



Attachment - A

Fundamentals of Private Health Insurance

Session Topics



Session 1. Providers of and Types of Private Health Coverage

- Who Provides Private Health Coverage
- Types of Private Health Coverage
- Key Distinction between Type of Coverage

Session 2. Compensation, Incentives, and Reimbursement

- Capitation
- Fee-For-Service
- Global Fees

Session 3. Benefit Packages and Policy Designs

- Covered Benefits
- Design issues

Session 4. Risk Pooling, Underwriting and Health Coverage

- The Underwriting Process
- Rate-Making
- Adverse Selection



Session 1, Providers of and Types of Health Coverage

Providers of and Types of Health Coverage



Who Provides Coverage (who bears the risk)

- Licensed Health Coverage Providers
 - Commercial)
 - Non-Profit
 - Health Maintenance Organizations (and variations)
- Self-Funded (insured) Health Benefit Plans
 - Employer
 - Trade Organizations
- Provider Sponsored Organizations
 - Hospitals, Integrated Delivery Systems, Physician Groups

Providers of and Types of Health Coverage



Types of Private Health Insurance

- Indemnity (multiple types)
- Managed Care
 - A Variety of Health Maintenance Organization Types
 - Group
 - Staff
 - IPA
 - Network
 - Hybrids
- Consumer-Driven Health Plans

Types of Health Maintenance Organizations-HMOs



Group Practice Model

- Group of physicians contracts exclusively with health plan to provide all contracted medical services to defined population.
- Medical group receives capitation payment; is responsible for all clinical decisions.
- Health plan and hospitals manages all business decisions.

Types of Health Maintenance Organizations (cont.)



Staff Model

- Similar to group model except that physicians are not in separate medical group but rather work as employees of the health plan.
- Reduced incentives for improved clinical and financial performance.

Network Model

- Different groups of physicians contract with a health plan to provide defined medical services for a capitated amount to a defined population.
- Medical groups may have contracts with multiple health plans.

Types of Health Maintenance Organizations (cont.)



IPA (Individual Practice Association) Model

- Health plan contracts with individual physicians in community for services.
- Payment generally on discounted fee-for-service basis (sometimes may be for capitation).
- High financial risk for individual providers, especially if capitated individually.

Point-of-Service Plans

- Like a PPO but offered by HMOs and insurance companies.
- Offers two levels of coverage:
 - Higher level of coverage if patient sees physician in panel.
 - Lower level of coverage (higher co-payment and deductible if patient sees physician outside of panel).

Traditional Insurance and Managed Care Compared



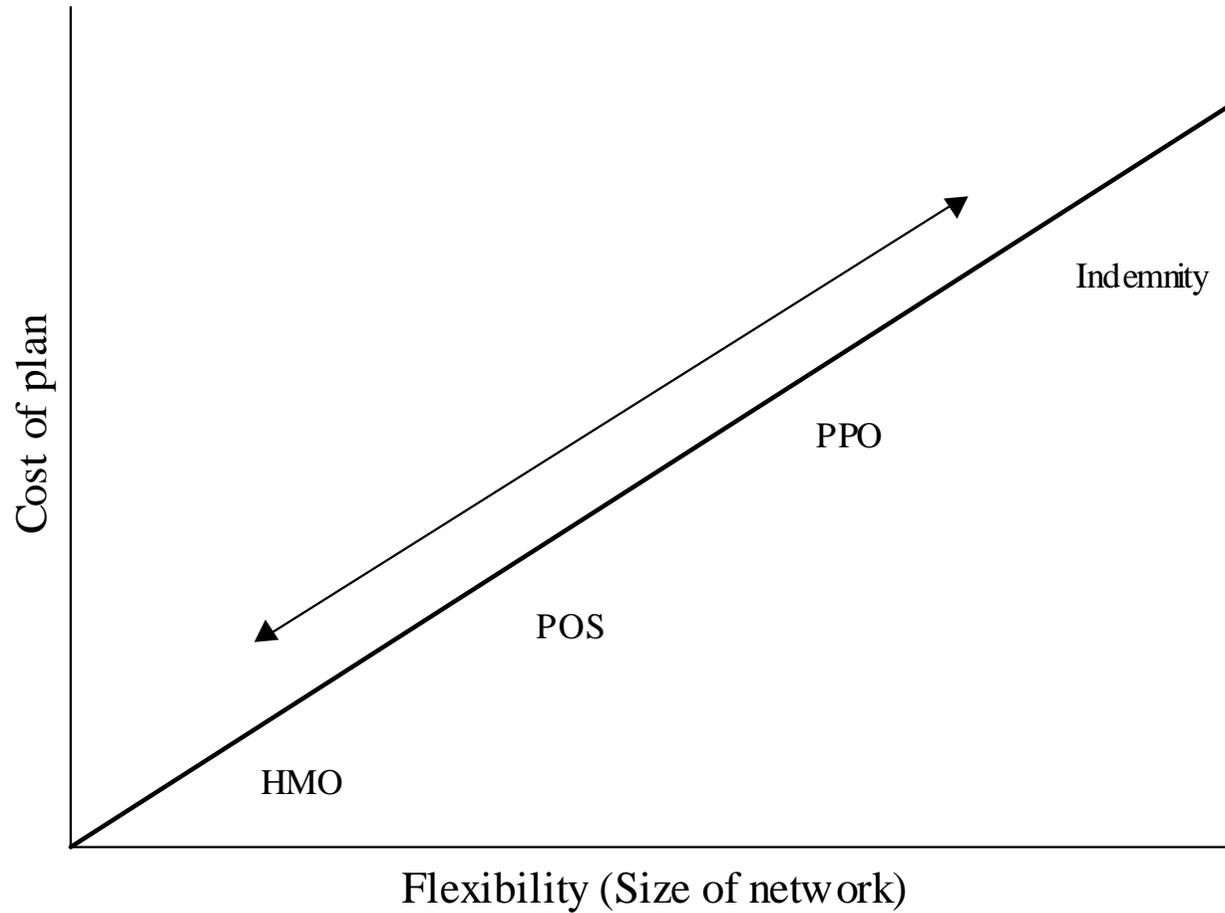
Traditional Insurance

- Carrier assumes only financial risk
- Generally high co-payments and deductibles
- No utilization control
- Limited benefits for prevention and primary care
- Free choice of provider
- Fee-for-service payment of providers

Managed Care

- Carrier is responsible for total cost of care of its population
- Minimal co-payments; generally no deductibles
- Utilization control by physicians or third parties
- Emphasis on prevention and early detection of illness
- Provider choice limited by managed care organization
- Capitation, discounted fee-for-service or other methods

The Trade-Off: Cost Versus Flexibility



Characteristics of Types of Health Coverage



Indemnity Plans

- Reimbursement for services provided (fee-for-service)
- Payment traditionally on “Usual, Reasonable and Customary” basis (historical charges)
- Lack of control over expenditures (third-party reimbursement, moral hazard)
- Adoption of fee schedules
- Co-insurance and deductibles used to control costs
- Most adopted managed care features
- Strict indemnity not common in US, except specialty products (auto)
 - Fraud example from New York State

Characteristics of Types of Health Coverage



Managed Care

- Preventive rather than curative model (promote health to minimize expensive acute care episodes)
- Low levels of cost sharing, particularly for preventive services
- Limited selection of provider
- Selective contracting of providers
 - Only those who accept management approach
 - Payment mechanisms to promote efficiency
- Strong incentives for Medical Management
- Strong emphasis on quality assurance and management

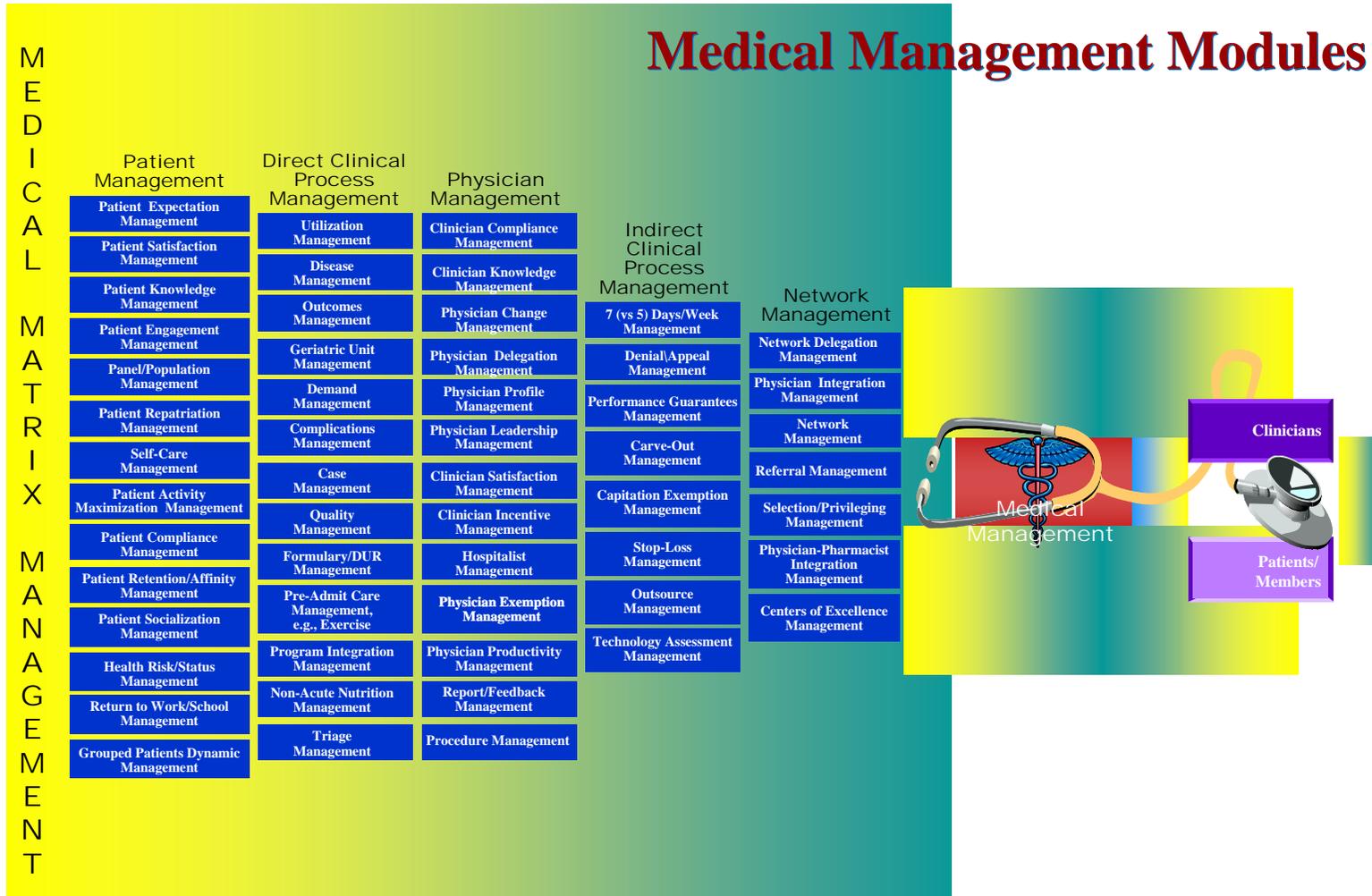
Medical Management



Medical Management

- Utilization Management
- Case Management
- Referral Management
- Disease Management
- Demand Management
- Pharmacy Management
- Medical Policy Development
- Appeals and Grievances
- Technology Assessment

Components of Medical Management





Session 2. Compensation, Incentives, and Reimbursement

Provider Compensation and Incentives



There are different methods for reimbursement for different providers, however, there is also some mixing of different systems of compensation.

In general, primary care physicians usually use capitation as the main method of compensation, specialists use discounted fee-for-service, and hospitals diagnostic related groups.

Provider Compensation and Incentives



- Managed care organizations frequently use some form of performance or risk-based reimbursement to pay physicians, especially primary care physicians. Specialists may also be paid under some form of risk-based reimbursement, although with less frequency than PCPs.
- A reimbursement system is only one of the many tools available to managed care and has limited ability to achieve desired goals in the absence of other tools such as utilization management
- Reimbursement of providers under managed care is anything but homogeneous. The objective of any of these reimbursement systems is to better align the compensation of physicians with the overall goals of managed health care

Provider Compensation and Incentives



- At the basic level, there are two ways to compensate open-panel primary care physicians for services:
 - Capitation
 - Fee-for-service
- There are many varieties of these two methods as well as other methods of reimbursement.

Provider Payment Mechanisms and Managed Care



- Salaries (physicians and other providers)
- Global budgets (principally for hospitals or health care systems)
- Fee-for-service
- Fixed fee-for-service
- Payment for service “package” (e.g., DRGs)
- Capitation
- Provider/institutional bonuses
- Partial withholds

Capitation



Capitation is prepayment for services on a per member per month (PMPM) basis. In other words, a primary care physician is paid the same amount of money every month for each member regardless of whether that member receives services or not and regardless of how expensive those services are.

Calculation of Capitation Payments



- To determine an appropriate capitation, it must first be defined what will be covered in the scope of primary care services and what will not. Defining the scope of covered services forms the basis for estimating the total cost.
- Most plans initially use an actuary to set these cost categories on the basis of the plan's geographic area, the benefits plans in place, and the medical management and cost controls in place. If the plan has been operational for some time and has a data system capable of tracking details, estimating costs is simply a matter of collating existing data.
- As for surgical and diagnostic procedures that could be carried out by primary care physicians or a specialist, there is a risk of over-utilization when paying a primary care physician fee-for-service for these procedures.
- Many performance-based compensation systems also hold the primary care physician accountable for non-primary care services, either through risk program or incentive programs.

Capitation Risks



There are two broad categories of risk for capitated primary care physicians:

- 1. Service risk – refers to the fact if the volume is high , then the physician receives relatively lower income per encounter, and vice versa.**
- 2. Financial risk – refers to actual income placed set aside for withholds (for cost overruns and referrals) and capitated pools (bonuses).**
- 3. Individual versus pooled risk – refers to the degree an individual primary care physician is at risk for his own patient medical costs, versus the degree that the risk is shared with other physicians.**

Problems with Capitation



- 1. The most common problem involves chance when there are too few members in an enrolled base who are fairly sick. The only way to encounter that is to spread the risk for expensive cases through common risk-sharing pools for referral and institutional expenses and to provide stop-loss protection for expensive cases.**
- 2. Possible abuse by beneficiaries.**
- 3. Inappropriatr underutilization**

Fee-For-Service



- Fee-for-service results in distribution of payment on the basis of expenditure of resources. In other words, a physician who is caring for sicker patients will be paid more reflecting that physician's greater investment of time, energy, and skills.
- On the other hand, many people hold that the fee-for-service system is the root of all the problems we have faced with high costs. There is some truth to that particularly when there are no controls in place

Fee-For-Service



- Some people still believe that fee-for-service should be used for primary care physicians and capitation for specialists. The logic of this approach is that it encourages primary care physicians to see their managed care patients rather than refer them out, since they otherwise do not get paid. Capitating specialists on the other hand reduces the fee-for-service pressure to do more and charge more. It is an excellent concept but has proven difficult to put into place for the following reasons:
 - people visit specialists far less frequently than they visit their primary care doctor, so the base number of specialists on a panel must be much higher in order to achieve actuarial integrity.
 - Resistance by specialists and primary care physicians

Determination of Fees



Usual, Customary, or Reasonable

- There is little uniformity to “*Usual, Customary, or Reasonable*” because it represents what physicians usually bill for defined services, and there can be tremendous discrepancies among physician fees.
- The definition of “*Reasonable*” is one made by the payer, not the provider.
- Out-of-network fees
- *Global Fees* are considered a variation on fee-for-service. A global fee is a single fee that encompasses all services delivered in an episode. Common examples include obstetrics, in which a single fee is supposed to cover all prenatal visits, the delivery itself, and at least one post-natal visit.

Provider Reimbursement Methods (US Data)



	Jul-93	Jul-95	Jul-97	Jul-99	Jul-00	Jul-01
Primary care physicians						
Capitation	64%	67%	57%	66%	63%	58%
Fee for service	22%	18%	33%	58%	74%	80%
Relative value scale	5%	5%	7%	38%	23%	19%
Salary	9%	11%	4%	7%	6%	5%
Specialty Care Physicians						
Capitation	47%	49%	33%	44%	42%	42%
Fee for service	39%	36%	49%	69%	84%	85%
Relative value scale	10%	9%	18%	43%	25%	22%
Salary	4%	6%	1%	3%	3%	2%
Hospitals						
Capitation		26%	19%	30%	25%	19%
Fee for service		17%	16%	71%	78%	71%
Diagnosis related groups		14%	12%	49%	55%	62%
Per diem rates		43%	53%	86%	90%	89%

Note: Through July 1997, percentage of HMOs using method as primary reimbursement. Beginning July 1999, percentage of HMOs using reimbursement method for any portion of reimbursement.

Source: Interstudy HMO industry report.



Session 3, Benefit Packages and Designs

Strategic Policy Design Issues



What Type of Products (e.g., general or specialized)

Legal Requirements (e.g., mandated benefits)

What the Market Wants and Can Afford

Target Customer Base for Products (e.g., desired risk pool)

Cost Control and Predictability

Relationship to Other Products

Key Issues in Policy Design



Covered Benefits

Cost Sharing

Network and Non-Network

Referrals and Approvals

Exclusions, Waiting Periods

Covered Benefits



Types of Benefit Packages

Major Medical Benefits

Comprehensive (HMO) Benefits

Accidental Medical Benefits

Specialized Illness Benefits

Vision or Dental Benefits

Supplemental Benefits

Others (Maternal, LTC, Hospice)

Defining the Policy Benefits



See Table 1: Worksheet for Building Health Insurance Benefit Package That Can Be Priced

Other Policy Considerations



Coordination of Benefits

- Public Insurance
- Workman's Compensation
- Spouse Policy
- Automobile insurance

Experimental or Alternative Medicine

Health Insurance Policies: Consumer's Perspective**



Some Things Consumers Should Consider When Choosing a Health Insurance Plan

- Benefit Coverage and Exclusions
- Choice of Hospitals, Doctors and Other Providers
- Requirements for Specialty Care
- Out-of-pocket Costs (Premium, Deductible, Coinsurance, Co-payment)
- Paperwork (for claims)
- Quality of Available Providers
- Other Customers Satisfaction with Health Plan

**** See: Guide to Federal Employees Health Benefit Plans in Your Handouts**



Session 4, Risk Pooling, Underwriting and Health Coverage

KEY POINTS



Underwriting is one of the most important functions of an insurance company.

- One of main goals is to avoid “adverse selection”
- Adverse selection can lead to a deterioration of the membership profile

Ways to control for adverse selection

- Medical underwriting, or risk classification
- Community rating or experience rating
- Broader risk pool

Rate-making

- Forecasting medical loss ratio is critical
- Data are essential for making good estimates

Agenda



What Is Underwriting?

Need for Risk Pooling: Adverse Selection Problem

- Information Asymmetry
- Economic Value Asymmetry
- Erosion of Health Insurance—the Virtuous Cycle

Risk Pooling

- Risk Classification Groups
- Community Rating and Experience Rating
- Large Risk Pools
- Strategies for Small Groups and Individual Purchasers

Rate-Making

- Process
- Example

Questions and Discussion

What Is Underwriting?



Process of deciding whether to insure a particular person or group (Risk Selection)

- And, if so, on what terms (Risk Classification)

Problem of Adverse Selection



Main goal of an insurer is to avoid adverse selection

- Which arises because consumers know more about their health conditions and potential medical expenditures than insurers do.
- Insurers sometimes cannot distinguish between low-risk (healthy) and high-risk (sick) individuals.

Information Asymmetry: What If You Have a Single Risk Pool?



Information asymmetry could lead insurers to create a single risk pool for individuals.

- Everybody (sick and healthy) charged the same rate
- Healthy subsidize the sick.

Concentration of Healthcare Spending (US Data)



	1928	1963	1970	1977	1980	1987	1996
Top 1 percent	—	17%	26%	27%	29%	30%	27%
Top 2 percent	—	—	35%	38%	39%	41%	38%
Top 5 percent	52%	43%	50%	55%	55%	58%	55%
Top 10 percent	—	59%	66%	70%	70%	72%	69%
Top 30 percent	93%	—	88%	90%	90%	91%	90%
Top 50 percent	—	95%	96%	97%	96%	97%	97%
Bottom 50 percent	—	5%	4%	3%	4%	3%	3%

Source: M. Berk and A. Monheit, 2001, “The Concentration of Health Expenditures: An Update,”

* US DATA

Problem: Why Would A Healthy Person Purchase From Single Pool?



Low-risk individuals who are aware of their status may not value insurance at the premium level charged.

- Conversely, high-risk individuals may over-insure—that is, they insure against risks they otherwise would not insure because they face a favorable premium.

In short, health insurance is more valuable for sick people than for healthy people.

Economic Value



In economic terms, utility of a health insurance policy for a healthy person may not outweigh the cost of the premium charge.

Utility = F (health, risk of illness, risk aversion)

Premium Charge = F (premiums, co-payments, and deductibles)

If Utility \geq Premium Charge \Rightarrow Purchase

Degeneration of Membership Profile



Low-risk individuals purchase less coverage or withdraw completely...

Which increases the risk level of remaining individuals...

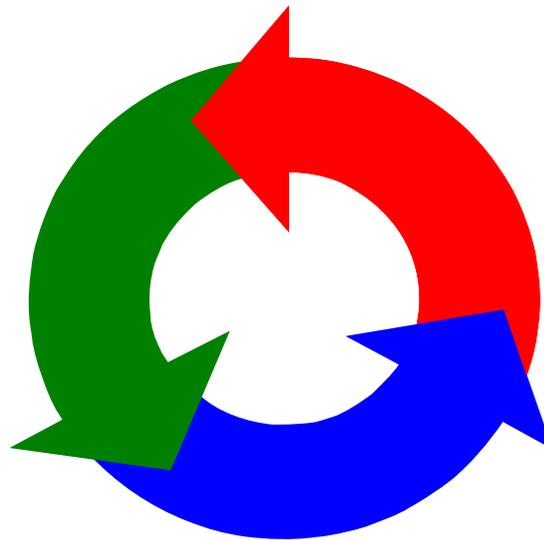
Which leads insurers to raise premiums...

Which causes another subset of lower-risk persons to drop coverage...

Virtuous Cycle of Adverse Selection



Lower-risk individuals purchase less coverage or withdraw completely



Insurers raise premiums to offset higher-than expected medical costs

The risk level of the remaining participants increases

Risk Classification: One Way to Control for Adverse Selection



Risk classification is a way of differentiating beneficiaries, dividing applicants into groups on the basis of certain characteristics

- Assign healthy members to better risk classes and charge them lower premiums
- Assign unhealthy members to lower risk classes and charge them higher premiums, making up the difference

Medical Underwriting: Gather as Much Data as Possible (where legal)



- Preexisting conditions
- Age
- Gender
- Financial status/Education level
- Geography
- Occupation
- Family history
- Lifestyle

There is a tradeoff with more refined risk classification and administrative costs

Medical Underwriting: May Exclude or Put Conditions on Membership



- **Preexisting conditions**
 - HIV/AIDS, Cancer, Stroke, Diabetes, Asthma, Allergies, Back Strain, etc.
 - (Typically, a limitation or elimination)
- **Age**
 - Older individuals are associated with higher costs.
- **Gender**
 - Females < 54 associated with higher costs; Males 55+
- **Financial status/Education level**
 - Higher-income or better educated individuals associated with better health habits.

Medical Underwriting: May Exclude or Put Conditions on Membership (Cont)



- **Geography**
 - Geographic variations in health status typically occur
- **Occupation**
 - Some occupations industries/jobs associated with higher costs
- **Family history**
 - Hereditary illnesses (heart disease)
- **Lifestyle**
 - Tobacco, alcohol, hazardous sports, obesity, etc.

Substandard Insurance Policies: Conditions on Coverage



- **Sometimes substandard applicants will only be underwritten using exclusions.**
 - Which are *riders* to the insurance contract that specify certain preexisting conditions that the insurer will not cover.
- **Government regulations may limit these exclusions.**

Community Rating



■ Community Rating

- Sets a rate based on loss experience in a geographic area.
- In other words, rates are based on the expected average per capita medical costs of the community as a whole (as opposed to those of a particular group).
- This prevents insurers from differentiating rates to individuals based on medical conditions.

■ Community Rating by Class

- Establishes variations in the community rate based on certain characteristics of the applicant.
- Often, an insurer will create a few, broad risk classification groups, (i.e., single person, family, sometimes gender)

■ Adjusted Community Rating

- Allows community rates to be adjusted based on prior period experience.
- Typically, the methodology must be approved by state and federal regulators and disclosed to the consumer on demand.

Experience Rating



- **Experience rating**
 - Experience-rating arrangements come in two major forms.
 - First, setting rates based wholly or in part on the previous years' claims experience of a specific group.
 - Second, retention ratio or retrospective rating, allows for premiums to be adjusted upward and downward (within set limits) based on actual incurred costs over a certain time period.

- **Experience rating and the small group market**
 - Experience rating is often regulated by the government, especially regarding the small group market.
 - For example, some mandate that an insurer may only experience rate a case during its first several years and thereafter must community rate.

Define pools in ways that retain individuals at all risk levels—expanding the average size of risk pools

- Most of the members of this pool will incur very few expenses or none at all and will subsidize the small minority that incurs catastrophic losses.
 - Enroll large groups such as all the employees of a large corporation.
 - Specified geographic areas (state or national coverage).

Small Groups and Individuals



From an insurer's perspective, the problem of adverse selection is most severe in the small group market

- The sick can take advantage of asymmetric information and choose policies with premiums that are lower than their expected costs.
 - As a result, many insurers require higher premiums from small groups and individuals.
 - These high premiums are also the result of the law of averages—insurers want to mitigate their risk.
 - Higher premiums may also reflect the higher administrative costs for insurers (marketing and underwriting costs)

Strategies for Smaller Firms and Individuals

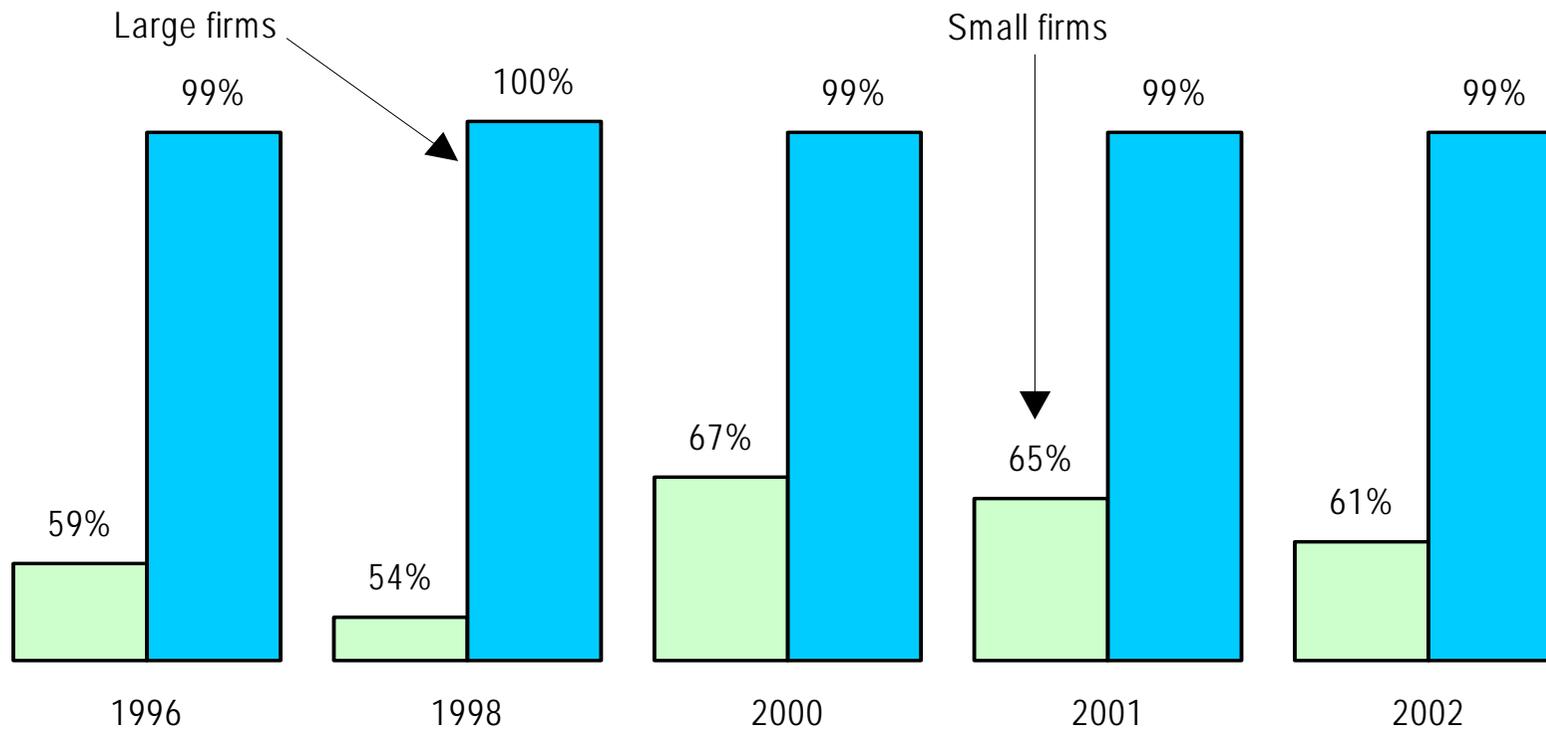


- Association Health Plans (groups of small plans join together to create a larger insurance base)
 - Problem: Small companies may not cooperate if they have different risk profiles.
- Government-sponsored insurance and/or subsidies
 - Problem: Large employers may shift their employees into the government scheme.
- Government Regulation: Require community rating and/or heavily regulate experience rating
 - Problem: Insurers may not participate.

Limitations Caused by a Smaller Pool



Percentage of Firms Offering Health Benefits, by Firm Size, 1996-2002



Source: Kaiser/HRET 2002 Survey of Employer-Sponsored Health Benefits

Small = 3-199 workers; large = 200+ workers

What Is Rate-Making?



The process of predicting future losses and developing premium rates

- Insurance rate defined as price per unit of exposure
- In health, standard unit of exposure is per member per month (PMPM)

Rate-Making: Gross Premium



Two Components of the Premium

1. Amount allocated to healthcare costs
2. Amount allocated to the “load”
 - Insurer’s operating expenses
 - Commissions
 - Policy acquisition costs
 - Financing charges
 - Taxes
 - Profits

Rate-Making Process



Health insurance actuaries typically work backward from their medical loss ratios to arrive at premium rates

- Medical loss ratio (MLR) is medical loss divided by premiums
 - $MLR = \text{healthcare costs} / \text{premium}$
 - $\text{Healthcare costs} = \text{incidence rate} \times \text{severity}$
- In the U.S., most non-profit and for-profit companies aim for an MLR of approximately 83%.
- For most of the less developed market, the ratio can be between 40%-70%.

Rate-Making Process



Step 1: Assessment of healthcare cost trends

Step 2: Consolidating all costs

Step 3: Making adjustments (credibility of data)

Rate-Making Process: Step 1



Assessment of healthcare cost trends

- Customer demographics
- Utilization patterns
- Forecasts of morbidity
- Provider payment arrangements
- Healthcare inflation projections
- Technological advances
- Geographic characteristics
- Legal changes

Rate-Making Process: Step 2



Consolidating all costs

- Estimate the healthcare cost trend
- Persistency (percent of enrollment that renew on anniversary date—your volume estimates)
- Administrative and marketing costs
- Interest expense (the float)
- Taxes
- Profit Targets

Rate-Making Process: Step 3



Making adjustments (credibility of data)

- Review of Experience: Assess the experience and the reliability of the experience.
- Statistical analysis of the incidence rate and severity. Which are affected by:
 - Data lag (claims receipts behind actual incurral of healthcare claims)
 - Larger set of data more credible than smaller
 - More recent data more credible than older
 - Localized data more credible than national (due to regional variation)
 - Variation caused by human behavior

Rate-Making Process: Key Data



Historical Loss Experience

Group Demographics

Public Records

- Medical Information Bureau (repository of health claims)
- Society of Actuaries of India

Supplemental Records (where legal)

- Interviews
- Medical examinations
- Medical records

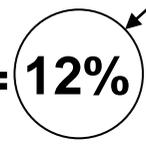
Rate-Making: Simple Example



Experience Period: 1/1/03 – 31/12/03

- **PMPM Medical Claims = \$100**
- **Annual Medical Cost Trend Estimate = 12%**
- **Estimated 2004 PMPM Medical Claims = \$100 x 1.12 = \$112**
- **Desired Medical Loss Ratio = 83%**
- **Needed Premium = \$112/0.83 = \$134.94**

This estimate is the key



Rate-Making: Impact of Underestimating Cost Trends



Claims Period: 1/1/04 – 31/12/04

- **Actual 2004 Medical Cost Trend = 13%**
 - **Actual 2004 PMPM Medical Claims = \$113**
 - **Underwriting Margin Shortfall = \$1**
 - **Actual 2004 Medical Loss Ratio = $\$113/\$134.94 = 83.7\%$**
- If *Insurer Y* has 6 Million at-risk lives, then

**Underwriting Margin Shortfall = $\$1 \times 6 \text{ million lives} \times 12 \text{ months}$
= \$72 million**