PHCM9129
Prevention and
Management of
Chronic Disease

Section 10

10. Health care organisation and quality improvement

Basic concepts

This section is about health care organisation and quality improvement for patients with or at risk of chronic disease. It includes models of health care organisation that facilitate better chronic care and the application of the processes of quality improvement to chronic disease prevention and management in primary health care.

Learning objectives

By the end of this section you will be able to:

- Define the ten building blocks to facilitate prevention and management of long-term conditions.
- Describe the relevance of the health care homes and patient-centred health neighbourhood models to chronic-disease prevention and management.
- Describe measures of quality care for long-term conditions at the level of the clinical encounter, practitioner and practice.
- Apply quality improvement approaches such as plan-do-study-act to chronic-disease prevention and management.

10.1 Organisation of care for long-term conditions?

Long-term conditions require a different health-care delivery approach to acute conditions. This includes patient-centred care that involves a health-care team to deal with all the complex aspects of care and is provided continuously in the community. This is exemplified by the chronic care model.

Different groups of patients may require different models of care depending on their risk and complexity. First developed by the Kaiser in the 1990's, it provides a framework for categorising groups of patients requiring interventions and linking interventions to these (Figure 1).

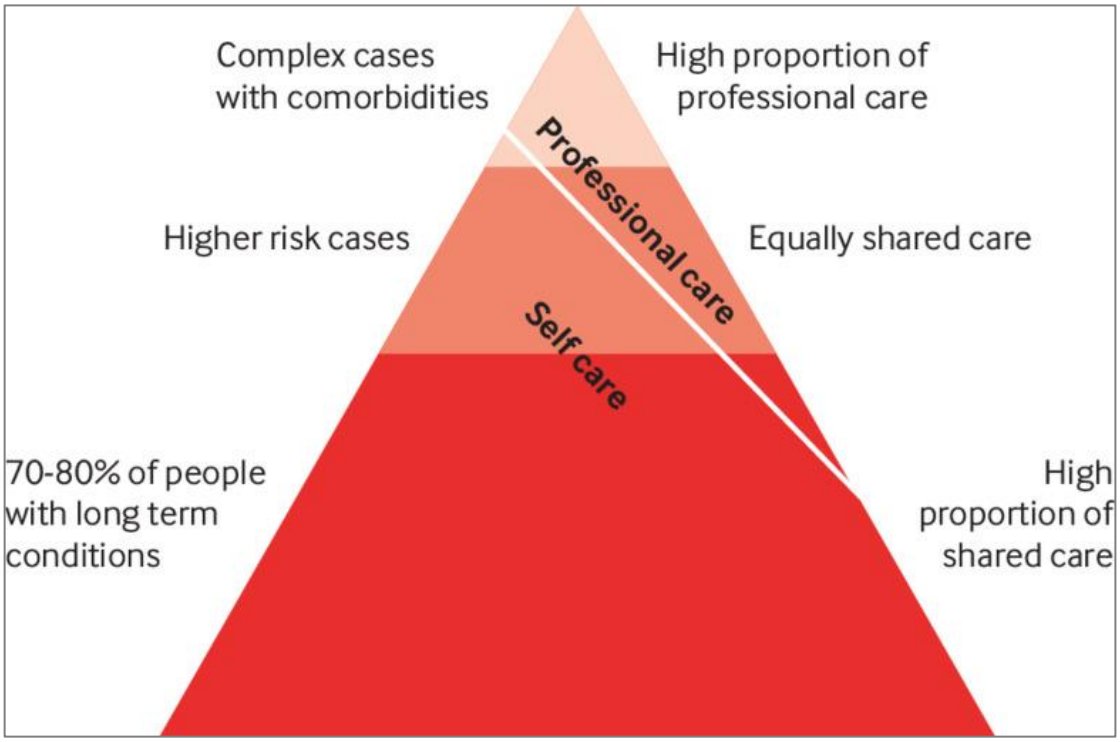

Figure 1 Long Term Conditions Framework [1]

In the chronic care model health care organisations facilitate better chronic disease prevention and management by [2]:-

- Supporting improvement at all levels of the organisation
- Promoting effective improvement strategies aimed at comprehensive system change
- Encouraging open and systematic handling of errors and quality problems to improve care
- Providing incentives based on quality of care
- Developing agreements that facilitate care coordination within and across organisations

Integration of service delivery between primary health care services and secondary and tertiary care, and quality improvement and engagement of the community are key organisational strategies to help achieve this [3] (see Figure 2).

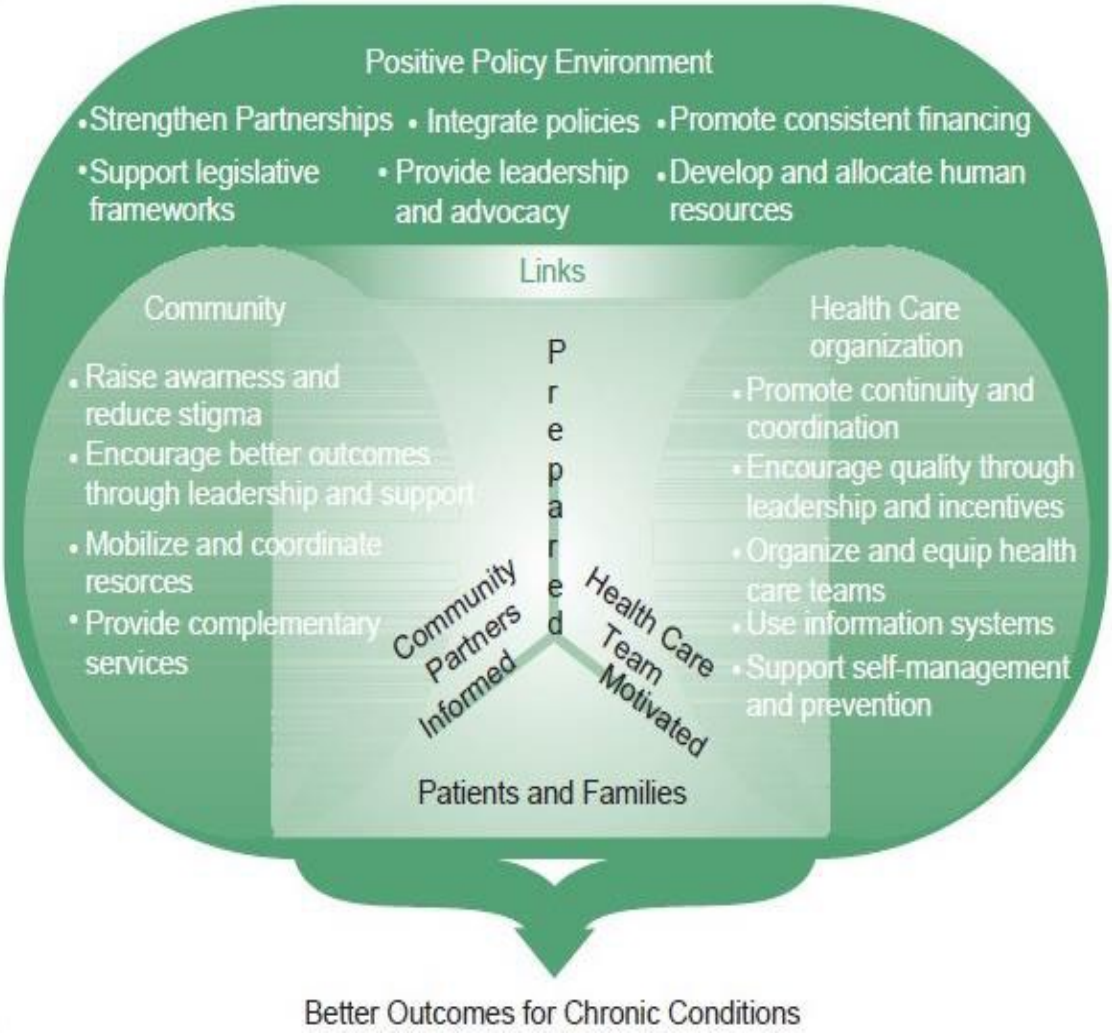

Figure 2 WHO Integrated Care for Long Term Conditions [4]

10.2 The ten building blocks?

The ten building blocks of primary care (Figure 3) were based on a series of case studies of primary care practices which have been successful in transforming the organisation of care [5].

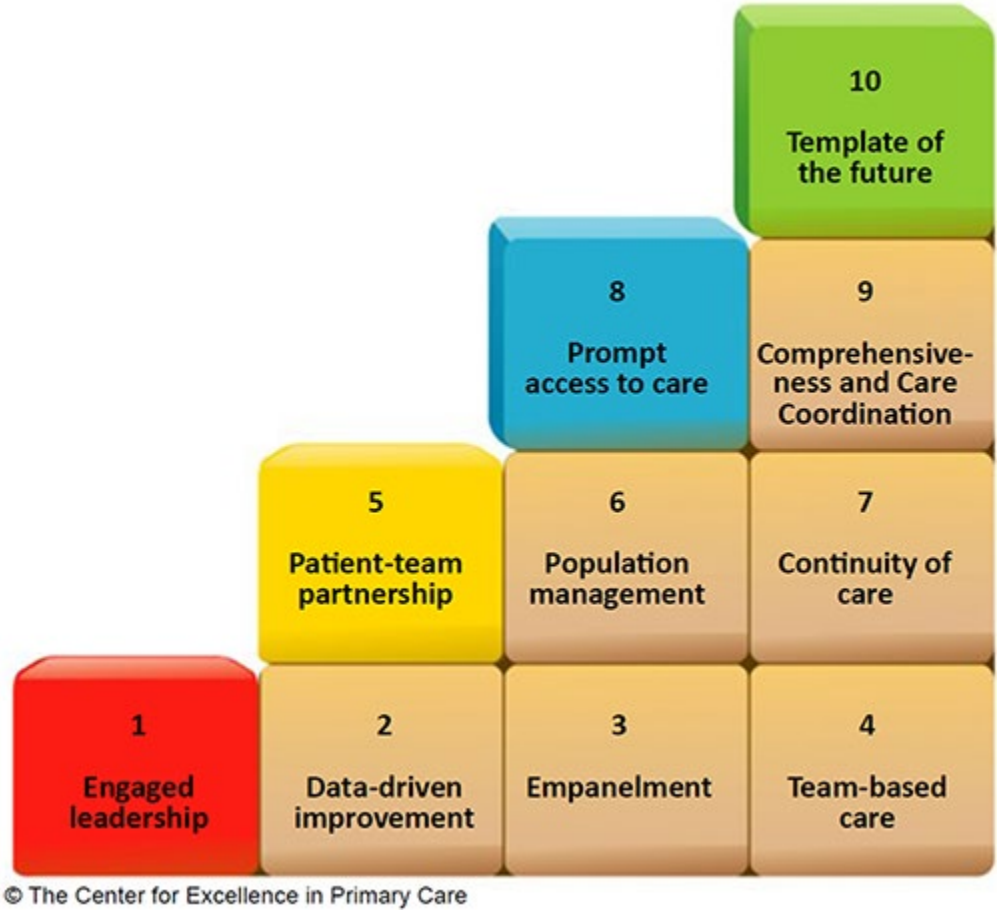

Figure 3 The ten building blocks for high performing primary care [5]
Image source: Agency for Clinical Innovation [6]

1. Engaged leadership: Leaders articulate a practice-wide vision with concrete goals and objectives at all levels of the organisation. Leaders create concrete, measurable goals and objectives.

2. Data-driven improvement: Tracking of clinical, operational and patient experience measures to monitor progress towards goals and objectives. Performance measures are often set for clinicians and care teams within the primary care practice (by the practice).

3. Empanelment (patient registration): Registration enables the practice to understand the practice population and adjust workload among clinicians and teams.

4. Team-based care: This includes involvement of allied health, nurses and community health workers.

5. The patient-team partnership: This partnership recognises expertise the patient brings. Patients are engaged in shared decision-making.

6. Population management: Practices stratify the needs of their patient populations, and design team roles to match these needs. This includes caseload (panel) management, health coaching, and complex care management. In caseload management, a staff member periodically checks the practice registry to identify patients due for routine services. Health coaching is used to assess patients' knowledge and motivation, provide information and skills, and engage patients in behaviour-changing action plans known to improve outcomes. Complex care management acknowledges that some patient needs are medically and psychosocially complex.

7. Continuity of care: In order to improve preventative and chronic care, improve the patient and clinician experience, and lower costs, reception staff encourage patients to see the clinician they are registered with.

8. Prompt access to care: Access and continuity may be in tension, and patients have a role in deciding what the priority is for a consultation.

9. Comprehensiveness and care coordination: A care coordinator has responsibility to coordinate care across the health neighbourhood.

10. Template of the future: Non-visit-based care coordination and pay-for-performance dollars can support new models of patient encounters. Ideally the funding model is risk-adjusted for comprehensive care with adjustments for quality and patient experience.

This implies that improvements are cumulative and linear. However, there is considerable variation, associated with local contextual factors such as the size of the practice, power dynamics, and physical environment. There can be unintended consequences including worsening work satisfaction of some team members, and conflict between medical and non-medical professional groups [7].

10.3 How do patient-centred health-care homes and health neighbourhoods improve chronic disease prevention and management?

The patient centred medical home model for primary care in the US has been influential in health reforms internationally [8, 9] Key elements for this model include: patient centred care, teamwork, accessible comprehensive and coordinated care, quality improvement, and balanced funding based on value (Figure 4). This model fits well with the ten building blocks and is thought to provide a more sustainable basis for preventing and managing long term conditions. There is evidence that capitated models are more suited to the provision of comprehensive care for people with or at risk of chronic disease [10]. However there is only mixed evidence for the impact of this model on outcomes and quality, especially for vulnerable and disadvantaged groups[11, 12].

Figure 4 Patient Centred Medical Home Model [13]

The Patient Centred Health Neighbourhood model extends this to include both medical and non-medical services (Figures 4 and 5) [14, 15]. The Healthcare Neighbourhood model includes arrangements to provide:

- Links between health care providers and organisations, community organisations, and non-government organisations.
- Outreach into disadvantaged communities with unmet needs
- Improved referral pathways and coordination of care
- Systems to deliver communication between services
- Linking of health information systems to evaluate and improve care

This addresses some of the limitations of the Patient Centred Medical Home model but is more difficult to evaluate.

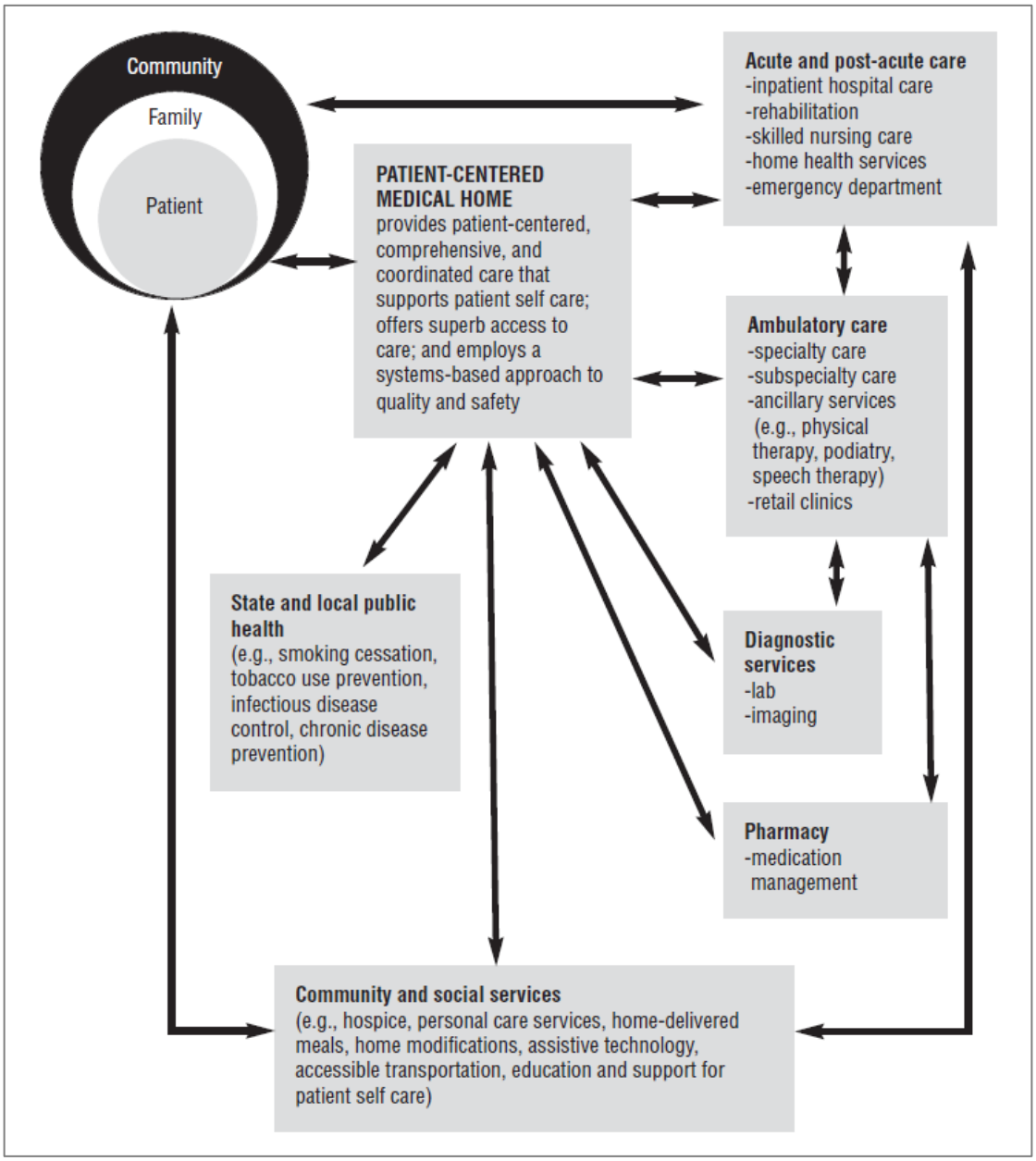

Figure 5: Key actors and the flow of information in the medical neighbourhood [15]

Figure 6: Patient Centred Health Care Neighbourhood [16]

10.4 What measures can be used to monitor and improve the quality of care?

Quality improvement (QI) is the systematic and continuous actions that lead to "measurable improvement in health care services and the health status of targeted patient groups" Rockville, MD. It involves processes have characteristics that can be measured, analysed, improved, and controlled (Figure 7).

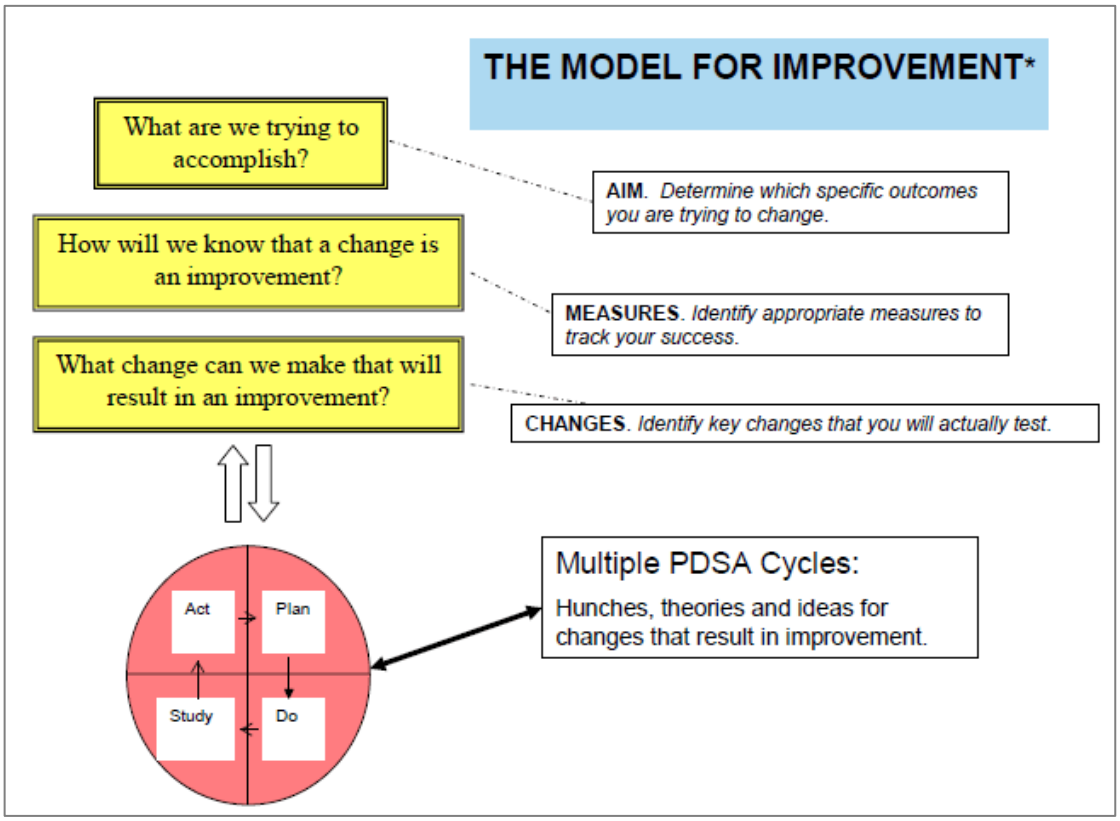

Figure 7 A model for quality improvement [17]

Quality improvement needs to be underpinned by a minimum data set of indicators of good care. These include measures of evidence-based assessment or management, as well as health and health-service outcomes. These have been identified for most individual long-term conditions but are more difficult for patients with multiple conditions. The latter can be partially addressed by using patient-reported outcome measures such as quality of life.

Process measures include measures of the frequency of:

- Assessment of risk factors (including multiple risk factors), disease indicators and early complications.
- Support for self-management including goal setting
- Care planning and coordination
- Appropriate prescribing and use of non-drug treatment
- Follow up visits compared with the frequency recommended in guidelines.

Indicators of health status include change in:

- Behavioural risk factors — such as smoking, poor diet and nutrition, harmful consumption of alcohol, physical inactivity and/or cognitive inactivity.
- Biomedical risk factors – such as blood pressure, high blood cholesterol, overweight or obesity, impaired glucose tolerance, stress, or trauma.
- Biomedical disease indicators – such as glucose control (HbA1c), respiratory function, or physical function.
- Early signs of complications (e.g. vascular, kidney disease, neuropathy).

They also include measures of:

- Inappropriate health-service use – such as preventable hospital admissions
- Patient-reported outcomes – such as quality of life (e.g. SF12).

This data may be extracted from health-care records and/or patient surveys.

Chronic care quality improvement (QI) collaboratives combine plan-do-study-act (PDSA) cycles with strategies suggested by the Chronic Care Model to facilitate improvements in processes and outcomes of care for people with chronic illness [3]. These have been demonstrated to improve patient satisfaction and patient reported care that is consistent with evidence based recommendations for those with chronic illness [18].

Learning Activity 1

Review the Agency for Healthcare Research and Quality document on coordination of care through the patient centred medical neighbourhood:
https://pcmh.ahrq.gov/page/coordinating-care-medical-neighborhood-critical-components-and-available-mechanisms

1. How does this model provide a framework for better prevention and management of long-term conditions in primary care?
2. How could it be evaluated?

Suggested further reading

What is the Patient Centred Medical Home Model? ACI
https://www.aci.health.nsw.gov.au/nhn/patient-centred-medical-home-model/what-is-the-patient-centred-medical-home-model

Health care homes Australian Department of Health.
https://www.health.gov.au/internet/main/publishing.nsf/Content/health-care-homes-professional

The patient centred medical home
http://www.improvingchroniccare.org/index.php?p=Patient-Centered_Medical_Home&s=224

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18. McHugh, M., et al., *Community-Level Quality Improvement and the Patient Experience for Chronic Illness Care.* Health Serv Res, 2016. **51**(1): p. 76-97.