

# Telepharmacy & CKD – A Making Tracks Investment Strategy

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The CKD Pharmacist is an initiative that improves access for CKD patients living in rural and remote areas within the Cairns Hospital and Hinterland Health Service (CHHS) and the Torres and Cape Hospital and Health Service (TCHHS) areas. In addition to improving access, this specialised clinical pharmacy service also aims to optimise health outcomes, increase patient safety and reduce the potential for medication misadventure. Three staff members are associated with the project including a clinical nurse, administration officer and clinical pharmacist. All staff are based in the Renal Unit within Cairns Hospital



## Why Chronic Kidney Disease??? (1-5)

- Affects 1.7 million Australian adults
- Costs \$32.4 million per year to the Australian health system
- Contributes to 5000 hospital admissions and 110 000 doctor visits
- 90% of kidney function can be lost before symptoms occur
- Rates of late stage CKD in rural and remote communities are 4 x higher than in major cities
- Aboriginal and Torres Strait islander peoples living in remote communities are 20x higher chance of having CKD
- Aboriginal and Torres Strait islander people suffer from late stage CKD up to 30 years earlier in life compared to non-indigenous people.

## Making Tracks Investment Strategy

*'Preventing ill-health, improving diagnosis and early intervention, and better management and treatment of illness through the use of culturally and clinically effective healthcare.'*



Renal Telehealth Patient Satisfaction Survey

General Information:  
 This Survey is for patients who have participated in a Telehealth appointment. There is no right or wrong answer. It is your opinion that we value. This will help to improve the Telehealth service. The Survey is completely confidential.

Please return completed survey to:  
 a) Clinician or Admin at the time of your appointment.  
 b) Fax: (07) 4230 8096  
 c) Email: [Laura.Johnstone@health.qld.gov.au](mailto:Laura.Johnstone@health.qld.gov.au)

1. Where did the Telehealth appointment take place?  
 2. What date was your Telehealth appointment?  
 3. Are you of Aboriginal or Torres Strait Islander descent? Yes No Both  
 4. How far did you have to travel to attend your Telehealth Appointment?  
 5. How long did you have to wait for your appointment today?  
 6. How did you receive your appointment reminder?  
 7. How was the Quality of the Sound during the appointment?  
 8. How was the Quality of the Picture during the appointment?  
 9. Please rate your experience with the Doctor/Nurse/Pharmacist/Other that you saw today.  
 10. Please rate your overall experience with the Telehealth Service as a whole?

## Results

Between January and June 2016 the CKD Pharmacist telehealth clinic recorded 129 booked occasions of service, 82 of which were successfully completed. Compared to the January to June reporting period in 2015 the project doubled the OOS for 2016. This represents a 215% increase in the service. The majority of patients seen (61%) identified as Aboriginal or Torres Strait Islander.

Year of reporting period	OOS	Number of Pharmacy Intervention
2015	38	147
2016	82	667

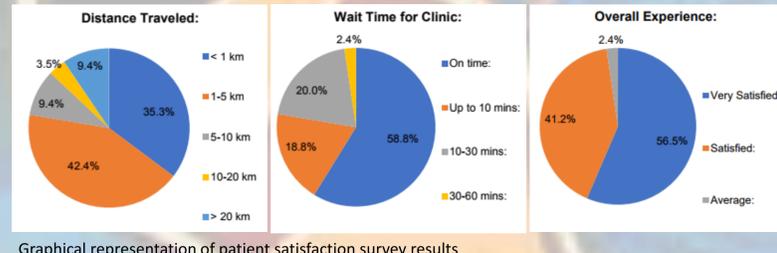
During the 2016 reporting period, 667 pharmacist interventions were documented, averaging 8.1 interventions per patient. The table to the right shows the total number and percentage of each intervention type with a key to explain each intervention code.

Intervention:	IWS	DWI	IDS	IDI	UD	OD	ADR	LAB	MRD	IE	IC
Total:	57	21	17	14	32	28	13	71	322	26	36

Interventions Key			
Code:	Meaning:	Code:	Meaning:
IWS	Indication Without Drug	FRD	Failed to Receive Drug
DWI	Drug Without Indication	LAB	Inappropriate Lab Monitoring
IDS	Improper Drug Selection	MRD	Medication Record Discrepancy
UD	Under therapeutic Dose	IE	Inadequate Patient Education
OD	Over therapeutic Dose	IC	Inadequate Patient Compliance
ADR	Adverse Drug Reaction	SI	Medication Supply Issues

Table representation of CKD Clinical Pharmacist occasions of service and interventions

Almost all patients (93.9%) received some form of education from the pharmacist. Education may include drug information such as mode of action, indication, correction of dose instructions or side effects. Other non-pharmacological advice may be provided, for example reinforcing fluid restrictions, monitoring blood sugar levels and reducing salt intake. All information provided is tailored to patient preference and awareness of cultural barriers is considered when providing material for Indigenous patients.



## Summary

Pharmacy services targeting ATSI chronic conditions like CKD are necessary to improve medication management, awareness and adherence to regimes, and ultimately improving patient outcomes. Telehealth services improve access and allow for the provision of cost effective healthcare management. Both CHHS and TCHHS patients require health investment strategies like Making Tracks and a project like CKD – Clinical pharmacy and telehealth in order to increase access, promote awareness and provide education to help prevent progression of this silent disease and to help close the gap in health for Aboriginal and Torres Strait Islander people.

References: 1. Braganti EM, Knight JF, Atkins RC, McNeil JJ. Australians with renal disease: a new national survey. Med J Aust. 1999;170(11):520-1. | 2. Alliance NRH. Fact Sheet 33: Kidney Disease in Rural Australia 2013. Available from: <http://ruralhealth.org.au/sites/default/files/publications/nrha-factsheet-35.pdf>. | 3. Welfare. AloHa. Chronic kidney disease: regional variation in Australia. Canberra: AIHW; 2013. Contract No.: Cat. no. PHE 172. | 4. Fact Sheet: Kidney Fast Facts 2017. Available from: [http://kidney.org.au/cms\\_uploads/docs/kidney-health-australia-kidney-fast-facts-fact-sheet.pdf](http://kidney.org.au/cms_uploads/docs/kidney-health-australia-kidney-fast-facts-fact-sheet.pdf). | 5. Hoy WE, Mott SA, Mc Donald SP. An expanded nationwide view of chronic kidney disease in Aboriginal Australians. Nephrology. 2016;21(11):916-22.