HEALTH CARE SYSTEMS
Health Systems Science Learning Series

EVOLUTION OF HEALTH CARE SYSTEMS

U.S. health care is undergoing unprecedented and rapid change. The complexity of the system and magnitude of change presents challenges to health professionals who must understand the dynamics of this system, its evolution and future directions to fulfill their ethical responsibility to improve processes and outcomes of care.

COMPONENTS OF HEALTH CARE SYSTEMS

The following are needed to allow health care systems to keep a population healthy:

- **Structures**: Characteristics of the settings in which care occurs such as hospitals or clinics including material resources, staff resources, organizational structures and institutional culture.

- **Processes**: Actions taken by care teams and staff as they deliver care to patients and the actions that support the needs of the business.

- **Outcomes**: What patients experience as a result of the care provided.

HEALTH CARE SYSTEMS LEVELS

You can visualize the health care system at different levels. Patients and their families are in the center of this model. The other levels are the patient’s system, the provider’s system (microsystems) and the health care system (mesosystems and macrosystems). Ideally, patients interact with each level seamlessly as they engage the systems from start to finish.

TRIPLE AIM AND QUADRUPLE AIM

With the patient at the center of health care systems, patient-centered care means being respectful and responsive to patient preferences, needs and values and ensuring that patient values guide all clinical decisions. It’s important to consider the ideal outcomes of health care systems from patients’ perspectives including: an ideal experience for all patients, achieving this at the lowest possible cost and improving the health of the community. This is also known as the Triple Aim. The Quadruple Aim includes all aspects of the Triple Aim, but incorporates care team well-being as an additional ideal outcome of health care systems.

The IHI Triple Aim framework was developed by the Institute for Healthcare Improvement in Cambridge, Massachusetts (ihi.org).
CHANGING PAYMENT MODELS

Incentives provided by current health care systems may not always align with achieving the Triple Aim but reforms such as the following are bringing change:

- **Value-based payment models**
  - Fee-for-service is a payment model in which a health professional is paid a fee for each service rendered, rewarding them for volume and quantity of services provided, regardless of patient outcome. Value-based payment models reward health professionals with incentive payments for quality of care, rewarding care that is appropriate and not paying for unnecessary care.

- **Accountable care organizations**
  - Entities that manage the entire continuum of care, overall costs and quality of care for a defined population by providing a medical home and comprehensive care. They exist in a variety of forms: physicians and hospitals in group practice arrangements, networks of individual physician practices, partnerships or joint venture arrangements between hospitals and physicians and hospitals employing physicians.

- **Integrated coordinated health care systems**
  - Seek to deliver comprehensive care, coordinating the work of primary care physicians, specialists, hospitals, pharmacies, laboratories and others. This approach improves care quality, makes care delivery more convenient for patients and increases communication among health professionals. It also promotes efficiencies that reduce costs, improve or maintain quality and allow for innovation.

STRATEGIES FOR CLOSING GAPS IN HEALTH CARE SYSTEMS

- **Health care improvement strategies**
  - Encompasses traditional processes of quality improvement with patient safety efforts to close gaps. The combined and unceasing efforts of health care professionals, patients, their families, researchers, payers, planners and educators to make the changes that will lead to better patient outcomes (health), better system performance (care) and better professional development.

- **Population management**
  - The management of and payment for health care services for a discrete or defined population. Requires the segmentation of patients based on risk of poorer health outcomes and targeting high-risk, high-cost sub-populations proactively and differently than those with lower risk.

- **Data analytics**
  - Discovery and communication of patterns in data about how the system is performing including:
    - Connecting processes of care to patient outcomes to minimize delays between identifying what health professionals should do and ensuring it happens consistently.
    - Analyzing large data sets (big data), such as national billing data to link diagnoses and use of resources or uncover health trends before they become obvious to the casual observer.

QUESTIONS TO ASK:

- What structures and processes are needed in order to meet the objectives of health care systems?
- What do patients need in an ideal health care system?
- What’s influencing change in health care systems and how can we close gaps?
- How will you fit into the rapidly evolving U.S. health care systems and improve the processes and outcomes of care?