Improving Health Care for Chronic Conditions

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Health Care for Chronic Conditions
World Health Organization
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... committed to health care improvement
Levels for improving care

MACRO LEVEL
Health Policy

MESO LEVEL
Organization of Health Care

MICRO LEVEL
Individual

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Presentation outline

1 Typical care
2 Innovative Care
3 Accelerating implementation

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Health care for chronic conditions: What do we know?

- Disease burden has changed towards chronic conditions world wide. *Health systems haven’t.*

- Highly effective interventions exist for most chronic conditions, *yet patients do not receive them.*

- Current health systems are designed to provide episodic, acute health care and *fail to address self-management, prevention and follow-up.*

- Chronic conditions require a different kind of health care (*mismatch*).
TYPICAL CARE
The Radar Syndrome

☆ Patient appears
⊙ Patient is treated “find it and fix it”
⊙ Patient is discharged

... then disappears from radar screen

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Radar logic = inappropriate care for chronic conditions

- System oriented to acute illness
- Patient’s role not emphasized
- Follow-up sporadic
- Prevention overlooked
All systems are perfectly designed to produce exactly the results they achieve.
Missed opportunities for clinical prevention: What is the impact?

- Tobacco smokers have 18% higher medical charges than non-smokers
- A one-unit increase in BMI raises medical charges by 1.9%
- Each additional day of physical activity per week reduces medical charges by 4.7%

**Study conclusions:**

“Health plans that do not systematically support members’ efforts to improve health-related behaviors may be incurring significant short-term health care charges that may be at least partly preventable.”

JAMA. 1999; 282: 2235-9
Health Care Experiences in Five Countries

- 3,849 “sicker patients” across 5 countries
- Despite differences in health systems, large proportions of patients report errors, poor communication, faulty care coordination
- Focusing on high utilizers has the potential to both control costs and improve care

Blendon et al., Health Affairs 2003; 22(3):106-21
Across the five countries

“...My regular doctor or health professional DOES NOT ...”

- make clear specific treatment goals (20-38%)
- help me understand what needs to be done for my health (12-26%)
- ask for my ideas or opinions about treatment (47-67%)
- keep me motivated (28-43%)
- provide advice on weight, nutrition, exercise, smoking, drinking (33-49%)
- discuss the emotional burden of the condition (51-66%)

Blendon et al., Health Affairs 2003; 22(3):106-21
Who suffers as a result?

- Patients
- Families
- Health care workers
- Employers
- Insurers
- Governments
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Chronic conditions require an evolution of health care

from typical (radar care) to achievable “Innovative Care”
No longer is each risk factor and chronic illness being considered in isolation. Awareness is increasing that similar strategies can be equally effective in treating many different conditions.
Organized systems of care, not simply individual health care workers, are essential in producing positive outcomes.
Innovative Care for Chronic Conditions Framework

Positive Policy Environment
- Strengthen partnerships
- Support legislative frameworks
- Integrate policies
- Provide leadership and advocacy
- Promote consistent financing
- Develop and allocate human resources

Community
- Raise awareness and reduce stigma
- Encourage better outcomes through leadership and support
- Mobilize and coordinate resources
- Provide complementary services

Health Care Organization
- Promote continuity and coordination
- Encourage quality through leadership and incentives
- Organize and equip health care teams
- Use information systems
- Support self-management and prevention

Links

Community Partners
- Prepared
- Informed
- Motivated

Health Care Team

Patients and Families

Better Outcomes for Chronic Conditions

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Innovative Care for Chronic Conditions Framework

Positive Policy Environment

Links

Community

Health Care Organization

Prepared

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Health Care Team Motivated

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Better Outcomes for Chronic Conditions

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“The WHO strategy for chronic disease management in resource poor countries could provide a model for delivering comprehensive services to people infected with HIV, who have similar healthcare needs.”

MM Kitahata, MK Tegger, EH Wagner & KK Holmes
BMJ, October 2002
It **CAN** be done ...

**Examples from innovative programmes**

- Cancer: saves 400 years of waiting time
- Diabetes: quadruples foot exam rates (18% - 82%)
- Asthma: reduces hospital admission costs from $18,488 to $1,538 per patient
- Coronary artery disease: reduces deaths by 41%
- Congestive heart failure: reduces hospital admissions by 56%
- Nicotine dependence: produces 70% cessation

*For details ...*
… in developing countries

Rural South Africa

- Integrated, nurse-led PHC for hypertension, diabetes, asthma and epilepsy
- Introduced registries, diagnostic and treatment protocols, patient self-management support, and planned follow-up. Reconfigured health care personnel.
- Results: nurses could successfully manage > 90% of patients with minimal to no MD support
- Adherence rates significantly improved

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Diffusion

...”The process by which an innovation is communicated through certain channels over time among the members of a social system”...

Everett Rogers
Diffusion of Innovations
1995
Adopter categorization: speed of adoption

- Innovators: 2%
- Early Adopters: 13%
- Early Majority: 35%
- Late Majority: 35%
- Traditionals: 15%

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Momentum for spread

“The part of the diffusion curve from about 10% to 20% adoption is the heart of the diffusion process. After that point, it is often impossible to stop further diffusion of a new idea, even if one wished to do so”...

Everett Rogers
Diffusion of Innovations
1995
The “Diffusion Curve”

Spread of Chronic Care Model Across Clinics

Total of 80 Clinics in Organization

Percent of clinics implementing CCM

“tipping point”

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The implementation model

What to do: The ICCC Framework

How to make it happen: The Model for Improvement

What are we trying to accomplish?
How will we know that a change is an improvement?
What change can we make that will result in improvement?

Act
Plan
Study
Do

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Plan-do-study-act

- **Act**
  - what changes are to be made?
  - next cycle?

- **Plan**
  - objective
  - questions and predictions
  - plan to answer the questions (who, what, where, when)
  - data collection to answer the questions

- **Study**
  - complete the analysis of the data
  - compare data to predictions
  - summarise what was learned

- **Do**
  - carry out the plan
  - collect the data
  - begin analysis of the data

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Repeated use of the cycle

Hunches
Theories
Ideas

Changes That Result in Improvement

DATA

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Focus: Improve assessment and care of high-risk asthma patients

Routine use of flow meters by high-risk patients

Cycle 5: Monitor communication and use of flow meters with high-risk patients

Cycle 4: Test understanding of use of flow meters by patients

Cycle 3: Train providers on teaching patients to use flow meters

Cycle 2: Test updated policy on distribution of flow meters

Cycle 1: Test communication on use of flow meters with providers

Peak flow meters for high-risk patients

DATA
# Sample Results: Clinica Campesina

<table>
<thead>
<tr>
<th>Measure</th>
<th>Initial rate</th>
<th>Improved rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average HbA1c</td>
<td>10.5%</td>
<td>8.7%</td>
</tr>
<tr>
<td>At least 2 HbA1c/year</td>
<td>15%</td>
<td>45%</td>
</tr>
<tr>
<td>Eye exams</td>
<td>7%</td>
<td>27%</td>
</tr>
<tr>
<td>Foot exams</td>
<td>15%</td>
<td>56%</td>
</tr>
<tr>
<td>Collaborative self-management goal</td>
<td>0%</td>
<td>46%</td>
</tr>
</tbody>
</table>

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## Sample results: Premier Health Partners

<table>
<thead>
<tr>
<th>Measure</th>
<th>Initial rate</th>
<th>Improved rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>HbA1c &lt; 7%</td>
<td>42%</td>
<td>70%</td>
</tr>
<tr>
<td>At least 2 HbA1c/year</td>
<td>67%</td>
<td>90%</td>
</tr>
<tr>
<td>Foot exams</td>
<td>61%</td>
<td>78%</td>
</tr>
<tr>
<td>Annual urine protein</td>
<td>52%</td>
<td>78%</td>
</tr>
<tr>
<td>ACE inhibitors with positive urine protein</td>
<td>38%</td>
<td>80%</td>
</tr>
</tbody>
</table>

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### Sample results: High Plains Community Center

<table>
<thead>
<tr>
<th>Measure</th>
<th>Initial rate</th>
<th>Improved rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>BP &lt; 140/90</td>
<td>35%</td>
<td>62%</td>
</tr>
<tr>
<td>At least 2 BP checks/year</td>
<td>47%</td>
<td>87%</td>
</tr>
<tr>
<td>Documented self-management goal</td>
<td>34%</td>
<td>59%</td>
</tr>
<tr>
<td>Hyperlipidemia screening</td>
<td>70%</td>
<td>82%</td>
</tr>
</tbody>
</table>

Improved rate = results after 7 months

- Number of patients managed at the primary care level increased by 7.6 times
- BP stabilization achieved in 69.4% of patients
- Hypertension related hospitalizations decreased by 85%
- Hypertensive crises decreased by 60%

University Research Corporation, USA
Hospitalization due to AH

Intervention Started, Jan-99

% 9,0
8,0
7,0
6,0
5,0
4,0
3,0
2,0
1,0
0,0

Jan-98 Mar-98 May-98 Jul-98 Sep-98 Nov-98 Jan-99 Mar-99 May-99 Jul-99 Sep-99 Nov-99 Jan-00 Mar-00 May-00 Jul-00 Sep-00 Nov-00 Jan-01 Mar-01 May-01 Jul-01 Sep-01 Nov-01

University Research Corporation, USA

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Organization of Tula intentional spread (2000 - 2002)

University Research Corporation, USA
Summary

- The disease burden has changed towards chronic conditions world wide. The health system hasn’t.

- Effective prevention and management of chronic conditions requires an evolution of health care, away from a model that is focused on acute symptoms towards a coordinated, proactive system of care.

- Evidence shows that integrated approaches result in improved efficiency and better outcomes.
For more info: Observatory on Health Care for Chronic Conditions

A forum for both **content** and **process**

<table>
<thead>
<tr>
<th>WHO Sites</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observatory Home</td>
<td>This section presents some examples from the literature on innovative programs for chronic conditions.</td>
</tr>
<tr>
<td>The Failure of Health Care</td>
<td>More information</td>
</tr>
<tr>
<td>Tools for Better Management</td>
<td>Best Practices Database</td>
</tr>
<tr>
<td>Strengthening Preventive Services</td>
<td>The best practices database provides examples of care for chronic conditions that have demonstrated positive outcomes in different parts of the world.</td>
</tr>
<tr>
<td>Resources</td>
<td>More information</td>
</tr>
<tr>
<td>Contact us</td>
<td>The Network of Innovators</td>
</tr>
</tbody>
</table>

The Observatory on Health Care for Chronic Conditions provides information and resources to people around the world who aim to improve health care for chronic conditions. It is a dynamic, web-based resource centre that offers hands-on information for policy-makers, health managers and administrators on innovative approaches to organizing care for chronic conditions.

The Observatory is characterized by providing content, sharing experiences, building networks and connecting people to facilitate the spread of innovative ideas worldwide.

**About us**

Within the World Health Organization and the Noncommunicable Diseases and Mental Health Cluster, the Management of Noncommunicable Diseases Department has identified as a major priority the development of information, methods and tools to help improve health care for chronic conditions. This is reflected in the following areas of work:

**Innovative Care for Chronic Conditions**

**Adherence to Long-term Therapies**

http://www.who.int/chronic_conditions/en/
“Trying harder will not work. Changing systems of care will.”

Crossing the Quality Chasm, Institute of Medicine, 2001