

# Effective Chronic Disease Management in the 21<sup>st</sup> Century

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# Content

1. The issues
2. Lessons from Australia
3. International models of CCM
4. Self-management
5. A unified approach

# Terminology

- ‘Disease’ will be acceptable to medical practitioners but to no-one else
- ‘Condition’ is acceptable to other health professionals and the public
- Mental disorders and disabilities are not diseases
- ‘Disease’ infers to the patient that you are dealing only with the disease, not the whole person.
- The doctor is reinforced to think in a disease specific way

# Why do we need to change?

# Chronic Conditions in Australia

- In 2007, 2.5 million Australians had chronic conditions
- By 2016, 3.5 million Australians will have chronic conditions
- Chronic care consumes 70% of the health budget

# The Issues

- Cost:
  - Entire state budgets will be consumed by health costs by 2030

# Why is chronic condition management important? (Adherence)

**Asthma, Diabetes, Hypertension** McLellan et al JAMA 243; 1689, (2000).

- Drug treatments are effective
- **Compliance** with medications poor
  - diabetes = 60%,
  - asthma and hypertension 40%
- Behaviour change is poor with less than 30% **adherence** to advice for lifestyle changes
- **Relapse** over 12 months requiring care
  - 30 -50% diabetes
  - 50 -70% asthma and hypertension
- Worse for lower socio economic groups

# Acute

- Episodic
- Cure expected
- QOL highly dependent on professional care
- QOL highly dependent on short term services
- HP generally the expert
- Short term goals
- Compliance expected

# Chronic

- Ongoing
- Incurable
- QOL highly dependent on pts self management and decision making
- QOL highly dependent on ongoing support services
- Pt often has more knowledge
- Short term goals to meet long term outcomes
- Compliance and self reliance expected

# Sub-optimal Care

- Irregular.....or  
incomplete.....or  
inadequate .....or  
inconsistent  
assessment,  
treatment  
education,  
motivation,  
feedback and /or  
follow up.

# Poor Outcomes

- Delays in detection of complications or decline
- Failures in self-management, or increased risk factors as a result of client passivity or ignorance.
- Reduced quality of care
- Undetected or inadequately managed psychological distress

Wagner, E., Von Korff, M., et al, Organising  
Care for Patients with Chronic Illness.  
*The Milbank Quarterly*, Vol. 74, No.4,  
1996

## **Patients *are (already)* the Primary Source of Care**

People with chronic conditions are the principal care-givers. Health care professionals should be *consultants* supporting them in this role. Each day, patients decide what they are going to eat, whether they will exercise and to what extent they will consume prescribed medicines.”

Bodenheimer et al, JAMA 2002

“Patients are in control. No matter what professionals say and do, they can and do veto decisions a health professional makes.”

Glasgow & Anderson, Diabetes Care, 1999

# Self-management

- Self-management of the condition by the person is the real test of a chronic care system
- Failures in self-management are related to either lack of knowledge (literacy) or psychosocial factors which are barriers to self-management

# The issues

- Health Outcomes:
  - Life expectancy for our own and future generations will **decrease** because of chronic conditions
  - Obesity is an emerging epidemic affecting children and adolescents
  - Chronic conditions result in preventable morbidity, mortality, distress and disability

# Perception

- The chronic care crisis is hidden from the public and individual practitioners (like global warming)
- Australia has a good health system; public and private
  - ie, Most of the people get acceptable care most of the time (with obvious exceptions)
- Elective surgery waiting lists get the headlines

# Why is it hard to change?

- ‘Wicked problems are those that cannot be solved using the standard linear processes of problem solving.’
- ‘modern health systems are socially complex organisations often fraught with perverse incentives and internal conflicts that are fertile ground for wicked problems’ Periyakoil J Pall Medicine 2007
- ‘Wicked problems have incomplete, contradictory and changing requirements and complex interdependencies that are unique to the local setting of the problem’ Conklin 2003

# Lessons from Australia



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# My Background

- Isaac Marks – Inst of Psychiatry, London 1987-1990
- **Behavioural psychotherapy** for anxiety disorders – training and education of nurses
- **Outcome measurement** in routine care is integral to motivation for both patient and health professional and provides competency, individual and service outcome measures
- Outcome measurement in routine care enables individual outcomes to be aggregated to populations
- Statewide gambling therapy service- \$1.4 million annually

# Background - SA HealthPlus

- SA HealthPlus Coordinated Care Trial  
1997 – 1999
- Patients with chronic and complex illnesses
- 8 projects in 4 regions of South Australia
- Hypothesis –  
***‘Coordinated Care would improve health outcomes for the same or less cost’***

Battersby et al, BMJ, March 2005

# Model of Care

- Patient-centred approach (holistic)
- Behavioural change towards improved self management (cognitive behavioural theory and practice)
- Evidenced based guidelines
- Prospective Care Planning
- Prevention focussed
- Improved coordination of care
- System change

# Training

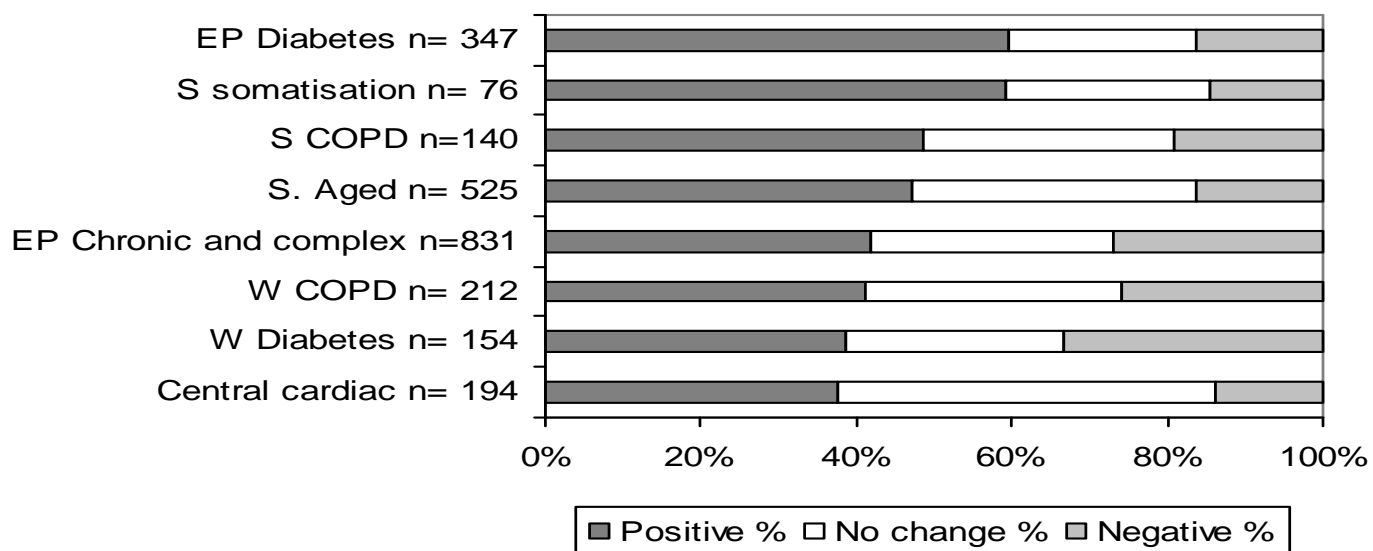
- 4,500 patients randomised into Intervention (3000) and Control (1500) groups in 8 projects
- Training unit established to provide training for:
  - 100 Service Coordinators
  - 295 General Practitioners

# Components of Training Program

1. Problems and Goals assessment, expressed in behavioural terms
2. Generic care planning process
3. Competency assessment
4. Regular clinical supervision
5. Service coordinator appraisal and Accreditation
6. Ongoing skills training and development

# Achievement of Goal 1

Figure 2.15. Extent of Achievement of Goal 1 by project, end of trial.



# BACKGROUND -Year 1 review

- Problems and Goals worked well for most patients
- **However** the system designed to allocate coordination time according to **level of severity** (H/M/L) wasn't being used
- WHY?
- Because some people who had severe complicated conditions, but were good self-managers, had good supports and relationship with their GP, did not need coordinated care
- Service coordination was provided based on whether a person was a good self-manager or not
- Self management was not defined or operationalised

# Learning

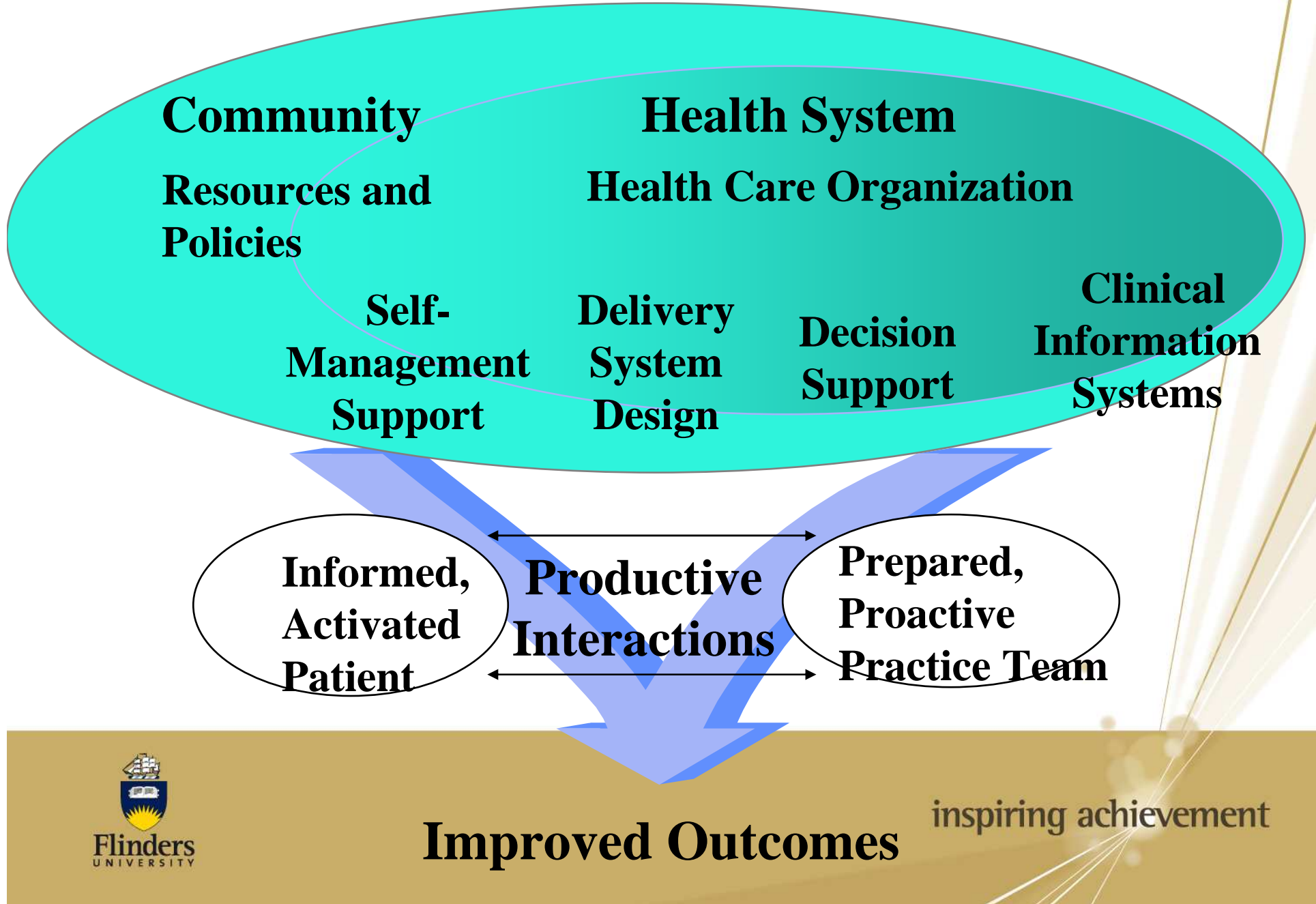
- Self-management capacity is modulated by the illness and personal attributes as well as attributes of health providers and cultural and social factors
  - Self-management skills need to be assessed before the right intervention is offered
  - Not all consumers need self-management interventions and those who do will respond to a wide range of learning methods, some group, some individual
- (Battersby et al, Milbank Quarterly, Dec 2006)

# Learning

- A holistic approach was a practical way of dealing with all of the patients problems.
- Each disease impacted on the other and psychosocial factors impacted on the diseases and the diseases impacted on psychosocial factors
- GPs and patients do not want 8 different chronic disease programs

# International Models of CCM

# Chronic Care Model



# Chronic Care Model

- 1. Health System:
  - Leadership support for improvement:
    - Leader incorporates quality into business plan and vision
    - Leader effectively communicates quality improvement culture
    - Promote multidisciplinary teamwork
  - Aligned incentives
    - Use performance indicators to reward teams
    - Care planning item numbers
  - Care coordination across organisations
    - Develop agreements with other organisations
    - Primary Care Partnerships

# Chronic Care Model

- 2. Community
  - Encourage patients to participate in effective community programs
    - Create a resource guide
    - Delegate staff member to be community expert
    - Identify evidence based community education
  - Form partnerships with community organisations to fill gaps in services
    - Invite community organisations to participate in redesign of care
    - Use lay workers to link patients with community
    - Co sponsor an exercise program with a health club

# Practice Components of CCM

## 3. Self-management support:

- Emphasise patient's central role in managing his/her illness
  - Ask patients role in managing their health – what do you think?
- Assess patient's self-management knowledge, behaviours, confidence and barriers
  - Use assessment tools eg Partners in Health
  - Cultural competency training for staff
- Provide effective behaviour change interventions and on going peer or professional support
  - Motivational interviewing, goal setting and problem solving

# Practice Components of CCM

## 4. Delivery System Design:

- Define roles and delegate tasks among team members
  - Determine business process for planned care eg chronic care stream and care planning then delegate tasks
  - Use protocols for planned care roles
  - Organise practice around planned care
  - Use a registry to proactively contact patients for follow up
- Provide case management for complex patients
  - Develop patient selection criteria
  - Nurse contact selected patients re self-management
- Ensure regular follow-up

# Practice Components of CCM

## 5. Decision support:

- Incorporate evidence based guidelines into routine care
  - Use locally adapted guidelines with prompts
- Integrate specialist expertise into primary care
  - Create an agreed care plan, web based
- Use proven provider education methods
  - Teach Problem and Goal setting, motivational interviewing
  - Regular case conferences
  - Academic detailing
- Share evidence based guidelines with patients and carers
  - Provide care plan, shared decision making CDs eg prostate cancer

# Practice Components of CCM

## 6. Clinical information system:

- Provide reminders for patients and providers
  - Data base which has information to prompt guideline based care eg HbA1c
- Identify sub populations for proactive care
  - Define criteria for sub populations; identify nurse to routinely review data based and organise care
- Monitor performance of practitioner, practice and care system
  - Use registry to determine percent of patients that have not had HbA1c in last 6 months eg Congress
  - Audit the next 20 patients with a given diagnosis

# Implementation of chronic care – WHO 2002

- Support a paradigm shift from acute to chronic care
- Manage the political environment
- Build integration – shared information, coordinated financing
- Align health with other policy areas eg housing, transport, education
- Use teams
- Centre care on the patient and family
- Support patients in their communities
- Emphasize prevention

# Kaiser success elements

- Integrated funding and provision of care governance
- Integrated inpatient and outpatient care
- Integrated prevention, diagnosis, treatment and care
- Stratification of chronic care population according to risk
- Doctor leadership
- Team care
- Culture
  - competition
  - doctors and the health system are working to a common purpose
  - Equality of care

# Kaiser success elements

- Avoid hospital admissions
- Active management – community clinics, Point of Care testing, telephone and home visits
- Self-care incl Healthwise Handbook, Kaiser on-line; patients and families are co-providers of health
- Information Technology support
- ‘The most powerful staff group has taken responsibility for the organisation’

# Population Approach

- Aim to provide preventative and chronic care management based on population measures of health
- Aim to reduce disparities and inequalities in health care outcomes in the population
- Incorporates public health approaches to prevention with clinical programs aimed at individual patient prevention and chronic care management

# Population approach

- Chose the appropriate population
- Chose a patient group within the population who have easily obtained baseline measures eg, HbA1c, Blood Pressure
- Set outcome targets at 12 months
- Establish leaders/teams to work together on the targets using Plan Do Study Act cycles
- Provide the latest clinical evidence

# Population approach

- Stratify or segment the population
  - Cost savings (admission in the prev 12 months, age, socio-econ status, co-morbidity)
  - Health outcomes – provide services according to self-management capacity
- Use self-management assessment to target those to case management or telephone clinical reminders and risk factor support ie coaching

# Self-management



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# 12 Principles for Self-management Support (Battersby, Von Korff et al)

1. Assessment: clinical severity, function, self-management behaviours, goals, barriers
2. Information alone shows negligible effects;  
ie - Education should be skills based
3. Counseling should be non-judgmental e.g, motivational interviewing
4. Defining Problems and Goal setting are effective

# Evidence-Based Principles for Self-Management Support (SMS)

5. Collaborative Problem Solving is effective
6. Diverse professionals and lay persons can deliver effective self-management support if tasks are defined and evidence based
7. Self-management interventions can be delivered by diverse modalities e.g, individual, group, telephone, self-instruction
8. Interventions should strengthen self-efficacy

# Evidence-Based Principles for Self-Management Support (SMS)

9. Organised follow up improves outcomes
10. Case management is effective only if it is goal directed and guideline based
11. SMS should include community based programs that are evidence based
12. Multi-faceted interventions are more effective than single component interventions

# Better outcomes

- Best outcomes for an individual are achieved by a combination of :
  - **evidence based medical management and**
  - **self-management i.e, a partnership**
- ***Self-management*** is what the patient does
- ***Self-management support*** is what the health professional, the practice and system provides

Von Korff M, Gruman J, Schaefer J, Curry SJ, Wagner EH (1997), Collaborative Management of Chronic Illness, *Annals of Internal Medicine*, 127(12): 1097-1102

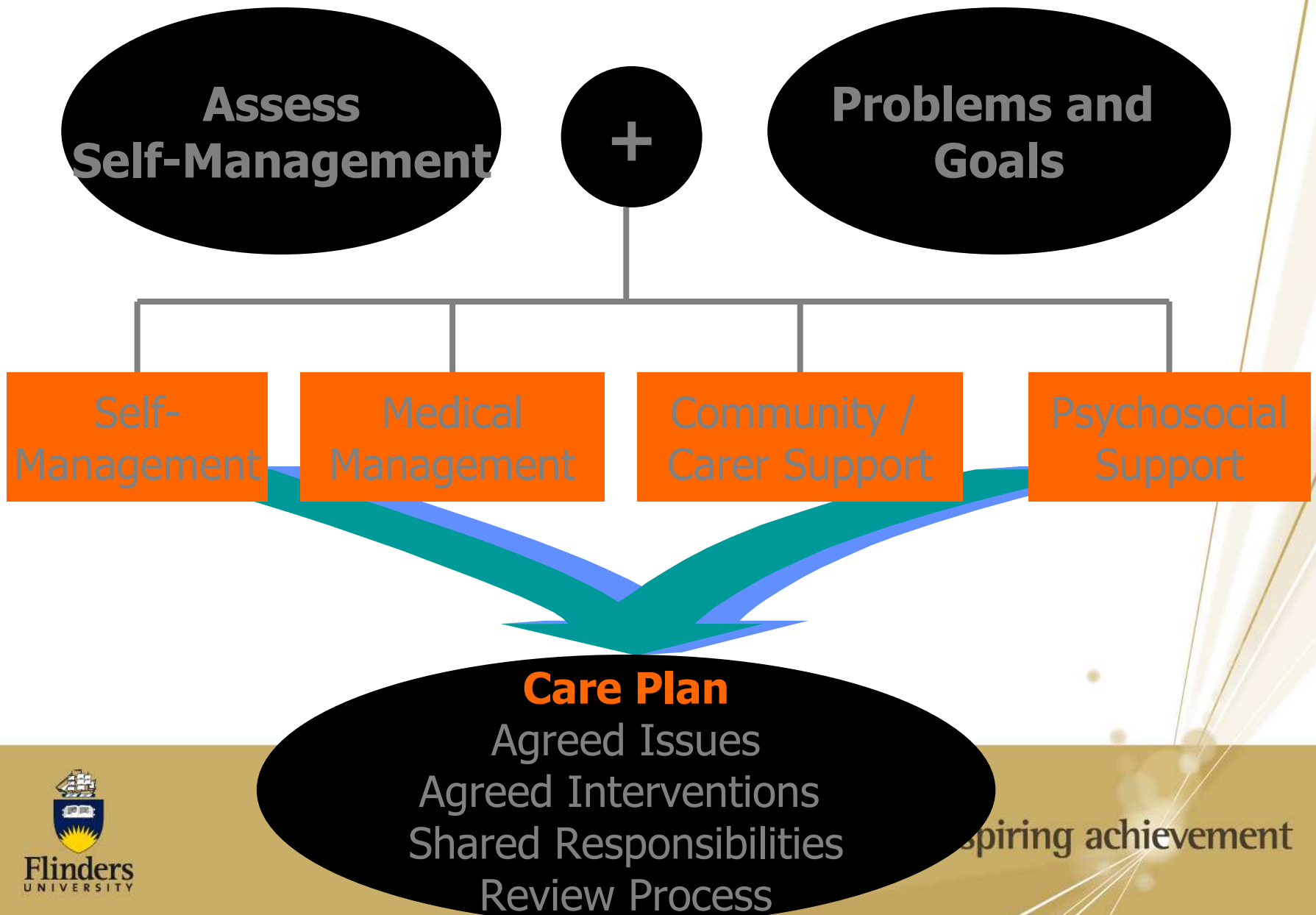
# Principles of Self-Management

1. Know your condition
2. Have active Involvement in decision making with your GP or health workers
3. Follow the Care plan that you agreed with your GP and other health professionals

# Principles of Self-Management

4. Monitor symptoms associated with the condition(s) and Respond to, and manage the symptoms.
5. Manage the physical, emotional and social Impact of the condition(s) on your life
6. Live a healthy Lifestyle

# The Flinders Model



# Clinical care for chronic condition management

- Use a semi-structured clinical approach which has a 'forcing function' so the clinician and the patient do the right thing most of the time.
- This process needs to link seamlessly with information systems
- Combine medical management (evidence based) with self-management planning
- Put the patient at the centre of their care – from assessment to planning and prioritisation
- Planned follow up

# Examples

- Southern Adelaide – hospital avoidance program: 67% reduction in admissions 12 months pre and post enrolment.

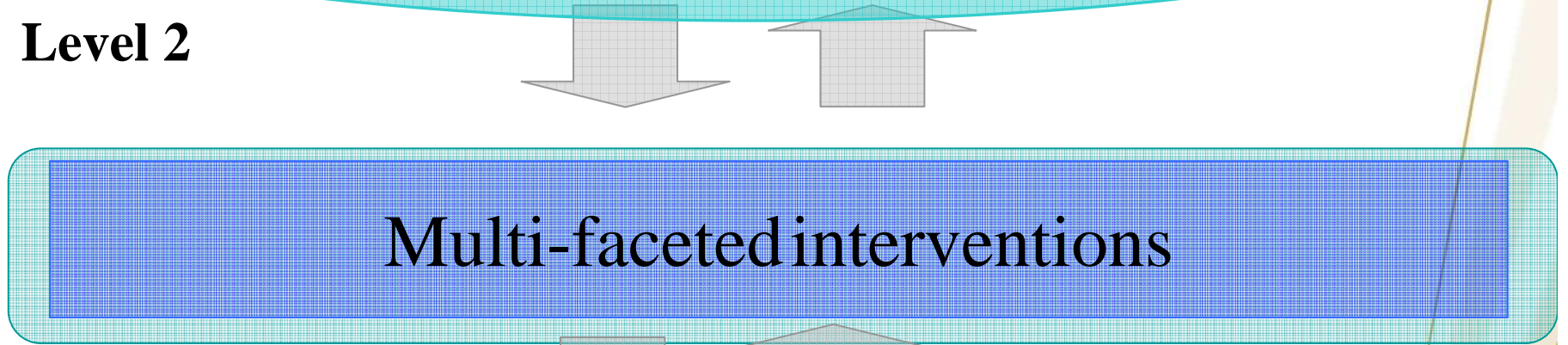
# Challenges

- ‘Chronic care and self-management care planning takes too long’
- ‘Self-management care planning is the quickest and most efficient way of dealing with all of the patient’s problems’ – Mark Kender US, General practitioner

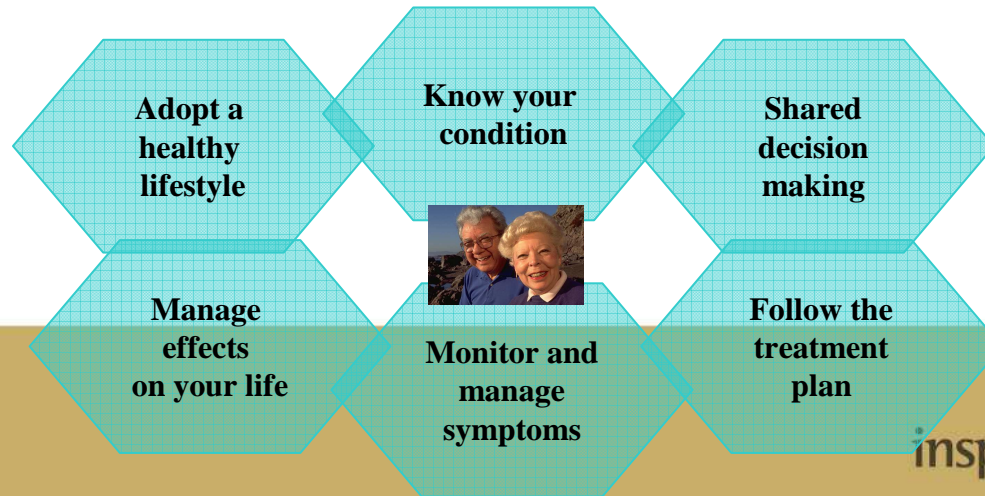
# Level 1



# Level 2



# Level 3



# Unified elements of chronic care management

- Set population targets
- Set financial incentives for preventative and planned care
- Generic care planning process across conditions, organisations and providers
- Define clinician and patient roles
- Establish common data elements and IT collection and communication system

# Unified elements of a CCM system

- Establish a central data base to monitor population outcomes and provide feedback on individual outcomes to providers and patients
- Use self-management assessment to determine who needs what level of service
- Monitoring for all and coaching where required
- Coordinators/case managers
  - with a time limited role in assessment,
  - coordinating care (navigators and translators) and
  - behavioural change skills

# **We have most of the elements of a unified system**

- We have the data eg MBS, PBS, Vet Affairs, hospital data
- We have the clinical systems
- We have some financial incentives
- We DON'T have the regional clinician/management teams taking responsibility for the population outcomes

# How do you do it?

- Work with the community not just the health providers
- Involve the patients/carers/peers
- Change is a social movement
- Set community/population targets and measure progress

# Change management

- Use Assessment of Chronic Illness Care tool for organisations
- Use PDSA cycles for health professionals
- Use Partners in Health scale for patients
- Incorporate outcome measurement as part of routine care which is relevant and important to the patient and the clinician
- Incorporate patients/consumers into the design of the model of care

# Collaboratives

- How to translate research into practice (beyond the project)
- Up to 25 teams meet on 4 occasions over 12 months,
- 1-2 day learning sessions
- The Collaborative has clearly stated 12 month, clinical and process outcome goals
- Teams aim to implement the 6 elements of the CCM

# Collaboratives

- The core process for the teams is the
  - Plan Do Study Act (PDSA) cycle
- The Team – include non clinicians, innovators
- There are 2 learning streams
  - Evidence based clinical management eg asthma
  - Practice change
- Set short term – 8 day PDSA cycles
- Have faculty follow up/support

# Collaboratives – Success Elements

- Teams that met weekly
- Successful teams averaged 45 changes
- Successful teams had a high number of early change cycles
- A culture of teamwork and growth
- Not dependent on baseline features of CCM
- Not dependent on wealth of the organisation

# Collaboratives – Success Elements

- Teams with a higher proportion of doctors
- Teams with a team champion
- High organisational commitment to quality improvement
- Contact with other teams during the collaborative
- Emphasis on collaborative decision making with patients

# US Indian Health Service

- National Diabetes Program in 356 tribes
- National standards, service accreditation
- Self-management education modules
- Diabetes educators
- National registry data base
- 5 year improvement in HbA1c

# Indiana Chronic Disease program

- Target group – Medicaide patients – low income individuals and families (4500 people)
- The Model:
  - Call centre
  - Case managers
  - A registry
  - The Collaborative

# Indiana Outcome targets

- Diabetes and cardiac – At 12 months
  - 80% of all diabetic patients to have a HbA1c test in the last 12 months
  - 30% of all diabetic patients to have HbA1c <7 by 12 months
  - 60% of all cardiac patients to have self-management goals documented

# Registry

- A data base provided to all clinics for each doctor's patients involved in the collaborative
- Provides all pathology results from the last 12 months
- Evidence based recommended services for each condition – diabetes, heart disease eg podiatry, HbA1c, ophthalmology etc
- Recall and reminder system for clinic staff and patient
- Provides above information on each patient and able to provide report for all clinic patients with same characteristics eg diabetes with HbA1c >10

# Indiana

- Registry (cont)
  - Able to collect names of patients to organise group education, eg disease specific, lifestyle etc
  - Able to provide aggregated data on all patients involved in the collaborative

# Call Centre

- Care coordinators using a software program linked to the medicare data base with each patient's health status and care planning self-management goals
- Care coordinators have health related qualification, not necessarily a clinician
- Chosen for their telephone ability not clinical competence

# Call Centre

- Initial assessments conducted by phone
- 15% allocated to case managers but still registered with the call centre
- Care coordinators followed stepwise algorithm for each planned call. – a form of coaching based on the medical and self-management goals and risk factors

# Call Centre

- Screening questions eg depression with subsequent questions to determine severity and risk.
- Provide education materials and local programs
- Summary emailed to GP with agreed follow up actions
- Check back technique for patient satisfaction and understanding
- Back up of case manager/GP if required

# Case Managers

- Community health nurses
- Patients pre selected based on the most complex 10% with high service use
- Home visits – full assessment of medical, social and psychological needs
- Time limited – 6 months
- Communication with GP

# Results

- 60-80% improvement in all measures at 12 months

# Unified elements for CCM

- Financing
- Clinical processes
- Data elements
- IT systems that communicate with each other

# THANK YOU



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