# King Saud University College of Business Administration Department of Health Administration - Masters` Program

# HHA 513 Financing Health Systems Second Semester 1442/1443

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#### Learning Objectives

- List the key features of insurance.
- Describe the major types of third-party payers.
- Discuss alternative reimbursement methods
- Discuss, in general terms, the reimbursement methods used by third-party payers, and the associated incentives and risks for providers.
- Explain how clinical and procedural coding affects reimbursement.

- Financing health care has evolved from personal payment at the time-of-service delivery to financing through health insurance (prepayment) by the employer and employee at the workplace.
- This has progressed in most industrialized countries towards governmental financing through social security or general taxation, supplemented by private and non-governmental organizations, and personal out-of-pocket expenditures.

- Ultimately, every country faces the need for governmental funding of health care either for the total population or at least for vulnerable groups such as the elderly and the poor, as in the USA, where governmental funding comes to nearly 50 percent of total health expenditures.
- Government funding is necessary also for services that insurance plans avoid or are inefficient in reaching, including as community-oriented services and groups at special risk, such as infants and women.

- Health systems require financial resources to accomplish their goals. The major expenses of most health care systems are human resources, care at hospitals, and medications.
- In most tropical nations, health care financing is supplied by a mix of governmental spending, private (mostly out-of-pocket) spending, and external aid.
- For the low- and lower-middle-income nations, health care financing remains a significant challenge.

- Many upper-middle-income nations across Latin America, Africa, and Asia have been able to provide financing mechanisms for health that cover significant portions of their populations.
- These mechanisms both ensure access to health care and protect individuals against catastrophic debt for accessing health services.

- However, in low-income nations (the majority of which are in sub-Saharan Africa), financing is a major barrier to health care delivery.
- Health care financing in upper-middle- and high-income countries is generally provided through health insurance schemes (often employment or union based) or governmental financing that is funded by general taxation.

- Governmental financing is severely limited in lowincome nations due to lack of a significant tax base.
- Health insurance is difficult to implement in these nations due to the high burden of disease, lack of sufficient disposable income among the population, and difficulty creating large, diverse risk pools.
- Almost all currently implemented health insurance schemes in these countries require government subsidization to sustain them.

- Out-of-pocket expenses (i.e., private spending that is not pre-paid as part of an insurance program) for health comprise a large portion of health financing in most low-income countries.
- These expenses often drive families into poverty or are an insurmountable barrier to accessing needed health care services.

# Health Financing: The Macroeconomic Level

- Higher-income countries tend to have fewer out-of-pocket expenses, as more of the population is covered by pre-paid health insurance plans.
- Health financing provides the resources and economic incentives for the operation of health systems and is a key determinant of health system performance in terms of equity, efficiency, and health outcomes.

3/2/2022

- Health financing involves the basic functions of revenue collection, pooling of resources, and purchase of interventions. Figure 3-1. illustrates these functions and their interactions.
- Revenue collection is how health systems raise money from households, businesses, and external sources.

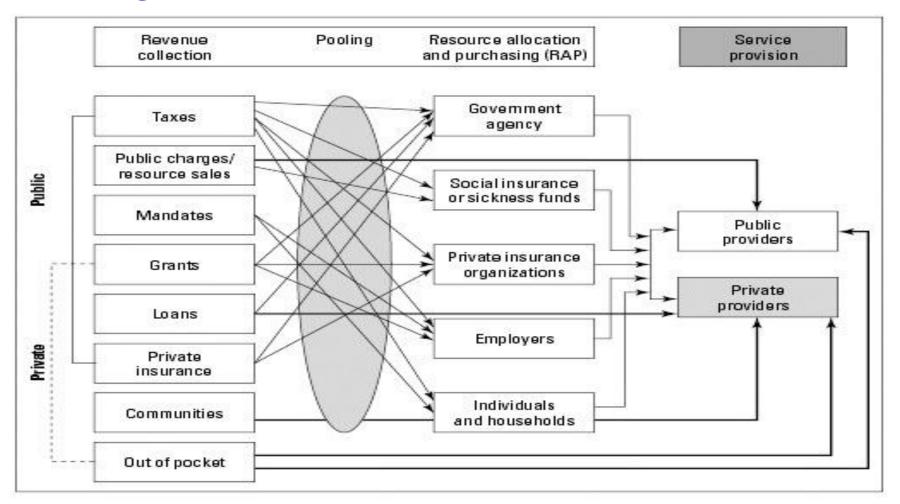
#### Health Financing Systems

- Pooling deals with the accumulation and management of revenues so that members of the pool share collective health risks, thereby protecting individual pool members from large, unpredictable health expenditures.
- Prepayment allows pool members to pay for average expected costs in advance, relieves them of uncertainty, and ensures compensation should a loss occur.

3/2/2022

- Pooling coupled with prepayment enables the establishment of insurance and the redistribution of health spending between high- and low-risk individuals and high- and low-income individuals.
- Purchasing refers to the mechanisms used to purchase services from public and private providers.

# Figure 3-1. Interactions among Revenue Raising, Risk Pooling, Resource Allocation, and Service Provision



Source: Authors.

- In terms of health policy at the country level, these three financing functions translate into the following:
  - Raising sufficient and sustainable revenues in an efficient and equitable manner to provide individuals with both a basic package of essential services and financial protection against unpredictable catastrophic financial losses caused by illness or injury.
  - Managing these revenues to equitably and efficiently pool health risks; and,
  - Ensuring the purchase of health services in an allocatively and technically efficient manner.

- These financing functions are generally embodied in the following three stylized health financing models:
  - National Health Service (NHS): compulsory universal coverage, national general revenue financing, and national ownership of health sector inputs
  - Social Insurance: compulsory universal coverage under a social security (publicly mandated) system financed by employee and employer contributions to nonprofit insurance funds with public and private ownership of sector inputs
  - Private Insurance: employer-based or individual purchase of private health insurance and private ownership of health sector inputs.

- Although these models provide a general framework for classifying health systems and financing functions, they are not useful from a micro policy perspective because all health systems embody features of the different models.
- The key health policy issues are not whether a government uses general revenues or payroll taxes, but the amounts of revenues raised and the extent to which they are raised in an efficient, equitable, and sustainable manner.
- Similarly, nothing is intrinsically good or bad about public versus private ownership and provision. The important issue is whether the systems in place ensure access, equity, and efficiency.

Health Financing Systems - Microeconomic Level For most products and services purchasing decisions, consumers generally

- 1. have a choice among many suppliers,
- 2. can distinguish the quality of competing goods or services,
- 3. make a (presumably) rational decision regarding the purchase on the basis of quality and price, and
- 4. pay for the full cost of the purchase.

Health Financing Systems - Microeconomic Level Decisions around healthcare services are unique when compared with other services and goods.

- First, often choices for a particular service are limited to a few individuals or organizations.
- Next, judging the quality among competing providers is difficult, if not impossible.

# Health Financing Systems - Microeconomic Level Decisions around healthcare services

- Then, the decision on which provider to use for a particular service typically is not made by the consumer but rather by a physician or some other clinician.
- Finally, for most individuals, health insurance from third-party payers (insurers) is paid for or subsidized by employers or government agencies, so many patients are partially insulated from the costs of healthcare.

3/2/2022

Basic Insurance Concepts Given that insurance is the cornerstone of healthcare reimbursement in most counties, an appreciation of basic insurance concepts will help you better understand the marketplace for healthcare services.

3/2/2022 Mohammed S Alnaif 21

#### Basic Insurance Concepts

A Simple illustration, Consider this simple example to better understand insurance concepts. Assume that no health insurance exists and you face only two possible medical outcomes in the coming year:

Outcome	Probability	Cost
Stay healthy	0.99	\$ <b>0</b>
Get sick	<i>0.01</i>	50,000
	<i>1.00</i>	

#### Basic Insurance Concepts

- Furthermore, assume that everyone else faces the same medical outcomes at the same odds and with the same associated costs. What is your expected healthcare cost—E(Cost)—for the coming year?
- To find the answer, we multiply the cost of each outcome by its probability of occurrence and then sum the products:

 $E(Cost) = (Probability of outcome 1 \times Cost of outcome 1) + (Probability of outcome 2 \times Cost of outcome 2) = (0.99 \times \$0) + (0.01 \times \$50,000) = \$0 + \$500 = \$500.$ 

- Assume, for example, that you and every-one else earn \$60,000 a year. With this salary, you and everyone else can easily afford the \$500 "expected" healthcare cost. The problem, however, is that no one's actual cost will be \$500.
- If you stay healthy, your cost will be zero; if you get sick, your cost will be \$50,000.
- A cost of \$50,000 could force you, and most people who get sick, into personal bankruptcy.

- Now, suppose an insurance policy that pays all your healthcare costs for the coming year is available for \$600.
- Would you take the policy, even though it costs \$100 more than your "expected" healthcare costs?
- Most people would, and do. Because individuals are risk averse, they are willing to pay \$100 more than their "expected" benefit to eliminate the risk of financial ruin.
- In effect, policyholders are passing the costs associated with the risk of getting sick to the insurer, which, as you will see, is spreading those costs over a large number of subscribers.

- Would an insurer be willing to offer the policy for \$600?
- If the insurer could sell enough policies, it would know its revenues and costs with some precision.
- For example, if the insurer sold a million policies, it would collect 1,000,000 × \$600 = \$600 million in health insurance premiums; pay out roughly 1,000,000 × \$500 = \$500 million in claims; and have about \$100 million to cover administrative costs.

- Needless to say, the concept of insurance is much more complicated in the real world.
- Insurance typically has four distinct characteristics:
- 1. Pooling of losses. The pooling, or sharing, of losses is the basis of insurance. Pooling means that losses are spread over a large group of individuals, called a pool, so that each individual realizes the average loss of the pool (plus administrative expenses) rather than the actual loss incurred.

- In addition, pooling involves the grouping of a large number of homogeneous exposure units—that is, people or things having the same risk characteristics, so that the law of large numbers applies.
- (In statistics, the law of large numbers states that as the size of the sample increases, the sample mean gets closer and closer to the population mean.)
- Thus, pooling implies
  - a. the sharing of losses by the entire group and
  - b. the prediction of future losses with some accuracy.

- 2. Payment only for random losses.
- A random loss is unforeseen and unexpected and occurs as a result of chance. Insurance is based on the premise that payments are made only for losses that are random.
- A random loss A loss that is unpredictable and occurs as a result of chance.

#### Basic Insurance Concepts

- 3. Risk transfer. An insurance plan almost always involves risk transfer.
- The sole exception to the element of risk transfer is self-insurance, which is the assumption of a risk by a business (or an individual) itself rather than by an insurance company.
- Risk transfer is the passing of a risk from the insured to the insurer, which typically is in a better financial position to bear the risk than the insured because of the law of large numbers.

3/2/2022

#### Basic Insurance Concepts

- 4. Indemnification. Indemnification for losses is the reimbursement to the insured if a loss occurs.
- In the context of health insurance, indemnification occurs when the insurer pays, in whole or in part, the insured or the provider for the expenses related to an insured's illness or injury.

3/2/2022

- In summary, we applied these four characteristics to our insurance example:
- 1. The losses are pooled across a million individuals,
- 2. the losses on each individual are random (unpredictable),
- 3. the risk of loss is passed to the insurance company, and
- 4. the insurance company pays for any losses.

#### Real-World Problems

- Insurance works fine when the four basic characteristics are present.
- However, if any of these characteristics is violated, problems arise.
- The two most common problems are adverse selection and moral hazard.

#### **Adverse Selection**

- You know more about your likely use of health services than does your typical insurance company. As a result, you have an incentive to use this information to your best advantage.
- In particular, if you have some health problem—say, heart disease—you might try to find an insurance plan that is designed for healthier people.
- If you were successful, you would pay a premium that was less than your expected claims experience.

#### **Adverse Selection**

- The insurer, on the other hand, would probably lose money on you.
- As you might imagine, insurers worry a good deal about this.
- Adverse selection in health insurance exists when you know more about your likely use of health services than does the insurer.
- Insurers deal with the problem by trying to design risk classes that group similar risks together.

#### **Adverse Selection**

- They then charge premiums that reflect this differential risk.
- The same information that goes into defining risk classes can be used to identify potential marketing opportunities for insurers.
- If one insurer can identify an employer group that has lower claims experience, for example, it might be able to quote a premium that will attract the group away from another insurer.

### **Adverse Selection**

- Adverse selection is a potentially fatal problem for insurers. If they combine dissimilar risks in the same pool, those with lower expected utilization will see premiums that are too high.
- These individuals or groups will tend to decline coverage or will be attracted by other insurers with policies designed for low risks.

#### **Adverse Selection**

- To make matters worse, high utilizers will see premiums that are too low.
- They will be attracted to the plan, raising average claims well above the plan's expectations and generating losses for the insurer.
- Insurers deal with adverse selection through the underwriting and rate-making process.
- They seek to identify the determinants of claims experience and use this knowledge to put individuals and groups into risk pools that reflect their expected utilization.

#### **Adverse Selection**

- The nature and extent of this underwriting process depends in large part on the rating techniques employed.
- Community rating, in which everyone is in the same risk pool, requires little formal underwriting.
- Similarly, retrospective experience rating requires little underwriting; each employer group constitutes its own risk class.

- Adverse selection, in its simplest form, means that individuals most likely to need healthcare services are most likely to buy health insurance.
- This tendency creates a problem for insurers because it drives the costs of healthcare for a defined population to higher-than-anticipated levels.

### Real-World Problems

Adverse selection, For example, an individual without insurance who needs a costly surgical procedure will likely seek health insurance if it is affordable to do so, whereas an individual who does not need surgery is much less likely to purchase insurance.

3/2/2022

### Real-World Problems

- Similarly, consider the likelihood of a 20-year old to seek health insurance purchase versus the likelihood of a 65-year-old to do.
- The older individual, with much greater health risk due to age, is more likely to seek insurance.

42

### Real-World Problems

• If this tendency toward adverse selection goes unchecked, a disproportionate number of sick people, or those most likely to become sick, will seek health insurance, and the insurer will experience higher-than-expected claims.

- This increase in claims will trigger premium increases to spread the costs across the pool, which worsens the problem because healthier members of the plan will either pursue cheaper rates from another company (if available) or simply forgo insurance.
- The adverse selection problem exists because of asymmetric information, which occurs when individual buyers of health insurance know more about their health status than do insurers.

### **Asymmetric information**

- Asymmetric information is when there is an imbalance in information between buyer and seller which can distort choices. The issue with asymmetric information starts before any transaction takes place. For Example:
  - Doctors have superior knowledge about drugs and treatments
  - A used-car seller knows more about vehicle quality than a buyer

- Preexisting conditions present a true problem for the health insurance field because an important characteristic of insurance is randomness.
- If an individual has a preexisting condition, the insurer no longer bears random risk but rather assumes the role of payer for the treatment of a known condition.

- When the cost of health insurance is relatively low, such as in an employer-subsidized plan, most people to whom it is made available will choose to buy the insurance.
- However, when the cost of health insurance is relatively high, the choice is not as easy to make.
- Often, those who opt in will be more likely to have immediate healthcare needs and hence be more expensive to insure than the population as a whole.

- Thus, adverse selection is a factor in increased health insurance costs, and the higher the costs, the higher the premiums, which means even more individuals will do without coverage.
- The traditional techniques used by insurers to mitigate adverse selection risk have included denying coverage to or charging higher premiums for individuals with preexisting health conditions or excluding those conditions from the individual's policy.

- When the party with superior information alters his/her behavior in such a way that benefits himself while imposing costs on those with inferior information.
- Moral hazard occurs when insured consumers are likely to take greater risks, knowing that a claim will be paid for by their cover.
- The consumer knows more about his/her intended actions than the producer (insurer).

- This moral hazard occurs when insurance contracts are written on the basis of endogenous (having an internal cause or origin) incurred expenses and not on the basis of exogenous (having an external cause or origin) health needs.
- This kind of insurance leads to overconsumption of care, the distortionary costs of which are offset by reducing the level of insurance.

- Moral Hazard, Insurance is based on the premise that payments are made only for random losses, and from this premise stems the problem of moral hazard.
- The most common illustration of moral hazard in a casualty insurance setting is the owner who deliberately sets a failing business on fire to collect the insurance payment.

- Moral hazard is also present in health insurance, but in a less dramatic form—few people are willing to voluntarily sustain injury or illness for the purpose of collecting health insurance proceeds.
- However, undoubtedly there are people do purposely use healthcare services that are not medically required.

- For example, some people might visit a physician or a walk-in clinic for the social value of human companionship rather than to address a medical necessity.
- Also, some hospital discharges might be delayed for the convenience of the patient rather than for medical purposes.

- Insurers attempt to protect themselves from moral hazard claims by paying less than the full amount of healthcare costs.
- Forcing insured individuals to bear some of the cost lessens their tendency to consume unneeded services or engage in unhealthy behaviors.
- One way to make patients pay out of pocket is to require a deductible.

- Deductible, The dollar amount that must be spent on healthcare services (e.g., \$500 per year) by the insured individual before any benefits are paid by the insurer.
- To illustrate, a policy may state that the first \$500 of medical expenses incurred each year will be paid by the individual.

- After this deductible is met, the insurer will pay all eligible medical expenses for the remainder of the year.
- Yet such a policy would still be problematic for the insurer without further modification.
- The primary tools that insurers have, to address the moral hazard problem are copayments and coinsurance.

- Copayment A fixed cost to the patient each time a service is rendered (e.g., \$20 per outpatient visit).
- Coinsurance A sharing of costs between the patient and the insurer (e.g., the patient pays 20 percent and the insurer pays 80 percent of the costs of hospitalization).

### Third-Party Payers

- Third-party payers are the insurers that reimburse health services organizations and hence are the major source of revenues for most providers.
- Third-party payers include private insurers, such as Tawuniya, Bupa Arabia, and public (government) insurers.
- Third-party payers use several reimbursement methods to pay providers, depending on the specific payer and the type of service rendered (e.g., inpatient vs. outpatient).

### Third-Party Payers

- Health insurance originated in Europe in the early 1800s, when mutual benefit societies were formed to reduce the financial burden associated with illness or injury.
- Since then, the concept of health insurance has changed dramatically.
- Today, health insurers fall into two broad categories: private insurers and public programs.

### What Is Health Insurance?

- The term Health Insurance refers to a variety of insurance policies, ranging from those that cover the costs of doctors and hospitals to those that meet a specific need like long-term care or dental coverage.
- When most of us talk about health insurance, however, we refer to the kind of plan that covers doctor bills, surgery and hospital costs.
- You may have heard terms like "Managed Care," "Feefor-Service" and "Indemnity." These words define different types of coverage or health plans widely used by today's consumers.

### What Is Health Insurance?

- Healthcare insurance or health insurance is a contract between a policyholder and a third-party payer or government program to reimburse the policyholder for all or a portion of the cost of medically necessary treatment or preventive care provided by healthcare professionals.
- Health insurance is available to individuals who participate in group (e.g., employer sponsored), individual (or personal insurance), or prepaid health plans (e.g., managed care).

### **Group health insurance**

- Traditional healthcare coverage subsidized by employers and other organizations (e.g., labor unions, rural and consumer health cooperatives) whereby part or all of premium costs are paid for and/or discounted group rates are offered to eligible individuals.
- Group health insurance plans are designed to be more cost-effective for businesses. Employee premiums are typically less expensive than those for an individual health plan.

#### **Individual health insurance**

- Private health insurance policy purchased by individuals or families who do not have access to group health insurance coverage.
- Applicants can be denied coverage, and they can also be required to pay higher premiums due to age, gender, and/or pre-existing medical conditions.
- Individual health insurance is a policy purchased by an individual for themselves and their family based upon personal needs and budget.

### What Is Indemnity Insurance?

- Indemnity insurance is a type of insurance policy where the insurance company guarantees compensation for losses or damages sustained by a policyholder to a certain limit—usually the amount of the loss itself.
- Insurance companies provide coverage in exchange for premiums paid by the insured parties.
- These policies are commonly designed to protect professionals and business owners when they are found to be at fault for a specific event such as misjudgment or malpractice.
- They generally take the form of a letter of indemnity.

### What Is Indemnity Insurance?

- Under an Indemnity plan, you may see whatever doctors or specialists you like, with no referrals required.
- Though you may choose to get the majority of your basic care from a single doctor, your insurance company will not require you to choose a primary care physician.
- An Indemnity plan may also require that you pay up front for services and then submit a claim to the insurance company for reimbursement.

### What is an Indemnity Health Plan?

- Indemnity plans allow you to direct your own health care and visit almost any doctor or hospital you like.
- The insurance company then pays a set portion of your total charges. Indemnity health insurance plans are also called fee-for-service.
- These are the types of plans that primarily existed before the rise of HMOs, PPOs, and other network-type plans.
- With indemnity plans, the insurance company pays a pre-determined percentage of the reasonable and customary charges for a given service, and the insured pays the rest.

### What is an Indemnity Health Plan?

- With an indemnity plan, there's no provider network, so patients can choose their own doctors and hospitals.
- But that means that the providers can balance bill the patient for any billed amounts above what the insurance company pays, since the providers don't have contracts with the insurer requiring them to accept the insurer's "reasonable and customary" amounts as payment in full.

### What is an Indemnity Health Plan?

- A reasonable and customary fee is the amount of money that a particular health insurance company (or self-insured health plan) determines is the normal or acceptable range of payment for a specific health-related service or medical procedure.
- If the fees are higher than the approved amount, the individual receiving the service is responsible for paying the difference.
- Sometimes, however, if an individual questions his or her physician about the fee, the provider will reduce the charge to the amount that the insurance company has defined as reasonable and customary.

- Traditional health insurance charges its enrollees a monthly premium, in exchange for paying for some or all of the health care services an individual receives.
- Fixed indemnity (also called hospital indemnity) coverage is designed differently, with payments made on a "per time period" basis.
- Rather than paying health care providers for providing specific services, fixed indemnity coverage provides a payment for each day (or month, or other time period) an individual is hospitalized or experiencing illness.

- Hospital indemnity insurance supplements your existing health insurance coverage by helping pay expenses for hospital stays.
- Depending on the plan, hospital indemnity insurance gives you cash payments to help you pay for the added expenses that may come while you recover.
- Typically plans pay based on the number of days of hospitalization.
- Even if your medical insurance covers most of your hospitalization, you can still receive payments from your hospital indemnity insurance plan for extra expenses while recovering.

- Like many supplemental insurance plans, hospital indemnity insurance is typically lower in cost, depending on the plan and coverage. Affordable hospital indemnity plans are worth considering if your existing health insurance plan has limits on hospitalization coverage.
- Hospital indemnity insurance is just one type of supplemental coverage that can support your health insurance with financial protection.
- Supplemental insurance plans can also protect you and your family in the event of a serious accident or provide financial assistance during an illness.

- Although health insurance pays for medical services after copay fees, co-insurance and deductibles are met, hospital indemnity insurance pays the policyholder if they are hospitalized.
- While hospital indemnity insurance only provides coverage in the event of hospitalization, other types of health care indemnity policies pay the policyholder when they experience other medical events, such as being transported by ambulance, having surgery or receiving a diagnosis of specific illnesses.

#### **How Indemnity Plans Work**

- With an indemnity plan (sometimes called fee-forservice), a patient can use any medical provider (such as a doctor and hospital).
- The patient or the provider sends the bill to the insurance company, which pays part of it.
- Usually, the patient have a deductible—such as \$250—to pay each year before the insurer starts paying.

#### **How Indemnity Plans Work**

- Once the insured meet the deductible, most indemnity plans pay a percentage of what they consider the "Usual and Customary" charge for covered services.
- The insurer generally pays 80 percent of the "Usual and Customary" costs and the insured pay the other 20 percent, which is known as coinsurance.
- If the provider charges more than the "Usual and Customary" rates, the insured will have to pay both the coinsurance and the difference.

#### **How Indemnity Plans Work**

- The plan will pay for charges for medical tests and prescriptions as well as from doctors and hospitals.
- It may not pay for some preventive care, like checkups.
- With Indemnity health plans, the insurer only pays for part of the insured doctor and hospital bills.
   Typically, this is what you would pay:
- a) A monthly fee, called a premium.

#### **How Indemnity Plans Work**

b) A certain amount of money each year, known as the deductible, before the insurance payments begin. In a typical plan, the deductible might be \$250 for each person in of the insured family, with a family deductible of \$500 when at least two people in the family have reached the individual deductible. The deductible requirement applies each year of the policy. Also, not all health expenses of the insured have count toward your deductible. Only those covered by the policy do.

## A few things to keep in mind about Fee-for-Service plans:

- Fee-for-Service policies typically have an out-of-pocket maximum. This means that once the insured covered expenses reach a certain amount in a given calendar year, the reasonable and customary fee for covered benefits will be paid in full by the insurer.
- If your provider bills you more than the reasonable and customary charge, however, you may still have to pay a portion of the bill.

- The traditional way of obtaining medical care has been for a patient to choose a doctor and then pay that doctor for the services provided.
- This "fee-for-service" model, which has been financially rewarding for doctors, gives the patient the right to choose a physician.
- But the fee-for-service model underwent a rapid decline in the 1980s and 1990s as the concept of managed care took hold in the healthcare industry.

- Managed care is a new term for an old medical financing plan known as the HMO, or health maintenance organization.
- HMOs are not insured plan, they are prepaid health care systems offering services to which the member is entitled, as opposed to a dollar amount guaranteed by an insurance policy.
- Doctors are paid a set amount of money monthly for each patient regardless of the level or frequency of care provided.

- Managed care has entered the lexicon of healthcare reform, but confusion and ignorance surround its meaning and purpose.
- It seeks to cut the costs of health care while maintaining its quality, but the evidence that it is able to achieve these aims is mixed.

- Managed care is not a discrete activity, but a spectrum of activities carried out in a range of organizational settings.
- Due to its constantly changing nature, managed care is a slippery concept—but all its permutations have in common an attempt to influence and modify the behavior and practice of doctors and other health professionals towards cost effective care.

- Managed Care refers to types of health insurance plans that provide health care services at a lower cost. The key to these lower costs? Members of managed care plans must adhere to certain rules designed to lower the cost of medical care.
- Managed care plans, have agreements with certain doctors, hospitals and health care providers to give a range of quality health services at a reduced cost.
- The secret? Patients must stay within the plan's network of providers and health facilities to get the best benefits.
- HMOs, PPOs and POS plans are all types of managed care.

- Most managed care is carried out in one of two basic types of organizational setting—the health maintenance organization (HMO) or the preferred provider organization (PPO).
- A health maintenance organization is a prepaid organized delivery system (a fixed amount of money is available to cover the health needs of members).
- The organization therefore assumes financial risk and may transfer some of that risk to doctors or other providers.
- Individuals enroll with a health maintenance organization and receive health care for a fixed premium.

#### **Managed Health Care**

Managed care may be thought of as a continuum of models. These models are classified as follow:

- Indemnity with precertification, mandatory second opinion, and large case management.
- Service plan with precertification, mandatory second opinion, and large case management.
- Preferred Providers Organization (PPO)
- Point-of-service (POS)
- Health Maintenance Organization (HMO)
  - Open panel
    - Individual Practice Association (IPO)
    - Direct Contract
  - **□** Network Model
  - Closed panel
    - Group Model
    - Staff Model

- As the models move from indemnity with precertification, mandatory second opinion, and large case management to a closed panel HMO, certain changes occur. These changes include:
  - Elements of control over health care delivery become tighter.
  - New elements of control are added.
  - More direct interaction with providers occurs between the plan and provider.
  - Overhead cost and complexity increases in the health plan.
  - Greater control of utilization occurs.
  - More reduction in rate of medical cost takes place.

## **Managed Health Care Preferred Provider Organizations (PPO)**

- A PPO is an organization that contracts with health care providers who agree to accept discounts from their usual and customary fees and comply with utilization review policies in return for the patient flow they expect from the PPO.
- PPO plans, are one of the most popular types of plans in the Individual and Family market.

## **Managed Health Care Preferred Provider Organizations (PPO)**

- PPOs an indemnity plans that allows patients to visit whatever in-network physician or healthcare provider they wish without first requiring a referral from a primary care physician.
- Patients will probably have an annual deductible to pay before the insurance company starts covering the medical bills. they may also have a co-payment or be required to cover a certain percentage (coinsurance) of the total charges for the medical bills.

- Preferred Provider Organization (PPO) Also referred to as an "open-ended" HMO, PPO plans encourage but do not require members to choose a primary care provider (PCP).
- Subscribers choosing not to be treated by a network physician must pay higher deductibles and co-payments than those utilizing network physicians.

- Point-of-service (POS) plan A POS plan is an "HMO/PPO" hybrid; sometimes referred to as an "open-ended" HMO when offered by an HMO. POS plans resemble HMOs for in-network services.
- Services received outside of the network are usually reimbursed in a manner similar to conventional indemnity plans (e.g., provider reimbursement based on a fee schedule or usual, customary and reasonable charges).

- A point-of-service plan is similar to an HMO. It requires the policyholder to choose an in-network primary care doctor and obtain referrals from that doctor if they want the policy to cover a specialist's services.
- And a POS plan is like a PPO in that it still provides coverage for out-of-network services, but the policyholder will have to pay more than if they used in-network services.

- Point-of-service (POS) plans usually offer lower costs, but their list of providers may be limited.
- POS plans are similar to HMOs, but POS plans allow customers to see out-of-network providers.
- A POS policy holder is responsible for filing all the paperwork when they visit an out-ofnetwork provider.

## **Managed Health Care Health Maintenance Organization**

- A type of health insurance plan that usually limits coverage to care from doctors who work for or contract with the HMO.
- It generally won't cover out-of-network care except in an emergency.
- An HMO may require you to live or work in its service area to be eligible for coverage.
- HMOs often provide integrated care and focus on prevention and wellness.

#### **Health Maintenance Organization**

- There are several types of HMO, each of which offers access to a different range of providers. HMOs are classified as follow:
  - Open panel
    - Individual Practice Association (IPO)
    - Direct Contract
  - Network Model
  - Closed panel
    - Group Model
    - Staff Model

#### **Health Maintenance Organization**

- Individual Practice Association (IPA) HMO- is a legal entity organized and directed by physicians in private practice to negotiate contracts with health insurance plans on their behalf.
- IPA is a type of health care provider organization composed of a group of independent practicing physicians who maintain their own offices and band together for the purpose of contracting their services to HMOs.
- An IPA may contract with and provide services to both HMO and non-HMO plan participants.

#### **Health Maintenance Organization**

- In a direct model, the HMO contracts directly with individual physicians to provide physician services to their members.
- There is no intervening entity such as an IPA.
- The HMO reimburses the providers directly, and perform all related management tasks.
- Direct contract models are currently the most common form of HMO.

#### **Health Maintenance Organization**

- The closed-panel HMO is a managed care plan that has an exclusive arrangement with physicians that blocks them from seeing patients from another managed care organization.
- The closed-panel HMO e.g., staff and group model HMO—in which covered insureds must select a primary care physician, who has control over referrals to other physicians in or out of the group.
- Closed panels generally do not reimburse their members for health care services used outside of the provider network.

#### **Health Maintenance Organization**

- Closed Panel Under this model, also known as the "Group Model," the Health Maintenance Organization pays a group of physicians to provide multi-specialty services to their members.
- Member care is administered at facilities owned by the group or the HMO. Patients under this plan need to use the group to have their medical expenses covered.

#### **Health Maintenance Organization**

- Closed Panel Staff Model This is another example of the closed panel model with a variation.
- In the staff model, the HMO hires physicians, specialists and ancillary care providers and house them in buildings owned by the HMOs.
- They are direct employees of the HMO.
- Members must also use these groups if they are to have their medical expenses covered.

#### Alternative Reimbursement Methods

- Regardless of the payer for a particular healthcare service, a limited number of payment methodologies are used to reimburse providers.
- Payment methods fall into two broad categories: fee-for-service and capitation.
- In this section, we discuss the mechanics, incentives created, and risk implications of alternative reimbursement methodologies.

### Alternative Reimbursement Methods Fee-for-Service

- In fee-for-service payment methods, of which many variations exist, the more services provided, the higher the reimbursement.
- The three primary fee-for-service methods of reimbursement are:
  - 1. cost-based,
  - 2. charge-based, and
  - 3. prospective payment.

#### Alternative Reimbursement Methods Fee-for-Service Cost-Based Reimbursement

- Under cost-based reimbursement, the payer agrees to reimburse the provider for the costs incurred in providing services to the insured population.
- Reimbursement is limited to allowable costs, usually defined as those costs directly related to the provision of healthcare services.

#### Alternative Reimbursement Methods Fee-for-Service Cost-Based Reimbursement

- Nevertheless, for all practical purposes, cost-based reimbursement guarantees that a provider's costs will be covered by payments from the payer.
- Typically, the payer makes periodic interim payments to the provider, and a final reconciliation is made after the contract period expires and all costs have been processed through the provider's managerial (cost) accounting system.

3/2/2022 Mohammed S Alnaif 102

### Alternative Reimbursement Methods Fee-for-Service Charge-Based Reimbursement

- When payers pay billed charges, or simply charges, they pay according to an official list of prices, called a chargemaster or rate schedule, established by the provider.
- Chargemaster A provider's official list of charges (prices) for goods, supplies, and services rendered. Also called a rate schedule.

### Alternative Reimbursement Methods Fee-for-Service Charge-Based Reimbursement

- To a certain extent, this reimbursement system places payers at the mercy of providers regarding the cost of healthcare services, especially in markets where competition is limited.
- Most payers that historically reimbursed providers based on billed charges now pay negotiated, or discounted, charges. This is especially true of insurers that have established managed care plans.

### Alternative Reimbursement Methods Fee-for-Service Charge-Based Reimbursement

- Many people argue that chargemaster prices have become meaningless because of the varying discounts and arrangements between providers and payers and hence the entire concept should be abandoned.
- However, in a significant healthcare sector development, some countries require hospitals to publicly post a list of their standard charges for items and services to allow for informed decisions by consumers, promote competition, and drive down costs across the healthcare sector.

#### Alternative Reimbursement Methods Fee-for-Service Prospective Payment Reimbursement

- Prospective Payment A reimbursement system meant to cover expected costs as opposed to historical (retrospective) costs.
- In a prospective payment system, the rates paid by payers are established by the payer before the services are provided.
- Furthermore, payments are not directly related to either costs or chargemaster rates.

# Alternative Reimbursement Methods Fee-for-Service Prospective Payment Reimbursement The following are the common units of payment used in prospective payment systems:

- Per procedure. Under per procedure reimbursement, a separate payment is made for each procedure performed on a patient.
- Because of the high administrative costs associated with this method when applied to complex diagnoses, per procedure reimbursement is more commonly used in outpatient than inpatient settings.

Alternative Reimbursement Methods
Fee-for-Service Prospective Payment Reimbursement
The following are the common units of payment used in
prospective payment systems:

- Per diagnosis. Under the per diagnosis reimbursement method, the provider is paid a rate that depends on the patient's diagnosis.
- Diagnoses that require higher resource utilization, and hence are more costly to treat, have higher reimbursement rates. (DRG).

# Alternative Reimbursement Methods Fee-for-Service Prospective Payment Reimbursement The following are the common units of payment used in prospective payment systems:

- Per diem (per day). Some insurers reimburse institutional providers, such as hospitals and nursing homes, on a per diem (per day) basis.
- In this approach the provider is paid a fixed amount for each day that service is provided, regardless of the nature of the service. These rates can be stratified.

Alternative Reimbursement Methods

Fee-for-Service Prospective Payment Reimbursement

The following are the common units of payment used in

prospective payment systems:

• Bundled (global) reimbursement. Under bundled reimbursement, payers make a single prospective payment that covers all services delivered in a single episode, whether the services are rendered by a single provider or by multiple providers.

# Alternative Reimbursement Methods Fee-for-Service Prospective Payment Reimbursement The following are the common units of payment used in prospective payment systems:

- For example, a bundled payment may be made for all obstetric services associated with a pregnancy provided by a single physician, including all prenatal and postnatal visits as well as the delivery.
- Finally, note that, at the extreme, a bundled payment may cover an entire population. (which, in effect, is capitation payment)

## Alternative Reimbursement Methods Capitation

- Up to this point, the prospective payment methods presented have been fee-for-service methods—that is, providers are reimbursed based on the number of services provided.
- The service may be defined as a visit, a diagnosis, a hospital day, an episode, or in some other manner, but the key feature is that the more services that are performed, the greater the reimbursement amount.

112

#### Alternative Reimbursement Methods

- Capitation, although a form of prospective payment, is an entirely different approach to reimbursement and hence deserves to be treated separately.
- Under capitated reimbursement, the provider is paid a fixed amount per covered life per period (usually a month), regardless of the number of services provided.

## Alternative Reimbursement Methods Capitation

- For example, a primary care physician might be paid \$15 per member per month for handling 100 members of a managed care plan.
- Capitation payment, which is used primarily by managed care plans, dramatically changes the financial environment of healthcare providers.
- It has implications for financial accounting, managerial accounting, and financial management.

#### Alternative Reimbursement Methods

- Before closing our discussion of reimbursement, we should note that many insurers are now creating reimbursement systems that explicitly reward providers for achieving certain benchmarks.
- These reimbursement systems, which are really modified fee-for-service or capitation systems, are called pay-for-performance (P4P) systems.
- In most P4P reimbursement schemes, insurers pay providers an "extra" amount if certain standards, usually related to quality of care, are met

#### Alternative Reimbursement Methods

- For example, a primary care practice may receive additional reimbursement if it meets specified goals, such as administering mammograms to 85 percent of female patients older than 50 or placing 90 percent of diabetic patients on appropriate medication and administering quarterly blood tests.
- A hospital may receive additional reimbursement if it falls in the lower 10 percent of hospitals experiencing medical errors and hospital-acquired infections.

#### Alternative Reimbursement Methods

- The idea behind P4P is to create financial incentives for providing high-quality care, which may incur higher costs for insurers in the short run but will lead to lower overall medical costs in the long run.
- In some P4P plans, insurers reduce payments to poor performers and use the savings to increase payments to high performers, forcing some providers to bear the cost of the plan.

## The Impact of Reimbursement on Financial Incentives and Risks

• It is interesting to examine how alternative reimbursement methods affect provider behavior.

#### **Provider Incentives**

• Under cost-based reimbursement, providers are given a "blank check" to acquire facilities and equipment and incur operating costs.

#### **Provider Incentives**

- If payers reimburse providers for all costs, then providers will be more inclined to incur costs.
- Furthermore, services that may not be medically required will be provided because more services lead to higher costs and hence higher revenues.

#### **Provider Incentives**

- Under charge-based reimbursement, providers have the incentive to set high charge rates, which lead to high revenues.
- However, in competitive markets, there will be a constraint on how high providers can go.
- But, to the extent that insurers, rather than patients, are paying the bill, there is often considerable leeway in setting charges.

#### **Provider Incentives**

- Under prospective payment reimbursement, provider incentives are altered.
- First, under per procedure reimbursement, the profitability of individual procedures varies depending on the relationship between the actual costs incurred and the payment for that procedure.
- Providers, usually physicians, have the incentive to perform procedures that have the highest profit potential.

#### **Provider Incentives**

- The incentives under per diagnosis reimbursement are similar.
- Providers, usually hospitals, seek patients with diagnoses that have the greatest profit potential and discourage (or even discontinue) services that have the least potential.
- (Why, in recent years, have so many hospitals created cardiac care centers?)

#### **Provider Incentives**

• Furthermore, to the extent that providers have some flexibility in selecting procedures (or assigning diagnoses) for their patients, an incentive exists to up-code procedures (or diagnoses)—that is, to assign codes corresponding to the ones that provide the greatest reimbursement.

#### **Provider Incentives**

- In all prospective payment methods, providers have the incentive to reduce costs because the amount of reimbursement is fixed and independent of the costs actually incurred.
- For example, when hospitals are paid under per diagnosis reimbursement, they have the incentive to reduce length of stay (LOS) and hence costs.

#### **Provider Incentives**

- Note, however, that when per diem reimbursement is used, hospitals have an incentive to increase LOS.
- Because the early days of a hospitalization typically are more costly than the later days, the later days are more profitable.
- However, as mentioned previously, hospitals have the incentive to reduce costs during each day of a patient stay.

#### **Provider Incentives**

- Under bundled reimbursement, providers do not have the opportunity to be reimbursed for a series of separate services, which is called unbundling.
- For example, a physician's treatment of a fracture could be bundled, and hence billed, as one episode, or it could be unbundled, with separate bills submitted for making the diagnosis, taking the X-rays, setting the fracture, removing the cast, and so on.

#### **Provider Incentives**

• The rationale for unbundling is usually to provide more detailed records of treatments rendered, but often the result is higher total charges for the parts than would be charged for the entire package under bundled payment.

#### **Provider Incentives**

- The rationale for unbundling is usually to provide more detailed records of treatments rendered, but often the result is higher total charges for the parts than would be charged for the entire package under bundled payment.
- Also, bundled pricing, when applied to multiple providers for a single episode of care, forces involved providers (e.g., physicians and a hospital) to jointly offer the most cost-effective treatment.

#### **Provider Incentives**

- Finally, capitation reimbursement changes the playing field by completely reversing
- the actions that providers must take to ensure financial success. Under all fee-for-service methods, the key to provider success is to work harder, increase utilization, and hence increase profits.

#### **Provider Incentives**

- Under capitation, the key to profitability is to work smarter and decrease utilization.
- As with prospective payment, capitated providers have the incentive to reduce costs, but now they also have the incentive to reduce utilization.
- Thus, only those procedures that are truly medically necessary should be performed, and treatment should take place in the lowest-cost setting that can provide the appropriate quality of care. Furthermore, providers have an incentive to promote health, rather than just treat illness and injury, because a healthier population consumes fewer healthcare services.

#### **Provider Incentives**

- Under capitation, the key to profitability is to work smarter and decrease utilization.
- As with prospective payment, capitated providers have the incentive to reduce costs, but now they also have the incentive to reduce utilization.
- Thus, only those procedures that are truly medically necessary should be performed, and treatment should take place in the lowest-cost setting that can provide the appropriate quality of care.

## **Medical Coding**

- The Foundation of Fee-for-Service Reimbursement is Medical Coding, or medical classification, is the process of transforming descriptions of medical diagnoses and procedures into code numbers that can be universally recognized and interpreted.
- In a disease classification system such as ICD-9, the classification and subdivision are performed by the grouping of diseases in organ systems or by etiology.

### **History of the ICD**

- The International Statistical Institute adopted the first international classification of diseases in 1893.
- The system was based on the Bertillon Classification of Causes of Death, developed by French statistician and demographer Jacques Bertillon.

## **History of the ICD**

- In 1898 the American Public Health Association (APHA) recommended that Canada, Mexico, and the United States use that system and that it be revised every decade.
- In the following years Bertillon's classification became known as the International List of Causes of Death and ultimately as the ICD.

## **History of the ICD**

The ICD became increasingly detailed through repeated revision, particularly after 1948, when the World Health Organization (WHO) assumed responsibility for publishing the ICD and began collecting international data for all general epidemiological surveillance and health management purposes.

## **History of the ICD**

WHO significantly revised the ICD in the 1980s and early 90s. The resulting threevolume work, known as ICD-10 (International Statistical Classification of Diseases and Related Health Problems), was published in 1992; it eventually replaced the two-volume ICD-9 in countries worldwide that used the classification.

## **History of the ICD**

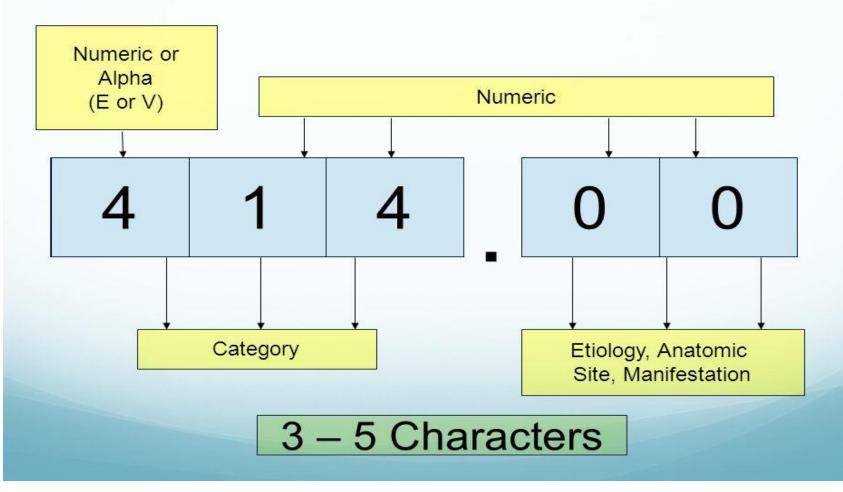
- The seventh revision of ICD, published by WHO in 1955, was clinically modified for use in the United States after a joint study was conducted to evaluate the efficiency of indexing (cataloging diseases and procedures by code number) hospital diseases.
- In 1959, the International Classification of Diseases, Adapted for Indexing Hospital Records, Seventh Revision (ICDA-7) was released by the US with a way to classify patient operations and treatments.

## **History of the ICD**

The Eighth Revision of the International Classification of Diseases, Adapted for Use in the United States (ICDA-8) and the Hospital Adaptation of ICDA (H-ICDA) were subsequently published for use in the United States, followed by the *International* Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) in 1979.

3/2/2022 Dr. Mohammed ALnaif 138

#### ICD-9-CM Structure - Format



**ICD-9 Codes** 

Most ICD-9 codes are comprised of three characters to the left of a decimal point, and one or two digits to the right of the decimal point.

## **Examples:**

- 250.0 means diabetes with no complications
- 530.81 means gastro reflux disease (GERD)
- 079.99 means a virus

#### **ICD-9 Codes**

Some ICD-9 codes have V or E in front of them. A V code designates a patient who is accessing the healthcare system for some reason that won't require a diagnosis, usually a preventive reason.

#### **Examples:**

- V70.0, the code for a general health check up
- V58.66 specifies that a patient is a long-term aspirin user
- V76.12 is coded for a healthy person who gets a mammogram
- V04.81 is the most common code for a flu shot

#### **ICD-9 Codes**

- An ICD-9 code with an E specifies that the health problem is the result of an environmental factor such as an injury, accident, a poisoning or others.
- •A car accident code will be preceded by an E, as will a code for a victim of a plane crash or a snake bite or any other health problem caused by outside force.
- •Medical errors are reported using some of these ICD E codes.
- **Examples:**
- •E881.0, Fall from ladder
- •E812.2, Motor vehicle traffic accident (collision), motorcyclist
- •E925 Accident caused by electric current

#### **ICD-10**

- ICD-10 is the tenth edition of the International Classification of Diseases, a medical coding system chiefly designed by the World Health Organization (WHO) to catalog health conditions by categories of similar diseases under which more specific conditions are listed, thus mapping nuanced diseases to broader morbidities.
- Many countries now use national variations of ICD-10, each modified to align with their unique healthcare infrastructure.

#### **Structure of ICD-10 - WHO**

- Its structure derives from the one proposed by William Far in the XIX century: which grouped data on diseases by
  - Epidemic diseases
  - Constitutional or general diseases
  - Local diseases arranged by site
  - Developmental diseases
  - Injuries
- ICD-10 contains three volumes:
  - Volume 1 = main classification
  - Volume 2 = guidance for users
  - Volume 3 = alphabetical index

#### **Structure of ICD-10 - WHO**

- ICD-10 contains 22 chapters: the first character of the code is a letter associated with a particular chapter
  - except the letter D, used in Chapter II and Chapter III and the letter H, used in Chapter VII and Chapter VIII
  - Chapters I, II, XIX, and XX use more than one letter in the first position of their codes.
- Chapter 22: Codes for Special Purposes (U00-U85)
  - U07.0 Vaping-related disorder or e-cigarette, or vaping, product use
  - U07.1 COVID-19

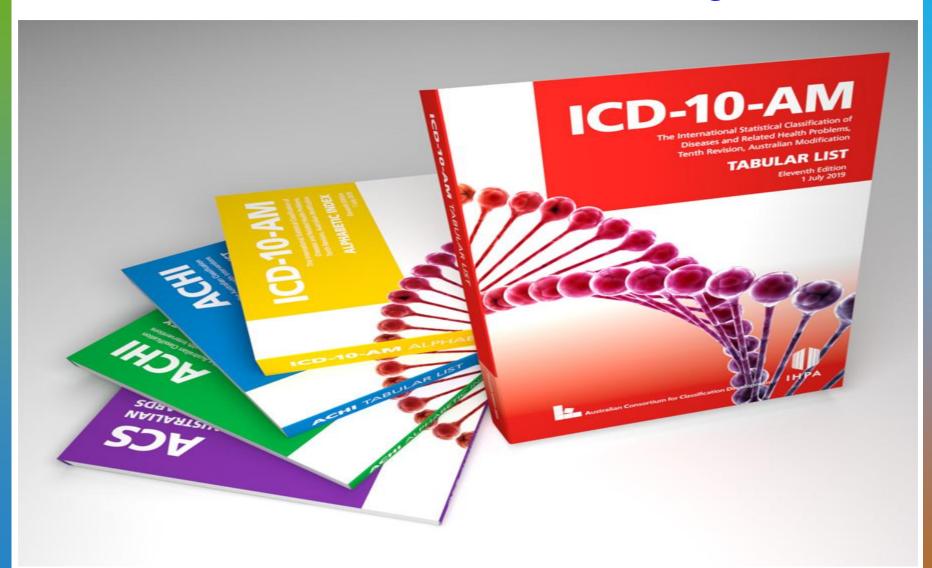
#### **ICD-10**

- The US version of ICD-10, created by the Centers for Medicare & Medicaid Services (CMS) and the National Center for Health Statistics (NCHS), consists of two medical code sets—ICD-10-CM and ICD-10-PCS.
- ICD-10-PCS stands for the International Classification of Diseases, Tenth Revision, Procedure Coding System.
- As indicated by its name, ICD-10-PCS is a procedural classification system of medical codes.
- It is used in hospital settings to report inpatient procedures.

### ICD 10-AM Australian Medical Coding

- ICD 10-AM coding is quite different from ICD 10-CM coding. Today ACHI & ICD-AM coding is following in countries like Australia, New Zealand, Ireland Qatar and Saudi Arabia.
- ICD-10-AM/ACHI/ACS is utilized in hospitals, clinics and medical centers in above countries to group scenes of conceded understanding consideration.

### **ICD 10-AM Australian Medical Coding**



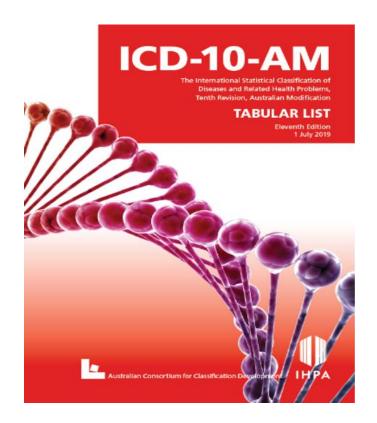
### CLINICAL CODE SELECTION AND USE

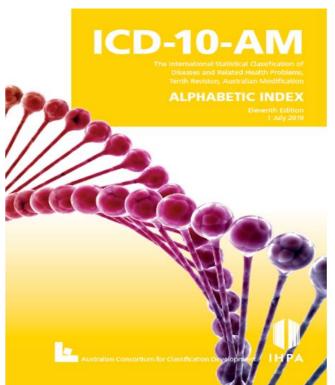
ICD 10-AM Australian Medical Coding
The ICD-10-AM/ACHI/ACS classification system is
comprised of the following disease and intervention
classifications:

1. ICD-10-AM – The International Statistical
Classification of Diseases and Related Health
Problems, Eleventh Revision, Australian
Modification consists of a Tabular List of Diseases
and an accompanying Alphabetic Index.

3/2/2022 Dr. Mohammed ALnaif 149

The International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM) is an expanded version of the World Health Organization's ICD-10. It consists of a tabular list of diseases and an accompanying index.

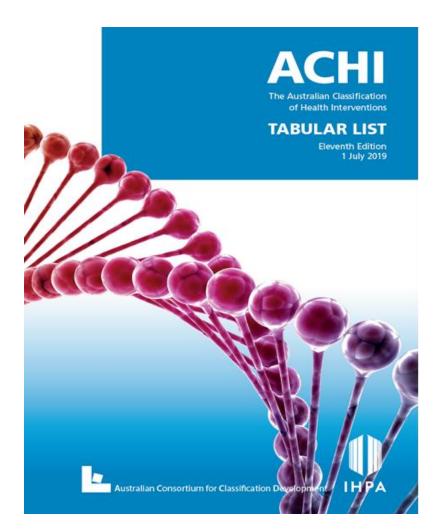


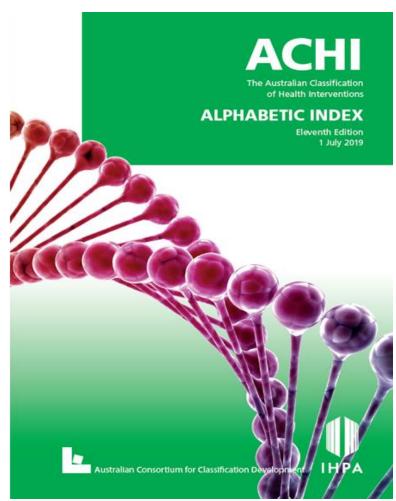


### ICD 10-AM Australian Medical Coding

- 2. ACHI Australian Classification of Health
  Interventions consists of a Tabular List of
  Interventions and accompanying Alphabetic Index.
- This classification is structured by body system, site and intervention type, and consists of a tabular list of interventions and an accompanying alphabetic index.
- ACHI codes have seven numeric digits.

# **ACHI** consists of a Tabular List of Interventions and accompanying Alphabetic Index.



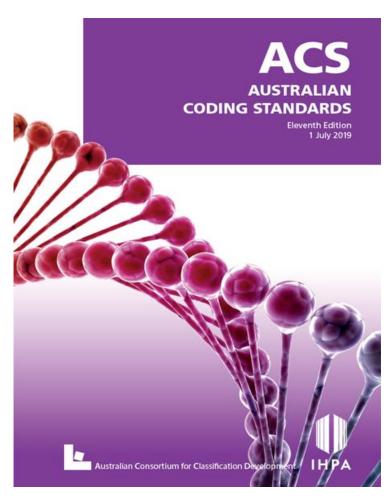


### ICD 10-AM Australian Medical Coding

- 3. ACS The Australian Coding Standards is a list of standards used in conjunction with ICD-10-AM and ACHI to optimize accurate and consistent application of the classification in clinical coding practice
- The ongoing revision of the ACS ensures that they reflect changes in clinical practice, clinical classification amendments and various user requirements of admitted patient data collections.

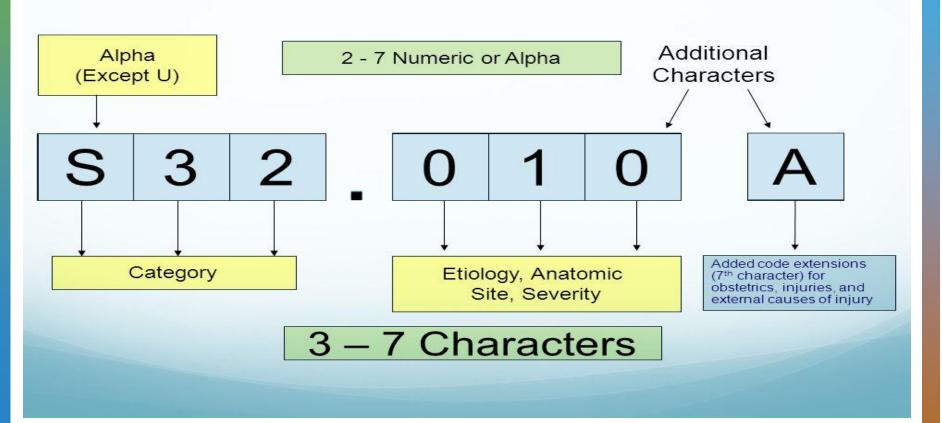
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# ACS – The *Australian Coding Standards* is a list of standards used in conjunction with ICD-10-AM and ACHI



# ICD-10 codes are approached differently and are quite different from their ICD-9 counterparts.

#### **ICD-10-CM Structure – Format**



3/2/2022

### What is ICD-10 Code Look Like?

- The ICD-10-CM Tabular List contains categories, subcategories and codes.
- Characters for categories, subcategories and codes may be either a letter or a number.
- All categories are 3 characters.
- A three-character category that has no further subdivision is equivalent to a code.
- Subcategories are either 4 or 5 characters.

### What is ICD-10 Code Look Like?

- Codes may be 3, 4, 5, 6 or 7 characters.
- That is, each level of subdivision after a category is a subcategory.
- The final level of subdivision is a code.
- Codes that have applicable 7th characters are still referred to as codes, not subcategories.
- A code that has an applicable 7th character is considered invalid without the 7th character.

# What is ICD-10 Code Look Like? Examples are:

- A02.0 indicates a salmonella infection
- I21.X refers to myocardial infarction
- M16.1 is used for arthritis in the hip
- Q codes represent genetic abnormalities
- U codes are for new problems that develop over time. Any of the antibiotic resistant "superbugs" that develop over time will fall into the U category.

- Abuse is defined as using practices that are inconsistent with accepted medical practices and directly or indirectly result in unnecessary costs to the insurance plan.
- Three major areas of concern when it comes to clinical code selection and use and these are:
  - Up-coding,
  - Unbundling,
  - Evading medical necessity requirements

- Up-coding Billing for a higher level of service than rendered in order to receive a higher reimbursement.
- Unbundling billing separately for each component of a procedure instead of using the proper code for the entire procedure because fees for the separate procedures result in a higher payment.

3/2/2022 Dr. Mohammed ALnaif 160

THANK YOU