Professor Leon Piterman

Professor of General Practice

Monash University

Saturday, August 13, 2016

(Plenary)

11:25 - 11:50 Creating e Health Solutions for Effective Chronic Disease Management

MONASH University

MONASH
Office of the
Pro Vice-Chancellor
Berwick & Peninsula

GP CME CONFERENCE
Christchurch, New Zealand
11-14 August 2016

Workshop Papers

CHRONIC DISEASE MANAGEMENT
eHealth solutions?

Professor Leon Piterman, Monash University &
Professor Mike Georgeff, PHC

GROUP OF EIGHT AUSTRALIA

Acknowledgement:

- Support of Colleague Prof Mike Georgeff
- Precedencehealthcare.org.au
- CDM net project team

Tom's Story:

- Aged 76, 10 yr history of IHD (AMIx2, CABG) AAA surgery, AF, CHF (2 years) COPD, Type 2 diabetes, osteoarthritis, current leg ulcer
- Lives with wife who has RA. 2 sons interstate
- 3 admissions to hospital for LVF in 12 months
- Chronic/Complex disease
- Medication??

Medications:

- Ramipril 20mg
- Frusemide 80 mg
- Atenolol 25mg
- Digoxin PG
- Spironolactone 50mg
- Warfarin 4mg
- Clopidogrel 75mg
- Simvastatin 40mg
- Metformin 1gm
- Ventolin
- Serotide
- Paracetamol osteo x4
- Celecoxib 100mg
- Esomeprazole 20mg
- Sertraline 50mg
- Temazepam 10m
- Immunisations

Challenges for the GP:

- Preventive/predictive care
- Acute problem management
- Care coordination. Multiple specialists and RDNS
- Medication management
- Psychosocial issues
- Concurrent treatment care of wife/carer
- End of life / palliative care

Potential Team Members:

- GP
- Practice nurse
- Cardiologist
- Endocrinologist
- Ophthalmologist
- Rheumatologist
- Respiratory Physician
- Dietitian
- District Nurse
- Community Pharmacist
- Physiotherapist
- Occupational Therapist
- Social Worker/Psychologist
- Council Services
- Local Hospitals

The Big Problems:

- **Fragmented care delivery**: Hundreds of silos of care, with no-one having overall responsibility for the patient - the system is rife with gaps, duplication and complex administrative arrangements to patch this together
- **Poor follow up**: No-one is tracking the (best practice) actions that should be done or have been agreed to be done – everyone focuses on data, whereas they should be focused on action
- **Low efficiency**: The processes of care delivery are extremely inefficient, relying on paper, phone, and fax communications, poor workflow automation, and high administrative burden

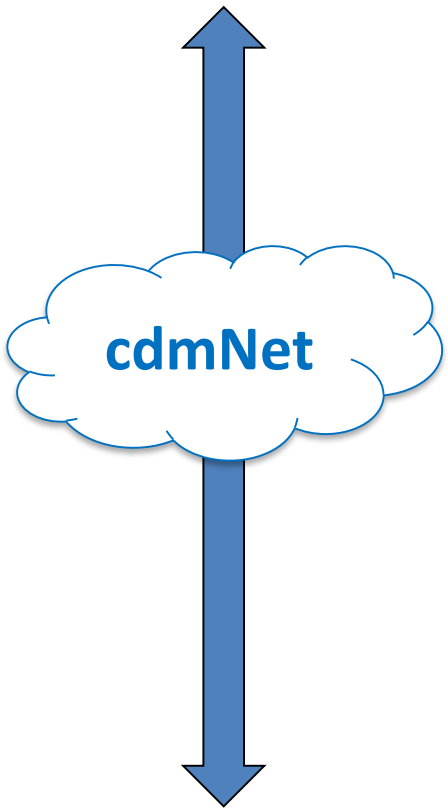
Digital Technologies Can .....

- **Eliminate silos** through a connected network of cloud services across the whole spectrum of healthcare, accessible anytime anywhere
- Ensure everyone knows what everyone **should be doing** and **is doing**, all the time
- **Coordinate care management** across the full life cycle of care
- Increase the **efficiency** and **effectiveness** of the **best-practice** primary and transitional care delivery

cdmNet Coordinated Care Platform:

Cloud-based connectivity and care co-ordination across the healthcare continuum

- **Covers Range of Co-ordinated Care:**



Capabilities

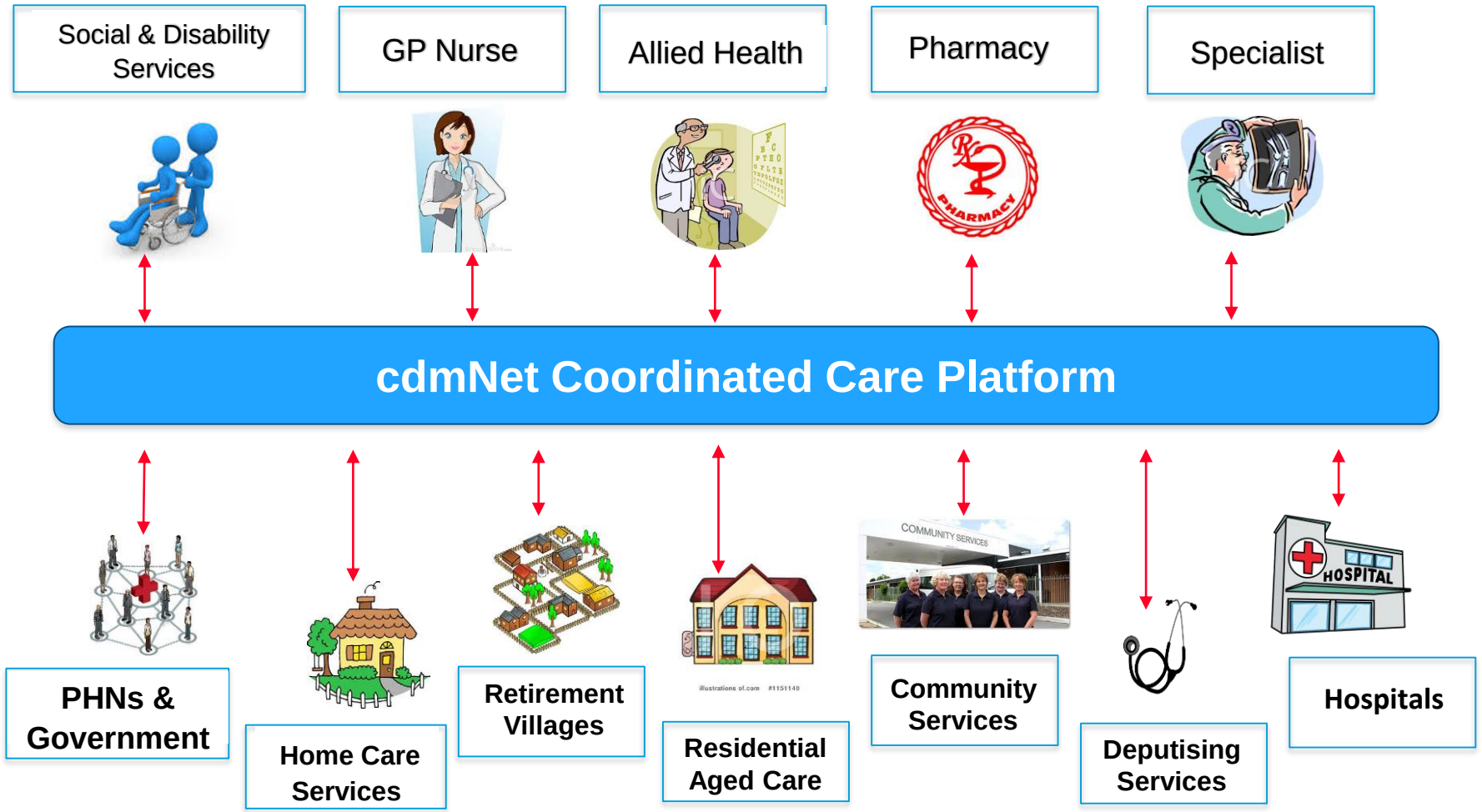
Service Coordination
(integrated packaging, budgeting, planning, tracking and co-ordination of care services

Care Tracking and Management
(tracking activities against plan, automated care management and follow up)

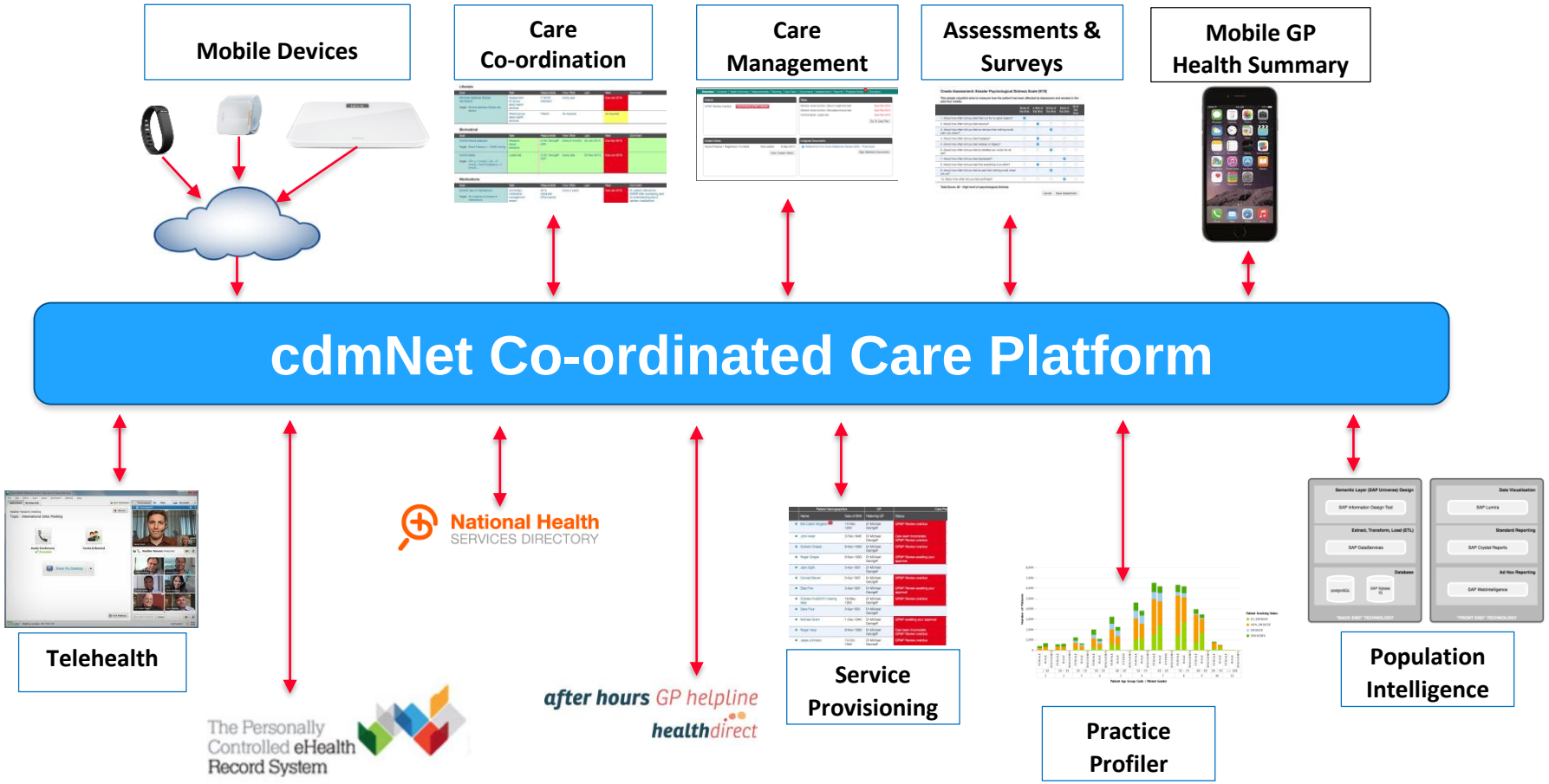
Care Planning
(creation of digital care plans including provider selection)

Shared Health Record
(patient demographic and clinical information

Service Users:



Application Services:



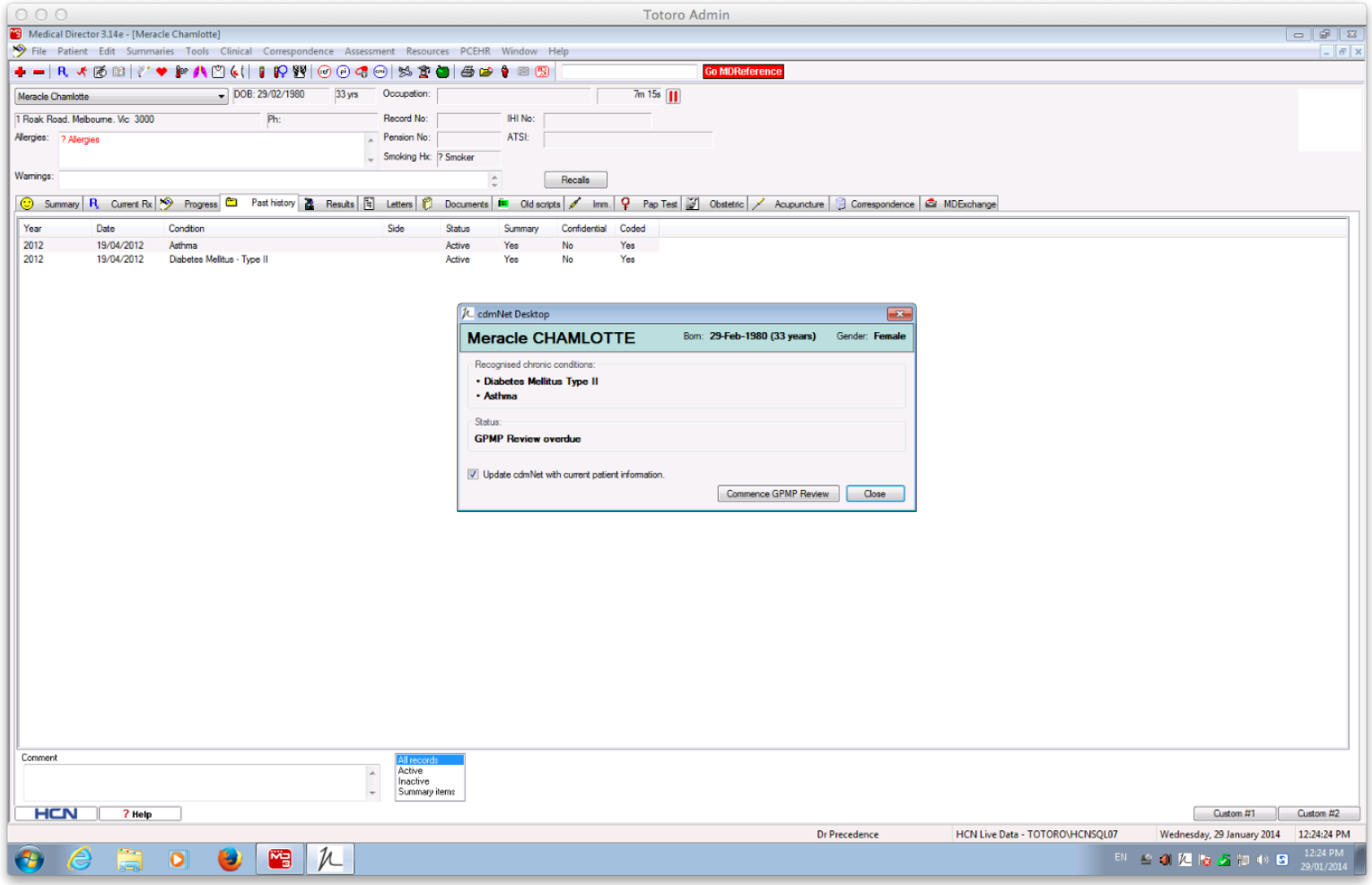
The Leading Care Co-ordination Platform in Australia:

- ✓ 4,300 GPs, 18,000 Allied Health, 4,000 specialists across Australia
- ✓ 60,000 patients, 50,000 patients with care plans, **2.5 million** patient records
- ✓ Selected as the national infrastructure for Healthdirect's **After Hours GP Service**
- ✓ Selected from worldwide search by **Movember** for care coordination in the **largest international Prostate Cancer program**
- ✓ Selected by **Medibank** for **all major coordinated care programs: frequent flyers, chronic disease management, transitional care**
- ✓ Selected by **IPN** and **Healthscope** for preventive care and managing chronic disease
- ✓ Partnered with **Telstra** for driving **Telstra Patient Gateway**
- ✓ Used by **RAMPS** for providing Victoria Statewide drug and alcohol coordinated care services
- ✓ Used for the **Refugee Hub** to provide integrated care and infectious disease control for immigrants and refugees living in Victoria
- ✓ Engaged with **Southern Cross Care**, Australia's largest federated **Aged Care Provider,** for coordinating care across residential, retirement villages, and home care integrated with the primary care sector
- ✓ Collaborative agreements with 20 **Primary Health Networks**
- ✓ Only care management product **endorsed by the RACGP** as supporting quality improvement in general practice

Chronic Disease Management:

CHRONIC DISEASE MANAGEMENT
eHealth solutions?

Seamless Integration with Clinical Desktops and Browsers:

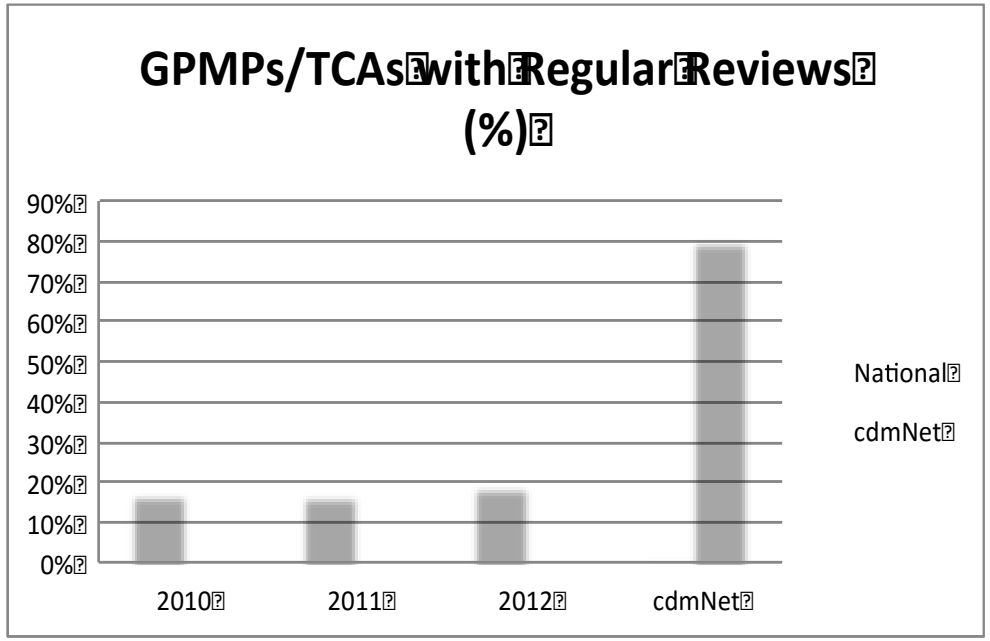


Value Proposition:

- **Better patient outcomes**
  - Independent University trials show that use of cdmNet improves quality of care and patient outcomes (Med J Aus)
- **Higher MBS revenues**
  - Regular users of cdmNet increase MBS Item Revenues by over $45,000 per GP per annum (user data)
- **Streamlines practice management**
  - cdmNet reduces the paperwork and administrative overhead, automates Medicare documentation, and eliminates faxes and phone tag
- **Manages Medicare requirements**
  - cdmNet ensures Medicare compliance, automates Medicare documentation, provides safe audits

Improved Quality of Care:

- Adherence to best practice guidelines
  - **85% compliance** for GPs that do regular reviews vs
  - **59% otherwise** ($p < 0.001$)
- Follow up and review
  - Nationally: less than **20% of care plans** regularly reviewed
  - cdmNet users: **80% of care plans** regularly reviewed



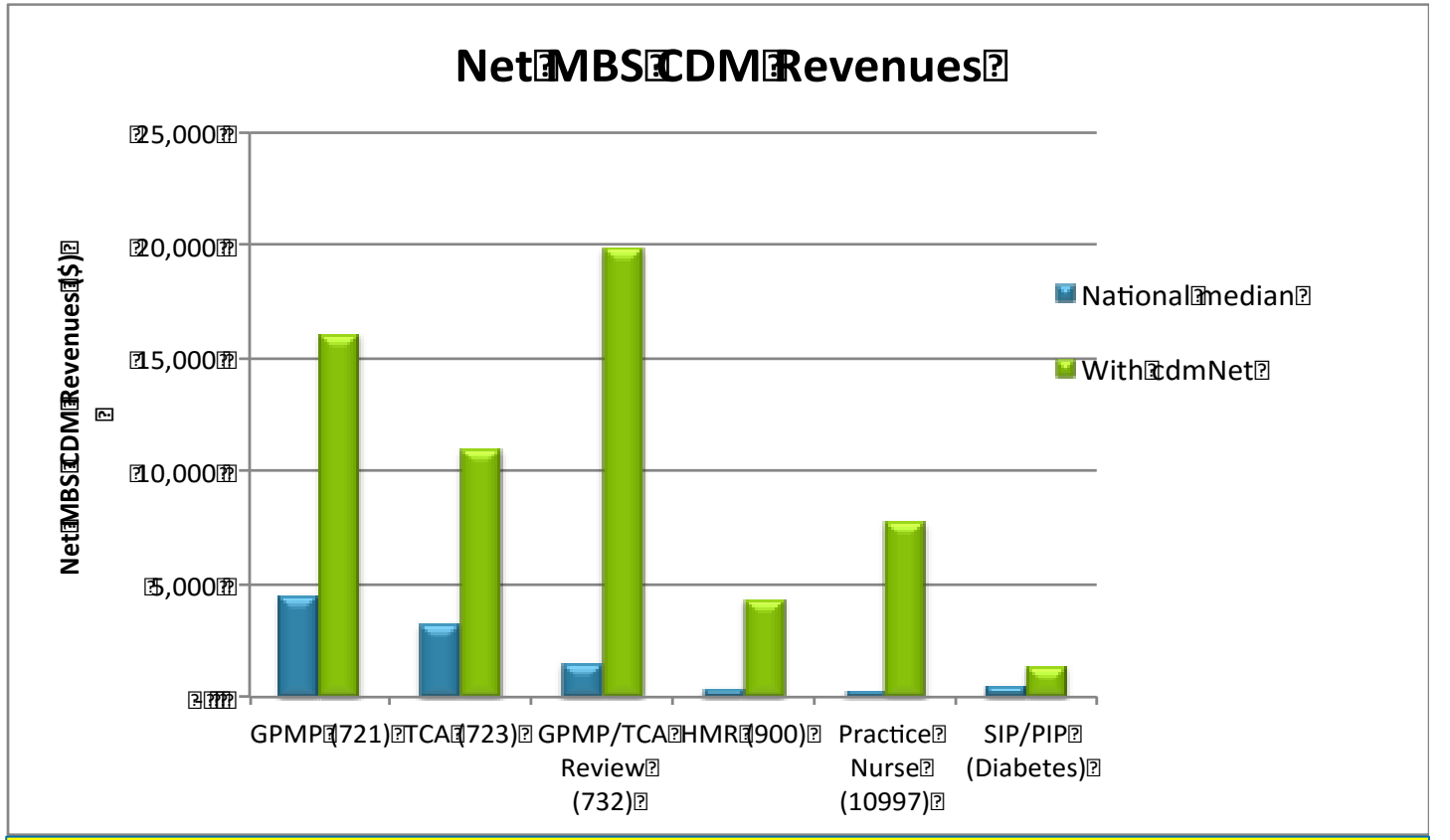
Wickramasinghe LK, et. al. *Impact on diabetes management of General Practice Management Plans, Team Care Arrangements and reviews*. Med Journal Aus 201; 199: 261-265, 19 Aug 2013.

Improved Clinical Outcomes:

Significant improvements in HbA1c, blood pressure, total cholesterol, LDL, and BMI

Patients initially >53mmol/mol (P<0.001)	Patients with regular reviews (p<0.05)

Improved Financial Returns:



Regular users of cdmNet increase annual CDM revenues by over $45,000 per GP

References:

- Jones KM, Schattner P, Adaji A, **Piterman L**. Patient's use of, attitudes to, and beliefs about web based care planning (GPMPs, TCAs and subsequent reviews). *Telecommunications Journal of Australia; 2011; 61(4): 68.1-68.10.* http://tja.org.au

- Jones KM, Dunning T, Costa B, Fitzgerald K, Adaji A, Chapman C, **Piterman L**, Paterson M, Schattner P, Catford J. The CDM-Net Project – the development, implementation and evaluation of a broadband-based network for managing chronic disease. *International Journal of Family Medicine, 2012:1-7. issue Art ;doi:10.1155/2012/453450*

- Adaji A, Schattner P, Jones K, Beovich B, **Piterman L**. Care planning and adherence to diabetic process guidelines. Medicare data analysis. Aus. Health Review 2012; *http://dx.doi.org./10.1071/AHI1136*

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