THE MARK YOUNG INTERNATIONAL SCHOLARSHIP

Best Practices of Medicine in Europe

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http://www.youtube.com/watch?v=EZ9lhoo8fZo
The 3rd Annual
World Health Care Congress
Europe 2007

Industry and government leaders convene to share best practices for improved delivery and outcomes in Europe

26-28 March 2007 • Hotel Fira Palace
Barcelona, Spain
World Congress Mission

• To address escalating healthcare costs, challenges in quality, new models for finance and improvements in health care delivery across the E.U.
- 1957, Treaty of Rome established a **European Economic Community**
- 27 member countries
- Population, half a billion
Health Care Challenges in E.U.

• There is no unified health system in the E.U.
• How to reconcile economic and social development with an aging population?
• How to departure from an acute care to a chronic disease model?
• How to reconcile existing local, regional and “national” health care systems with an European health care system?
• How to provide health care to migrant-workers from different countries and across border?
The Challenges of Chronic Diseases

• Growing number of people with CD
• Inequity of care
• Potent but more hazardous new drugs
• Multi-system nature of chronic diseases
  – co-morbidity
• Lifestyle: powerful determinant and aim of intervention
• Focus on prevention of complications and improving QoL
• Changing the role of patients with CD
• Health care system not designed to manage CD
Do European leaders in health care really experience an urge for change?
**Chronic Diseases – facts and trends**

- Chronic disease affect a large part of the world population
  - WHO data: 860 million worldwide
    - UK: 17.5 million
      - Germany: 5 million
        » U.S.A.: 25 million
- Incidence of chronic conditions will increase
  - Demographic changes:
    - % of people > 60 yr is rising
    - More people will require prolonged care
    - UK Dept of Health predicts # of people 65 with CD will double by 2030
Integrated care aims to bring together inputs, delivery, management and organization of services related to:
- Diagnosis, treatment, care, rehabilitation and health promotion.

Integration aims at improving services, user satisfaction and efficiency.

Regional co-operation, chains and networks
Chronic Care Model

Focus on 6 areas: develop productive interactions between patients who take an active part in their care and providers backed up by resources and expertise

Disease Management in Europe

Goals:

• Coordinated health care interventions, and communication for populations with conditions in which patient self-care efforts are significant
• Management based on data and information.
• Aim: efficiency (improvements of outcomes and ROI)
• Extremely program oriented
Driving forces behind Chronic Care Management in “Europe”

- Quality and efficiency
- Insurers, *if operating in the public domain*
- Varying role of governments (and insurers)
- Many financing systems of health care
- Innovations
  - focus on providers, not on patient
- Relative weak position of patient-organizations
- Lacking data-infrastructure
  - Expected ROI less than in USA
Government-led system: Sweden

- Heavily *decentralized* system
- Counties: hospitals and primary care
- Municipalities: nursing care long term care
- Payment by taxes, small co-payment
- Chains between hospitals and primary health centers
- Nurse-led centers for CD in hospitals and community
- Lack of robust programs for CD
Government-led system: France

- Heavily centralized system (planning and financing)
- Health insurance funds (NHI) dominated by the State (politics)
- Specialty hospitals, 30 chronic diseases
- Strengthening role of GPs
- CCM not well developed
  - focus mainly on caregivers not on patients
  - small regional networks for chronic care medicine
  - relative small initiatives directed to patients
Government-led system: England

- Department of Health controls Strategic Health Authorities (SHA)
- SHAs control Primary and Secondary Care Trusts
- Local Health Authorities vary in spending budget
- Apart from NHS a range of private provider
- Adapted KP-model in many counties
- Increasing focus on self-care and self-management
- Growing number of nurse-led clinics:
  - increasing merging of CCM with existing systems
  - crucial role of local health authorities
Chronic Diseases – facts and trends in U.K.

- CD utilizes the majority of healthcare resources
  - UK Department of Health:
    - 80% of GP consultations
    - 60% of bed days in hospitals
  - US: 78% of healthcare spending

- More resources go into CD than for acute events
  - ~70% of healthcare expenditure in developed countries
  - Introducing a shift in healthcare practice and focus

- Rising healthcare costs
  - Faster than the economic growth itself !!!

- Staff shortages

- Priority:
  - High-quality & cost-effective management of chronic diseases
Solutions: Telemedicine / Telecare–the first approach in U.K.

Telemedicine:

• Sensing and monitoring equipment
• ECG (event) recorders, blood glucose monitors, etc…
• Communication networks
• Services provided by call centers, via telephone lines
• 24 hours a day, all year round
• Linked with networks of health professionals
• Medical response and guidance
• Example: Telecardiology - Boario Home Care Project, IT

Telemedicine

EMH

- Objective Vital Values
- Subjective Diary Data
- Messaging

Patient Units

GPRS/UMTS

Mobile Networks

Patient Feedback Loop in Real-Time

EMH Core System

Wireless Health Broker & Service Provider

Doctor

Hospital

Telemedicine/Telecare—the Benefits

For Patients:
- Avoid waiting time for a visit
  - Reduced anxiety
    - Reduced visits to GPs and hospitals
      » Earlier intervention and adaptive therapy
      » Reduction of days in hospital
- Improved follow-up
- Decreased mortality

For Healthcare systems:
- Reduced emergency admissions
- Reduced hospital re-admissions
- Decreased use of hospital resources
- Reduced costs
Benefits in numbers

WHCC-Europe, Barcelona, 26-28 March 2007

• Boario telecardiology:
  – Estimated annual benefit cost ratio > 3.3 : 1 by 2012 (ROI)
  – Net benefit even from the first year
  – 35-47% reduction in hospital admissions (in various studies)
  – 12% reduction in outpatient visits

• UK Department of Health on potential of self-care:
  – Reduce GP visits by 40%
    • Reduce outpatient visits by 17%
      – Reduce hospital admissions by 50%
      » Reduce length of hospital stay by 50%
      » Reduce days off work by 50%

• Cost = 1/3 of the cost of a nursing home place
Predicting risk of hospitalization

• Policy levers (England)
  – Central directives
  – Regulations
  – Better information system
  – Financial incentives
    • Prospective HGR (DRG) payment for providers
    • Primary commissioners
    • Tight budget
Chronic disease management

• Recognition of the need to reduce PREVENTABLE admissions (older patients, long term conditions, etc…)
• National service frameworks and guidance
• Funding programs to improve outpatient care
• Evaluation of such programs
• Commissioners mandated to employ community Matrons to carry out management
• Need to identify individuals in the community with high risk for hospitalization

The role of matron in the early British National Health Service (NHS) was to be the most senior nurse in the hospital.
The “PARR” project
(Patients At Risk for Readmission)

• Funded by the NHS
• Development of a predictive model (PARR) 5 years of inpatient data

• Two tiers:
  – Narrow / PARR1: focus on emergency admissions for “reference” conditions
    • Often cause of re-admissions which could otherwise be prevented
  – Broad / PARR2: look at ALL emergency admissions
The “PARR” general approach

• Search for recent hospitalization and generate an *admission “index”*

• Review of discharge records to predict patients at high risk for re-admission
  – Logistic regression analysis
  – An algorithm generated “RISK SCORE” from 0-100 for each individual patient
PARR Index of Admission

Utilization review for prior 3+ years

Index of Admission

Predict admissions Next 12 months

Y1  Y2  Y3  Y4  Y5
Conditions potentially responsive to more effective care management and with high rates of re-admission

- COPD
- HTN
- DM
- CAD
- Asthma
PARR next goals

• Run the system to identify pts with high risk scores
• Interview these patients and their providers to learn:
  – Circumstances that led to re-admission
  – Factors that would help reduce future admission
  – Design an intervention based on this information
• Implement intervention(s) in a manner to learn as much as possible by
  – Randomizing patients/practices/hospitals into intervention and non-intervention and track outcomes or
  – Track subsequent utilization and compare to historical controls/”expected”use rates
Next steps in NHS in England

Risk stratification
• PARR used across the country
• Interventions
  – Being tried and evaluated (on different risk segments)
• Regulation and performance management
  – PARR usefulness developing
• Resource allocation
  – Risk adjusted person-based resource allocation
The problem in the E.U.

AGING!

• The most important policy issue facing European Governments over the next 50 years is how to cope with aging populations

• For Scotland the future is now its population is aging faster and dying quicker than any other industrialized nation
Population of Scotland

1911

1951

1991

Projection to 2031
4 key issues

• Aging of population
• Growth in chronic disease
• Growth in emergency hospital admissions
• Health care inequalities
The future model of health care: shifting the balance

• Current view
  - Geared towards acute conditions
  - Hospital centered
  - Doctor dependent
  - Episodic care
  - Disjointed care
  - Reactive care
  - Patient as passive recipient
  - Self care infrequent
  - Caregivers undervalued
  - Low tech

• Evolving model
  - Geared towards long term conditions
  - Embedded in communities
  - Team based
  - Continuous care
  - Integrated care
  - Preventive care
  - Patient as partner
  - Self care facilitated
  - Caregivers supported as partners
  - High tech
Insurer-dominated systems: Germany

- 90% public and 10% private health insurance
- 2002: legal framework for DMPs*
- DMPs have been introduced step-by-step
- Participation: voluntarily and within existing structures
- Co-operation between hospitals and community
- Financial incentives for participation
- Clinics just led by physicians, not by nurses
- Encouragement of active participation of patients
  - DMPs introduced within existing systems -> no integration with other health professionals

* Disease Management Programs
The German way of evidence based medicine

- In July 2002 a legal order was put into force that enables German sickness funds to offer patients with breast cancer or type 2 diabetes care in disease management programs (DMP).
- Guidelines and requests for contracts between providers and sickness funds, quality assurance measures, training of providers and insured, documentation and evaluation of the efficacy and cost-effectiveness of the DMPs.
- The German federal social insurance authority has the responsibility for the accreditation of the DMPs.
The German way ...

• Programs are accredited only if they meet all criteria
  – In the U.S. accreditation of DMPs is voluntary
• The quality is checked by non-profit agencies
• The programs are labeled by an overall quality score
• Health care buyers can compare the quality of DMPs
• Implementation may lead to more effective and efficient care for patients with CDs.
• Publication of the quality assurance measures and of the evaluation of the efficacy of the programs may enable patients to make an informed choice of the best programs in the future.
Promoting Entrepreneurship in German Hospitals

1. Mega trends
   • The terminology of healthcare economy stands for change in healthcare!

2. Health care economy in the future
   • Society and E.U. economy need a growing, efficient and effective healthcare in its broadest sense possible

3. Services will determine the development of the economy and of employment in the future!
Development of the health economy

Vision: Quality healthcare (medical progress, economic development, globalization)

Goals: Quality, Efficiency and Effectiveness

General principles: Transparency, competition, service orientation, cross-linking, patient centered care, responsibility for oneself and solidarity

Instruments: DRGs, new forms of treatment, disease management programs, medical care centers

Safeguarding the future
Driver for efficiency and effectiveness

- Return of investment as a driver
- Cost effectiveness and quality
  Instead of lavishness
- Common public interest as driver
Quality?

1. Services offered
2. Quality of structures
3. Quality of processes
4. Quality of results
5. Quality of services
6. Quality of encounters
Patient

1. Human being
2. Medicine
3. Care
4. Services
5. Relatives
Staff

1. Staff guidance
2. Attitude towards work
3. Collective bargaining
4. Honorary commitment
5. Economy/savings
6. Concentration of services
7. Standardization
8. Professional training
Resources & Assets

1. Investment
2. Capital market
3. Co-operation
4. Partnerships
5. Sponsoring
6. Linkage with regional structures
Insurer-dominated systems: Netherlands

- Mandatory private insurance for all medical expenses
- Long tradition of guideline-and quality development
- 2006 government started CCM/DMPs, with diabetes
- DMPs have to meet requirements to function as contractors
- DMPs as a motor for restructuring GPs
- DMPs does not encourage involvement of medical specialists
- **Support of self-management still weak**
  - DMPs will be introduced in primary care
    - prevention and patient participation have to be developed
Health Care System of Cataluña
“El sistema sanitario en Cataluña”

• 1977: Social Security reform
  – Reforma de la Seguridad Social

• 1979: Emancipation of Cataluña from Spain
  – Autonomía de Cataluña
  – Transferencia de las competencias en salud a Cataluña

• 1981: Decentralization from Central Gov’t
  – Descentralización del Estado

  – Ley General de Sanidad
  – Separación de la función de financiación y compra de servicios de provisión

• 2006: Reform of the Emancipation Act
  – Reforma del Estatuto de Autonomía de Cataluña
Health Care System Characteristics in Cataluña
Características del sistema sanitario catalán

• Financed by taxes (tax-payers)
• Decentralized
• Universal coverage
• Free Access
• Increase in number of services to the public
• Co-payment for prescription drugs
  – Copago en la prescripción farmacéutica
• Combined public and private health insurance
• Budget 2006
  – € 7.8 million or 33% of Catalunya Gov’t budget
Combined public and private health insurance

Providers

• Department of Public Health
  – 100% coverage,
  – Expenses 87% of total

• Private sector: people with double coverage
  – 24% coverage
  – Expenses 13% of total
Health Care System in Cataluña vs. Central Gov’t

(El sistema sanitario en Cataluña)

Central Gov’t

- Basic legislation and coordination
- Financing of the system
- Minimum health care packet financed by the central Gov’t
- Prescription drugs policies
- International Health Care policies (immigration, migration)
- Educational campaigns

Cataluña

- Basic legislation (regional)
- Subsidies for financing health care system
- Public health access
- Sanitary/Health organization
- Accreditation and planning of programs
- Purchase of health care services
Success of decentralization in Cataluña

- **Financial viability**
  - *Sostenibilidad financiera*

- **Proximity of services to the citizens**
  - *Proximidad de los servicios al ciudadano*

- **Adaptation to loco-regional realities**
  - *Adaptación a la realidad local*

- **Better efficiency in delivering health care**
  - *Mejora de la eficiencia*

- **Guarantee of equality in regional and individual care**
  - *Garantía de equidad regional e individual*

- **Driving force behind health care reforms**
  - *Motor de las reformas sanitarias*
Comparison of Health Care Costs

“Comparativas del gasto en salud”

- Health Care Costs as % GDP, 2004
- % Health Care Costs amongst providers, 2004

<table>
<thead>
<tr>
<th>Country</th>
<th>Gov’t</th>
<th>Private</th>
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<tbody>
<tr>
<td>U.S.A.</td>
<td>44.7 %</td>
<td>55.3 %</td>
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<tr>
<td>Spain</td>
<td>70.9 %</td>
<td>29.1 %</td>
</tr>
<tr>
<td>Cataluña</td>
<td>75 %</td>
<td>25 %</td>
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EU (AVG) 6.8%
Spain 5.7%
Cataluña 4.7%
• **New way of health care gov’t (local vs. central)**
  - Participation of key players
  - Regional authority over local health care programs
  - Empowerment of patients

• **A new way to manage health care:**
  - Reform of key institutions
  - Financial allocation based on population
  - P4P
  - IT implementation
Elderly people require a different mix of healthcare services to be developed

Italy: Percentage of People >65 years


- Less hospitals but of higher quality level
- More community services (rehabilitation, home care)

Shift from acute to chronic care
Tackling CD

• Essential components of CD management:
  – Identifying patients with CD
  – Stratifying patients by frailty
  – Involving patients in their own care
  – Co-ordinating care (case-managers)
  – Multidisciplinary teams
  – Integrating specialist and generalist expertise
  – Integrating care across organizational boundaries
  – Aiming to minimize unnecessary visits and admissions
  – Providing care in the least intensive setting
Goals

Walter Bergamaschi. General Director, Ministry of Health. Italy

• To create and organizational model for patients with CD to:
  – Reduce admissions to the hospital
  – Support the early discharge from the hospital
  – Improve the assistance network
Migration workers
In Summary

- **Sweden** - heavily decentralized - payment by taxes, small co-payments, low productivity, and less urgency about a need to change.

- **France** - heavily dominated by the state and very centralized
  - Cheaper facilities limited to 30 chronic diseases
  - Adopting the chronic care model (CCM) but still focus on caregivers, small networks and a small number of initiatives

- **England** - national system with delegation to regions, a lot of variation, and involvement of private providers, has adapted Kaiser Permanente model in many counties
  - Increasing focus on self-care and self management.

- **Germany** - 90:10 social to private insurance.
  - Disease Management programs (DMPs) introduced, voluntary participation, cooperation between hospitals and community sector
  - Lots of incentives but physician-dominated and not sure how much active participation of patients there is
In Summary

• Netherlands - mandatory private insurance this year.
  – 2006, Disease Management programs have to meet requirements to function as contractor, as a motor for restructuring GPs, this doesn’t encourage involvement of medical specialists
  – Prevention and patient participation have developed.

• Scotland: Evolving model geared towards long term condition, strong emphasis in communities, team based, continuous-integrated-preventive care
  – Patient as partner and self care facilitated

• Catalunya (Spain): by de-centralizing, financial viability, loco-regional realities, guarantee of equality in regional and individual care which drives health care reforms
In Summary: Facts

• CD important health issue in the E.U.
• A growing number of people have multiple CD which make their care particularly complex
• Aging population real issue (act now)
• A small number of patients account for a disproportionate amount of health care use (especially hospital care)
Underpinning Principles 1

• Focus on the whole person and all their health needs
  – Refocus on DMPs
• Involve people in their own care
• Provide care in the least intensive setting
• Minimize unnecessary hospital visits and admissions (PARR1)
• Be a provider by a multi-disciplinary team opposed to physician centered care
Underpinning Principles 2

• Integrate generalist and specialist care
• Integrate health and social care
• Use a population approach to identify high high-risk patients
• Use information systems to identify people with long term conditions and place them on a general-practice registry
  – TELEMEDICINE
• Use a structured approach to call and recall
Underpinning principles 3

• Review care using evidence based protocols and guidelines
• Focus on improving pharmaceutical care
• Use information and communication technologies to support self management
• Use community and voluntary resources to provide support for patients and caregivers
How to move forward

Tier 4
Care Management

Tier 3
Disease Management

Tier 2
Supported self care

Tier 1
Health Improvement

High complexity, Vulnerability 3-5% of LTC Population

High Risk Cases 15%-20% of LTC

70-80% of long Term condition population

100% of the whole population

Health Promotion

Self care

Professional care
Lessons Learned

• Nationalization doesn’t seem to matter
• The role of insurers is still weak in E.U., there are many helpful decentralized initiatives
• The focus lies on influencing providers and not patients at this point
  – Refocus
• GPs central for the development of the “new” system
• There’s room for improvement in self-management, information benchmarks, and incentives
Lessons Learned

• Ensure that allocation of funds for health care programs are correct and effective:
  – Well trained nurses are much better suited to dealing with high-risk patients than the GPs
  – Improved clinical outcomes, brought down overall costs, more satisfied patients
  – More focus on clinical role of nurse practitioners
  – Specialist nurses as consultants for practitioners, improving self management, developing instruments and technology

• Chronic Care Management can be combined with Disease Mgn’t

• Care patterns must be based on complexity of health problems and readiness of patients for self-management
  – need more powerful systems for self management.

• Physicians may function as consultants for complex situations

• Encouraging managed competition between regional providers may contribute to effectiveness and quality of care.
E.U. Challenges in Health Care

• **There is no E.U. unified health system.**
  - Need to refocus
  - Increase responsiveness in health care issues
  - New roles for the private sector

• **How to reconcile economic development with an aging population?**
  - Develop DMPs and CCM - Telemedicine

• **How to departure from an acute care to a CD model?**
  - RNs, disease oriented programs
  - Strong financial incentives for coordination and delivery of care

• **How to reconcile existing local, regional systems with an European health care system?**
  - Decentralization, transfer responsibility to the true provider

• **How to provide care to migrant-workers from different countries and across borders?**
  - Diversity at the point of care
  - Health care targets rather than corporative interests
Achieving goals by turning

• Population Health
• Evidence Based Medicine
• Networks/delivery agents

.........into reality .........
? 

- Thank you