Module 3 - Organization of Health Care

Tags	Weekly Modules
Status	Completed

Learning Objectives

1. Discuss primary, secondary, and tertiary levels of care
2. Discuss the regionalized vs. the dispersed model
3. Discuss vertical vs. virtual integration
4. Discuss patient-centered medical homes, accountable care organizations and medical neighborhoods

Organization of Health Care

This week we are going to learn about how health care is organized. We will begin by looking at the three different levels of care a person has access to.

Primary Care

Individuals see primary care providers for **common health problems**. This accounts for **80-90% of health care visits** and includes primary care physicians and pediatricians. Reasons why someone would see a primary care provider include immunizations, flu-like symptoms, an ear infection, or a sore throat.

Secondary Level of Care

Individuals see a secondary level specialist for health issues that require more specialized clinical expertise. These providers include orthopedic surgeons, OB/GYN, ENT, and oncologists.

Tertiary Level Providers

These providers see very rare and complex problems. They include those who perform organ transplants, or operate on congenital malformations. Very rarely does someone need to see a tertiary level provider. The picture above shows Travis Roy, a BU Hockey player who suffered a spinal cord injury.

We will now look at two models of health care system organization based on levels of care.

Dawson Model of Regionalized Care

This model is HIGHLY structured. Care begins with a visit to your primary care physician and then works upward if needed. This model is used mainly in the UK (above is an image of the Royal London Hospital).

One example of the Dawson Model is a sudden injury that may or may not require specialized care. If you twist your ankle walking down the street (as long as you do not need to call 911), you MUST first see your primary care physician (general practitioner). If your PCP is unable to manage your condition, they will refer you to a specialist. In the Dawson Model you are NOT able to self-refer yourself to a specialist.

Dispersed Model

This model is much more fluid. It allows patients to go where they wish. You do NOT need to see a primary care physician first. This is the model mostly used in the United

States for all except those with an HMO health insurance plan.

As you remember, HMOs require you to have a primary care physician. In the example above where you twist your ankle, the dispersed model would NOT require you to see your PCP first. You could choose to see a specialist right away. For those with a High Deductible Health Plan, a PPO, or a POS, this option is open to you.

After examining the tables above, consider the following questions below:

- What do you think are some of the disadvantages of the dispersed model?
  - Patients can refer themselves to the incorrect practitioner; care may not be coordinated.
- What are some of the arguments for a dispersed model?
  - **Americans value being able to choose their providers, and have direct access to specialists and technology.**
- What are some of the arguments against a dispersed model?
  - It lacks coordination of care.
  - It is not consistent with the health needs of the majority of the population. Most conditions can be managed by a primary care physician and do not require a specialist.
  - It is very costly. When you are able to self-refer yourself to a specialist there is a chance you could be seeing the incorrect practitioner.
    - For example, if you experience pain in your foot, you might make an appointment to see a foot and ankle specialist. Once you get there, that specialist might determine that your pain is coming from your back and radiating into your foot and ankle. As the patient, you have now paid your co-payment or co-insurance to see a practitioner that you did not need to see.

Question for the class:

- Which diagram best explains the primary, secondary, and tertiary levels of care in the U.S. System?
  - **The answer is diamond.**
  - The reason the diamond diagram most represents the health care system in the U.S. is because **we train more specialists than generalists (primary care).**
  - Compare this to the triangle diagram which best represents the U.K.
    - They **train more generalists (primary care) and less specialists.**

Primary Care Physicians

So, in the future will the United States train enough primary care physicians?

Exhibit 1: Supply Baseline and Projected Primary Care Physician Supply and Demand, by State, 2013 and 2025 (in tens)

	2013 Estimates			2025 Projections			
Region/State	Supply	Demand	Difference[a]	Supply	Demand	Difference[a]	Adequacy[b]
Northeast							
Connecticut	2,690	2,710	-20	2,860	3,000	-140	-4.7%
Maine	1,320	990	330	1,270	1,050	220	21.0%
Massachusetts	6,420	5,190	1,230	6,470	5,580	890	15.9%
New Hampshire	1,110	950	160	1,150	1,100	50	4.5%
New Jersey	6,050	6,590	-540	6,470	7,530	-1,060	-14.1%
New York	15,160	14,200	960	15,310	15,190	120	0.8%
Pennsylvania	9,480	9,740	-260	9,140	10,140	-1,000	-9.9%
Rhode Island	870	800	70	840	850	-10	-1.2%
Vermont	630	450	180	600	480	120	25.0%

Source: DHSS, 2016. Retrieved from bhw.hrsa.gov

As you can see in the table above, the answer in some states is no. To make up for this shortage, **some states have allowed nurse practitioners to function as primary**

care providers.

Now let's go back in time to the early 1900s when physicians came to your house to provide care and the patient bartered with the doctor for their services. Eventually doctors wanted to be paid; this is when traditional fee-for-service was developed.

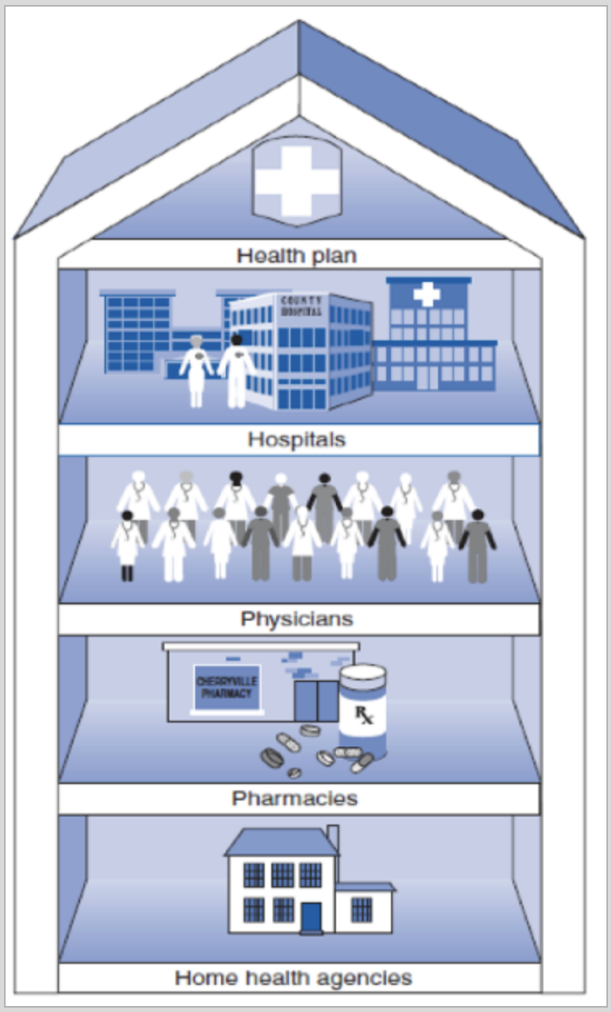
Physicians worked mostly in solo or small group practices. They were not hospital employees and they controlled hospital admissions.

Then between the 1900s and 1950s multi-group practices developed; this is what HMOs were later based on. Next, let's take a look at the development of HMOs, starting with the first generation—the Kaiser Permanente Model.

Development of HMOs

First generation of HMOs—Kaiser Permanente model

Kaiser used a **Vertical integration model** (see image below). They consolidated all levels of care, staff, and facilities under one organizational entity. That entity is responsible for delivering services to their population of enrollees.



(Bodenheimer et al., 2020)

As you can see from the image above, all care MUST be obtained at a Kaiser facility. You CANNOT obtain care outside of a Kaiser facility. If you do, your care will NOT be paid for. The only exception is if it is an emergency (deemed by Kaiser, not you).

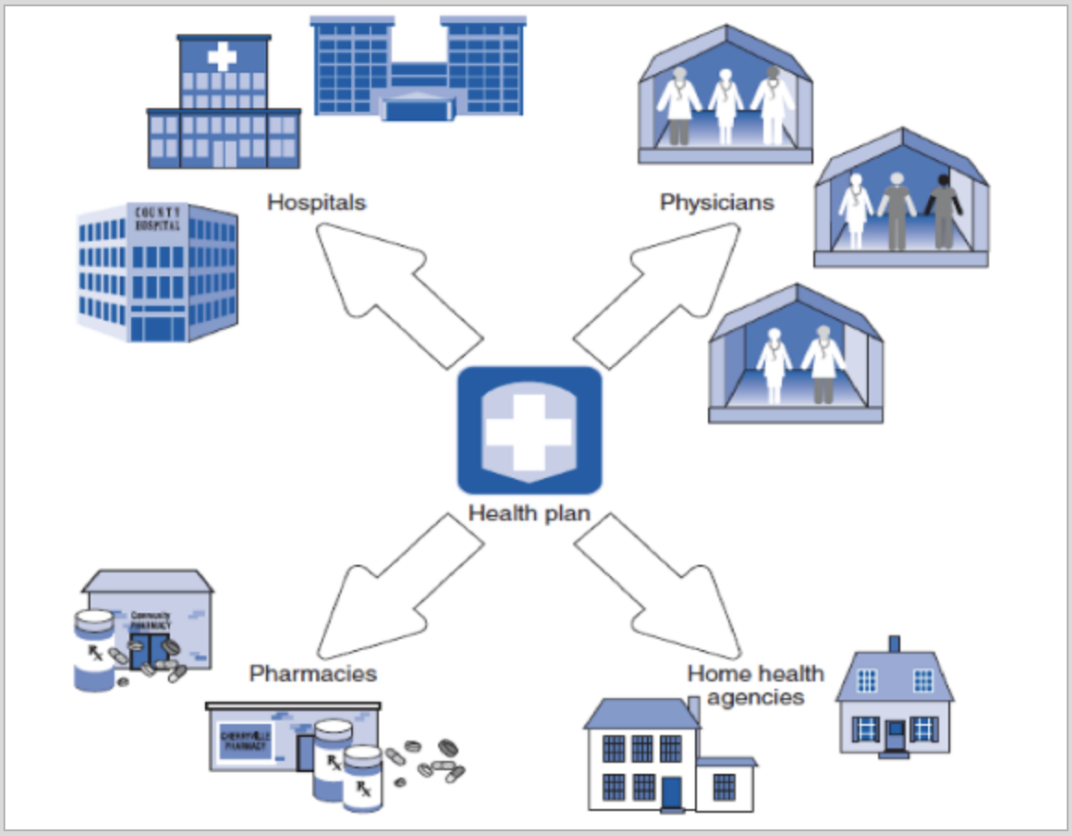
One major disadvantage of this model is if you become sick while traveling (and it is not an emergency) but there is no Kaiser facility nearby, you do not have coverage.

Second generation HMOs—Independent Practice Associations (IPAs) and Integrated Medical Groups (IMGs)

This was known as **Virtual integration**: Hospitals and insurers recruited office-based fee-for-service community physicians into an IPA (creating a basis for an HMO) and negotiated contracts with the physicians to provide care.

One of the advantages to the virtual model is that there were low capital costs because the HMO did not own its own buildings.

The physicians did NOT own their own practices, but the medical group organization employed them.



(Bodenheimer et al., 2020)

As you can see in the graph above, the health plan virtually integrates with home care agencies, pharmacies, hospitals, physicians, etc.

So, what factors explain the development of HMOs?

The HMO Act of 1973, passed during Richard Nixon's administration, gave federal funds to promote expansion pf pre-paid practices and IPAs (Independent Practice Associations). Medium and large businesses had to offer one HMO plan to employees.

As time went on, IPAs became easier to organize than pre-paid practices.

In the 1980s and 1990s IPAs took on financial risk as insurance companies dictated their fee schedule.

Providers and patients also took on risk. Physicians who saw patients from several different HMOs struggled to keep track of which hospitals and specialists were in-network for patients. At the same time, patients were at risk of being referred to an out-of-network provider their insurance would not cover.

In the early years, HMOs showed cost savings through lower hospitalization rates.

Source: Dan Wasserman, Boston Globe

I included this cartoon to show you how the insurance company truly is between the patient and the provider.

Now let’s test our knowledge of health insurance plan types and see how much you remember from the last module.

Sejal just started a full-time job and was offered a choice of several health plans. She decides she wants a plan that requires a PCP and emphasizes preventative care with a co-payment to get that care. She does not require her plan to offer her out-of-network coverage. She should enroll in:

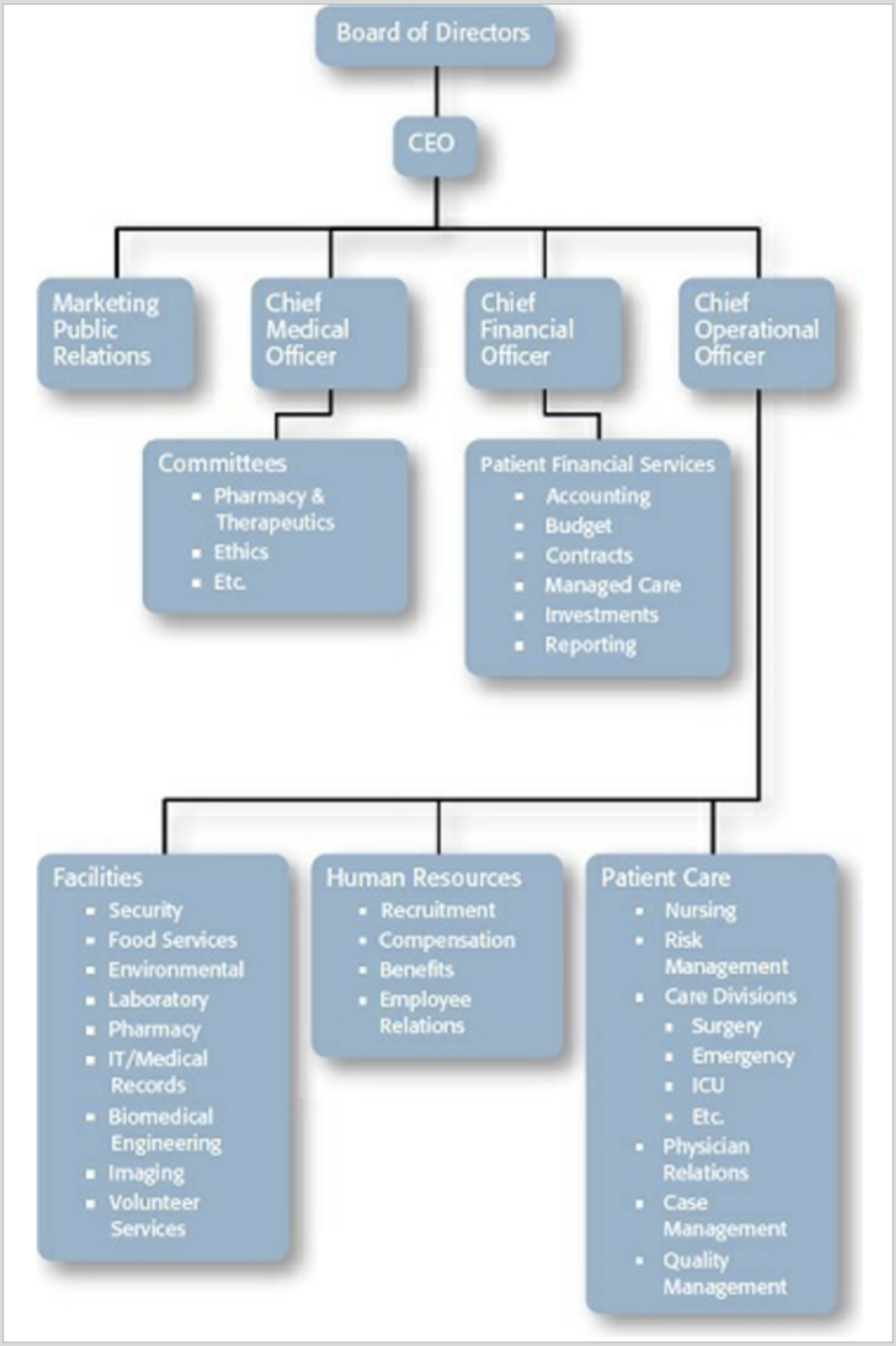
- Preferred Provider Organization (PPO)
- Point of Service (POS)
- High Deductible Health Plan
- **Health Maintenance Organization**

The answer is: **D**.

Factors influencing the delivery of health care: Hospitals

Hospital structures are very complex and involve many stakeholders. These stakeholders include the community, government, insurance companies, accrediting agencies, managed care organizations, etc.

Inpatient hospital costs are the single highest contributor to health care costs.



(Askin and Moore, 2014, p. 32)

What you see above is the hierarchy of hospital administration. As you can see, the Board of Directors is at the top. Just below that is the CEO and below that are all of the people and departments who report to the CEO.

One important thing to keep in mind as you look at this diagram is that those at the top, the CEO, Chief Medical Officer, Chief Financial Officer, and Marketing/Public Relations **are not able to bill insurance companies for their work. Their salaries are paid by the reimbursement revenue from practitioners treating patients.**

Now let's consider a hypothetical situation – Should a hospital purchase high-tech robotic equipment for prostate cancer robotic surgery?

What you see below are the questions a surgeon would ask compared to the questions an administrator would ask. You can see some of the questions are similar and some are very different.

Surgeon	Administrator
• Will this improve my patients' outcomes? • Will this make surgeries easier and/or quicker for me? • What's the learning curve for the new instrument? Will the hospital staff be properly trained? • Will I lose patients if don't have this system? • Is this product coming from my preferred vendor?	• Will this improve patients' outcomes? • Is the system a good value? Could this same amount of money be spent elsewhere in the hospital and help more patients? • Will insurance companies reimburse more now to compensate for our increased costs? • Will I lose physicians if I don't have this system? • Will the hospital save money if all surgeons use a product from the same vendor?

Changes to Improve Primary Care

Let’s now look at reform. What changes are needed to improve primary care?

1. **Same day open access appointments.**

a. If you wake up in with a sore throat and call your primary care provider and they tell you they cannot see you for 4 days, that is a problem.

2. **Electronic Medical Records.**
    a. In the United States, electronic medical record systems do not communicate with each other across different medical systems.
    b. For example, if your primary care physician is at Boston Medical Center and you then see a specialist at Mass. General, neither physician can access your medical record from the other hospital.
3. **Take a patient-centered approach.**
    a. The table below shows you what this looks like.

Table 5–2. "Old" and "new" model primary care: some elements of transforming a practice into a patient-centered medical home

Traditional Model		Patient-Centered Medical Home
My patients are those who make appointments to see me	→	Our patients are those who are registered in our medical home
Care is determined by today's problem and time available today	→	Care is determined by a proactive plan to meet health needs, with or without visits
Care varies by scheduled time and memory or skill of the doctor	→	Care is standardized according to evidence-based guidelines
I know I deliver high-quality care because I'm well trained	→	We measure our quality and make rapid changes to improve it
Patients are responsible for coordinating their own care	→	A prepared team of professionals works with all patients to coordinate care
It's up to the patients to tell us what happened to them	→	We track tests and consultations, and follow-up after ED and hospital care
Clinic operations center on meeting the doctor's needs	→	An interdisciplinary team works at the top of our licenses to serve patients

Source: Adapted with permission from F. Daniel Duffy, MD, MACP, Senior Associate Dean for Academics, University of Oklahoma School of Community Medicine.

- When aiming to improve primary care you can also consider an organizational solution.
    - This includes hiring more hospitalists.

        - A hospitalist is a physician whose primary role is to care for hospitalized patients and return them to their regular physicians upon discharge.
        - Why is this important?
            - If a patient is hospitalized and their primary care physician is NOT part of that hospital's network, then the primary care physician cannot access their patient's medical record to gain important knowledge about their hospital stay.
- So, what would be a good solution for complex patients?
    - **A patient-centered medical home.**
    - Why would this be a good solution?
        - **The primary care physician becomes the first contact person.**
- Care is person-focused over time and care is coordinated when patients need outside specialist care.
- **All patient needs are coordinated through a single center using bundled payments.**
- High need patients, i.e., patients with chronic illnesses that require regular monitoring, advising, or treatment, are targeted (Askin and Moore, 2014, p. 17)

- Another solution is **Accountable Care Organizations (ACOs)**.
    - These are networks of physicians and other providers that are **held accountable for the cost and quality of the continuum of care delivered to a group of Medicare patients.** This video will help to explain how ACOs work.
    - What you see is ACOs really **value quality and if they do not deliver quality care then their reimbursement can go down by 1-2%.** If they do deliver high quality care, then their reimbursement can increase by 1-2%.

- What are some other next steps that can be taken? **Medical neighborhoods can be set up.**

- In medical neighborhoods, services are functionally integrated similar to traditional HMOs. Patients are informed and involved. The coordinated care contributes to the health of the population.
- They are based on patient-centered medical homes where the primary care physician is in charge of the care provided by all people and places, including specialists, pharmacies, hospice, home health, nutritionists, etc.

What forces could help push the U.S. health care system toward an integrated delivery system?

1. We have an aging population – there is an increase in chronic illness and a greater demand for integrated care
2. Technology developments in biotech, biomedicine, and pharmacology – will be able to better predict health needs of people and groups over lifespans
3. The empowered consumer – the baby boomer generation will push for coordinated care
   Payment innovations – the system will be challenged to manage health within a fixed sum of money. There will be a push toward payment for prevention
4. Ability to partner – an internal response – recognition that all will share in the risk and we must all be accountable.

(Shortell, 2000)

In summary, optimal care depends on a model of care that includes:

- Appropriate level of care and practitioner roles
- Regionalization for some if not all services
- Effective patient progress through the system
- Greater integration and coordination of services
- Continuity of primary care

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