

Redefining Global Health Care Delivery

Narrowing the Gap Between Aspiration and Action

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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**

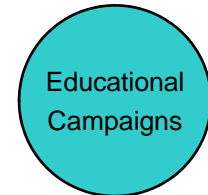
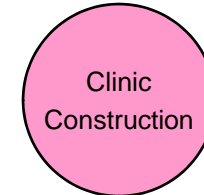
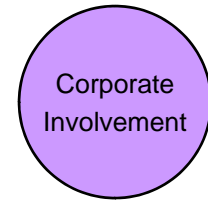
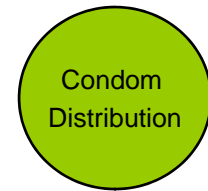
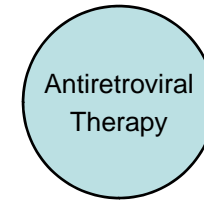
Case Example: Rwanda

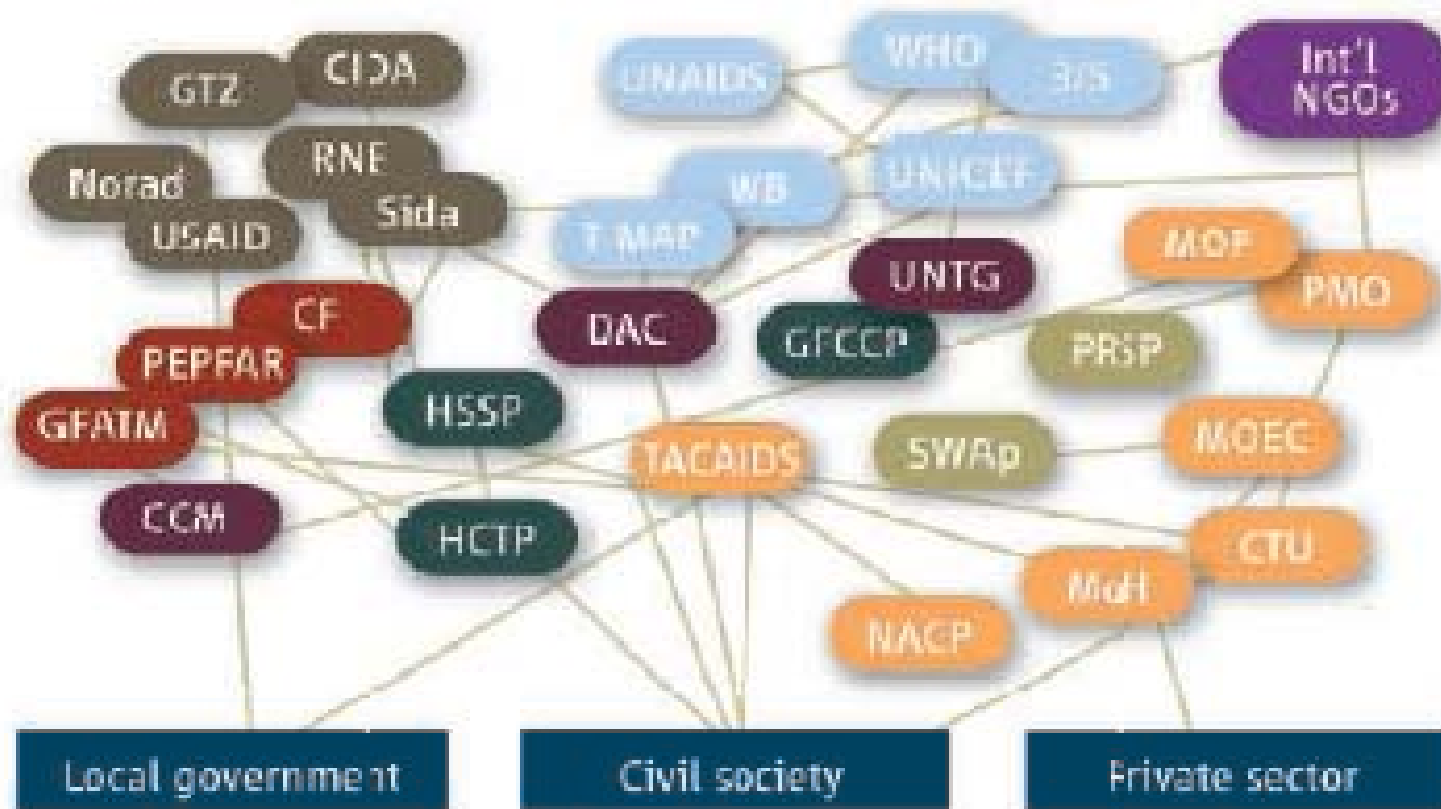


Global Health “Strategy” to Date

- 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**





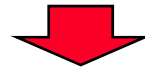
Relationships Between Various Stakeholders in Tanzania

- | | |
|--|---|
| ■ United Nations | ■ Coordinating committees |
| ■ Bilateral aid | ■ Plans and programs |
| ■ Drug-delivery programs | ■ IMF/World Bank |
| ■ Tanzanian government | ■ Nongovernmental organizations |

Redefining Global Health Care

- Universal coverage **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 a health care system that **dramatically improves value**
- How to create a **dynamic system** that keeps rapidly improving

Principles of Value-Based Health Care Delivery

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2. 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
- Fewer delays in the care delivery process
- Fewer mistakes and repeats in treatment
- Fewer complications
- 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

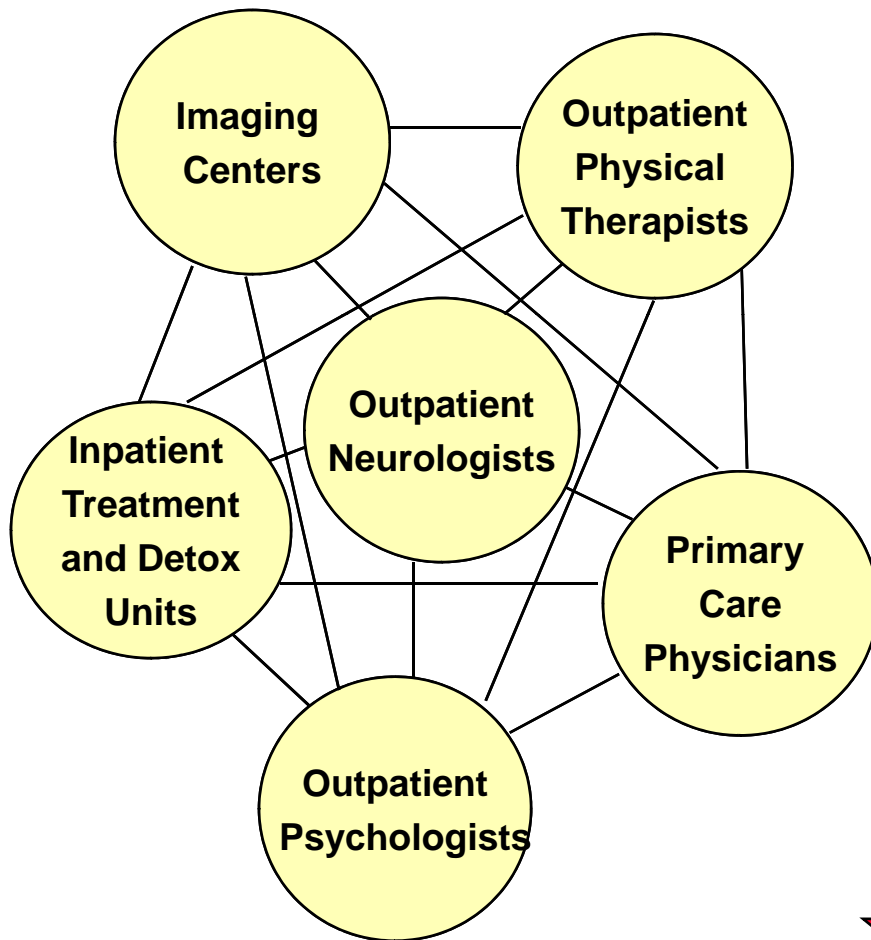
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1. The goal should be **value for patients**, not volume of services or cost reduction
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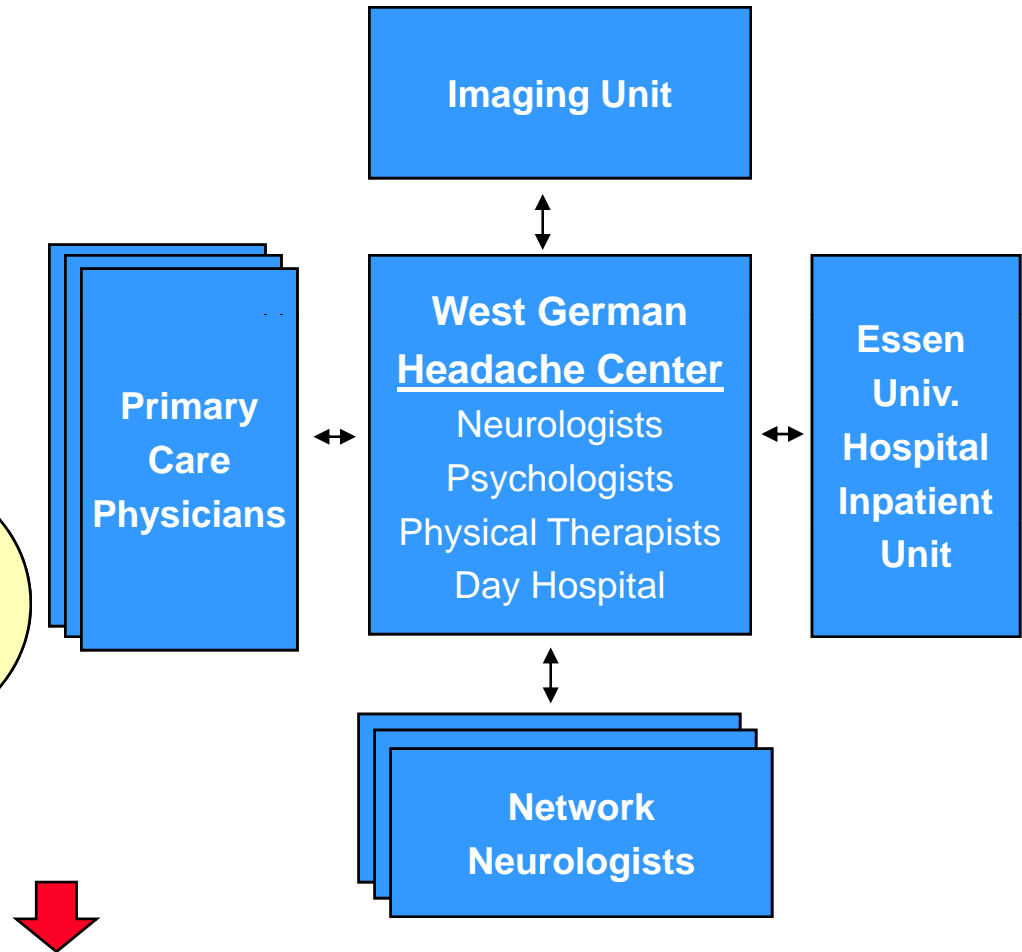
Restructuring Health Care Delivery

Migraine Care in Germany

Existing Model: Organize by Specialty and Discrete Services



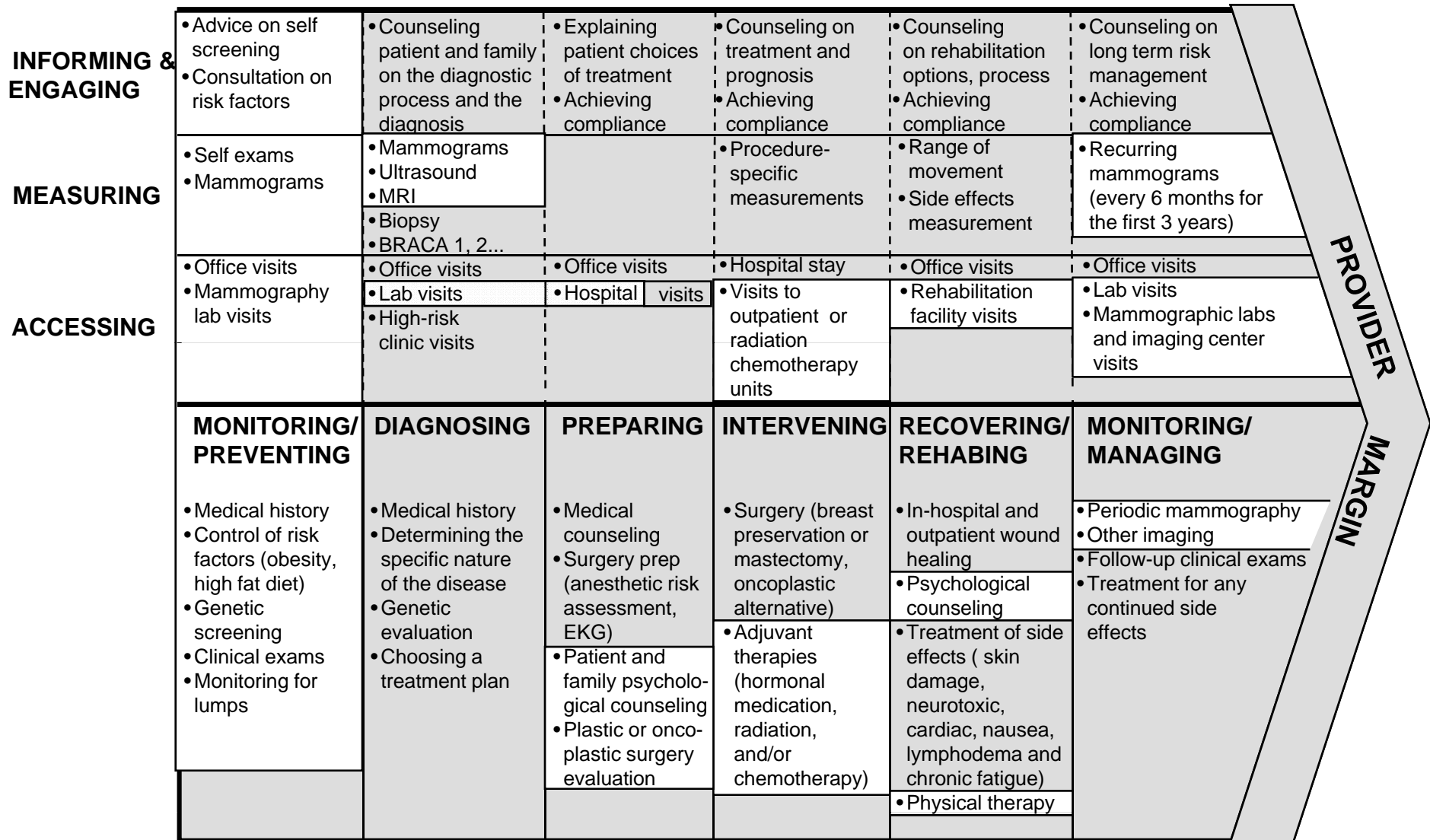
New Model: Organize into Integrated Practice Units (IPUs)



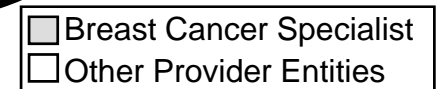
- Organize around the **patient over the cycle of care**, not the specialist/intervention/department

Care Delivery Value Chain

Breast Cancer



- **Primary care providers** are often the **beginning** and **end** of the care cycle

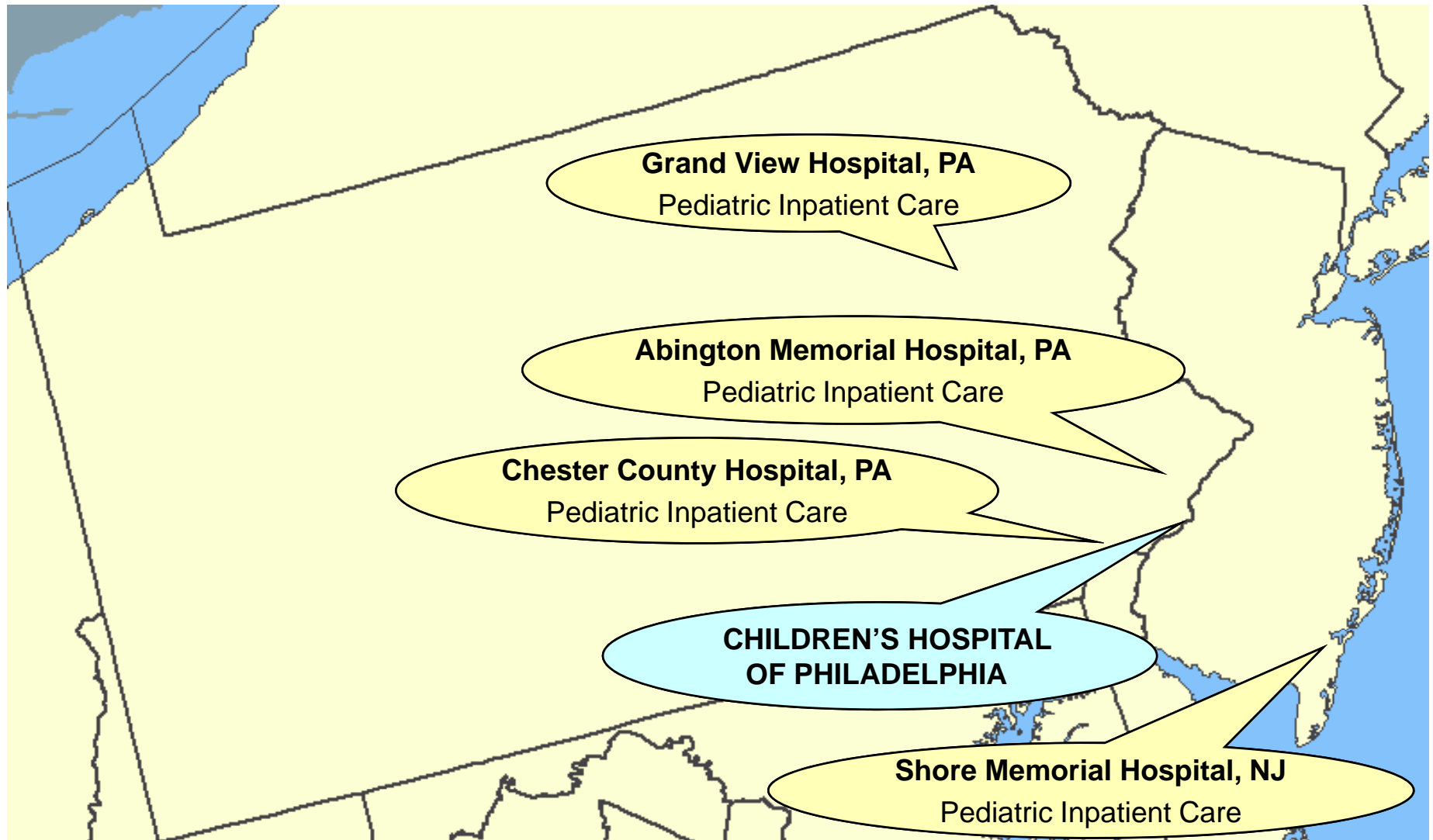


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Managing Care Across Geography

The Children's Hospital of Philadelphia (CHOP) Affiliations



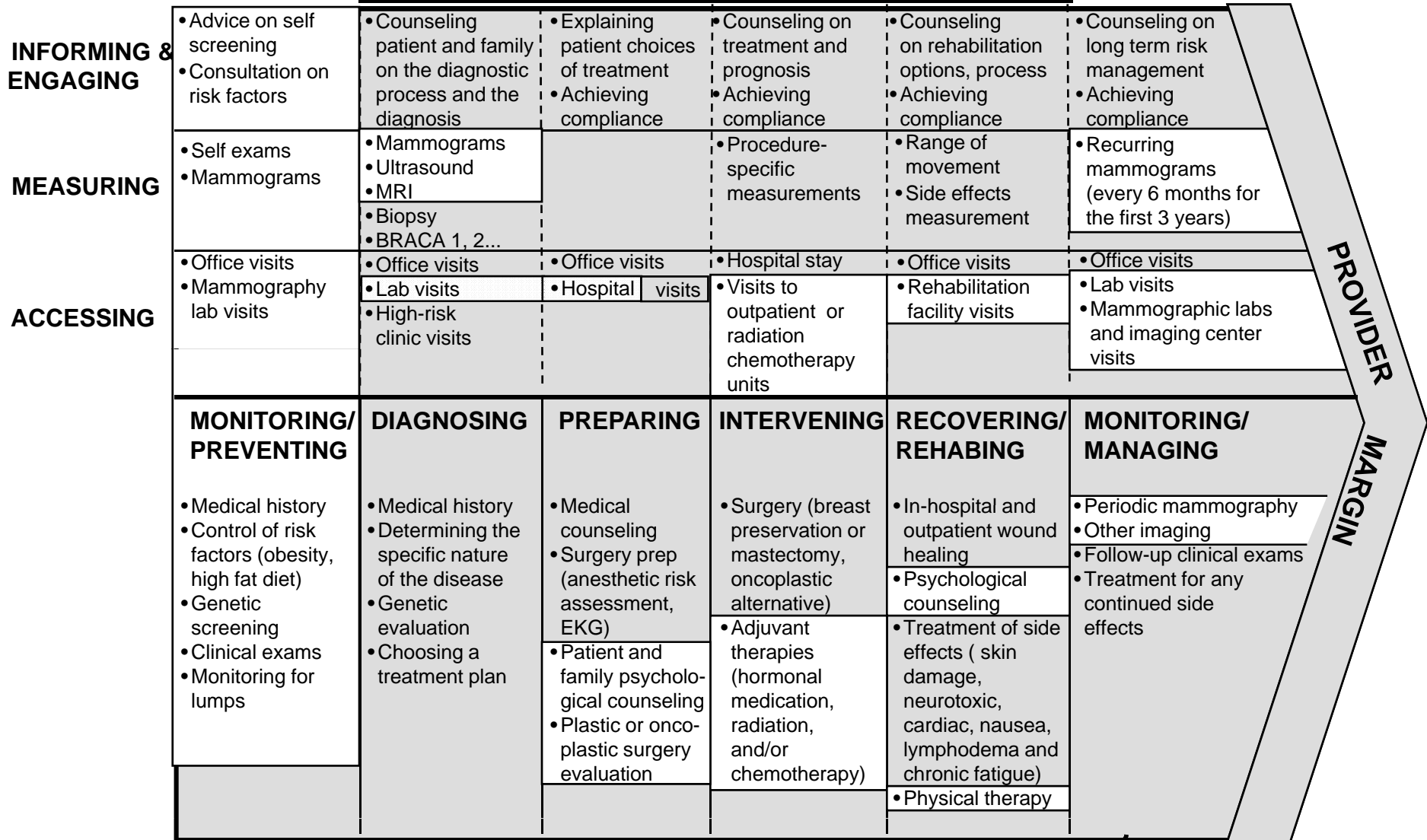
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Value: Patient health outcomes
Total cost of achieving
those outcomes

Measuring Value

Care Cycle vs. Discrete Interventions



PROVIDER MARGIN

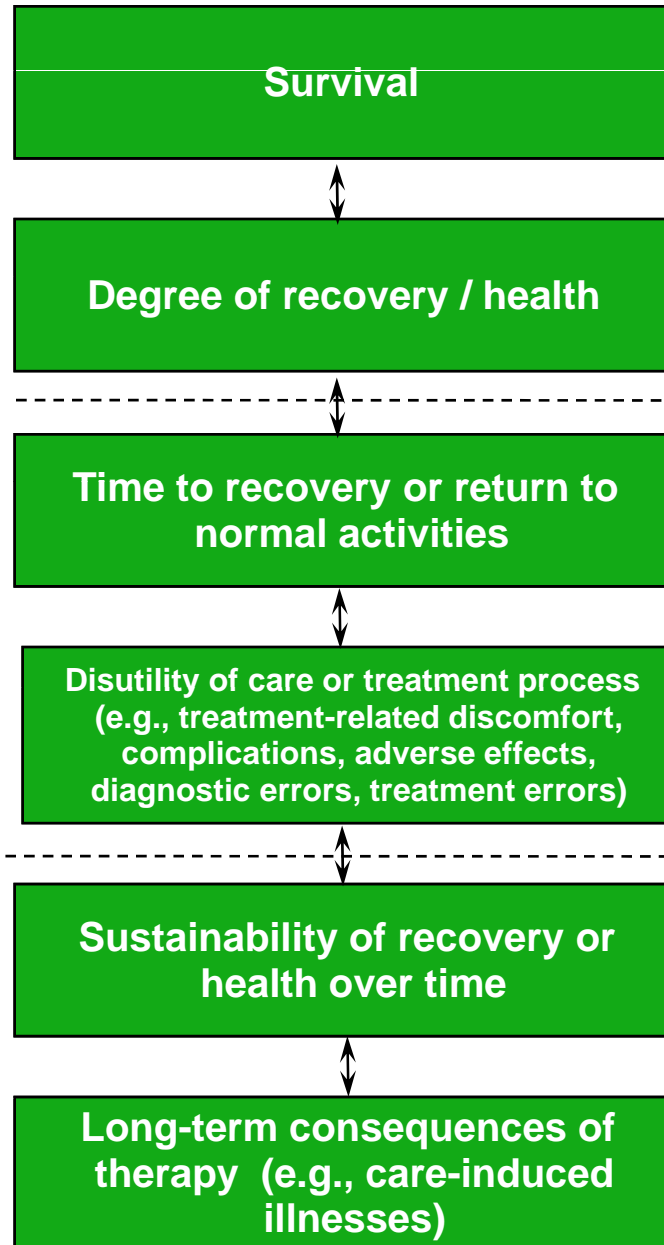
Breast Cancer Specialist
 Other Provider Entities



• Measure **outcomes**, not just processes of care

The Outcome Measures Hierarchy

Breast Cancer



- **Survival rate**
(One year, three year, five year, longer)
- **Remission**
- **Functional status**
- **Breast conservation outcome**
- **Time to remission**
- **Time to achieve functional status**
- **Nosocomial infection**
- **Nausea**
- **Vomiting**
- **Febrile neutropenia**
- **Limitation of motion**
- **Depression**
- **Cancer recurrence**
- **Sustainability of functional status**
- **Incidence of secondary cancers**
- **Brachial plexopathy**
- **Premature osteoporosis**

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6. Reimbursement should be aligned with **value** and reward **innovation**

- Bundled reimbursement for **care cycles**, not discrete treatments or services
 - Most DRG systems are **too narrow**
- Reimbursement for **prevention and screening**, not just treatment
- Reimbursement for **overall management of chronic conditions**
- Reimbursement adjusted for **patient complexity**

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7. **Information technology enables** restructuring of care delivery and **measuring results**

- Common data definitions
- Interoperability standards
- Patient-centered database
- Includes 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 specialty services or types of practitioners
- Discrete interventions
- Individual disease stages
- Fragmentation of 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 co-occurrences
- Integrated care delivery **systems**
- Systems that are integrated **across communities** and **regions**

Emerging Framework for Global Health Delivery

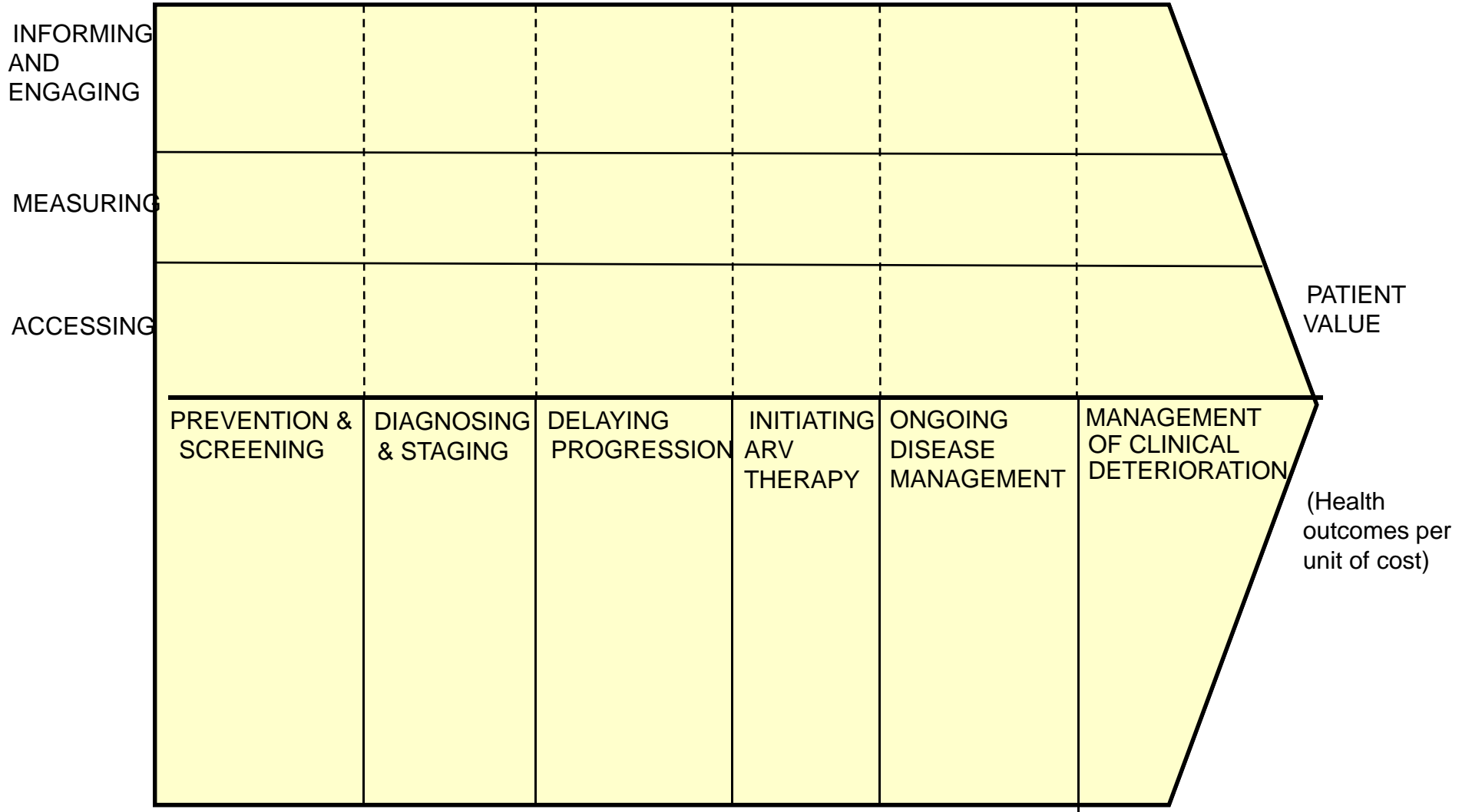
- I. Care delivery value chains for medical conditions
- II. Shared delivery infrastructure
- III. External context of resource-poor settings



- IV. Health system impact on economic development

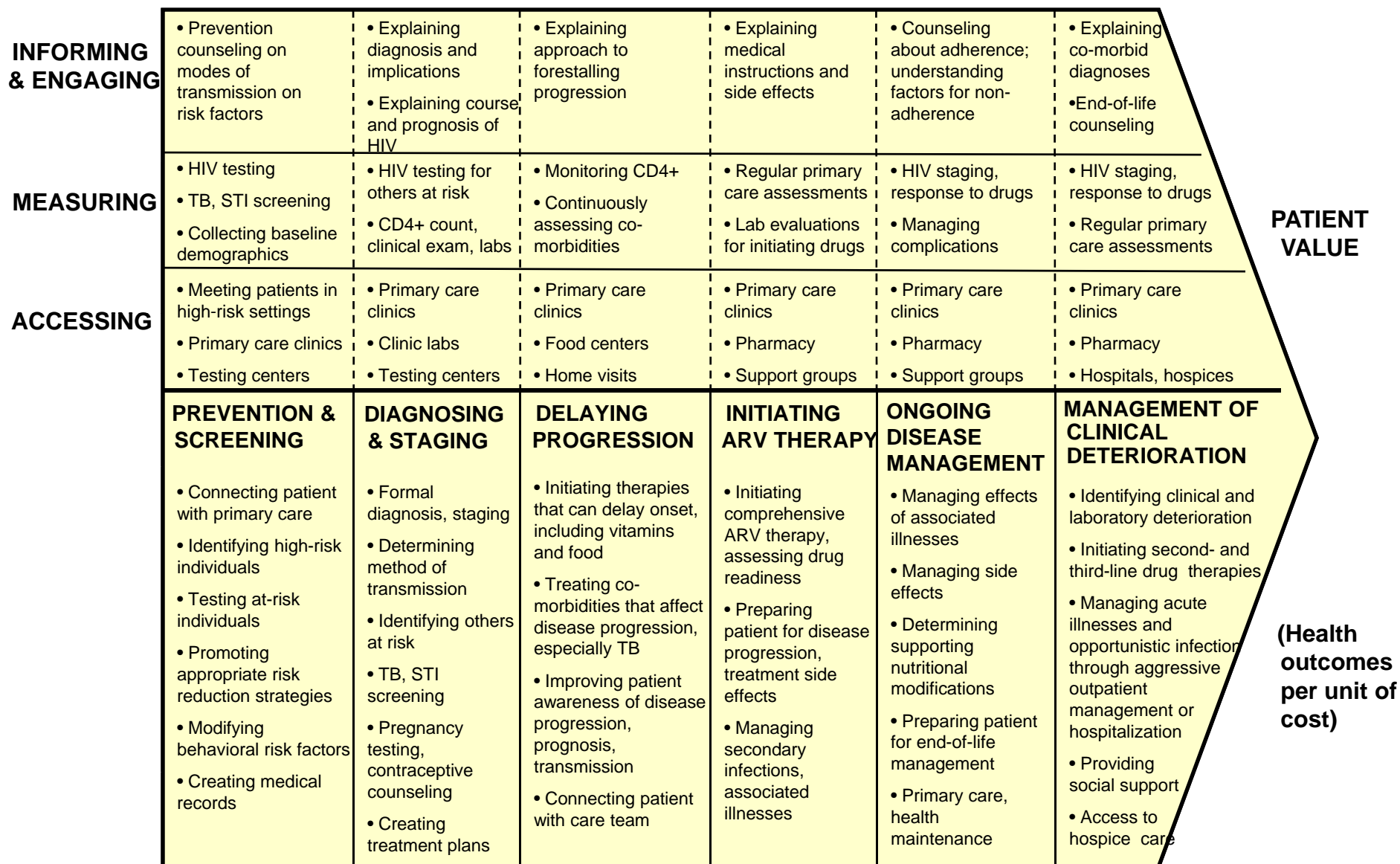
HIV/AIDS Care Delivery Value Chain

Resource-Poor Settings



The Care Delivery Value Chain

HIV/AIDS



Analyzing the Care Delivery Value Chain

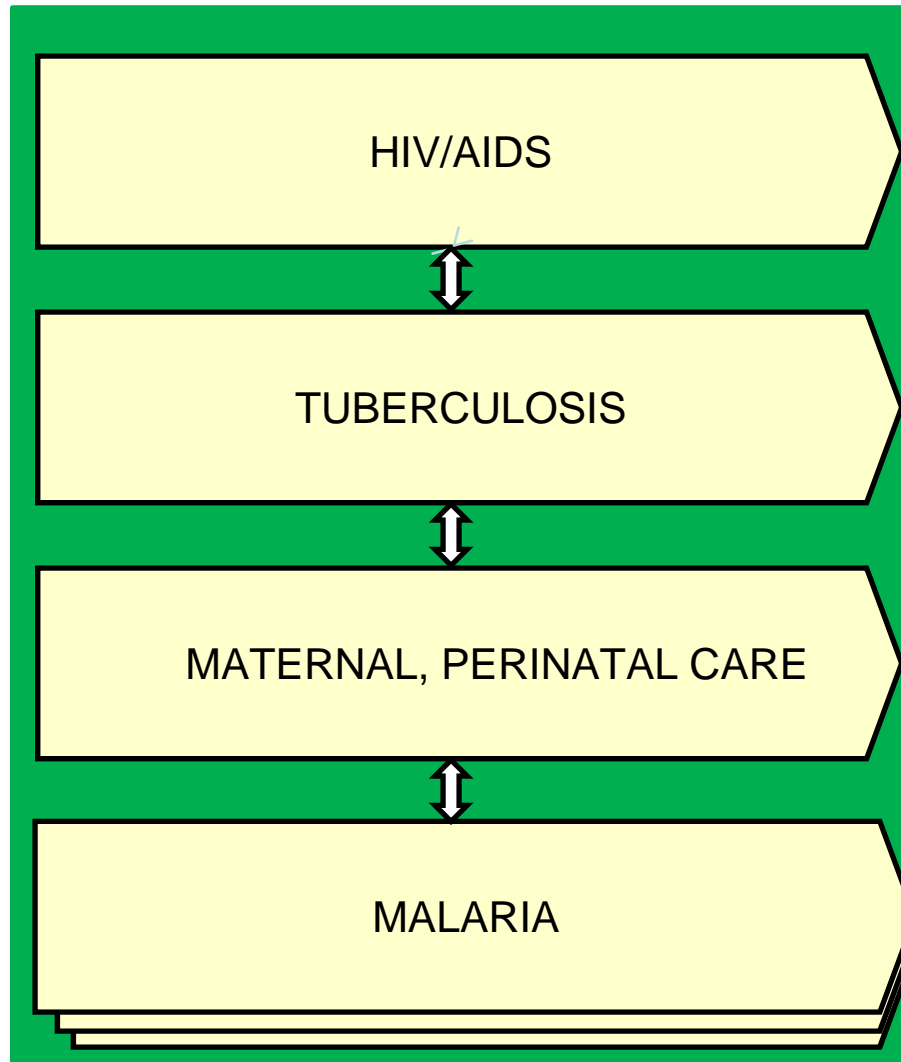
1. Are the **set of activities** and the **sequence of activities** in the CDVC aligned with value?
2. Is the appropriate **mix of skills** brought to bear on each activity and across activities, and do individuals work as a **team**?
3. Is there **appropriate coordination** across the discrete activities in the care cycle, and are handoffs seamless?
4. Is care structured to **harness linkages** (optimize overall allocation of effort) across different parts of the care cycle?
5. Is the **right information** collected, integrated, and utilized across the care cycle?
6. Are the activities in the CDVC performed in **appropriate facilities and locations**?
7. What provider departments, units and groups are involved in the care cycle? Is the provider's **organizational structure** aligned with value?
8. What are the **independent entities** involved in the care cycle, and what are the relationships among them? Should a provider's **scope of services** in the care cycle be expanded or contracted?

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

Shared Delivery Infrastructure



Clinics Community District Testing Tertiary
Health Health Hospitals Labs Hospitals
Workers

Implications for HIV/AIDS Care - II

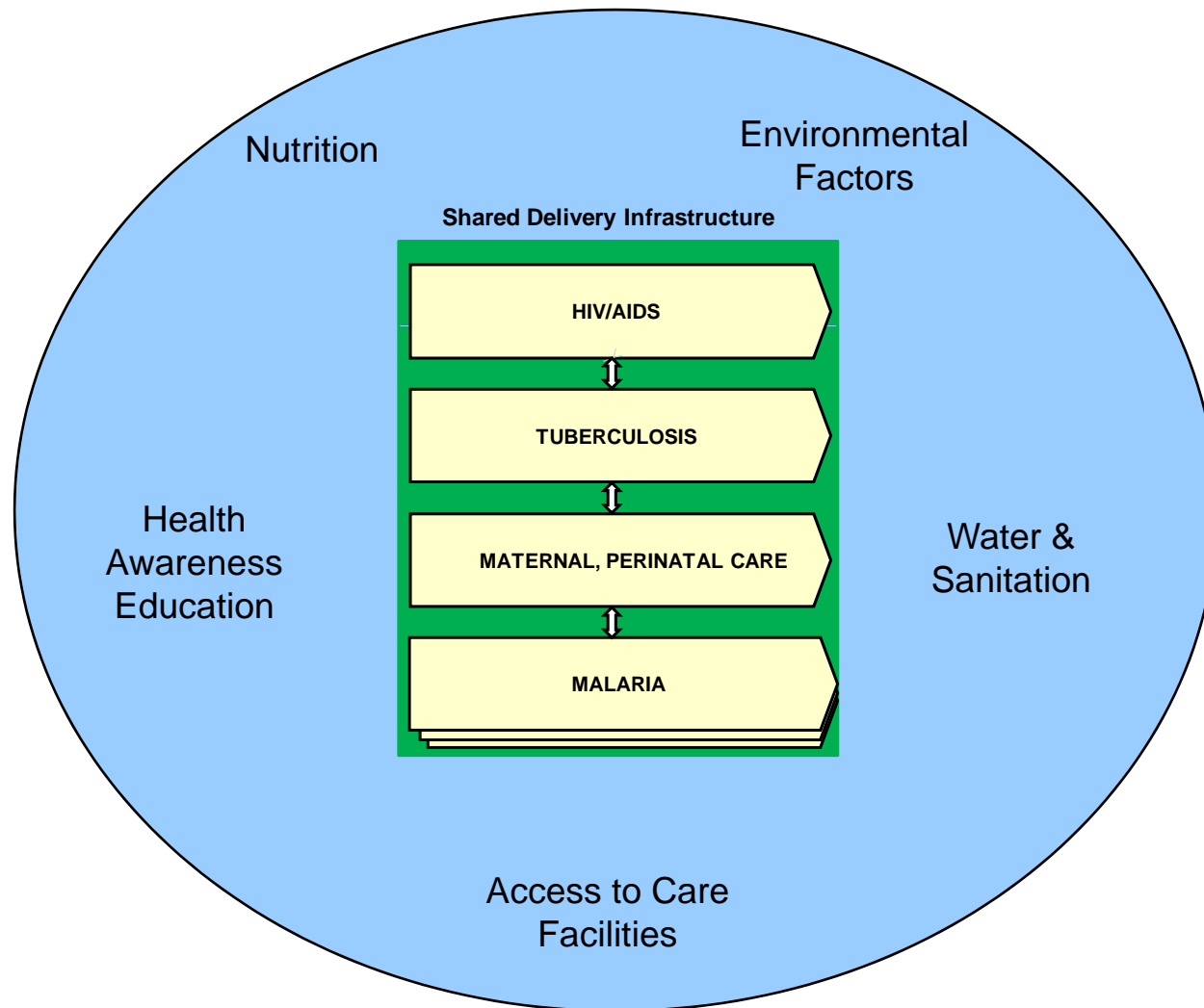
- Screening is most effective when **integrated into a primary health care system**
- Improving maternal and child health care services is integral to the HIV/AIDS care cycle by **substantially reducing the incidence of new cases** of HIV
- Community health workers not only improve compliance with ARV therapy but can **simultaneously address other conditions**



- Coordinated development of **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

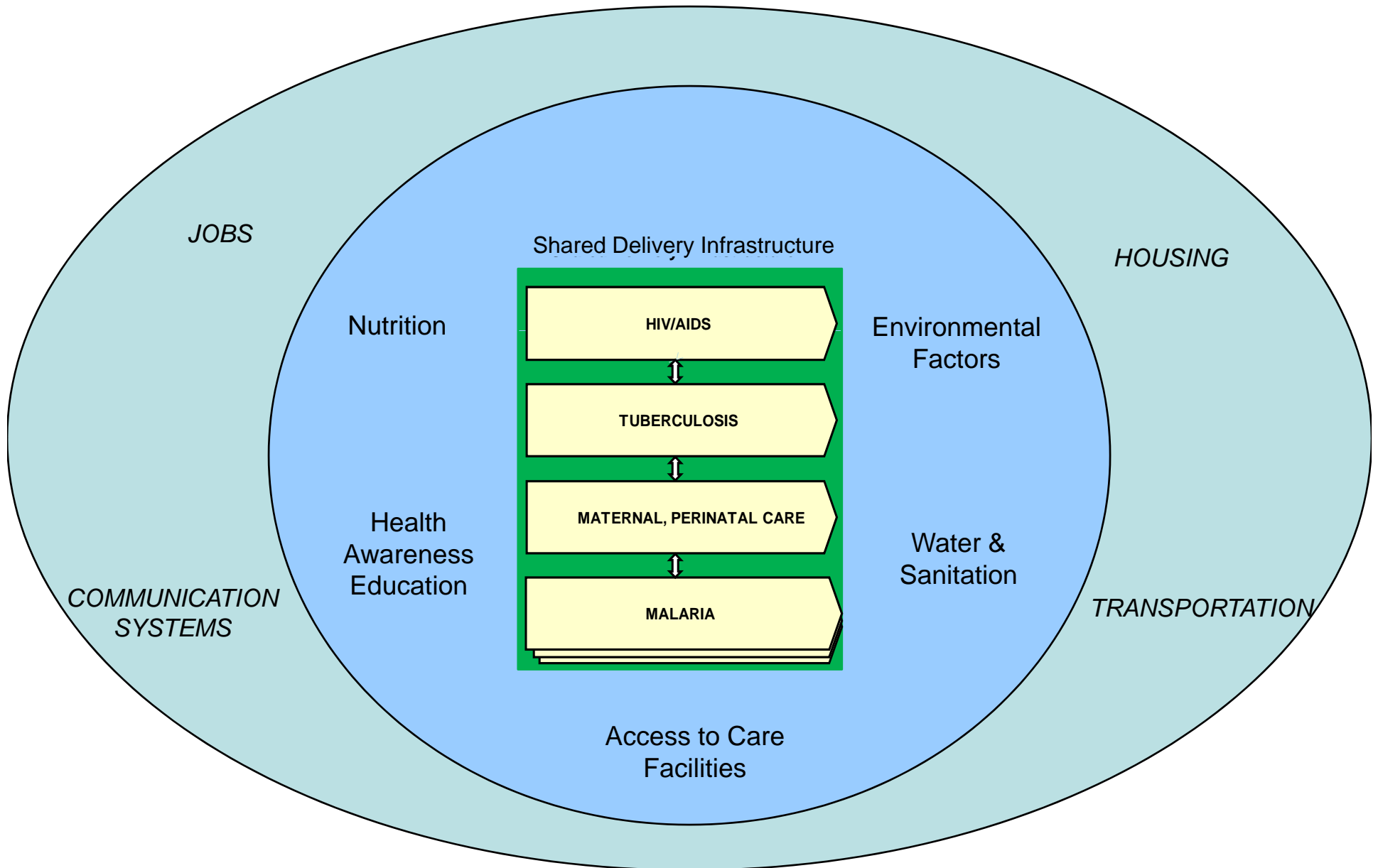
Integrating Delivery and Context

Close-In Factors



Integrating Delivery and Context

Farther-Out Factors



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 certain preventive 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

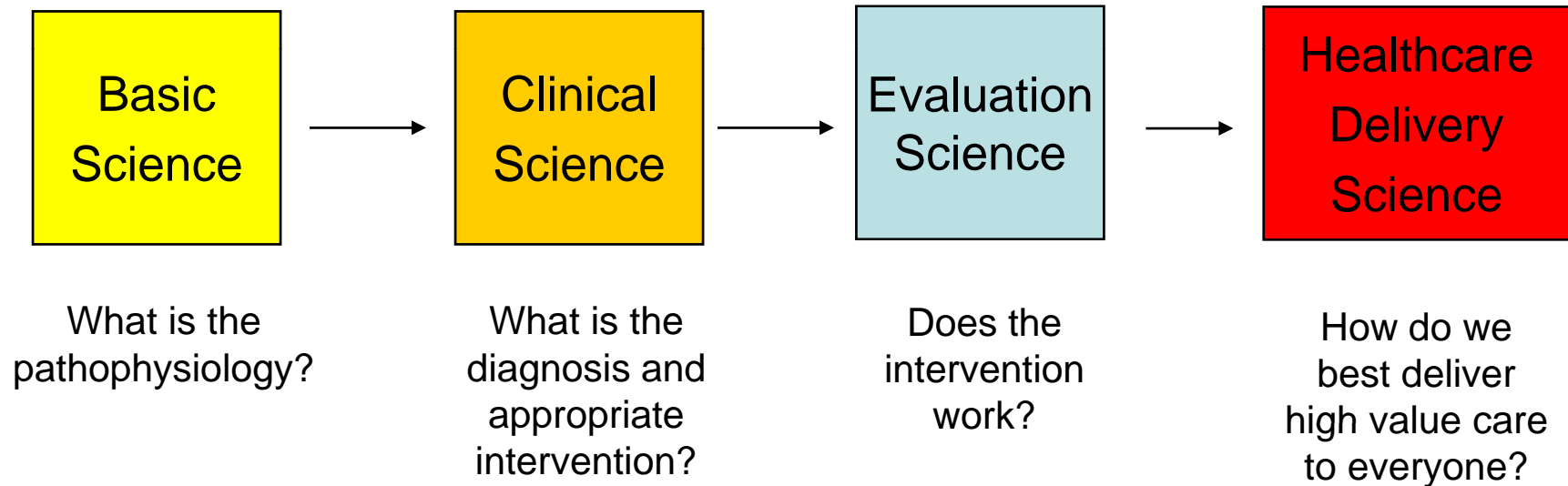
Better Health Enables Economic Development

- Enables people to work
- Raises productivity

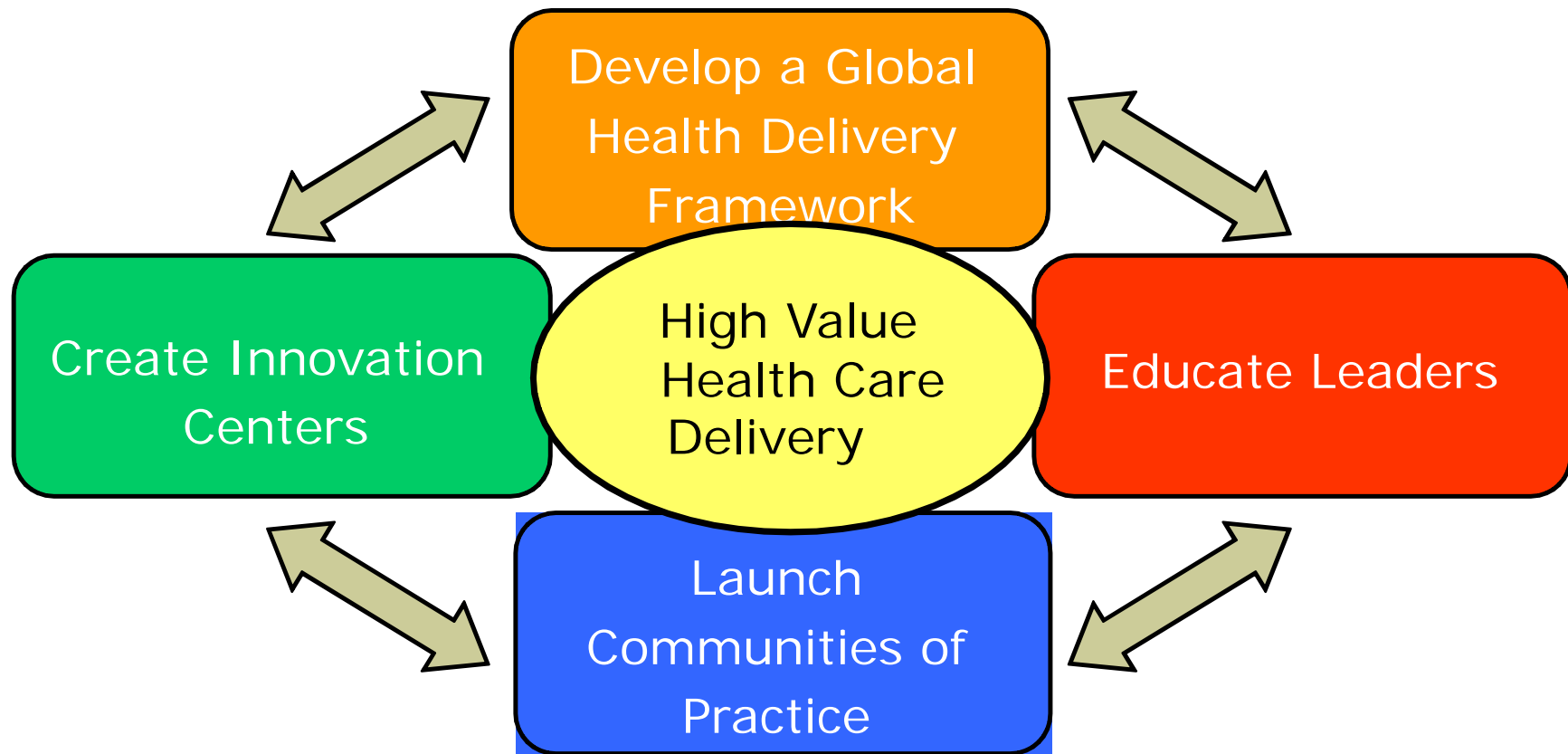
Better Health Systems Foster Economic Development

- Employment (health sector jobs)
- Procurement, if sourced locally
- Infrastructure (e.g. cell towers, internet, and electrification)

Is There a Place for a New Field in Health Research and Education?



An Opportunity for Harvard to Lead



A young boy with a bright smile, looking directly at the camera. He is shirtless and has short, dark hair. The background is slightly blurred, showing green foliage and a woven basket. The overall tone is warm and positive.

haiti

“ To create and nurture a community of the best people committed to leadership in alleviating human suffering caused by disease.”

HARVARD MEDICAL SCHOOL
MISSION STATEMENT

