### Redefining Global Health Care Delivery

#### Narrowing the Gap Between Aspiration and Action

Michael E. Porter, PhD

Bishop Lawrence University Professor Harvard University

Jim Yong Kim, MD, PhD

Chairman, Division of Global Health Equity Harvard Medical School

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### **Unprecedented Opportunity**









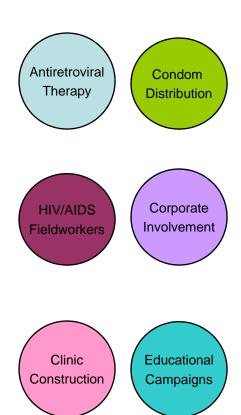


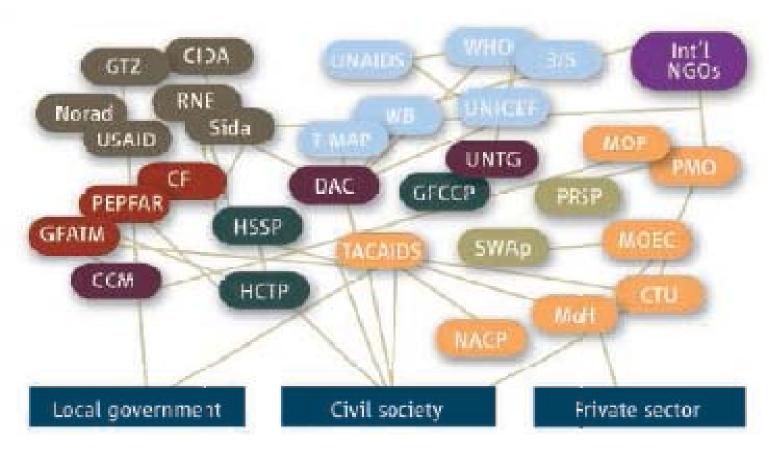
- Key leaders and institutions have recognized the gravity of global health problems
- Since 2001, over \$85B in new funding for development
- 28x HIV/AIDS spending increase from \$300M in 1996 to \$8.5B
- Dramatic decline in treatment costs
- A golden era of funding for global health programs

### Global Health "Strategy" to Date

- Countries and even districts working in isolation
- Project-based
  - Donor preference driven
  - Experimental pilots that never scale
- Competition among implementers
- Cottage industry approach
- Fragmentation of services
- Absence of results and measurement
- Resources often diverted for overhead and consultants

Clear need for a better approach





#### Relationships Between Various Stakeholders in Tanzania

United Nations Coordinating committees

Bilateral aid Plans and programs

Drug-delivery programs IMF/World Bank

Tanzanian government Nongovernmental organizations

### **Redefining Global Health Care**

- Access is 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 health care systems that dramatically improve value
- Improving value is the means to achieving social justice

### **Creating a Value-Based Health Care System**

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

Today, 21<sup>st</sup> century medical technology is delivered with 19<sup>th</sup> century organization structures, management practices, and pricing models

- TQM, process improvements, safety initiatives, pharmacy management, and disease management overlays are beneficial but not sufficient to substantially improve value
- Consumers cannot fix the dysfunctional structure of the current system

### **Creating a Value-Based Health Care System**

- Competition is a powerful force to encourage restructuring of care and continuous improvement in value
  - Competition for patients
  - Competition for health plan subscribers
- Today's competition in health care is not aligned with value

Financial success of system participants



Patient success



Creating competition on value is a central challenge in health care reform

### **Zero-Sum Competition in U.S. Health Care**

#### **Bad Competition**

- Competition to shift costs or capture more revenue
- Competition to increase bargaining power
- Competition to capture patients and restrict choice
- Competition to restrict services in order to maximize revenue per visit or reduce costs

# Zero or Negative Sum

#### **Good Competition**

 Competition to increase value for patients



 The goal must be value for patients, not maximizing revenue or lowering costs



 Improving value will require going beyond waste reduction and administrative savings

- 1. The goal must be value for patients, not lowering costs
  - The best way to contain costs is to improve quality

Quality = Health outcomes

- Prevention
- Early detection
- Right diagnosis
- Early and timely treatment
- Treatment earlier in the causal chain of disease
- Right treatment to the right patients
- Rapid care delivery process with fewer delays
- Fewer complications
- Fewer mistakes and repeats in treatment

- Less invasive treatment methods
- Faster recovery
- More complete recovery
- Less disability
- Fewer relapses or acute episodes
- Slower disease progression
- Less need for long term care

- Better health is inherently less expensive than poor health
- Better health is the goal, not more treatment

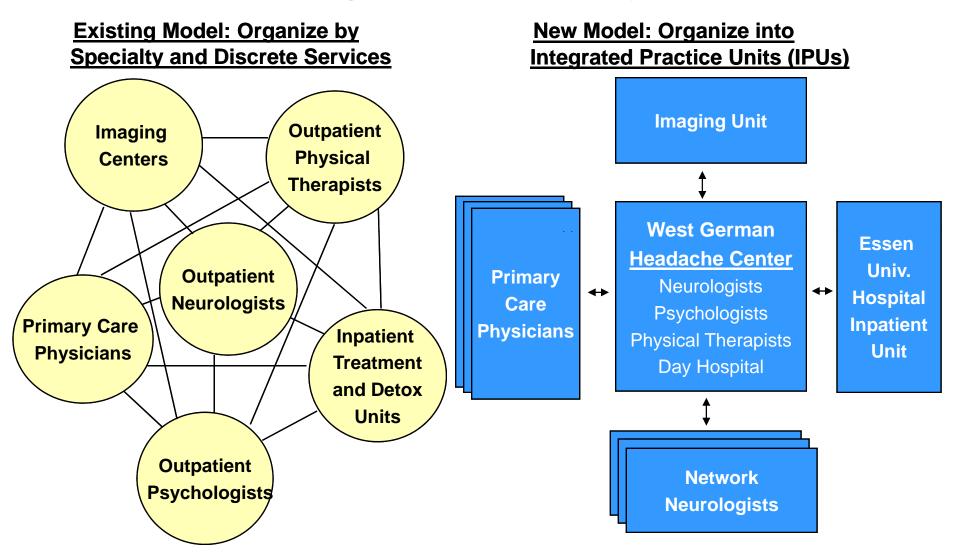
- 1. The goal must be value for patients, not lowering costs
  - Providers should compete for patients based on value
    - Instead of supply control, process compliance, or administrative oversight



- Get patients to excellent providers vs. "lift all boats"
- Expand the proportion of patients cared for by the most effective organizations
- Grow the excellent organizations by adding capacity and expanding across locations

- 1. The goal must be **value for patients**, not lowering costs
- 2. Health care delivery should be organized around **medical** conditions over the full cycle of care

### Restructuring Health Care Delivery <u>Migraine Care in Germany</u>



Source: Porter, Michael E., Clemens Guth, and Elisa Dannemiller, *The West German Headache Center: Integrated Migraine Care*, Harvard Business School Case 9-707-559, September 13, 2007

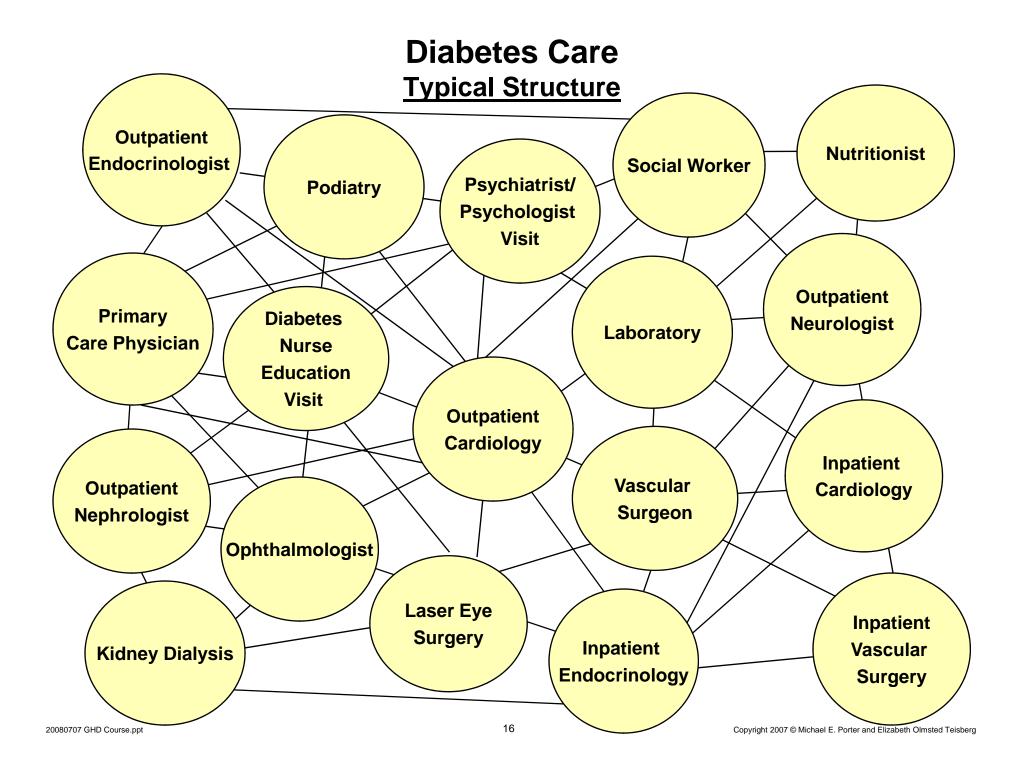
- 1. The goal must be value for patients, not lowering costs
- Health care delivery should be organized around medical conditions over the full cycle of care
  - A medical condition is an interrelated set of patient medical circumstances best addressed in an integrated way
    - Defined from the patient's perspective
    - Involving multiple specialties and services
  - Includes the most common co-occurring conditions
  - Examples
    - Diabetes (including vascular disease, retinal disease, hypertension, others)
    - Migraine
    - Breast Cancer
    - Stroke
    - Asthma
    - Congestive Heart Failure

### The Cycle of Care Care Delivery Value Chain for Breast Cancer

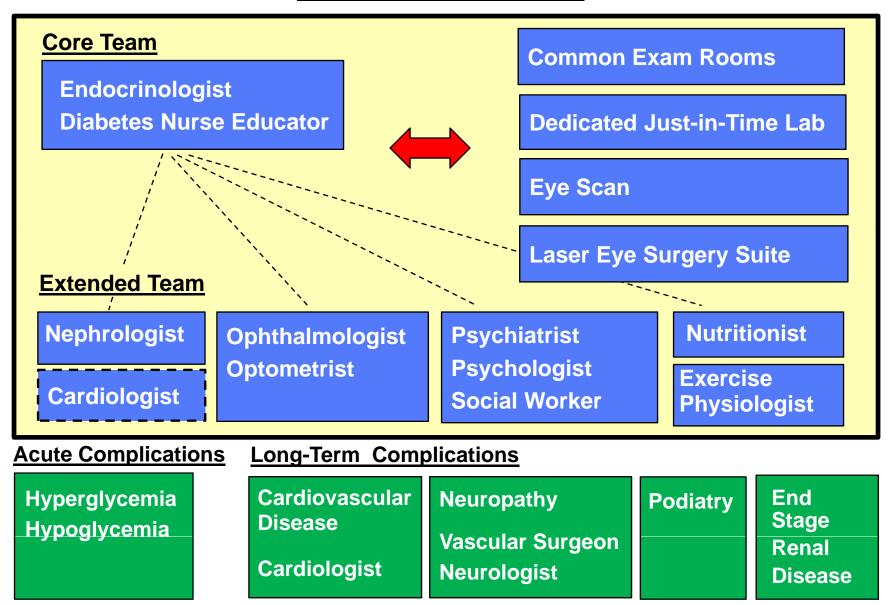
	<u> </u>	<u>o Donvor</u>	Talao o	<u> </u>	Ji odot Odin	<del></del>
INFORMING & ENGAGING	Advice on self screening     Consultation on risk factors	Counseling     patient and family     on the diagnostic     process and the     diagnosis	Explaining patient choices of treatment     Patient and family psychological counseling	the treatment process Achieving compliance	Counseling on rehabilitation options, process Achieving compliance Psychological counseling	Counseling on long term risk management Achieving compliance
MEASURING	Self exams     Mammograms	• Mammograms • Ultrasound • MRI • Biopsy • BRACA 1, 2		Procedure- specific measurements	Range of movement     Side effects measurement	• Recurring mammograms (every 6 months for the first 3 years)
	Office visits  Mammography lab visits	Lab visits     High-risk     clinic visits	Hospital visits	<ul> <li>Hospital stay</li> <li>Visits to outpatien or radiation chemotherapy units</li> </ul>	facility visits	the first 3 years)  Office visits  Lab visits  Mammographic labs and imaging center visits
	MONITORING/ PREVENTING	DIAGNOSING	PREPARING	INTERVENING	RECOVERING/ REHABING	MONITORING/ MANAGING
	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     Genetic evaluation     Choosing a treatment plan	Surgery prep (anesthetic risk assessment, EKG)      Plastic or oncoplastic surgery evaluation	Surgery (breast preservation or mastectomy, oncoplastic alternative)     Adjuvant therapies (hormonal medication, radiation, and/or chemotherapy)	• In-hospital and outpatient wound healing • Treatment of side effects (e.g. skin damage, cardiac complications, nausea, lymphodema and chronic fatigue) • Physical therapy	MONITORING/ MANAGING  • Periodic mammography • Other imaging • Follow-up clinical exams • Treatment for any continued side effects
						Breast Cancer Specialis

- Primary care providers are often the beginning and end of the care cycle
- The medical condition is the unit of value creation in health care delivery

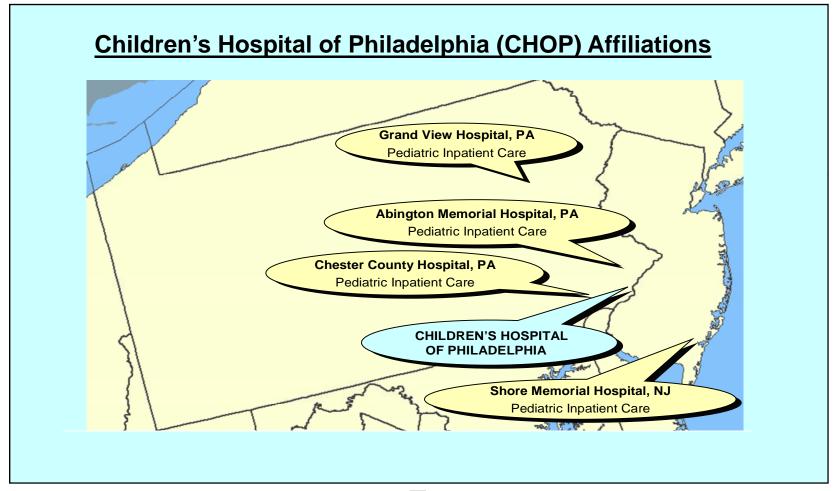
☐ Breast Cancer Specialist☐ Other Provider Entities



### Integrated Diabetes Care <u>Joslin Diabetes Center</u>



Health care delivery should be integrated across facilities and regions, rather than take place in stand-alone units





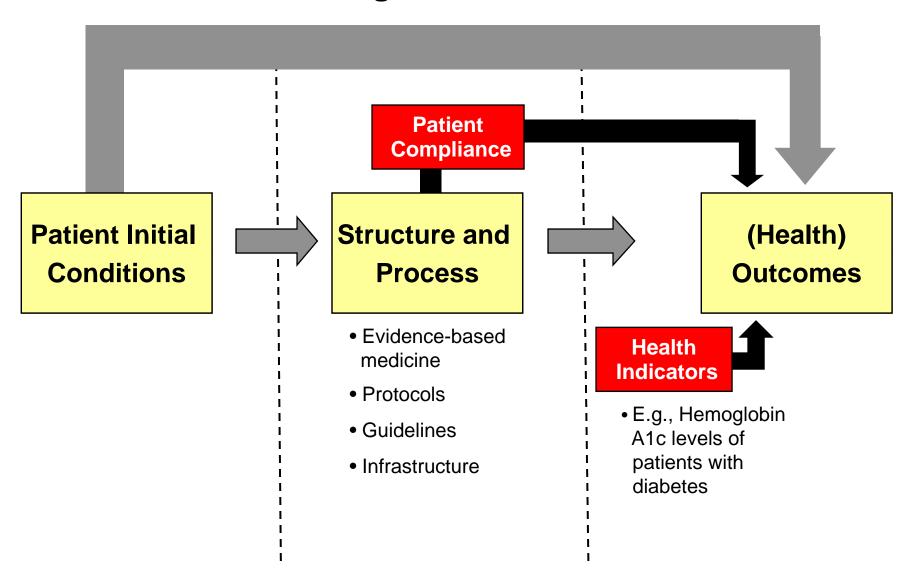
Excellent providers can manage care delivery across multiple geographies 20080707 GHD Course.ppr

- 1. The goal must be **value for patients**, not lowering costs
- 2. Health care delivery should be organized around **medical** conditions over the full cycle of care
- 3. Value must be universally measured and reported
  - For medical conditions over the cycle of care
    - Not for interventions or short episodes
    - Not for practices, departments, clinics, or hospitals
    - Not separately for types of service (e.g. inpatient, outpatient, tests, rehabilitation)

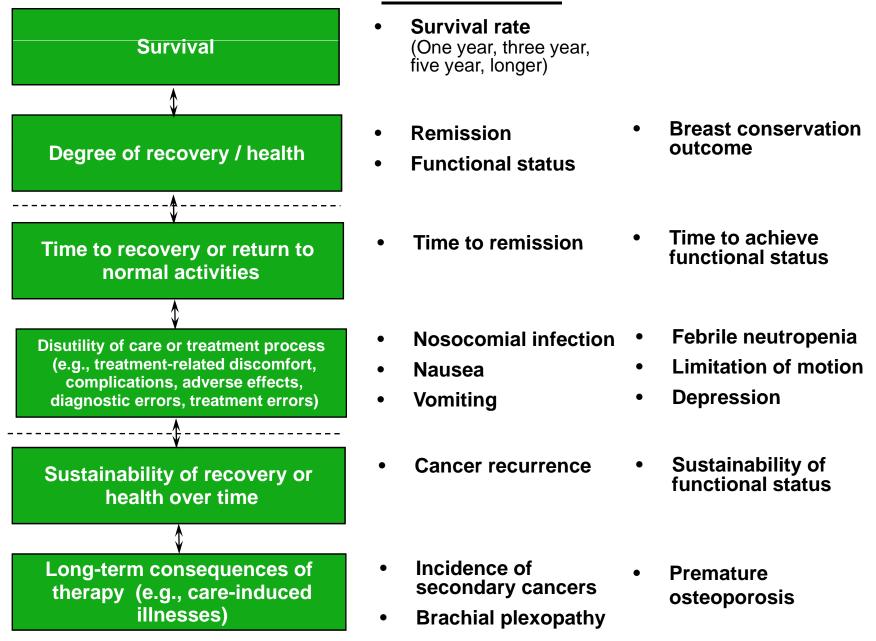


 Results must be measured at the level at which value is created for patients

### **Measuring Value in Health Care**



### The Outcome Measures Hierarchy Breast Cancer



- 1. The goal must be value for patients, not lowering costs
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- 3. Value must be universally measured and reported
- 4. Reimbursement should be aligned with **value** and reward innovation
  - Bundled reimbursement for **care cycles**, not payment for discrete treatments or services
    - Most DRG systems are too narrow
  - Reimbursement adjusted for patient complexity
  - Reimbursement for overall management of chronic conditions
  - Reimbursement for **prevention and screening**, not just treatment



 Providers should be proactive in moving to new reimbursement models, not wait for health plans and Medicare

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- Information technology will enable restructuring of care delivery and measuring results, but is not a solution by itself
  - Common data definitions
  - Interoperability standards
  - Patient-centered database
  - Include all types of data (e.g. notes, images)
  - Cover the full care cycle, including referring entities
  - Accessible to all involved parties

## Developed World and Resource-Poor Settings Suffer from Similar Delivery Problems

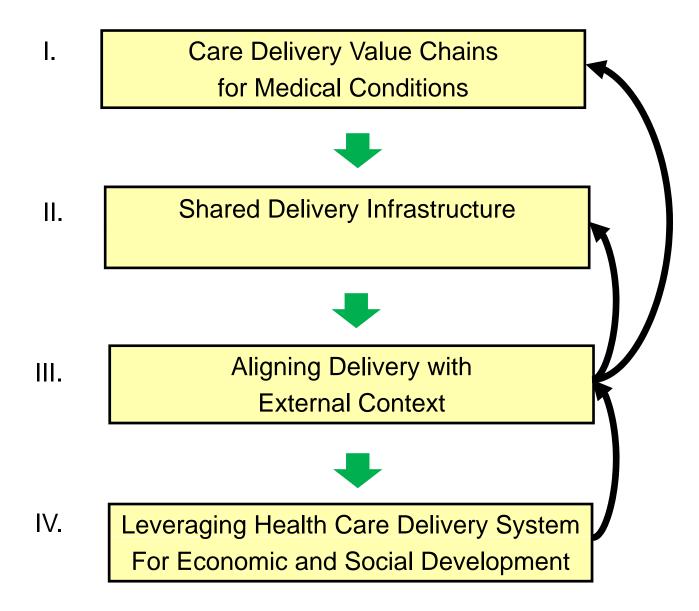
#### **Current Model**

- The product is treatment
- Measure volume of services (# tests, treatments)
- Focus on specialties or types of practitioners
- Discrete interventions
- Individual disease stages
- Fragmented programs and entities
- Localized pilots and demonstration projects

#### New Model

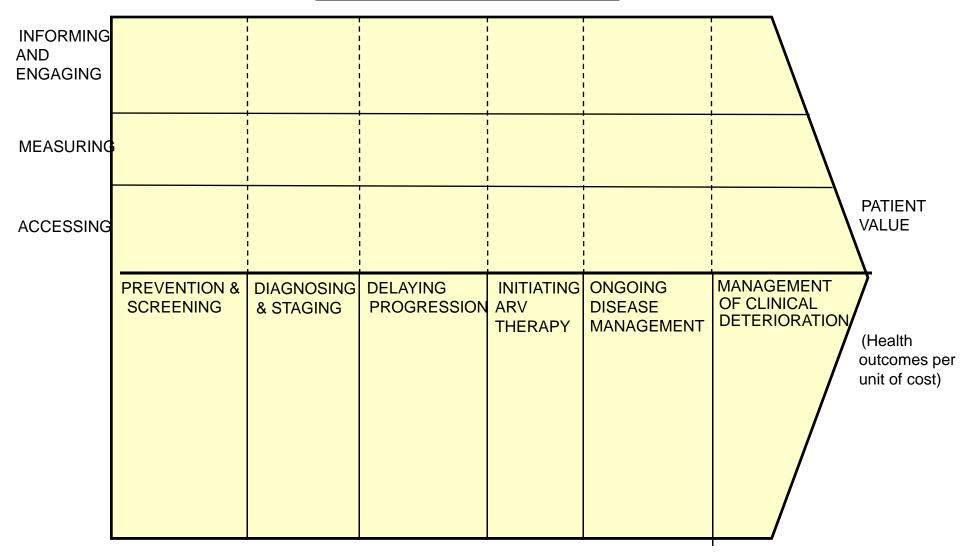
- The product is health
- Measure value of services (health outcomes per unit of cost)
- Coordinated and integrated care delivery
- Care cycles
  - Sets of prevalent cooccurrences
  - Integrated care delivery systems
- Integrated systems across communities and regions

### A Framework for Global Health Delivery



### **HIV/AIDS Care Delivery Value Chain**

#### **Resource-Poor Settings**



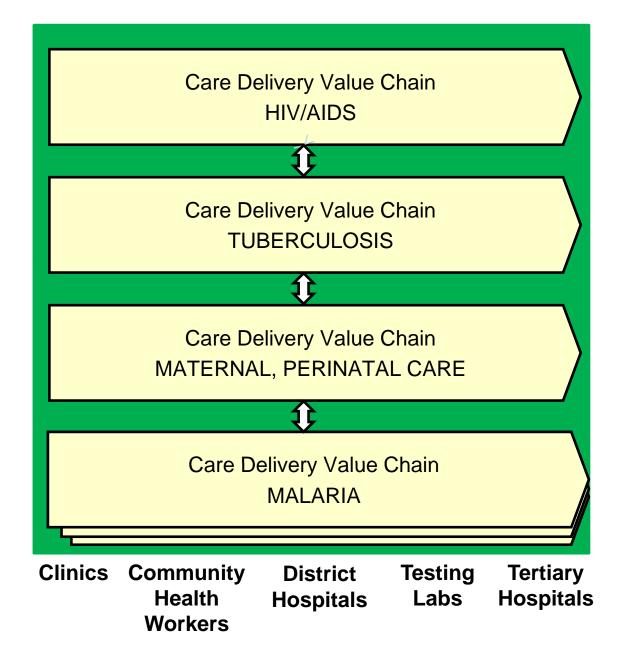
### The Care Delivery Value Chain HIV/AIDS

INFORMING & ENGAGING	Prevention counseling on modes of transmission on risk factors	<ul> <li>Explaining diagnosis and implications</li> <li>Explaining course and prognosis of HIV</li> </ul>	Explaining approach to forestalling progression	Explaining medical instructions and side effects	Counseling about adherence; understanding factors for non- adherence	<ul> <li>Explaining co-morbid diagnoses</li> <li>End-of-life counseling</li> </ul>	
MEASURING	<ul><li>HIV testing</li><li>TB, STI screening</li><li>Collecting baseline demographics</li></ul>	HIV testing for others at risk     CD4+ count, clinical exam, labs	Monitoring CD4+     Continuously     assessing co- morbidities	Regular primary care assessments     Lab evaluations for initiating drugs	HIV staging, response to drugs      Managing complications	HIV staging,     response to drugs     Regular primary     care assessments	PATIENT VALUE
ACCESSING	<ul><li>Meeting patients in high-risk settings</li><li>Primary care clinics</li><li>Testing centers</li></ul>	Primary care clinics     Clinic labs     Testing centers	Primary care clinics Food centers  Home visits	<ul><li>Primary care clinics</li><li>Pharmacy</li><li>Support groups</li></ul>	Primary care clinics  Pharmacy  Support groups	<ul><li>Primary care clinics</li><li>Pharmacy</li><li>Hospitals, hospices</li></ul>	
	PREVENTION & SCREENING  • Connecting patient with primary care • Identifying high-risk individuals • Testing at-risk individuals • Promoting appropriate risk reduction strategies • Modifying behavioral risk factors • Creating medical records	DIAGNOSING & STAGING  • Formal diagnosis, staging • Determining method of transmission • Identifying others at risk • TB, STI screening • Pregnancy testing, contraceptive counseling • Creating treatment plans	DELAYING PROGRESSION  Initiating therapies that can delay onset, including vitamins and food Treating comorbidities that affect disease progression, especially TB Improving patient awareness of disease progression, prognosis, transmission Connecting patient with care team	INITIATING ARV THERAPY  • Initiating comprehensive ARV therapy, assessing drug readiness  • Preparing patient for disease progression, treatment side effects  • Managing secondary infections, associated illnesses	ONGOING DISEASE MANAGEMENT  • Managing effects of associated illnesses  • Managing side effects  • Determining supporting nutritional modifications  • Preparing patient for end-of-life management  • Primary care, health maintenance	MANAGEMENT OF CLINICAL DETERIORATION  Identifying clinical and laboratory deterioration  Initiating second- and third-line drug therapies  Managing acute illnesses and opportunistic infectior through aggressive outpatient management or hospitalization  Providing social support  Access to hospice care	(Health outcomes per unit of cost)

### Implications for HIV/AIDS Care - I

- Early diagnosis helps in forestalling disease progression
- Intensive evaluation and treatment at time of 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**



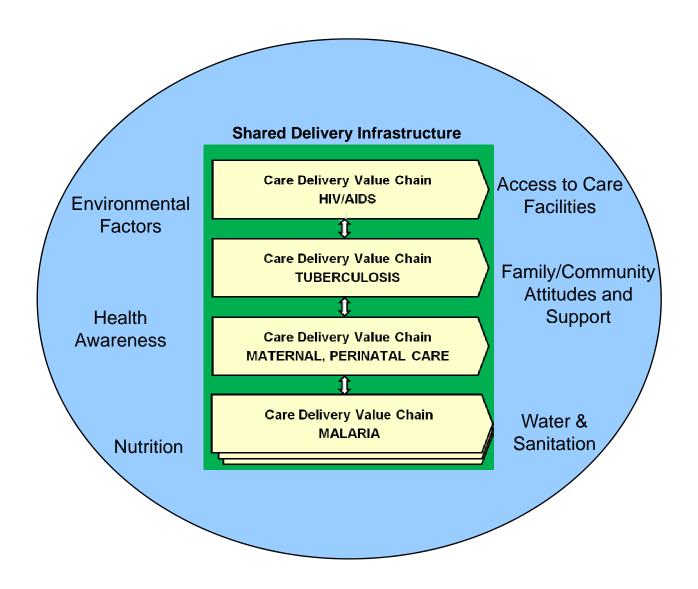
### Implications for HIV/AIDS Care - II

- 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

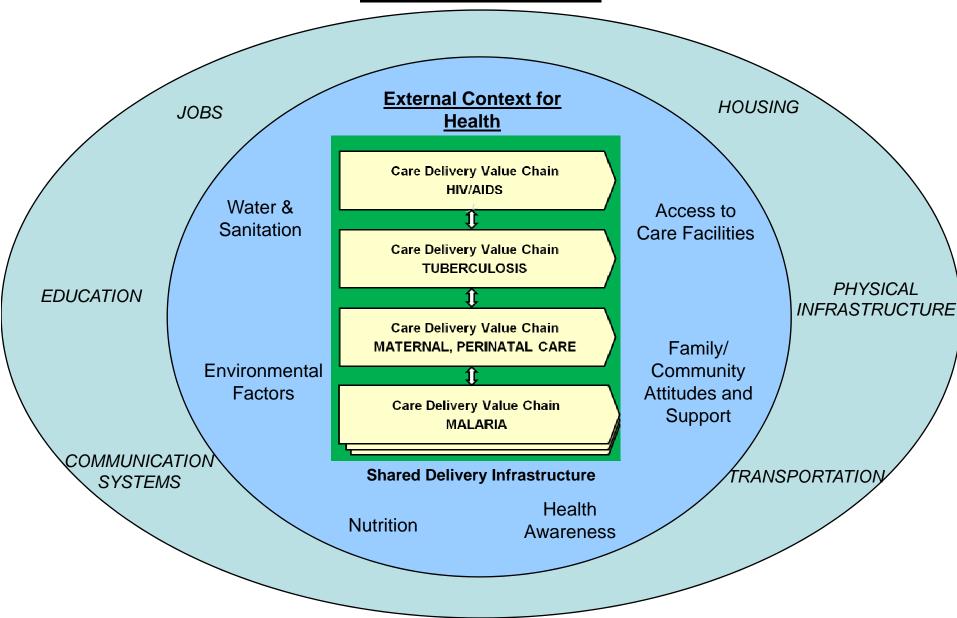


 Coordinated development of shared primary and secondary care infrastructure can improve the value of the HIV/AIDS care cycle while simultaneously improving value in the care of other diseases

### Integrating Delivery and Context <a href="#">Close-In Factors</a>



### Integrating Delivery and Context <a href="mailto:Broader Influences">Broader Influences</a>



### Implications for HIV/AIDS Care - III

- 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
- Gender dynamics limit the use of prevention options in some settings
- Integrating HIV screening and treatment into routine primary care facilities can help address the social stigma of seeking care for HIV/AIDS



 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

#### Better Health Systems Foster Economic Development

- Direct employment (health sector jobs)
- Local procurement
- Catalyst for infrastructure (e.g. cell towers, internet, and electrification)

### An Opportunity for Harvard to Lead

