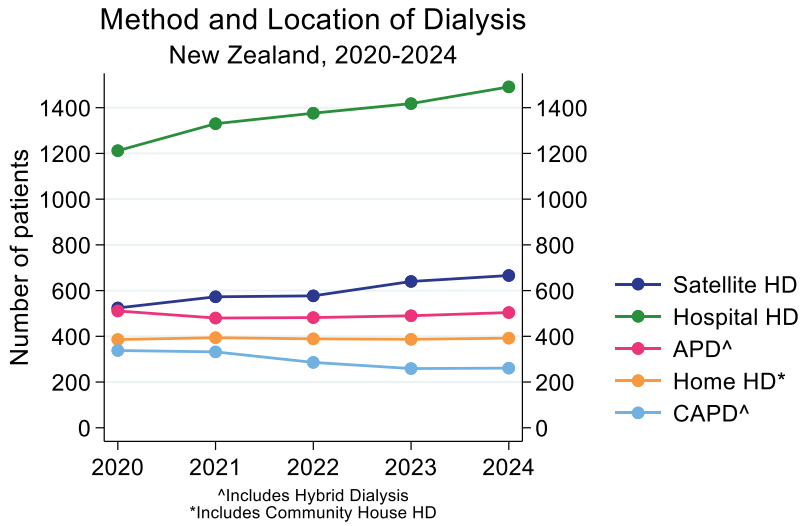
2025 ANZDATA Annual Report, Figure 2.9.1

AUS ESKD incidence has increased last 10 years: from 112 per million persons to 128 pmp

New Zealand



2020 ANZDATA Annual Report, Figure 2.9.2



2025 ANZDATA Annual Report, Figure 2.9.2

NZ ESKD incidence has increased last 10 years: from 115 per million persons to 142 pmp

ANZ DATA
AUSTRALIA & NEW ZEALAND DIALYSIS & TRANSPLANT REGISTRY

Trends in home dialysis over the last decade in Europe: an ERA Registry study

Focus of study was to examine trends of home dialysis, including home haemodialysis (HHD) and peritoneal dialysis (PD), and transitions between home dialysis and other kidney replacement therapies (KRT).

Methods



Data from adult patients undergoing KRT in 13 European countries



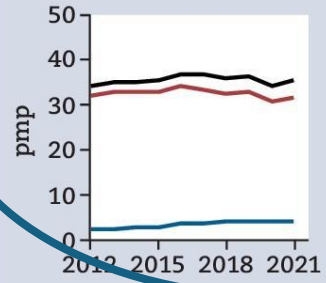
Trends in home dialysis initiation and prevalence 2012–2021



Transitions before and after home dialysis

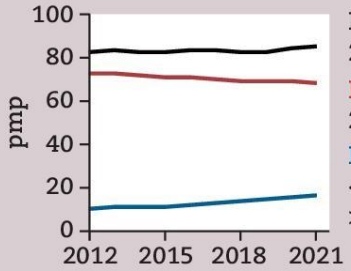
Results

Initiation rate



Home dialysis
2012–21: stable
PD
< 2016: stable
> 2016: 1.6% ↓ annually
HHD
2012–21: 5.6% ↑ annually

Prevalence



Home dialysis
2012–21: stable
PD
2012–21: 0.7% ↓ annually
HHD
< 2015: 3.6% ↑ annually
> 2015: 6.3% ↑ annually

Before initiation → 2 years after initiation

HHD

77% on centre HD → 21% received a graft, 17% on centre HD

PD

87% not yet on KRT → 19% received a graft, 23% on centre HD

Slon-Roblero, M.F. *et al.*
NDT (2025)
@NDTSocial

While the use of HHD over the past decade increased, the use of PD has declined. The prevalence of both HHD and PD remains low, with limited transitions from other KRT options to home dialysis and between home dialysis modalities.

Nephrol Dial Transplant, Volume 41, Issue 3, March 2026, Pages 457–475, https://doi.org/10.1093/ndt/gfaf171

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Home Dialysis in U.S.A.

2019 *Advancing American Kidney Health* executive order passed

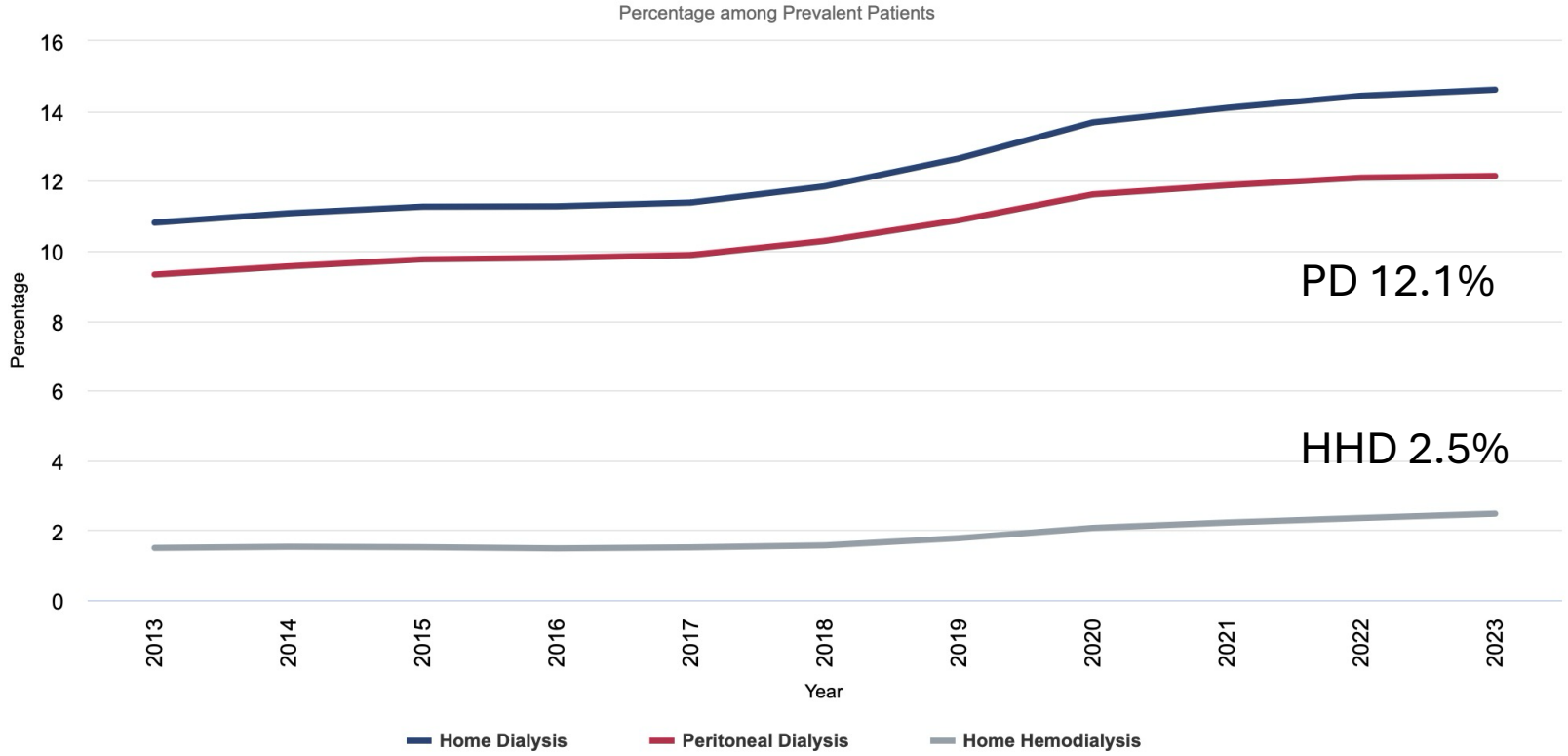
- “80% of new ESKD patients to receive HD or transplant by 2025”
- Funding & incentives provided

60% increase in incident Home Dialysis rate since 2013

- Now around 15% of incident ESRD are starting Home Dialysis

ESKD incidence fallen from 456 per million persons to 362 per million persons last 20 years

Figure 3.1a Percentage of adults on dialysis who received home dialysis, overall and by modality, 2013-2023



Data Source: 2025 United States Renal Data System Annual Data Report

2025 United States Renal Data System Annual Data Report

Why home haemodialysis ?

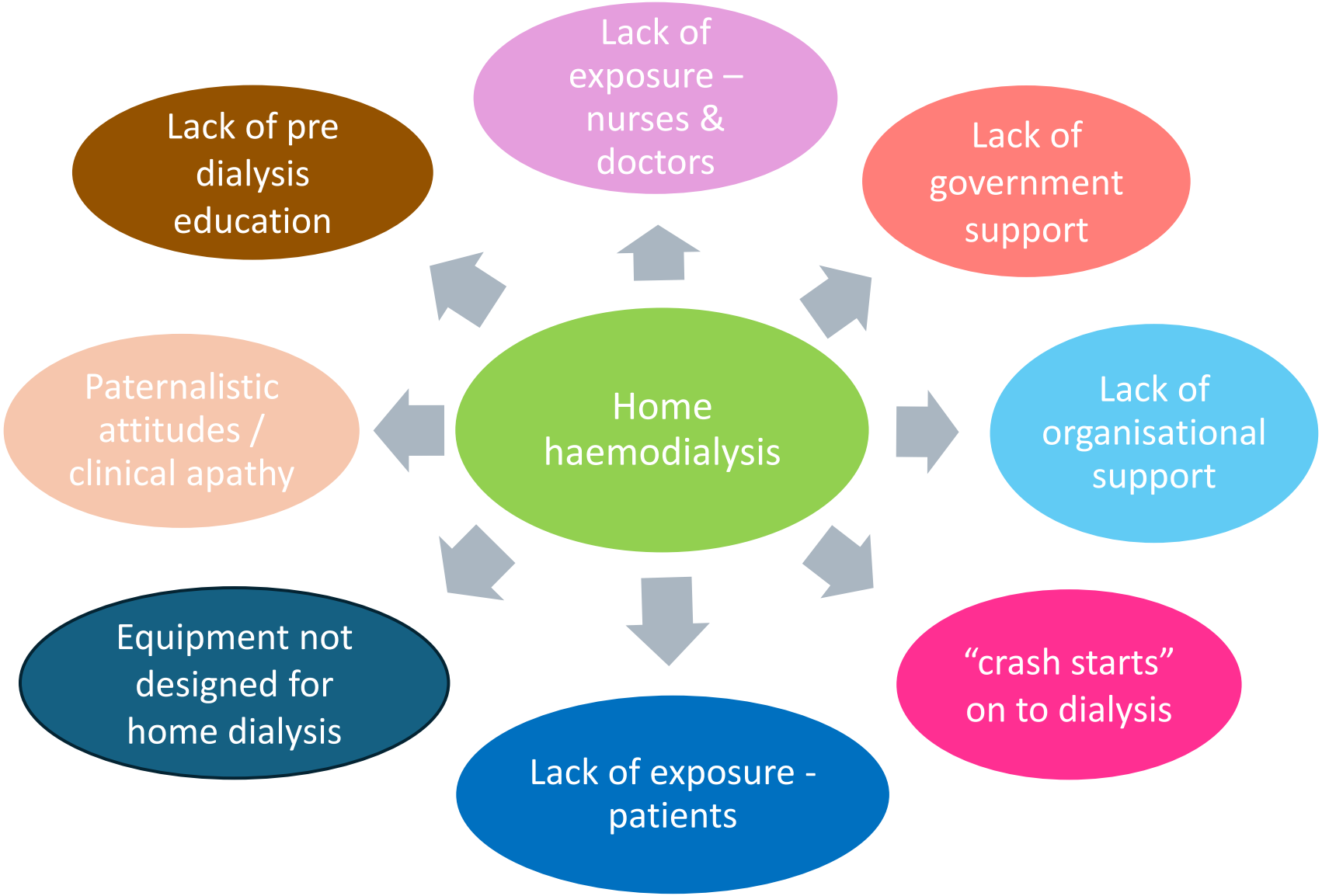
Ability to do more frequent & longer hour dialysis	• Short daily / long overnight • 3.5 - 6 treatments a week & no 2 day break
Improved long term health outcomes	• Better dialysis efficiency & better BP control • Better phosphate control & better nutrition
Greater knowledge & feeling empowered	• patient centred care • “knowledge is power”
Quality of life advantages	• Generally feeling better • Improved work / life / dialysis balance
Benefits to the healthcare system	• Cost effective • Sustainable therapy

Ok,E et al , Kidney International Reports, Vol 8, Issue 12,2023,2603-2615,

Time to go back to the 70’s



What are the challenges for home haemodialysis ?

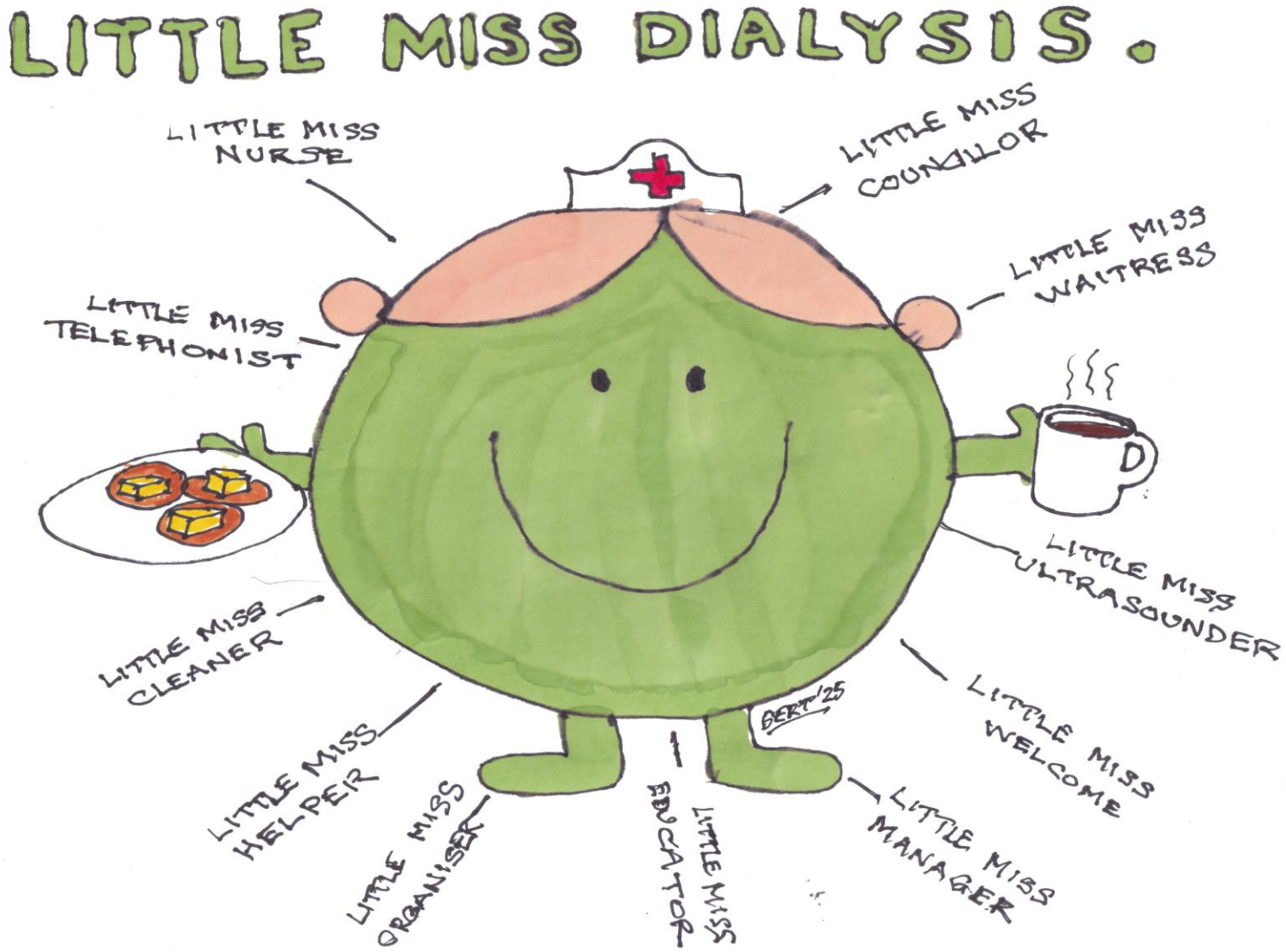


What can we do ?

Is it all too hard ?

Is it worth it?

- Sell and market home haemodialysis across your service
  - take a little bit extra time – “sell the difference”
- Look for likely patients in Units in Clinics
  - transition units
- Trust your patients – give them a go
  - Motivated patients will get home
- Talk to existing home haemodialysis patients
  - What matters to them? What works ?
- Work with your local team and organization
  - Home haemodialysis shouldn’t be stuck in the corner of incentre units
  - Needs a specialist team to train & support patients
- Government recognition of a viable & worthy renal replacement therapy



THANK YOU

rosemary.simmonds@barwonhealth.org.au

Dialysis that's so safe and comfortable you can sleep through it.

Nocturnal Home Haemodialysis (NHD) has been transforming the lives of many Victorians.

NHD is a long, slow, self-performed dialysis, done at home, after a quiet dialysis machine has been installed in the bedroom. It gently delivers up to four times the amount of dialysis while patient are asleep. In other words at their convenience, not that of the hospital.

How Nocturnal Home Dialysis can help.

Traditionally home dialysis is performed for four to five hours, three times a week, during waking hours. Because of the risk of falling blood pressure associated with this treatment, patients need to have a carer present in case they faint.

However, with NHD, patients receive their dialysis up to six times a week, for eight to ten hours at a time, while they sleep. This longer, gentler dialysis does not cause the patient's blood pressure to fall so dramatically during treatment.

So night-time dialysis has now become suitable for patients who live alone. In Geelong, where about 20 per cent of patients live by themselves, the Victorian Government has supported Australia's first NHD program. Patients on this program say they feel great. They can eat and drink what they like, take less medication and most importantly say the program has given back that most important commodity of all: time.



Day time and waking hours are no longer taken up by dialysis that leaves them drained and exhausted.

They get back their energy, independence and self-esteem.

They can get on with their lives.

www.nocturnaldialysis.org

Nocturnal Home Haemodialysis is one type of dialysis available to Victorians along with satellite dialysis and peritoneal dialysis. For more information about NHD, visit the website.

Or talk to your GP.

Victoria
The Place To Be

Authorised by the Victorian Government, 555 Collins Street, Melbourne.