Connectivity in Health Systems: An Imperative for Quality and Cost-effectiveness

Prof Yeoh Eng Kiong

4 March 2011
Context

• Health system

THE WHO HEALTH SYSTEMS FRAMEWORK

System building blocks

- Service delivery
- Health workforce
- Information
- Medical products, technologies
- Health financing
- Leadership / governance*

Goals/outcomes

Access Coverage

- Improved health (level and equity)
- Responsiveness

Quality Safety

- Financial risk protection
- Improved efficiency

* Also know as Stewardship

World Health Organization Western Pacific Region. Senior Steering Group Meeting on Regional Strategy on Health Systems Strengthening and Primary Health Care 2010
Challenges of Health System

- Social and economic environment
- Longevity and ageing population
- Increased burden of chronic diseases
- Changing health needs
- Technological advances and transformation
- Complexity of healthcare system
- Diversity of healthcare professions
- Fragmentation of healthcare delivery
- Healthcare cost
Coordination:
1. Event of an illness
2. Entire course of an illness
3. Multiple episodes of illness
4. Course of a disease
5. Course of chronic disease
6. Course of multiple chronic disease
7. Course of intercurrent illness and chronic disease
8. Illness and disease over a lifetime
Fragmentation of Care (2)

Coordination:
1. Primary, secondary, tertiary & quaternary care
2. Clinical specialists
3. Clinical supporting services
4. Acute and rehabilitative/palliative care
5. Different providers
6. Public & private
7. Geographical location
8. Hospital and community
9. Western and traditional Chinese medicine
10. Health and social care
11. Professional and self care
Definition of Continuity of Care

No consistency in definition:
• Continuum of care
• Coordination of care
• Discharge planning
• Case management
• Integration of services
• Seamless care

Continuity of care in different healthcare domains:

• Primary Care
• Mental Health
• Nursing
• Disease Management
• Relationship between a practitioner and a patient that extends beyond specific episodes of illness / disease.

• The affiliation is referred to as longitudinality, relational or personal continuity.

• Improves communication, trust and sense of responsibility

Mental Health

- Relationship between a team and a patient
- Care is coordinated through a common purpose and plan.
- Social services including housing and employment are involved.
- Access of services is one of the dimensions of continuity.

Nursing

• Information transfer and coordination of care over time between nurses

• To maintain a consistent approach to care and to personalize care to the patient’s changing needs during an illness.

• Usually refers to:
  - discharge planning after acute care
  - from hospital to community, and
  - patient self care

Disease Management

• Managing long term diseases such as, diabetes, CVD rheumatological conditions and cancer

• Delivery of services by different providers in a coherent, logical and timely fashion

Two core elements of continuity:
1. Care of an individual patient
2. Care delivered over time

Four types of continuity

1. Informational continuity
2. Management continuity
3. Relational continuity
4. Contact continuity

Informational Continuity

- The use of information on past events and personal circumstances to make current care appropriate for each individual.

- Information can be disease or person focused, such as documented medical conditions, patients’ preferences, values and context for bridging separate care events and ensuring services are responsive to needs.
Management Continuity

• A consistent and coherent approach to the management of a health condition that is responsive to patients’ changing needs.

• Important in chronic or complex clinical disease management

• Delivery of services in a complementary and timely manner with shared management plans and care protocols
Relational Continuity

- An ongoing therapeutics relationship between patients, care givers and one or more providers.
- Provides bridges of past, current and future care.
- Most valued in primary and mental health care.
Contact Continuity

• Sustaining long-term connected care in a coherent, interdisciplinary way to accommodate patients’ needs.

• Regular contact is needed for building a strong personal relationship, adapting management goals and monitoring patients’ problems.
Continuity of Care:

‘the process by which the patient and the physician are cooperatively involved in ongoing health care management toward the goal of high quality, cost-effective medical care.’

(The American Academy of Family Physicians)

• Connectivity of different organizations / services is a major element in Continuity of Care

• A multifactoral concept affected by environment influences, communication, patient, professional and system factors.

What is **connectivity**?

The ability of a programme, system or device to connect with one or more others.

Ref: Cambridge Online Dictionary
Aims
To enhance quality of care, improve performance of health systems, achieve cost-effectiveness
Different Types of Connectivity

• Internet / database
• Communication
• Social network
• Conservation
Conservation Connectivity
1. Structural
2. Functional
3. Ecological
4. Genetic
Healthcare Delivery Connectivity

1. Structure
2. Health needs
3. Health outcomes
4. Sustainable health
Factors affecting Continuity

<table>
<thead>
<tr>
<th>Communication</th>
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<tbody>
<tr>
<td>Between organizations</td>
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<tr>
<td>- Between providers and family / patients</td>
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<td>- Between providers with same organization</td>
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<table>
<thead>
<tr>
<th>System issues</th>
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<tr>
<td>- Coordination / network process</td>
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<tr>
<td>- Organization commitment</td>
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<td>- Financial / length of patient stay</td>
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<td>- Staff support or availability</td>
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<td>- Professional role</td>
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<td>- Consistent personnel</td>
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<tr>
<td>- Lack of incorrect resources or knowledge</td>
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<td>- Patient needs or assessment</td>
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Ref: Sparbel KJH & Anderson MA. Integrated Literature Review of Continuity of Care: Part 1, Conceptual Issues
A validated strategy to measure continuity of care

Conceptual Framework for Measures of Continuity:

- Provider
- Measuring levels
- Choice of perspective
- Time period

Providers:

• Individual providers (provider continuity)

• Providers linked by a referral (referral continuity)

• Providers practicing as a group (site continuity)

Different measuring levels:

• **Visit-based**: assigning a continuity value to each visit

• **Individual-based**: Experience of care of each individual

• **Population-based**: the level of highest policy relevance

Choice of perspective:

- **Institutional:** studies a population defined in relation to a health care facility

- **Geographical:** a well-defined area where the individuals live or visits made by these individuals

Time period:

- Measurement period (mp) (an episode of care)
- Continuity-determining period (cdp)

- the part of a patient’s history of care taken into consideration when determining the continuity value of a visit

Strategies for Integrated Healthcare:

• Coordination
• Continuity
• Connectivity
Thank You!