Inala Chronic Disease Management Service

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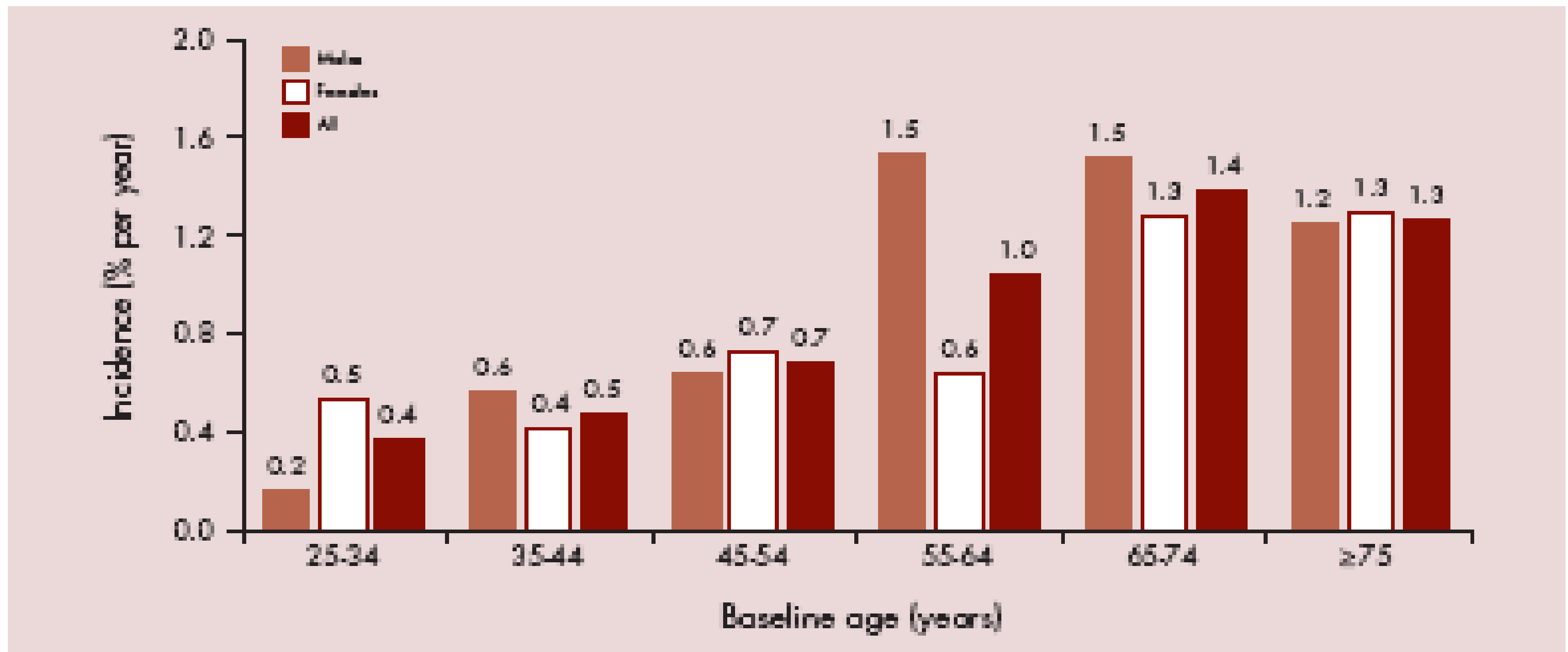
The incidence of Diabetes is…

Figure 2.2. Incidence of diabetes according to baseline age: the AusDiab study.



275 Australian adults develop diabetes every day

Ausdiab 2005. http://www.diabetes.com.au/pdf/AUSDIAB_Report_Final.pdf

Lower HbA1c decreases complications…

Observational study of UKPDS data

1% reduction in HbA_{1c} =

37% reduction in microvascular complications

21% reduction in diabetes-related deaths

21% reduction in any diabetes-related endpoint

14% reduction in myocardial infarction

Stratton 2000

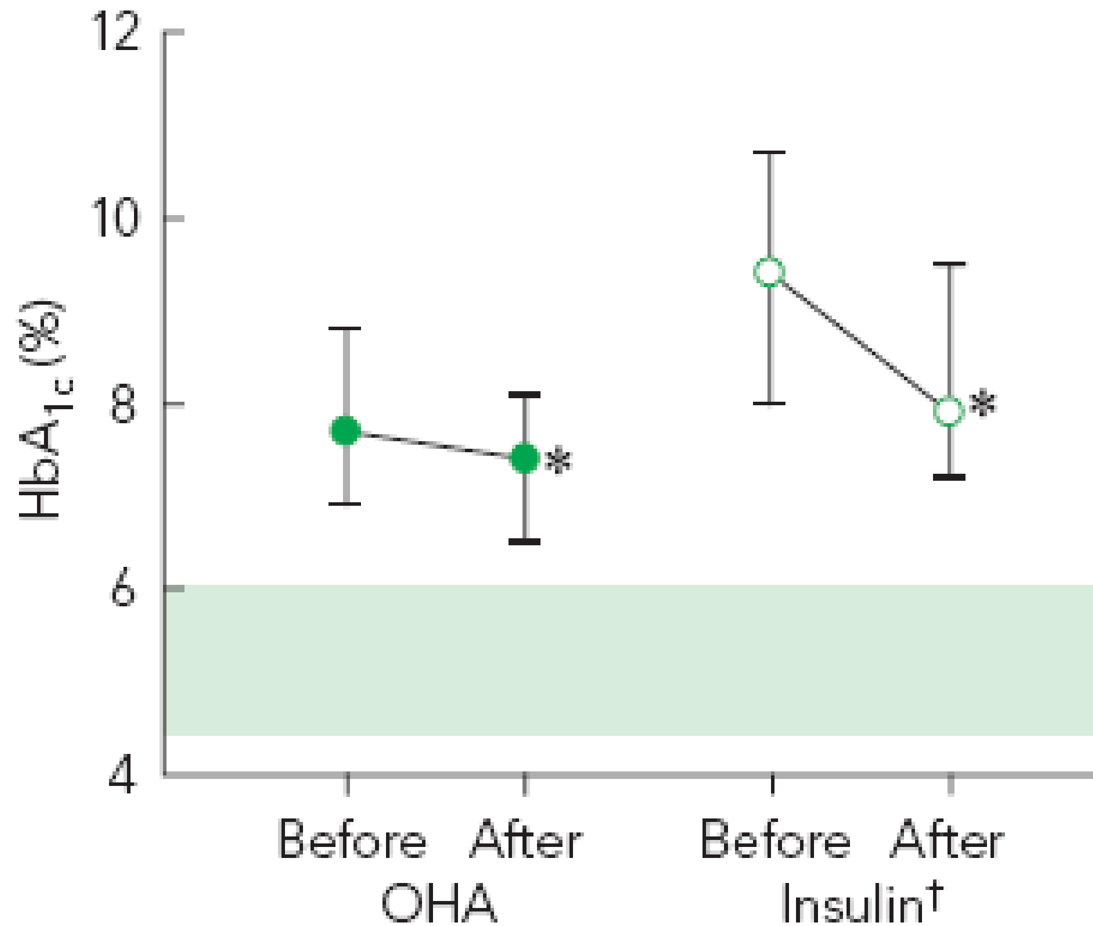
STENO2…tight control reduces complications

N=160 Follow up 7.8 years	NNT / 10 years
Nephropathy	4.1
Retinopathy	4.8
Neuropathy	3.3
Death due to CVD	3.8

N Engl J Med 2003; 348(5): 383-93

But we are not achieving targets…

Fremantle Study: Trigger points for initiation of therapy



Davis T et al. MJA 2006; 184:325-328

The Current Problem in Queensland (QH data)

- Less then 35% of patients with diabetes mellitus are reaching treatment targets resulting in increased morbidity, mortality and therefore an increased burden on the health system
- Diabetes-related hospitalisations increased by 20% between 2000-01 and 2003-04, and the average length of stay for someone with diabetes is more than three times the overall average length of stay
- Most common cause for renal dialysis and 2/3 of patients in the coronary care ward have pre-diabetes or diabetes

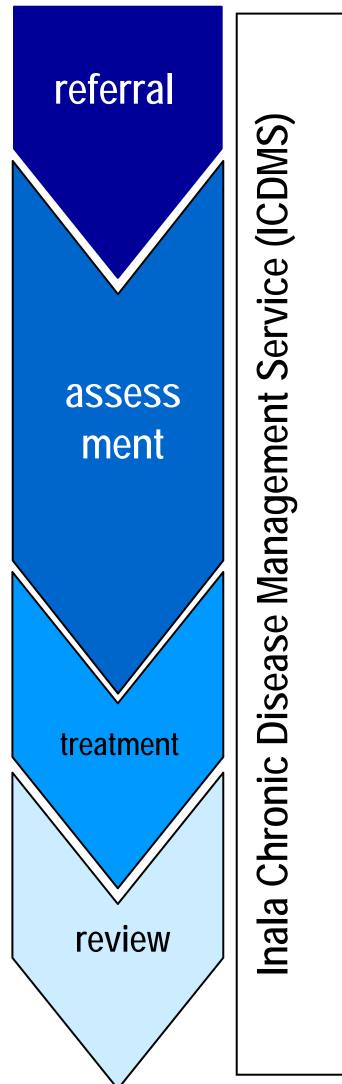
Issues with delivery of care…now

- Fragmented services with a disconnect between primary and secondary health care services
- Organisational rather than patient focus
- QH activity centred at acute care with little prevention, health promotion, ‘wellness’ focus
- Increasing numbers of patients waiting specialist outpatient clinic appointments
- Access for indigenous and poorer clients sub-optimal

The solution – a new model of care (QH / UQ Innovation Project 2007-8)

- A new model of care that is scalable and incorporates:
  - Improved continuity of care across primary, secondary & tertiary sectors
  - Improved primary care capacity
  - Evidence-based protocols and referrals
  - a care coordinator responsible for continuity
  - A focus on patient self management and goal setting

The Model…how will it work?



Inala Chronic Disease Management Service (ICDMS)

Inala Primary Care

Inala Indigenous Health Service

Exception:
- Surgical intervention
- Bed rest
- Non participating GPs

Eligible pts referred to PAH Diabetes OPD

Other Inala GPs

ICDMS Step 1 ➔ ICDMS Coordinator screens as per screening protocol and organises appropriate referrals at ICDMS Diabetes Clinic Day

If existing GPMP, ICDMS Coordinator reviews this and expands. If no GPMP, ICDMS Coordinator commences process for GP to work with ICDMS to produce

ICDMS Step 2 ➔ Assessment as per outcome of CNC triage

lifestyle | lipids | Foot care | Retinopathy screening | Blood pressure | Renal | Weight loss | Blood glucose | psychologist | Patient self management

ICDMS Step 3 ➔ Review relevant outcomes (as per patient's individual management plan, and at minimum, as required for the "Annual Cycle of Care".

Repeat screening & discharge or initiate new cycle of care as appropriate

Intervention…

- Where
  - Weekly Clinic at Inala Primary Care (GP within the Inala community health centre)
  - Local, easy access and parking, established reputation
- Patients
  - Any patients from Inala area who have been referred to PAH Diabetes outpatients (excluding Transplant patients, ESRF, pregnant)
  - Eventually would aim for direct referrals to the ICDMS
  - Individual and GP consent
- Staff
  - Care Co-ordinator, Endocrinologist working with 2 trained Clinical Fellows, Dietician, Diabetic Educator, Psychologist, Podiatrist (from Acute and Community settings)

Intervention…

- Universal patient lifestyle and self management programs incorporating patient goals for management
- Group sessions or individual - right program, right patient, right time, right place
- Infrastructure & self management programs are already well established in Brisbane South Community Health service and existing programs can be tailored to fit ICDMS needs.

Intervention…

- Integrated clinical protocols for the management of blood sugars, lipids, hypertension, eye, neural and renal disease with evidence-based guidelines for on-referral
- Direct liaison with specialist (Endocrinologist) in the form of:
  - Co-consulting (initially with project Clinical Fellows, longer term local GPs)
  - Lunchtime Case-conferencing at end of clinic
  - Direct contact outside clinic - case-conferencing,phone discussion, email
  - Not just an outreach clinic – much closer GP liasion and active participation by local GPs building throughout the project

Intervention…

- Training
  - Multidisciplinary “Lunch and Learn” sessions
  - Case conferencing and care planning post clinic
  - GP registrar position at Inala focusing on chronic disease management
  - Provision of training, research and work experience opportunities to under graduates and post graduates; Medical, Nursing (Nurse Practitioners) and Allied Health

Intervention…

- Retinal screening
  - Clinical Fellows x 2 (both Inala GPs) trained to read all ICDMS retinal photos (taken by Co-ordinator)
  - PAH opthalmologist review via Email on all images for 12 /12, allowing appropriate quality control and partnership with PAH
  - Separate UQ/QH/RANZCO research pilot state-wide

- Foot care – high risk foot
  - Utilise the team - Up-skilled community podiatrist, endocrinologist, Clinical Fellow
  - May link in with hospital in the home, PAH wound review
  - Easier access than to PAH
  - Prevent admissions and reduce length of stay
  - Using state protocol via another Innovation project

Intervention…

- Innovative use of Information Technology
  - Maximal E-connectivity, E-templates and referrals
  - Use an electronic patient record that links with the Tertiary hospital and provides a database for research – Extensia, Practix / Plexis
  - Future possibilities
    - Direct Patient contact electronically
    - Virtual consulting, Web-cam consultations
    - Tele-consulting

Evaluation

- Treatment targets
  - HbA1c, Blood pressure, Lipids, Weight
- Principles of best practice management
  - Number of patients with on ACE-/AIIRB if microalbuminuria, have had appropriate foot, eye screening
- Access
  - Attendance, time to appointment, service and activity mix, time taken
  - Number of patients waiting SOPD

Evaluation (cont)…

- Effectiveness
  - Number of ED presentations
  - Number of hospital admissions
  - Average length of stay
  - Acute total bed days
  - Changes in service delivery model (clinical and business)
- Efficiency
  - Time, costs, deliverables, outputs
  - Episodic care vs opportunistic care
- Satisfaction
  - Patient and Health Professional
- Workforce
  - Training & advanced skills, team building, retention
- Research Funding and Publications

Governance

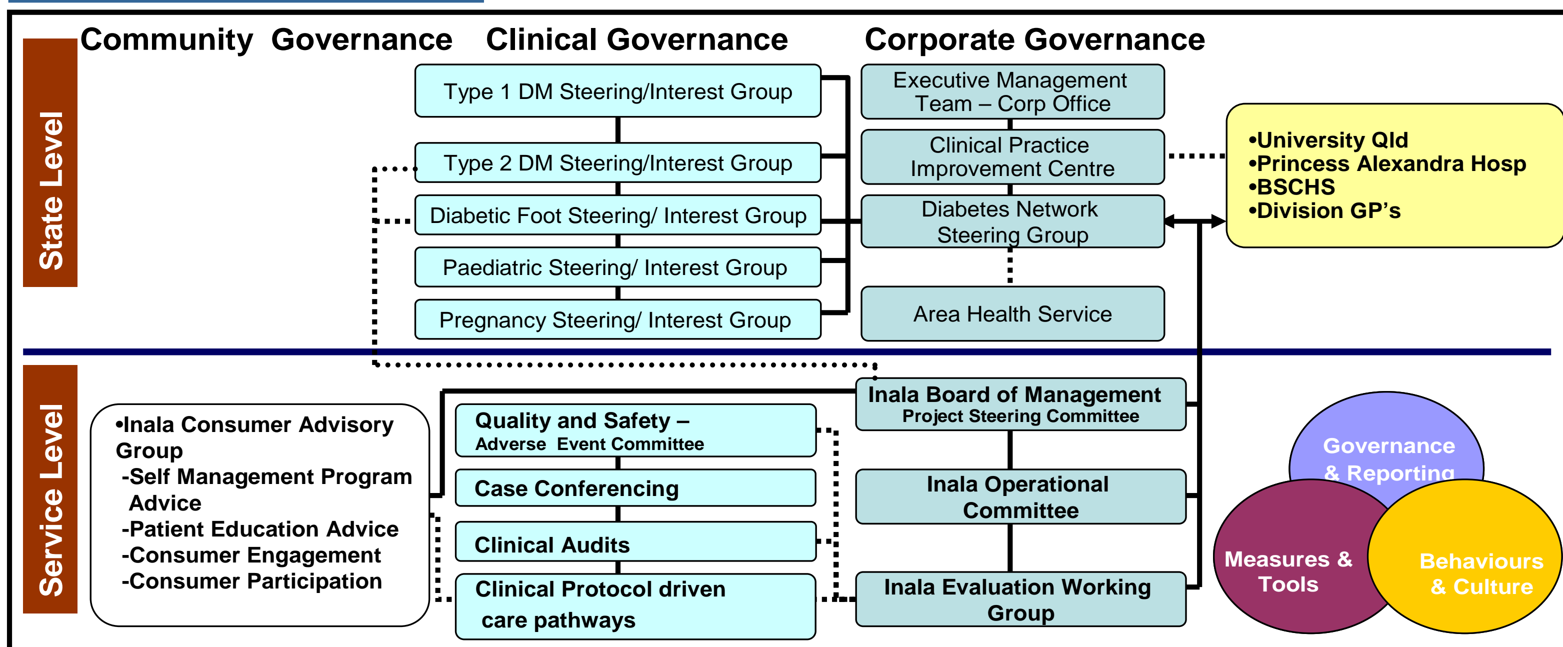
Inala Chronic Disease Management Service

Shared Vision

To improve the health related quality of life for people with diabetes, living in the Inala catchment area, by providing localised care via a multi-disciplinary acute and community sector partnership

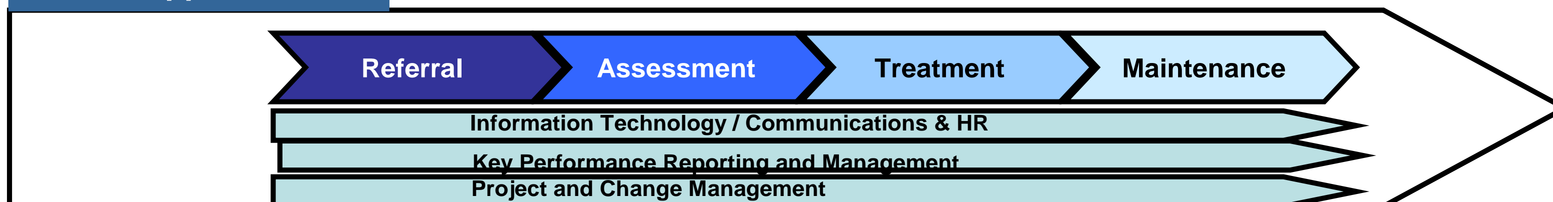
Shared Accountability

Performance Management Framework



Shared Approach

Patient Centred Service Redesign



Expected Benefits…

- Patient
  - Improved quality of care reaching targets
  - Easier access to care and improved attendance
  - Improved patient focus and skilling
  - Fewer complications necessitating hospitalisation
- Workforce redesign
  - Skill transfer and improved efficiency between primary, secondary and tertiary teams

What’s different ?

- Uniform approach to active patient invovement
- Joint approach to improving access to evidence-based care for complex patients
- Culture
- GP buy-in / involvement / training
- Increased skilling and capacity for primary care
- Sustainably focus and capacity to deal with much greater demand

Challenges

- Re-modelling 2 very separate systems and approaches to intersect
- Focus on long term sustainability and applicability to other settings
- Relationship building and understanding across sectors
- Training & Education
- Information systems - shared models and information
- Communication with very busy clinicians and executives
- Engaging local GPs – “gatekeepers into the system”
- Navigating the MBS Schedule to avoid duplication
- Administrative “red tape” - particularly involving state health
- Culture change, territory, history

A Family, Fernando Botero, 1996