

EDUCATION COMMITTEE
OF THE
SOCIETY OF ACTUARIES

FUNDAMENTALS OF ACTUARIAL MATHEMATICS STUDY NOTE

CHAPTER 2, SECTIONS 2.1 AND 2.9 OF
INDIVIDUAL HEALTH INSURANCE, SECOND EDITION

by

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CHAPTER 2

THE PRODUCTS

There is a wide array of products being sold in the individual health insurance market. Each of them has its own characteristics, varying from other products in many different ways. This chapter describes those characteristics, and is organized by product type. Sections 2.1 through 2.5 describe medical-type coverages, 2.6 and 2.7 describe income protection coverages, 2.8 describes long term care coverage, and 2.9 describes dental coverages.

2.1 MAJOR MEDICAL COVERAGE

The precursor of **major medical** coverage was available in the early 20th century, when a disability coverage added a provision to increase payments while someone was hospitalized. The most major changes to liberalize medical care insurance occurred in the 1930s (initially accident only) and 1940s. Major medical coverage was introduced about 1950,¹ as medical care costs became much more significant than they were previously, and it became obvious that simple coverage of only hospital costs, or only physician costs, did not adequately protect the policyholder. Major medical is distinguished from earlier coverages in that it was the first time the disparate sources of health care costs (hospital, physician, and ancillary) were combined into a common policy.

The list of health care expenditures that a policy covers are commonly called **covered services**, or **covered expenses**, and this term is typically well defined in the policy form itself. Regulators felt the need to require that a certain minimum combination of covered services should be provided if a policy was to be called “major medical,” presumably under public policy aimed at either (1) preventing insurers from misleading consumers by

¹ *Health Insurance Provided Through Individual Policies*, Edwin L. Bartleson. Published by the Society of Actuaries, 1968.

using the name for a policy with lesser benefits, or (2) prohibiting policies which have unexpected (at least for the policyholder) holes in the benefit plan.

New York's Regulation 62, for example, requires a specific set of minimum benefit parameters that a policy must meet to be called major medical insurance.² (The exact wording of this part of the regulation, section 52.7, is contained in Appendix A to this text).

Once the covered services are defined for a policy, it is necessary to define how benefits are calculated from the covered services. These calculations reflect various ways in which the covered expenses are allocated between the insurer, the insured, and the provider.

Allocating some portion of the covered expense to the insured is often deemed to be good design, because it still provides some (albeit watered down) financial incentive to the insured to control costs. The portion of costs allocated to the insured is called **cost sharing**.

DEDUCTIBLES

A **deductible** is a dollar amount, specified in the policy, for which the insured is responsible before any benefits are payable. A plan with a 100% benefit after a \$100 major medical deductible means that if (for example) \$1,000 of covered services occurs, the first \$100 of covered expense would automatically be the responsibility of the insured, and the \$900 in excess would then go into the benefit calculation.

Deductibles can apply to all services under the contract, to major categories of services (like hospital inpatient charges), or to smaller categorizations. The categories might depend on where the service occurs (such as inpatient vs. outpatient vs. physician's office), whether the provider is part of the insurer's network (such as a separate deductible for inpatient stays in non-network hospitals), what kind of service it is (such as inpatient stays, ancillary services, or prescription drugs), or in other ways.

It is important to address how the deductible interacts with other aspects of the contract – in particular, provider discounts. Suppose, for example,

² 11 NYCRR 52.7

that the \$1,000 claim in the previous example was for physician services, and is the retail, undiscounted charge the physician puts on the bill (commonly called **billed charges**.) If the physician is participating in the insurer's network, it is likely that the physician has agreed to abide by a payment schedule (or other discount mechanism) which might reduce that \$1,000 to, for example, \$700. (This figure of \$700 would be called the **allowed charges** for that benefit, and is what the insurer will recognize in the benefit calculation.)

The benefit for this imaginary plan pays 100% above the deductible, so the benefit calculation subtracts the \$100 deductible from the *discounted* \$700 benefit, and pays the physician \$600. In this case, the insurer gets the full value of the discount, and the insured must pay the undiscounted \$100. This is the most common interpretation of deductibles.

Sometimes there are family deductibles that are expressed as a multiple of the individual deductible, such as 2, 2.5, or 3 times. This naturally adds somewhat to the claim cost of a major medical benefit, since there will be some families whose claims will exceed the family deductible even though the individual expenses may not exceed the individual deductible.

COINSURANCE

It is common in major medical plans that, once the deductible is satisfied, benefits above that amount are payable at a percentage (typically 75%-90%, the most common being 80%) of covered expenses. Perhaps counter-intuitively, the percentage payable by the insurer (80%) is called the **coinsurance**; the remaining portion (20%) is part of the insured's cost sharing. (This terminology is not used consistently. Some people call the 20% the coinsurance.)

In the previous example (with \$1,000 of billed charges, \$700 of allowed charges, and a \$100 deductible), if the policy pays 80%, then the \$600 of allowed charges in excess of the deductible would be payable at 80%, or \$480, with the insured responsible for the remaining \$120.

Most provider contracts require that the provider accept the allowed charge determination, and not seek the difference between billed and allowed charges from the insured. The practice of seeking payment from the insured for the excess of billed charges over allowed charges is known as **balance billing**.

OUT OF POCKET LIMITS

As mentioned earlier, it is generally considered a good idea to provide financial incentive to the insured to control costs, through cost sharing. Once a claim reaches a particularly large amount, however, there is usually a provision that relieves the insured of the cost of any additional covered expenses. This is often called an **out of pocket** provision, or a **stop loss** provision.

Out of pocket limits can also be considered 100% coverage once a claim trigger occurs. That trigger can be expressed either in terms of covered expense (such as \$5,000) or out of pocket expenses (such as \$2,000). They can also be expressed to include or exclude the deductible. If the contract is a family contract, there will often be one out of pocket limit for each individual, and a separate trigger for the family as a whole, in case no single person hits the trigger but there are numerous moderate sized claims.

MAXIMUM LIMITS

Sometimes a policy will have an overall maximum benefit payable on behalf of an individual. This limit can be expressed in terms of benefits per year (like \$1 million of benefit per year), over the life of the individual (like a \$2 million lifetime benefit), or both.

Overall benefit maximums were quite common early in the development of major medical policies. As time went on, the original maximums (some as low as \$25,000, for example) sometimes seemed absurdly out of date, in light of modern health care costs. Those maximums continued to grow over time, to multiple millions of dollars in the 1980s and '90s.

Over time, many policies eliminated maximums. Ironically, some companies then reintroduced maximums for marketing purposes. Some marketers found that the public views a "\$5 million maximum" more favorably than an "unlimited maximum." It turns out that the premium cost for such differences is quite minor, although the risk can be significant for the small insurer who happens to find the rare multi-million dollar chronic claim. (Such an insurer might have stop loss reinsurance – that is, enter into its own insurance contract with another insurer – to cover the risk of such a claim.)

Some policies that have limited lifetime maximums will have a provision that will gradually reinstate eligibility for benefits, even though the maximum had been reached. A policy might, for example, reinstate \$50,000 of benefit eligibility each year, after (and despite) the lifetime maximum having been reached. This allows an insured who has previously had a catastrophic event to maintain modest amounts of coverage.

Under the ACA, major medical policies (grandfathered or not) can no longer have lifetime dollar limits on covered services deemed to be “essential health benefits.” In addition, annual dollar limits on essential health benefits that previously existed had to be phased out for non-grandfathered plans by 2014.

INTERNAL LIMITS

Sometimes there are benefit limits defined in a policy that apply only to specific subsets of benefits. Today, the most common internal limits on charges for all services (rather than a single service) relate to mental and nervous benefits, substance abuse benefits, and chiropractic benefits. In addition, these benefits can also have per service limits. An outpatient mental and nervous benefit might, for example, be limited to \$40 per visit, and 20 visits in a year. As in this example, the overall limit can be expressed either in dollars or in number of services.

The ACA prohibits annual dollar limits on essential health benefits; this also prohibits internal limits on those benefits that are based on a dollar value. Because the law does not prohibit limits on the number of services of a given type that are covered, however, in many cases plans replaced annual dollar limits on particular services with annual limits on the number of the services instead.

Starting in 2014 individual health insurance plans must also comply with parity requirements in the **Mental Health Parity and Addiction Equity Act of 2008 (MHPAEA)**. The details are complex, but in general the inside limits applied for mental health and substance abuse services cannot be more stringent than those applied to other services.

Some Blue Cross plans have had limits on the number of inpatient days covered per spell of illness. In the past, this was often considered equivalent to an overall maximum, since the bulk of covered charges (for very large claims) was almost inevitably due to inpatient costs. With the growing number of transplants (and their associated surgical costs), and

the sometimes major costs associated with new drugs, a limit on covered inpatient days starts to look more like an internal limit.

Early in the development of major medical benefits, internal benefit limits were commonly used to limit exposure to broad categories of benefits deemed to be the greatest risk for cost, such as inpatient and outpatient hospital benefits. Such benefit designs were made without benefit of foresight of what would happen to benefit costs over time. In such cases, the hospital inpatient benefits might have been contained to a fraction of inflationary trends (with hospital inpatient benefits maxing out), while ancillary services might continue to grow because there are no internal maximums. In many cases the non-limited benefits (like ancillary services) have eventually become the major portion of benefits for the persisting book of business.

COPAYS

Cost sharing that occurs each time a service is provided is called a **copay**. Commonly, when they are used, copays apply to physician office visits (perhaps \$20 per visit, for example), prescription drugs (often **tiered**, with copays varying depending on the drug prescribed, such as: \$10 for generic drugs, \$20 for brand name drugs on the insurer's formulary, \$40 for non-formulary drugs, and \$100 for high-cost specialty drugs), emergency room (such as \$50 per visit), or other specific benefits. (A **formulary** is a list of drugs, promulgated by a health plan or a pharmacy benefits manager, that has member cost sharing that differs depending on how each drug is included on the formulary.)³

Copays came into vogue in the '70s and '80s, when HMOs first became popular.⁴ HMOs tend to use copays rather than deductibles for cost sharing purposes. There are two types of services which most often use copays for cost sharing. The first type is the category of services which might be subject to over-utilization, where the insureds themselves have significant control over the usage. Examples of this include physician office visits and emergency room visits.

³ *Group Insurance, Sixth Edition*, Bluhm, et al., ACTEX Publications, 2013. Chapter 9.

⁴ An **HMO** is a **Health Maintenance Organization**, a type of health insurance company, typically licensed either under a specific federal law or under a unique part of the insurance or health laws of a state, characterized by hiring or contracting with the providers needed to provide comprehensive care to their members.

Another common situation where copays are used is when the administration of a benefit (most frequently the prescription drug benefit) is done separately. The administration of prescription drug benefits are typically outsourced to a **pharmacy benefits manager (PBM)**. Because the administration is done by the PBM, who doesn't have easy access to the insurer's claim records, it is difficult to coordinate claim payment calculations with other benefits, paid under other parts of the contract.

Eligibility for prescription benefits and the determination of benefits typically occur at the time the prescription is filled, and requires access to benefit information to determine cost sharing, so that the pharmacy can collect it at that time. Copay administration does not require knowledge of other benefits paid (unless they accumulate towards an out of pocket maximum); deductibles do. Since PBMs have historically been unable to access insurer benefit and claim information, there had been a compelling argument to use copays with prescription drugs, rather than deductibles that are integrated with medical coverage. Some plans, particularly high deductible plans, still have integrated deductibles today. Integrated plan designs may become more common under the ACA, since all cost sharing for essential health benefits, including prescription drugs, is required to accumulate towards an out of pocket maximum.

VARIATIONS ON A THEME – RELATED PRODUCTS

Comprehensive Major Medical Coverage

Major medical coverage originally had substantial deductibles which were intended to cause self-insurance of smaller health care costs. This was consistent with the original intent of major medical coverage to be insurance against "major" costs, rather than more frequent lower cost expenses. When adjusted to today's dollars, these sizeable deductibles were quite similar to today's high deductible, "consumer directed" policies.

Over time, a version of major medical coverage developed which was intended to cover more of the smaller expenses, and therefore had relatively small deductibles. Such deductibles were originally as small as \$50 or \$100. This coverage is sometimes referred to as **comprehensive major medical (CMM)** coverage.

Some carriers (particularly commercial carriers) may allow for widely customizable major medical plans, varying deductibles, coinsurance, co-

pays, optional benefits (like maternity, accident, and critical illness), prescription drug options and copays, and so forth. These carriers try to make coverage more affordable to prospects, by allowing them to pick and choose the benefits they find most valuable in relation to cost. (Such variation will, of course, also tend to generate more antiselection, as the insureds are most likely to choose the benefits that they are most likely to actually *use*.)

Catastrophic Medical

Another variation of major medical is the **catastrophic major medical product**.⁵ This product's purpose is to protect from the opposite risk addressed by CMM coverage. It is major medical coverage with very high deductibles, typically on the order of \$25,000-100,000.

Catastrophic coverage is consistent with the original intent of insurance: to protect assets against infrequent, large expenses. It was sometimes purchased to roughly wrap around older policies that might have outdated overall maximums. In addition, there are some purchasers who have sufficient financial means and the desire to self-insure costs to a much higher level than is typical for others.

The ACA caps out of pocket maximums for non-grandfathered major medical policies, which will effectively prohibit catastrophic major medical products as described in this section. The highest out of pocket maximum allowed in 2014 was \$6,350 for a single policy, or \$12,700 for a family.

Short Term Medical

Some major medical insurers found in the past that a sizeable proportion of newly issued individual major medical policies were sold to insureds who only intended to keep their coverage in force for short periods. This led to substantial lapse rates in the first duration of policies. Each of those issued policies had a substantial investment by the insurer associated with them, due to the cost of sales, underwriting, and issuing the policy. The insurer often did not recover this investment until the policy had been in force for

⁵ The catastrophic major medical products in this section should not be confused with the "catastrophic" plans created under the ACA, which actually provide richer coverage than the plans described here.

over a year. So when the policies lapsed before that time, even if they had no claims, the insurer suffered a loss.

In response, the **short term medical** product was developed. Early versions of this product often allowed a single guaranteed renewal, but this is no longer common. This feature has later been replaced by a product with a single limited term (typically 3, 6, 9, or 12 months). Because of the limited term, product design frequently contemplated a pre-existing condition exclusion, which is usually limited to 12 months after the policy is issued, to apply over the whole life of the policy. Because of this, individual medical underwriting for such short term policies is quite limited (typically only a few yes/no questions), which substantially reduces the cost of issuing the policy. This does somewhat complicate the claim administration process, since most claims (other than those that are obviously not pre-existing, like accidents) must be investigated for the potential that they are due to a pre-existing condition.

By having a short term medical product available, insurers can substantially reduce the first year lapse rate on their longer term products, and thereby increase the time over which they can recover the initial cost of issuing a regular individual major medical policy.

Short term policies appear to be largely exempt from the reforms introduced by the ACA. Given the ACA mandate requiring most individuals to maintain coverage throughout the year, however, it remains to be seen whether there will still be a market for these plans in the future.

Under the ACA, possession of short term medical coverage is not sufficient for an individual to avoid penalties under the individual mandate provision. (See the following “ACA Restrictions on Plan Design” section.) At the time of this writing, the ACA individual mandate does allow for a gap in coverage of less than three months without triggering a penalty. It is possible that some relatively healthy insureds will take advantage of this loophole, replacing a more costly major medical policy with a cheaper short term policy for several months each year.

High Risk Pool Plans

As mentioned in Chapter 1, states with high risk pools either terminated them or began winding them down starting in 2014, since health status underwriting was prohibited in the individual market nationwide at that time. The ACA also set up temporary high risk pools (the **Pre-Existing**

Condition Insurance Plan, or PCIP) in all states starting in late 2010; these also terminated in 2014.

The benefits provided by state high risk pool contracts varied by state. Most plans tended to resemble an 80% coinsurance major medical plan, with a choice of deductible and a relatively modest maximum (\$350,000 to \$2 million). Such plans included an intentional level of subsidy of around half the total operating costs. (This could vary significantly by state, as well as year by year within a state.) The subsidy could come as an assessment or tax on individual health insurers, all health insurers, health care providers, or from the state's general funds.⁶

Consumer Directed Plans

In the early 2000s, there was a popular evolution of individual products toward **consumer directed plans**. In product design, such plans were historically offered more often in a group context, but have now grown in size in the individual market as well.

A consumer directed plan is typically characterized by a high deductible major medical (or HMO) plan, combined with an underlying **personal spending account**. The underlying account is presented as an account owned by the insured, even when wholly or partially funded (usually in a group insurance context) by employer contributions (and therefore not taxable to the employee). The intent is that the insured will take emotional ownership of the assets in this personal account, and will be motivated to use the money efficiently. Sometimes, in a group situation, the underlying account can be notional, rather than an actual account.⁷ In the individual situation, the types of accounts which are used are:

Medical Savings Accounts: These are accounts created by Congress in 1997 as a demonstration project for small group and self-employed insureds. Under this arrangement, contributions to the account are made pre-tax (being at least tax deferred), and the earnings on the account are also tax deferred. If withdrawals are used for medical expenses, they are never taxed. If they are withdrawn before age 65 without being used to pay medical expenses, the withdrawn amounts are taxable, plus are subject to a 15% penalty. At age 65, the account can be withdrawn similarly

⁶ www.naschip.org

⁷ This type of arrangement is a *Health Reimbursement Account*, or *HRA*.

to an IRA, and is taxable as withdrawn. There are limitations on the product design and contributions which must be followed. MSAs have been superseded by Health Savings Accounts, and no new MSA accounts can be opened today.

Health Savings Accounts: The Medicare Prescription Drug Improvement and Modernization Act of 2003 (Public Law 108-173) created a new type of account, called the **Health Savings Account (HSA)**. HSAs are available to individuals and to all employers, including the self-employed. The insured must be covered under a **High Deductible Health Plan (HDHP)**, and cannot be covered by any non-HDHP plan, including Medicare, or as a dependent of another family member. Required deductible minimums are lower than for MSAs, and allowed contributions are higher.

Contributions to the HSA are made pre-tax, and interest accumulations are tax-free as well. The funds must be used to pay for qualified medical expenses. The account is owned by the insured, and the insured decides how much (within the maximum limit) to put into the account. Unused amounts are carried over from year to year. The federal government has a useful information site on this subject.⁸

ACA RESTRICTIONS ON PLAN DESIGN

The ACA places a wide variety of restrictions on benefit plan design, both with respect to covered services and also with respect to member cost sharing. Several of these restrictions were noted earlier.

Since the ACA includes a mandate that all individuals (with limited exceptions) purchase health insurance, it was important to set limits on what counts as health insurance for the purpose of satisfying the mandate (so that it wasn't possible to largely avoid the mandate by buying a policy that does not provide comprehensive coverage).

A second goal of this regulation is to make it easier for consumers to compare insurance plans by partially standardizing the coverage. This should be contrasted with the regulation of Medicare Supplement plans described elsewhere in this chapter, where the plans were entirely standardized.

⁸ <http://www.treasury.gov/resource-center/faqs/Taxes/Pages/Health-Savings-Accounts.aspx>

The following subsections provide more detail on how the restrictions fit together to define the “metallic” plans that were offered starting in 2014.

Essential Health Benefits

As part of the ACA, Congress required that all non-grandfathered individual and small group major medical plans cover the following ten categories of **essential health benefits (EHBs)**:

1. Ambulatory patient services;
2. emergency services;
3. hospitalization;
4. maternity and newborn care;
5. mental health and substance use disorder services, including behavioral health treatment;
6. prescription drugs;
7. rehabilitative and habilitative services and devices;
8. laboratory services;
9. preventive and wellness services and chronic disease management;
and
10. pediatric services, including oral and vision care.

Individual market plans were required to cover these services starting in 2014. Prior to the ACA, it was common for several of these categories to be excluded under individual plans (or only available as a rider, subject to underwriting approval). Prime examples of this include maternity and mental health/substance abuse services.

In determining the exact list of services that must be covered within each category, the federal government required, through regulation, that each state choose a **benchmark plan** from among certain plans that existed in the state market as of March, 2010. This benchmark plan, once any missing categories of benefits were added, determined the EHBs for all plans in the state. The result is that the list of EHBs varies somewhat from state to state, creating administrative complexity for carriers operating in multiple states.

Several of the EHB categories have presented special challenges for insurers, namely **habilitative** services⁹ and the pediatric vision and oral care. Habilitative services were in many cases not commonly covered by insurers, and were not always clearly defined by regulators. This made it challenging for insurers to develop pricing assumptions. Pediatric vision and dental services presented challenges to insurers who did not have contracted providers for vision hardware or dental services. This challenge was partially alleviated when the government allowed the creation of separate standalone pediatric dental plans within the Exchanges.

Actuarial Values, Metal Levels, and Cost Sharing Limits

EHB regulations set requirements as to which services must be covered by ACA-compliant plans; actuarial value (AV) and cost sharing limit requirements set boundaries on the types and levels of cost sharing insurers may impose on members for those services.

In ACA regulation, **actuarial value**¹⁰ is the percentage of total claim costs for the plan that are expected to be paid by the insurer (rather than the enrollees) for a standard population. After considering various alternatives, the government decided to create a standard tool (the “Actuarial Value Calculator” or AVC) to measure this benchmark. All insurers must use this tool to measure their plans, or obtain a certification from an actuary if the plan cannot be measured by the tool.

While a full accounting of the various ACA limitations on cost sharing is outside the scope of this book, the major provisions applying to non-grandfathered plans (both in and out of Exchanges) are as follows. Unless otherwise noted, the requirement began in 2014.

⁹ Habilitative services are similar to rehabilitative services, with the following difference: rehabilitative services aim to restore functions that have been lost to a patient, while habilitative services aim to help a patient gain normal functions that have never been present.

¹⁰ Actuarial value should not be confused with the similar concept of **minimum value**. Minimum value is used in the tests that determine whether employer coverage meets minimum standards to comply with the ACA’s mandate that larger employers offer affordable healthcare coverage to their employees. A full discussion of minimum value and how it differs from AV is beyond the scope of this book.

- Starting September 23, 2010, the ACA eliminated cost sharing on many preventive services, and prohibited lifetime and annual dollar limits on EHBs.
- All ACA-compliant plans¹¹ sold after January 1, 2014 must meet an AV **metal level** (platinum, gold, silver, and bronze). Each metal level has a set range of allowable AVs, which represent the anticipated percentage of claim costs paid by the insurer rather than the member. A silver level plan, for example, must be expected to pay between 68% and 72% of EHB claim costs (for a standard population, as measured by the AVC), with the member paying the balance through cost sharing.
- Plans must set an overall out-of-pocket maximum limit on member cost sharing for EHBs not to exceed certain published limits (the limit for 2014 was \$6,350 for a single policy and \$12,700 for a family policy). All cost sharing (other than cost sharing under a standalone pediatric dental policy) must accumulate to the OOP maximum.

Other Requirements

Plans that are to be certified for sale on a public Exchange must also meet a variety of other market rules. These include:

- Passing a **meaningful difference** test (to prevent insurers from monopolizing virtual “shelf space” with many very similar plans);
- Network adequacy tests;
- Tests for discriminatory service areas;
- Tests for discriminatory cost sharing; and
- Tests by the government for “outlier” premium rates.

NETWORKS

Most individual major medical insurers today have developed or contracted with one or more provider networks, either as a group or individually. A **provider network** is a collection of doctors, hospitals, and other providers, who have agreed to provide certain services for insureds of the

¹¹ Insurers can also offer certain “catastrophic” plans to individuals under age 30 or for whom buying a regular plan would be a financial hardship. While these plans aren’t subject to the AV requirements, they do have prescribed benefit designs.

insurer. In return, they are provided a stream of patients and are paid according to the contracts (provider agreements).

Insurers who are geographically concentrated, like Blue Cross/Blue Shield plans and HMOs, typically build and maintain their own networks. This works well because the geographic concentration allows for efficient use of resources and personnel in managing the network.

Unless they are one of the very few jumbo national carriers, insurers whose customers are geographically diverse will typically not have enough geographic concentration in any one area to justify development of a network. Companies that fall in this category include most commercial individual major medical carriers, as opposed to Blue Cross/Blue Shield plans or HMOs.

When it is not feasible or desirable for an insurer to build a proprietary network, the other alternative usually pursued is to contract with existing **networks for hire**. These networks have been created by (usually non-insurance) companies who have invested the resources necessary to create their own networks, with the intent of renting that network to insurers. Economically, this makes sense, because the individual insurers who don't have critical mass in an area by themselves can be aggregated, and the critical mass can be found by the organizing company. The ACA includes new network adequacy requirements applicable to qualified health plans sold in the exchanges. These requirements are intended to ensure that sufficient numbers of providers of various specialties are included in the network.

PPO Products

The class of products which utilize networks are generally referred to as **Preferred Provider Organization (PPO)** products. These products typically have a dual set of benefit provisions. The first applies when the insured uses a provider from the network (hence, a **preferred provider**), the second for out of network providers.

There is usually a significant difference in the benefit levels that apply in network and out of network for a typical major medical plan. An example of such differences is shown in Tables 2.1 and 2.2. Table 2.1 shows how a PPO benefit plan might be designed if both the in network and out of network plans are structured as copay type plans. Table 2.2 shows how such a plan might be structured if both the in network and out of network plans are deductible type plans.

Table 2.1

Typical Benefits, PPO Copay Product		
	Benefit Provision	
Type of Service	In Network	Out of Network
Hospital Inpatient Stays		
Per Stay Copay	\$250	\$750
Physician Visit Copay	\$10	\$30
Hospital Outpatient		
Emergency Room Copay	\$100	\$200
X-Ray Copay	\$15	\$30
Physician		
Office Visit Copay	\$10	\$30
Coinsurance %	80%	70%
Out of Pocket Limit	\$2,000	\$7,000
Mental & Nervous, Outpatient		
Services per year	40	0
Prescription Drug Copay (Generic/Brand/Specialty)	\$10/\$30/\$100	\$10/\$30/\$100

Table 2.2

Typical Benefits, PPO Deductible Product		
	Benefit Provision	
Type of Service	In Network	Out of Network
Deductible	\$1,000	\$3,500
Coinsurance %	80%	50%
Out of Pocket Limit	\$2,000	\$7,000
Prescription Drug Copay (Generic/Brand/Specialty))	\$10/\$30/\$100	\$10/\$30/\$100

Quite often, as in this case, prescription drug benefits are provided through a separate PBM arrangement, and the benefit is subject to a copay despite all other benefits being subject to a deductible.

It is also fairly common to have in network benefits structured as a copay benefit, but out of network benefits structured as a deductible benefit, for those companies whose benefit administration system allows for this complexity. Hybrid plan designs combining features of both deductible and copay type plans for the in-network benefit are also quite common.

Copays may apply, for example, on physician office visits and prescription drugs, while a deductible, coinsurance, and out of pocket limit may apply to other services.

Measuring and Choosing Providers

Insurers who are building their own networks must choose which providers to include in their networks. A thorough discussion on this subject is beyond the scope of this text, but a few basic principles can be mentioned.

First, the insurer must decide on how restrictive the network will be. At one extreme, only the providers who meet very strict criteria might be allowed into the network. At the other extreme, the insurer might seek to have virtually all providers in the area in their network. (In some states, “any willing provider laws” will restrict the insurer’s ability to prohibit participation in their network by higher cost providers.)

There has recently been a trend among some insurers to develop multiple networks, having different levels of breadth and discount. A plan might, for example, have one network with relatively fewer (and lower cost) providers, and another network with much broader but higher cost provider contracts.

Even when an insurer would like to be restrictive in building its network, it may find that it must make allowances for unusual circumstances. In rural areas, in particular, there may be a limited number of providers from which to choose, and the need to have providers in that area can (and often does) outweigh the desire for a restrictive network.

Another common challenge is that in many areas healthcare providers have consolidated into a few large systems, which often cannot be split up when building a network.

The criteria used to choose providers is typically based on a combination of practice patterns (such as quality measures, efficiency of care, adherence to treatment standards) and cost. Cost measures include the cost of the provider themselves (the most common) and other costs controlled by the provider, such as the cost of inpatient care directed by a physician. When comparing provider costs, it is common to attempt to adjust costs for the relative morbidity of the patients seen by that provider using some form of risk assessment mechanism. This is important, for example, if one provider

sees an older population with more chronic medical issues while another has a relatively young and healthy patient base. There are several techniques for doing so, and this is still a developing area of practice.

Measuring and Choosing Networks

Insurers who rent networks today typically evaluate those networks mostly on the cost savings through provider discounts achieved by the network. Cost savings provided by efficient care patterns can be used, but such measures are relatively undeveloped today, especially in this market. Most larger, geographically concentrated companies (like BCBS plans or HMOs) have historically used the same networks for their individual products as they do for their group products, although this may be starting to change with respect to ACA exchange products.

The ACA has brought renewed interest in network management to the individual insurance market, since other avenues of cost management (namely underwriting) have been eliminated. Many insurers have been experimenting with very restrictive networks, and there is also renewed interest in various risk sharing arrangements between insurers and healthcare providers.

2.9 DENTAL COVERAGE

While some carriers have offered individual dental policies, dental insurance is most typically a group coverage. There are two main reasons for this. The first is that dental coverage has higher frequencies of claim, and much lower cost per claim than medical coverages. This makes the insuring element (the sharing of infrequent, large costs by a pool) of this coverage less valuable. A second driver is the U.S. tax code, which creates a tax subsidy for such coverage when issued to an employer group. This subsidy doesn't exist for individual coverage.

On the other hand, the ACA has renewed interest in individual dental coverage by mandating it as an essential health benefit, at least for children.

Dental coverage is also highly susceptible to various forms of antiselection. This is only one of the unusual risks in individual dental coverage, which drive the design of the product. Each of these will now be discussed.

Dental benefits can be defined as either a scheduled amount per service (according to a specified schedule) or as a percentage of allowed charges. Often, potential services are categorized into four types of benefits. Type I is diagnostic and preventative, type II is basic services (including extractions, restorations, endodontics, periodontics, and anything not included in the other descriptions), type III is prosthetic coverage (including inlays and crowns), and type IV is orthodontia. Typical policies vary benefits by category, generally with the highest benefit for type I, and more limited benefits for types II, III, and IV.

Type IV benefits are more often absent than present in individual product plan designs, mostly due to concerns about antiselection and the somewhat voluntary nature of treatment. Costs for type IV benefits vary widely, depending on the nature of the covered population and the benefits.

One model of type I through III benefits showed roughly 30%, 40%, and 30% of covered expenses in each type, respectively – prior to member cost sharing. These do not, however, represent the proportion of final benefits, because of the relatively higher member cost sharing on type II and III services. After member cost sharing, the proportion of benefit costs to the insurer might be more like 40%, 45%, and 15% (excluding the portion of costs paid by the member).

MULTIPLE TREATMENT OPTIONS

Much more than in medical insurance, there are often multiple dental treatment options available for a given situation, sometimes including the alternative of waiting before beginning treatment. The existence of insurance coverage often has an impact on which treatment is chosen. The cost implication of these different options can be quite dramatic, and is a good example of an effect sometimes called “induced utilization,” when additional utilization occurs simply because insurance is present.

This risk is typically controlled in one or both of two ways: (1) through benefit design, particularly by limiting benefits on the more costly alternative services, and (2) by requiring approval of the planned course of

treatment by the insurer before treatment occurs, a process referred to as **preauthorization**.

ACCUMULATED UNTREATED CONDITIONS

Another characteristic of dental treatment that impacts the insurance risk is the ability of patients to postpone treatments, sometimes for long periods. This is particularly true when patients are aware that insurance coverage is imminent. After all, it would be human nature to ask one's dentist something like, "Can I postpone this crown for three months, since I'll have insurance coverage then?"

This issue could be addressed by trying to limit coverage of pre-existing conditions, but this is difficult to administer. Most often, individual policies will reduce initial benefits, and phase them in over a few years, to reduce the pre-issue incentive.

EXTERNAL ANTISELECTION

Most individuals have a pretty good self-perception of their own dental health, and often they are aware of specific needs for treatment. Because of this, individual dental coverage is very susceptible to antiselection by prospective insureds, who will self-select their coverage if it is worthwhile for them to do so. This requires aggressive management, aimed at limiting that potential. Even with careful management, this antiselection can increase overall claim costs for small employer groups by as much as 30% or more – individual policies would be expected to experience even greater selection effects. The available antiselection management tools have been described earlier.

PEDIATRIC DENTAL COVERAGE UNDER THE ACA

The ACA lists "pediatric services, including oral and vision care" as one of the essential health benefits required to be covered in all non-grandfathered small group and individual health plans starting in 2014. This created a significant challenge for many insurers who did not have experience administering dental coverage (or contracting with dental healthcare providers).

Regulators acknowledged this challenge in implementing regulations, and generally allow carriers to offer plans without dental coverage provided there is a standalone dental plan offered by another insurer that is

also available to applicants. The rules differ slightly depending on whether the plans are offered on or off of the exchange. In many states standalone pediatric dental coverage was available in 2014.

Similar to the actuarial value rules described earlier, pediatric dental plans must meet certain benefit standards prescribed by regulation in order to be sold on the exchanges.