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Caring for people with chronic conditions: Observations from an international comparative study

The challenge (1)

- Growing proportion of people with chronic illness
 - ~20% to over 40% of population in EU aged 15 years and over report a long standing health problem
 - one in four currently receives medical long-term treatment
- Growing number of people with multiple health problems
 - ~ 2/3 of those who have reached pensionable age have at least 2 chronic conditions
- People with chronic diseases are more likely to utilise health care, particularly when they have multiple problems
 - accounting for ~80% of consultations with a general practitioner: ~15% of people with 3 or more problems account for ~ 30% of inpatient days (UK)
- Individual chronic diseases (e.g. diabetes) account for 2-15% of national health expenditure in some European countries

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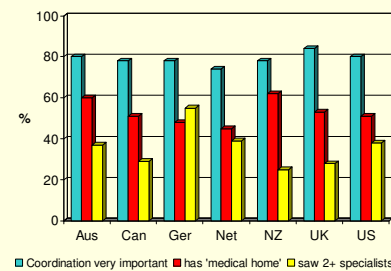
Sources: van den Akker et al., 1998; DZA 2005; Wilson et al. 2005; Suhrcke et al. 2005; Eurobarometer 2007

The challenge (2)

- Health care is still largely built around an acute, episodic model of care that is not well-equipped to meet the requirements of effective chronic illness care
 - complex response over extended period of time
 - co-ordinated inputs from a wide range of professionals
 - access to essential medicines and monitoring systems
 - promotion of patient empowerment
- Fragmentation of services acting as barrier to coordination of services along the continuum of care
 - Patients receive care for a disease from many different physicians or providers
 - They are frequently called upon to monitor, coordinate, or carry out their own treatment plan

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Experience of patients with chronic conditions in 7 countries (1)



Source: Schoen et al. 2007

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The challenge (3)

- Sub-optimal quality of care for those with chronic health problems
 - USA: only ~ 45% with diabetes receive recommended care (total of those of chronic conditions: 56%) (McGlynn et al. 2003)
 - Systematic review of general practice (UK, Australia and NZ):
 - 49% of patients with diabetes had routine foot exam
 - 47% of eligible patients had been prescribed beta blockers after heart attack (Seddon et al. 2001)

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Evidence for treating multiple conditions?

- A 76-year old woman with heart failure: *"later she developed diabetes ... we controlled her blood pressure with tablets which worsened her renal function. A statin lowered her cholesterol, but her liver function went haywire ... Beta blockers made her breathing worse and her warfarin had to be stopped after a gastric bleed ... there always seemed to be a new symptom or drug side effect to deal with...."*

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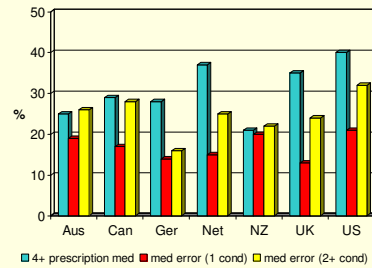
Source: BMJ 2006;332:1221

The challenge (4)

- Multiple disease processes require multiple medications
 - Risk of adverse drug reactions increases with multiple comorbidities, use of specific types of drugs (e.g. warfarin), and with increasing number of drugs taken
 - Multiple medications may increase risk of cognitive impairment and falls
 - Medication-adherence tends to fall with increasing number of drugs to be taken (prevalence of ~ 50% non-adherence among elderly)
 - Use of multiple medications increases risk of inappropriate prescribing (and potential serious drug interactions)

Source: Hajjar et al. 2007

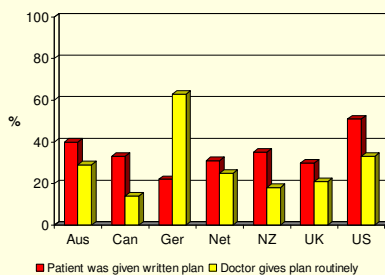
Experience of patients with chronic conditions in 7 countries (2)



Source: Schoen et al. 2007

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Experience of patients with chronic conditions in 7 countries (3)



Source: Schoen et al. 2006; 2007

Implications for health systems

- An effective response to the rising burden of chronic disease requires a health system environment that allows for the development and implementation of structured approaches to chronic disease management
- What does 'effective response' mean in the European context?

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Terminology & meanings differ

- Disease management
- Care management
- Case management
- Integrated care
- Co-ordinated care
- Managed care
- Shared care
- Care pathway
- Seamless care
- Continuity of care
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Integrated care

- Traditionally focused on persons with multifaceted problems who require assistance with activities of daily living
- Aim: to link the *cure* and *care* sector to enhance outcomes for those with complex needs
- Different forms of integration
 - Target: functional, organisational, professional, clinical
 - Level: horizontal, vertical
 - Degree: full integration (structural) vs. collaboration/linkage (virtual integration)

Disease management

- Traditionally focused on persons with a single (chronic) disease or condition
- '1st generation': to promote medication adherence and behaviour change among patients with chronic conditions
 - "[D]iscrete programs directed at reducing costs and improving outcomes for patients with particular conditions" (*Anderson & Wagner 2003*)
- '2nd generation': shift focus to multiple needs of patients with comorbidities and multiple conditions
 - "[A]n intervention designed to manage or prevent a chronic disease using a systematic approach to care and potentially employing multiple treatment modalities" (*Ellrodt et al. 1997*)

Goal & key components

- To improve outcomes for those with (complex) chronic health problems
- Elements of care that can enhance patient satisfaction and outcomes, quality of care and use of services
 - (quality) primary care
 - Multidisciplinary teams
 - Nurse-led strategies
 - Self-management support
 - Evidence-based practice guidelines / protocols
 - Provider education
 - Audit & feedback
 - Identifying those most at risk

Source: Singh 2005; Zwar et al. 2007;

What is the evidence?

CCM component	Interventions shown to be effective	Outcome measures affected
Patient self-management support	<ul style="list-style-type: none"> • Patient educational sessions • Patient motivational counselling • Distribution of educational materials 	<ul style="list-style-type: none"> • Physiological measures of disease • Patient <ul style="list-style-type: none"> - health status - functional status - satisfaction with service - risk behaviour - knowledge - service use - adherence to treatment
Delivery system design	<ul style="list-style-type: none"> • Multidisciplinary teams 	<ul style="list-style-type: none"> • Physiological measures of disease • Professionals adherence to guidelines • Patient service use
Decision support	<ul style="list-style-type: none"> • Implementation of evidence-based guidelines • Educational meetings with professionals • Distribution of educational materials among professionals 	<ul style="list-style-type: none"> • Professionals adherence to guidelines • Physiological measures of disease
Clinical information systems	<ul style="list-style-type: none"> • Audit and feedback 	<ul style="list-style-type: none"> • Professionals adherence to guidelines
Delivery system	Little published experimental evidence	
Community resources	Little published experimental evidence	

Source: Zwar et al. 2006

Health system responses

- Countries are developing new models of health care delivery to achieve better coordination of services across the entire continuum of care
- *International comparative study on approaches to chronic care in Europe and beyond:*
 - Assess contextual, organisational, professional, funding and patient-related factors that enable or hinder implementation of strategies to address chronic illness
 - Provide a platform for identifying best practices and the prerequisites for implementing them

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Australia

- Enhanced Primary Care (EPC) scheme (1999)
 - Financial incentives to promote greater involvement of GPs in structured/coordinated care
 - 2005 amendment: "GP Management Plan", "Team Care Arrangement" as part of Medicare Benefits Schedule
- National Primary Care Collaborative Program (NPCC) (2004)
 - Research program designed to improve service delivery, access and integration of care for patients with complex and chronic conditions
- Self-management support
 - Major investment by federal government (2006/07) for period of 5 years
- State programmes
 - e.g. NSW chronic care program; Primary Care Partnerships Strategy (Victoria); Northern Territory preventable chronic disease strategy

France

- ALD (*affections de longue durée*) procedure
 - Financial mechanism (exemption from co-payments) to protect people with specified long-term conditions from excessive health care costs
 - From 2004: introduction of care protocol for ALD beneficiaries by GP according to national guidelines (National Health Authority)
- Health networks
 - Formal introduction of 'health networks' in 2002 (Réseaux de Santé), aiming at strengthening the coordination, continuity or interdisciplinarity of health care provision
 - ~ 450 networks (2006); ~ 80% address chronic conditions (incl. cancer), mostly diabetes
- 2007 national Public Health Plan on the quality of life of people with chronic illness
 - Promotion of structured disease management experiments

Germany

- Disease Management Programmes (DMPs)
 - Introduced by law in 2002; highly structured and regulated, based on contracts between insurance funds and providers
 - Disease-specific: diabetes type 1 and 2, CHD, breast cancer, asthma/COPD
- Integrated care
 - Facilitated from 1993, strengthened by 2004 law
 - Health insurance funds enter into selective contracts with single providers/ network of providers, many of which targeting specific diseases at the interface between acute hospital and rehabilitative care

The Netherlands

- 'Transmural' care (1990s +)
 - "care, attuned to the needs of the patient, provided on the basis of co-operation and co-ordination between general and specialised caregivers with shared overall responsibility and the specification of delegated responsibilities" (~ 'shared care')
 - ~ 500+ initiatives (late 1990s)
- Diabetes Care Groups (since 2006)
 - Formed by groups of GPs providing diabetes care based on principles of disease management
 - Basis for developing infrastructure for chronic care ('regional health plans')

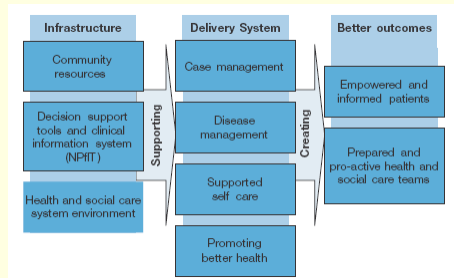
Sweden

- Nurse-led clinics
 - Part of/in addition to primary health care centres (PHCC)
 - Most common for diabetes; also: hypertension, asthma/COPD, heart failure, chronic neurological disorders
 - Integral part of hospital departments of internal medicine
 - Run by (specialist) nurses with doctors as consultants
- 'Chains of care'
 - coordinated activities based on guidelines and agreements (~ managed clinical networks for specific patient groups)
- 'Care in the vicinity'/'local health care'
 - "an upgraded family- and community-oriented primary care [system] supported by a flexible hospital system"
 - strategies for local coordination

England

- National Service Frameworks
 - select set of conditions, e.g. diabetes, CHD, cancer, mental health, older people, long-term (neurological) conditions
 - take broad view of health improvement, incl. primary & secondary prevention, diagnosis and treatment, and rehabilitation
- National Health Service Improvement Plan (2004)
 - Case management to be introduced by 2008
- NHS and Social Care Model (2005)
- White Paper 'Our health, our care, our say' (2006)
 - better preventative services, earlier intervention, self-care strategies
 - more support to people with chronic conditions & long-term needs of elderly
- 2004 NHS GP contract ("QOF")

The NHS and Social Care Model



Source: Department of Health 2005

Denmark

- Chronic disease management identified as integral part of broader strategy for (NCD) disease prevention & health promotion
 - "Chronic conditions – patients, healthcare and community" (2006), e.g.
 - Stanford approach to support self-management to be rolled out
 - Disease-specific education to be implemented in municipal health services
 - Self-monitoring and self-treatment support structures to be implemented
 - Individual disease management plans
 - Financial incentives for GPs to encourage CDM (2006)

Summary

- Approaches vary between and within countries
- Focus tends to be disease-specific, few generic 'models'
- Use of financial incentive system physician-oriented in many settings (AUS, CAN, DK, FRA, GER, England)
- Role of nurses
 - Strong: England, Sweden, NL (nurse-led clinics, specialist-liaison; community matron)
 - Growing: Australia, Canada
 - Weak: France, Germany
- Self-management support (systems) vary; profession-led (AUS, FRA, GER, SWE) vs. patient-led (CAN, DK, England)

Continuing challenges

- Getting doctors/GPs on board
- Investment in/coordination of information systems
- Conflicting policies
 - Activity-based funding vs. shifting care into the community
 - Competing priorities (e.g. waiting times)
 - Introduction of new roles vs. compatibility of roles
 - Target measurement vs. scope for innovation
- Role of regulation
 - National framework vs. local flexibility
 - Structural reform
- Need for ongoing evaluation ("success")
- Focus on cost reduction

Outlook: DISMEVAL project

- Need to better understand the policy framework of 'what works' where and in what circumstances
 - *Identify macro-level determinants of factors that influence, enable or hinder the successful implementation of approaches to chronic disease management in the context of the diversity of European health care systems*
- Need to further evidence base of impact of disease management at population level
 - *Develop and validate disease management evaluation methods on data from existing population-based programmes in Europe*

Conclusions (1)

- Evidence on the value of different forms of coordination remains uncertain
- Countries are developing new models of health care delivery to achieve better coordination of services across the entire continuum of care
- Approaches in place reflect individual countries' features of health system governance and particular sets of relationships between and responsibilities of different stakeholders in the regulation, funding and delivery of health care

Conclusions (2)

- Systems with a tradition of patient choice of any provider, little/no enrolment of patients and using fee-for-service as main payment method in primary care face greatest challenges in implementing system-wide strategies to provide care for patients with chronic illness
- European health care systems are diverse: there are no universal solutions to the challenges of chronic disease
- Each system must find its own solution, although it can also draw on the lessons learned by others

