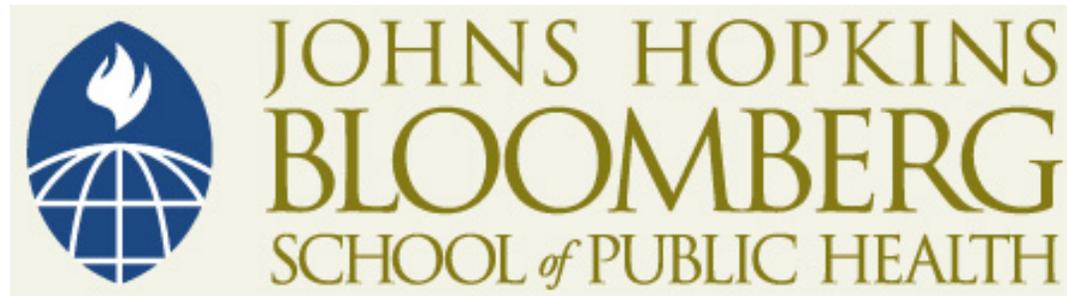


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Primary Care: Enhancements and Innovations

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Primary Care Course
(Based on Cape Town, South Africa, 2007;
and Barcelona, Spain, 2009)

This presentation deals with three major approaches to modifying primary care: subspecialization in primary care; “the chronic care model”; and the Patient-Centered Medical Home. It also presents the thrust of a few innovations in different wealthy countries and presents some principles for reform in the future.

Tensions in the Medical Home Community

Team leader?

Disease orientation?

Chronic Care Model?

Primary care characteristics as the main criteria?

Comprehensiveness?

Relationship with retail clinics?

Consistent with population-oriented primary care?

(What is the “population”?)

“Enhancements” to Primary Care

- Health information systems: primary care/system-wide
- Subspecialization in primary care
- Patient-centered primary care (poorly conceptualized)
- “Chronic care model”: self-management support; delivery system design; decision support; clinical; information systems
- A focus on specific chronic diseases rather than a focus on the combination of health problems experienced by people
- The patient-centered medical home

ALL REQUIRE EVALUATION.

The literature on the use of teams in primary care practice fails to specify the tasks carried out by different members of teams and the extent to which they contribute to the functions of primary care as specified by first contact care, person-focused care over time, comprehensiveness, and coordination of care. Every team is different. Staff members primarily seem to supplement the work of the physician by carrying out specific tasks (such as ordering medications or lab tests), generally when physicians need help in keeping to their workload schedules. The extent to which they complement physicians by adding to the comprehensiveness of services offered is unclear.

How do we know if ways of delivering services are essentially the same, fundamentally different, complementary, or supplementary?

At the very least, we need to know the essential principles and functions.

Evaluations should be part of all proposed innovations.

Evaluations should address the achievement of primary care functions.

Ongoing assessments should elucidate variations in care with

- variations in use of secondary care
- variations in type of payment
- a focus on patient in addition to or instead of a focus on diseases

Subspecialization in Primary Care

What Is Subspecialization?

A primary care practitioner

- working part-time
- consulting on certain medical problems
- managing certain medical problems
- doing certain medical procedures

What Is NOT Subspecialization?

- Encouraging primary care physicians to undertake what they already should be doing
- Enhancing the comprehensiveness of primary care
- Developing a full-time consulting service

Proposed Benefits of Subspecialization

- Quicker potential access
- Improved patient and/or practitioner satisfaction
- Make primary care more intellectually rewarding
- Reduced referrals to secondary care
- Career development (circular reasoning!)
- Improved communication with specialists*
- Clinical benefits*
- Financial benefits*

*No evidence to date

Source: based on Leese, Comprehensiveness v special interests: Family medicine should encourage its clinicians to subspecialize. In Kennealy & Buetow. Ideological Debates in Family Medicine. New York, NY: Nova Publishing, 2007.

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Examples of Subspecialization in Primary Care

- Complementary: palliative care, public health, cardiac rehab, clinical governance training, chronic lung disease, preventing hospital readmissions
- Supplementary: respiratory disease management (?), women's health (?), ENT services, diabetes care (?), orthopedics (?)
- Substituting: cancer leads, dermatology, glaucoma, teenage pregnancy, diverting from emergency care

Possible Advantages of Subspecialization

- Fewer referrals/increased comprehensiveness of primary care (supplementary services)
- Potential for greater understanding of roles of specialist care

Possible Disadvantages of Subspecialization

- Increase in referrals
- Decreasing experience with the range of primary care problems for those who specialize
- Inappropriate services, mimicking currently inappropriate care in specialty practice

Requirements for Successful Subspecialization

- Training in primary care settings, NOT specialty care settings
- Focus on disability and discomfort, not on medical diagnoses

Evidence on the Impact of Subspecialization

- Increases referrals without improving outcomes
- Increases costs and administrative challenges
- May improve patient's view of access to care
- Practitioners may function more as specialists than as primary care physicians.

Alternatives to Subspecialization

- Train more gerontologists.
- Delegate primary and secondary preventive activities.
- Encourage more inquiry into primary care to make it more intellectually challenging.
- Change (or better specify) the roles of specialists.
- Increase comprehensiveness by increasing the range of problems in primary care.

Retail Clinics: Regressive Anachronism or Disruptive Innovation?

- Major source of savings is lower salaries for providers (nurse practitioners and physician assistants).
- Acute illness and immunizations constitute 90% of visits.
- **Less** likely to be located in socially-compromised areas
- Are geared to providing access, NOT primary care
- **Will** compromise detection of epidemic adverse events, e.g., from immunizations
- **Might** be useful when instituted in an integrated health system

In contrast to general practices, walk-in centres and NHS Direct referred a higher proportion of patients (26% and 82%, respectively).

The Chronic Care Management Model (CCM): pursuant to or different from primary care?

Is chronic care management pursuant to primary care or separate from it?

- Person-focused?
- Contributory to at least one of the four main features of primary care?

Is CCM part of primary care or separate from it?

- If the need for it is uncommon (as the data suggest), it is a referral function and not part of primary care.
- If the need for it is common, it is a way of enhancing some important and heretofore neglected element of care, possibly problem recognition.

Question: What critical process of care is served by CCM? Problem recognition? Follow-up and reassessment? If not, what?

The “Chronic Care Model”

Although entitled “chronic care”, the proposed mode of remodeling services is intended for the management of common specific chronic diseases of high prevalence and impact. The literature is replete with “evaluations” purporting to show benefit, but the vast majority have focused only on one condition (mostly diabetes), and none have included the full range of components of the model.

Components of the Chronic Care Model

Component	Catalonia	England	Finland	Germany	Netherlands	Wales
Community resources and policies	(X)	X	–	–	X	X
Healthcare organization	X	X	X	(X)	X	X
Self-management support	X	X	X	X	(X)	X
Delivery system design	X	X	X	–	X	X
Clinical information systems	(X)	X	X	X	(X)	X
Decision support	X	X	X	–	(X)	X

X = fully implemented; (X) = partially implemented; – = not implemented

Austria and Belgium have no systematic implementation of the elements.

The evaluation “Review of the Implementation of CARE PLUS” indicates that most of the programs used the Chronic Care Model, although no description is specified of the components of this model in practice. The process and outcome evaluation showed **INCREASES** in all utilization, including physician visits, emergency department, and ambulatory care sensitive hospitalizations, and no quality improvements (prescribing) except for increases in the prescribing of metformin in diabetes.

If anything, this evaluation indicates that a focus on specific chronic illnesses is unlikely to lead to improved health, particularly in populations that have higher morbidity burdens overall.

“Self-management support” is not a singular intervention; its success depends on its form. For example, a multilingual health information technology based on phone calls in which individual patients were able to communicate with a nurse about their care was more successful in increasing physical activity and carrying out daily living activities than group visits. That is, “self-management” is successful when it improves a critical feature of primary care: interpersonal processes of care that improve the extent to which patients problems are recognized.

Is a Focus on Chronic Disease Compatible with the Patient- Centered Medical Home?

In Pennsylvania, the Governor's Office of Health Care Reform convened several health plans and physician societies in the southeastern part of the state to "institute a PCMH approach to manage the care of chronically ill patients".

To what extent is this approach consistent with the principles of population-oriented primary care and the patient-centered medical home? Who is left out?

- “It is unknown whether investments in chronic care management processes (CMPs), clinical information technology, or quality improvement activities (QI) are associated with better performance”.
- Implementation of structural innovations (patient registry, physician and patient reminders, case managers) for the elderly in 108 large health care organizations in the US were studied. After implementation, diabetes scores improved by 3 points (out of 100). QI improvement activities “modestly improved” adherence to guidelines for diabetes and coronary artery disease, and preventive measures. Electronic health records made no difference.
- Gains from these improvements were “modest”. (Improvement in outcomes or health measures was not studied.)

“The primary care medical home has been promoted to integrate and improve patient care while reducing healthcare spending, but with little formal study of the model or evidence of its efficacy.”

Geisinger Health Plan examined the impact of a 5-model intervention consisting of:

- Patient-centered practice: teams (MD, nurse, MD-assistant, administrative staff, case-manager); patient registry and tracking; expanded in-office treatments; improved access)
- Integrated population management: population profiling; primary prevention reminders; case management; disease management; remote monitoring; transition management; medication management; life planning
- Micro-delivery systems: lists of specialists; design of care systems in other sites (e.g., home health)
- Quality outcomes: 10 specific indicators including patient satisfaction, preventive and chronic disease care, encounters/patient, post-hospital follow-up, percentage of high risk patients with current care plans
- Value reimbursement systems: fee for service to reward for access; P4P for quality targets; stipends for participating in new activities; incentive payments based on shared savings

- The Geisinger Proven Health Navigator Program was associated with an 18% cumulative reduction in inpatient admissions and a 32% reduction in readmissions (as compared with a group of practices not implementing the program) over a 4-year study period. Costs (excluding medication costs) were not significantly reduced.
- NO attempt was made to determine which of the 5 model components (and about 30 individual new interventions) were responsible for the changes.
- NO attempt was made to determine the absence of significant reductions in costs, e.g., increased staff costs and salaries, changes in specialist use.

An evaluation of a 39 component patient-centered medical home intervention in family medicine resulted in improvement in condition-specific quality of care but no improvement in primary care characteristics. The authors cautioned that improvements focused on particular conditions and consisting of technical solutions to carrying out specific tasks may interfere with the imperative to improve peoples' experiences with the functions of primary care.

In 2006-2009, Group Health in Seattle implemented an innovation consisting of:

- Secure email and phone messages, EHR to facilitate patient engagement, post-visit summaries to patients
- Chronic care management: registries, collaborative care plans, self management tools (e.g., peer-led groups)
- Visit preparation
- Patient outreach (after discharge/ER visits), for quality deficiencies, for abnormal results
- Practice management (redesigned phone call intake)
- Care team huddles
- Standard management practices (e.g., visual displays of performance)

In the Group Health intervention (2006-2009) involving all enrolled patients, the results show improvement even greater than 1 year results (JACM 2009): compared to non-intervention clinics, 29% fewer ER visits, 6% fewer hospitalizations (controlled for age, sex, and DxCG), savings of \$103 per patient per month at 21 months into the project. But specialist visits increased (6%, 4%, 3% over baseline) with decreasing significance (less than .001, .004, 0.017) . NO attempt was made to understand which innovations were more associated with the changes.

Group Health (Seattle) experienced increasing loss of patients and income starting in 1995. Unsuccessful efforts in early 2000s (replacement of salary productivity based payments; disruptive EHR), led to changes with email and phone visits, proactive management of chronic conditions, patient outreach post hospital or with unmet needs), team management of phone calls, team huddles, visual displays of staff performance on phone visits. The effort at comparing performance (a “sore point” for some MDs) was a change that was very difficult for some physicians. But the effort resulted in adding new members (after years of losing them) and cost savings.

Effectiveness of CCM Interventions: COGNITIVE DISSONANCE?

“Variations in nomenclature used by authors and imprecise descriptions of interventions made it difficult to meaningfully identify CCM-based interventions.”

Of 944 papers, only 82 were in primary care and included at least 4 of the CCM components.

Most were from the US and all were disease-oriented

“Accumulated evidence *appears to support* (italics added) CCM as an integrated framework to guide practice redesign.”

Accompanying editorial: “The shows that the CCM extends quality-adjusted life years at a cost-effective price”.

The Alternative Chronic Care Model (A-CCM): a Six-step Innovation

- Early intervention – to detect deterioration
- Integration of care – exchange of data and communication across multiple comorbidities, multiple providers, and complex disease states
- Coaching – to encourage patient input and participation
- Connectedness – patients and providers
- Workforce changes – to lower-cost and more plentiful health care workers
- Increased productivity – decreased travel time and automated transfer of information and documentation

Joint Principles of the Patient-centered Medical Home

- Personal physician: ongoing relationship for first contact, continuous, comprehensive care
- Clarification of specialist role(s)
- Whole person oriented
- Coordinated and/or integrated care
- Quality and safety
- Enhanced access
- Added value payment
- Primary care/public health links

Proposed PC/MH (Patient-centered Medical Home) Criteria

- Electronic health record
- Teams
- Chronic care guidelines

Question: Do these
“enhancements” improve primary
care?

This requires evaluation.

Primary Care and the Medical Home

- Primary care
 - 90-year-old concept
 - Precise definition
 - Standardized measurement
- Medical home
 - 40-year-old concept (different application)
 - Imprecise definition
 - Unstandardized measurement

Physician-practice Connections: the PPC-PCMH Standards

- About 230 items have to be recorded.
- Most of these assess structural elements of the practice.
- Most are simply good medical care, not specifically primary care.
- Little or no evidence of usefulness of many if not most elements
- NO ELEMENTS ADDRESSING INTERPERSONAL INTERACTIONS, RECOGNITION OF PATIENT/ POPULATION PROBLEMS, FOLLOW-UP TO ASSESS IMPROVEMENT, OR COMPREHENSIVENESS OF CARE (EITHER APPROPRIATE RANGE OF SERVICES OR COMPREHENSIVENESS OF CARE PROVIDED)

Distribution of Items: PPC-PCMH Standards Spring 2008

- Access and communication: $12 + 5 = 17$
- Tracking and registry: $18 + 11 (x 2) + 7 + 3 + 7 = 57$
- Care management: $3 + 4 + 4 + 11 (x 3) + 10 = 54$
- Patient self-management: $2 + 7 = 9$
- Electronic prescribing: $2 + 15 + 2 = 19$
- Test tracking: $6 + 8 = 14$
- Referral tracking: $4 = 4$
- Performance reporting: $4 + 4 + 2 + 2 + 10 + 10 = 32$
- Advanced electronic communication: $6 + 6 + 2 = 14$

At the very least, any instrument to assess the quality of primary care (or “medical home”) ought to include assessment of

- Comprehensiveness (range of services available and offered when needed)
- A coding system that captures patients’ problems, i.e., the International Classification of Primary Care (ICPC)

The Role of States in Improving Primary Care: The Example of North Carolina

Starting in 1988 with a demonstration project of the PCCM program in a small rural area, the physician/state collaborative program now covers 750,000 people on Medicaid (one-fourth of the state's population) and saves at least \$161 million (\$200 per person), mostly from reduced emergency department and outpatient visits and lower medication costs.

Key features are a personal physician, a network of community-based “case-managers”, and collaborative quality-improvement activities.

TransforMED was a national demonstration that tested the Patient-Centered Medical Home (PCMH) in primary care practices. It includes an electronic medical record; electronic communications and visits; disease-management software; e-prescribing, patient portals; and clinical decision making support.

Participants report that these tools, which comprise the NCQA standards for PCMH, neglect the person-focused aspects of primary care, and run the risk of circumscribing the assessment of the quality of the medical home to non-evidence-based structural characteristics. Among criteria that are necessary but excluded, is the comprehensiveness of services, which is critical for person-focused care.

Innovations: UK

- Experimentation with new types of relationships between primary care and specialty care (less routine follow-up by specialists; specialist outreach in primary care; information systems to improve coordination)
- Payment for performance, but with allowance for and explanation of exceptions
- NICE (political independence, nurses providing secondary care)

Innovations: New Zealand

- National primary care strategy (2001)
- Focus on reducing inequalities, supported by funding formulas
- Emphasis on community participation in governance

Innovations: Australia

- Divisions of General Practice Network

Innovations: The Americas

- Renewal of Primary Health Care in the Americas: Values, Principles, and Elements

Innovations: Canada

- Focus on measuring the achievement of primary care practice (CIHI)

Innovations: Spain

- Focus on overuse of medications and procedures

Any evaluation of enhancements to clinical primary care must consider the extent to which they better achieve the evidence-based primary care functions:

- First contact for new needs/problems
- Person (*not* disease) focused care (enhanced recognition of people's health problems)
- Breadth of services
- Coordination (enhanced problems/needs recognition over time)

Primary Care: Rationale for Expansion

- Putting a rein on unnecessary care: Primary care reduces unnecessary care.
- Guidelines don't improve overall effectiveness of care.
- Adverse events are increasing as a result of dispersion of care and poorer coordination.
- Only primary care can discern new trends in illness generation and progression.
- Policies can change.

There is no such thing as a “primary care service”. There are only primary care functions and “specialty care” functions. We know what the primary care functions are; they are evidence-based. Payment should be based on their achievement over a period of time. Any payment system that rewards specific services will distort the main purpose of medical care: to deal with health problems effectively, efficiently, and equitably.

Large medical groups that score higher in **PRIMARY CARE ATTRIBUTES** are more likely to score high on **CHRONIC CARE MODEL** elements. The primary care characteristics that are most related to the CCM score are

- **COMPREHENSIVENESS** of services (especially treatment of severe chronic illness and accepting financial risk for hospitalization)
- **COORDINATION** (problem list present in an electronic health record)

Monitoring Does Not Require Patient Visits in Well-organized Health Systems

For example, the US Veterans Health Administration achieved a 60% reduction in hospital admissions and a 66% reduction in ED visits among 281 Remote Patient Management (RPM) monitored veterans with congestive heart failure, in comparison with 1120 veterans not using the technology.

THE CHALLENGE IS TO ASSURE THAT WHOLE-PATIENT CARE IS ENHANCED, NOT COMPROMISED, BY THIS INNOVATIVE TECHNOLOGY.

Limitations of Current Assessments of Primary Care

- NO assessment of the critical feature of problem recognition
- NO assessment of comprehensiveness of either primary health care (system level) or of primary care (clinical level)
- Overemphasis on “quality” of care for specific diseases; little assessment of person-focused measures
- Underdevelopment of the concept and measurement of coordination

The impact of a health services intervention should not be evaluated on the basis of a structural element of health systems alone. The value of health system structures lies only in the behaviors that they engender. In order to understand why and how things have an impact, it is necessary to evaluate the impact of structures on processes of care. That is why evaluations of structures such as type or number of practitioners, electronic health records, and the Chronic Care Model (CCM) have inconsistent results.

Policy for Primary Care

1. Primary care physicians for primary care problems (reduce unnecessary/inappropriate referral/specialty use)
 - Reimbursement incentives for more comprehensive care
 - Establish rationales for needed referrals.
 - Encourage more equitable distribution of resources (licensing; reimbursement).

Policy for Primary Care

2. Increase proportion of primary care physicians.
 - GME payments for primary care residents, by specialty
 - State allocations to medical schools with more primary care residency applicants
 - Preferential loan forgiveness

Policy for Primary Care

3. Increase attractiveness of primary care practice.
 - More appropriate reimbursement
 - Reduce paperwork (? single payor; ? financial assistance for EMR?)
 - Bonuses for achieving preventive care goals
 - Bonuses for team practice oriented toward improving primary care practice
 - Special recognition for meritorious or innovative practice
 - Ongoing, self-involvement quality and safety monitoring
 - Primary care research involving practitioners

Is it possible to evaluate primary care?

YES, but the TOOLS must address the evidence-based functions of primary care. Particularly missing from virtually all evaluations of primary care and proposed evaluations of the “medical home” of primary care are PATIENT ORIENTATION and COMPREHENSIVENESS of care.

Strengthening Primary Care

- **FIRST CONTACT:** better off-hours contact; facilitated appointments
- **PERSON-FOCUS OVER TIME:** better opportunities for team/patient interaction for better problem recognition
- **COMPPREHENSIVENESS:** recapture of common procedures/tests from secondary care
- **COORDINATION:** better information systems for transfer of information about patients' problems; enhanced communication between primary care and secondary care to reduce unneeded patients' visits

Ideological Debates in Family Medicine

Editors: Buetow S, Kenealy T
New York, NY: Nova Publishing, 2007

Affirmative and negative chapters on:

Family Medicine Should Redefine Its Essential Attributes

Family Medicine Should Rediscover a Focus on Family Care

Family Medicine Should Emphasize Population Health Care

Family Medicine Should Focus on the “Sick”

Family Medicine Should Encourage Its Clinicians to Subspecialize

Family Medicine Should Tolerate Uncertainty to Manage Clinical Risk

Family Medicine Should Use More Evidence-based Medicine Than at Present

Family Medicine Should Shift Attention from Rationality to Emotions

Family Medicine Should Encourage the Development of Luxury Practices

Family Medicine Should Promote the Delivery of Care through Group Practices

Family Medicine Should Emphasize the Provision of Health Care as a Social
Good

Family Medicine Should Promote the Optional Autonomy of Patients in
Decision-Making

Family Medicine Should Self-regulate to Best Protect Patient and Professional
Autonomy