Value-Based Health Care Delivery

Professor Michael E. Porter
Harvard Business School

Introduction to Social Medicine
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This presentation draws on Michael E. Porter and Elizabeth Olmsted Teisberg: Redefining Health Care: Creating Value-Based Competition on Results, Harvard Business School Press, May 2006, and "How Physicians Can Change the Future of Health Care," Journal of the American Medical Association, 2007; 297:1103:1111. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means — electronic, mechanical, photocopying, recording, or otherwise — without the permission of Michael E. Porter and Elizabeth Olmsted Teisberg. Further information about these ideas, as well as case studies, can be found on the website of the Institute for Strategy & Competitiveness at http://www.isc.hbs.edu.
Redefining Health Care Delivery

• Universal coverage and access to care are essential, but not enough
• The core issue in health care is the value of health care delivered

Value: Patient health outcomes per dollar spent

• How to design a health care system that dramatically improves patient value
  – Ownership of entities is secondary (e.g. non-profit vs. for profit vs. government)
• How to construct a dynamic system that keeps rapidly improving
Creating a Value-Based Health Care System

• Significant improvement in value will require **fundamental restructuring of health care delivery**, not incremental improvements

> Today, 21\textsuperscript{st} century medical technology is often delivered with 19\textsuperscript{th} century organization structures, management practices, and pricing models

- Process improvements, lean production concepts, safety initiatives, care pathways, disease management and other **overlays** to the current structure are beneficial but not sufficient

- Consumers **cannot fix the dysfunctional structure** of the current system
Harnessing Competition on Value

- **Competition for patients/subscribers** is a powerful force to encourage restructuring of care and continuous improvement in value.

- Today’s competition in health care **is not aligned with value**

  Financial success of system participants $\neq$ Patient success

- Creating positive-sum **competition on value** is a central challenge in health care reform in every country.
Principles of Value-Based Health Care Delivery

1. Set the goal as **value for patients**, not access, equity, volume, convenience, or cost containment

\[
\text{Value} = \frac{\text{Health outcomes}}{\text{Costs of delivering the outcomes}}
\]

- Outcomes are the **full set of patient health outcomes** over the care cycle
- Costs are the **total costs of the care for the patient’s condition**, not just the costs borne by a single provider or costs for a portion of care
Principles of Value-Based Health Care Delivery

1. Set the goal as **value for patients**, not containing costs
2. **Quality improvement** is the key driver of cost containment and value improvement, where quality is **health outcomes**

| Prevention | Fewer complications |
| Early detection | Fewer mistakes and repeats in treatment |
| Right diagnosis | Faster recovery |
| Early and timely treatment | More complete recovery |
| Treatment earlier in the causal chain of disease | Less disability |
| Right treatment to the right patient | Fewer relapses or acute episodes |
| Rapid cycle time of diagnosis and care | Slower disease progression |
| Less invasive treatment methods | Less need for long term care |
| | Less care induced illness |

- **Better health** is the goal, not more treatment
- Better health is **inherently less expensive** than poor health
Cost versus Quality Sweden
Health Care Spending by County 2008

Health care cost/capita (SEK)

County council health care index

Note: Cost including: primary care, specialized somatic care, specialized psychiatry care, other medical care, political health- and medical care activities, other subsidies (e.g. drugs)
Source: Öpnna jämställd, Socialstyrelsen 2008; Sjukvårdsdata i fokus 2008; BCG analysis
Principles of Value-Based Health Care Delivery

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2. **Quality improvement** is the key driver of cost containment and value improvement, where quality is **health outcomes**

3. Care delivery should be organized around the patient’s **medical condition** over the **full cycle of care**

• A medical condition is an **interrelated set of patient medical circumstances** best addressed in an **integrated way**
  – Defined from the **patient’s** perspective
  – **Including** the most common co-occurring conditions and complications
  – Involving **multiple** specialties and services

• The patient’s medical condition is the **unit of value creation** in health care delivery
Restructuring Care Delivery  
Migraine Care in Germany

Existing Model:  
Organize by Specialty and Discrete Services

New Model:  
Organize into Integrated Practice Units (IPUs)

### Integrating Across the Cycle of Care

**Breast Cancer**

#### INFORMING 
AND ENGAGING
- Advice on self screening
- Consultations on risk factors
- Counseling patient and family on the diagnostic process and the diagnosis
- Explaining patient treatment options/shared decision making
- Patient and family psychological counseling
- Counseling on the treatment process
- Education on managing side effects and avoiding complications of treatment
- Achieving compliance
- Counseling on rehabilitation options, process
- Achieving Compliance
- Counseling on long term risk management
- Achieving Compliance

#### MEASURING
- Self exams
- Mammograms
- Mammograms
- Ultrasound
- MRI
- Labs (CBC, Blood chems, etc.)
- Biopsy
- BRACA 1, 2
- CT
- Bone Scans
- Labs
- Procedure-specific measurements
- Range of movement
- Side effects measurement
- MRI, CT
- Recurring mammograms (every six months for the first 3 years)

#### ACCESSING
- Office visits
- Mammography lab visits
- Office visits
- Hospital stays
- Office visits
- Office visits
- Lab visits
- High risk clinic visits
- Visits to outpatient radiation or chemotherapy units
- Pharmacy
- Rehabilitation visits
- Pharmacy
- Lab visits
- Mammographic labs and imaging center visits

#### MONITORING/ 
PREVENTING
- Medical history
- Control of risk factors (obesity, high fat diet)
- Genetic screening
- Clinical exams
- Monitoring for lumps
- Medical history
- Determining the specific nature of the disease (mammograms, pathology, biopsy results)
- Genetic evaluation
- Labs
- Choosing a treatment plan
- Surgery prep (anesthetic risk assessment, EKG)
- Plastic or oncoplastic surgery evaluation
- Neo-adjuvant chemotherapy
- Surgery (breast preservation or mastectomy, oncoplastic alternative)
- Adjuvant therapies (hormonal medication, radiation, and/or chemotherapy)

#### DIAGNOSING

#### PREPARING

#### INTERVENING
- In-hospital and outpatient wound healing
- Treatment of side effects (e.g. skin damage, cardiac complications, nausea, lymphodema and chronic fatigue)
- In-hospital and outpatient wound healing
- Treatment of side effects (e.g. skin damage, cardiac complications, nausea, lymphodema and chronic fatigue)
- Periodic mammography
- Other imaging
- Follow-up clinical exams
- Treatment for any continued or later onset side effects or complications
- Physical therapy

#### RECOVERING/ 
REHABING

#### MONITORING/ MANAGING

- Physical therapy

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**Note:** The table and diagram illustrate various medical procedures and services involved in the care of breast cancer patients, from initial diagnosis to recovery and rehabilitation, highlighting the interdisciplinary approach to managing the disease.
What is Integrated Care?

Key Elements of Integrated Care:

- Care for the full care cycle of a **medical condition**
- Encompassing **inpatient/outpatient/rehabilitation** care
- By **dedicated teams** focused around the patient
- **Co-located** in **dedicated facilities**
- In which providers are all part of the **same organizational entity**
- Utilizing a **single administrative and scheduling structure**
- With **joint accountability** for outcomes and overall costs

**Integrated care is not the same as:**

- Co-location
- Care delivered by the same organization
- A multispecialty group practice
- Clinical Pathways
- Freestanding focused factories
- An Institute or Center
- A Center of Excellence
- A health plan/provider system (e.g. Kaiser Permanente)
- Medical home
- Accountable Care Organization
IPUs and Value

Outcomes

- **Better decisions** in terms of diagnosis and treatment
  - Specialized experience and expertise
  - Better coordination/peer review
  - Better integration of co-occurrences
- **Better execution** of treatment
  - Specialized experience and expertise
  - Tailored facilities
  - Seamless management of common co-occurrences
- **Faster** cycle time
- Improved **patient compliance and engagement** with care
- Full range of **support services** needed to achieve success for the patient (e.g., nutrition, rehabilitation, counseling, psychological support)
- Vastly greater patient **convenience**

Cost

- Greater provider efficiency
- Better utilization of facilities
- Streamlined administrative costs

Outcomes Cost

- Greater provider efficiency
- Better utilization of facilities
- Streamlined administrative costs

Outcomes Cost

- Greater provider efficiency
- Better utilization of facilities
- Streamlined administrative costs
Integrated Models of Primary Care

• Today’s primary care is **fragmented** and attempts to address **overly broad** needs with limited resources

• Redefine primary care as prevention, screening, diagnosis, wellness and health maintenance **service bundles**

• Design primary care services around **specific patient populations** (e.g. healthy adults, frail elderly, type II diabetics) rather than attempt to be all things to all patients

• Provide primary care service bundles using **multidisciplinary teams, support staff, and dedicated facilities**

• Deliver primary care at the **workplace, community organizations, and other settings** that offer regular patient contact and the ability to develop a group culture of wellness

• Create **formal partnerships** between primary care organizations and specialty IPUs
Coordinating Care Across IPUs
Patients with Multiple Medical Conditions

- The primary organizational structure for care delivery should be around the forms of integration required for **every patient**
  - The current system is organized around the **exception**, not the rule
- **Overlay mechanisms** are then utilized to manage coordination across IPUSs
- The IPU model will **greatly simplify** coordination of care for patients with multiple medical conditions
Principles of Value-Based Health Care Delivery

4. Provider **experience, scale, and learning** at the medical condition level drive value improvement.

- Volume and experience will have an **even greater impact** on value in an IPU structure.
- The virtuous circle **extends across geography in integrated care organizations**.
### Fragmentation of Hospital Services

**Sweden**

<table>
<thead>
<tr>
<th>DRG</th>
<th>Number of admitting providers</th>
<th>Average percent of total national admissions</th>
<th>Average admissions/provider/year</th>
<th>Average admissions/provider/week</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knee Procedure</td>
<td>68</td>
<td>1.5%</td>
<td>55</td>
<td>1</td>
</tr>
<tr>
<td>Diabetes age &gt; 35</td>
<td>80</td>
<td>1.3%</td>
<td>96</td>
<td>2</td>
</tr>
<tr>
<td>Kidney failure</td>
<td>80</td>
<td>1.3%</td>
<td>97</td>
<td>1</td>
</tr>
<tr>
<td>Multiple sclerosis and cerebellar ataxia</td>
<td>78</td>
<td>1.3%</td>
<td>28</td>
<td>1</td>
</tr>
<tr>
<td>Inflammatory bowel disease</td>
<td>73</td>
<td>1.4%</td>
<td>66</td>
<td>1</td>
</tr>
<tr>
<td>Implantation of cardiac pacemaker</td>
<td>51</td>
<td>2.0%</td>
<td>124</td>
<td>2</td>
</tr>
<tr>
<td>Splenectomy age &gt; 17</td>
<td>37</td>
<td>2.6%</td>
<td>3</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Cleft lip &amp; palate repair</td>
<td>7</td>
<td>14.2%</td>
<td>83</td>
<td>2</td>
</tr>
<tr>
<td>Heart transplant</td>
<td>6</td>
<td>16.6%</td>
<td>12</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

Principles of Value-Based Health Care Delivery

5. **Integrate care across facilities** and **geography**, rather than duplicating services in stand-alone units

- Deliver services in the **appropriate** facility, not every facility
- Excellent providers can manage care delivery across **multiple geographic areas**

Children’s Hospital of Philadelphia (CHOP) Affiliations

- Grand View Hospital, PA
  - Pediatric Inpatient Care
- Abington Memorial Hospital, PA
  - Pediatric Inpatient Care
- Chester County Hospital, PA
  - Pediatric Inpatient Care
- CHILDREN’S HOSPITAL OF PHILADELPHIA
- Shore Memorial Hospital, NJ
  - Pediatric Inpatient Care
Principles of Value-Based Health Care Delivery

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2. **Quality improvement** is the key driver of cost containment and value improvement, where quality is **health outcomes**
3. Care delivery should be organized around the patient’s **medical condition** over the **full cycle of care**
4. Provider **experience, scale, and learning** at the medical condition level drive value improvement
5. **Integrate care across facilities** and **geography**, rather than duplicating services in stand-alone units
6. Measure and report **outcomes** and **costs** for every provider, every medical condition, and every patient
Measuring Value in Health Care

Patient Initial Conditions → Processes → Indicators → (Health) Outcomes

Patient Compliance

Protocols/Guidelines

- E.g., Hemoglobin A1c levels for diabetics
Principles of Value-Based Health Care Delivery

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6. Measure and report **outcomes** and **costs** for every provider, every medical condition, and every patient

   - Results must be measured at **the level at which value is created** not traditional organizational units

   - Outcomes should be measured for **each medical condition** over the **cycle of care**
     - Not for interventions or short episodes
     - Not separately for types of service (e.g. inpatient, outpatient, tests, rehabilitation)
     - Not for practices, departments, clinics, or entire hospitals
The Outcome Measures Hierarchy

Tier 1
Health Status Achieved
- Survival
- Degree of health/recovery

Tier 2
Process of Recovery
- Time to recovery or return to normal activities
- Disutility of care or treatment process (e.g., discomfort, complications, adverse effects, errors, and their consequences)

Tier 3
Sustainability of Health
- Sustainability of health or recovery and nature of recurrences
- Long-term consequences of therapy (e.g., care-induced illnesses)
The Outcome Measures Hierarchy

Breast Cancer

- **Survival**
  - Survival rate
    - (One year, three year, five year, longer)

- **Degree of recovery / health**
  - Degree of remission
  - Functional status
  - Breast conservation outcome

- **Time to recovery or return to normal activities**
  - Time to remission
  - Time to achieve functional status

- **Disutility of care or treatment process** (e.g., treatment-related discomfort, complications, adverse effects, diagnostic errors, treatment errors)
  - Nosocomial infection
  - Nausea
  - Vomiting
  - Febrile neutropenia
  - Limitation of motion
  - Suspension of therapy
  - Failed therapies
  - Depression

- **Sustainability of recovery or health over time**
  - Cancer recurrence
  - Sustainability of functional status

- **Long-term consequences of therapy** (e.g., care-induced illnesses)
  - Incidence of secondary cancers
  - Brachial plexopathy
  - Fertility/pregnancy complications
  - Premature osteoporosis
MD Anderson Oral Cavity Cancer Survival by Registration Year

**Stage: Local**

- 2000-2006
- 1990-1999
- 1980-1989
- 1970-1979
- 1960-1969
- 1950-1959

**Stage: Regional**

- 2000-2006
- 1990-1999
- 1980-1989
- 1970-1979
- 1960-1969
- 1950-1959

Source: MD Anderson Cancer Center
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5. **Integrate care across facilities** and **geography**, rather than duplicating services in stand-alone units
6. Measure and report **outcomes** and **costs** for every provider, every medical condition, and every patient
7. **Align reimbursement** with value and reward innovation
   - **Bundled reimbursement** for cycles of care for medical conditions, not payment for discrete services or short episodes
   - Time-base bundled reimbursement for **managing chronic conditions**
   - Reimbursement for defined **prevention, screening, wellness/health maintenance** service bundles

- **Providers** and **health plans** should be proactive in driving new reimbursement models, not wait for government
Value-Based Reimbursement

- Bundled reimbursement for care cycles motivates **value improvement, care cycle optimization**, and **spending to save**
- **Outcome measurement and reporting** at the medical condition level is needed for any reimbursement system to ultimately succeed
Principles of Value-Based Health Care Delivery

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7. **Align reimbursement** with value and reward innovation
8. Utilize information technology to enable **restructuring of care delivery** and **measuring results**, rather than treating it as a solution itself

- Common data definitions
- “Structured” data vs. free text
- Data encompasses the full care cycle, including referring entities
- Interoperability standards enabling communication among systems
- Structure for combining all types of data (e.g. notes, images) for each patient over time
- Templates for medical conditions to enhance the user interface
- Accessible by, and allowing communication among, all involved parties, including patients
- Architecture that allows easy extraction of outcome measures
Value-Based Health Care Delivery
The Strategic Agenda for Providers

1. Integrated Practice Units
   • Including primary care

2. Outcomes and Cost Measurement

3. New Reimbursement Models
   • Engage health plans but also seek direct relationships with employers/employer groups

4. Provider System Integration
   • **Rationalize service lines/IPUs** across facilities to improve volume, avoid duplication, and enable excellence
   • Offer specific services at the **appropriate facility**
     - e.g. acuity level, cost level, benefits of convenience
   • Clinically integrate care **across facilities** within an IPU structure
     - The **care delivery organization should span facilities**
   • Formally link **primary care** units to specialty IPUs

5. Growth Across Geography

6. Enabling Information Technology Platform
Value-Based Healthcare Delivery:
Implications for Health Plans

“Payor”

Value-Added Health Organization
Implications for Government

Shift insurance market competition to value and enable universal coverage:

- Shift insurance market competition by ending discrimination based on pre-existing conditions and re-pricing upon illness
- Build upon the current employer based system
- Create a viable insurance option for individuals and small groups through large statewide and multistate insurance pools, coupled with a reinsurance system for high cost individuals
- Establish income-based subsidies on a sliding scale for lower income individuals
- Once viable insurance options are established, mandate the purchase of health insurance for all Americans
- Give employers a choice of providing insurance or a payroll tax based on the proportion of employees requiring public assistance
Implications for Government (Continued)

Restructure Delivery

- Establish universal and mandatory measurement and reporting of provider health outcomes
  - Experience reporting as an interim step
- Shift reimbursement systems to bundled payment for cycles of care instead of payments for discrete treatments or services
- Encourage restructuring of health care delivery around the integrated care for medical conditions
  - Eliminate obstacles such as Stark Laws, Corporate Practice of Medicine
  - Minimum volume standards as an interim step
- Create new integrated prevention, wellness, screening and health maintenance service bundles for defined patient groups
- Mandate EMR adoption that enables integrated care and supports outcome measurement
  - Software as a service model for smaller providers
  - National standards for data, communication, and aggregation
- Encourage responsibility of individuals for their health and health care
- Open up value-based competition for patients within and across state boundaries
### The Developed World and Resource-Poor Settings Suffer from Similar Delivery Problems

<table>
<thead>
<tr>
<th>Current Model</th>
<th>New Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The product is <strong>treatment</strong></td>
<td>• The product is <strong>health</strong></td>
</tr>
<tr>
<td>• Measure <strong>volume</strong> of services (# tests, treatments)</td>
<td>• Measure <strong>value</strong> of services (health outcomes per unit of cost)</td>
</tr>
<tr>
<td>• Focus on overall facilities, <strong>specialties</strong> or <strong>types</strong> of practitioners</td>
<td>• <strong>Coordinated</strong> and <strong>integrated</strong> care delivery</td>
</tr>
<tr>
<td>• Discrete <strong>interventions</strong></td>
<td>• <strong>Care cycles</strong></td>
</tr>
<tr>
<td>• <strong>Individual</strong> diseases or overall facilities</td>
<td>• Sets of prevalent <strong>co-occurrences</strong></td>
</tr>
<tr>
<td>• <strong>Fragmented, localized, pilots, programs and entities</strong></td>
<td>• <strong>Integrated</strong> care delivery systems</td>
</tr>
</tbody>
</table>
Relationships Between Various Stakeholders in Tanzania
A Framework for Global Health Delivery

I. Care Delivery Value Chains for Medical Conditions

II. Shared Delivery Infrastructure

III. Aligning Delivery with External Context

IV. Leveraging the Health Care System for Economic and Social Development

Supporting Public Policies
## The Care Delivery Value Chain
### HIV/AIDS

<table>
<thead>
<tr>
<th>INFORMING/ENGAGING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention counseling on modes of transmission and condom use</td>
</tr>
<tr>
<td>Explanation of diagnosis and the implications</td>
</tr>
<tr>
<td>Explaining the course of HIV and the prognosis</td>
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</tbody>
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<table>
<thead>
<tr>
<th>MEASURING</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV testing</td>
</tr>
<tr>
<td>Screen for sexually transmitted infections</td>
</tr>
<tr>
<td>Collect baseline demographics</td>
</tr>
<tr>
<td>HIV testing for others at risk</td>
</tr>
<tr>
<td>Clinical examination CD4+ count and other labs</td>
</tr>
<tr>
<td>Testing for common comorbidities such as tuberculosis and sexually transmitted diseases</td>
</tr>
<tr>
<td>Pregnancy testing</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>ACCESSING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing centers</td>
</tr>
<tr>
<td>High risk settings</td>
</tr>
<tr>
<td>Primary Care Clinics</td>
</tr>
<tr>
<td>Primary Care Clinics</td>
</tr>
<tr>
<td>On-site laboratories at Primary Care Clinics</td>
</tr>
<tr>
<td>Testing Centers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCREENING/PREVENTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connecting patients with primary care system</td>
</tr>
<tr>
<td>Identifying high risk individuals</td>
</tr>
<tr>
<td>Testing at-risk individuals</td>
</tr>
<tr>
<td>Promoting appropriate risk reduction strategies</td>
</tr>
<tr>
<td>Modifying behavioral risk factors</td>
</tr>
<tr>
<td>Creating a medical record</td>
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</table>

<table>
<thead>
<tr>
<th>DIAGNOSING/STAGING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal diagnosis and staging</td>
</tr>
<tr>
<td>Determine method of transmission and others at potential risk</td>
</tr>
<tr>
<td>Identify others at risk</td>
</tr>
<tr>
<td>Screen for TB, syphilis, and other sexually transmitted diseases</td>
</tr>
<tr>
<td>Pregnancy testing and contraceptive counseling</td>
</tr>
<tr>
<td>Create management plan, including scheduling of follow-up visits</td>
</tr>
<tr>
<td>Formulate a treatment plan</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DELAYING PROGRESSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiate therapies that can delay onset, including vitamins and food</td>
</tr>
<tr>
<td>Treat co-morbidities that affect progression of disease, especially tuberculosis</td>
</tr>
<tr>
<td>Improve patient awareness of disease progression, prognosis, and transmission</td>
</tr>
<tr>
<td>Connect patient to care team, including community health work</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INITIATING ANTIRETROVIRAL THERAPY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiate comprehensive antiretroviral therapy and assess medication readiness</td>
</tr>
<tr>
<td>Prepare patient for disease progression and side-effects of associated treatment</td>
</tr>
<tr>
<td>Manage secondary infections and associated illnesses</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ONGOING DISEASE MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing effects of associated illnesses</td>
</tr>
<tr>
<td>Managing side-effects of treatment</td>
</tr>
<tr>
<td>Determine supporting nutritional modifications</td>
</tr>
<tr>
<td>Preparing patient for end-of-life management</td>
</tr>
<tr>
<td>Primary care and health maintenance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MANAGEMENT OF CLINICAL DETERIORATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifying clinical and laboratory deterioration</td>
</tr>
<tr>
<td>Initiating second-line, third-line drug therapies</td>
</tr>
<tr>
<td>Managing acute illness and opportunistic infection either through aggressive outpatient management or hospitalization</td>
</tr>
<tr>
<td>Provide additional community/social support if needed</td>
</tr>
<tr>
<td>Access to Hospice Care</td>
</tr>
</tbody>
</table>
Care Delivery Value Chain
Implications for HIV/AIDS Care

- **Early diagnosis** helps in forestalling disease progression

- **Intensive evaluation and treatment at the time of the diagnosis** can forestall disease progression

- **Improving compliance with first stage drug therapy** lowers drug resistance and the need to move to more costly second line therapies
Shared Delivery Infrastructure

Health Clinics ↔ Community Health Workers ↔ District Hospitals

- Testing Laboratories
- Tertiary Hospitals

Cross Cutting Issues
- Supply Chain Management
- Human Resource Development
- Insurance and Financing
Integrating “Vertical” and “Horizontal”

Care Delivery Value Chains

- HIV/AIDS
- Malaria
- Perinatal
- Tuberculosis

Shared Delivery Infrastructure

- Health Clinics
- Community Health Workers
- District Hospitals
- Testing Laboratories
- Tertiary Hospitals
Shared Delivery Infrastructure
Implications for HIV/AIDS Care

• Screening is most effective when integrated into a primary health care system

• Providing maternal and child health care services is integral to the HIV/AIDS care cycle by substantially reducing the incidence of new cases of HIV

• Community health workers not only improve compliance with ARV therapy but can simultaneously address other conditions
Integrating Delivery and Context

External Context for Health

Integrated Care Delivery

- Water & Sanitation
- Access to Care Facilities
- Health Awareness
- Family/Community Attitudes and Support
- Nutrition

Broader Influences

- Jobs
- Housing
- Education
- Physical Infrastructure
- Transportation
- Political Stability
- Violence
- Communication Systems
- Environmental Factors

Access to Care Facilities

Environmental Factors

Health Awareness

Integrated Care Delivery

Nutrition

Family/Community Attitudes and Support

Water & Sanitation

Access to Care Facilities

Health Awareness

Integrated Care Delivery

Nutrition

Family/Community Attitudes and Support
Integrating Care Delivery and Social/Economic Context
Implications for HIV/AIDS Care

- Community health workers can have a major role in overcoming transportation and other barriers to access and compliance with care.
- Providing nutrition support can be important to success in ARV therapy.
- Integrating HIV screening and treatment into routine primary care facilities can help address the social stigma of seeking care for HIV/AIDS.
- Gender dynamics limit the use of prevention options in some settings.
- Management of social and economic barriers is critical to the treatment and prevention of HIV/AIDS.
The Relationship Between Health Systems and Economic Development

Better Health Enables Economic Development

- Enables people to work
- Raises productivity

Health System Development **Fosters** Economic Development

- Direct employment (health sector jobs)
- Local procurement
- Catalyst for infrastructure (e.g. cell towers, internet, and electrification)
A New Field in Global Health

- What is the patho-physiology?
- What is the diagnosis and appropriate intervention?
- Does the intervention work?

- How is the intervention best delivered?
- How can the overall delivery of care be integrated and optimized over the care cycle?
- What is the overall value of care (set of outcomes, costs)?