A STUDY OF OKLAHOMA ELDERLY CONSUMERS' KNOWLEDGE OF FEDERAL MEDIGAP REGULATIONS AND INFORMATION SOURCES

BY

RODNEY OSBORNE

Bachelor of Science
Kansas University
Lawrence, Kanses
1971

Master of Science
Oklahoma State University
Stillwater, Oklahoma
1985

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Dissertation Approved:

Dissertation Adviser

Dean of the Graduate College

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CHAPTER I

INTRODUCTION

Background

Medicare was enacted in 1965. The Medicare supplement insurance (Medigap) market was not fully developed by insurance companies nationwide until the mid-1970s and was the responsibility of individual states (Kleinberg, 1991). As the Medigap market expanded, so did the abuses. Medigap insurance regulation was the responsibility of individual states. More abuses brought federal concern.

The Bacus Amendment, which added Section 1882 to the Social Security Act in 1980, established federal minimum standards for marketing and selling Medicare supplemental policies to elderly consumers (Social Security Act, 1990). Regulations and minimum standards used by the Bacus Amendment were developed by the National Association of Insurance Commissioners (NAIC). In the Omnibus Budget Reconcilation Act (OBRA) of 1990, the 101st Congress of the United States mandated public law that specifically fine tuned the marketing and sale of Medicare supplemental insurance policies. These actions were deemed necessary by

Congress because advertising and marketing practices were still confusing and deceiving elderly Medigap consumers.

OBRA required NAIC to develop regulations that would standardize Medicare supplements nationwide. Currently, OBRA-1990 does not regulate Medigap commissions directly; however, Congress requires states to adopt new standards "equal to or more stringent than the National Association of Insurance Commissioner's model or Federal model standards" (Social Security Act, 1990). Congress also requires federal and state regulatory programs to provide "information, counseling, and assistance relating to the procurement of adequate and appropriate health insurance coverage to individuals who are eligible to receive benefits under title XVIII of the Social Security Act" (Public Law 101-508, 1990).

These actions enacted and carried out by various governmental organizations were intended to increase elderly consumers' knowledge of features and characteristics of Medicare supplemental insurance. However, it is not known if the Bacus Amendment, OBRA 1990, and NAIC's standardization model have had an effect on consumers' awareness or knowledge about Medigap insurance regulations or information sources.

According to Part 5 of Public Law 101-508 (1990), Congress specifically took actions that would prevent deception and confusion in the Medicare supplemental health

insurance market. The 11 topics Congress concentrated on are listed below with their section numbers under Part 5:

(1) Section 4351 simplified Medigap policies.

(2) Section 4352 concentrated on guaranteed renewability of Medigap policies.

(3) Section 4353 enforced Medigap standards.

(4) Section 4354 prevented duplication of Medigap policies.

(5) Section 4355 controlled loss-ratios and provided for refund of premiums when loss-ratios become disproportionate.

(6) Section 4356 clarified treatment of Medigap plans offered by Health Maintenance Organizations.

(7) Section 4357 put limitations on pre-existing conditions and on medical underwriting.

(8) Section 4358 set standards for a new Medicare supplement health insurance product called "Medicare SELECT."

(9) Section 4359 established a health insurance advisory service for Medicare and Medicaid beneficiaries that would assist them by providing information and counseling which would increase their knowledge of how to make informed decisions on whether to purchase Medigap policies and on what criteria to use in evaluating different policies.

(10) Section 4360 established grants that could be used for the purpose of providing information, counseling, and assistance programs.

(11) Section 4361 created demonstration projects in up to five states for the purpose of establishing statewide toll-free telephone numbers that could be used by elderly consumers to get information on Medicare and Medicaid benefits, and information on Medicare supplemental policies that are available.

Because most elderly consumers would not be aware of Federal oversight and enforcement regulations [Sections 4353 (a), 4353 (b)], loss ratio regulations [4355 (d)], and Medicare SELECT regulations (Section 4358), these regulations are not included in this study. These dimensions were summarized in Health Care Financing Review's section on "Legislative Update" (Health Care Financing Review, 1991).

Problem

Congress thought it was necessary to intervene in the Medigap market so elderly consumers could become more knowledgeable consumers. Congress legislated many changes in Federal Medigap Regulations and Information Sources (FMRIS). New federal regulations and policies have been in effect for several years. The questions that now need to be answered are, "Have federal educational efforts been effective in

making elderly consumers knowledgeable of FMRIS?" and "Do elderly consumers have knowledge of FMRIS?" Because Congress has given enforcement responsibilities to each state government, it would also appear to be the responsibility of each state to determine if elderly consumers are knowledgeable of FMRIS.

Purpose and Model

This study examines the knowledge elderly consumers have of Federal Medigap Regulations and Information Sources (FMRIS) as a result of federal Medigap laws and educational efforts. It focuses specifically on consumers 65 years of age or older in eastern Oklahoma. The purpose is to determine if elderly consumers have knowledge of FMRIS, to determine the levels of knowledge of the six types of FMRIS, and to determine if changes in the characteristics of elderly consumers can explain their knowledge of FMRIS (Model I, Appendix A). Model I indicates how changes in demographic and other selected independent variables explain elderly consumers' knowledge of FMRIS. This model does not imply causation nor does this study try to imply causation. Rather, the study is descriptive in nature.

Objectives

There are three primary objectives of this study. The first objective is to determine if elderly consumers have knowledge of the FMRIS. The second objective is to determine if there is a significant difference between the overall mean percentage knowledge elderly consumers have of specific types of FMRIS--whether this knowledge base is general or if it is specific to duplication regulations, limitation/pre-existing conditions regulations, policy simplification regulations, renewability regulations, information sources regulations, and telephone/counseling services. These six specific types of FMRIS are from Model I (see Appendix A). They are among the primary laws Congress legislated to simultaneously change the medigap industry and make elderly consumers more informed. The items used in the measuring insturment of this study are based on these six specific types of FMRIS as is previous research in the literature and the content of the publication Guide to Health Insurance for People on Medicare [Health Care Financing Administration (HCFA), 1993]. Details of each type can be found under the definition of terms section of this chapter.

The third objective is to determine if any significant differences exist between the mean percentage knowledge scores and demographic characteristics such as, economic, social, Medicare and Medicaid participation, Medigap

participation, participation in Medicare supplement policy purchasing, health status, and media usage variables. This objective will describe the characteristics of elderly eastern Oklahoma consumers based on their mean percentage knowledge scores of FMRIS as related to selected demographic characteristics.

Limitations of Study

This study is limited geographically to several rural and urban communities in eastern Oklahoma and is further limited to sites with active elderly nutrition programs. The nutrition sites were limited to those sponsored by community action programs. Elderly consumers in other regions of Oklahoma and other states may be different; thus, generalizability of this study is narrow. This study has also concentrated on items on which Congress focused in its legislation. However, there may be other Medigap and knowledge variables that are equally important.

Definition of Terms

Knowledge is defined as the fact or condition of knowing something with familiarity gained through experience or association. This would include being aware of something and would include the range of one's information or

understanding (Grove, 1965). This definition allows for degrees of knowledge.

Medicare Part A is the first part of the Medicare program. It is hospital insurance which helps pay for inpatient hospital care, inpatient care in a skilled nursing facility, home health care, and hospice care (HCFA, Medicare Handbook, 1993).

Medicare Part B is the second part of the Medicare program. It is medical insurance and helps pay for doctors' services, outpatient hospital services, durable medical equipment, and a number of other medical services and supplies not covered by the hospital insurance part of Medicare (HCFA, Medicare Handbook, 1993).

Coordinated Care Plans are prepaid, managed care plans, most of which are health maintenance organizations (HMOs) or competitive medical plans (CMPs). Both contract with Medicare and follow the same contracting rules. Coordinated care plans are not Medigap plans, but they can be an alternative to standard Medigap insurance (HCFA, Medicare Handbook, 1993).

Medigap or Medicare Supplement Insurance is regulated by federal and state law and must be clearly identified as Medicare supplement insurance. These policies are designed specifically to complement Medicare's benefits by filling in some of the gaps in Medicare coverage. Medigap policies pay most, if not all, coinsurance amounts and may provide coverage for Medicare's deductibles. Some policies also pay

for limited health services not covered by Medicare, such as outpatient prescription drugs. The definition of a Medigap policy under federal law does not include all insurance products that may help cover out-of-pocket costs. For example, a health plan offered by a company for current or former employees, or by a labor organization for current or former members, does not have to satisfy federal requirements that are applicable to Medigap insurance (HCFA, 1993 Guide, 1993).

Open Enrollment Period. Congress has established a 6-month open enrollment period for buying Medicare supplement health insurance (Medigap). The law, which became effective November 5, 1991, guarantees that for 6 months immediately following enrollment in Medicare's Medical Insurance program (Part B), persons aged 65 or older cannot be denied Medigap insurance because of health problems (HCFA, 1993 Guide, 1993).

Duplication Regulations. The new federal law prohibits the sale of a Medigap policy to a person who has Medicaid or another health insurance policy that provides coverage for any of the same benefits. Insurers may not sell a Medigap policy to a person on Medicaid unless the state pays the premium (HCFA, 1993 Guide, 1993).

Limitations and Preexisting Condition Regulations. Preexisting conditions are generally health problems elderly consumers have gone to see a physician about within the 6 months before the date the policy went into effect. Medigap

policies are required to cover preexisting conditions after the policy has been in effect for 6 months (HCFA, 1993 Guide, 1993).

Renewability Regulations. States now require that Medigap policies be guaranteed renewable. This means that the company can refuse to renew an elderly consumer's policy only if the consumer did not pay the premiums or if he/she made material misrepresentations on the application. Even though the Medigap policy may be guaranteed renewable, the company may adjust the premiums from time to time. Some policies have premiums which increase as the consumer grows older (HCFA, 1993 Guide, 1993).

Simplification Regulations. New regulations that went into effect on or before July 30, 1992, in nearly all states, U.S. territories, and the District of Columbia, generally limit the number of different Medigap policies that can be sold in any of these jurisdictions to no more than 10 standard benefit plans. One of the 10 Medigap plans, which were developed by the National Association of Insurance Commissioners (NAIC) and incorporated into federal law, is a "core" benefit package (Plan "A"). Each of the other nine Medigap plans includes the core package plus a different combination of benefits. Insurers are not permitted to change the combination of benefits in any of the 10 standard plans or to change the letter designations that range from "A" to "J"; however, they may add names or titles to the letter designations. Each Medigap insurer

must offer Plan A. Each of the 10 plans must cover specific expenses either not covered or not fully covered by Medicare, with "A" being the most basic policy and "J" the most comprehensive. To make it easier for elderly consumers to compare plans and premiums, the same format, language, and definitions must be used in describing the benefits of each of the 10 standard plans. A uniform chart and outline of coverage also must be used to summarize those benefits. With standardization, each company's products are alike, so they compete in service, reliability, and price.

Information, Counseling, and Assistance Regulations. Congress required that the Beneficiary Assistance Program be established in each state for purposes of providing information, counseling, and assistance for Medicare-eligible individuals with respect to Medicare supplemental policies. The objective of this federal regulation was to provide ample educational information and counseling services so elderly consumers could make informed decisions on whether to purchase Medigap policies. The federal regulation also sought criteria to be developed and provided to elderly consumers to use in evaluating different Medigap policies (Public Law 101-508, 1990).

Information Sources are 1) The Medicare Handbook, provided by the Health Care Financing Administration and 2) The Guide to Health Insurance for People with Medicare.

Telephone and Counseling Services for Oklahoma elderly consumers are (a) Oklahoma Insurance Department; (b) the

Senior Health Counseling Program, State Insurance Commissioner's office; (c) the ElderCare Program, Department of Human Services, Aging Services Division; (d) the Community Action Outreach Programs; (e) direct telephone number to the Oklahoma Insurance Department (405) 521-2327; and (f) the toll-free telephone number of the Senior Health Counseling Program 1-800-522-0071.

Variables

The dependent variable is elderly consumers' knowledge of FMRIS, which has two levels, sufficient and insufficient. The independent variables are (a) Types of FMRIS, which has six levels: duplication regulations, limitations/preexisting conditions regulations, policy simplification regulations, policy renewability regulations, information sources, and telephone/couseling service regulations; and (b) demographic characteristics and other related variables (Model I, Appendix A).

CHAPTER II

REVIEW OF LITERATURE

Theoretical Rationale of Problem

The problem of this study was one of knowing if federal educational efforts have been effective in making elderly consumers knowledgeable of FMRIS. Three theories were used to explain and clarify the theoretical rationale of this problem: human capital theory, communications theory, and consumer preference (choice) theory.

Human capital theory has been a useful tool in showing how people can "enhance their capabilities as producers and as consumers by investing in themselves" (Schultz, 1959, 1962). These investments were first conceptualized by Schultz to include schooling, health, on-the-job training, and migration. A theoretical structure of human capital was developed, and it showed how the theory contained great analytical power (Becker, 1962). Using human capital theory as a base, many researchers have successfully studied many of the investment dimensions. Most recently, which was obvious in the Clinton and Bush presidential race of 1992,

investments in people have become a major issue and driving force in governmental policy.

Knowledge is the basis of human capital theory. Schultz showed us that formal and informal education is valuable. Becker (1965) and Mincer (1958) revealed that the time and money people invest in themselves by becoming more informed about a job or topic will yield a positive rate of return. Stigler (1962) found that the information a person possesses is valuable. Information, such as knowledge of Medigap policies, is produced at a cost of search, and it yields a higher rate of return on average than would be received in its absence. Congress simplified the choices for elderly consumers by mandating that the National Association of Insurance Commissioners (NAIC) develop and standardize the Medigap plans on the market. They reduced the number of Medigap policies to 10 different plans. If elderly consumers are aware of this information, then the best Medigap policy that would suit their needs may be selected. If they are not aware, they may purchase a policy that costs more and yields less return in services. Stigler also found that people face the problem of how to acquire information and how to keep the information they do get current. Congress agreed with Stigler by mandating programs which are responsible for informing, educating, and keeping elderly consumers current on Medigap regulations. Congress realized that this information (FMRIS) is valuable to elderly consumers; however, consumers must be knowledgeable

of the new regulations in order to yield a positive rate of return for them.

Mushkin's (1962) research indicated that human capital formation is brought on by investments in a person's health services. People as productive agents are improved by investments in better health services, such as good Medigap plans for elderly consumers. Outlays (investments in Medigap insurance) may yield a continuing return in the future. They become part of the individual. Healthy persons, no matter their ages, perform more effectively as producers, both at home and/or in the work place. Without sufficient vitality to function normally, consumption and production losses are significant. Stigler also points out that returns on health investments accrue to individuals, family, neighbors, and society.

Human capital theory establishes that the knowledge elderly consumers possess about FMRIS is valuable. The communication process theory explains the value of the information sources and counseling programs Congress established, and why it is important for elderly consumers to have knowledge of available Medigap educational material, counseling programs, and telephone numbers.

The basic elements of the theory of communications process are source, message, encoding, channels, decoding, noise, and feedback (Berlo, 1960, Kincaid, 1980, Merrill, 1990). The source is the originator of the message--in this study, Congress. The message, which is the FMRIS, is

determined by the conditions and forces affecting Congress' perception and receptivity of the information gathered concerning Medigap abuses. Research and the polictical process determined the broad content of the true message, which was the final regulations Congress mandated.

After content of the message is determined, the theory requires that it be put into a communicable form--to encode it into a message. Encoding is the process of putting the message into a form that can be received and understood. This form is usually a written or spoken language, although it does not have to be. It can be the type or words set on a page of a direct mail piece, such as a Medigap advertising brochure, a salesman's presentation, or a Medicare or Medigap handbook.

The channel is the means by which the message is transmitted. It is the link between the source and the receiver. Congress mandated that educational material, counseling programs, and telephone numbers be established that could be used to transmit the new Medigap regulations. Congress directed the Department of Human Services and the Health Insurance Financial Services to develop a channel that elderly consumers could access for current Medigap information and counseling which would assist them in making informed Medigap purchasing decisions. These departments developed publications, offices, telephone numbers, and established a toll-free telephone number as channels. Congress mandated that printed educational material such as

the Guide to Health Insurance for People on Medicare be developed that would contain an understandable and condensed version of the new Medigap regulations. However, the Federal government often passes laws, then assumes the channels are already in place that will transmit the information.

Noise in the communication process is any distraction that interferes with the reception and understanding of the message. It may be in the external environment of the receiver or may result from some internal physical or mental condition of the receiver. Anything that would interfere with elderly consumers receiving and understanding the FMRIS is considered noise. If elderly consumers are not aware of federally mandated programs concerning educational materials about the counseling services, if they received the information but could not understand it, or if they had unanswered questions, then noise occurred in the communications process because the messages that Congress wanted to reach elderly Medigap consumers were distorted and prevented from being received.

If elderly consumers did not receive Congress' intended message, then the message was not decoded. Decoding is the reverse of encoding and takes place at the receiver's end of the channel (Kincaid, 1980). If the direct mail Medigap advertisement or salesman's presentation is being read, seen, or heard, it is being decoded. If elderly consumers

are knowledgeable of FMRIS, then Congress' intended message has been decoded.

Feedback refers to the clues the source gets that indicate whether or not the message is being received and the degree in which it is understood. This study will provide feedback for government officials and programs. It will let them know if the message was received and understood because it is answering the question the problem focuses on: "Are elderly consumers knowledgeable of FMRIS?"

Consumer preference (choice) theory, which is based on the economic theory of supply and demand, is used to explain another important aspect of this study's problem, which is Congress' desire to have elderly consumers knowledgeable of the changes in Medigap policies and marketing practices so they could make informed purchasing decisions. Since the Medigap market had thousands of Medigap plans to choose from, Congress simplified the choices elderly consumers would have by standardizing all the Medigap plans into 10 plans, Plan "A" through "J," and required all insurers to use the letters on their policies. Plan "A" is the basic core plan, and Plan "J" is the most comprehensive plan. These are the same regardless of from which company the elderly consumer purchases their Medigap policy.

Three factors determine the shape and location of a demand curve: income of consumers, prices of closely related goods and services, and tastes (preferences) of consumers (Lunn, 1986). Tastes and preferences are the underlying,

subjective feelings of consumers about the desirability of different goods and services.

The theory of consumer choice explains how consumers decide which goods they will choose and in what quantities. Taste, or consumer preferences, is represented by indifference curves, and a budget line represents the ability of a consumer to acquire goods like Medigap insurance. The interaction of these two factors determines the choices an individual elderly consumer makes. Two factors determine a consumer's budget line: income and relative prices of goods. Simplification and standardization of Medigap policies require insurers to compete on price and service.

In using consumer choice theory to clarify the problem of this study, we make three assumptions about elderly consumer's preferences. First, we assume the elderly consumer can rank (in order of preference) all market baskets or types of Medigap policies on the market. Between two market baskets, A and B, the consumer will prefer A to B, prefer B to A, or be indifferent between the two. An elderly consumer will be indifferent between two market baskets or Medigap policies when both are equally satisfactory. This preference ranking reflects the relative desirability of the baskets themselves and ignores their cost (Browning & Browning, 1986). A purchase decision reflects both the preference ranking and the budget line. Preferences and budget lines both influence consumer choice.

Congress intended for elderly consumers to rank in order the Medigap policies. However, in order to do so, they have to be aware of the criteria with which to rank them. If elderly consumers are knowledgeable of the 10 plans, and know the plans are different in benefits, then they would have the criteria to rank in order the policies from different companies. In fact, the companies themselves would represent a prefernce trait that is not in the evaluation chart used to compare the policies. The Guide to Insurance for People on Medicare has comparisons that elderly consumers may use to compare Medigap plans from different companies. Since the plans are all the same no matter the carrier, price and service would determine the company from which to purchase. However, the problem is that consumers must be knowledgeable or aware that the handbook exists and that it contains this evaluation chart. They must be aware and knowledgeable of the changes Congress mandated.

Secondly, we assume that elderly consumers' preference ranking is transitive and logically consistent. Transitivity means that if the consumer prefers basket A to basket B, and B to C, then the consumer prefers A to C. The condition simply requires people to be rational (Browning & Browning, 1986). Are elderly consumers rational when they purchase duplicate Medigap policies? Yes, they are, unless they are not aware that two or more Medigap policies are not

necessary, and that it is illegal for an insurer to sell them more than one Medigap policy.

The last assumption is that consumers prefer more of a good if such a choice does not mean having less of any other good (more is preferred to less). A consumer will always choose to have more of a good than less if the quantities of the goods are held constant, as long as the good is an economic "good" (desirable commodities like Medigap insurance) as opposed to an economic "bad" (pollution, garbage, liver, war) (Lunn, 1986). Fancy plan titles, slick sales presentations, and confusing brochures may convince them they are receiving more benefits for less unless elderly consumers are knowledgeable about the 10 standardized Medigap plans. There are alternatives to Medigap policies but elderly consumers have to be knowledgeable about them. Elderly consumers must be knowledgeable of Congress' educational efforts in order for them to make informed Medigap purchasing decisions. Knowledge of FMRIS can make a difference in the preferences and choices when they purchase or switch Medigap insurance policies or insurers.

History of Medicare

The Medicare program, enacted in 1965, is a federal health insurance program for people 65 or older and certain disabled people. It is run by the Health Care Financing

Administration of the U.S. Department of Health and Human Services. Social Security Administration offices across the country take applications for Medicare and provide general information about the program.

Medicare was first promoted by President Truman as a national health insurance for all Americans, similar to President Clinton's current efforts. He was criticized by many, including the American Medical Association (AMA), who lobbied fiercely against his proposal, accusing that it was socialized medicine (Poen, 1979). The socialized medicine label was not very popular and had connotations of the 1950s anticommunist rhetoric of the time that Sen. Joseph McCarthy was promoting.

Because of the attention Truman had to give to the Korean problem during this period, he was unable to promote his health insurance for Americans like he wanted to. On January 15, 1951, President Truman did include in his annual budget message to Congress for fiscal year 1952 an item he called Medical Insurance Trust Fund. He budgeted $275 million to cover initial expenses for his health insurance proposal in the event Congress approved the plan. They did not (Poen, 1979).

Later, it was suggested to President Truman to limit the national health insurance plan to a small segment of the population--the over-65 group. Truman was asked to advocate a hospital insurance plan for the aged financed through social security. He refused at first, but later shifted the

program wherein government would insure the over-65 age group and their dependents against hospital expenses (Poen, 1979).

The federal hospital insurance concept was not new. The Social Security Board and Roosevelt's administration were looking into a pre-paid health care plan as early as 1942. The Bureau of Research and Statistics put together in the mid-1950s the "Proposal for the Federal Old-Age and Survivors Insurance System (Poen, 1979).

Truman did not see his idea of government health insurance for the aged become a reality while he was in office. His efforts brought attention to and attracted increased public acceptance of the idea. Congressional Republicans and Democrats alike agreed toward the end of the Eisenhower presidency that some type of subsidized health care for the aged was necessary. In final form, Medicare, the plan Congress approved in 1965, was the result of the efforts of Harry Truman in the final stages of his presidency (Poen, 1979). The Medicare bill was signed into law on July 30, 1965, in Missouri by President Lyndon Johnson with Harry Truman looking on. It was the most significant addition to the nation's old-age insurance system since the passage of the Social Security Act 30 years before (Poen, 1979).

The term "Medicare" was created by the Eisenhower administration and adopted by the Kennedy administration. The AMA introduced an "Eldercare" plan and the Republicans

introduced a "Bettercare" plan. When the restructured Medicare program, now called the Mills bill, emerged from the House Ways and Means Committee, it not only included hospital insurance for persons age 65 whether under social security or not, but it also had a voluntary insurance program purchased by the elderly for $3 per month to cover doctor's office fees and other non-hospital related costs. The House of Representatives passed Medicare on July 27 by a vote of 307 to 116. The Senate followed suit the next day, sending the message to President Johnson for signature by a vote of 70 to 24 (Poen, 1979).

The 1965 amendments added to the Social Security Act provisions for two related health insurance programs, Hospital Insurance and Supplementary Medical Insurance, for persons age 65 or over. Health insurance coverage under one or both plans began July 1966. The amendments of 1965 specifically provide that nothing in the health insurance provisions shall be construed as authorizing any federal employee to exercise any supervision or control over the practice of medicine, or the way in which medical services are provided. The amendments also specify that any individual who is entitled to health insurance benefits is free to obtain services from any participating institution, agency, or person who is willing to provide the services (Fact Sheet 201, 1981).

The 1972 amendments added disabled beneficiaries to the list of claimants who are entitled to both hospital (part A)

and medical (part B) coverage. For the first time, Medicare provided coverage under part A on a premium-paying basis for certain uninsured claimants who were not otherwise eligible to receive this coverage (Fact Sheet 201, 1981).

The Hospital Insurance program is financed through payroll contributions paid by employees, employers, and self-employed persons. The cost of providing hospital insurance benefits to persons who meet the deemed insured requirements (CM 10103) is met by appropriations to the Federal Hospital Insurance Trust Fund from general revenues. Individuals enrolled in Premium-HI program pay a monthly rate (Fact Sheet 201, 1981). The medical insurance plan is financed by the monthly premiums of those who enroll under the plan and contributions from general revenues. All part B premiums collected and the general revenue payments become part of the Federal Supplementary Medical Insurance Trust Fund (Fact Sheet 201, 1981).

In the 1980s a Catastrophic Health Insurance amendment was added to the Social Security Act. Soon after it was passed, policy makers repealed it because the huge elderly consumer lobby convinced them it was unfair (Rice, McCall, & Boismier, 1991; Short & Vistnes, 1992; Rovner, Climbing Medigap, 1990).

Medicare now covers people of any age with permanent kidney failure, and certain disabled people. It is administered by the Health Care Financing Administration (HCFA) of the U.S. Department of Health and Human Services.

Local Social Security Administration offices take applications for Medicare entitlement and provide information about the program. Medicare currently covers approximately 36 million persons, of whom about 3 million are disabled and some 200,000 are end-stage renal disease patients (HCFA, Medicare 1993 Handbook, 1993).

Medicare currently has two parts: Hospital Insurance (part A) and Supplementary Medical Insurance (part B). They are commonly called part A and part B because Medicare Hospital Insurance coverage is described in part A and Medical Insurance coverage is described in part B of Title XVIII of the Social Security Act. Part A helps pay for inpatient care in a hospital or skilled nursing facility or for care from a home health agency or hospice. If admitted to a hospital, Medicare provides coverage for a semi-private room, meals, regular nursing services, operating and recovery room costs, intensive care, drugs, lab tests, X-rays, and all other medically necessary services and supplies. Covered services in a skilled nursing facility include a semi-private room, meals, regular nursing services, rehabilitations services, drugs, and medical supplies and appliances (HCFA, Medicare 1993 Handbook, 1993).

Part B helps pay for physician services, outpatient hospital care, clinical laboratory tests, and various other medical services and supplies, including durable medical equipment. Doctors' services are covered no matter where

Medicare beneficiaries receive their service in the United States. Covered services include surgical services, diagnostic tests and X-rays that are part of the treatment, medical supplies furnished in a doctor's office, and drugs which cannot be self-administered and are part of the treatment. Medicare pays only for care that it determines is medically necessary (HCFA, Medicare 1993 Handbook, 1993).

Medicare Hospital Insurance (part A) is currently financed mainly from a portion of the Social Security payroll tax (the FICA) deduction. The Medicare part of the payroll tax is 1.45% from the employee and 1.45% from the employer on wages up to $135,000 in 1993. Medicare Supplementary Medical Insurance (part B), which is optional, is currently financed by the monthly premiums paid by enrollees and from federal general revenues. The monthly premium, which is subject to change annually, was $36.60 in 1993. The premium pays about 25% of the cost of the part B program and the general tax revenues pay about 75% (HCFA, Medicare 1993 Handbook, 1993).

History of Medigap

Social Security was never intended to be the only regular income of a retiree and Medicare was never intended to cover the total cost of medical care. Pearson (1989) reports that Social Security became the only income for millions of retirees and Medicare became the only health

plan upon which senior citizens relied to help them financially through severe illnesses. Since Medicare did not pay for all the medical cost of elderly consumers 65 years old or older, the Medigap insurance industry was born.

Medicare benefits are substantial, but they do not cover all medical care expenses. There are gaps. For example, in 1991, patients were required to pay a $628 deductible on hospital stays; sizable daily copayments ($157-$314) for hospital stays in excess of 60 days; a $100 annual deductible on physician charges; and 20% coinsurance on additional physician charges that are deemed "reasonable" by the Medicare program. The most important of these are prescription drugs, physician charges in excess of the amount Medicare defines as reasonable, hospital stays over 150 days, and most long-term care services (Rice & Thomas, 1992).

After Medicare was enacted, the commercial insurance industry, including Blue Cross and Blue Shield (BC/BS), began selling insurance policies specifically designed to fill some of these gaps (Medigap policies). In 1989, it was estimated that approximately 70% of elderly Medicare beneficiaries owned Medigap policies (Monheit, 1989). However, most 1990 analysts estimated that from 70% to 80% of the Medicare population (about 20 million people) also had private health coverage, either through individually purchased policies or employment-based plans (Rovner, Congress Tightens, 1990). Rovner (Congress Tightens, 1990)

points out that not all of the coverage is technically Medigap. Some elderly consumers insure only against certain diseases (most often cancer), others pay cash for each day in the hospital (so-called hospital indemnity plans), while still others have comprehensive plans. The Congressional Research Service estimated in 1990 that 11 million Medicare beneficiaries (about 40%) purchase supplemental insurance coverage, most of it Medigap. In Oklahoma, approximately 417,000 persons are eligible for Medigap policies. Nearly 200 insurance companies offer Medigap policies to them (Weatherford, 1994).

The Medigap market originally was regulated almost entirely at the state level (Rice & Thomas, 1992). But state insurance regulators were more concerned with preventing insurance company insolvency than with addressing consumer complaints, monitoring advertising irregularities, providing consumer education, or reviewing premiums (Rice, McCall, and Boismier, 1991).

Federal regulation of the Medigap industry began in 1978 when Rep. Claude Pepper, D-Fla., launched an investigation into questionable practices in the promotion and sale of private insurance intended to fill the gaps in coverage offered under Medicare. An undercover investigation by staffers of the House Select Committee on Aging, which Pepper chaired, disclosed dozens of cases of misrepresentation, scare tactics, and sales of duplication policies. It also spotlighted policies that paid out in

benefits as little as 20 cents of every premium dollar paid in (Rovner, Climbing Medigap, 1990).

Passage of the 1980 amendments (PL 96-265) to the Social Security Act was the result of Rep. Pepper's investigation. The 1980 amendment intended to combat the most serious abuses by creating minimum standards for coverage and sale of Medigap policies. The law, named for Senate sponsor Max Bacus, D-Mont., created a voluntary certification program that allowed policies meeting the requirements to obtain the federal equivalent of a Good Housekeeping Seal of Approval (Rovner, Congress Tightens, 1990). However, no Medigap policy has ever had a federal certification because the federal law allowed a state with regulations equal to or stricter than the federal standards, or stricter than a model-rule written by the National Association of Insurance Commissioner, to operate its own programs. By 1990, 46 states had done so (Rovner, Congress Tightens, 1990).

The voluntary system and new state regulations deviously did not work because the Medigap marketing abuses continued. Twisting or churning tactics were used by salesmen to persuade people to change policies, thereby generating new commissions for themselves. The danger to consumers is that new policies may not cover preexisting health conditions, potentially exposing people to the very financial liabilities they bought Medigap insurance to protect against.

Another abuse was mailings used to gather names and addresses of potential purchasers of Medigap policies that were then sold to agents. Typically, lead-card companies sent mailings to senior citizens using such official-sounding names such as the "Retired Persons Information Center." The mailings warned of changes about to be made in Medicare and urged recipients to send back a reply card to receive further information. Duplication abuses also existed. Many Medicare beneficiaries bought more than one Medigap policy that duplicated other policies and gave them no more additional coverage. Medigap policies were even sold to Medicaid beneficiaries.

Horror stories about abuses surfaced during the investigations. At a 1988 hearing of the House Energy and Commerce Subcommittee on Oversight and Investigations, Don Gartner, assistant district attorney in Santa Cruz County, Calif., testified about hundreds of seniors who had been duped into buying dozens of duplicative policies. Among the victims he cited was one couple who purchased five policies in one day in 1985, and four more three weeks later--from the same agent (Rovner, Congress Tightens, 1990). The House Aging Committee once sent an elderly grandmother to 12 insurance agents in Maryland, Virginia, and the District of Columbia for review of her Medigap coverage. Although the woman had adequate coverage, 11 of the agents tried to sell her more coverage (Pearson, 1989).

Regulators conceded that marketing abuses continued. But philosophies differed on whether it was due to inadequate rules or inadequate enforcement. Many thought state regulators were not doing their jobs. This was the conclusion of a Consumer Reports (1989) survey that investigated state enforcement efforts. They found that most states were regulating with a velvet glove. Of the 37 states that responded to the survey, 23 were unable to provide information about how many complaints had been made to their departments in the last five years. Only nine reported any fines, license revocations or suspensions of agents who sold Medigap policies, and only eight reported penalties against companies for misleading advertising (Rovner, Congress Tightens, 1990).

The Health Insurance Association of America found in a 1987 study that almost 6 million people, about 25% of the total medigap policy holders, had duplicate policies and that more than 1 million elderly consumers were not aware of how many policies they had purchased (Pearson, 1989).

Because most states did not beef up their rules and enforce them, policy makers realized that the Bacus Amendment was lacking. Elderly consumers were still confused and overwhelmed by Medigap insurance. They were wasting money on unnecessary coverage, could not tell a good policy from a bad one, and often did not have anyone to turn to for advice except the insurance agent.

Congress stiffened the Medigap rules again in 1988, in provisions of the ill-fated Medicare Catastrophic Coverage Act that were not repealed along with the rest of that law in 1989. Among those rules were ones requiring that purchasers of policies be given 30 days in which to change their minds without penalty. But the powerful insurance industry was credited with quashing efforts in late 1989 to bar outright the sale of Medigap policies that duplicate each other. (Rovner, Climbing Medigap, 1990).

Another serious problem that also existed during this period was the rampant confusion of elderly consumers because of the passage of the Medicare Catastrophic Coverage Act in 1988 and its subsequent repeal in 1989. One of the primary reasons why the legislation was repealed was that most elderly consumers already had coverage for many of the benefits through their Medigap policies. The legislation's repeal meant that most of the elderly would continue to rely on Medigap policies for protection against the costs associated with acute illnesses (Rice, McCall, & Boismier, 1991). The catastrophic laws were both a duplication of coverage and expense. The repeal of the act, which would have extended Medicare coverage in a number of ways and reduced the coverage of Medigap policies, made it clear to the industry and consumers alike that Medigap policies would remain a central feature of the health insurance market for many years to come (Rice & Thomas, 1992). Its repeal is

credited with spurring consumer groups and legislators to call for further regulation of this segment of the market.

The latest and most drastic and profound changes that occured in the Medigap market came with the passage of the Omnibus Budget Reconciliation Act (OBRA) of 1990. OBRA-1990 required that all Medigap policies include benefits that conform exactly to 1 of up to 10 prototypes developed by the National Association of Insurance Commissioners (NAIC). This was in sharp contrast to previous federal regulations, which established only minimum benefit levels and which were voluntary rather than mandatory (Rice & Thomas, 1992).

Other features of OBRA-1990 that were mandatory and affected the Medigap market included raising loss-ratio requirements, preventing the sale of duplication policies, establishing a six-month open enrollment period for policy purchase when a person turns age 65, allowing Medicare beneficiaries in 15 states to enroll in a preferred provider organization (PPO) option, and funding state consumer-counseling programs. The most dramatic change, however,was the way in which the benefits were to be regulated through the policy standardization requirements (Rice & Thomas, 1992). Under OBRA-1990, insurers have to offer policies that conform to 1 of up to 10 prototypes. The first prototype which must be offered includes a "core group of basic benefits" (Congressional Record cited in Rice and Thomas, 1992). Companies have the option of offering any or all of the remaining prototypes. Furthermore, individual

states can limit the number of Medigap prototypes sold up to 10. The legislation further stipulated that the prototypes arrived at must provide for benefits that offer consumers the ability to purchase the benefits that are currently available in the market and balance the objectives of:

i) simplifying the market to facilitate comparisons among policies,

ii) avoiding adverse selection,

iii) providing consumer choice,

iv) providing market stability, and

v) promoting competition (Congressional Record cited in Rice & Thomas, 1992).

While consumer advocates hailed the new regulations, they were uncertain about whether states would enact the changes, whether the regulations as written were enforceable, and whether states would devote sufficient resources to enforce them (Rovner, Congress Tightens, 1990). Everyone agreed that increasing efforts to educate Medicare beneficiaries about the new regulations and their coverage was needed. To help with this educating effort, Aging Committee members Pryor, Baucus, John Heinz, and a handful of other senators, prepared legislation to authorize spending up to $15 million annually from Medicare's trust funds to help states establish and operate counseling programs (Rovner, Congress Tightens, 1990).

Today, Oklahoma has established the Senior Health Insurance Counseling Program from funds provided by a

federal grant (Hunt, 1994). The Senior Health Insurance Counseling Program (SHICP) is a volunteer organization to help senior citizens throughout Oklahoma with health insurance (Weatherford, 1994). Insurance Commissioner Cathy Weatherford indicates that many Oklahoma senior citizens are unsure about Medigap insurance and the regulations governing the sale of these policies. Many senior citizens in Oklahoma seek information, facts, and counseling concerning types and amounts of coverage needed, and how to apply for medical benefits (Weatherford, 1994). The federal grant helps the state Insurance Commissioner's office offer services and train volunteer counselors throughout Oklahoma. These efforts are coordinated with local citizens, senior organizations, and other service agencies across the state. The intent is to establish a health insurance counseling and assistance program that would arm elderly Oklahoma consumers with accurate, objective information that would allow them to make the best possible decision about their health insurance needs. A toll-free telephone number (800-763-2828) has been established by the Oklahoma Insurance Commissioner's office that elderly consumers can use for counseling and assistance (Weatherford, 1994).

Disseminating Information about FMRIS

The primary branch of government responsible for public information about Federal Medigap Regulations and

Information Sources is the Federal Health Care Financing Administration (Hunt, 1994). OBRA-1990 mandated that information about the changes in Medigap regulations be disseminated to elderly consumers. OBRA also mandated that counseling assistance programs be developed in each state for the purpose of assisting the elderly. Grants were mandated that could be used by the states to develop programs to inform and assist elderly consumers with Medigap purchasing decisions. The Department of Insurance is the official federal insurance counseling program coordinator for Oklahoma. The state Insurance Department has been the primary disseminator of information about Medigap regulations and assistance programs. In the past, the public information arm of the Insurance Department sent out public information announcements to the media, developed media kits, publications, and fact sheets for use by the media and elderly consumers groups and outreach organizations (Hunt, 1994). All Medigap insurance company policy brochures and advertisements had to be sent to this office for approval before the company could advertise or sell their Medigap policies. This is still a requirement.

There are several publications that have been available in the past that contain specific Medigap information about Oklahoma elderly consumer's rights, regulations, information source and counseling telephone numbers and offices. The most important is the Guide to Health Insurance for People with Medicare, provided jointly by the Health Care Financing

Administration, the Department of Health and Human Services, and the National Association of Insurance Commissioners (NAIC) (HCFA, 1993 Guide to Health, 1993). This guidebook is very extensive and is updated annually. The Medicare Handbook is another source of Medigap information. It is usually updated annually and can be obtained from the Social Security Administration. The publication titled Medicare: 85 Commonly Asked Questions has several pages on Medigap (HCFA, Medicare: 85 Commonly, 1993). And most recently, as of September 1993, the Senior Insurance Counseling Program has developed and is distributing a new publication titled Oklahoma Shoppers Guide to Medicare Supplemental Insurance (Weatherford, 1993). And finally, the pamplet titled Medicare 1993 Highlights has a section on Medigap insurance (HCFA, Medicare 1993 Highlights, 1993).

The above publications are distributed in various ways: some through the mail, some upon request, and most in publication stands or counters in Social Security offices. Supply is usually limited and some of the publications are not always current. The Medicare Guidebook is usually mailed to all persons when they turn age 65.

In the past, the Oklahoma Insurance Commissioner's office at the state capital office in Oklahoma City was the authority on elderly consumer rights and regulations. More recently, the state Insurance Department has applied for and received a grant used to develop the Senior Health Insurance Counseling Program. It was established in 1993. The

programs provide public service announcements, publications, seminars, workshops, telephone counseling, person-to-person counseling, media kits, fact sheets, and networks with senior citizen services and organizations statewide, including the Department on Aging of the Department of Health and Human Services, and 97 statewide Community Action nutrition cites. The program also networks with groups like AARP, Pro Peer Review, church organizations, and with the two Medicare carriers, Etna and Blue Cross and Blue Shield of Oklahoma (Hunt, 1994).

The Senior Health Insurance Counseling program also has recently developed a statewide volunteer program that establishes and certifies health insurance counselors. This program requires that volunteers be certified on topics of Medicare part A and part B, Medigap, and Medicaid. The volunteers have to be recertified every year and they are provided with materials and training manuals. Elderly consumers who need counseling can get a volunteer to visit with them in person if necessary (Hunt, 1994).

The Senior Health Insurance Counseling program has also established a toll-free number which elderly consumers can call for assistance. The toll-free number is part of the grant requirement that Congress mandated in OBRA-1990. Before the toll-free number was established, telephone numbers elderly consumers could use to receive assistance were (405)521-6628 and (405)521-2828. These are the Oklahoma Insurance Department's telephone numers. Another number

they could use was (405)521-2327, which is the Department of Human Services, Aging Services Division's telephone number (HCFA, 1993 Guide to Health, 1993).

And finally federal and state offices that were available in the past to provide Medigap information and counseling were the State Insurance Commissioner's and Insurance Department's offices in Oklahoma City; the Department of Human Services, Aging Services Division in Oklahoma City and their 11 area offices statewide, and all statewide Social Security and/or Medicare offices (Hunt, 1994)

Previous Research

Resnik and Caballero (1984) investigated consumer behavior theory that suggests when a consumer is in great need of the benefits of a product and those benefits are difficult to assess, the consumer is at risk of a poor purchase outcome. This fact supports the 101st Congress' public laws requiring new standards for Medigap insurance policies and advertising and marketing techniques. Resnik and Caballero's benefits accessibility and risk theory was applied and supported by Flynn in 1989 (Flynn, 1989). This study found that Medicare enrollees who bought more than one Medigap policy bought worse policies. The study concluded that interrelations between search, knowledge, experience, and purchase quality were at work.

Davidson, Sofaer, and Gertler (1992) found that changes in knowledge produce changes in Medicare health plan choices and that information deficiencies on the consumer's part leads to selection bias. The study indicated that "with improved knowledge, sicker beneficiaries shift away from Medicare coverage alone." Rice and Thomas (1992) evaluated the new standardization regulations by looking at the consistency of the NAIC 10 prototype Medigap policies with OBRA's intent. OBRA wanted the policy prototypes to enable consumers to make more informed choices by simplifying the options. Compared to the policies now available, Rice and Thomas found that the prototypes simplify the form of the benefits offered and the combination of benefits from which consumers can choose. OBRA also wanted to promote competition by providing Medigap consumers with information about the policies and their prices. Rice and Thomas concluded that the prototypes do appear to promote competition by enabling Medigap consumers to be more informed.

Providing Medicare supplemental insurance is a multibillion dollar business (Warren, 1992). Short and Vistnes (1992) estimated from the 1987 National Medical Expenditure Survey that only two-thirds of elderly Medicare beneficiaries held the amount and type of insurance that is generally recommended to supplement Medicare. Fifty-seven percent of the elderly held private hospital-medical insurance from one source, 6.6% held medicaid, and 12.9% had

no supplementary coverage at all. More than 500,000 Medicaid enrollees had purchased private insurance, despite the comprehensive coverage offered by Medicaid. This fact alone more than justifies studying the Medigap consumers' knowledge of the NAIC model.

Short and Vistnes (1992) also discovered the existance of a contradiction in the stories about poor, elderly persons purchasing multiple Medigap policies. Their study found that Medicare beneficiaries who purchased coverage from more than one source were more likely to be relatively young, more highly educated, and more financially secure, not elderly and in a lower economic class.

Medigap policy standards get mixed reviews from Medigap carriers. Some call it an exciting innovation, while others call it potentially devastating to those who need it most. Dorothy Thorson of Golden Rule Insurance Co. said that the standardization required by OBRA could limit seniors' choices. She also said that none of the 10 basic plans provide the level of benefits Golden Rule now offers and that the guaranteed issue provision will affect Golden Rule's product significantly in regard to prescription drugs. John Boni of Mutual of Omaha did not see the guaranteed issue provision as a problem (Cox, 1991).

One major insurance company has ordered its agents to stop selling a variety of health insurance products to those aged 65 or older until legislation, which was aimed at eliminating sales of multiple Medigap policies to senior

citizens, is clarified. The controversey revolves around the insurance provisions made by OBRA 1990. The language of the provisions appears to prohibit the sale of any health insurance policy that in any way duplicates benefits to which a Medicare beneficiary is already entitled. The law took effect on November 5, 1991. Alan K. Richards of the Health Insurance Association of America, said that Congress has assured health insurers that it will clarify the issue with a technical correction (Brostoff, Interview With, 1991). This technical correction should be already incorporated in the 1993 Guide to Health Insurance for People With Medicare. This needs to be noted because the guide contains the focus of this research project. It summarizes the NAIC standards and the federal standards in a readable format for elderly consumers and it is widely circulated to elderly consumers' assistance and counseling services.

Rice, McCall, and Boismier (1991) studied factors that affect Medicare beneficiaries' choices of Medigap policies. The data included detailed survey information and copies of the health insurance policies owned by a sample of 2,500 Medicare beneficiaries in six states. The results showed that those who are better off from a socioeconomic standpoint appear to be making more effective choices in the supplemental health insurance market. There did not appear to be a relationship between consumer ignorance or vulnerability and the purchase of multiple policies. The

researchers used socioeconomic variables to analyze the determinants of four dependent variables: Does an individual own (a) more than one Medigap policy, (b) two or more policies, (c) at least one policy that is defined as effective, and (d) a policy defined as less effective? Ignorance of NAIC standards was not addressed. The researchers' results do support a need to look at consumers' knowledge of NAIC standards because the investigation indicated that public policy should help provide the information necessary to ensure that the most vulnerable beneficiaries make insurance choices that are in their best interests. One conclusion of the study is that persons in lower cosmic classes also are vulnerable. This finding is in direct conflict with what Short and Vistness found, which was that persons in a better economic class, and who are younger and highly-educated, are more likely to purchase multiple Medigap plans (Short & Vistnes, 1992).

The literature does indicate that the NAIC model standards will enable consumers to make clear choices among comparable policies if they are aware of and have knowledge about them. The literature also indicates that OBRA required each individual state to be responsible for adopting the NAIC model standards (Brostoff, 1991). This fact should be justification for each state to determine Medigap consumers' knowledge of NAIC's model standards and the changes Congress mandated.

CHAPTER III

METHODOLOGY

Research Design

The purpose of this study is to determine if elderly consumers have knowledge of FMRIS, to determine the levels of knowledge of the six types of FMRIS, to determine the levels of knowledge of the six types of FMRIS, and to determine if changes in the characteristics of elderly consumers can explain thieir knowledge of FMRIS. The research design indicates how changes in demographic and other selected independent variables explain elderly consumers' knowledge of FMRIS (Model I, Appendix A). The research design, model, or the study do not imply causation. Rather, the study is descriptive in nature.

Selection of Subjects

A convenience sampling method was used to select the subjects for this study because the Community Action sites would not release names and addresses of their participants. A sample of 531 elderly persons age 65 or older was selected

from 18 rural and urban Oklahoma Community Action Agency sites. Funding for the Oklahoma Community Action Agency is provided by the Administration on Aging. The Community Action sites are nutrition centers which provide nutritional hot lunches and outreach programs for elderly citizens at 97 locations throughout the state (Hunt, 1994). Free or low cost hot meals attract elderly persons from a wide variety of socioeconomic levels to these centers.

This study concentrated on nutrition sites scattered throughout the Tulsa metro area, as well as east, southeast, and northeast Oklahoma. District Community Action offices were contacted, and approval was given to use the nutrition sites for this study. A list of 38 nutrition sites was compiled; however, many of the sites had scheduling problems that did not fit the time frame of this study. During the months of June, July, and August 1993, a total of 18 sites were selected based on the availability of the nutrition center schedules. The Community Action sites required that appointments be made so there would be no conflicting events or programs. The site managers treated this study as one of their educational presentations. The sites selected were in the following Oklahoma communities: Hulbert, Fort Gibson, Muskogee, Checotah, Wagoner, Broken Arrow, Locust Grove, Pryor, Claremore, Collinsville, Owasso, Tulsa east, Tulsa west, Tulsa central, Sapulpa, Sand Springs downtown, and Sand Springs northeast. The eighteenth site was a

miscellaneous site with a collection of 21 elderly consumers who met with the researcher individually and agreed to participate in the study.

Research Instrument

Elderly consumers responded to the questionnaire on an individual basis. The questionnaire consisted of a cover letter and eight pages of questions (Appendix B). Multiple choice responses were used based on a review of literature, a pilot test, and focus group directives. The subjects were screened by age and instructed to answer all questions. After subjects agreed to participate in the study, they were handed a questionnaire and a number two lead pencil and asked if they knew what Medicare supplemental insurance or Medigap insurance was. If they did not know, the researcher explained it to them until they understood. Subjects were then told that the first section of the questionnaire was intended to measure their knowledge of federal Medicare supplemental or Medigap regulations, as well as their knowledge of consumers' rights concerning Medigap insurance. The subjects were told that the study sought to determine if they were knowledgeable about their rights, information sources, and counseling services available. Subjects were then told that the second part of the questionnaire had to do with demographic and other personal types of information to be used to group them into categories for data analysis.

Administering the instrument required that it be the only event occurring during the noon meal and between the hours of 10:00 a.m. and 1:30 p.m. Many subjects started arriving at the sites at 10:00 a.m. All subjects had to sign in at a table located at the entrance of the dining hall and pay for their meals if it was required. It was more convenient to ask them to fill out the questionnaire at this time, before they got involved in any games or activities. Site managers allowed the subjects to be approached at this point, except in the cases where many subjects came early specifically to visit and play games before the meal was served. Site managers had been contacted by their district offices, and all supported and encouraged the elderly subjects to participate in the study. Subjects were constantly reminded that this study was not connected with any insurance company and that we did not want their names, addresses, or telephone numbers. Many of the subjects refused to participate for various reasons; all participants were screened by age and observed to determine if they were competent to complete the questionaire. Site managers and other subjects assisted the researchers in screening out those with physical and mental problems which would prevent them from comprehending the survey questions. Site managers knew each subject personnally. Several subjects who required the questionnaires to be read to them were not used for the study.

Fifteen percent of the subjects had to have the questionnaire read to them. The questionnaire took approximately 10 to 15 minutes for most of the elderly subjects to fill out. Many others took longer, some as long as one hour.

Precautions were taken to obtain valid results. Most questionnaires were handed in and reviewed to make sure all questions were answered. The researcher constantly browsed through the dining halls assisting persons having problems and encouraging those who stopped filling out the questionnaire to complete the survey. Site managers were asked to confirm for the researcher the persons he thought might have difficulty understanding the questionnaire. Assistance was given to those that needed help completing the questionnaire. Several subjects had guests who assisted them. These guests and site managers were cautioned to make sure that they did not answer the questions for the subjects.

Pilot Study and Focus Group

A pilot study (n=100) was used to test the reliability of the questions and the format of the questionnaire. Results of the pilot study (Appendix C) confirmed personal interviews with several subjects and the wishes of the focus group to move and/or make minor changes in the questionnaire. First, demographic information was formatted

last because subjects had no difficulty completing these items but became fatigued by the time they got to the knowledge-measuring items. Transposing the two sections helped the elderly respondent complete the questionnaire before fatigue set in.

Secondly, open-ended questions did not work well with this age group and sample. They did not mind responding to multiple choice questions, but they did not want to take the time to think of things to say and write them down.

The third element that had to be altered was the five-point Likert scale responses for the knowledge-measuring items. A matrix format was used and was very confusing for the elderly subjects. Thirty-three percent of the respondents in the pilot study refused to answer the matrix-format, five-point Likert scale items. The major reason given for not responding to these items was that the matrix and scale format was difficult to understand and very confusing.

The last element requiring change was the 28-question knowledge test of FMRIS items. Several questions had to be reworded or eliminated. Item-to-total correlations and probabilities were run on the 28 items (Table 1, Appendix C). Items that were above the .05 level of significance and also had a strength of relationship below .30 were excluded from the larger study or rewritten. A total of 24 items were used in the questionnaire for the final study.

OBRA-1990 was intended to change the Medigap market so elderly consumers would be better educated and informed to make better Medigap purchasing decisions. The results from the pilot study clearly indicated that the Federal educational efforts were not making elderly consumers knowledgeable of FMRIS. For example, only 13% to 24% of difficult segments of the pilot study's sample group had knowledge about the FMRIS. This left at least 76% of the sample without any knowledge of FMRIS.

A total of eight elderly persons was used in a focus group to fine tune the measuring instrument and confirm the findings of the pilot study. Each item of the questionnaire was reviewed in detail. Confusing wording and format were discussed. The focus group had many suggestions for making the items easier to read and comprehend. It confirmed that all items should have multiple choice responses, and also that a "yes" and "no" response is desireable, but the choices should also include "don't know". Evidently, this age group and sample cannot be forced to respond either in one direction or another. Many subjects in the pilot study sample actually wrote in "don't know." If they thought the item statement was correct, they would mark "yes;" if they thought it was incorrect, they would mark the item "no;" however, if they did not know, they could not be forced to to answer "yes" or "no."

The focus group also confirmed that the five-point matrix format Likert scale was very confusing and took too

long for the elderly subjects to comprehend. According to the focus group, the matrix format fatigued them because it was difficult to follow and required considerable effort and time.

To summarize, the pilot study and focus group were very helpful developing a measuring instrument that was both reliable and that the elderly consumers could complete with the least amount of effort and speed. The methodology will look next at how the data for the three objectives of this study were statistically analyzed.

Data Analysis for Objective One

The first objective of the study was to determine if elderly consumers have knowledge of the FMRIS. A frequency distribution and percentage distribution were calculated for the multiple choice levels (yes, no, or don't know) for each of the 24 items that measured knowledge of FMRIS. Mean percentage knowledge scores were calculated from the data to indicate sufficient or insufficient knowledge.

The Medigap knowledge scale was developed from the ratio of correct scores to the total twenty-four federal Medigap regulations and information source items. Mean percentage knowledge scores were calculated for each individual which resulted in a mean percentage knowledge scale with a range of 0 percent, or no trace of knowledge, to 100 percent, or perfect knowledge.

Based on testing and measuring practices of Oklahoma and U.S. educational systems, it is appropriate to assume (Ward, 1993) that if the sample of elderly consumers has mean percentage knowledge scores greater than 59% (>59%), they basically have some knowledge of the FMRIS. If the overall mean percentage knowledge score is less than 60% (<60%), they have very little knowledge of the FMRIS. The FMRIS knowledge ratio scale has been collapsed into the following categories for interpretation purposes only (Table 3.1).

Knowledge is measured by asking each individual to indicate if he or she believes 24 statements about federal Medigap regulations and information sources are correct or incorrect (See Final Questionnaire, Appendix B). The 24 "yes," "no," and "don't know" multiple choice questions were

TABLE 3.1

FEDERAL MEDIGAP KNOWLEDGE SCORES COLLAPSED

MEAN AVERAGE SCORE	KNOWLEDGE LEVEL INTERPRETATION
90 to 100%	Excellent Knowledge
80 to 89%	Above Average Knowledge
70 to 79%	Average Knowledge
60 to 69%	Below Average Knowledge
0 to 59%	Poor Knowledge

graded. Any statements that were marked incorrectly or "don't know" by the respondents were collapsed and indicate incorrect answers.

Frequencies, percentages, and a mean percentage score for correct answers were calculated for each subject. An overall mean percentage knowledge score was calculated for the elderly consumers. If the overall mean percentage knowledge score is greater than 59%, then it can be concluded from the data that elderly consumers in eastern Oklahoma 65 years old and older have sufficient knowledge of the FMRIS. Basically, this overall mean percentage score will indicate if federal laws and education efforts have provided enough information for elderly consumers to make informed Medigap purchasing decisions. Since sufficient or insufficient knowledge of FMRIS by elderly consumers is an arbitrary point, a panel of experts was used to determine if they would support it.

Panel of Experts

The literature did not offer any support for the arbitrary point that determines whether or not an elderly consumer has sufficient or insufficient knowledge of FMRIS. A panel of seven experts was utilized to determine if this abitrary point could be supported. Three experts from the Oklahoma Senior Health Insurance Counseling program, two health insurance assessment, information, and referral

experts from the outreach department of Human Services, one expert from the social services department of a life-care retirement center, and one expert from the outreach and counseling department of the Cookson Hills Community Action Foundation were asked to determine how many of the 24 questions elderly consumers would need to answer correctly in order to have sufficient or adequate knowledge of FMRIS.

The results from the expert panel survey indicate that sufficient knowledge ranges from a mean correct knowledge score of 50 percent to 100 percent (Table 3.2). Overall, the experts' mean knowledge score was 79%, 10 percentage points above the sufficient knowledge point arbitrarily adopted for this study (see Table 3.2). This expert panel survey clearly supports the use of the arbitrary sufficient/insufficient knowledge point selected for this study. In fact, this study's sufficient knowledge point is much more lenient than the experts' requirements. The expert panel indicated that elderly consumers should get 19 out of 24 questions correct to have sufficient knowledge of FMRIS. This study only expects them to get 14 out of 24 questions correct. The experts expect elderly consumers to have at least average scores or better to be considered sufficiently knowledgeable about FMRIS.

TABLE 3.2

EXPERT PANEL'S JUDGEMENT OF
SUFFICIENT KNOWLEDGE OF FMRIS*

	Number of correctly answered questions needed by elderly consumers
Expert 1	17 out of 24 or 71%
Expert 2	24 out of 24 or 100%
Expert 3	15 out of 24 or 63%
Expert 4	21 out of 24 or 88%
Expert 5	12 out of 24 or 50%
Expert 6	22 out of 24 or 92%
Expert 7	21 out of 24 or 88%

*Mean Percentage Knowledge Score of correcly answered questions needed by elderly consumers=78.857, N=7.

Data Analysis for Objective Two

The second objective was to detemine if there is a significant difference between the overall mean percentage knowledge elderly consumers have of specific types of FMRIS--whether this knowledge base is general or if it is specific to duplication regulations, limitation/pre-existing conditions regulations, policy simplification regulations, renewability regulations, information sources, and telephone and personal counseling services.

The analysis of variance test was used to determine if the mean percentage scores were significantly different between the types of the FMRIS. If the F-test is significant at the .05 level, then the Tukey test was used

to determine if significant differences exist between the mean percentage scores of all possible pairs of the six types of FMRIS.

Data Analysis for Objective Three

Objective three was to determine if any significant differences exist between the mean percentage scores of each level of demographic characteristics such as, economic, social, Medicare and Medicaid participation, Medigap participation, participation in medicare supplement policy purchasing, health status, and media useage variables (see Model I, Appendix A). T-tests and analysis of variance tests were used to test for significant differences in the mean percentage knowledge scores between the levels of demographic and other selected variables. Results will be used to describe the characteristics of elderly consumers in eastern Oklahoma based on their mean percentage knowledge scores of FMRIS. Frequency and percentage distributions also yielded additional factual descriptions from the selected variables (see Model I, Appendix A). For example, the sex variable will indicate if there is or is not a significant difference between the mean knowledge percentage scores of males and females.

SUMMARY

In summary, this study's methodology design is explanatory and descriptive and included a usable sample size of 502 elderly consumers. A convenience sample method was used to select elderly consumers age 65 or older from various locations in eastern Oklahoma. A questionnaire was developed to measure the dependent variable and gather data about selected independent variables such as: demographic, economic, social, health status, Medicare supplement participation, Medigap participation, and media useage behavior. A pilot study and focus group were used to increase the reliability of the measuring instrument and completion rates. Mean percent knowledge scores were calculated to measure the dependent variable, which is knowledge of FMRIS. Frequencies and percentage distribution were calculated for all the data and used for interpretation purposes and used to build a profile of the two groups of elderly consumers based on their mean knowledge of FMRIS. A panel of experts was used to support the arbitrary point selected for this study that determines if the elderly consumers are sufficiently or insufficiently knowledgeable of FMRIS. Analysis of variance tests, T-tests, and Tukey tests were used to statistically analyze the data for objectives one, two, and three of this study.

CHAPTER IV

FINDINGS

Characteristics of Sample

First, the sample size included a total of 531 questionnaires collected from the 18 sites in eastern Oklahoma. Twenty-nine questionnaires were not usable because either the subject was determined to be incompetent or because the questionnaire was not properly or completely filled out. This left a total of 502 usable questionnaires.

Secondly, the sample was demographically mixed. Most elderly consumers in this sample were female (67%) and white (88%); 3% were black and 8% Native American. Most of the elderly consumers were between 65 and 74 years old, with 39% between 75 and 84 years old. There were more widowed (48%) than married (41%) respondents. Most respondents had a high school education or above (69%), with annual incomes less than $10,000; however, many reported annual incomes between $20,000 and $40,000 (16%), and 2% were in the $40,000 or more bracket.

The condition of respondents' health was quite good; most reported their health as either good (37%) or fair (39%). Almost all of the elderly consumers were retired (96%) and members of a local senior citizen group (71%), with 49% members of AARP.

Insurance participation was a third characteristic of the group. Despite their low incomes, only 24% were found to be on Medicaid. Most had Medicare part A (81%) and part B (73%). More than half of the elderly consumers sampled purchased at least one Medigap policy (60%); however, 3% indicated they purchased two or three Medigap policies. These respondents purchased their Medigap policies in a variety of ways: The largest group (22%) bought direct from the insurance company, 10% used salespersons, or bought through their former employers (10%) or retirement association, like AARP (12%): However, direct mail advertising still received 4% of this market. Most of these elderly consumers reported having turned in a Medicare claim (75%) and a Medigap claim (59%), which indicates they tested the benefits and services offered by these two types of health insurance. Most of this sample used Medigap policies (55%) to fill in the gap that Medicare approves but does not pay.

And finally, when it came to media behavior, this particular consumer group averaged watching TV at least four hours per day and listening to the radio three hours per day. A large group (47%) of the elderly had cable

television. The local newspaper was read more by elderly consumers (69%) than any other type of newspaper, with 34% reading a metropolitan newspaper like the Tulsa World or Daily Oklahoman.

Using the 1990 United States Census figures, this study found that the characteristics of the study's sample are very similar to the characteristics of the elderly statewide (Oklahoma) and nationwide (see Appendix D). For example, the percent of elderly in this study's sample are between the ages of 65 to 74 years old and are similar to the elderly in the statewide and nationwide census (50%, 55%, and 58% respectively). Most of the elderly are female (67%, 60%, and 60% respectively), and are white (88%, 89%, and 89% respectively). The only big difference that could be found is that this study had more Native Americans (8%) as compared to the state of Oklahoma (5%) and the nation (less than 1%).

Results for Objective One

The first objective of this study was to determine if elderly consumers have knowledge of the FMRIS, if federal educational efforts have been successful in making elderly consumers knowledgeable of FMRIS. The arbitrary point chosen to be the indicator of sufficient knowledge was mean knowledge scores greater than 59%; insufficient knowledge was mean knowledge scores less than 60%. These figures were

confirmed and supported by a panel of experts. The results of this study found that overall most, 92.6%, of the elderly consumers had insufficient knowledge of FMRIS (Table 4.1). Only 37 of the 502 elderly consumers surveyed had mean knowledge scores high enough to be considered having sufficient knowledge of FMRIS. The lowest mean knowledge score received was 0% by 28 or 5.6% of the elderly consumers. The highest mean knowledge score received was 83%, achieved by 2 respondents. These individuals represent less than one half of 1% of the elderly consumers sampled. The overall mean knowledge of FMRIS for all 502 subjects was only 33.3%, 26 percentage points below the sufficient mean knowledge percentage point of 60.

The elderly consumers did not have sufficient knowledge of any of the six specific types of FMRIS (Table 4.1). The type of FMRIS that they came closest to having sufficient knowledge of was the renewability regulations. Close to half, or 44% of the elderly consumers, had sufficient knowledge of federal renewability Medigap regulations. Fewer than 200, or 39%, had sufficient knowledge of duplication regulations. One hundred eleven elderly consumers, 22%, had sufficient knowledge of limitations and preexisting conditions regulations. Approximately 16% had sufficient knowledge of the publications and counseling

TABLE 4.1

ELDERLY CONSUMERS' MEAN PERCENTAGE KNOWLEDGE SCORES OF FMRIS BY OVERALL TOTAL AND BY TYPES OF FMRIS*

MEAN % SCORES	FREQUENCY	PERCENT**		CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
OVERALL					
0	28	5.6		28	5.6
4	13	2.6		41	8.2
8	20	4.0		61	12.2
13	21	4.2		82	16.3
17	24	4.8		106	21.1
21	36	7.2		142	28.3
25	46	9.2		188	37.5
29	44	8.8	-92.6%	232	46.2
33	44	8.8		276	55.0
38	46	9.2		322	64.1
42	36	7.2		358	71.3
46	36	7.2		394	78.5
50	28	5.6		422	84.1
54	26	5.2		448	89.2
58	17	3.4		465	92.6
63	21	4.2		486	96.8
67	5	1.0		491	97.8
70	2	0.4		493	98.2
71	4	0.8		497	99.0
75	1	0.2		498	99.2
79	2	0.4		500	99.6
83	2	0.4		502	100.0
DUPLICATION REGULATIONS					
0	48	9.6		48	9.6
20	109	21.7		157	31.3
40	145	28.9		302	60.2
50	2	0.4		304	60.6
60	110	21.9		414	82.5
80	69	13.7	-39.4%	483	96.2
100	19	3.8		502	100.0

(Continued)

(Table 4.1 Continued)

MEAN % SCORES	FREQUENCY	PERCENT**		CUMULATIVE FREQUENCY	CUMULATIVE PERCENT
LIMITATION/PREEXISTING CONDITIONS REGULATIONS					
0	64	12.7		64	12.7
17	113	22.5		177	35.3
33	122	24.3		299	59.6
50	92	18.3		391	77.9
67	64	12.7		455	90.6
83	42	8.4	22.1%	497	99.0
100	5	1.0		502	100.0
SIMPLIFICATION REGULATIONS					
0	214	42.6		214	42.6
25	203	40.4		417	83.1
50	66	13.1		483	96.2
75	13	2.6	3.8%	496	98.8
100	6	1.2		502	100.0
RENEWABILITY REGULATIONS					
0	91	18.1		91	18.1
33	190	37.8		281	56.0
67	147	29.3	44.0%	428	85.3
100	74	14.7		502	100.0
PUBLICATIONS					
0	248	49.4		248	49.4
25	93	18.5		341	67.9
33	1	0.2		342	68.1
50	78	15.5		420	83.7
75	51	10.2	16.4%	471	93.8
100	31	6.2		502	100.0
COUNSELING/TELEPHONE SERVICES					
0	318	63.3		318	63.3
50	101	20.1	16.5%	419	83.5
100	83	16.5		502	100.0

*N=502

**Percentage scores outside the brackets indicate sufficient knowledge overall and for the six types of FMRIS.

services available to them. And finally, only 19, or less than 4% of the elderly consumers surveyed, had sufficient knowledge of the simplification regulations. It is important to note that out of the 24 items on the questionnaire, the elderly consumers only had sufficient knowledge of 2 of them (Table 4.2). They had sufficient knowledge that other types of private insurance policies are available to fill the gaps (M=67) and they knew that if they did not pay their monthly or yearly premiums, their Medigap policies could be canceled (M=67).

Results for Objective Two

The results of the first objective indicated that the overall mean percentage knowledge score of the elderly consumers was 33.3. The second objective was to determine if there is a significant difference between the mean percentage knowledge elderly consumers have of specific types of FMRIS--whether the low mean knowledge base is general, or if it is specific of federal Medigap duplication regulations, limitations and preexisting conditions regulations, policy simplification regulations, renewability regulations, Medigap information sources, and Medigap telephone and counseling services.

TABLE 4.2

KNOWLEDGE ITEMS AND TYPE OF FEDERAL MEDIGAP REGULATIONS AND INFORMATION SOURCES (FMRIS)

Types of FMRIS and Item Numbers[1]		Choices[2] C	I	DK	Mean FMRIS	SD FMRIS
Duplication Regulations					44.0	25.9
1	Duplication 1	67	18	15		
2	Duplication 2	40	48	12		
3	Duplication 3	49	42	9		
4	Duplication 4	30	56	14		
5	Duplication 5	37	36	27		
Limitation, Preexisting Conditions Regulations					37.5	25.1
6	Limitations 1	49	30	21		
7	Limitations 2	27	50	23		
8	Limitations 3	43	34	23		
9	Limitations 4	36	39	25		
10	Limitations 5	19	32	49		
11	Limitations 6	53	34	13		
Simplification Regulations					19.8	21.3
12	Simplification 1	3	17	80		
13	Simplification 2	25	37	38		
14	Simplification 3	9	39	52		
15	Simplification 4	43	41	16		
Renewability Regulations					46.9	31.8
16	Renewability 1	26	57	17		
17	Renewability 2	67	19	14		
18	Renewability 3	49	31	20		
Publications Regulations					26.3	31.8
19	Publications 1	32	49	19		
20	Publications 2	22	57	21		
21	Publications 3	32	61	7		
22	Publications 4	22	74	4		
Counseling Services Regulations					26.6	38.1
23	Counseling 1	30	62	8		
24	Counseling 2	24	65	11		

[1] Types of FMRIS are listed first then their corresponding item numbers that can be found on the questionnaire, Appendix B. Types of FMRIS significantly different. ANOV $F=67.91$, $p=.0001$, $df=5,3001$, $N=502$.

[2] Choices: Data in percentages. C=Correct, I=Incorrect, DK=Don't Know.

The analysis of variance (ANOV) test found that there was a significant difference beyond the .01 level between the mean knowledge scores of the six types of FMRIS (Table 4.2). The test clearly indicates that elderly consumers have different levels of knowledge of the six types of FMRIS.

Since the ANOV was significant, Tukey's HSD tests were calculated to determine on which types of FMRIS elderly consumers' mean knowledge differed. The Tukey's HSD tests indicated that elderly consumers have different levels of knowledge about most of the types of FMRIS, except for duplication regulations, renewability regulations, publication sources, and telephone and counseling services (Table 4.3). The elderly consumers in the sample have the most knowledge of federal renewability regulations (M=46.9) and duplication regulations (M=44.0). As stated above, their mean knowledge level was not significantly different for these two regulations. The next regulation the elderly consumers have the most knowledge of is the federal limitations and preexisting conditions regulations (M=37.5). This was followed by elderly consumers' knowledge of publication sources (M=26.3) and telephone and counseling services (M=26.6) which did not differ in their mean knowledge level. And finally, elderly consumers have the least knowledge of simplification regulations with a mean knowledge score of 19.8 (Table 4.2).

TABLE 4.3

DIFFERENCES BETWEEN MEANS OF THE SIX TYPES OF FMRIS[1]

	Dup	Limit	Simp	Renew	Pub	Counsel
Dup		6.3*	24.1*	3.0	17.8*	17.1*
Limit			17.8*	9.3*	11.5*	11.0*
Simp				27.1*	6.3*	7.0*
Renew					21.0*	20.1*
Public						0.7

[1] Tukey's Studentized range test, N=502.
* Differences between means significant at p=.05.

The Tukey tests clearly indicate that the elderly consumers were more knowledgeable about certain types of federal Medigap regulations and information sources. However, none of the mean percentage knowledge scores reflect that the elderly consumers in this sample have sufficient knowledge. The highest means were renewability regulations with a mean knowledge score of 46.7 and duplication regulations with a mean knowledge score of 44. The criteria for sufficient knowledge was set at a mean knowledge score greater than 59 percent (>59%). A closer look at the items within each type of FMRIS reveals more specific details of the elderly consumers' knowledge levels (Table 4.2).

For example, the percentage distribution calculated for the multiple choice levels (correct, incorrect, and don't know) indicate that elderly consumers have sufficient knowledge of two of the 24 items that measure knowledge of FMRIS. These are items 1 and 17 (see questionnaire, Appendix B). First, consider elderly consumers' knowledge of the federal duplication regulations, items 1 through 5. Most elderly consumers, 67%, know that there are other types of private health insurance policies available other than Medigap to help pay for medical expenses that Medicare covers only in part or not at all (Table 4.2). However, less than half of the elderly consumers, 49%, knew for certain that a person needs only one Medigap policy to be fully covered, and 42% thought more than one policy was needed (Item 3, Appendix B). Most, 56%, of the elderly thought people on Medicaid need a Medigap policy (Item 4) and only 37% knew that it is illegal for an insurance company or salesperson to sell more than one Medigap policy to a person (Item 5). Of the five federal duplication regulation items used in this study, elderly consumers had sufficient knowledge of one.

The second type of federal Medigap regulations that requires a closer look is the limitation and preexisiting conditions regulations. Elderly consumers did not have sufficient knowledge of any of the 5 items (6 through 11, Appendix B). Over half, 53% (Table 4.2), knew that Medigap does not pay medical expenses Medicare approves but does not

pay (Item 11). Close to half of the elderly knew that a Medigap policy would not pay for an operation which the patient had within four or five months after the policy was purchased (Item 6). Only 27% of the elderly knew that an insurance company could not refuse to sell a Medigap policy to an elderly person because of past poor health (Item 7) during the six-month open enrollment period. That Medigap policy costs could not be based on good or poor health conditions was known by 43% (Item 8). Most elderly consumers (64%) did not know that any Medigap insurer could not refuse to sell a Medigap policy during this open enrollment period because an elderly person might have previously turned in numerous claims (Item 9). And finally, 81% did not know that if they had a preexisting illness at the time they purchased a Medigap policy, there was a six-month waiting period before the policy could help pay for treatment costs (Item 10).

The third federal Medigap regulation the elderly consumers did not have sufficient knowledge of was simplification regulations, items 12, 13, 14, and 15 (Appendix B). That there were 10 Medigap plans available from which to choose was not known by 97% of the respondents. Twenty-five percent of the elderly knew that plan A was the core plan and is carried by all Medigap insurance companies, and only 9% knew that the most comprehensive Medigap plan, plan J, is carried by some of the Medigap insurers. When it comes to Medigap insurance,

most of them were very confused, as the study shows that 62% of them did not know that Medicare supplemental insurance is not a government-sponsored program.

The elderly consumers had a little more knowledge of renewability, the fourth type of federal Medigap regulation, items 16, 17, and 18 (Appendix B). Most, 67%, had sufficient knowledge of item 17. They knew that an insurer could refuse to renew their Medigap policy if the monthly premium was not paid. However, only 26% knew that an insurance company had to continually renew the Medigap policy once it is purchased. More than half, 51%, did not know that an insurance company cannot refuse to renew their Medigap policy if their health became poor for a long period of time (Table 4.2). Many of the elderly believe insurance companies can still do whatever the company wants.

The fifth type of FMRIS is the sources of published information about federal Medigap regulations, and telephone and counseling services, items 19, 20, 21, and 22 (Appendix B). Only 32% of the elderly consumers were aware or had used a booklet or publication to help them make Medigap purchasing decisions (Table 4.2). Most, 78%, did not know that a guide or a Medigap plan comparison chart or checklist was available in any publication, and they had never read or used the booklet, Guide to Health Insurance for People With Medicare, the booklet Congress mandated the National Association of Insurance Commissioners (NAIC) to publish and distribute to elderly consumers in order for them to have

educational materials available to make Medigap purchasing decisions.

And finally, the sixth type of FMRIS that elderly consumers did not have sufficient knowledge of was the counseling and/or telephone assistance program, items 23 and 24 (Appendix B). Most elderly consumers, 70%, were not aware of a state telephone number they could call to receive Medigap insurance assistance or counseling. Surprisingly, an even larger number, 76%, of the elderly consumers were not aware of any state agency or office at which they could receive counseling concerning Medigap insurance (Table 4.2).

Results for Objective Three

Objective three was to determine if any significant differences exist between the mean percentage scores of each level of selected demographic, economic, social, Medicare and Medicaid participation, Medigap participation, health status, and media usage behavior variables. Any changes in the levels of the eight selected categories of independent variables may explain elderly consumers' knowledge of FMRIS. These results are used to describe the characterisitics of the elderly consumers in this sample based on their mean knowledge scores of FMRIS.

The demographic variables of sex, race, age, and education were the first set of selected variables to be

analyzed (Table 4.4). Significant differences in the elderly consumers' mean knowledge of FMRIS were not found between gender or race. The males' mean knowledge score (33.7) was identical to females' at 33.8. The ANOV test for the race variable did not show a significant difference at the .05 level; however, the "other" category had a mean knowledge score of 50, 20 percentage points above Hispanics

TABLE 4.4

ELDERLY CONSUMERS' MEAN KNOWLEDGE OF FMRIS BY SELECTED DEMOGRAPHIC VARIABLES*

Traits	N	Mean	SD	DF	T-Prob	F-Prob	Tukey[1]
Sex				489	.923		
1 Male	160	33.7	17.7				
2 Female	331	33.8	17.9				
Race				4,483		.481	
1 White	429	34.2	17.9				
2 Black	14	35.9	22.2				
3 Hispanic	3	29.3	26.1				
4 Native Amer	41	29.7	16.0				
5 Other	1	50.0					
Age				2,484		.006	
1 65-74	243	35.7	18.7				1-3
2 75-84	192	32.8	17.2				
3 85 plus	52	27.3	14.7				
Education				4,481		.0001	
1 Less HS	145	29.5	16.0				1-5
2 HS	206	33.3	16.9				2-5
3 Trade Sch	15	34.3	20.0				
4 Some Col	75	36.9	20.6				4-1
5 Col Grad	45	45.3	17.5				

[1]Tukey significant at p=.05.
*N=502.

and Native Americans. Blacks' (35.9) and Whites' (34.2) mean knowledge was only slightly higher than Hispanics' (27.3) or Native Americans' (29.7). The mean knowledge levels of the elderly consumers' age and education were found to be significantly different beyond the .05 level. Tukey's test indicates that the younger and more educated elderly are more knowledgeable of FMRIS than the older and less educated elderly consumers.

The second set of selected variables analyzed included economic variables (Table 4.5). There was no significant difference in the mean knowledge scores of retired elderly consumers and those not retired; however, there was a significant difference (p=.003) between the mean knowledge

TABLE 4.5

ELDERLY CONSUMERS' MEAN KNOWLEDGE OF FMRIS BY SELECTED ECONOMIC VARIABLES*

Traits	N	Mean	SD	DF	T-Prob	F-Prob	Tukey[1]
Income (Thousands)				4,430		.003	
1 Under 10	222	31.8	17.7				1-3
2 10-19	133	35.1	17.8				
3 20-29	48	40.4	20.0				
4 30-39	23	42.2	10.4				
5 40 plus	9	40.2	15.7				
Labor Force Participation				479	.5469		
1 Retired	461	33.8	17.7				
2 Not Retired	20	31.3	22.4				

[1] Tukey significant at p=.05.
*N=502.

scores of the five levels of income. The pairwise comparison tests indicate that only levels one and three are significanly different at the .05 level. Elderly consumers with incomes above $20,000 had higher mean scores and more knowledge of FMRIS than those with incomes less than $10,000.

The third set of selected variables used to explain elderly consumers' knowledge of FMRIS was social variables (Table 4.6). It did not make a difference if the elderly consumers used in this study were never married, divorced, or widowed, their mean knowledge scores did not differ significantly at the .05 level. T-tests indicate that being

TABLE 4.6

ELDERLY CONSUMERS' KNOWLEDGE OF FMRIS BY SELECTED SOCIAL VARIABLES*

Traits	N	Mean	SD	DF	T-Prob	F-Prob
Marital Status				3,485		.830
1 Never	10	25.9	14.9			
2 Married	201	34.6	17.6			
3 Divorced	44	34.4	18.7			
4 Widowed	234	33.4	18.2			
Local Senior Citizen Group				473	.0048	
1 Member	336	35.3	17.3			
2 Not Member	139	30.2	18.6			
AARP				476	.0001	
1 Member	232	37.0	18.4			
2 Not Member	246	30.7	17.0			

*N=502.

a member of a local senior citizen group or the American Association of Retired Persons (AARP) did make a difference in knowledge. In both cases, members were more knowledgeable of FMRIS than non-members. The difference in the mean knowledge scores for members and non-members for both variables was significant beyond the .05 level. The results indicate being a member of elderly organizations increases knowledge of FMRIS.

Having experience with different types of private insurance was the fourth set of variables used to explain elderly consumers' mean knowledge of FMRIS (Table 4.7). The data indicate that it does not matter if elderly consumers have or don't have Coordinated Care Plans or medical insurance from former employers, their mean knowledge scores did not differ significantly. The mean knowledge scores indicate the elderly consumers that are the most knowledgeable about FMRIS are those with long-term care insurance (45.8), specified disease insurance (46.0) and hospital indemnity insurance (45.1). These individuals are more knowledgeable by close to 10 mean knowledge percentage points than those who purchase Medigap insurance (35.6). This is an interesting find because more than half (267) of the elderly sample in this study indicated they purchased Medigap insurance. This means that those who purchase alternative forms of Medicare supplemental insurance are more knowledgeable about FMRIS than those who actually purchase Medigap insurance.

TABLE 4.7

ELDERLY CONSUMERS' MEAN KNOWLEDGE OF FMRIS BY EXPERIENCE WITH TYPES OF MEDICARE SUPPLEMENTAL INSURANCE PURCHASE*

Trait	N	Group Mean	SD	DF	T-Prob
Medigap Insurance				486	.0130
1 Have	267	35.6	17.4		
2 Don't Have	221	31.5	18.4		
Coordinated Care Plan				486	.1684
1 Have	64	36.6	15.3		
2 Don't Have	424	33.3	18.3		
Former employer-provided Ins.				486	.4819
1 Have	74	35.1	16.8		
2 Don't Have	414	33.5	18.2		
Long-term Care Insurance				486	.0002
1 Have	28	45.8	14.2		
2 Don't Have	460	33.0	18.0		
Hospital Indemnity Insurance				486	.0002
1 Have	32	45.1	13.9		
2 Don't Have	456	33.0	18.0		
Specified Disease Insurance				486	.0002
1 Have	28	46.0	14.2		
2 Don't Have	460	33.0	18.0		

*N=502.

T-tests and analysis of variance tests (ANOV) were used to determine if specific Medigap insurance variables could explain differences in elderly consumers' knowledge of FMRIS. Results indicate that elderly consumers who purchase Medigap policies or have them purchased for them are

significantly more knowledgeable about FMRIS than those who do not (Table 4.8). The data indicate that the number of Medigap policies one purchases does make a difference in knowledge of FMRIS (p=.0001). Tukey's test indicates that elderly consumers who don't purchase any (31.8), who purchase one (35.9), and who purchase two (41.5) Medigap policies are more knowledgeable than those who didn't know how many policies were purchased. T-tests indicate that where the elderly purchase their Medigap policies does not explain their knowledge of FMRIS except for those who

TABLE 4.8

ELDERLY CONSUMERS' KNOWLEDGE OF
FMRIS MEDIGAP INSURANCE PARTICIPATION*

Trait	N	Group Mean	SD	DF	T-Prob	F-Prob	Tukey[1]
Purchase Medigap Policy				2,476		.0001	
1 Yes	266	37.2	18.1				1-2 1-3
2 No	195	30.0	16.3				
3 Don't Know	18	25.5	18.0				
Medigap Purchased for You				2,477		.0012	
1 Yes	62	35.1	18.5				1-3
2 No	397	34.1	17.5				2-3
3 Don't Know	21	20.0	15.8				
Total Medigap Purchasing				4,474		.0001	
1 None	162	31.8	16.3				1-6
2 One	290	35.9	18.2				2-6
3 Two	11	41.5	17.9				3-6
4 Three	2	33.5	6.4				
5 Four	0	0.0	0.0				
6 Don't Know	14	13.4	12.0				

(Continued)

(Table 4.8 Continued)

Trait	N	Group Mean	SD	DF	T-Prob	F-Prob	Tukey[1]
Purchase Direct-Insurance Co.				452	.0049		
1 Yes	98	38.3	19.4				
2 No	356	32.6	17.3				
Purchase from Salesman/Agent				452	.5741		
1 Yes	46	32.4	16.3				
2 No	408	34.0	18.1				
Purchase through Mail				452	.6389		
1 Yes	17	35.8	19.6				
2 No	437	33.7	17.9				
Purchase by Telephone				452	.4210		
1 Yes	2	44.0	2.8				
2 No	452	33.8	17.9				
Purchase through Emp./Ex-Emp.				452	.4598		
1 Yes	46	35.7	16.0				
2 No	408	33.6	18.1				
Purchase-Retirement Assoc.				452	.2764		
1 Yes	53	36.3	18.3				
2 No	401	33.5	17.8				
Purchase Through Union				452	.3743		
1 Yes	4	41.8	16.5				
2 No	450	33.8	17.9				
Purchase from Other				452	.0908		
1 Yes	15	26.1	15.2				
2 No	439	34.1	17.9				
Turned in Medigap Claim				2,463		.0001	
1 Yes	276	37.3	18.2				1-2
2 No	167	30.7	15.9				2-3
3 Don't Know	23	17.5	13.9				3-1

[1]Tukey significant at p=.05.
*N=502.

purchase directly from an insurance company. Those who purchase directly from an insurance company are significantly (p=.0049) more knowledgeable of FMRIS than those who do not (Table 4.8).

What about Medicare or Medicaid participation of the elderly consumers? Does it make a difference in the elderly consumers' knowledge of FMRIS? Analysis of variance and

Tukey tests were used to determine if these four variables can explain elderly consumers' knowledge of FMRIS. Difference in the mean knowledge scores of all four of the variables were found to be significant beyond the .05 level (Table 4.9).

Tukey tests at the .05 level indicate that elderly consumers not on Medicaid are more knowledgeable about FMRIS than those who are enrolled in Medicaid or don't know if

TABLE 4.9

ELDERLY CONSUMERS' MEAN KNOWLEDGE OF FMRIS BY MEDICARE AND MEDICAID PARTICIPATION*

Trait	N	Group Mean	SD	DF	T-Prob	F-Prob	Tukey[1]
On Medicaid				2,477		.0008	
1 Yes	115	30.0	15.6				1-2
2 No	348	35.6	18.1				2-3
3 Don't Know	17	24.0	22.2				
On Medicare part A				2,475		.0001	
1 Yes	386	36.1	17.3				1-2
2 No	44	28.6	16.7				2-3
3 Don't Know	48	19.7	15.2				3-1
On Medicare part B				2,466		.0001	
1 Yes	343	36.0	18.0				1-3
2 No	52	34.0	16.0				2-3
3 Don't Know	74	25.5	16.1				
Turned in Medicare Claim				2,473		.0001	
1 Yes	356	36.0	18.0				1-2
2 No	104	31.0	16.2				2-3
3 Don't Know	16	18.0	18.7				3-1

[1]Tukey significant at p=.05.
*N=502.

they are enrolled or not. Elderly on Medicare part A are much more knowledgeable than those who are not. There is not a significant difference between the knowledge of the elderly who purchase and do not purchase Medicare part B insurance. And finally, Tukey's tests at the .05 level indicated that elderly consumers who have turned in a Medicare claim are significantly more knowledgeable about FMRIS than those who have not or don't know if they have (Table 4.9).

As for the health status variable, the analysis of the variance test indicates that there is a significant difference between elderly consumers who are in excellent, good, fair, or poor health. Elderly consumers in excellent or good condition are more knowledgeable about FMRIS than those elderly in poor health (Table 4.10).

TABLE 4.10

ELDERLY CONSUMERS' MEAN KNOWLEDGE OF FMRIS BY HEALTH STATUS*

Trait	N	Group Mean	SD	DF	F-Prob	Tukey [1]
Health Status				3,478	.0009	
1 Excellent	56	37.1	19.2			1-4
2 Good	178	37.0	18.0			2-4
3 Fair	188	32.4	17.0			
4 Poor	60	27.0	19.0			

[1]Tukey significant at p=.05.
*N=502.

The eighth and final set of variables used to explain elderly consumers' knowledge of FMRIS was the media behavior variables. The knowledge of FMRIS is not significantly different for elderly consumers who do and do not have cable television, read local newspapers, read national newspapers, and read other types of newspapers. Similarly, the analysis of variance tests for total mean hours viewing TV and listening to radio each day were not significantly different(Table 4.11).

The data did indicate that elderly consumers' knowledge of FMRIS did differ significantly between the readers and

TABLE 4.11

ELDERLY CONSUMERS' MEAN KNOWLEDGE OF FMRIS BY MEDIA BEHAVIOR*

Trait	N	Group Mean	SD	DF	T-Prob	F-Prob
Daily TV Viewing (hours)				11,394		.9134
1 One	28	33.1	15.0			
2 Two	89	35.6	19.0			
3 Three	72	36.0	18.3			
4 Four	95	35.0	17.0			
5 Five	46	34.0	20.0			
6 Six	46	37.0	18.2			
7 Seven	5	36.0	30.0			
8 Eight	16	28.4	20.0			
9 Nine	3	32.0	9.0			
10 Ten	3	24.0	17.2			
11 Twelve	2	27.0	3.0			
12 Twenty-four	1	46.0	0.0			

(Continued)

(Table 4.11 Continued)

Trait	N	Group Mean	SD	DF	T-Prob	F-Prob
Daily Radio Listening (hours)				11,218		.8482
1 One	92	37.9	15.5			
2 Two	58	37.0	20.1			
3 Three	24	36.9	22.0			
4 Four	23	34.7	19.5			
5 Five	2	29.5	12.0			
6 Six	6	32.7	22.5			
7 Seven	1	29.0	0.0			
8 Eight	14	33.6	18.1			
9 Ten	5	47.6	16.8			
10 Twelve	3	31.7	2.3			
11 Twenty	1	13.0	0.0			
12 Twenty-four	1	21.0	0.0			
Have Cable Television				471	.7734	
1 Yes	224	33.9	17.2			
2 No	249	34.4	18.5			
Local Newspaper (read)				478	.3584	
1 Regularly	333	34.2	18.1			
2 Not Reg	147	32.5	18.2			
Metropolitan Newspaper (read)				479	.0014	
1 Regularly	151	37.5	17.3			
2 Not Reg	330	31.9	18.2			
National Newspaper (read)				479	.5818	
1 Regularly	18	35.9	17.8			
2 Not Reg	463	33.6	18.1			
Free Newspapers (read)				479	.0041	
1 Regularly	90	38.6	19.4			
2 Not Reg	391	32.5	17.3			
Other Newspapers (read)				478	.6878	
1 Regularly	28	35.0	19.2			
2 Not Reg	452	33.6	18.0			

*N=502.

non-readers of metropolitan newspapers, such as the Tulsa World and Daily Oklahoman, and regular readers of free newspapers and shoppers (Table 4.11). In both cases, readers were more knowledgeable than non-readers.

Summary

Objective one was to determine if elderly consumers had sufficient knowledge of FMRIS. The data indicate that almost all (92%) are not knowledgeable of the FMRIS. As far as the six specific types of FMRIS, most elderly consumers did not have sufficient knowledge of renewability, duplication, and limitations/preexisting conditions regulations. Less that 17% of the elderly consumers had sufficient knowledge of the publications and counseling services available to them, and nearly all of them did not know that Medigap plans had been reduced to 10 and the benefits standardized.

The second objective was to determine if there were any significant differences in the knowledge elderly consumers have of the six types of FMRIS. The data indicates that the elderly consumers used in this sample had significantly different levels of knowledge of the six types of FMRIS.

The elderly were most knowledgeable of their rights to renew Medigap policies and the least knowledgeable of Congress' reduction of Medigap choices to 10 plans, and that Congress standardized the minimum benefits each of the 10 plans could offer. Elderly consumers have poor knowledge that only one Medigap policy is needed and that it is illegal for an insurer to sell more than one to a consumer. And their knowledge is very poor concerning the availability of information sources, booklets, counseling offices and

telephone numbers that can be used to help make informed Medigap purchasing decisions. Federal educational efforts have done a better job educating the elderly about renewability regulations and duplication regulations than they have about simplification regulations, limitations and preexisting conditions regulations, information material, and assistance counseling offices and telephone numbers.

Objective three was a descriptive objective. It sought to determine if any changes or significant differences between the levels of selected variables could explain elderly consumers' knowledge of FMRIS. The data indicates that significant changes in the following variables explain the elderly consumers' knowledge of FMRIS and can be used to describe the characteristics of knowledgeable and non-knowledgeable elderly consumers: age, education, income, member of local senior citizen group, member of AARP, purchase of Medigap insurance, purchase of long-term care insurance, purchase of hospital indemnity insurance, purchase of specified disease insurance, purchase of (or by a person for another) Medigap policy , total Medigap policies purchased, purchase of Medigap policy direct from an insurance company, turned in Medigap claim, on Medicaid, on Medicare part A, on Medicare part B, turned in a Medicare claim, health status, read metropolitan newspaper, and read free newspaper or shopper. Significant changes in these characteristics of elderly explain different levels of knowledge about FMRIS.

Based on the significant differences of the mean knowledge scores, the following is a descriptive profile of elderly consumers who are more knowledgeable of FMRIS; however, keep in mind the overall knowledge score of the elderly consumers were not sufficient. Elderly consumers who are more knowledgeable of FMRIS can be described as being younger, between the ages of 65 and 84, educated with a high school or college degree and with an annual income in excess of $20,000. These consumers are more social and are active members in both a local senior citizens' group and AARP. They purchase one or more health insurance policies like Medigap, long-term care, hospital indemnity and/or specified disease (such as cancer) insurance. When they do purchase Medigap, they purchase it directly from an insurance company and have turned in a claim on that policy. The more knowledgeable elderly consumer is not on Medicaid, but is definitely covered by Medicare part A and part B. They are in very good or excellent health and read free newspapers, shoppers' guides and/or a paid metropolitan newspaper like the Tulsa World or the Daily Oklahoman.

Elderly consumers with less knowledge of the FMRIS are 85 years old or older, not very educated, with less than a high school degree, and have annual incomes less than $10,000. The less knowledgeable groups are not socially active. They do not belong to a local senior citizens' group and are not members of AARP. They usually do not own other health insurance policies like Medigap; when they do

purchase Medigap insurance, they do not purchase it directly from an insurance company and they have not turned in any Medigap claims on their policies. They are more likely than not to be on Medicaid and in poor health. Their media behavior habits do not include reading free shoppers' guides or metropolitan newspapers like the Tulsa World or Daily Oklahoman.

Study Limitations

There are several limitations to this study. A few could not be avoided because of the type of subjects sampled and because of the dictates of the pilot study and focus groups. First, the biggest limitation of this study is that it cannot be used to generalize the results to other groups of elderly consumers. Because a convenience sampling technique had to be used to select the subjects, the results of this study cannot be generalized beyond the sample of elderly consumers selected. However, even with this limitation, the study still provides valuable information concerning elderly consumers' knowledge of FMRIS and the federal government's success in educating them about their rights, information sources and assistance and counseling offices.

Secondly, the scale developed by the researcher to measure knowledge was weakened when respondents in the pilot test and focus group demanded that multiple choice questions

be used instead of the five-point Likert scale items. The "yes," "no," and "don't know" choices forced the study to use mean percentage knowledge scores. This made the comparison of the means of the six types of FMRIS unequal. However, the central limit theorem theory of the normal curve, and a very large sample size, prevents this weakness from becoming a major problem (Ward, 1994).

The third limitation of this study was the arbitrary point that measures sufficient and insufficient knowledge of FMRIS; however, the panel of experts and past use in the United States educational system highly supported the criteria this study used to indicate sufficient and insufficient knowledge of FMRIS.

And finally, this study did not have a way of controlling the many variables in an elderly person's environment that determines the ability to receive information and decode its contents. This study limited its focus to determining if elderly consumers were knowledgeable of FMRIS, and if federal educational efforts were successful informing them about FMRIS. It did not investigate the readability of the content of the information Congress provided; or the appropriateness of the channels Congress used to inform elderly consumers of the changes in federal Medigap laws.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Summary

Soon after Medicare, the federal health insurance program for persons 65 years old and older, was enacted in 1965, the Medigap industry emerged, created by insurance companies in the mid-1970s, as a product to fill in the gaps for expenses that Medicare approved but did not pay. Most of the 20 million people who comprise the Medicare population purchase private health insurance. The Congressional Research Service estimated in 1990 that at least 40% of the Medicare population purchase Medigap insurance (Rovner, Congress Tightens, 1990). For Oklahoma, that would break down to approximately 166,800 elderly citizens.

The industry was less than five years old when questionable practices in the promotion and sale of Medigap insurance products caused Congress to develop federal regulations. Before this, Medigap was totally state regulated. Enactment of weak voluntary regulations by Congress did not curb the Medigap abuses. Congress took

drastic action when it passed the Omnibus Budget Reconciliation Act (OBRA) in 1990. With OBRA, Congress' intent was to drastically change the Medigap market without destroying it. These changes, along with congressional mandated educational programs, were intended to control the abuses and to make elderly consumers knowledgeable enough to make informed Medigap purchasing decisions. Since the Federal Medigap Regulations and Information Programs and Sources (FMRIS) are at the core of the knowledge issue, this study investigated elderly consumers' knowledge of these programs and sources. It focused on a sample of eastern Oklahoma elderly consumers 65 years old and older.

Conclusions

Several important findings resulted from the efforts of this study. Many of the results were statistically significant. First, according to the criteria established by this study and supported by a panel of experts, almost all (92%) of the elderly consumers sampled did not have sufficient knowledge of FMRIS. Although there was variance in the mean knowledge scores, the elderly consumers did not have sufficient knowledge of any of the six types of FMRIS: duplication, limitations/preexisting conditions, simplification, renewability regulations, information sources, and counseling services. The conclusions that can be drawn from these initial results are that this sample of

elderly consumers does not have adequate knowledge to make informed Medigap purchasing decisions and that federal educational efforts obviously have not been successful.

The results of this study support previous research by Flynn (1989) that indicated the need for elderly consumers to have sufficient knowledge when purchasing Medigap policies. Davidson, Sofaer, & Gertler (1990) found that changes in knowledge and improved knowledge produce changes in Medigap policy choices made. The insufficient knowledge of the types of FMRIS also supports Short and Vistnes' (1992) research. Despite federal Medigap regulations and educational efforts, these researchers found that more than 500,000 Medicaid enrollees had purchased private insurance. Obviously, the consumers did not have sufficient knowledge or they would not have purchased a health insurance policy that duplicates Medicaid. These Medicaid enrollees spent limited funds on health insurance that they already had and cannot use because Medicaid coverage is very comprehensive.

Secondly, an ANOV test found a significant difference between the mean knowledge elderly consumers have of the six types of FMRIS. From this, it can be concluded that elderly consumers are more knowledgeable of specific types of FMRIS than others. Even though elderly consumers were not sufficiently knowledgeable, it also can be concluded that federal educational efforts or some other source of education have done a better job informing elderly consumers about certain types of FMRIS than others. Statistically

significant pairwise comparison tests support this conclusion. For example, in rank order, elderly consumers are most knowledgeable of renewability regulations first (M=46.9) and duplication regulations second (M=44.0). These two regulations do not differ significantly between themselves, but both do differ significantly from limitation/preexisting conditions regulations (M=37.5), counseling services (M=26.6), publications (M=26.3), and simplification regulations (M=19.8).

These findings suggest that federal educational efforts appear to have done a somewhat better job making elderly consumers aware that insurance companies have to renew Medigap policies. The consumers know, for example, that insurers cannot charge them higher premium rates because of changed health conditions or because they have turned in a large number of claims in the past. The elderly also know that it is illegal for insurance salespersons or companies to sell them more than one policy and that one Medigap policy is all that is needed to fill in the gaps of what Medicare approves and does not pay.

On the other hand, it can be concluded that federal educational efforts or some other source of education have done a much better job informing elderly consumers that there are several types of private insurance choices available to supplement Medicare other than Medigap (M=67). These efforts have also done a much better job informing elderly persons that if they do not pay their premiums that

Medigap policies can be canceled (M=67). Also the insurance industry probably reminds their customers about premium due dates. Of course, it can be argued that the extraneous variables called "common sense" have taught elderly consumers these two facts rather than federal education efforts. In a capitalistic society, it is propagandized from birth that people have choices and that if people don't make monthly payments they can be evicted, get the car repossessed, or loose the rental TV set.

Pairwise comparisons did not find significant differences between publications and counseling services. This is probably because both are information based; however, they are completely different as a communication channel and in how the Medigap information is delivered and made available. It is surprising that federal educational efforts have not made elderly consumers sufficiently knowledgeable about the Guide to Health Insurance for People on Medicare because it is distributed through the mail and by the Social Security Administration and is available at area Social Security offices. This publication has been available for several years, but the elderly consumers who participated in this study indicated they did not know that such a publication existed or that any publication existed which could be used to compare Medigap policies, become familiar with their rights, or be informed on how to make adequate Medigap policy purchasing decisions.

The reasons why the elderly consumers' mean knowledge scores were so terribly low on limitation regulations (M=37) and simplification regulations (M=19.8) could be attributed to the fact that the Guide to Health Insurance for People on Medicare is the primary source that attempts to explain the Medigap marketing changes Congress mandated. It contains extensive discussions on FMRIS on which this study focused. It also contains a complete discussion of the 10 standardized Medigap plans and provides a simple comparison chart that indicates benefits under each plan. These charts simplify the Medigap plan comparison process. From this reasoning, it can be concluded that one of the keys to elderly consumers' knowledge of FMRIS is the Guide to Health Insurance for People on Medicare. This study indicated that federal educational efforts have not done a good job making elderly consumers aware of this publication.

The results of this study support previous research by Rice and Thomas (1992) that found the National Association of Insurance Commissioners' (NAIC) 10 prototype Medigap plans, mandated by Congress, make elderly consumers more informed by simplifying the benefits from which consumers can choose. It also supports and agrees with Brostoff's (1991) study that found the 10 standardized NAIC plans will enable elderly consumers to make clear choices, if they are aware of and have knowledge of the plans.

This study also concludes that federal educational efforts have not done an effective job making elderly

consumers aware of the toll-free telephone numbers, state agency telephone numbers, and state and federal agencies, offices, and locations where elderly consumers can go to receive one-on-one insurance counseling. These are vital points where elderly consumers can receive help answering difficult and confusing questions concerning their rights and federal regulations that affect their Medigap purchasing decisions.

Another factor causing insufficient FMRIS knowledge scores could be that the pilot programs for which Congress provided grants have only been in operation for a few years. For example, the Oklahoma Insurance Department applied for and received its grant in 1992. The grant is barely two years old and a state toll-free number was not operational until the state insurance department began the Senior Health Insurance Counseling Program. However, this does not explain why elderly consumers were not sufficiently aware of the federal, state or local government agencies and telephone numbers that were and still are listed in the back pages of the Guide to Health Insurance for People on Medicare. This study concludes that federal educational efforts have not done a good job informing elderly consumers about these programs. This study supports the conclusion that the key to a informed elderly Medicare population may be the publications, assistance, and counseling programs that Congress mandated.

A third major objective of this study was to determine if significant changes in the levels of selected variables (demographic, economic, social, Medicare and Medicaid participation, Medigap participation, health status, and media usage behavior) could be used to explain and describe the characteristics of elderly consumers based on their mean knowledge scores. It is obvious that federal educational efforts have done a better job making specific groups of elderly consumers more knowledgeable of FMRIS than other groups because the results of this study found the levels of 21 of the 40 selected variables to be statistically significant.

For example, the younger (65-74), more highly educated, and higher income elderly consumers were found to be significantly more knowledgeable of FMRIS than were the older (85 plus), less educated and lower income elderly consumers. This study's findings do not support Short and Vistnes' (1992) research that determined that relatively young, more educated and more financially secure Medicare beneficiaries were more likely to duplicate their Medigap insurance by purchasing coverage from more than one source. However, other significant findings of this study do indeed directly support Short and Vistness' research. This study found statistically significant differences between elderly consumers who do and do not purchase several different types of Medicare supplemental insurance. This study found that persons who purchase Medigap policies, long-term health

insurance, hospital indemnity insurance, and specified disease insurance are significantly more knowledgeable of FMRIS than those elderly consumers who do not. Evidently, federal educational efforts must make a difference for the multipolicy purchasing group.

Another important result this study found was the significant mean knowledge differences between those elderly consumers who purchase Medigap insurance directly from an insurance company and those who do not. Those who purchase directly from an insurance company are significantly more knowledgeable of FMRIS than those who do not. The study concludes that federal Medigap marketing regulations have been more effective with insurance companies than with independent insurance brokers and salesmen.

The submission of Medigap and Medicare claims is closely related to types of insurance experience. This study found that elderly consumers who have turned in Medigap or Medicare claims are significantly more knowledgeable than those who have not. When a person has to deal with all the paperwork involved in turning in health claims, one becomes more educated. This statistically significant finding suggests that federal educational efforts have not done a good job making those elderly persons with Medigap insurance who have never turned in a claim knowledgeable of FMRIS.

An identical conclusion can be drawn about people on Medicaid. This study found that elderly consumers on

Medicaid have significantly less knowledge of FMRIS than those not on Medicaid. Sufficient knowledge of FMRIS is very important to persons on Medicaid. This conclusion is supported by Short and Vistnes' (1992) study that found more than 500,000 Medicaid enrollees had purchased private insurance. This conclusion is also supported by two other statistically significant results of this study. Elderly consumers on parts A and B of Medicare were found to be significantly more knowledgeable of FMRIS than those who were not. Evidently, it can be concluded that the educational material provided by federal educational efforts has done a better job informing the Medicare population than the Medicaid population. This is reasonable since persons on Medicaid are assumed to be an elderly group which should not be in the market for Medigap insurance; therefore, they would not be targeted to receive federal educational materials and counseling.

This study directly supports Rice, McCall and Boismier's study (1991) that determined elderly persons in lower economic classes are more vulnerable to deception and those better off from a socioeconomic perspective appear to be making more effective Medigap choices. This conclusion was drawn because this study found higher income and educated consumers were significantly more knowledgeable of FMRIS than those elderly consumers with lower income and education characteristics.

It also appears that elderly consumers who are active and join senior citizen groups and AARP are significantly more knowledgeable than those who are less active and do not join groups. It can be concluded that elderly consumers who are more socially oriented and active may have more opportunities to come in contact with federal educational and informational sources. These organizations are a good outlet channel to use to reach the higher socioeconomic groups but not the lower socioeconomic groups. New techniques and methods will need to be developed to reach lower socioeconomic elderly consumers because it is obvious that federal educational efforts have not reached them.

Another important find of this study was the significant differences between the levels of elderly consumers' health status. Elderly consumers in excellent or good health were found to be significantly more knowledgeable of FMRIS than those in poor health. Without this information, it would have been easy to conclude that elderly persons in poor health would be more knowledgeable of FMRIS because they would have turned in a greater number of claims than elderly persons in good or excellent health. This result supports Resnik and Caballero's (1984) investigation that suggested consumers are at risk of a poor purchase outcome if they are in great need of the benefits of a product, and if those benefits are difficult to assess like Medigap health insurance. This study specifically shows that elderly consumers in poor health are the least

knowledgeable of FMRIS; therefore, they are more at risk than knowledgeable elderly consumers in excellent or good health.

The final point that needs to be mentioned about this study is the statistically significant differences found between two media behavior patterns of the elderly consumers used in this study. This study found that elderly consumers who read metropolitan newspapers (M=37.5) and free newspapers (M=38.6) are significantly more knowledgeable of FMRIS than those who do not read them. It is important to point out that the knowledge level of free newspaper readers is one percentage point higher than metropolitan newspaper readers. Normally, most metropolitan newspapers would carry public service announcements and stories about Medigap insurance, but free newspapers would not because they are typically mostly classified and display advertising with very little, if any, news content.

This study concludes that elderly consumers use all mass media. The local newspaper is a good channel for reaching elderly consumers with federal educational materials because it carries localized, detailed information to a greater degree than the broadcast media. However, other channels will be needed to reach the lower knowledge groups. If a public service and materials distribution campaign were developed to disseminate FMRIS materials and information, it should include the vast public and private service organizations and a full-scale media mix.

Implications and Recommendations

Even though different segments of the elderly consumers used in this study tended to have significantly more knowledge than other segments, indications were that federal educational efforts have not done an effective job making elderly consumers knowledgeable of FMRIS. Since over 92% of the elderly consumers sampled did not have sufficient knowledge of FMRIS, it is obvious they do not have a level of knowledge necessary to make informed Medigap purchasing decisions. Previous research and this study support a human capital approach to solving the problem. The goal should be to make all current elderly persons 65 years old and older and persons under 65 years old who are preparing for retirement knowledgeable of FMRIS. The human capital approach will primarily involve the efforts of three broad groups: government organizations and associations, business or industry, and individuals and family.

First, government policy makers and organizations should take the leadership role. Federal educational efforts should continue. The Medigap laws and regulations appear to be working; however, it is the lack of knowledge on the part of the elderly Medigap consumer that needs more attention. Competitive grants that set up counseling programs for the elderly should be continued and increased if possible. The federal government should take the lead in

setting realistic goals, and deadlines for the goals to be implemented. This effort should be spearheaded by the Health Financing Administration and the Department of Human and Health Services. These federal organizations should determine the percent of the elderly population that should have a sufficient knowledge of the FMRIS over a specific period of time.

Secondly, it is important for a formula or computer program to be developed that counselors, advisors, caregivers, and individuals themselves can use to determine the exact benefits of a Medigap policy that would be appropriate for an elderly consumer based on their budget constraints, and present and future insurance coverage needs. This suggestion is very reasonable since Congress has standardized the benefits and limited Medigap insurers to the 10 plans which can be marketed, especially since plans "A" through "J" are identical from company to company, no matter which insurance company markets them. The plans are identical, that is, in benefits, but not in price or service. Other features such as price and extra benefits, would simply be labeled in the proposal as extras. Each would be listed separately with their costs. It is also suggested that both a computerized software program be developed as well as a hand-administered formula that could be included in the Guide to Health Insurance for People on Medicare. The federal and state governments would assume leadership in this effort by providing research grants.

Educational and research institutions should take the lead and be primarily involved in conducting this research project. If grants could not be established from public sources, universities are in a unique position to seek out private grants from entrepreneurs. A computer software program that could be used by organizations and counselors is needed and would probably be very profitable for an entrepreneur.

State insurance offices have to be actively involved in the human capital approach since these places are often the ultimate authority on licensing and authorizing Medigap insurers and are considered to be the Medigap market regulators. In Oklahoma, state insurance offices have taken the lead role in providing elderly consumers with the information and counseling assistance necessary to make informed purchasing decisions. These offices are to be considered the experts the elderly contact and seek out for health insurance counseling and advice.

Previous research, this study, and policy makers have established that elderly consumers need to be aware that information materials, counseling services, and telephone numbers exist, and are free for the asking, before they can start to become knowledgeable. Because awareness is the first step, the third major implication this study suggests is a major public service campaign that can be implemented nationally, regionally, and on state and local levels. This research project found that elderly consumers were not even

remotely aware of all the changes Congress made to the Medigap market. Most consumers still believe the insurance industry has a free hand and can literally do whatever it wants. As this study's results suggest, the elderly were not even aware of tangible and very helpful printed materials like the Guide to Health Insurance for People on Medicare.

The suggested public service campaign should have extensive implications for the mass media. The media have a responsibility to society and to their loyal, elderly audiences (Commission on Freedom, 1947; Rivers, Schramm, & Christians, 1980). The media should want to participate vigorously in a public service campaign that would target a segment of the population on which their advertising clients are dependent. They should not only run news releases and advertisements, but they should put together special sections and editions, radio and TV talk show program segments, newspaper and magazine sections and features, and TV news magazine reports. The cable industry and public radio and television networks, independents, and regional and local stations should also be actively involved. This study suggests that such a public service campaign could be organized on the federal level by getting the Ad Council to take on the project.

On state and local levels, the leadership role should be taken by organizations like the Oklahoma Cooperative Extension Service, Association for Family and Community

Education, Inc., the state Department of Health and Human Services, and Oklahoma Community Action Foundation. These organizations are in a unique position to reach the elderly consumers county by county and community by community. This is especially true of the Oklahoma Cooperative Extension Service, which is accustomed to working with the media on state, regional, and local levels. They should include in their plans the media associations and chains.

And finally, the elderly individuals, their families, friends, and caregivers need to take the time and put forth the effort necessary to educate themselves with the materials provided by federal educational efforts. Human capital, economic, and consumer behavior benefits cannot be obtained without the active support of these groups. Many of the elderly consumers that participated in this study stated they did not know anything about insurance or their rights. Insurance and Medicare decisions are confusing and the paperwork is frustrating. Even so, without motivation on their part to learn more, any effort would be a wasted effort.

The three assumptions of the consumer preference theory can also be seen at work in this study. For example, this study shows that elderly consumers are not capable of becoming informed Medigap consumers because they are not aware of the simplification and standardization regulations of Medigap policies. This study indicates that the elderly consumers cannot rank (in order of preference) all the 10

types of policies being offered (market baskets) on the market because they are not aware of them.

The second assumption of consumer preference theory indicates the elderly consumers are rational when they purchase Medigap policies. This study indicates they are not being rational because they are not sufficiently aware of duplication regulations because many still do not know that only one Medigap policy is necessary and that it is illegal for an insurer to sell them more than one Medigap policy.

The third preference theory assumption is seen at work in this study because the elderly consumers do prefer more insurance benefits for each dollar spent. However, this study indicates they are not aware that the 10 standardized Medigap plans "A" through "J" are the same from insurance company to insurance company. Knowledge of FMRIS can make a difference in the preferences and choices when they purchase or switch Medigap insurance policies or insureres.

The results of this study also indicate the principles of communication theory are at work. This can be seen from the results which indicate elderly consumers do not have sufficient knowledge overall or of the six types of FMRIS. This study provides feedback for policy makers which indicate that Federal educational efforts did not select the proper channels for sending the information. The feedback also questions if the original message of the regulations were encoded and decoded properly because elderly consumers

were not aware of the FMRIS. There appears to be alot of semantical noise in the Congressional messages which is preventing them from being encoded and decoded properly by the elderly consumers.

Future Research

There are several types of future research needed. First, this study needs to be replicated on a national scale so results can be generalized nationally. Just as important is the need to determine the effectiveness of federal educational efforts concerning FMRIS. Tied to the national study is the need for each state to determine the knowledge level of its elderly consumers so that information and services needed to make informed Medigap purchasing decisions can be provided.

Secondly, future research should determine how knowledgeable the outreach and counseling personnel are who disseminate information and advise the elderly about their health insurance needs. This study ran across many counselors who did not know the correct answers themselves to the questions asked in the questionnaire. Research should also be done on availability of material and accessibility of assistance programs. Included with this idea would be a determination of usage of these materials and assistance programs. It might be futile, no matter what is done. Research should determine if materials and

information sources would be used by elderly consumers if they were made available. Readability and application studies should be conducted. For example, can the elderly read, understand and apply the information provided in the Guide to Health Insurance for People on Medicare? Or, do they understand what health insurance counseling is telling them? When providing insurance information to the elderly, we assume they can read and understand the material. Research should be conducted to determine the educational levels required to read and interpret present materials.

And finally, the development of a formula and computer software program would be a priority alone with the public service campaign. If a program formula could be developed so all that was required of an individual was to enter the basic information and a suggested plan be provided, it would be a great asset to elderly consumers, the insurance industry, and elderly outreach organizations and counselors. Research could determine if such a concept is possible and test market it for its reliability.

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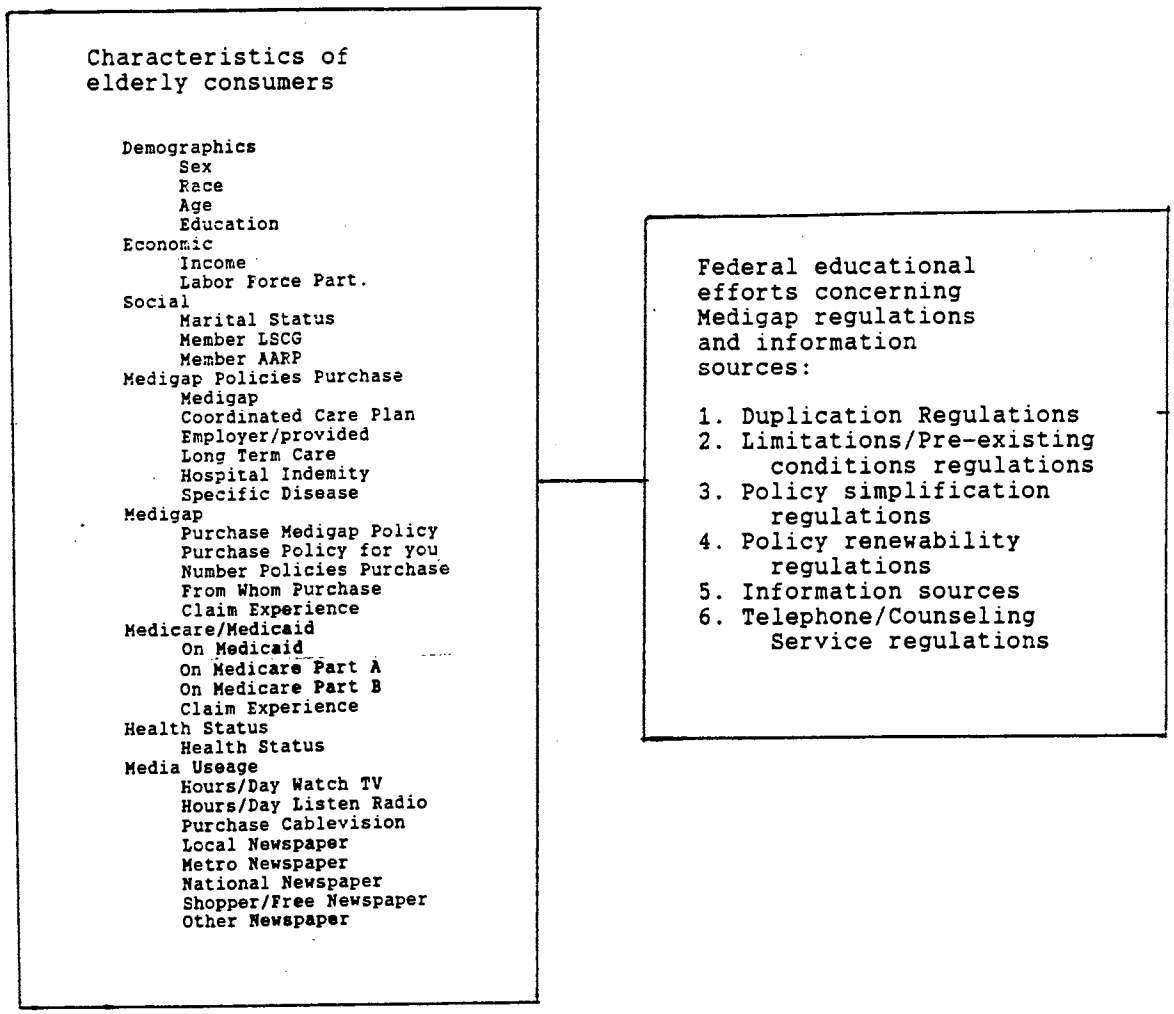
APPENDICES

APPENDIX A

MODEL I. Descriptive model of how changes in characteristics of elderly consumers explain knowledge of Federal Medigap regulations and information sources.



APPENDIX B

Dear Elderly Consumer,

This research project is the last requirement I need to complete my doctoral degree at Oklahoma State University; however, to finish it, I need your help. Please complete the attached questionnaire. It asks you some questions about your knowledge of your rights and about federal regulations concerning Medicare supplemental health insurance.

Your responses will be completely confidential and you cannot be identified in any manner. This is not a marketing survey and it is not affiliated with any insurance company, agent, or salesperson.

Thank you very much for your help.

Sincerely,

Rodney Osborne
Graduate Student
Oklahoma State University

INSTRUCTIONS: This questionnaire will take only a few minutes to complete. In this first section, we would like to know what knowledge you have about Medicare supplemental health insurance. Please place an "x" or "check mark" in the box beside the appropriate answer. Please answer all questions.

1. Other than Medicare supplemental insurance, are there any other types of private insurance policies available to help pay for medical expenses that Medicare covers only partly or not at all?

   [___] 1 Yes
   [___] 2 No
   [___] 3 Don't know

Definition: Applies to question number 2. CMPs and HMOs are coordinated care plans from which you purchase health care services direct for a fixed monthly premium. The plans designate which doctors or medical facilities to use.

2. If you are enrolled in a Health Maintenance Organization (HMO) or a Competitive Medical Plan (CMP) that has a contract with Medicare, do you need Medicare supplemental insurance?

   [___] 1 Yes
   [___] 2 No
   [___] 3 Don't know

3. Does a person need more than one Medicare supplemental insurance policy to be fully covered?

   [___] 1 Yes
   [___] 2 No
   [___] 3 Don't know

4. Do people on Medicaid need Medicare supplemental insurance?

   [___] 1 Yes
   [___] 2 No
   [___] 3 Don't know

5. Is an insurance company or it's agent breaking the law if they sell a person more than one Medicare supplemantal insurance policy?

   [___] 1 Yes
   [___] 2 No
   [___] 3 Don't know

6. If your doctor tells you that you need an operation within 4 or 5 months, could you purchase a Medicare supplemental insurance policy now that would help pay for the operation?

   [___] 1 Yes
   [___] 2 No
   [___] 3 Don't know

Definition: Applies to questions 7-10. The 6 month Medicare supplemental insurance open enrollment period starts when a person's Medicare Part B coverage begins.

7. During this open enrollment period, can an insurance company refuse to sell an eligible person a Medicare supplemental insurance policy based on poor health?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

8. During this open enrollment period, can the cost of a Medicare supplemental insurance policy be based on good or poor health conditions?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

9. During this open enrollment period, can an insurance company refuse to sell an eligible person a Medicare supplemental insurance policy because he/she has turned in a lot of health insurance claims in the past?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

10. If you have an illness at the time you first purchase a Medicare supplemental insurance policy, what is the longest period of time would you have to wait before the policy would cover treatment costs?

[___] 1 No waiting period
[___] 2 Three months
[___] 3 Six months
[___] 4 Nine months
[___] 5 Twelve months
[___] 6 Don't know

11. Does Medicare supplemental insurance pay all, of what Medicare does not pay?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

12. How many types of Medicare supplemental insurance policies or benefit plans are there?

[___] 1 Three
[___] 2 Five
[___] 3 Eight
[___] 4 Ten
[___] 5 More than ten
[___] 6 Don't know

13. Is the core benefit plan (Plan "A") carried by all Medicare supplemental insurance carriers?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

14. Is Plan "J" considered to be the most comprehensive plan carried by some Medicare supplemental insurance carriers?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

15. Is Medicare supplemental insurance a government sponsored program?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

16. Once you have purchased a Medicare supplemental insurance policy, does the insurance company have to continually renew your policy each year?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

17. If you forget to pay your monthly or yearly premium fee for your Medicare supplemental health insurance policy, can the insurance company cancel your policy?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

18. Lets say your health became poor for a long period of time, can the insurance company cancel your Medicare supplemental health insurance policy?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

19. Are you aware of any booklet or publication that can be obtained from any federal, state, or local government office that helps you make decisions in purchasing Medicare supplemental polices?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

20. Are you aware of any booklet or publication that can be obtained from any federal, state, or local government office that provides you with a guide or checklist that you can use to compare different Medicare supplemental insurance policies?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

21. Have you ever seen or read a booklet or publication that can help you make decisions purchasing a Medicare supplemental policy?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

22. Have you ever read or used the booklet titled Guide to Health Insurance for People With Medicare.

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

23. Are you aware of a state telephone number you can call to get help and counseling about Medicare supplemental insurance policies?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

24. Are you aware of any state agency or office in which you can recieve counseling concerning Medicare supplemental insurance?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

25. Overall, how do you rate your knowledge of your rights concerning Medicare supplemental insurance?

[___] 1 Very knowledgeable
[___] 2 Somewhat knowledgeable
[___] 3 Not very knowledgeable
[___] 4 Not at all knowledgeable

In this last section, we need to obtain some general information so that your responses can be grouped with those of others. Please place an "x" or a "check mark" in the box beside the appropriate answer. Please answer all questions.

26. What is your sex?

[___] 1 Male
[___] 2 Female

27. What is your race?

[___] 1 White
[___] 2 Black
[___] 3 Hispanic
[___] 4 Native America
[___] 5 Other, explain_____

28. What is your age?

[___] 1 65 - 74 years
[___] 2 75 - 84 years
[___] 3 85 years and over

29. What is your marital status?

[___] 1 Never married
[___] 2 Married
[___] 3 Divorced
[___] 4 Widowed

30. What is your highest level of education?

[___] 1 Less than high school
[___] 2 High school
[___] 3 Trade School
[___] 4 Some college
[___] 5 Graduated college

31. What is your household's total annual income?

[___] 1 Under $10,000
[___] 2 $10,000 - $19,999
[___] 3 $20,000 - $29,999
[___] 4 $30,000 - $39,999
[___] 5 $40,000 or more

32. What is your health status?

[___] 1 Excellent
[___] 2 Good
[___] 3 Fair
[___] 4 Poor

33. Are you retired?

[___] 1 Yes
[___] 2 No

34. Are you a member of a local Senior Citizen group?

[___] 1 Yes
[___] 2 No

35. Are you a member of AARP?

[___] 1 Yes
[___] 2 No

36. Are you on Medicaid?

[___] 1 Yes
[___] 2 No
[___[3 Don't know

37. Are you on Medicare Part A?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

38. Are you on Medicare Part B?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

39. Do you purchase any Medicare supplemental insurance policies to pay what Medicare approves and does not pay?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

40. Is a Medicare supplemental insurance policy being purchased for you by someone other than yourself (relative, past employer, government organization)?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

41. How many total Medicare supplemental insurance policies are you purchasing, and/or are being purchased for you (Do not count Medicare or Medicaid)?

[___] 1 None
[___] 2 One
[___] 3 Two
[___] 4 Three
[___] 5 Four or more
[___] 6 Don't know

42. If you or someone else purchases for you a Medicare supplemental insurance policy, from whom is it purchased?

[___] 1 Direct from an insurance company
[___] 2 Insurance agent or salesperson
[___] 3 Through direct mail
[___] 4 By telephone
[___] 5 Through employer/ex-employer
[___] 6 Retirement association
[___] 7 Union
[___] 8 Other, explain_____

43. Have you or someone else ever turned in a Medicare claim on yourself?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

44. Have you or someone else ever turned in a Medicare supplemental insurance claim on yourself?

[___] 1 Yes
[___] 2 No
[___] 3 Don't know

45. Please estimate the number of hours a day you watch TV._____

46. Do you have cablevision?

[___] 1 Yes
[___] 2 No

47. Please estimate the number of hours a day you listen to radio._____

48. Which of the following newspapers do you read fairly regularly?

[___] 1 Local newspaper
[___] 2 Metropolitan newspaper, like Tulsa World, Daily Oklahoman
[___] 3 National newspapers, like USA Today, Wall Street Journal, Christian Science Moniter, etc.
[___] 4 Free Newspaper, Buyers Guide, or Shopper
[___] 5 Other, explain_____

49. A variety of private insurance policies is available to help pay for medical expenses, services and supplies that Medicare covers only partly or not at all. Please indicate <u>any</u> of the folowing types of policies you believe you have.

[___] 1 Medicare supplement policy, which pays some of the money amounts that Medicare does not pay for covered services.

[___] 2 Coordinated care plan (this includes health maintenance organizations (HMOs) and competitive medical plans (CMPs), from which you purchase health care services directly for a fixed monthly premium.

[___] 3 Continuation or conversion of an employer-provided or other policy you had when you reached 65.

[___] 4 Nursing home or long-term care policies, which pay cash amounts for each day of covered nursing home or at-home care.

[___] 5 Hospital indemnity policy, which pays cash amounts for each day of inpatient hospital services.

[___] 6 Specified disease policies, which pay only when you need treatment for the disease you're insured against, such as a cancer policy.

APPENDIX C

PILOT STUDY

ELDERLY CONSUMERS' KNOWLEDGE OF MEDIGAP REGULATIONS

SAMPLE

One hundred subjects agreed to participate in this pilot study. However, eleven of the subjects changed their minds and did not participate because they thought the researcher was an insurance salesperson, they failed to return the questionnaire, or they could not be reached. Eighty-nine of the 100 subjects were selected from the persons attending Cookson Hills Senior Center Activities. Thirty-three of these were not usable because the subjects had problems or refused to complete the second part of the questionnaire, which dealt with the knowledge of Medigap regulations. The subjects stated that the matrix format of this section was confusing to them. This finding needs to be implemented in the final study.

The 56 useable subjects are as follows: sixty-four percent of the subjects were female, and 36 percent were male. The majority were 65 years old or older (70 percent), white (84 percent), married (66 percent), retired (80 percent), and had household incomes of less than $20,000 annually (66 percent). Forty-one percent had some sort of education after high school while 27 percent never graduated from high school. Sixteen percent were Native Americans, 20 percent had spouses deceased, and 13 percent were divorced. The subjects indicated their health was fair or better (86 percent). Most had some form of health insurance (84 percent) and had used their insurance in the last 12 months (77 percent). When asked who made the health insurance decisions, 39 percent said they did it

jointly (husband and wife), 27 percent said husband, and 13 percent said the wife.

DATA COLLECTION METHODS

A survey questionnaire was used to collect the data. The researcher personally handed out the questionnaires and assisted subjects who needed help.

ANALYSIS

A frequency and percentage distribution was used to describe the sample and determine the overall pattern of whether or not elderly consumers were knowledgeable about Medigap.

Contingency tables were developed to determine if a relationship existed between age and knowledge of one of the Medigap items. Chi-square tests were run to determine whether or not the relationships were significant. Yule's Q correlation was used to determine the strength and direction of any of the relationships.

Elaboration models were used to determine if the original relationship remained constant after controlling for several demographic variables (income, sex, and education).

FINDINGS

The pilot study found that all of the 89 subjects completed the first part of the questions, which mostly asked for demographic information (attached). Completion rates on questions 11, 12, 13, 14, and 15 of the first section were mixed, and it was was obvious that these questions need to be reworded, reformatted and/or discarded. The value of the information these questions will yield is unclear. Perhaps they should be replaced with questions such as "How many Medigap policies do you currently purchase?" This deals directly with duplication of Medigap policies.

Where subjects get their information is another question that shall be asked because it deals with OBRA-1990 regulations dealing with Medigap purchasing and information assistance programs.

The open ended questions did not do well for this age group. Multiple choice should be used instead in the dissertation study.

The second part of the questionnaire had a terrible completion rate. This section dealt entirely with elderly consumers' knowledge of Medigap regulations. Thirty-three of the 89 subjects refused to answer these questions. Comments from those who completed the section and those who did not indicated that the matrix format of the questions was very confusing, hard to follow, and difficult to keep the scale meanings straight. A multiple choice format similar to the demographic information questions was preferred by the subjects and will be used in the dissertation study.

Item-to-total correlations and probabilities of relationships were run on the 28 items in the second section of the questionnaire (Table 1). Items that showed a significant relationship above the .05 level and also had a strength of relationship below .30 are being considered to be excluded from the dissertation study or rewritten if these extreme statistics showed up in the item-to-total correlations. Fifteen items (questions 4, 19, 6, 21, 25, 26, 27, 28, 10, 11, 15, 16, 23, 8, and 22) have weak and nonsignificant relationships (Table 1). One dimension, renewability, would be eliminated with this criteria. Duplication and simplification regulations showed very strong relationships to knowledge of Medigap regulations. Limitations and Refundable dimensions showed moderate relationships to knowledge.

Input from the committee is requested on which items they believe should be excluded or retained, and if any new items should be added to either section of the questionnaire.

Frequency distributions (Table 2) of elderly consumers' knowledge level of Medigap dimensions and items (n=56) indicate that between 18.5 percent and 23.2 percent of the elderly consumers thought they knew about the 28 items that measured their knowledge of Medigap regulations but didn't. Between 55.1 percent and 67.9 percent admitted they didn't know and between 13 percent and 24 percent did know about Medigap.

OBRA 1990 was intended to change the Medicare supplemental health insurance market so elderly consumers would be better informed to make purchasing decisions. The frequency and percentage distributions of this pilot study clearly indicate that COBRA is not affecting elderly consumers' knowledge of Medigap as Congress intended. For example, only 13 to 24 percent had knowledge about Medigap. This leaves 76 percent without any knowledge.

The pilot study also looked at the relationship between the age of elderly consumers and their knowledge of Medigap. Table 3 shows the results of this test, which indicate no significant relationship at the $p = .05$ level exists. The relationship is negative, and very weak. Further tests were run to see if this original relationship would hold after controlling for income, sex, and education.

Table 4 reveals that when controlling for income at less than $20,000, and $20,000 and more, the original no relationship does not hold. For elderly consumers with incomes less than $20,000, the relationship is moderate with $Q = .47$. The proportions are not acceptable at the $p = .25$ level. However, for elderly consumers who have annual incomes of $20,000

or more, the relation between age and knowledge is negative and strong, and the relationship is significant at the .02 level. Yule's Q shows that the original relation increased from -.17 to -.85. A specification elaboration analysis indicates that income is an intervening variable. Income intervenes after age and helps cause knowledge of the regulations of Medigap insurance.

These partials indicate that income affects knowledge of Medigap age groups. Low income elderly under 65 are less knowledgeable than higher income elderly 65 or older. What could explain this difference? You would think elderly consumers 65 or older would know more about Medigap than those under 65 because Medigap is not purchased until the buyer is older and on Part B of Medicare.

Table 4 also shows that elderly consumers 65 years old and older and with less income are more knowledgeable about Medigap than higher income elderly consumers 65 years old or older. What could explain such a strong negative association between age and income for higher income elderly? One would think that as one increases in age, his knowledge of Medigap regulations would increase because he is more capable of purchasing Medigap. Table 4 clearly shows that as the elderly's income increases, their knowledge of Medigap increases for those under 65 and decreases for those 65 and older. This data indicates that higher income persons 65 and over are the higher risk group. This could be due to health reasons or to a small disproportionate sample.

When controlling for sex, the original relationship does not hold. Table 5 shows that for males, the relationship did not change (Q = .20) It did change for females; however, the change was moderate and the relationship was not significant at the p = .31 level. As females age,

they become less knowledgeable about Medigap regulations. This change is because sex is a spurious, antecedent variable that comes before age or knowledge of Medigap regulations. The male partial remains unchanged, but the female partial increases its negative association from -.17 to -.36.

The original relationship does not hold whenever education is held constant. Education is a specification variable because it intervenes between age and knowledge, and the strength increases significantly for both partials. However, the direction of the relationship also changes for the high school or less partial from Q = -.17 to Q = .58 (Table 6). Both Qs (.58 and -.67) are very strong associations over and above the -.17 association of the original relationship.

The association is not significant for the less educated and is significant for the higher education group at the p = .07 level.

Table 6 shows that less educated elderly consumers under age 65 are less knowledgeable about Medigap and become more knowledgeable with more formal education. Elderly consumers 65 plus become slightly less knowledgeable about Medigap as their education increases. This is a surprising find. This researcher assumed that as education and age both increased, so would knowledge of Medigap.

CONCLUSIONS

If the Bacus Amendment and COBRA 1990 were intended to increase the knowledge level of elderly consumers about Medigap insurance so they could make informed purchasing decisions, this pilot study, with its small sample, indicates that the legislation has not been effective to date. It should be pointed out that by no means does this research or researcher imply that the legislation has not been beneficial. The Medigap laws were intended to achieve many objectives, of which increasing knowledge of

Medigap was just one. However, this study is evidence that tends to support the idea that the Medigap laws have not increased elderly consumers knowledge to a level at which congress and elderly consumers would be satisfied.

The results of this pilot study support the need for a comprehensive study that would add to the literature and further evaluate COBRA-1990's effect on elderly consumers' knowledge level of Medigap. It is recommended that this study be replicated with a revised measuring instrument and a larger sample size. Descriptive statistics are needed to identify the at risk groups (those who thought they knew but didn't and the group that admitted they didn't know). Describing the two at risk groups for policymakers and education disseminating organizations, not to mention the organizations COBRA-1990 mandated as Medigap educators and information assistance disseminators, would be a valuable contribution to the family and consumer economic disciplines.

Table 1. Item to Total Correlations for Pilot Test Questionnaire*

	Item to Total Dimension	Dimension to Total	Item to Total
Duplication		.63 .00	
1. Medigap minimizes lability for health care services.	.67 .00		.52 .00
2. Health maintenance orginizations minimize liability for health care services.	.48 .00		.41 .00
3. Employer-provided health insurance minimizes liability for health care services.	.63 .00		.35 .01
4. Medicaid eligible people usually need additional insurance.	.27 .04		.10 .46
18. The sale of heaalth insurance that duplicates a person's Medigap policy or Medicaid is prohibited.	.42 .00		.25 .06
19. The insurance company is required to obtain a written statement that a person intends to cancel the first policy after the new policy becomes effective.	.47 .00		.22 .11
20. Medigap policies can be sold to persons on Medicaid if the state pays the premiums.	.41 .00		.33 .01
Limitations		.30 .02	
5. Pre-existing condition restrictions can be imposed during Medigap's open enrollment period.	.24 .08		.55 .00
6. The 6-month Medigap open enrollment period starts whenever a person chooses to purchase a Medigap policy.	.42 .00		-.18 .18
7. During the 6 month open enrollment period persons have the choice of any of the different Medigap policies sold by any insurer.	-.11 .44		.53 .00
21. Medigap policies are required to cover pre-existing conditions as soon as the policy becomes effective for 6 months.	.65 .00		-.03 .83

Table 1 continued

	Item to Total Dimension	Dimension to Total	Item to Total
Because of a person's medical history, health status, or claims experience, during the 6 month open enrollment period, the insurance company:			
25. can deny persons a Medigap policy	.79 .00		.16 .23
26. can condition the issuance of a Medigap policy.	.81 .00		.06 .64
27. can condition the effectiveness of a Medigap policy.	.79 .00		.02 .90
28. can discriminate in the pricing of a Medigap policy.	.51 .00		.05 .71
Simplification		.59 .00	
9. Medigap pays most, if not all, of what Medicare approves and does not pay.	.38 .00		.41 .00
10. Medigap always provides coverage for Medicare's deductibles.	.18 .18		.06 .66
11. Most Medigap policies pay the same supplemental benefits regardless of the health care provider.	.40 .00		.20 .13
12. Medigap insurance carriers can offer up to 10 plans ranging from "A" to "J".	.78 .00		.58 .00
13. Plan "A" is the core benefit plan carried by all Medigap insurance carriers.	.61 .00		.72 .00
14. Plan "J" is the most comprehensive plan carried by some Medigap insurance carriers.	.78 .00		.42 .00
15. All of the 10 standard Medigap plans pay for limited services not covered by Medicare.	-.13 .34		-.29 .03
16. Some of the 10 standard Medigap plans pay for charges in excess of Medicare's approved amount.	.29 .03		.08 .56
23. Insurance to supplement Medicare is a government sponsored program.	.32 .02		.02 .87

Table 1 continued

	Item to Total Dimension	Dimension to Total	Item to Total
Renewability		.21 .13	
8. Under certain circumstances persons can request that Medigap benefits and premiums be suspended for up to 2 years while they are covered by Medicaid.	.64 .00		.06 .65
22. Medigap policies are now guaranteed renewable.	.75 .00		.22 .11
Refundable		.38 .00	
24. Within 30 days of the purchase of a Medigap policy, a person may cancel it for a full refund of all premiums.	1.00 .00		.38 .00

*Pearson Correlations are top numbers. Bottom numbers are probabilities.

Table 2. Frequency distribution of elderly consumers' knowledge level of Medigap dimensions and items.

Medigap Dimension	Medigap item**	Thought they knew but didn't	Admitted they didn't know	Did know
Duplicate	1	8	34	14
	2	10	31	15
	3	12	22	22
	4	25	14	17
	18	8	37	11
	19	11	36	9
	20	10	42	4
Subtotals		84 (21.4)*	216 (55.1)	92 (23.5)
Limitations	5	10	35	11
	6	8	35	13
	7	8	34	14
	21	12	34	10
	25	14	29	13
	26	13	33	10
	27	10	38	8
	28	8	36	12
Subtotals		83 (18.5)	274 (61.2)	91 (20.3)
Simplification	9	14	25	17
	10	7	31	18
	11	14	34	8
	12	9	33	14
	13	13	35	8
	14	7	35	14
	15	14	33	9
	16	10	33	13
	23	5	31	20
Subtotals		93 (18.5)	290 (57.5)	121 (24)
Renewability	8	13	40	3
	22	10	36	10
Subtotals		23 (20.5)	76 (67.9)	13 (11.6)
Refundable	24	13 (23.2)	36 (64.2)	7 (12.5)

*Numbers in parenthesis are percentages.
**See questionnaire for exact wording of Medigap item.

Table 3. Relationship between knowledge of Medigap and Age of elderly consumers.

Knowledge of Medigap	Less than 65	65 plus
No knowledge	10 (58.82)*	26 (66.67)
Knowledge	7 (41.18)	13 (83.33)
Totals	17	39

X2 = .317, d.f. = 1, p = .57, Q = -.17
*Numbers in parenthesis are percentages.

Table 4. Relationship between knowledge of Medigap and Age holding income constant.

Knowledge of Medigap	Less than $20,000		$20,000 and more	
	Less than 65	65 plus	Less than 65	65 plus
No knowledge	8 (80)*	16 (59.26)	2 (28.57)	10 (83.33)
Knowledge	2 (20)	11 (40.74)	5 (71.43)	2 (16.67)
Totals	10	27	7	12

*Numbers in parenthesis are percentages.
Less than $20,000's x2 = 1.38, d.f. = 1, p = .24, Q = .47
$20,000 and more. Warning: more than one-fifth of fitted cells are sparse (Frequency < 5). Significance tests are suspect.
X2 = 5.70, d.f. = 1, p < .02, Q = -.85

Table 5. Relationship between knowledge of Medigap and Age holding sex constant.

Knowledge of Medigap	Male		Female	
	Less than 65	65 plus	Less than 65	65 plus
No knowledge	4 (66.67)*	8 (57.14)	6 (54.55)	18 (72.00)
Knowledge	2 (33.33)	6 (42.86)	5 (45.45)	7 (28.00)
Totals	6	14	11	25

*Numbers in parenthesis are percentages.
Male: X2 = .16, df = 1, p = .69, Q = .20
Female: X2 = 1.05, df = 1, p = .31, Q = -.36
(Warning: more than one-fifth of fitted cells are sparse (Frequency < 5). Significant tests are suspect.

Table 6. Relationship between knowledge of Medigap and age holding education constant.**

Knowledge of Medigap	High School or less		Some college and more	
	Less than 65	65 plus	Less than 65	65 plus
No knowledge	6 (85.71)*	16 (61.54)	4 (40.00)	10 (76.92)
Knowledge	1 (14.29)	10 (38.46)	6 (60.00)	3 (23.08)
Totals	7	26	10	13

*Numbers in parenthesis are percentages.
High School or less: X2 = 1.45, df = 1, p = .23, Q = .58
Some college and more: X2 = 3.24, df = 1, p = .07, Q = -.67
**Warning: More than one-fifth of fitted cells are sparse (frequency < 5). Significant tests are suspect.

SECTION 1 - PILOT STUDY QUESTIONNAIRE
MEDIGAP INSURANCE CONSUMER KNOWLEDGE

General Information. Please indicate the appropriate item or group for each of the following items:

1. **What is your sex?**

   [__] 1 Male
   [__] 2 Female

2. **What is your race?**

   [__] 1 White
   [__] 2 Black
   [__] 3 Hispanic
   [__] 4 Native American
   [__] 5 Asian, Oriental
   [__] 6 Other, explain _____

3. **What is your age?**

   [__] 1 less than 16 years
   [__] 2 16 - 24 years
   [__] 3 25 - 34 years
   [__] 4 35 - 44 years
   [__] 5 45 - 54 years
   [__] 6 55 - 64 years
   [__] 7 65 - 75 years
   [__] 8 75 - 84 years
   [__] 9 85 years and over

4. **What is your marital status?**

   [__] 1 Never married
   [__] 2 Married
   [__] 3 Separated
   [__] 4 Divorced
   [__] 5 Widowed

5. **What is your education?**

   [__] 1 Eithth grade or less
   [__] 2 Some High School
   [__] 3 Graduated High School
   [__] 4 Some College
   [__] 5 Graduated College
   [__] 6 Post-Graduate Work
   [__] 7 Other _____

6. **What is your occupation?**

   [__] 1 Professional/Management
   [__] 2 Technical/Clerical/Sales
   [__] 3 Precision/Craft
   [__] 4 Retired
   [__] 5 Other _____

7. What is your total annual income?

[__] 1 Under $10,000.
[__] 2 $10,000. - $19,999.
[__] 3 $20,000. - $29,999.
[__] 4 $30,000. - $39,999.
[__] 5 $40,000. - $49,999.
[__] 6 $50,000. - $59,999.
[__] 7 $60,000 or more

8. What is your health status?

[__] 1 Excellent
[__] 2 Good
[__] 3 Fair
[__] 4 Poor
[__] 5 Do not know

9. Do you yourself have any medical, hospital or health insurance?

[__] 1 Yes
[__] 2 No
[__] 3 Do not know

10. Which person makes the health care insurance decisions in your family?

[__] 1 Husband
[__] 2 Wife
[__] 3 Husband and Wife Jointly
[__] 4 Son or Daughter
[__] 5 Other _____

11. Please mark the types of insurance you currently are covered by or carry.

[__] 1 Medicare
[__] 2 Medigap (Medicare Supplemental Health Insurance)
[__] 3 Medicaid
[__] 4 Health Maintenance Organization (HMO)
[__] 5 Independent Practice Association (IPA)
[__] 6 Other, explain _____
[__] 7 Do not know

12. Please mark the source of your Medical, Hospital, or Health Insurance.

[__] 1 Group Insurance from place of work
[__] 2 Group Insurance from a membership group
[__] 3 Insurance through an insurance agent or broker
[__] 4 Insurance directly from an insurance company (no agent)
[__] 5 Insurance in response to mail advertising or telephone solicitation
[__] 6 Insurance in response to newspaper or magazine advertising (no agent)
[__] 7 Other _____

13. Have you filed a claim on your Health Insurance in the last 12 months?

[__] 1 Yes
[__] 2 No
[__] 3 Do not know

14. Before now, were you aware of any Medicare supplemental insurance laws passed in the last 5 to 7 years?

[__] 1 Yes
[__] 2 No

If yes, please explain:_____

_____

15. Where do you get your information about Medicare supplemental health insurance?

Explain sources:_____

_____

SECTION 2 - PILOT STUDY QUESTIONNAIRE

New federal regulations that went into effect on or before July 30, 1990 changed many things about how Medigap policies could be marketed and the benefits they could offer. The following statements are specifically concerned with these changes and have been worded so we can determine the degree you believe they are correct or incorrect.

Please circle the number that comes closest to your belief about the statement with "1" meaning I'm absolutely sure its incorrect (AI), "2" meaning I think its incorrect but I'm not certain (I), "3" meaning I don't know (DK), "4" meaning I think its correct but I'm not real sure (C), and "5" meaning I'm absolutely sure its correct (AC).

	AI	I	DK	C	AC
1. Medigap minimizes liability for health care services	1	2	3	4	5
2. Health maintenance orginizations minimize liability for health care services	1	2	3	4	5
3. Employer-provided health insurance minimizes liability for health care services	1	2	3	4	5
4. Medicaid eilgible people usually need additional insurance	1	2	3	4	5
5. Pr-eexisting condition restrictions can be imposed during Medigap's open enrollment period	1	2	3	4	5
6. The 6-month Medigap open enrollment period starts whenever a person chooses to purchase a Medigap policy	1	2	3	4	5
7. During the 6 month open enrollment period persons have the choice of any of the different Medigap policies sold by any insurer	1	2	3	4	5
8. Under certain circumstances persons can request that Medigap benefits and premiums be suspended for up to 2 years while they are covered by Medicaid	1	2	3	4	5
9. Medigap pays most, if not all, of what Medicare approves and does not pay	1	2	3	4	5
10. Medigap always provides coverage for Medicare's deductibles	1	2	3	4	5
11. Most Medigap policies pay the same supplemental benefits regardless of the health care provider	1	2	3	4	5
12. Medigap insurance carriers can offer up to 10 plans ranging from "A" to "J"	1	2	3	4	5
13. Plan "A" is the core benefit plan carried by all Medigap insurance carriers	1	2	3	4	5
14. Plan "J" is the most comprehensive plan carried by some Medigap insurance carriers	1	2	3	4	5

15. All of the 10 standard Medigap plans pay for limited services not covered by Medicare	1	2	3	4	5
16. Some of the 10 standard Medigap plans pay for charges in excess of Medicare's approved amount	1	2	3	4	5
17. Long-Term Care, Hospital Indemnity, and Specified disease policies can be substituted for Medigap insurance	1	2	3	4	5
18. The sale of health insurance that duplicates a person's Medigap policy or Medicaid is prohibited	1	2	3	4	5
19. The insurance company is required to obtain a written statement that a person intends to cancel the first policy after the new policy becomes effective	1	2	3	4	5
20. Medigap policies can be sold to persons on Medicaid if the state pays the premiums	1	2	3	4	5
21. Medigap policies are required to cover pre-existing conditions as soon as the policy becomes effective for 6 months	1	2	3	4	5
22. Medigap policies are now guaranteed renewable	1	2	3	4	5
23. Insurance to supplement Medicare is a government sponsored program	1	2	3	4	5
24. Within 30 days of the purchase of a Medigap policy, a person may cancel it for a full refund of all premiums	1	2	3	4	5

Because of a person's medical history, health status, or claims experience, during the 6 month open enrollment period, the insurance company:

	AI	I	DK	C	AC
25. can deny persons a Medigap policy	1	2	3	4	5
26. can condition the issuance of a Medigap policy	1	2	3	4	5
27. can condition the effectiveness of a Medigap policy	1	2	3	4	5
28. can discriminate in the pricing of a Medigap policy	1	2	3	4	5

APPENDIX D

Table 1

COMPARISON OF SAMPLE'S CHARACTERISTIC TO THE CHARACTERISTICS OF OKLAHOMA AND NATIONWIDE BY SEX, RACE, AND AGE

	Percentage Distribution		
	Sample[1] (%)	State of Oklahoma[2] (%)	Nation[3] (%)
Sex			
Male	33	40	40
Female	67	60	60
Race			
White	88	89	89
Black	3	5	8
Hispanic	1	1	3
Native American	8	5	.004
Other			
Age			
65-74 years	50	55	58
75-84 years	39	33	32
85 years and over	11	12	10

[1]N=502
[2]n=424,213
[3]n=31,241,831

VITA 2

Rodney Osborne

Candidate for the Degree of

Doctor of Philosophy

Dissertation: A STUDY OF OKLAHOMA ELDERLY CONSUMERS' KNOWLEDGE OF FEDERAL MEDIGAP REGULATIONS AND INFORMATION SOURCES

Major Field: Human Environmental Sciences

Specialization: Consumer Behavior

Biographical:

Personal Data: Born in Bartlesville, Oklahoma, on December 8, 1945, the son of Eleck and Marguerite Osborne.

Education: Graduated from Kansas University in May 1971 with a Bachelor of Science degree in Journalism/Advertising. Completed the requirements for the Master of Science degree in Mass Communications at Oklahoma State University in May, 1985. Completed the Doctor of Philosophy degree in Consumer Economics/Studies from Oklahoma State University in May 1994.

Experience: Banks, Lagios, and Osborne Advertising Agency, Lawrence, Kansas. Owner of Eleck Publishing Company, Lawrence, Kansas. Representative for Universal Press Syndicate, Sheet and Ward Publishing Company, Kansas City and New York. Advertising representative, Hutchinson News, Hutchinson, Kansas. Advertising Manager, El Dorado Times. Advertising Director, Rutherford Publications. Osborne Advertising Agency. Publications Editor, Public Information, Agricultural Communications Department, Oklahoma State University. Assistant Professor of Mass Communications, Northeastern State University, Tahlequah, Oklahoma, 1991 to present.

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
FOR HUMAN SUBJECTS RESEARCH

Date: 10-19-93 **IRB#:** HES-94-001

Proposal Title: ELDERLY CONSUMERS' KNOWLEDGE OF MEDIGAP REGULATIONS

Principal Investigator(s): Dr. Sue Williams, Rodney Osborne

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

APPROVAL STATUS SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING.
APPROVAL STATUS PERIOD VALID FOR ONE CALENDAR YEAR AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL. ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Reasons for Deferral or Disapproval are as follows:

PROVISIONS RECEIVED AND APPROVED

Signature: John H. Wyckoff Date: October 19, 1993

Chair of Institutional Review Board