



ELECTIVE

STUDENT BOOK



► **Consumer Math | Unit 8**

Life and Health Insurance

Introduction

In previous units, you've learned about other types of insurance, like mortgage and renter's insurance. In this unit, you'll learn more about life insurance and health insurance. Life insurance is for ensuring your dependents have the money they need to take care of bills and debt if you should die. Health insurance is to help pay for any medical costs you have during your life. Each type of insurance works in similar ways to previous insurance models you've learned about, with premiums you pay to maintain the policy. But in this unit, you'll learn more about the different types of policies available, how costs are calculated, and how to choose the policies that best fit your budget and unique needs.

Objectives

Read these objectives. The objectives tell you what you will be able to do when you have successfully completed this LIFE·PAC. When you have finished this LIFE·PAC, you should be able to:

1. Define the purpose of life insurance policies.
2. Describe and identify different life insurance policies.
3. Describe the benefits of different life insurance policies.
4. Compare and contrast different forms of life insurance.
5. Understand the factors that impact life insurance premium costs.
6. Understand the differences in cost that depend on when you pay premiums.
7. Know how to calculate service charge costs for different premium payment plans.
8. Understand what health insurance is and how it benefits individuals, families, and the community.
9. Be able to estimate health insurance coverage costs.
10. Identify health insurance benefits in a variety of situations.
11. Understand how health insurance works and key components of coverage (e.g., premiums, copays, deductibles, etc.)
12. Understand that staying healthy and engaging in preventive health activities (e.g., good nutrition, regular physical activity, etc.) can reduce health care costs.
13. Be able to communicate the benefits of health insurance coverage to peers and families.

EXAMPLE

James Harmon was born on March 27, 1984. On March 27, 2004, he celebrated his twentieth birthday. For insurance purposes he is considered to be twenty until September 27, 1984 (six months from his birthday), at which time he is nearer twenty-one than twenty.

To calculate what his premiums would be for \$40,000 of twenty-payment life you would find the corresponding number of 21 years of age and 20-payment life. It is \$19.46. Now this is the number per \$1,000 of insurance. Because we want to know how much he would pay for \$40,000 worth of insurance we would take which $\frac{\$40,000}{\$1,000}$ equals 40. Take \$19.46 times 40 and that gives us his premium, which is \$778.40.

Note that the following table shows that the amount of the premium to be paid varies with the age of the insured. Because women, on average, have a longer life expectancy than men, three years are subtracted from the age of a man on the table. Also note that for insurance purposes, a person's age is calculated from their nearest birthday.

Typical Annual Life Insurance Premiums for Males, per \$1,000 Face Value

Age	10-Year Term	Ordinary Whole Life	20-Payment Life	20-Year Endowment
18	\$3.98	\$9.98	\$18.18	\$42.01
19	\$3.99	\$10.32	\$18.60	\$42.01
20	\$4.00	\$10.67	\$19.03	\$42.01
21	\$4.02	\$11.01	\$19.46	\$42.07
22	\$4.06	\$11.34	\$19.89	\$42.15
23	\$4.10	\$11.69	\$20.32	\$42.24
24	\$4.15	\$12.05	\$20.78	\$42.34
25	\$4.20	\$12.44	\$21.27	\$42.45
26	\$4.29	\$12.86	\$21.79	\$42.56
27	\$4.41	\$13.30	\$22.34	\$42.67
28	\$4.54	\$13.77	\$22.91	\$42.79
29	\$4.69	\$14.26	\$23.51	\$42.92
30	\$4.87	\$14.78	\$24.12	\$43.05
31	\$5.07	\$15.33	\$24.75	\$43.19
32	\$5.29	\$15.90	\$25.40	\$43.33

Age	10-Year Term	Ordinary Whole Life	20-Payment Life	20-Year Endowment
33	\$5.54	\$16.50	\$26.06	\$43.48
34	\$5.81	\$17.13	\$26.76	\$43.64
35	\$6.11	\$17.81	\$27.48	\$43.81
36	\$6.43	\$18.52	\$28.23	\$44.00
37	\$6.76	\$19.26	\$28.99	\$44.19
38	\$7.12	\$20.04	\$29.79	\$44.40
39	\$7.53	\$20.87	\$30.62	\$44.63
40	\$8.00	\$21.75	\$31.50	\$44.87
41	\$8.52	\$22.69	\$32.43	\$45.12
42	\$9.08	\$23.69	\$33.41	\$45.39
43	\$9.70	\$24.73	\$34.43	\$45.67
44	\$10.38	\$25.82	\$35.46	\$45.98
45	\$11.16	\$26.94	\$36.51	\$46.31
46	\$12.02	\$28.09	\$37.55	\$46.65
47	\$12.94	\$29.27	\$38.60	\$46.99
48	\$13.95	\$30.50	\$39.69	\$47.37
49	\$15.05	\$31.78	\$40.80	\$47.81
50	\$16.25	\$33.14	\$41.98	\$48.34
51	\$17.51	\$34.55	\$43.21	\$48.94
52	\$18.93	\$36.00	\$44.48	\$49.60
53	\$20.25	\$37.53	\$45.81	\$50.34
54	\$21.85	\$39.17	\$47.21	\$51.20
55	\$23.68	\$40.95	\$48.72	\$52.21

- a) For semiannual premiums, use 51 percent of the annual rate.
- b) For quarterly premiums, use 26 percent of the annual rate.
- c) For monthly premiums, use 9 percent of the annual rate.
- d) For females, subtract three years from the male age.

Write T for True or F for False.

- 1.1 _____ Term life insurance covers the insured for the stated term of the policy.
- 1.2 _____ For term life insurance, premiums are paid throughout the term.
- 1.3 _____ For term life insurance, at the end of the term, insurance ceases and the policy is worth its face value.
- 1.4 _____ Whole life insurance has cash value for the insured person if they decide to stop paying premiums and cash the policy in.
- 1.5 _____ Limited payment life insurance covers the insured for life, but they only have to pay on it for a certain number of years.
- 1.6 _____ The most usual period for limited payment life insurance is five or ten years.
- 1.7 _____ If a person purchases a twenty-year endowment insurance policy and pays on it for twenty years, at the end of that time, they may collect a value based on their age.
- 1.8 _____ Endowment life insurance is insurance with savings built in.

Complete these activities.

- 1.9 _____ is the least expensive type of life insurance..
- a. Endowment life insurance b. Whole life insurance
c. Term insurance d. Limited payment life insurance
- 1.10 Which of the following is true of ordinary whole life insurance policies?
- a. Ordinary whole life insurance has some value as an investment.
b. Premiums on this type of insurance are paid until the death of the insured.
c. Ordinary whole life insurance covers the insured for the stated term of the policy.
d. Ordinary whole life insurance premiums may change over time.
- 1.11 Which of the following is also true of ordinary whole-life insurance policies?
- a. Ordinary whole life insurance covers the insured for the stated term of the policy.
b. Ordinary whole life insurance has some value as an investment.
c. Premiums on this type of insurance are paid until the death of the insured.
d. Premiums on this type of insurance are lower as you grow older.
- 1.12 The most expensive type of life insurance is _____.
- a. endowment life insurance b. limited payment life insurance
c. term insurance d. whole life insurance
- 1.13 Use the Typical Annual Life Insurance Premiums table to determine the premium for a \$10,000 10-year term insurance policy for a 35-year-old man. Include dollars and cents in your answer.
- _____

- 1.14** Use the Typical Annual Life Insurance Premiums table to determine the premium for a \$12,000 10-year term insurance policy for a 35-year-old woman. Include dollars and cents in your answer.
- _____
- 1.15** Use the Typical Annual Life Insurance Premiums table to determine the premium for a \$20,000 20-payment life insurance policy for a 45-year-old man.
- _____
- 1.16** Use the Typical Annual Life Insurance Premiums table to determine the premium for a \$25,000 20-payment life insurance policy for a 45-year-old woman.
- _____

WHERE DO I BUY LIFE INSURANCE

There are many different ways to purchase a life insurance policy. Three main options include buying a policy directly from an insurance company, working with an independent insurance broker, and buying a policy from your bank or credit union.

Taking out a life insurance policy directly through an **insurance company** can be done online or over the phone. You can also purchase insurance in person from one of the company's agents. An agent will answer any questions you have, but keep in mind that the agent represents the company. They will be selling the company's products, so their primary interest is in representing the company, not the buyer.

An **insurance broker** represents one or more insurance companies, so they are often able to answer questions about comparisons between certain insurance company options. Brokers charge a fee for their services but can provide some insights that may be valuable. You can also hire an **insurance advisor**, which is someone who does not sell insurance, only provides advice. An advisor's job is to help you identify your insurance needs and find an insurance company that can provide the appropriate coverage. Advisors charge a fee for their services.

Finally, most banks or credit unions partner with insurance companies and hire agents or brokers who sell insurance. You can research options on your bank's website or visit in person to talk with an agent or broker.

Some **employers** also partner with insurance companies and as part of benefits packages, offer company-sponsored life insurance policies. When offered, these are typically small, but provide some kind of coverage. Some employers also partner with brokerage services where, as an employee, you can take advantage of the brokerage services without paying the brokerage fee.

Whether you decide to buy a policy directly from the company or use a brokerage service, it's always a good idea to shop around and compare prices and services. You can also research reviews to read about other customers' experiences.



Write *T* for True or *F* for False.

- 1.17 _____ You can buy life insurance directly through an insurance company.
- 1.18 _____ Insurance brokers do not charge a fee for their service.
- 1.19 _____ An insurance advisor helps you identify your insurance needs and find an insurance company.
- 1.20 _____ You can sometimes get life insurance through an employer.
- 1.21 _____ An agent at an insurance company will always have your best interests at heart.
- 1.22 _____ Insurance advisors charge a fee for their services.
- 1.23 _____ When employers contract with insurance brokers, employees may not have to pay a fee for their services.




CHECK

Teacher

Date

**LET'S REVIEW!**

Life insurance is a way to ensure your dependents are taken care of should you die. Four common types of life insurance are term life insurance, whole life insurance, limited payment life insurance, and endowment life insurance. Premiums may be paid annually, semiannually, quarterly, or monthly, but unless you pay annually, you'll pay a service charge. There are many factors that influence the cost of life insurance, including your age. You can buy insurance directly from an insurance company, your bank, or a broker. While buying life insurance now may seem early, the earlier you buy, the less costly insurance will be.

 **Review the material in this section in preparation for the Self Test.** The Self Test will check your mastery of this particular section. The items missed on this Self Test will indicate specific areas where restudy is needed for mastery.

SELF TEST 1

Write the letter of the vocabulary word that matches the correct definition (each answer, 2 points).

- | | | | |
|-------|-------|--|-----------------------------------|
| 1.01 | _____ | covers the insured for life, but premiums are paid for a set period | a. annually |
| 1.02 | _____ | twice a year | b. semiannually |
| 1.03 | _____ | date when policy reaches a set term and purchaser can receive benefits | c. quarterly |
| 1.04 | _____ | covers the insured for a stated term of the policy | d. beneficiary |
| 1.05 | _____ | amount of money paid for insurance | e. benefit |
| 1.06 | _____ | once a year | f. insured |
| 1.07 | _____ | insured pays premiums for life, policy covers for life | g. face value |
| 1.08 | _____ | survivor to whom benefits are paid upon death of the insured | h. maturity date |
| 1.09 | _____ | person covered by insurance | i. premium |
| 1.010 | _____ | combined insurance and savings plan | j. term life insurance |
| 1.011 | _____ | amount of a policy stated on the insurance policy | k. whole life insurance |
| 1.012 | _____ | four times a year | l. limited payment life insurance |
| 1.013 | _____ | amount paid to a survivor upon death of an insured person | m. endowment insurance |

Write **T** for True or **F** for False (each answer, 3 points).

- | | | |
|-------|-------|---|
| 1.014 | _____ | For term life insurance, premiums are paid throughout the term. |
| 1.015 | _____ | For term life insurance, at the end of the term, insurance ceases and the policy is worth its face value. |
| 1.016 | _____ | Term insurance covers the insured for the stated term of the policy. |
| 1.017 | _____ | Whole life insurance has cash value for the insured person if they decide to stop paying premiums and cash the policy in. |
| 1.018 | _____ | Limited payment life insurance covers the insured for life, but they only have to pay on it for a certain number of years. |
| 1.019 | _____ | If a person purchases a twenty-year endowment insurance policy and pays on it for twenty years, at the end of that time, they may collect a value based on their age. |
| 1.020 | _____ | The most usual period for limited payment life insurance is five or ten years. |
| 1.021 | _____ | Endowment life insurance is insurance with savings built in. |
| 1.022 | _____ | Insurance brokers do not charge a fee for their service. |
| 1.023 | _____ | An agent at an insurance company will always have your best interests at heart. |

Circle the correct answer (this answer, 5 points).

1.024 _____ is the least expensive type of life insurance.

- a. Endowment life insurance b. Whole life insurance
- c. Term insurance d. Term insurance

1.025 The most expensive type of life insurance is _____.

- a. endowment life insurance b. limited payment life insurance
- c. term insurance d. whole life insurance

1.026 Which of the following is true of ordinary whole life insurance policies?

- a. Ordinary whole life insurance has some value as an investment.
- b. Premiums on this type of insurance are paid until the death of the insured.
- c. Ordinary whole life insurance covers the insured for the stated term of the policy.
- d. Ordinary whole life insurance premiums may change over time.

1.027 Which of the following is also true of ordinary whole-life insurance policies?

- a. Ordinary whole life insurance covers the insured for the stated term of the policy.
- b. Ordinary whole life insurance has some value as an investment.
- c. Premiums on this type of insurance are paid until the death of the insured.
- d. Premiums on this type of insurance are lower as you grow older.

Fill in the blanks. (each answer, 5 points)

1.028 Whole life insurance is sometimes called _____ life insurance.

1.029 Term life has no value as a(n) _____.

1.030 when an endowment life insurance policy reaches _____ date and the policy is still alive, the policyholder receives the payout.

1.031 You pay for life insurance through the policy's _____.

Use graph on page 9 & 10 to complete these activities (each answer, 2 points).

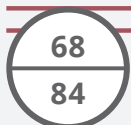
- 1.032** Use the Typical Annual Life Insurance Premiums table to determine the premium for a \$10,000 10-year term insurance policy for a 37-year-old man. Include dollars and cents in your answer.

- 1.033** Use the Typical Annual Life Insurance Premiums table to determine the premium for a \$12,000 10-year term insurance policy for a 45-year-old woman. Include dollars and cents in your answer.

- 1.034** Use the Typical Annual Life Insurance Premiums table to determine the premium for a \$20,000 20-payment life insurance policy for a 31-year-old man.

- 1.035** Use the Typical Annual Life Insurance Premiums table to determine the premium for a \$25,000 20-payment life insurance policy for a 48-year-old woman.

- 1.036** Use the Typical Annual Life Insurance Premiums table to determine the premium for a \$30,000 20-year endowment life insurance policy for a 50-year-old man.



SCORE _____



CHECK _____

Teacher

Date

WHAT IS HEALTH INSURANCE?

When you buy an insurance policy, you're sharing your risk of some type of loss with everyone else who has also purchased insurance from the company. This is true for other types of insurance you've learned about—homeowner's insurance, car insurance, life insurance, etc.—and it's true for health insurance.

When you purchase an insurance policy, you are signing a contract with the insurance company to cover some portion of your loss. For car insurance, that loss might be the cost of repairing your car in an accident. For health insurance, the loss would be medical costs if you are sick and visit a doctor or need surgery. If you have health insurance, the insurance company will pay a certain percentage of any medical bills you receive.

Health insurance helps cover the costs of getting medical care. Health care might include medical tests, hospitalizations, prescription medicines, surgeries, or other items. Since health care can be quite expensive, it's important to have health insurance.



How does health insurance work? Think of health insurance as a source of funding to access when needed in which everyone is sharing the cost. For example, let's imagine a health insurance company called Healthcare Insurers Group. A large pool of people pay a monthly premium to Healthcare Insurers Group, and because most of this pool of people are healthy the majority of the time, only a certain portion of the people are using the money paid to the insurance group for their medical bills. The medical bills of those people using the insurance at any given time are spread among all the people who pay their Healthcare Insurers Group insurance plan each month. The pool of people paying monthly premiums includes hundreds of thousands of people, so the medical costs are manageable.

When you are well and have no health problems, paying for health insurance may seem like a waste of money, but even simple doctor visits for the flu can be quite expensive without insurance. In the U.S, the average emergency room visit without insurance costs between \$2,400 to \$2,600! So, when you need it, health insurance can be a lifesaver.

If you have health insurance, a doctor's visit for something like strep throat may cost you \$20-\$40 for the visit. Without insurance, that may range from \$100-\$200.

With health insurance, if you get sick, have an accident, or are diagnosed with a health condition, you'll only be responsible for a portion of the bill. Health insurance also makes it possible for people to regularly see their doctor, which can prevent illnesses or other conditions from later becoming serious conditions.

If you're wondering what portion or percentage of medical bills are covered by insurance providers, that will depend on several factors. There are different types of health insurance policies and different ways to acquire health insurance.

Write **T** for True or **F** for False.

- 3.1 _____ Health insurance helps cover the costs of medical care.
- 3.2 _____ Not having health insurance puts you at risk for extensive debt.
- 3.3 _____ Health care plans are only available for individuals.
- 3.4 _____ Medical costs are shared by the pool of people who also pay premiums.
- 3.5 _____ A trip to the emergency room without insurance can cost over \$2,000.

TYPES OF HEALTH INSURANCE

The most common type of health insurance plan is managed care plans. There are four basic types of managed care plans.

HMO (Health Maintenance Organization). An HMO is one of the more affordable health plans, usually having lower premiums and **deductibles**. The **copayment**, or copay, is also fixed for doctor's visits, so it's always the same cost.

When you join an HMO, you choose a primary care doctor within your **provider network** area. Your primary care doctor will coordinate all your medical care, from annual physicals to hospitalizations. While the copay for an HMO is usually low, you can only use the doctors, medical centers, and hospitals in your network. And if you need to see a specialist of some sort, your primary care physician must provide a written referral.

An HMO is a good choice if you need lower insurance costs and are generally healthy.

POS (Point of Service). With a POS plan, you typically choose an in-network doctor for most care, but you may go outside the network if you need to see a specialist. However, seeing someone out of network will likely cost more. A POS plan has slightly higher premiums than an HMO, but it still an affordable option.

People who have a health condition that requires seeing specialists and other care providers to manage the condition often choose a POS.

PPO (Preferred Provider Organization). Similar to an HMO in some ways, a PPO differs in that you can see any doctor you want that accepts your insurance. You can still choose a primary physician you see regularly, but if you choose to see a specialist or another doctor, you are able to. However, even with a PPO, you'll have a network area that is approved and seeing a provider out of network will cost more.

A PPO has higher premiums than an HMO or POS, but you can see specialists and out-of-network doctors without a referral. Copays for in-network doctors are typically low, but if you see an out-of-network doctor or specialist, the cost increases.

People with health conditions that require seeing specialists and other care providers to manage the condition who can afford higher premiums often choose a PPO.

With any of these plans, there are some **out-of-pocket costs** you'll likely pay, such as certain prescription medications that may not be covered and additional costs to see out-of-network specialists.

3.6 A(n) _____ plan is one of the most affordable health plans.

- 3.7** A person can visit an out-of-network doctor with _____ plans.

- 3.8** A(n) _____ has higher premiums but you can see out-of-network specialists.

- 3.9** People with health conditions who still need affordable insurance often choose a(n) _____ plan.

- 3.10** You can only see doctors within your network if you have a(n) _____ plan.

- a. POS b. PPO c. HMO

There are multiple ways to acquire health insurance. In the U.S., young adults can stay on their parents' health insurance plan until age 26. So, you may not yet need to get health insurance, but it's important to be aware of your options for now or for the future. Let's look at a few.

Enrollment into employer-sponsored insurance is typically open to employees once each year and changes cannot be made to insurance plans other than during that period. However, newly hired employees can be added at other times, and current employees who marry or have a child can typically add to their plan at other times.

Health Insurance Marketplace. **Health insurance marketplaces**, also called health exchanges, are organizations in each state through which people can purchase health insurance. When the **Affordable Care Act** (ACA) was signed into law on March 23, 2010, ACA health exchanges began providing a range of government-regulated and standardized health care plans that are offered by insurers participating in the exchange. There are also private, non-ACA health care exchanges in many states that predate ACA and are still privately run.

To find a health insurance marketplace in your area, visit [HealthCare.gov](https://www.healthcare.gov) and search the “Find local help” tab.

Medicare. Medicare is a health insurance program paid by the federal government for U.S. citizens who are ages 65 or older. Medicare typically pays for 80 percent of health care costs.

Medicaid. Medicaid is a health insurance program funded by both the federal government and individual state governments to provide health insurance for eligible low-income adults, children, pregnant women, elderly adults, and people with disabilities. Because Medicaid is funded jointly by the federal and state governments, eligibility requirements and coverage vary from state to state.

Complete these activities.

- 3.11** Usually, the least expensive way to buy health insurance is through a(n) _____.
a. employer b. insurance agent c. health exchange
- 3.12** An insurance _____ typically represents different insurance companies and can help you identify a plan that's right for you.
a. marketplace b. broker c. agent
- 3.13** Health insurance _____ are organizations in each state through which you can purchase insurance.
a. brokerages b. marketplaces c. agencies
- 3.14** _____ is a health insurance program paid for by the federal government for citizens ages 65 and older.
a. Medicare b. Medicaid c. ACA
- 3.15** _____ is a health insurance funded by the federal government and individual state governments for certain eligible people.
a. Medicare b. Medicaid c. ACA

Why is health insurance important? Accidents and sickness can eliminate income, use up savings, and put you in debt. Many surgical procedures and medicines are very costly. Going without health insurance is a gamble. You may be young and healthy, but a single accident resulting in a hospital stay can cost you thousands or even hundreds of thousands of dollars. While health insurance doesn't completely cover all medical expenses, it at least covers a large portion of them.

Additionally, people with health insurance are more likely to participate in preventative care measures like annual physicals with blood tests checking for things like healthy cholesterol levels. People are also more likely to visit the doctor when feeling ill or when concerned about something, making them more likely to stay healthy or catch an injury, illness, or disease early.



804 N. 2nd Ave. E.
Rock Rapids, IA 51246-1759
800-622-3070
www.aop.com

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