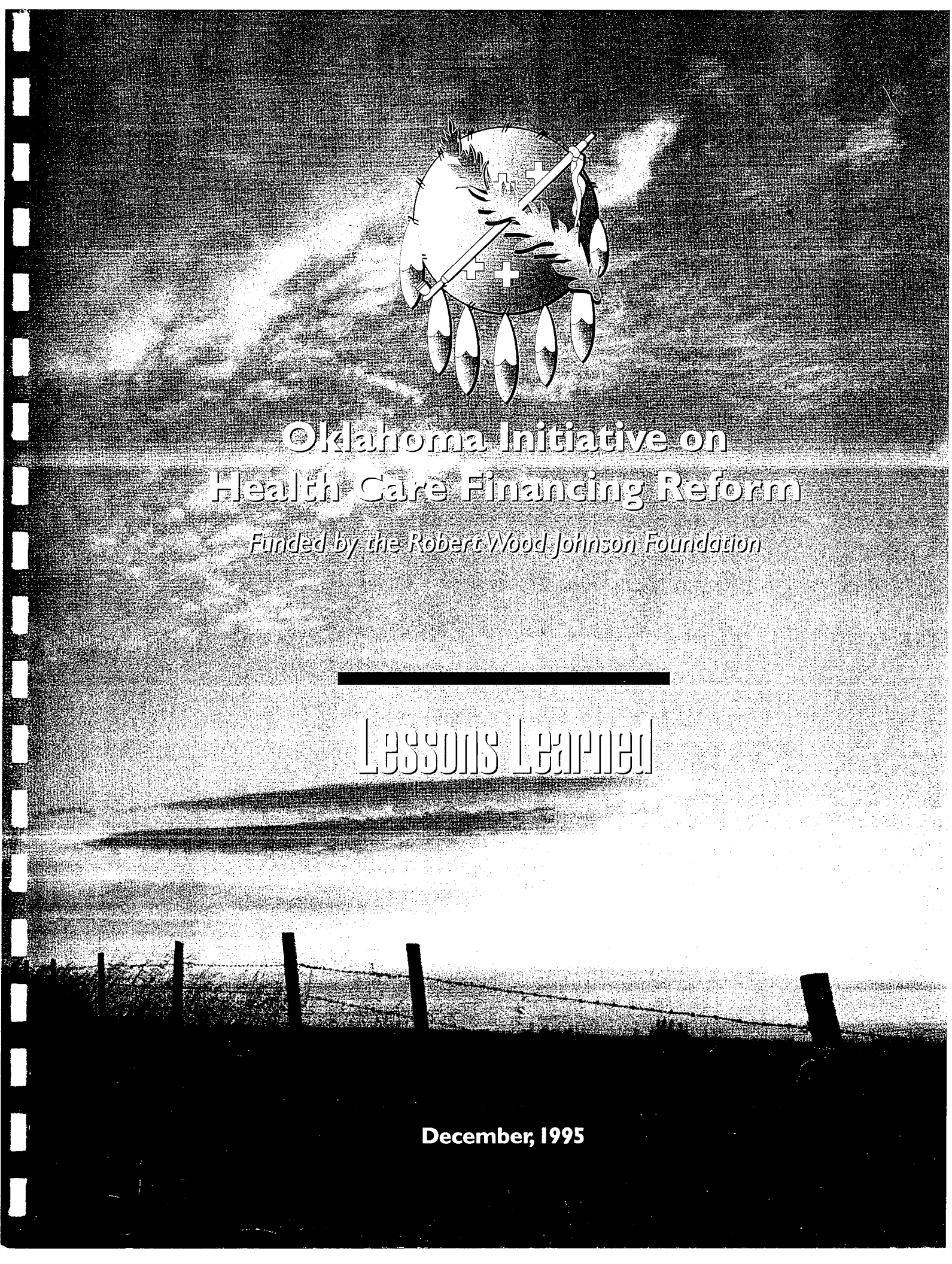
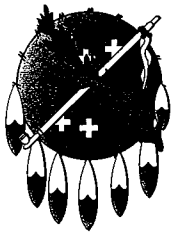


Oklahoma Initiative on Health Care Financing Reform

Funded by the Robert Wood Johnson Foundation

Lessons Learned

December, 1995



Oklahoma Initiative on Health Care Financing Reform

Funded by the Robert Wood Johnson Foundation

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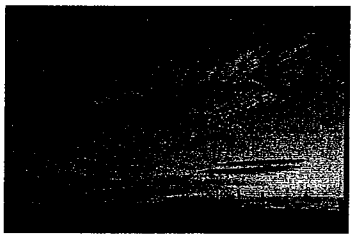


INTRODUCTION

The Oklahoma Initiative on Health Care Financing Reform

Oklahoma has a proud historical and cultural tradition, punctuated by a strong sense of self reliance among its citizens. Hence, it became essential for the State to develop a solution for problems related to health care access and cost control that would work in Oklahoma, for Oklahomans. Ultimately, analysis of the State's health system led former Governor David Walters to adopt a market-based approach to health reform. The Oklahoma Family Choice Health Plan, the basis for the State's application for funding under the Robert Wood Johnson Foundation's State Initiatives project, evolved from this process.

Oklahoma made application to the Robert Wood Johnson Foundation for support of the Family Choice Health Plan concept in February, 1992. It was one of twelve states awarded grants in August, 1992, under the State Initiatives program.

When Oklahoma was awarded its Grant, Governor Walters directed Garth Splinter, M.D., M.B.A., the project's Principal Investigator, to establish the Initiative as a free-standing entity that could both develop mechanisms for enhancing costs and promoting cost containment and act as an information resource for all of the State's health care interests. The Oklahoma Health Sciences Center and the Oklahoma Department of Health assisted in support of the project's staff (see Appendix 4) and expenses.

In 1994, Governor Walters designated the Oklahoma Health Care Authority as the lead agency for the Oklahoma Initiative. After Governor Frank Keating took office in 1995, Dr. Splinter worked with the new administration to assist them in gaining knowledge of the structure and mission of the Oklahoma Initiative. Without hesitation, Governor Keating encouraged Dr. Splinter to continue the work of the Initiative in the spirit of improving Oklahoma's health care environment. However, he emphasized movement away from concepts of universal coverage and towards reliance on reforms which would bolster self-purchased coverage or increase the effectiveness of state-purchased coverage. The market-based approach was to continue.

The Commission on Oklahoma Health Care

On February 5, 1992, Governor Walters established the Commission on Oklahoma Health Care to consider fundamental structural changes in the health care system. The Commission assisted the State Initiative in its efforts.

The formation of the Commission coincided with the nation's growing interest in health care reform. The objective was straightforward, but potentially difficult to achieve: to increase health

care coverage in an environment that has diminishing resources, but in which it is necessary to consistently evolve towards greater efficiency. The scarcity of new revenue sources combined with the strain on existing revenues suggested that a creative solution to Oklahoma's health care problems was required.

In establishing the Commission, Governor Walters created a forum for addressing many of the issues which affect the health of Oklahoma's citizens. He understood that there were many factors which were not subject to exclusive state control but were instead influenced by federal law and regulations. However, in light of the inability of the U.S. government to deal quickly with health care reform on a national level, he urged Oklahoma to seize its own destiny in improving health care for the State. The Commission worked to initiate the process of reforming the health care system. While recognizing that health care must be available for individuals who are unable to secure access due to poverty or poor health, it acknowledged the responsibility of every Oklahoman to change their behavior to the greatest extent possible to achieve good health. If this could be accomplished, dollars currently spent on health care would be markedly reduced.

Under the terms of House Bill 1578 (1992), the Legislature statutorily authorized the ongoing work of the Commission. In its enabling legislation, the Commission was directed to build upon previous health care reform planning in the State. The Commission was required to study three models for health care reform: a Universal Health Care Plan described in H.B. 1578; the Small Employers Health Insurance Availability Model Act of the National Association of Insurance Commissioners; and, proposals providing for Individual/Family Health Accounts. In their final report to the Legislature and the Governor (December, 1993), the Commission recommended that Family Health Accounts be established through the Oklahoma Health Care Authority.

The Oklahoma Health Care Authority

During the 1993 Legislative session, the Oklahoma Legislature passed two important bills, House Bill 1573 and Senate Bill 76, that had a positive impact on health reform and laid the foundation for the Family Choice Health Plan. H.B. 1573 established the Oklahoma Health Care Authority, with the mandate to coordinate all State purchased/State subsidized health care. S.B. 76 transferred the Medicaid program to the newly formed Authority and mandated statewide conversion of the Title XIX program to a managed care system. In addition to its responsibilities under the Medicaid program, H.B. 1573 gave the Health Care Authority the responsibility for approving and directing the purchase of health care products for State employees through the Oklahoma Employees Benefits Council.

On October 12, 1995, Oklahoma became the twelfth state to gain Department of Health and Human Services approval of an 1115(a) waiver. SoonerCare, the State's Medicaid demonstration project, will enroll Medicaid beneficiaries into managed care, and test different models of health delivery systems in urban and rural areas. During the first year of the demonstration, most of the 342,000 who are eligible annually for Title XIX services through Aid to Families with Dependent Children (AFDC) recipients and AFDC-related Title XIX beneficiaries will be enrolled in managed care programs. Most of the 84,000 non-institutionalized aged, blind, and disabled beneficiaries in Oklahoma who are not dually-eligible will be enrolled in managed care during the second year of the demonstration.

Employees Benefits Council

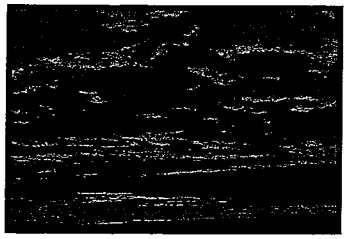
The Oklahoma Employees Benefits Council (EBC), whose purchasing actions are ultimately under the direction of the Oklahoma Health Care Authority, stands as one of the major purchasers of managed care in Oklahoma. The EBC administers the Flexible Benefits Plan for approximately 40,000 active State employees and their dependents. Under the name "SoonerChoice," EBC offers medical and dental insurance, group life insurance and disability coverage. Participants are required to select either the State's Employees Group Insurance Plan (an indemnity product) or one of several HMOs approved by the EBC and the Authority. The EBC also oversees a Section 125 Plan which allows enrollees to have pre-tax reimbursement accounts for medical expenses and dependent (child) care. Through the Section 125 Plan, State employees are offered a premium conversion feature which allows medical insurance premiums to be paid with pre-tax dollars. The Authority has been instrumental in promoting enhanced education of State employees and teachers about Section 125 accounts and other deferred compensation options.

Division of Health Care Information

In addition to provisions in H.B. 1573 involving the State's Title XIX program, the legislation transferred the Division of Health Care Information (DHCI) from the Oklahoma Health Department to the Health Care Authority. In order to promote health care planning and cost containment within the State, the DHCI was directed in its enabling legislation to establish and maintain a comprehensive health care information database for Oklahoma. This information base was designed to facilitate the ongoing analysis and evaluation of patterns and trends in the utilization and costs of health care services and to enhance the capabilities of various components of the health care industry to provide needed services. Leigh Brown, J.D., M.P.H., Project Director for the Oklahoma Initiative, is the senior administrator for the DHCI. Currently, the DHCI is developing consumer satisfaction instruments to be administered to Medicaid recipients, State employees, and teachers. Health plan report cards are being prepared to allow informed consumer choice by State employees. These will then be extended to the Medicaid population.

Oklahoma's Initiative for Health Care Financing Reform

Three years after submission of its proposal, as the Oklahoma Initiative comes to a close, it is appropriate to look back on the broad range of lessons for future policy discussions in Oklahoma, as well as across the nation.



CHARACTERISTICS OF THE STATE

Introduction

Oklahoma has characteristics which create difficulties in access to health services for many of its citizens. Oklahoma is a relatively poor state. In 1993, per capita income in the State was $17,020, making Oklahoma forty-second in the nation in per capita income. For persons relying on income from self-employment farming operations, the average farm self-employment income for the State, at $7,340, was less than one half the average non-farm self-employment income.

According to census data, approximately 17% of the State's population, and 13% of its households, live below the poverty level. The proportion of Oklahoma households living in poverty is 34% higher than the U.S. average. Of the households in Oklahoma which are below the poverty level, over 14% have a woman as the sole head of the household. In these families, approximately 38% live below the poverty level. This is a significantly larger proportion than for families in general. The proportion of family with female heads of household which live below the poverty level rises to over 60% in families containing children under age 5.

Like many states, Oklahoma has been deeply affected by economic problems which have troubled the entire nation over the last decade. In particular, the "Oil Bust" of the early- to mid-1980s created significant difficulties for many Oklahomans, resulting in long-lasting trends in unemployment and poverty, affecting both persons employed within the oil industry and persons employed in communities which had become dependent on the tax base and commerce associated with thriving oil production. However, recent data suggests that Oklahoma's employment picture is significantly improving, with the unemployment rate dropping from 6.2% to 4.9%, compared to a drop in the national average from 5.9% to 5.2%.

Oklahoma's Health Care System.

Many problems associated with access to health services are exacerbated by the characteristics of the State's population distribution. Oklahoma is a largely rural state. It is ranked 20th among the 50 states in area (70,000 square miles), but 28th in total population (3.2 million). This translates into a population density of about 46 persons per square mile. By contrast, there are 71 persons per square mile in the country as a whole and approximately 1,000 persons per square mile in the nation's most densely-populated states, New Jersey and Rhode Island. Even these statistics do not fully reflect Oklahoma's rural make-up, as over 50 percent of the state's population is concentrated in just two metropolitan areas — Oklahoma City and Tulsa. Excluding these two urban centers, the state's population density averages less than 25 persons per square mile. Because Oklahoma is a largely rural state with a significant number of small businesses, many working in the State's agricultural industry, it is difficult for employers to provide their employees health insurance at an affordable price.

Regardless of the source of data related to the percentage of uninsured in the State, Oklahoma has a larger percentage of its population than the national average who are without health insurance. According to the Employee Benefit Research Institute (EBRI), Oklahoma leads the nation in the percentage of non-elderly uninsured, with 27.4% of its population without health insurance, compared to a national average of 18.1%. Even more conservative data developed by the RAND Corporation, which took into account factors not ordinarily considered, such as services delivered through the Indian Health Service, places the percentage of uninsured at 22.9%. EBRI estimates that, of the uninsured, approximately 75% are workers or dependents of workers. In addition to persons without insurance, approximately 14% of the State's population are eligible for services through the State's Medicaid program.

According to a survey conducted by the RAND Corporation during the planning phase of the project, relatively few small businesses in Oklahoma provide health coverage to employees: only 34.6% of establishments with 1-4 employees and 55.5% of establishments with 5 - 9 employees offer coverage, compared to 95.3% of employers with over 50 employees. Regardless of establishment size, employers with higher mean annual payrolls are more likely to offer insurance than those with lower payrolls. Comparing establishments of all sizes, employers who offer coverage have mean annual payrolls of $22,580 or greater, while employers who do not provide insurance have mean annual payrolls of $16,789 or less.

For the most part, employee ability to choose among employer-provided health plans is relatively limited. Establishment size influences the number of health plan choices available to employees, but plan options are limited even among large employers, with over 90% of establishments with 1-4 employees offering only one option, compared to a still relatively high percentage, 66.1%, of employers with greater than 50 employees offering only one option.

Just as availability of health insurance in employment settings is affected by the rural nature of the State, access to health services is more difficult by the state's rural nature. Oklahoma's rural areas lack adequate numbers of providers in comparison to urban communities. There is currently an alarming shortage of primary care resources in rural Oklahoma. Thirty-eight counties of the State's seventy-seven counties are designated as wholly medically-underserved, and an additional twenty-two counties are designated as partially underserved. The state has fewer physicians per 100,000 population than the country overall, and the physicians it does have are not evenly distributed. Despite the fact that greater than one-third of the State's population lives in rural areas, over 75% of the State's 4,700 physicians are located in the State's five urban areas. In fact, over 70 percent of the state's doctors — and more than 50 percent of its primary care physicians — are concentrated in the Oklahoma City and Tulsa metropolitan areas, alone. Outside of these cities, health care delivery options for Oklahoma residents are limited. "Seeking care" often means traveling relatively long distances to the nearest physician, hospital or nursing home, assuming transportation can be arranged. Not surprisingly, many individuals elect to forego health care services if a problem is not emergent, particularly if the care required is primary or preventive in nature.

Physician recruitment and retention are major problems in rural areas, leading to a critical shortage of primary care physicians. There are significant barriers for primary care physicians in the non-metropolitan counties, including limited availability of hospital services and resources, limited numbers of other physicians with whom to share coverage and a lack of proximity to specialty services. Rural areas have become more dependent on non-physician primary care providers because of the

lack of availability of physicians. However, of the 200 physician assistants and 226 nurse practitioners in the State, approximately two-thirds are located in urban areas.

In addition, the managed-care industry in Oklahoma is still in its infancy, although it continues to expand rapidly. Federally-qualified health maintenance organizations have achieved a market penetration rate of only 7.2%, which places Oklahoma 30th in the nation in level of penetration. However, recent expansion by three health maintenance organizations into rural northeast and southwest Oklahoma offer new opportunities for the State to extend managed care delivery to its rural Medicaid recipients. In addition, two hospital networks, the Baptist Health Organization from Oklahoma City and the Catholic Hospital Network of Tulsa, have recently been approved as health maintenance organizations (HMOs) by the Oklahoma State Department of Health, the State agency responsible for HMO licensure. Both networks have initiated expansion of capitated network services into rural areas of the State. The recent transition of the Oklahoma Medicaid program from a fee-for-service system to a system of managed care has both significantly influenced the creation of new managed care products in the State and enhanced the rate at which managed care organizations are penetrating into less densely-populated areas of the State.

THE FAMILY CHOICE HEALTH PLAN

Introduction

The Family Choice Health Plan is a market-based model designed to encourage consumers to select the lowest-cost health coverage appropriate for their needs. This is accomplished using a system of Family Health Accounts, similar to, but broader than, the structure of medical savings accounts, to consolidate all potential revenue sources for the purchase of health coverage and other health care services. The aggregation of funds achieved through accounts, combined with increased consumer cost-consciousness and family choice of coverage, should drive the health care delivery system towards greater efficiency through normal market forces.

Success of the Family Choice Health Plan is dependent on informed consumers making health care purchasing decisions in a price-sensitive environment. Therefore, an education system must be developed and implemented to let purchasers know they are at full financial risk at the margin based on their health care choices. For example, it is essential that consumers understand that the differential in premium cost between the lowest cost plan available, and the plan that they choose would be at their expense. This will encourage consumers to select the plan that could best meet their needs for the lowest overall cost. By ensuring a broad range of coverage options, the Family Choice Health Plan makes it possible for individuals/families to decide whether to enroll in a managed care plan, a traditional indemnity plan, or a catastrophic plan. By regularly informing consumers, the system continuously strives to improve itself and adapt to the demands of the marketplace.

The proposal for the Family Choice Health Plan had as one of its cornerstones universal coverage. Although politically controversial, universal coverage would allow the State to achieve important objectives. First, health services could potentially be available to individuals who lack the necessary financial resources to afford care. Second, if every Oklahoman had some form of health insurance coverage, inefficiencies within the health care marketplace could be dramatically reduced. Cost-shifting from the uninsured and underinsured would be likely to decline or be eliminated. For a market-driven approach to work, it is necessary for the product prices to reflect the true underlying economics of the plan; to achieve the best results, this also requires the elimination of cost-shifting. Finally, to eliminate the possibility of "gaming" the system, all persons who are financially able should be required to pay into the system.

While, universal coverage accomplished through regulation is not seen as a feasible mechanism for enhancing access or resolving inefficiencies, nonetheless, a great deal may be accomplished through establishment of market-based alternatives. For example, mechanisms should be developed that enhance the availability of affordable health insurance products and create incentives for appropriate health care purchasing decisions and health system utilization. If incremental changes in consumer behavior and market dynamics can be accomplished through the creation of effective incentives, the rate of increase of both the number of uninsured and overall health care costs could decline significantly.

Overview of the Proposal

The Oklahoma Initiative developed the Family Choice Health Plan as a mechanism for achieving comprehensive health care reform in the State. The Family Choice Health Plan, a market-based approach to health care financing and service delivery, relied on the dynamics of market forces to achieve significant containment of health care costs. By maximizing the effectiveness of market forces, the Family Choice Health Plan could bring about meaningful reform in the health insurance and provider industries. It also could lead to the development of new financing sources to increase access to health services for Oklahoma residents.

The Family Choice Health Plan would establish several standard packages of benefits with an emphasis on preventive services and primary care. In addition, incrementally-priced riders could be purchased to permit families to extend coverage at their discretion beyond the standard packages.

Each individual and family in the State would select a health plan from an array of plans which have been determined by the State to meet the requirements of defined standard plans. Enhanced education mechanisms would be available to promote consumer choice. Armed with reliable information, Oklahoma consumers would exercise greater cost-consciousness throughout the health care marketplace.

The Family Choice Health Plan would essentially eliminate group health insurance. Individuals and families would be able to obtain insurance from the company which best meets their needs regardless of pre-existing medical conditions. A change in employment status or retirement would not affect an individual's health insurance coverage since insurance would not be linked to the place of employment. Under this Plan, all citizens in the State would be treated as belonging to a single risk pool, with zero-sum risk-sharing mechanisms established to ensure the equitable spread of risk among insurance companies.

Health care costs would be reduced through elimination of the current shifting of customers among insurance companies. With a more stable base of long-term clients, insurance companies could spend less on marketing to attract new customers and would be likely to devote more resources to preventive health care, since they would have a stake in the long-term health of their customers.

Consumer purchase of health insurance through the Family Choice Health Plan would also decrease the practice within the insurance industry of segmenting the insurance market into unequally covered groups and reduce the current practice of cost-shifting by health care providers. Shifting the costs of uncompensated services to private payers, such as insurance companies and individuals who are able to pay for care out-of-pocket, is one of the most significant problems in the health care financing system.

The Family Choice Health Plan relies on changing basic incentives to achieve changed behaviors. It stresses individual cost-consciousness in a competitive marketplace with strong incentives for consumers to become involved in their own choices of health care insurance policies and providers. It promotes an environment where well-informed consumers make wise decisions in the marketplace based on standardized information about universally available insurance products. Consumer choice in a price-sensitive marketplace, and the resulting pressure on health insurance companies and providers to offer low-cost products, is a powerful, dynamic cost containment mechanism.

The Evolution of Family Health Accounts: The Singapore Model

Family Health Accounts are the centerpiece of the Family Choice Health Plan. Since 1984, the Republic of Singapore has used a medical savings account structure in the delivery of health care to its citizens. This system was the genesis of the design of the Oklahoma Family Choice Health Plan and Family Health Accounts.

The Singapore system has three components: Medisave, Medishield, and Medifund. Medisave is a dedicated savings account used for health care purchases. Participation in accounts for individuals under age 70 is mandated. Funds flow into the account from individuals and employers. Medishield is a reinsurance mechanism to protect Medisave participants in the event of a catastrophic illness. Unlike Medisave funds, Medishield funds are pooled among all participants. In addition, participation is not mandatory, although approximately 88% of persons with Medisave accounts participate in the Medishield program. Medifund is essentially a trust fund, similar to the U.S. Medicare trust fund, that pays certain medical expenses for the poor. Given the high percentage of citizens who are "Medisavers" (~ 95% of working population), the eligible number of Medifund recipients is very low.

Oklahoma's model of Family Health Accounts combines features of both Medisave accounts and Medishield. Under the Singapore Medisave model, account holders are able to purchase health care products from account funds, as in the Family Choice Health Plan model. Although Singapore's reinsurance component is contained in a separate program, Medishield premiums are deducted from Medisave accounts. Thus, one major difference between the Singapore system and Oklahoma's proposal is the restriction within Singapore that limits expenditures from accounts to the purchase of catastrophic reinsurance coverage, rather than permitting purchase of a wider range of health coverage, as is permitted under Oklahoma's plan.

The Singapore system has also been explored in current Medical Savings Accounts debates, since it is the only national model in the world which is currently operational. There are some similarities between the Singapore system and current MSA proposals. For example, in a system of Medical Savings Accounts advanced by Dr. John Goodman from the National Center for Policy Analysis, individuals and families would purchase high-deductible catastrophic insurance policies purchased to cover major illnesses or injuries. Savings Accounts would be used to pay for health care costs incurred in meeting the deductible on the catastrophic policy.

As noted above, analysis of the structure of Singapore's system has been important in the development of savings account models for the United States. However, inadequacies of Singapore's data collection methods and lack of access to the data that has been generated have limited the extent to which analysis of the impact of the system on health care costs has been possible.*

***The Summer, 1995 edition of *Health Affairs* contains a discussion of two differing viewpoints on the success of the Singapore system. Analysis in each discussion relies on indirect measures of success, since direct data regarding costs is limited. See, W.C. Hsiao, "Medical Savings Accounts: Lessons from Singapore, *Health Affairs* (Summer, 1995): 260-266; T.A. Massaro and Y. Wong, "Positive Experience with Medical Savings Accounts in Singapore", Health Affairs (Summer, 1995): 267-272.**

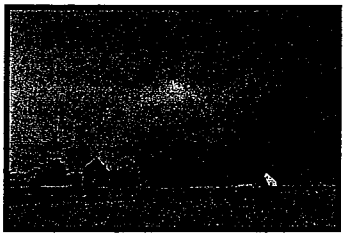
Family Health Accounts under the Family Choice Health Plan

Under the Family Choice Health Plan, Oklahomans would have the opportunity to use Family Health Accounts to make pre-tax purchases of qualified health insurance coverage. In addition, savings resulting from the selection of a low-cost policy would remain in the Family Health Account to be used for the pre-tax purchase of other health benefits, such as dental care and eyeglasses, or to offset deductibles or co-payments.

Pre-tax contributions into accounts would be made from a number of sources, including employers, individuals and the government. With a job change, the funding source for Family Health Accounts would change, but coverage would continue uninterrupted.

Health accounts would be held in existing Oklahoma financial institutions and be administered by a public authority. Health account funds could accumulate from year to year. Minimum balances would be required as long as sufficient balances were maintained to offset the projected costs of insurance premiums and other health expenses, based on the cost of the health insurance policy which has been selected and the financial exposure of each family. Selection of a catastrophic policy would require a significantly higher balance to cover the higher deductible associated with catastrophic coverage. Funds in excess of the minimum balance could be converted to ordinary, taxable income. The ability to accumulate funds over time is likely to encourage cost-consciousness, since consumers would have incentives to obtain cost-effective care and conserve funds for unanticipated health expenses. The balance in each account which was not used to purchase health insurance or other health care products or services represents money that has been saved through the cost-containment features of this approach. Funds in excess of the required balance could be withdrawn as taxable income or transferred to retirement accounts.

Interest income that accumulated on accounts would be retained by the State to expand eligibility for Title XIX. These funds could also be used with other revenue sources to supplement contributions of small employers on a sliding scale, to facilitate participation by those who are unemployed and persons who are not eligible for public medical assistance, but who lack sufficient means to purchase insurance and to pay administrative costs associated with the accounts. Thus the use of interest or other earnings to expand access to health care is one method of recapturing these savings.



ANALYSIS AND FINDINGS

During the period of time between funding of Oklahoma's Initiative in 1993 and the present, the nation has been engaged in vigorous discussion and debate about the extent to which problems within the health care system should be resolved through governmental intervention. Since the demise of President Clinton's health reform proposal, there has been a profound shift away from regulatory controls. However, a number of proposals which are currently receiving national attention and gaining significant acceptance across the country involve concepts that were either advanced by the State of Oklahoma in its Family Choice Health Plan or which are consistent with concepts contained within Oklahoma's proposal. In addition, Oklahoma's Family Health Accounts, while featuring many of the incentives of the currently popular Medical Savings Account proposals, may achieve greater cost containment and promote broader consumer choice than other Savings Accounts models. Following is a discussion of the Family Choice Health Plan as it relates to issues of significance in the current health care discussions.

Comparison of Family Health Accounts and Medical Savings Accounts

Discussion of Current Medical Savings Account Proposals

Most Medical Savings Account models permit tax-deferred contributions to accounts which may be used for the tax-exempt purchase of high-deductible catastrophic health insurance policies. Most models permit contributions from both employers and individuals, although some models limit contributions to either one or the other. In addition, most permit the tax-exempt purchase of other qualified health care products and services. Most account models require each holder to maintain a minimum balance that is greater than or equal to the deductible of the catastrophic policy. They also permit withdrawal as ordinary income of balances above a specified level. Interest accrues to the account holder, and, like Individual Retirement Accounts, is tax-deferred. In addition, because federal law does not authorize tax-deferred accounts, their use is currently limited to states which have passed Medical Savings Account legislation.

Medical Savings Accounts which include federal tax exemptions may provide limited incentives for some individuals to purchase less costly health products and reduce inappropriate utilization of services. However, in most cases, most Medical Savings Account models will not significantly influence either health care costs or access, because they do not encourage participation by individuals who will respond appropriately to the financial incentives which Medical Savings Accounts create.

Persons with serious medical problems are more likely than healthier individuals to require the protections which catastrophic policies offer and will in many cases spend their deductibles with or without the accounts. Therefore, this model will probably not appeal to the very people who most need incentives to reduce inappropriate utilization — persons who are already using the system. In addition, both because accounts require substantial contributions and they provide limited tax

shelters, individuals with higher incomes will be more likely to have accounts than persons with more limited resources.* These individuals are also more likely either to be insured or able to afford to purchase health coverage on their own. Therefore, if participation occurs primarily for tax motives, and if account holders can afford coverage without benefit of the accounts, one must wonder whether Medical Savings Accounts will have much influence on health purchasing habits or utilization.

There is also concern that the individuals who participate in accounts and respond appropriately to the financial incentives may defer preventive care in order to take advantage of accumulated savings at the end of the year. This could increase the costs of medical care if minor medical conditions exacerbate into serious, more costly medical problems.

One serious disadvantage of most current models is the tax loss to the Federal government — already significant due to exclusions for employee health insurance — which would occur under the most common Medical Savings Account models. To address this problem, John Goodman and Mark Pauly have proposed a model which attempts to minimize tax expenditures through creation of fixed tax credits, linked only to the purchase of a catastrophic policy. Unlike other proposals, to the extent Medical Savings Account balances exceeded the tax credit, they would be funded with after-tax dollars.** This would clearly be less invasive of the Federal Treasury than other models.

Goodman and Pauly believe accounts under their model would be attractive to persons who currently have health insurance to the extent the tax credit exceeds the current tax exclusions that are available for the purchase of employee health insurance. They also suggest individuals would still maintain savings accounts, even without tax favorable treatment.

The goal of minimizing the "raid" on the Federal Treasury is laudable. In addition, the limited tax advantages of these accounts would make them less attractive to persons using accounts primarily as tax shelters. However, except to the extent employers or individuals are willing to contribute to accounts as an alternative to purchasing other health coverage, they have such limited tax advantages that it is hard to imagine they would have much appeal for most persons with limited incomes. They are certainly unlikely to be even as appealing as other models. In addition, to the extent most individuals are willing to maintain savings accounts without tax incentives to pay out-of-pocket health expenses, they have probably already done so. Therefore, it is difficult to envision these accounts will have sufficient appeal to gain widespread acceptance.

*** We do not believed most persons with limited incomes will choose to participate under this model unless they are insured through an employer. In the current economic environment, many uninsured individuals with moderate to low means would be unable to afford contributions or would choose to expend limited funds for expenses other than catastrophic health policies, unless they are already ill, notwithstanding assertions by Medical Savings Accounts proponents that even persons with moderate incomes can afford to participate. For e.g., see, M.V. Pauly and J.C. Goodman, "Tax Credits for Health Insurance and Medical Savings Accounts", *Health Affairs*, (Spring, 1995): 125-139, at 138. This article discusses a system in which a fixed tax credit, rather than more favorable tax deferral is used.**

**** Ibid.**

Medicare Medical Savings Account Proposals

Recently proposals have been advanced in Congress that would authorize the Secretary of Health and Human Services to use funds from the Medicare Trust Fund to make tax-exempt contributions to Medical Savings Accounts. Accounts would be available for individuals on Medicare who desire to use them to purchase catastrophic insurance, rather than obtaining services under Medicare's current reimbursement system.* However, account holders would not be permitted to purchase traditional indemnity policies. Accounts could also be used to purchase medical care that was not covered by an insurance policy. In addition, account funds could be used to purchase long term care insurance.

Medical Savings Accounts for persons on Medicare face the same limitations described above for other Savings Accounts. In addition, the use of Medical Savings Accounts for the elderly, whose health expenditures currently account for well over half of the health care dollars spent in the United States, should be approached carefully. Several questions must be considered. Will these accounts provide adequate incentives to reduce utilization in an age group in which many individuals have health problems potentially so significant they will quickly exceed their deductibles? Will companies which provide comprehensive catastrophic coverage to the elderly be able to deliver adequate services to this population or maintain financial solvency without significant cost-sharing by account holders?

Family Health Accounts under the Family Choice Health Plan

Family Health Accounts contain many of the same financial features as Medical Savings Accounts, but are broader in scope. Account holders receive tax benefits when they use accounts to pay for health coverage and other authorized health care, providing an incentive to holders to reduce health spending to maximize the savings available to them. To the extent account holders are able to select low-cost products and retain any balance over the amount of the premium in the account, individuals will have an additional incentive to purchase prudently. Account balances may accrue and be withdrawn if they exceed a specified level.

However, Family Health Accounts offer important advantages over Medical Savings Accounts. First, Family Health Accounts are likely to have greater appeal to individuals with limited incomes or more serious health problems, since accounts may be used for the tax-deferred purchase of any type of health insurance coverage. Family Health Accounts place more control of health care choices and expenditures in individuals, allowing them to "shop around" for affordable products that can most effectively meet their needs or those of their families. The ability to select from a wide offering of several standard insurance policies facilitates consumer choice, considered a high priority by many individuals according to recent surveys. The ability to evaluate and select the most appropriate product at lowest cost also promotes competitive market forces which may assist in holding down the costs of premiums.

The Family Choice Health Plan is committed to enabling more individuals to prudently purchase health care coverage and to promote appropriate utilization of services to a greater extent than

*** See, for e.g. House Resolution 2425 (1995).**

might be possible without Family Health Accounts. The incentives of the Plan will work most effectively to the extent individuals are required as a condition of their insurance coverage to share the costs of services, as is commonly the case with non-catastrophic policies, including some Health Maintenance Organizations.

In order to reduce federal tax expenditures, limitation of employer contributions to a "benchmark" amount may be desirable. However, this will reduce tax losses only to the extent individual contributions do not supplement the accounts.

Finally, unlike section 125 accounts, both Medical Savings Accounts and Family Health Accounts would permit accumulation of account funds from year-to-year and allow consumers to set accounts up either through an employer or on their own. Account holders would be permitted to withdraw funds as taxable income at specified times without penalty, thus giving consumers incentives to maintain or increase account balances.

The Family Choice Health Plan and Managed Care

It is likely that under the Family Choice Health Plan, many individuals and families would be likely to select managed care products. In fact, with the budget constraints of the current health care system, the incentives of Family Health Accounts would offer mechanisms to enhance freedom of choice beyond those which could otherwise be available, while emphasizing purchase of the most cost-effective managed care products. Reuniting financial consequences with purchase choice will result in maximization of value, the appropriate balance of coverage, cost and quality.

The Oklahoma Initiative has been responsible for educating many of the State's citizens, particularly those residing in rural areas, about cost containment and continuity of care which may be achieved under managed care models. In addition, managed care products, are gradually being expanded into rural areas.

The State is currently in the process of converting its Title XIX fee-for-service system into a managed care system. Under an 1115(a) waiver, managed care is required for AFDC and AFDC-related individuals on Medicaid who reside in the Oklahoma's three largest cities. Under Statewide implementation of the system, managed care will be phased into sparsely-populated areas of Oklahoma. It is also likely that increased penetration of managed care into rural areas will occur as the Federal government attempts to overhaul the Medicare system. Current Congressional proposals contain significant financial incentives for the elderly to choose Health Maintenance Organizations over traditional indemnity systems. This could significantly increase the managed care user-populations in rural areas with large populations of older residents who have previously had limited or no managed care options.

As Health Maintenance Organizations are able to achieve expansion into sparsely-populated rural areas, Family Health Accounts could provide important incentives for reducing inappropriate health-related expenditures and for assisting individuals and families to obtain cost-effective health care products. This could be particularly important for persons living in rural areas who have historically had limited experience in purchasing health care coverage and limited exposure to choices in health services.

The Use of Family Health Accounts in Conjunction with Purchasing Cooperatives

The Family Choice Health Plan called for the formation of what would be, in essence, a statewide purchasing cooperative to achieve more efficient purchasing in the health care marketplace. Family Health Accounts could be used in conjunction with regional purchasing cooperative mechanisms to enhance the positive attributes of both. This would allow the State to take advantage of the consolidated purchasing power and economies of scale available through cooperatives. The incentives of Family Health Accounts would also foster greater consumer cost-consciousness than if plans were selected without an account mechanism.

Effective implementation of Family Health Accounts requires a coordinated and comprehensive educational component. Effective mechanisms must be present for clients to obtain information, as they need it, to assist them in their purchasing decisions and in understanding and interpreting the impact of their choices. Purchasing cooperatives offer a mechanism for meeting education and information needs. Gradual changes in behavior are likely to occur as consumers become more aware of differences in health services and costs. As the number of well-informed consumers purchasing through the cooperative increases, health plans and insurance products are also likely to feel pressure to contain costs while enhancing quality because of the well-recognized possibility that consumers could "vote with their feet".

The use of Family Health Accounts would simplify many administrative functions of a cooperative. Statements on accounts would allow the simple tracking of the flow of funds from all contributors to all providers. Multiple employer contributions for a family could be tracked from the family's account to the health plan under which they were covered. Family Health Accounts would also allow efficient collection of data about health care premiums. Even the purchase of supplemental health benefits could be tracked through accounts, resulting in the availability of enhanced data to estimate health services utilization.

FUTURE INTEGRATION OF CONCEPTS FROM THE INITIATIVE

Though the concept of universal coverage achieved through regulatory mechanisms is politically controversial at a national level and unpopular in Oklahoma, the failure of national health care reform should drive states to focus on incremental changes in their health care systems. Therefore, it is essential that opportunities for individuals to gain health insurance coverage be accomplished to the greatest extent possible using mechanisms available through public/private sector partnerships.

Significant changes have occurred in the Oklahoma health system over the last few years, largely due to a combination of health insurance reform legislation and private sector initiatives to improve the health care delivery system. Recent trends have reflected increased development of new managed care plans, wider penetration of existing plans and improvements in the State's economy. These factors create opportunities for the State to develop mechanisms to significantly expand health care coverage to residents in both urban and rural areas of Oklahoma.

The extremely low number of Oklahoma employers who offer their employees health insurance (see RAND data, Appendix 1) has led State policy makers to look beyond regulation of the insurance market. Currently, Oklahoma businesses benefit indirectly from the Health Care Authority's development of the purchasing environment. Taking advantage of the State's significant purchasing power, however, could lead to a much more direct benefit for all Oklahomans. If businesses could "piggyback" on the State's purchase of health care, both the public and private purchasers could see declines in the growth of health care costs and expansion of access /choice of basic health services.

Significant improvements in both the delivery system and cost-efficiency and effectiveness may be possible through linkages been diverse entities which have historically provided health care coverage to consumers in both the public and private sectors. These entities could include the State and education employees benefits programs, programs for retired State employees, and the Title XIX medical assistance program, as well as local governments, private employers and individuals or families with private coverage who desire to participate.

Development of a system of Family Health Accounts linked to health insurance products could significantly enhance the ability of the State to offer coordinated and cost-effective health care coverage to persons who are insured by the State, either through employment or through public assistance. In addition, because the combined population of Oklahoma Medicaid recipients and Oklahoma State and education employees represent more than 500,000 insured lives, the State has the ability to influence the marketplace for all Oklahomans. Thus, accounts linked to health coverage whose administration is overseen by the State could be made available through the State procurement process to businesses in the private sector which desire to participate, whether or not they have historically provided employee insurance. This would also encourage health system development in

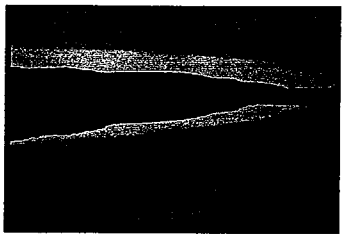
rural areas which have struggled to hold onto health care providers and facilities. Special emphasis would be placed on creating incentives through this process for rural health system development and creation of rural managed care products.

The Oklahoma Health Care Authority, consistent with its responsibility for coordinating the health care purchasing for Title XIX, State employees, and State teachers, could serve as the structure within which Family Health Accounts would be established. The administration of accounts could be handled through a public trust affiliated with a single statewide purchasing cooperative or regional cooperatives. The Oklahoma Employee's Benefits Council, which operates under the oversight of the Authority, could be responsible for establishing the infrastructure for the purchasing cooperative(s) and would coordinate development of managed care products and standard benefits packages. Legislative authorization would be necessary to implement the system. In addition, it would be essential that private businesses and their employees be involved in both defining the needs of individuals from the private sector participating in the cooperatives and in monitoring the operation and effectiveness of the process. In order to facilitate the participation of businesses, collaboration with the Oklahoma State Chamber of Commerce, local chambers of commerce and the regional associations of State government would be important.

With the exception of coverage provided to individuals receiving public medical assistance, all plans would be offered in a competitive marketplace, regardless of cost. However, the Authority would be actively involved in assisting consumers to understand the price and value of policies and in ensuring that quality standards were met and an effective complaint and grievance policy was in effect.

The availability of multiple insurance products to a large number of consumers in a competitive marketplace, combined with the financial incentives of the Family Health Accounts, could increase cost-consciousness among consumers. This would lead to more comprehensive and cost-effective coverage available at much lower prices than might otherwise occur, particularly when negotiations for insurance products were conducted by a single entity with significant purchasing power.

Integration of a system of Family Health Accounts with health coverage could achieve significant cost savings for both the health system and for individuals and families who have historically purchased coverage through mechanisms that do not achieve the greatest efficiency possible. For example, this system would allow two married State employees/teachers or two married employees of different employers to pool their employer-contributed resources. This pooling could lead to greater efficiency in the purchase of benefits, potentially leading to changes in the type of coverage a family chooses. In addition, at current premium rates, premiums for an employee and spouse, (spousal premiums are normally paid by the employee) are considerably less expensive than premiums paid by the employer for two individual employees. However, in a system of Family Health Accounts, the premiums for two married employees could be contributed into a single Health Account by the employer. Even if a benchmark employer contribution was established, it is likely that the consolidated purchasing would result in retained account funds for the couple which could be used for other health expenditures.



ACCOMPLISHMENTS OF THE OKLAHOMA INITIATIVE

Oklahoma, like most states, has not achieved comprehensive health system reform. However, significant strides have been made by the State towards improving the health care system. The Oklahoma Initiative on Health Care Financing Reform has been an important catalyst for reform.

Outreach and Education of Oklahoma Citizens

The Initiative has been a vital force in educating individuals throughout the State about the health care system and in gaining consensus on strategies for health care reform. Significant outreach was conducted through a series of twenty town meetings held in diverse cities and towns around Oklahoma during 1992 and 1993. A two-hour live broadcast was also conducted in July, 1993, with a panel of representatives from the Initiative and the Commission on Oklahoma Health Care to discuss health care issues and respond to questions and comments from audience participants and individuals calling in to a bank of 24 telephones. Focus groups were held in 1994 to gain information from individuals around the State about their health care status, preferences in health care service delivery, satisfaction with the current health system and to gain input about components of the Family Choice Health Plan.

Town Meetings

The Oklahoma Initiative, in cooperation with the Commission on Oklahoma Health Care, conducted a series of public meetings across Oklahoma in 1992-93. Meetings were held in Ardmore, Elk City, Enid, McAlester, Oklahoma City, and Tulsa. The purpose of these meetings was to learn about the health care problems facing citizens of the State, and to provide an open forum for suggestions for change. All of the meetings were moderated by Garth Splinter, M.D., M.B.A., Principal Investigator of the Oklahoma Initiative. During each meeting notes were taken about comments made by those who attended. At the conclusion of each meeting, everyone who attended was encouraged to complete a survey that solicited his/her opinions concerning health care reform in Oklahoma. This feedback was then used by the Commission in its reports to the Governor, as well as incorporated into the continued development of the Family Choice Health Plan.

Statewide Broadcast

The Commission on Oklahoma Health Care and the Oklahoma Initiative co-sponsored a public meeting on health care reform that was televised live from the studios of the Oklahoma Educational Television Authority (OETA) in Oklahoma City. The broadcast aired statewide on July 21, 1993 from 7:00 p.m. to 9:00 p.m. This was the last in a series of six meetings held across Oklahoma.

Governor David Walters began the meeting with an overview of health care in Oklahoma. An expert panel, consisting of Commission on Oklahoma Health Care members and representatives of

the Oklahoma Initiative, conducted the remainder of the telecast. They introduced various health care reform proposals and addressed comments from callers and the studio audience. Using a toll-free number, more than four hundred Oklahomans shared their thoughts and ideas about health care reform. The rich exchange between the audience and the panel was instrumental in determining the course of Oklahoma's reform efforts.

Clearinghouse and Health Care Information Activities

In addition to its education and outreach activities, the Initiative has become an important health information resource and a repository for health care system data and literature. Working with the State's Division of Health Care Information (DHCI), the Initiative has been working to develop methods for collecting health data and for collecting and disseminating consumer satisfaction information.

The DHCI will soon begin providing feedback to the State's Medicaid recipients, State employees, and State teachers. By implementing a system of "report cards," DHCI will begin the pivotal process of consumer education. The first generation of report cards will contain nothing more than indices of consumer satisfaction and generic plan performance. Over time, however, it is envisioned that the DHCI will provide a much broader scope of information and analysis to the health care recipient. This developing information system could then serve as a feedback mechanism that would force continued refinement of a system moving to greater efficiency.

The close linkage between the DHCI and the Oklahoma Health Care Authority could potentially facilitate both the consumer education process and the collection of information which would be essential under the system proposed above. The reliance on market forces in the system would require quick and accurate feedback to consumers on their health insurance choices. In addition, if a Family Health Account system were put in place, the DHCI would be well situated to gather appropriate account data.

Analysis of State's Primary Care System: The Foote Study

The Oklahoma Initiative identified problems in health care access, personnel, and facilities as a major obstacle to reform in Oklahoma. Under the direction of Edward Brandt, Jr., M.D., Ph.D., Director, Center for Health Policy, University of Oklahoma, the Oklahoma Initiative contracted with Bobbie L. Foote, Ph.D., School of Industrial Engineering, University of Oklahoma, to analyze and determine the most efficient system for meeting the State's primary care needs.

The Foote Report (Appendix 2) was completed on January 31, 1994. The specific purpose of the report was to develop a database and methodology to optimize the efficient placement of hospitals and estimate the number and distribution of hospital beds in Oklahoma. The conclusions drawn in the report are based on calculations using data from the Census Bureau.

The model developed by Dr. Foote uses the average length of travel time required to reach a primary care physician as its focal point. A main criteria of the report was, "no patient will be more than 30 minutes" from a primary care facility. Given the rural nature of Oklahoma, this goal was not seen as an absolute. An alternative goal was that 80% of the population be within 30 minutes of a facility, 90% within 45 minutes of a facility and 100% within one hour of a facility. A number of additional assumptions about the States population were required (e.g., average vehicle speed, average patient length of stay) in order to complete the analysis.

Primary care facilities were identified in cities with populations of at least 5,000 people. A fifty mile radius was drawn around each city/facility and the percentage of population within 25 miles, 25-38 miles, 38-50 miles and over 50 miles was estimated. These estimations were also completed for individuals by county. Three proposals were then developed based on minor variations of these criteria. Each of these proposals placed 100% of the "eligible" population within 50 miles of a primary care facility.

Based on a 99.5% service rate and a uniform distribution of the population, it was initially calculated that 3,455 hospital beds were needed for the State. However, when calculated for the three proposals, the number of hospital beds was 4,689, 4,691, and 4,718 respectively.

The objective of the report was not to set hard and fast numbers for determining the "correct" number or distribution of providers, facilities and hospital beds. Rather, it was to be used as a tool for the future development of a health service delivery system in a predominantly managed care setting. This was determined to be essential to development of the Family Choice Health Plan, particularly if a statewide system of Family Health Accounts was to be effective in creating incentives for prudent purchasing of health coverage and products from a range of options.

Peat Marwick Report

During the second year of the project, the Oklahoma Initiative contracted with KPMG Peat Marwick to determine the implementation costs of the Family Choice Health Plan (FCHP). The Peat Marwick report (Appendix 3) was a fiscal impact analysis of FCHP reforms on nonelderly Oklahomans.

Using the FCHP as a model for reform in Oklahoma, Peat Marwick calculated total health care premium costs in Oklahoma with and without universal coverage. Specifically, the study estimated the health care premium costs with and without FCHP reforms, exclusive of administrative costs, for the period 1995 to 1997. It also examined the mix of payment sources towards total premium costs (i.e., employers, individuals, State government, Federal government).

Estimates and percentages were based on calculated per capita expenditures for the Oklahoma under-65 population. The report estimates that without FCHP reforms, total health care premium costs for 1995, 1996, and 1997 would be $5.3, $6.0, and $6.9 billion dollars respectively; under the FCHP, these numbers would be $5.8, $6.3, and $6.8 billion dollars. Thus, universal coverage could be achieved with a net reduction in total costs.

The payer mix after FCHP reforms which incorporate Family Health Accounts would change significantly. There would be an increase in Federal and State contributions for traditional populations like Medicaid. One of the most intriguing FCHP reforms — eliminating the medically uninsured population — would require significant increases in government expenditures. This was to be accomplished, in part, by expanding the State's Medicaid program. Individual contributions, however, would decrease. The initial higher costs in premiums and the change in payer mix would largely be due to the complete expansion of health care coverage to the entire uninsured population. Savings generated in 1997, under the FCHP, would be attributable to increased enrollments in managed care plans and increased plan efficiencies. These trends could be expected to continue and generate further savings in 1998 and beyond.

Universal coverage is unlikely in the current political environment. However, to the extent the State is able to increase coverage of its uninsured and offer more comprehensive coverage to the underinsured through broader availability of cost-effective health coverage, it will create a climate in which reforms consistent with the FCHP could result in significant cost containment. Therefore, universal coverage is not a necessary condition for benefits to be attained.

RAND Data

When Oklahoma was awarded its RWJF grant in 1992, it was faced with an extremely high percentage of its population without medical insurance. Analysis of the March 1994 Current Population Survey (CPS) by the Employee Benefit Research Institute (EBRI) indicates that 27.4% of nonelderly Oklahomans were without health insurance. This percentage, the highest in the United States for the time period, was an increase over the 1993 (25.8%) CPS estimate.

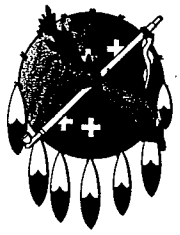
To obtain a more detailed accounting of the uninsured, RWJF contracted with the RAND Corporation to develop new survey instruments and oversee the administration of surveys in ten of the twelve states in the State Initiatives program. In 1993-94, a family survey and an employer survey were conducted in Oklahoma. RAND's data (Appendix 1) reveal that the CPS was missing a critical population of insured Oklahomans—Native Americans. By explicitly asking questions about the Indian Health Service (IHS), RAND demonstrated that 18.2% of all Oklahomans were uninsured at the time of the survey (see Appendix 1). While much lower than the CPS estimates, the RAND estimates confirm that many Oklahomans still did not have direct access to basic health services.

Employers play an integral role in most comprehensive health reform plans. In many cases, as financial contributors on behalf of employees, employers represent a significant percentage of health care purchasers. The RAND Employer survey revealed that 51.4% of Oklahoma businesses offer some form of health insurance coverage to their employees; 56.2% of Oklahoma employees are enrolled in employment based insurance. Both of these percentages are lower than the ten state average computed by RAND (58% and 61%, respectively). Without a strong foundation of employer participation, it comes as little surprise that reforms directed towards employer purchasing have had little impact in Oklahoma.

The RAND data has had a marked impact on Oklahoma's legislators and policy experts. Because the RAND data are Oklahoma specific, policy makers have endorsed its use in the legislative process. RAND data on Oklahoma businesses and families was used by legislators and staff working on several bills during the 1995 session. State Senator Angela Monson's Senate Bill 370, for example, was originally targeted as a Medicaid expansion for Oklahoma children. Working with legislative staff, the Initiative constructed population estimates of medically uninsured children by percent of Federal Poverty Level (FPL). The RAND estimates were significant: 161,212 uninsured children overall; 118,409 uninsured children at or below 185% of FPL. After much debate, the legislature abandoned the Medicaid expansion because the costs would have been too great. Nevertheless, the plight of these uninsured Oklahoma children has not been lost. Several members of the legislature, as well as the Governor, are committed to renewing efforts to cover more children.

APPENDICES

Appendix 1	**RAND Data**
Appendix 2	**Foote Report**
Appendix 3	**Peat Marwick Report**
Appendix 4	**Employees of the Oklahoma Health Care Initiative**



Oklahoma Initiative on Health Care Financing Reform

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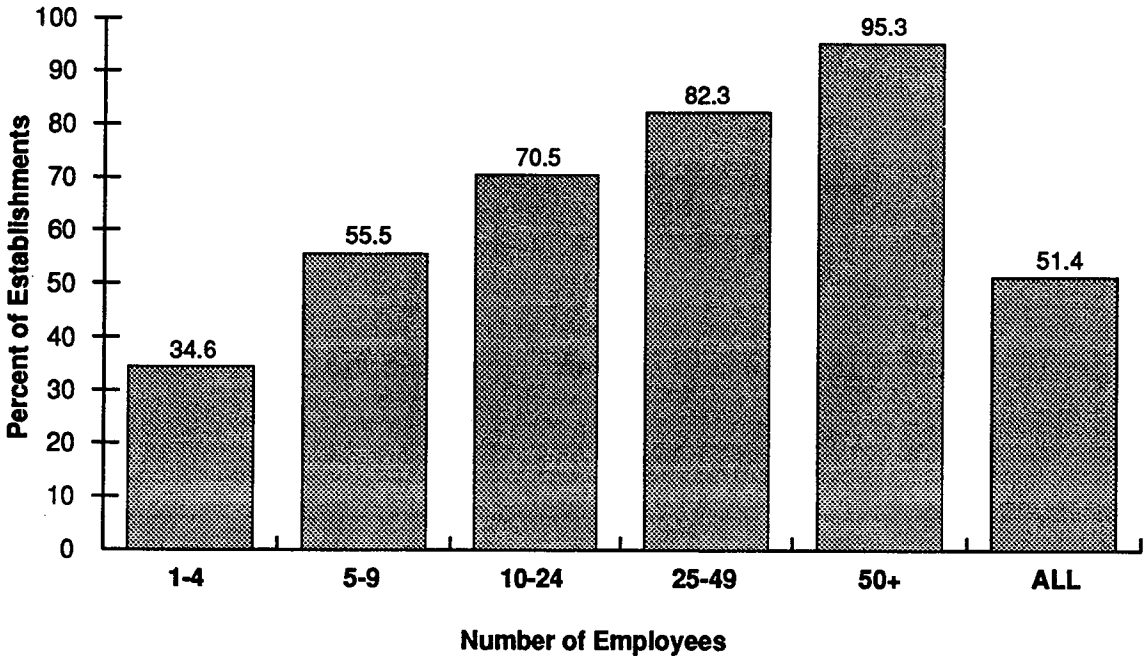
APPENDIX 1

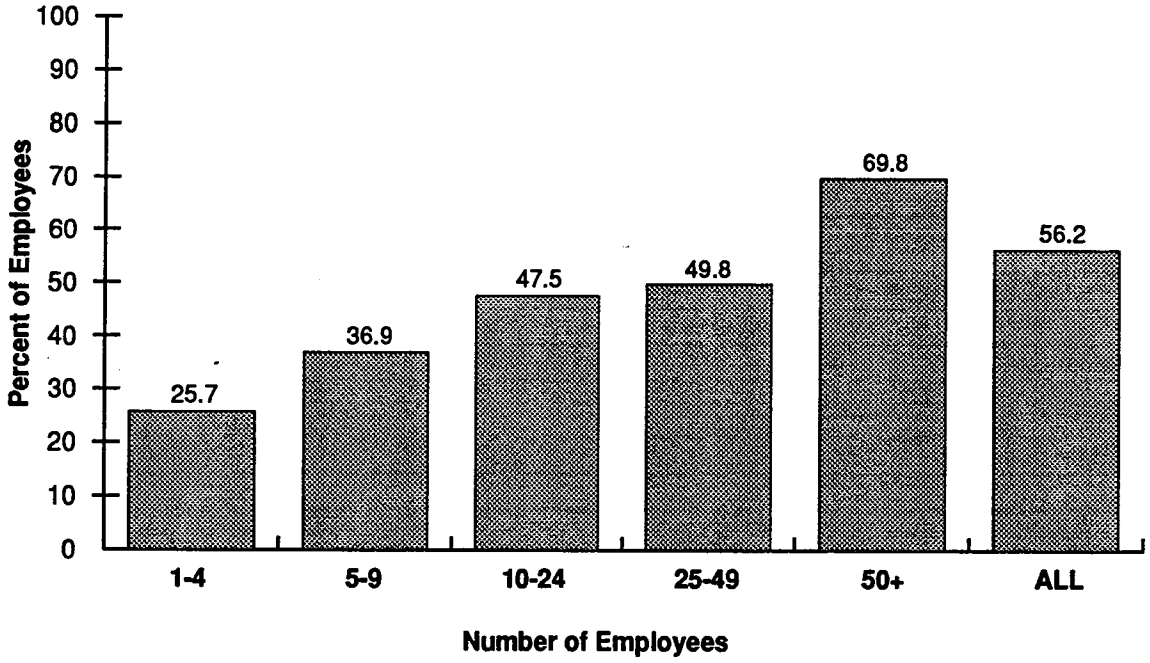
RAND Data

Percent of Oklahoma Establishments Offering Health Insurance, by Establishment Size, 1993



SOURCE: Oklahoma Health Care Initiative - RAND estimates based on establishments in Oklahoma responding to the 1993 Robert Wood Johnson Foundation Employer Health Insurance Survey.

Percent of Employees Enrolled in Employment Based Health Insurance, by Establishment Size, 1993



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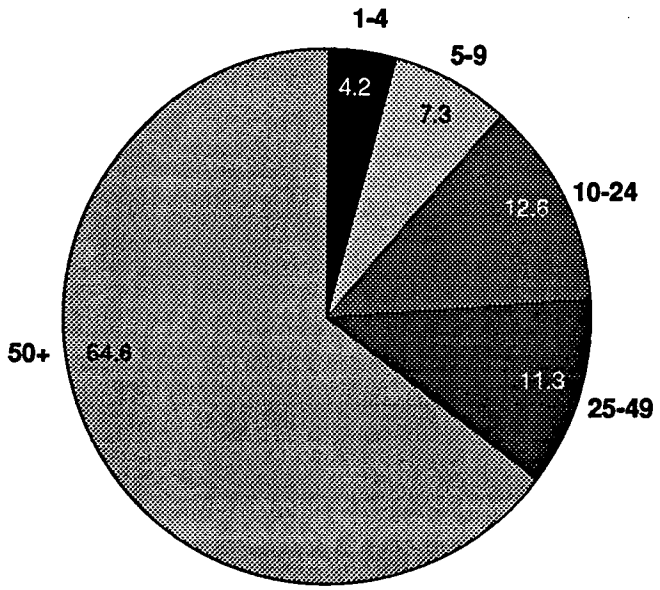
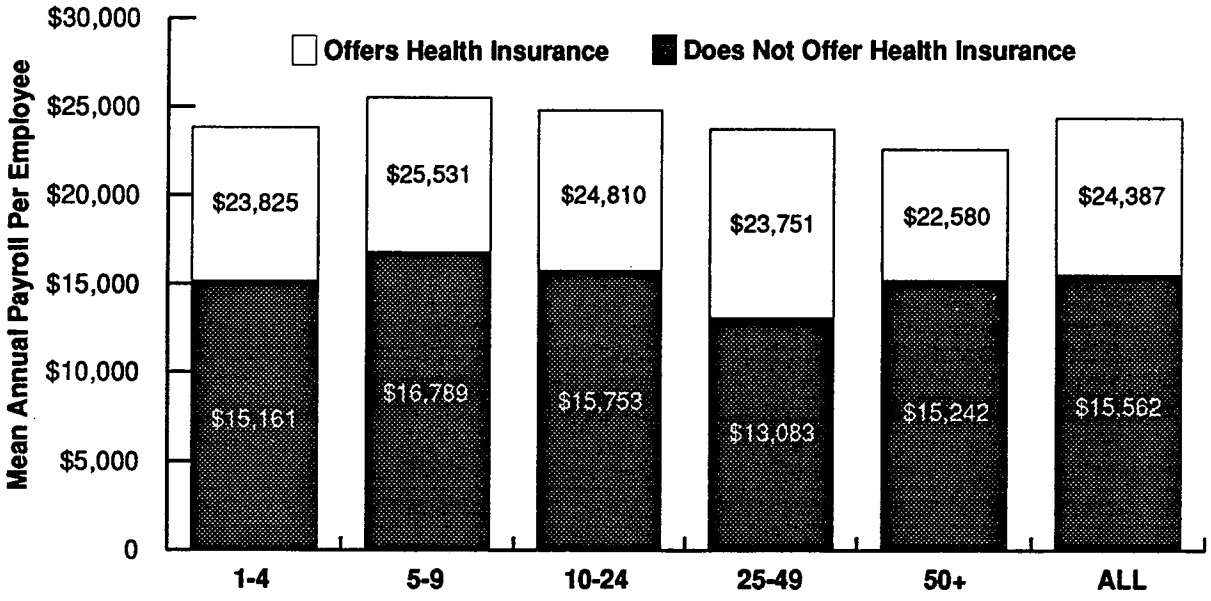
Percent of Employees Enrolled in Employment Based Health Insurance, by Establishment Size, 1993



Percent of Employees Enrolled

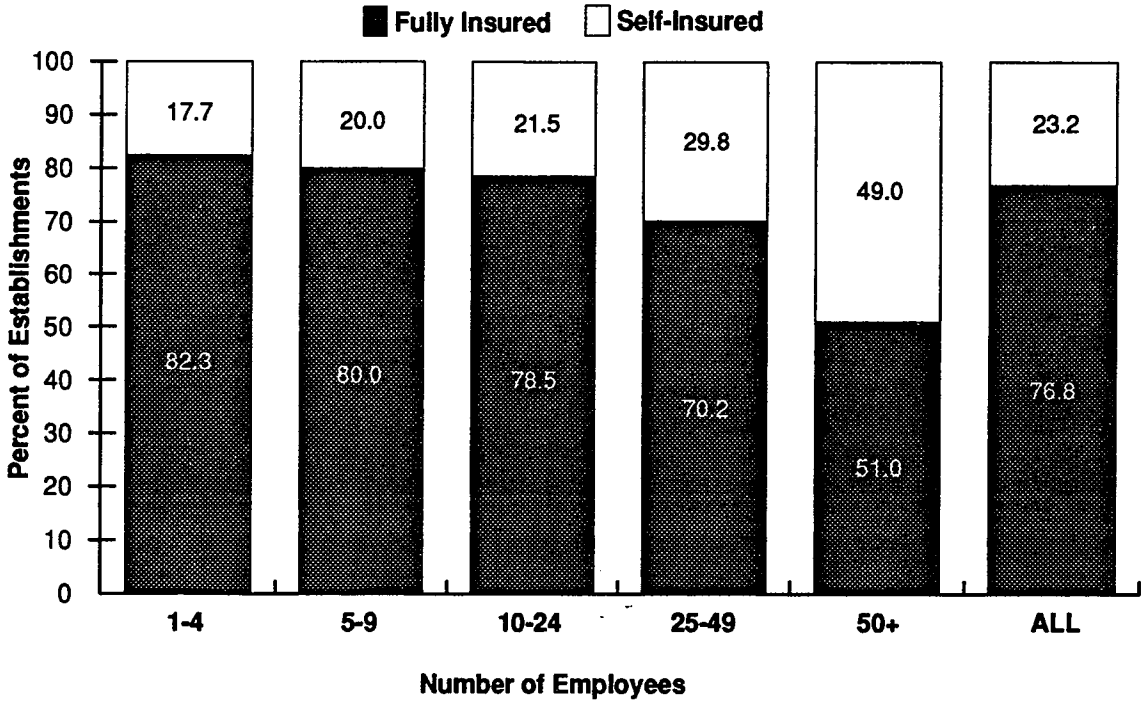
SOURCE: Oklahoma Health Care Initiative - RAND estimates based on establishments in Oklahoma responding to the 1993 Robert Wood Johnson Foundation Employer Health Insurance Survey.

Mean Annual Payroll Per Employee, by Establishment Size, 1993



SOURCE: Oklahoma Health Care Initiative - RAND estimates based on establishments in Oklahoma responding to the 1993 Robert Wood Johnson Foundation Employer Health Insurance Survey.

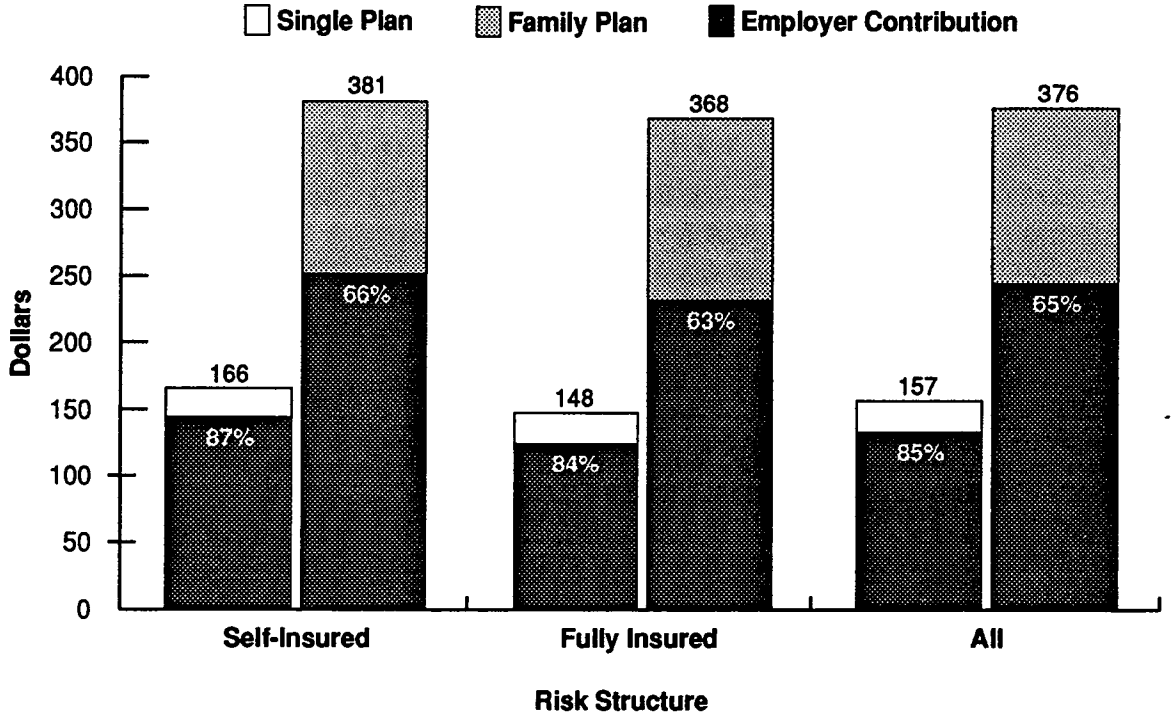
Risk Structure of Plans Offered, by Establishment Size, 1993



SOURCE: Oklahoma Health Care Initiative - RAND estimates based on establishments in Oklahoma responding to the 1993 Robert Wood Johnson Foundation Employer Health Insurance Survey.

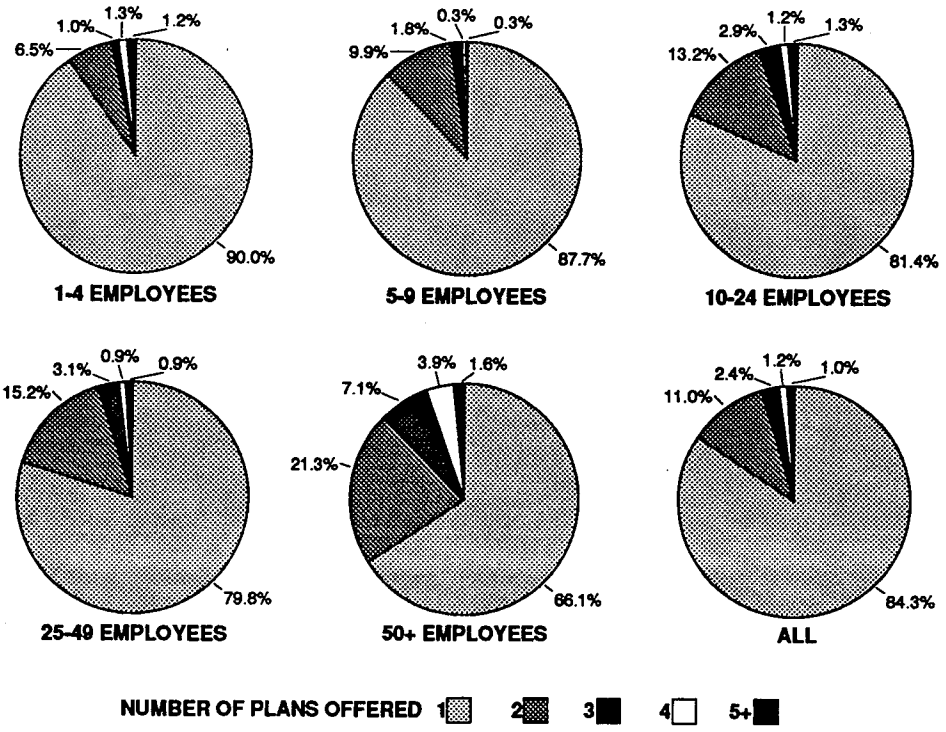
Mean Monthly Premium, by Risk Structure, 1993

(weighted by number of employees enrolled in plan)



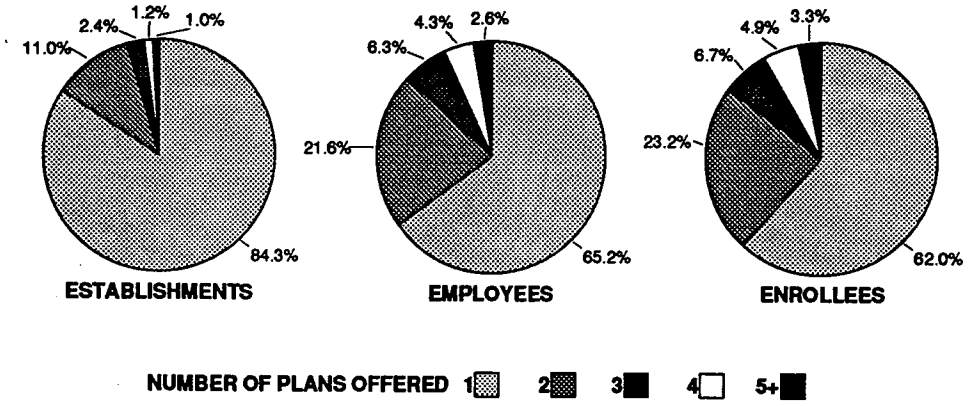
SOURCE: Oklahoma Health Care Initiative - RAND estimates based on establishments in Oklahoma responding to the 1993 Robert Wood Johnson Foundation Employer Health Insurance Survey.

Number of Plans Offered, by Establishment Size, 1993



SOURCE: Oklahoma Health Care Initiative - RAND estimates based on establishments in Oklahoma responding to the 1993 Robert Wood Johnson Foundation Employer Health Insurance Survey.

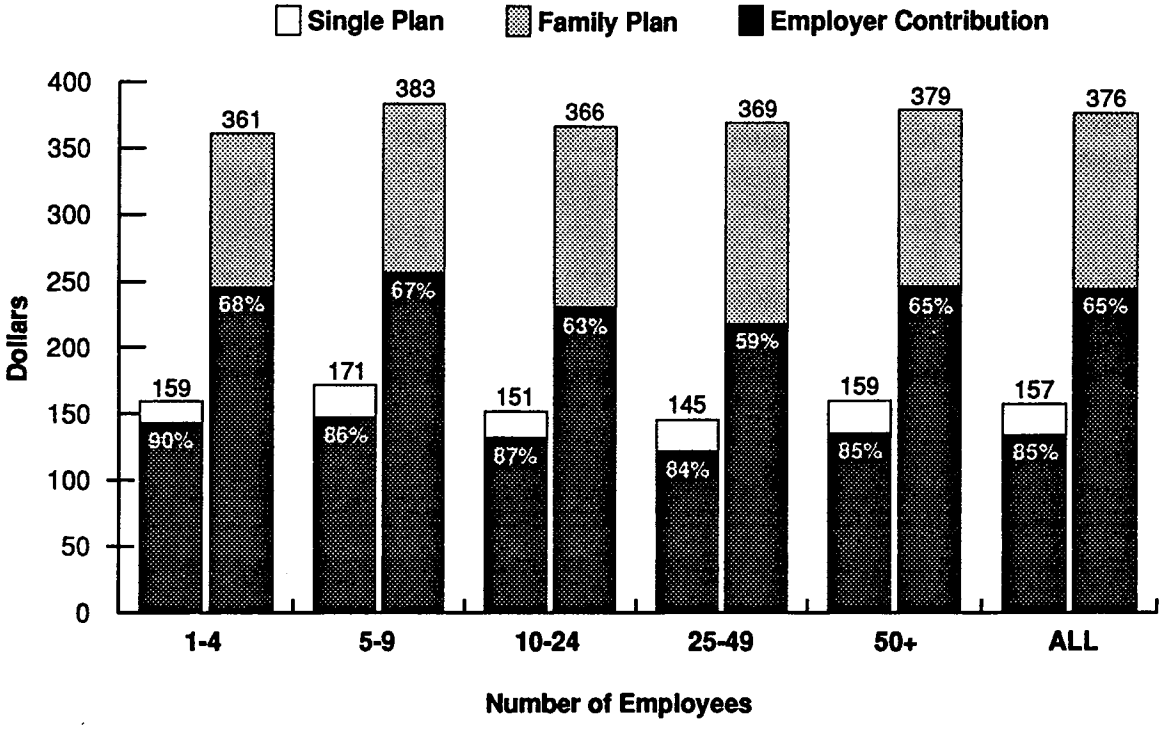
Number of Plans Offered, by Establishments, Employees, and Enrollees, 1993



SOURCE: Oklahoma Health Care Initiative - RAND estimates based on establishments in Oklahoma responding to the 1993 Robert Wood Johnson Foundation Employer Health Insurance Survey.

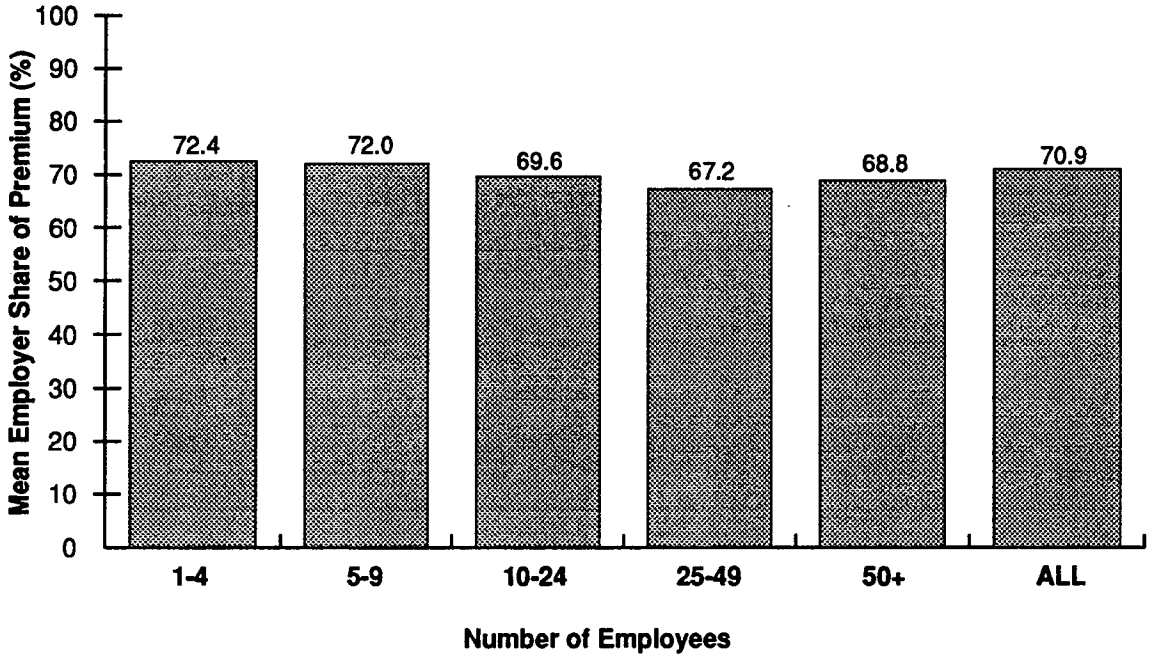
Mean Monthly Premium, by Establishment Size, 1993

(weighted by number of employees enrolled in plan)



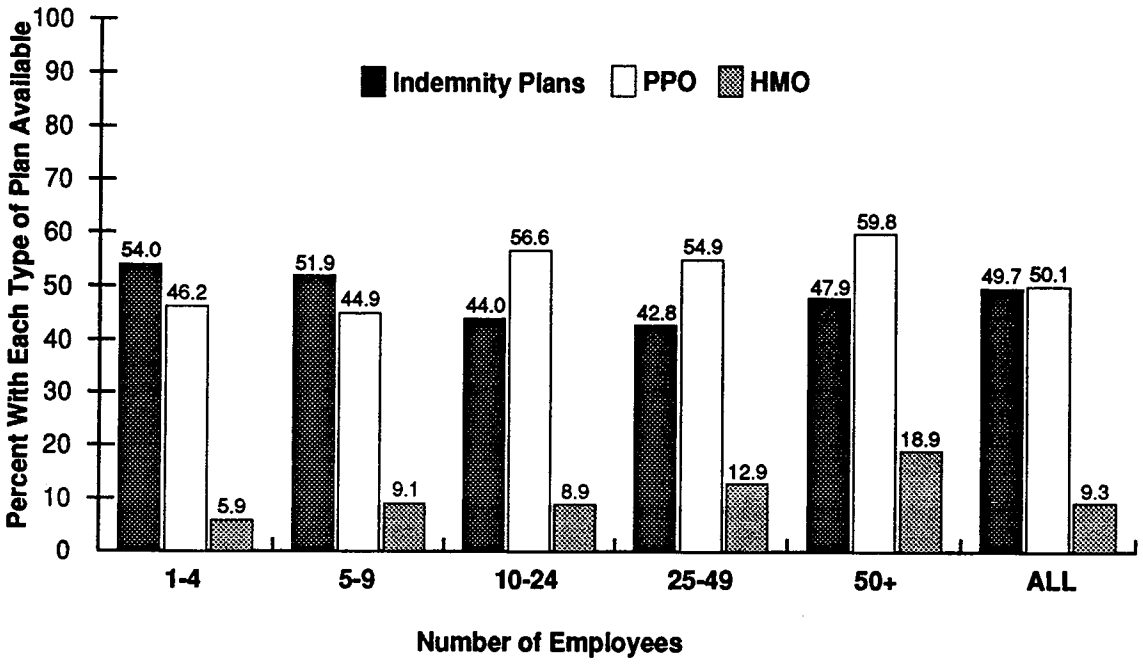
SOURCE: Oklahoma Health Care Initiative - RAND estimates based on establishments in Oklahoma responding to the 1993 Robert Wood Johnson Foundation Employer Health Insurance Survey.

Mean Employer Share of Premium, by Establishment Size, 1993



SOURCE: Oklahoma Health Care Initiative - RAND estimates based on establishments in Oklahoma responding to the 1993 Robert Wood Johnson Foundation Employer Health Insurance Survey.

Type of Plans Available, by Establishment Size, 1993



SOURCE: Oklahoma Health Care Initiative - RAND estimates based on establishments in Oklahoma responding to the 1993 Robert Wood Johnson Foundation Employer Health Insurance Survey.

Three Concepts of the Percent of Oklahomans Uninsured, By Age Group, 1993

Age	Uninsured All of the Previous 12 Months	Uninsured at Time of Survey	Uninsured at Some Time in Previous 12 Months
Total	**14.7**	**18.2**	**22.9**
17 & Under	13.7	17.9	23.9
18 to 64	17.7	21.6	26.2
65 & Over	0.7	0.8	3.1

SOURCE: Oklahoma Health Care Initiative - Preliminary RAND estimates based on families in Oklahoma responding to the 1993 Robert Wood Johnson Foundation Family Health Insurance Survey.

Oklahoma Initiative on
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APPENDIX 2

Foote Report

A GENERAL METHODOLOGY FOR LOCATING PRIMARY CARE FACILITIES AND SIZING PRIMARY CARE IN-HOUSE RESOURCES

INTERIM REPORT

1/31/94

Prepared by:

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University of Oklahoma

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Abstract

A methodology has been developed which is general in the sense that a large variety of assumptions can be translated into a concrete set of locations for primary care practitioners and facilities based on service criteria. It is anticipated that this analysis and methodology will be useful to regional (city/county) health planners and could be used by state officials if health plans are mandated to cover rural areas. That is, the definition of rural coverage could be expressed as a percentage of the rural population within travel distances to primary care facilities using this methodology.

1. Introduction

We have been tasked by the Oklahoma Initiative on Health Care Financing Reform, a grant funded by the Robert Wood Johnson Foundation, to develop a methodology to locate primary care providers in Oklahoma, and to determine the number of hospital beds and its distribution under managed care assumptions. This methodology is to be such that a wide variety of assumptions can be translated into a list of sites for a set of criteria that can be selected from a wide range of possible options. The problem is very complex when treated as a pure academic exercise, but when practical constraints and considerations are introduced, there are approaches that allow fast, accurate and satisfactory solutions. Our solutions would not have been feasible ten years ago but modern computer computation speeds, enhanced graphics capability and the CD-ROM census database published by the Census Bureau make this methodology possible. We will describe the methodology and illustrate the computations with a given set of criteria and assumptions.

1.1 Purpose

The primary purpose of this study was to develop a database and methodologies for private and public health care system providers to either design the location and size of resources to deliver health care or to evaluate their current system and determine if change should be investigated. This data base includes census data geographically distributed and assumed health care deliver parameters. A second purpose was to illustrate use of the data base and methodology through examples. It is important to recognize that the study focuses on an ideal situation starting from scratch and is driven by the assumptions provided. The health care planners at the regional and municipal level can benefit from the result of the study. By no means, should one use these numbers to set policies to mandate these numbers. However, with proper measures and economic incentives, the current system can be moved closer to the ideal situation.

1.2 Criteria

Our basic criteria is length of time to arrive at a primary care facility from home or work. This time to get to a facility can be set as a maximum limit such as "no patient will be more than 30 minutes" from a primary care facility given an assumption on average vehicle speed. Our methodology also allows a criteria of average length of time to get to a primary care unit per population to be served by a primary care unit.

Our methodology assumes that the following information is available:

1. Demand rate for primary care for a given population set. This could be a rate for all humans in the area, separate rates for males and females, or separate rates for males and females by age group. The number of mutually exclusive subsets do not hinder the calculations. Inaccuracy in the rates will of course cause errors in locations depending on the criteria.

2. A geographical information data base which is developed from census data. We have obtained database on the United States census information centered on a census block tract. The exact shape of the land area for a given census block group is known, how many people live in the tract, data on their age, sex, income and many other census data elements. Figure 1 shows two examples of the shape of census tract block groups in Choctaw and Cleveland Counties.

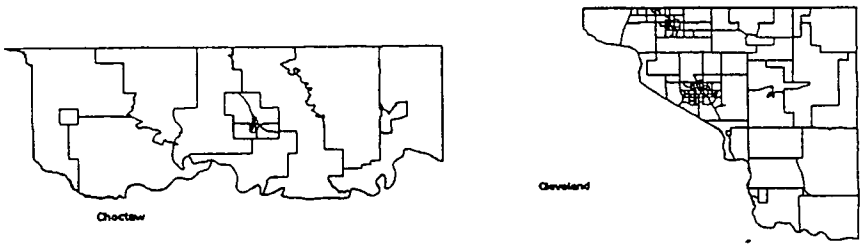


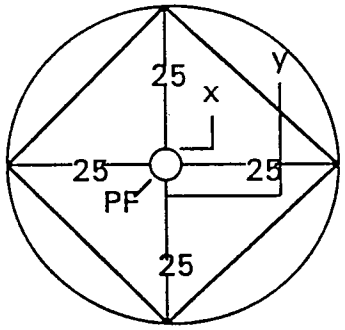
Figure 1. Examples of census tract.

1.3 The Highway System

Transportation to primary care facility is along county, state and federal highway roads. No helicopter transport is available. This system generally allows travel to a medical care unit by a series of N-S E-W drives with no backtracking. This can be generally described as rectilinear travel and can be thought of as travel from one point to another via the legs of a triangle but not via the hypotenuse of the triangle. Helicopter travel would be via the hypotenuse of the triangle. Diagonal Federal Highways or state toll roads allow faster travel in a more direct direction and make our calculations on travel times conservative.

1.4 The Ideal Service Region

The ideal shape of the service region would be a diamond with dimensions based on average travel speed. The entire state would be covered with gaps by these triangles. Figure 2 illustrates this concept.



○ Primary care facility

x Patient x. Travel south plus west to PF is less than 25 miles

y Patient y is outside the diamond and travel south plus west is larger than 25 miles but less than 25 miles by helicopter

Figure 2. A service region defined by a maximum time limit of 30 minutes to a primary care facility and an average driver speed of 50 miles per hour.

It should be noted that travel along the highway system is not on a plane but along an arc of a sphere. There are formulas available to correct for this, but there is no need to unless distances are several hundred miles in length.

This ideal solution of packing the state with diamonds cannot be implemented as the irregular shape of the state precludes a perfect fit. The ideal diamond service areas does provide a base from which to modify service areas and get as close to the ideal as possible.

1.5 Sizing Resources

The demands for medical resources are unpredictable, but over the long run follow a pattern. For example, for a given population we can predict that on ten days out of the year we will have more than eighty eight calls for service. We will not be able to predict which days of the year the ten days will be. Because of these variations, a properly designed system will have unused capacity on most days. One sets the percent of time that all demands should be met and then computes the number of resources needed to meet the criteria. Waiting time formulas allow us to do this. These formulas are complex (See Appendix B) but modern computers allow us to evaluate them easily. The formulas are based on the concept of pooling resources and that all demands for resources are in a single line such that the head of the line can go to any resource that becomes available. This pooling minimized the number of resources needed. (See Figure 3)

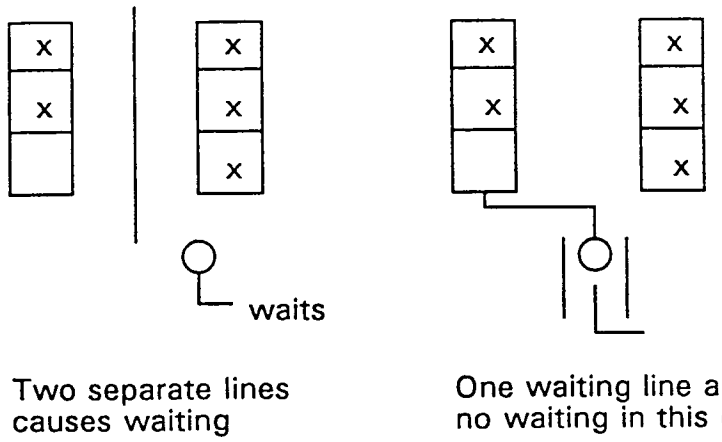


Figure 3. Pooled multiple resources allow reduction in waiting time and fewer rejections based on fully occupied resources.

1.6 Waiting Line Formulas

In medical care situations, resources used totally may result in rejection of the requester. The patient must either wait or go elsewhere. In an ideal system, if one assumes a patient will not wait then our service system will have no waiting lines. When all servers (resources) are busy, then a patient is rejected. We are interested in what the chance of rejection is given the demand rates of the population group or groups and the rate at which the resources serve the patient (average length of stay for example). The formulas in Appendix B assume no patients are allowed to wait. These formulas do not apply to situations such as doctors' offices or clinics where patients do wait. These formulas also assume that rates are the same regardless of the day of the week. If this is not true we can still estimate the number of beds required. Our estimate will be conservative (overestimate the requirement). We can cut the error by using a more costly simulation approach. We do know that admissions Monday through Friday are more than 5/7 of the weekly demand rate. If multiple resources are specialized (certain beds can be used by cancer patients), the requirement for a given service level will go up and we can accurately estimate this.

1.7 Assumptions

1. Population is uniformly distributed within a census block.
2. The distance from a census block to a service area is the centroid-to-centroid distance calculated using rectilinear measure, that is, it is assumed that roads follow north-south and east-west directions.
3. The rate of demand on any one day is described by the Poisson probability distribution in terms of the number of arrivals per unit time period.
4. Drivers can average 50 mph on county roads or other public highways.
5. The average length of stay per patient is 6 days.
6. The average demand rate per 1000 population is 400 bed days per year.
7. The minimum size of a hospital is 30 beds.
8. One Primary-Care Physician Equivalent (PPE) serves a population of 2000 persons where a PPE is defined as a licensed provider who gives comprehensive, first-contact health care.
9. Each service area has at least 5000 people or 3 PPE's.
10. Allowable turn-away rate is 0.5%.
11. The centroid of each census block group will represent the block group for computational purposes. The centroid of each service area will be a city/town.
12. The boundaries of the service areas will be defined by the census block group boundaries.
13. The distribution of admission over the week is uniform.
14. The Percentage of high level beds requirement (beds for required specialty and tertiary care)outside the Oklahoma City and Tulsa county is 10% of the population. That is, it is assumed that 10% of the population assigned to other service areas will use Oklahoma City and Tulsa (whichever is closer) for other tertiary care. For service areas serving less than 6000 people, the number of low-level beds (holding beds) should be calculated. It is assumed that one bed is

required per 2,000 people. Each such type service area should have at least two low-level beds.

15. Eighty percent of the population assigned to a service area must be within 30 minutes of driving time to the facility. Ninety percent must be within 45 minutes of driving time and 100 percent must be within 1 hour of driving time to the facility.

2. An Illustrative Example:

The following details an example of the calculations for the above mentioned assumptions, criteria, and parameters.

First of all, the census data revealed that a large portion of the population did not live in a town or city. 1990 census data indicates that the state population is 3,145,585 of which 734,429 were unaccounted for when only the distribution to town/cities was considered (Exhibit 1). Hence more detailed information was needed for the study. Census data classified by Summary Level 150 from the census data (See Exhibit 2), that is, the distribution with respect to county+census tract/block numbering area+block group was used.

There are 57 cities with population more than 6000 in the state of Oklahoma. At first, this study considered all cities above 5000 rather than 6000 taking into account the population increase and the geographical locations of six more towns that were added to the list of 57. Therefore, altogether 63 cities were under consideration. If a 50 mile radius circle centered at each of the 63 cities is drawn, then it is seen that 9038 people will not be covered by any circle. A large portion of this number comes from the Cimarron and Beaver counties in the Oklahoma panhandle. This means that, if constraint 1 is to be observed, then some service areas must center around a town less than 5,000 people. Exhibits 3 and 4 show the population distribution as a function of distance for each of the 63 cities, and also for each county. Exhibit 5 is a pie chart summarizing results. Note

that these exhibits show the best case scenario which would change if a cost limit is introduced.

Exhibit 6 describes 46 service areas identified by this study (Proposal 1). The areas are ranked in decreasing order of centroid population. Each service area is identified by its centroid town/city. As noted from the exhibit, service areas 43,44 and 46 serve a population of size less than 6000. Service area boundaries are defined such that no one is outside the 50 mile driving range to a service area. Altogether 90.94% of the population is within 25 miles to a service area. 99.71% is within 38 miles to a service area. Exhibit 7 regroups the traveling distance information with respect to counties. For example, 45.14% of the people living in Adair County are within 25 miles of a service facility. After studying the results given in Exhibits 6 and 7, another proposal was developed which adds Taloga to the set of service areas (Proposal 2 in order to reach populations not within the 50 mile range). Exhibits 8 and 9 show the results for the 47 service areas. As noted, the traveling distance information is somewhat improved, but the improvement may not be big enough to justify the additional service area. Next, town/cities around each service area are checked to see if there exists a town/city in the vicinity of a service area which is more populated than the service area. It was seen that Shawnee may be substituted for Seminole and Shattuck for Arnett (Proposal 3). These substitutions are expected to increase driving distance distributions. Exhibits 10 and 11 contain results. As seen from Exhibit 8, the percentage of the total population driving less than 35 miles to a service area decreased from 90.94% to 90.78%. Similarly, instead of 8.77% now 8.81% drive between 25-38 miles to a service area. The change in the driving time distribution maybe small enough to justify the substitutions. However, instead of selecting one of the three proposals, we have decided to proceed with all the three proposals.

Using the average demand figure for a hospital bed, the number of high-level, standard and low-level bed requirements for each service area are calculated for all the three proposals. The population is not decomposed into subgroups for demand rate

purposes. Exhibits 12, 13 and 14 summarize results. For 99.5% service rate, considering the state population, one needs 3455 beds. However, when the calculations are done for the service areas, the total number is 4689, 4691 and 4718 for the three proposals, respectively. This shows the effect of reduced pooling. In this scenario we cannot transport patients into another service area for a bed. Exhibit 15 illustrates service areas boundaries for proposal 1. Detail information on the coverage of each service area can be found in Appendix A.

It must be noted that in reality, if a 100 bed hospital is full, one more arrival will not be turned away. The patient will reside in a mobile bed in some space in the emergency area or a waiting area in a laboratory until space is found. The quality of the patients care will be degraded somewhat, based on a variety of measures.

3. Conclusions

This project was directed more to developing a methodology for allocating primary care resources than developing definitive numbers. The numbers given here should not be construed as being indicative of appropriate or inappropriate levels of primary care resources (Primary care physicians and hospital beds) but rather the distribution based on the stated assumptions which are subject to review and possible revision.

Similar analyses can be done for secondary and tertiary care requirements. Smaller and more detailed service regions can be defined for the OKC and Tulsa areas, by changing some of the assumptions such as average travel speed and showing the actual census blocks, and minimum number of bed requirements. Simulation analysis can be carried out rather than the theoretical approach undertaken, and the occupancy rates can be generated for each hospital.

Our study should be of use to, but not limited to, regional planners, since it provides information as to what is need for adequate health care delivery in rural areas.

Exhibit 1

Non-Township Population of Each County According To Summary Level 155 of Census Data

(14081 people in Adair County live outside the three townships, for example.)

County	Total Population	Population of All Townships	Different	% different	Township
Adair	18421	4340	14081	76.44	3
Alfalfa	6416	4446	1970	30.7	10
Atoka	12778	4156	8622	67.48	5
Beaver	6023	2250	3773	62.64	4
Beckham	18812	14723	4089	21.74	5
Blaine	11470	7448	4022	35.07	8
Bryan	32089	18511	13578	42.31	13
Caddo	29550	15768	13782	46.64	13
Canadian	74409	70007	4402	5.92	9
Carter	42919	33561	9358	21.8	9
Cherokee	34049	10930	23119	67.9	3
Choctaw	15302	7494	7808	51.03	4
Cimarron	3301	1963	1338	40.53	2
Cleveland	174253	164558	9695	5.56	9
Coal	5780	2813	2967	51.33	6
Comanche	111486	99756	11730	10.52	11
Cotton	6651	4365	2286	34.37	4
Craig	14104	7012	7092	50.28	5
Creek	60915	32328	28587	46.93	14
Custer	26897	22288	4609	17.14	7
Delaware	28070	8691	19379	69.04	7
Dewey	5551	3001	2550	45.94	7
Ellis	4497	2773	1724	38.34	4
Garfield	56735	51270	5465	9.63	14
Garvin	26605	15361	11244	42.26	9
Grady	41747	23323	18424	44.13	11
Grant	5689	3627	2062	36.25	9
Greer	6559	5330	1229	18.74	3
Harmon	3793	2821	972	25.63	2
Harper	4063	2677	1386	34.11	4
Haskell	10940	4338	6602	60.35	6
Hughes	13023	7471	5552	42.63	9
Jackson	28764	24998	3766	13.09	8
Jefferson	7010	5245	1765	25.18	8
Johnston	10032	5055	4977	49.61	7
Kay	48056	39926	8130	16.92	8
Kingfisher	13212	7664	5548	41.99	7
Kiowa	11347	8767	2580	22.74	8

County	Total Population	Population of All Townships	Different	% different	Township
Latimer	10333	3700	6633	64.19	3
Le Flore	43270	25310	17960	41.51	16
Lincoln	29216	12446	16770	57.4	13
Logan	29011	14434	14577	50.25	11
Love	8157	2697	5460	66.94	3
McClain	22795	13460	9335	40.95	11
McCurtain	33433	13393	20040	59.94	8
McIntosh	16779	6273	10506	62.61	6
Major	8055	4112	3943	48.95	5
Marshall	10829	5019	5810	53.65	5
Mayes	33366	14931	18435	55.25	13
Murray	12042	7582	4460	37.04	4
Muskogee	68078	48159	19919	29.26	13
Noble	11045	6774	4271	38.67	5
Nowata	9992	5583	4409	44.13	6
Okfuskee	11551	5788	5763	49.89	7
Oklahoma	599611	589056	10555	1.76	20
Okmulgee	36490	23201	13289	36.42	9
Osage	41645	23018	18627	44.73	19
Ottawa	30561	21158	9403	30.77	10
Pawnee	15575	7150	8425	54.09	15
Payne	61507	48147	13360	21.72	8
Pittsburg	40581	27195	13386	32.99	14
Pontotoc	34119	19213	14906	43.69	7
Pottawatomie	58760	40845	17915	30.49	15
Pushmataha	10997	3505	7492	68.13	4
Roger Mills	4147	1772	2375	57.27	4
Rogers	55170	20523	34647	62.8	13
Seminole	25412	13933	11479	45.17	8
Sequoyah	33828	15353	18475	54.61	9
Stephens	42299	31279	11020	26.05	8
Texas	16419	12365	4054	24.69	7
Tillman	10384	8277	2107	20.29	8
Tulsa	503341	475275	28066	5.58	15
Wagoner	47883	21304	26579	55.51	10
Washington	48066	39503	8563	17.82	6
Washita	11441	7340	4101	35.84	11
Woods	9103	6963	2140	23.51	6
Woodward	18976	14065	4911	25.88	6
Total	3145585	2411156	734429	23.35	636

Exhibit 2

Part of the 1990 population census data published by the Census Bureau is summarized into the followings levels:

Level	No. of Record	Summary By
LEV050	77	County
LEV160	598	Places (Town/Cities)
LEV140	992	County+Census Tract/BNA
LEV150	3690(*)	County+Census Tract/BNA+BG
LEV060	302	County+County Subdivision
LEV070	1011	County+County Subdivision+Places
LEV080	2048	County+County Subdivision+Places+Census Tract/BNA
LEV091	5706	County+County Subdivision+Places+Census Tract/BNA+BG

Abbreviation:
BNA - Block numbering Area
BG - Block Group

(*) Used in this study.

Exhibit 3

Distribution of Population Traveling Distance to Primary Care Facilities Using Locations at All Cities with a Population of More Than 5000 persons

No.	Service Areas	25 Miles or Less	Percent of Pop.	25-38 miles	Percent of Pop.	38-50 miles	Percent of Pop.	More Than 50 miles	Percent of Pop.	Total Pop.
1	Oklahoma City	163724	100.00	0	0.00	0	0.00	0	0.00	163724
2	Tulsa	286243	100.00	0	0.00	0	0.00	0	0.00	286243
3	Lawton	83104	97.09	2489	2.91	0	0.00	0	0.00	85593
4	Norman	82913	100.00	0	0.00	0	0.00	0	0.00	82913
5	Broken Arrow	87959	100.00	0	0.00	0	0.00	0	0.00	87959
6	Edmond	58416	100.00	0	0.00	0	0.00	0	0.00	58416
7	Midwest City	55766	100.00	0	0.00	0	0.00	0	0.00	55766
8	Enid	61197	82.05	7492	10.04	5626	7.54	271	0.36	74586
9	Moore	104523	100.00	0	0.00	0	0.00	0	0.00	104523
10	Muskogee	62349	89.68	7178	10.32	0	0.00	0	0.00	69527
11	Stillwater	55961	99.03	548	0.97	0	0.00	0	0.00	56509
12	Bartlesville	57723	84.86	9969	14.66	332	0.49	0	0.00	68024
13	Ponca City	39468	89.37	4696	10.63	0	0.00	0	0.00	44164
14	Shawnee	39364	96.97	1232	3.03	0	0.00	0	0.00	40596
15	Del City city	62680	100.00	0	0.00	0	0.00	0	0.00	62680
16	Ardmore	52338	77.19	15241	22.48	228	0.34	0	0.00	67807
17	Altus	31961	67.94	12727	27.06	2173	4.62	179	0.38	47040
18	Duncan	43850	83.37	7998	15.21	747	1.42	0	0.00	52595
19	Yukon	31854	100.00	0	0.00	0	0.00	0	0.00	31854
20	Bethany	53343	100.00	0	0.00	0	0.00	0	0.00	53343
21	Sapulpa city	40331	88.37	5309	11.63	0	0.00	0	0.00	45640
22	McAlester	40316	74.06	11196	20.57	2076	3.81	846	1.55	54434
23	Ada city	41580	87.16	4529	9.49	1597	3.35	0	0.00	47706
24	El Reno	28214	92.50	2124	6.96	162	0.53	0	0.00	30500
25	Sand Springs	56340	84.22	8852	13.23	1705	2.55	0	0.00	66897
26	Chickasha	31117	95.67	1410	4.33	0	0.00	0	0.00	32527
27	Okmulgee	25281	96.07	1035	3.93	0	0.00	0	0.00	26316
28	Claremore	40551	100.00	0	0.00	0	0.00	0	0.00	40551
29	Miami	31441	100.00	0	0.00	0	0.00	0	0.00	31441
30	Durant	37888	74.25	8166	16.00	4973	9.75	0	0.00	51027
31	Woodward	19253	60.98	5117	16.21	6077	19.25	1128	3.57	31575
32	Fort Sill CDP	29277	100.00	0	0.00	0	0.00	0	0.00	29277
33	Owasso	48780	100.00	0	0.00	0	0.00	0	0.00	48780
34	Guthrie	26350	97.00	814	3.00	0	0.00	0	0.00	27164
35	Mustang	32249	100.00	0	0.00	0	0.00	0	0.00	32249
36	Elk City	22239	75.47	4837	16.42	1835	6.23	555	1.88	29466

No.	Service Area	25 Miles or Less	Percent of Pop.	25-38 miles	Percent of Pop.	38-50 miles	Percent of Pop.	More Than 50 miles	Percent of Pop.	Total Pop.
37	Tahlequah	39302	79.06	10408	20.94	0	0.00	0	0.00	49710
38	The Village	90027	100.00	0	0.00	0	0.00	0	0.00	90027
39	Weatherford	19492	67.88	4930	17.17	4295	14.96	0	0.00	28717
40	Bixby	16029	100.00	0	0.00	0	0.00	0	0.00	16029
41	Clinton	17203	85.94	2352	11.75	462	2.31	0	0.00	20017
42	Warr Acres	86683	100.00	0	0.00	0	0.00	0	0.00	86683
43	Choctaw	39902	100.00	0	0.00	0	0.00	0	0.00	39902
44	Pryor Creek	30877	87.17	2763	7.80	1783	5.03	0	0.00	35423
45	Guymon	11390	45.69	3466	13.90	4426	17.75	5649	22.66	24931
46	Blackwell	15996	93.09	1154	6.72	33	0.19	0	0.00	17183
47	Jenks	56577	100.00	0	0.00	0	0.00	0	0.00	56577
48	Cushing	32326	80.90	7634	19.10	0	0.00	0	0.00	39960
49	Poteau	34807	76.64	6693	14.74	3917	8.62	0	0.00	45417
50	Sallisaw	40638	80.43	9885	19.57	0	0.00	0	0.00	50523
51	Seminole	32841	84.44	6050	15.56	0	0.00	0	0.00	38891
52	Idabel	29133	91.72	1474	4.64	747	2.35	410	1.29	31764
53	Wagoner	16536	100.00	0	0.00	0	0.00	0	0.00	16536
54	Glenpool	9265	100.00	0	0.00	0	0.00	0	0.00	9265
55	Anadarko	24918	89.76	2775	10.00	68	0.24	0	0.00	27761
56	Coweta	20052	100.00	0	0.00	0	0.00	0	0.00	20052
57	Pauls Valley	26357	70.78	10882	29.22	0	0.00	0	0.00	37239
58	Hugo	20049	73.38	5739	21.00	1536	5.62	0	0.00	27324
59	Henryetta	21721	70.00	9307	30.00	0	0.00	0	0.00	31028
60	Vinita	28850	75.01	8791	22.86	819	2.13	0	0.00	38460
61	Tecumseh	21842	100.00	0	0.00	0	0.00	0	0.00	21842
62	Alva	10006	68.87	3736	25.72	786	5.41	0	0.00	14528
63	Frederick	8970	86.38	1414	13.62	0	0.00	0	0.00	10384
	Total	2867732	91.17	222412	7.07	46403	1.48	9038	0.29	3145585

Note:

We use the census definitions of Oklahoma City. El Reno, Mustang etc. are considered separately.

For example, with a primary care facility at McAlester, 40316 or 74.06% of the people served will travel less than 25 miles, 11,196 or 20.57% 25-38 miles, 2076 or 3.81% will travel 38-50 miles, 846 or 1.55% will travel more than 50 miles.

Exhibit 4

Distribution of Population Traveling Distance of All Counties with Service Area at All Cities with a Population of More Than 5000 persons

(See note in Exhibit 3 for definition of column headings)

No.	County	25 Miles or Less	Percent of Pop.	25-38 miles	Percent of Pop.	38-50 miles	Percent of Pop.	More Than 50 miles	Percent of Pop.	Total Pop.
1	Adair	8315	45.14	10106	54.86	0	0.00	0	0.00	18421
2	Alfalfa	3152	49.13	3264	50.87	0	0.00	0	0.00	6416
3	Atoka	934	7.31	5482	42.90	6362	49.79	0	0.00	12778
4	Beaver	0	0.00	0	0.00	2160	35.86	3863	64.14	6023
5	Beckham	16684	88.69	732	3.89	1287	6.84	109	0.58	18812
6	Blaine	601	5.24	4875	42.50	5723	49.90	271	2.36	11470
7	Bryan	30848	96.13	1241	3.87	0	0.00	0	0.00	32089
8	Caddo	27814	94.13	1736	5.87	0	0.00	0	0.00	29550
9	Canadian	74409	100.00	0	0.00	0	0.00	0	0.00	74409
10	Carter	39719	92.54	3200	7.46	0	0.00	0	0.00	42919
11	Cherokee	34049	100.00	0	0.00	0	0.00	0	0.00	34049
12	Choctaw	15302	100.00	0	0.00	0	0.00	0	0.00	15302
13	Cimarron	0	0.00	0	0.00	867	26.26	2434	73.74	3301
14	Cleveland	174253	100.00	0	0.00	0	0.00	0	0.00	174253
15	Coal	762	13.18	2560	44.29	2458	42.53	0	0.00	5780
16	Comanche	111486	100.00	0	0.00	0	0.00	0	0.00	111486
17	Cotton	2777	41.75	3874	58.25	0	0.00	0	0.00	6651
18	Craig	14104	100.00	0	0.00	0	0.00	0	0.00	14104
19	Creek	51784	85.01	9131	14.99	0	0.00	0	0.00	60915
20	Custer	26685	99.21	212	0.79	0	0.00	0	0.00	26897
21	Delaware	11070	39.44	14398	51.29	2602	9.27	0	0.00	28070
22	Dewey	0	0.00	3578	64.46	1973	35.54	0	0.00	5551
23	Ellis	732	16.28	2656	59.06	942	20.95	167	3.71	4497
24	Garfield	56361	99.34	374	0.66	0	0.00	0	0.00	56735
25	Garvin	23533	88.45	3072	11.55	0	0.00	0	0.00	26605
26	Grady	40696	97.48	1051	2.52	0	0.00	0	0.00	41747
27	Grant	2875	50.54	2430	42.71	384	6.75	0	0.00	5689
28	Greer	1362	20.77	5004	76.29	193	2.94	0	0.00	6559
29	Harmon	0	0.00	3438	90.64	176	4.64	179	4.72	3793
30	Harper	124	3.05	316	7.78	3310	81.47	313	7.70	4063
31	Haskell	2948	26.95	6882	62.91	1110	10.15	0	0.00	10940
32	Hughes	6733	51.70	6290	48.30	0	0.00	0	0.00	13023
33	Jackson	28072	97.59	692	2.41	0	0.00	0	0.00	28764
34	Jefferson	207	2.95	5828	83.14	975	13.91	0	0.00	7010
35	Johnston	4949	49.33	5083	50.67	0	0.00	0	0.00	10032
36	Kay	48056	100.00	0	0.00	0	0.00	0	0.00	48056
37	Kingfisher	10687	80.89	2348	17.77	177	1.34	0	0.00	13212

No.	County	25 Miles or Less	Percent of Pop.	25-38 miles	Percent of Pop.	38-50 miles	Percent of Pop.	More Than 50 miles	Percent of Pop.	Total Pop.
38	Kiowa	2527	22.27	6888	60.70	1932	17.03	0	0.00	11347
39	Latimer	2799	27.09	6872	66.51	662	6.41	0	0.00	10333
40	Le Flore	35590	82.25	5819	13.45	1861	4.30	0	0.00	43270
41	Lincoln	25598	87.62	3618	12.38	0	0.00	0	0.00	29216
42	Logan	28595	98.57	416	1.43	0	0.00	0	0.00	29011
43	Love	4902	60.10	3255	39.90	0	0.00	0	0.00	8157
44	McClain	20125	88.29	2670	11.71	0	0.00	0	0.00	22795
45	McCurtain	29133	87.14	2607	7.80	1693	5.06	0	0.00	33433
46	McIntosh	4515	26.91	12264	73.09	0	0.00	0	0.00	16779
47	Major	418	5.19	2869	35.62	4768	59.19	0	0.00	8055
48	Marshall	5001	46.18	5828	53.82	0	0.00	0	0.00	10829
49	Mayes	33366	100.00	0	0.00	0	0.00	0	0.00	33366
50	Murray	5325	44.22	6717	55.78	0	0.00	0	0.00	12042
51	Muskogee	65510	96.23	2568	3.77	0	0.00	0	0.00	68078
52	Noble	10318	93.42	727	6.58	0	0.00	0	0.00	11045
53	Nowata	7835	78.41	1825	18.26	332	3.32	0	0.00	9992
54	Okfuskee	9279	80.33	2272	19.67	0	0.00	0	0.00	11551
55	Oklahoma	599611	100.00	0	0.00	0	0.00	0	0.00	599611
56	Okmulgee	36490	100.00	0	0.00	0	0.00	0	0.00	36490
57	Osage	24707	59.33	15233	36.58	1705	4.09	0	0.00	41645
58	Ottawa	30561	100.00	0	0.00	0	0.00	0	0.00	30561
59	Pawnee	5312	34.11	10263	65.89	0	0.00	0	0.00	15575
60	Payne	61507	100.00	0	0.00	0	0.00	0	0.00	61507
61	Pittsburg	37517	92.45	3064	7.55	0	0.00	0	0.00	40581
62	Pontotoc	34119	100.00	0	0.00	0	0.00	0	0.00	34119
63	Pottawatomie	58038	98.77	722	1.23	0	0.00	0	0.00	58760
64	Pushmataha	4747	43.17	4294	39.05	700	6.37	1256	11.42	10997
65	Roger Mills	1606	38.73	1607	38.75	488	11.77	446	10.75	4147
66	Rogers	55170	100.00	0	0.00	0	0.00	0	0.00	55170
67	Seminole	25412	100.00	0	0.00	0	0.00	0	0.00	25412
68	Sequoyah	33828	100.00	0	0.00	0	0.00	0	0.00	33828
69	Stephens	41423	97.93	876	2.07	0	0.00	0	0.00	42299
70	Texas	11390	69.37	3466	21.11	1563	9.52	0	0.00	16419
71	Tillman	8970	86.38	1414	13.62	0	0.00	0	0.00	10384
72	Tulsa	503341	100.00	0	0.00	0	0.00	0	0.00	503341
73	Wagoner	47883	100.00	0	0.00	0	0.00	0	0.00	47883
74	Washington	48066	100.00	0	0.00	0	0.00	0	0.00	48066
75	Washita	9446	82.56	1995	17.44	0	0.00	0	0.00	11441
76	Woods	7272	79.89	1831	20.11	0	0.00	0	0.00	9103
77	Woodward	18397	96.95	579	3.05	0	0.00	0	0.00	18976
Total		**2867732**	**91.17**	**222412**	**7.07**	**46403**	**1.48**	**9038**	**0.29**	**3145585**

Exhibit 5

Population Traveling Distance Distribution With Primary Care Facilities on All cities of Population More Than 5000 Persons

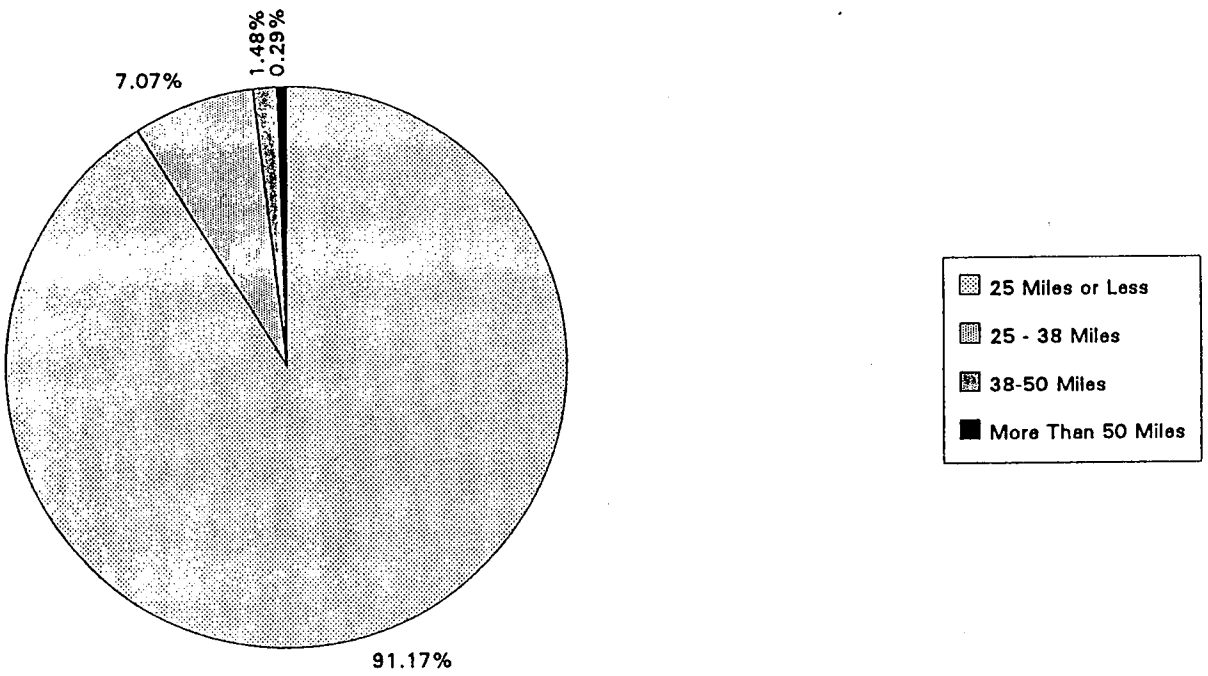


Exhibit 6

Proposal 1 Population Traveling Distance Distribution

(See note at end of exhibit 3)

No.	Service Area	25 Miles or Less	Percent of Pop.	25-38 miles	Percent of Pop.	38-50 miles	Percent of Pop.	More Than 50 miles	Percent of Pop.	Total Pop.
1	Oklahoma City	721215	97.94	15198	2.06	0	0.00	0	0.00	736413
2	Tulsa	560900	97.23	15993	2.77	0	0.00	0	0.00	576893
3	Lawton	113765	95.32	5589	4.68	0	0.00	0	0.00	119354
4	Norman	135131	97.91	2884	2.09	0	0.00	0	0.00	138015
5	Enid	59991	93.81	3833	5.99	128	0.20	0	0.00	63952
6	Muskogee	80746	86.64	11460	12.30	987	1.06	0	0.00	93193
7	Stillwater	58701	91.79	5248	8.21	0	0.00	0	0.00	63949
8	Bartlesville	58669	85.06	9969	14.45	332	0.48	0	0.00	68970
9	Ponca City	52093	92.12	4338	7.67	115	0.20	0	0.00	56546
10	Ardmore	52338	77.19	15241	22.48	228	0.34	0	0.00	67807
11	Altus	29966	91.15	2909	8.85	0	0.00	0	0.00	32875
12	Duncan	43850	83.37	7998	15.21	747	1.42	0	0.00	52595
13	McAlester	40316	81.05	9428	18.95	0	0.00	0	0.00	49744
14	Ada	41580	94.29	2517	5.71	0	0.00	0	0.00	44097
15	Chickasha	49206	89.66	5677	10.34	0	0.00	0	0.00	54883
16	Okmulgee	41585	82.91	8569	17.09	0	0.00	0	0.00	50154
17	Claremore	80456	93.84	5278	6.16	0	0.00	0	0.00	85734
18	Miami	31441	100.00	0	0.00	0	0.00	0	0.00	31441
19	Durant	36954	91.29	3524	8.71	0	0.00	0	0.00	40478
20	Woodward	18607	88.59	2145	10.21	251	1.20	0	0.00	21003
21	Elk City	22049	83.30	3210	12.13	1210	4.57	0	0.00	26469
22	Tahlequah	42113	85.50	7144	14.50	0	0.00	0	0.00	49257
23	Weatherford	31652	79.04	8393	20.96	0	0.00	0	0.00	40045
24	Guymon	11390	76.67	3466	23.33	0	0.00	0	0.00	14856
25	Cushing	32618	68.99	14663	31.01	0	0.00	0	0.00	47281
26	Poteau	34807	79.91	6693	15.37	2056	4.72	0	0.00	43556
27	Sallisaw	40638	80.43	9885	19.57	0	0.00	0	0.00	50523
28	Seminole	68508	78.66	18590	21.34	0	0.00	0	0.00	87098
29	Idabel	29133	95.18	1474	4.82	0	0.00	0	0.00	30607
30	Pauls Valley	26357	70.78	10882	29.22	0	0.00	0	0.00	37239
31	Hugo	20049	94.65	1133	5.35	0	0.00	0	0.00	21182
32	Vinita	26094	91.19	2520	8.81	0	0.00	0	0.00	28614
33	Alva	10006	80.04	2182	17.45	314	2.51	0	0.00	12502
34	Frederick	8970	86.38	1414	13.62	0	0.00	0	0.00	10384
35	Hobart	14297	82.64	3003	17.36	0	0.00	0	0.00	17300
36	Kingfisher	30735	61.95	18876	38.05	0	0.00	0	0.00	49611
37	Mangum	7323	79.88	1735	18.93	109	1.19	0	0.00	9167

No.	Service Area	25 Miles or Less	Percent of Pop.	25-38 miles	Percent of Pop.	38-50 miles	Percent of Pop.	More Than 50 miles	Percent of Pop.	Total Pop.
38	Atoka	16745	86.04	2716	13.96	0	0.00	0	0.00	19461
39	Fairview	12361	74.45	3527	21.24	716	4.31	0	0.00	16604
40	Jay	28328	92.93	2155	7.07	0	0.00	0	0.00	30483
41	Pawnee	15521	72.43	5907	27.57	0	0.00	0	0.00	21428
42	Beaver	4820	67.58	1080	15.14	1232	17.27	0	0.00	7132
43	Boise City	3126	88.23	175	4.94	242	6.83	0	0.00	3543
44	Buffalo	3269	73.64	1170	26.36	0	0.00	0	0.00	4439
45	Clayton	8052	60.72	5208	39.28	0	0.00	0	0.00	13260
46	Arnett	4165	76.45	795	14.59	488	8.96	0	0.00	5448
	Total	2860636	90.94	275794	8.77	9155	0.29	0	0.00	3145585

Exhibit 7

Proposal 1 Population Traveling Distance Distribution of All Counties

(See note at end of exhibit 3)

No.	County	25 Miles or Less	Percent of Pop.	25-38 miles	Percent of Pop.	38-50 miles	Percent of Pop.	More Than 50 miles	Percent of Pop.	Total Pop.
1	Adair	8315	45.14	10106	54.86	0	0.00	0	0.00	18421
2	Alfalfa	4145	64.60	2271	35.40	0	0.00	0	0.00	6416
3	Atoka	11834	92.61	944	7.39	0	0.00	0	0.00	12778
4	Beaver	5032	83.55	827	13.73	164	2.72	0	0.00	6023
5	Beckham	16684	88.69	809	4.30	1319	7.01	0	0.00	18812
6	Blaine	5728	49.94	5742	50.06	0	0.00	0	0.00	11470
7	Bryan	30848	96.13	1241	3.87	0	0.00	0	0.00	32089
8	Caddo	20076	67.94	9474	32.06	0	0.00	0	0.00	29550
9	Canadian	68796	92.46	5613	7.54	0	0.00	0	0.00	74409
10	Carter	39719	92.54	3200	7.46	0	0.00	0	0.00	42919
11	Cherokee	34049	100.00	0	0.00	0	0.00	0	0.00	34049
12	Choctaw	15302	100.00	0	0.00	0	0.00	0	0.00	15302
13	Cimarron	3126	94.70	175	5.30	0	0.00	0	0.00	3301
14	Cleveland	174253	100.00	0	0.00	0	0.00	0	0.00	174253
15	Coal	5232	90.52	548	9.48	0	0.00	0	0.00	5780
16	Comanche	108386	97.22	3100	2.78	0	0.00	0	0.00	111486
17	Cotton	2777	41.75	3874	58.25	0	0.00	0	0.00	6651
18	Craig	14104	100.00	0	0.00	0	0.00	0	0.00	14104
19	Creek	38514	63.23	22401	36.77	0	0.00	0	0.00	60915
20	Custer	25943	96.45	954	3.55	0	0.00	0	0.00	26897
21	Delaware	28070	100.00	0	0.00	0	0.00	0	0.00	28070
22	Dewey	0	0.00	4584	82.58	967	17.42	0	0.00	5551
23	Ellis	4375	97.29	122	2.71	0	0.00	0	0.00	4497
24	Garfield	56361	99.34	374	0.66	0	0.00	0	0.00	56735
25	Garvin	23533	88.45	3072	11.55	0	0.00	0	0.00	26605
26	Grady	39969	95.74	1778	4.26	0	0.00	0	0.00	41747
27	Grant	1224	21.52	3908	68.69	557	9.79	0	0.00	5689
28	Greer	6559	100.00	0	0.00	0	0.00	0	0.00	6559
29	Harmon	288	7.59	3505	92.41	0	0.00	0	0.00	3793
30	Harper	3057	75.24	1006	24.76	0	0.00	0	0.00	4063
31	Haskell	2948	26.95	6882	62.91	1110	10.15	0	0.00	10940
32	Hughes	5844	44.87	7179	55.13	0	0.00	0	0.00	13023
33	Jackson	28072	97.59	692	2.41	0	0.00	0	0.00	28764
34	Jefferson	207	2.95	5828	83.14	975	13.91	0	0.00	7010
35	Johnston	5390	53.73	4642	46.27	0	0.00	0	0.00	10032
36	Kay	47191	98.20	865	1.80	0	0.00	0	0.00	48056
37	Kingfisher	12726	96.32	486	3.68	0	0.00	0	0.00	13212

No.	County	25 Miles or Less	Percent of Pop.	25-38 miles	Percent of Pop.	38-50 miles	Percent of Pop.	More Than 50 miles	Percent of Pop.	Total Pop.
38	Kiowa	10672	94.05	675	5.95	0	0.00	0	0.00	11347
39	Latimer	6519	63.09	3814	36.91	0	0.00	0	0.00	10333
40	Le Flore	35590	82.25	7680	17.75	0	0.00	0	0.00	43270
41	Lincoln	15187	51.98	14029	48.02	0	0.00	0	0.00	29216
42	Logan	9964	34.35	19047	65.65	0	0.00	0	0.00	29011
43	Love	4902	60.10	3255	39.90	0	0.00	0	0.00	8157
44	McClain	20125	88.29	2670	11.71	0	0.00	0	0.00	22795
45	McCurtain	29133	87.14	3354	10.03	946	2.83	0	0.00	33433
46	McIntosh	1882	11.22	13910	82.90	987	5.88	0	0.00	16779
47	Major	8055	100.00	0	0.00	0	0.00	0	0.00	8055
48	Marshall	5001	46.18	5828	53.82	0	0.00	0	0.00	10829
49	Mayes	26334	78.92	7032	21.08	0	0.00	0	0.00	33366
50	Murray	5325	44.22	6717	55.78	0	0.00	0	0.00	12042
51	Muskogee	65510	96.23	2568	3.77	0	0.00	0	0.00	68078
52	Noble	9463	85.68	1582	14.32	0	0.00	0	0.00	11045
53	Nowata	7835	78.41	1825	18.26	332	3.32	0	0.00	9992
54	Okfuskee	3487	30.19	8064	69.81	0	0.00	0	0.00	11551
55	Oklahoma	595980	99.39	3631	0.61	0	0.00	0	0.00	599611
56	Okmulgee	36490	100.00	0	0.00	0	0.00	0	0.00	36490
57	Osage	27170	65.24	14475	34.76	0	0.00	0	0.00	41645
58	Ottawa	30561	100.00	0	0.00	0	0.00	0	0.00	30561
59	Pawnee	10344	66.41	5231	33.59	0	0.00	0	0.00	15575
60	Payne	61507	100.00	0	0.00	0	0.00	0	0.00	61507
61	Pittsburg	37517	92.45	3064	7.55	0	0.00	0	0.00	40581
62	Pontotoc	34119	100.00	0	0.00	0	0.00	0	0.00	34119
63	Pottawatomie	46008	78.30	12752	21.70	0	0.00	0	0.00	58760
64	Pushmataha	9079	82.56	1918	17.44	0	0.00	0	0.00	10997
65	Roger Mills	1606	38.73	2053	49.51	488	11.77	0	0.00	4147
66	Rogers	55170	100.00	0	0.00	0	0.00	0	0.00	55170
67	Seminole	25412	100.00	0	0.00	0	0.00	0	0.00	25412
68	Sequoyah	33828	100.00	0	0.00	0	0.00	0	0.00	33828
69	Stephens	41423	97.93	876	2.07	0	0.00	0	0.00	42299
70	Texas	11390	69.37	3719	22.65	1310	7.98	0	0.00	16419
71	Tillman	8970	86.38	1414	13.62	0	0.00	0	0.00	10384
72	Tulsa	503341	100.00	0	0.00	0	0.00	0	0.00	503341
73	Wagoner	42375	88.50	5508	11.50	0	0.00	0	0.00	47883
74	Washington	48066	100.00	0	0.00	0	0.00	0	0.00	48066
75	Washita	10950	95.71	491	4.29	0	0.00	0	0.00	11441
76	Woods	7272	79.89	1831	20.11	0	0.00	0	0.00	9103
77	Woodward	18397	96.95	579	3.05	0	0.00	0	0.00	18976
	Total	2860636	90.94	275794	8.77	9155	0.29	0	0.00	3145585

Exhibit 8

Proposal 2 Distribution of Population Traveling Distance

No.	Service Area	25 Miles or Less	Percent of Pop.	25-38 miles	Percent of Pop.	38-50 miles	Percent of Pop.	More Than 50 miles	Percent of Pop.	Total Pop.
1	Oklahoma City	721215	97.94	15198	2.06	0	0.00	0	0.00	736413
2	Tulsa	560900	97.23	15993	2.77	0	0.00	0	0.00	576893
3	Lawton	113765	95.32	5589	4.68	0	0.00	0	0.00	119354
4	Norman	135131	97.91	2884	2.09	0	0.00	0	0.00	138015
5	Enid	59991	93.81	3833	5.99	128	0.20	0	0.00	63952
6	Muskogee	80746	86.64	11460	12.30	987	1.06	0	0.00	93193
7	Stillwater	58701	91.79	5248	8.21	0	0.00	0	0.00	63949
8	Bartlesville	58669	85.06	9969	14.45	332	0.48	0	0.00	68970
9	Ponca City	52093	92.12	4338	7.67	115	0.20	0	0.00	56546
10	Ardmore	52338	77.19	15241	22.48	228	0.34	0	0.00	67807
11	Altus	29966	91.15	2909	8.85	0	0.00	0	0.00	32875
12	Duncan	43850	83.37	7998	15.21	747	1.42	0	0.00	52595
13	McAlester	40316	81.05	9428	18.95	0	0.00	0	0.00	49744
14	Ada	41580	94.29	2517	5.71	0	0.00	0	0.00	44097
15	Chickasha	49206	89.66	5677	10.34	0	0.00	0	0.00	54883
16	Okmulgee	41585	82.91	8569	17.09	0	0.00	0	0.00	50154
17	Claremore	80456	93.84	5278	6.16	0	0.00	0	0.00	85734
18	Miami	31441	100.00	0	0.00	0	0.00	0	0.00	31441
19	Durant	36954	91.29	3524	8.71	0	0.00	0	0.00	40478
20	Woodward	18607	97.79	421	2.21	0	0.00	0	0.00	19028
21	Elk City	22049	85.38	2565	9.93	1210	4.69	0	0.00	25824
22	Tahlequah	42113	85.50	7144	14.50	0	0.00	0	0.00	49257
23	Weatherford	31652	81.00	7424	19.00	0	0.00	0	0.00	39076
24	Guymon	11390	76.67	3466	23.33	0	0.00	0	0.00	14856
25	Cushing	32618	68.99	14663	31.01	0	0.00	0	0.00	47281
26	Poteau	34807	79.91	6693	15.37	2056	4.72	0	0.00	43556
27	Sallisaw	40638	80.43	9885	19.57	0	0.00	0	0.00	50523
28	Seminole	68508	78.66	18590	21.34	0	0.00	0	0.00	87098
29	Idabel	29133	95.18	1474	4.82	0	0.00	0	0.00	30607
30	Pauls Valley	26357	70.78	10882	29.22	0	0.00	0	0.00	37239
31	Hugo	20049	94.65	1133	5.35	0	0.00	0	0.00	21182
32	Vinita	26094	91.19	2520	8.81	0	0.00	0	0.00	28614
33	Alva	10006	80.04	2182	17.45	314	2.51	0	0.00	12502
34	Frederick	8970	86.38	1414	13.62	0	0.00	0	0.00	10384
35	Hobart	14297	82.64	3003	17.36	0	0.00	0	0.00	17300
36	Kingfisher	30735	61.95	18876	38.05	0	0.00	0	0.00	49611
37	Mangum	7323	79.88	1735	18.93	109	1.19	0	0.00	9167

No.	Service Area	25 Miles or Less	Percent of Pop.	25-38 miles	Percent of Pop.	38-50 miles	Percent of Pop.	More Than 50 miles	Percent of Pop.	Total Pop.
38	Atoka	16745	86.04	2716	13.96	0	0.00	0	0.00	19461
39	Fairview	11906	86.34	1884	13.66	0	0.00	0	0.00	13790
40	Jay	28328	92.93	2155	7.07	0	0.00	0	0.00	30483
41	Pawnee	15521	72.43	5907	27.57	0	0.00	0	0.00	21428
42	Beaver	4820	67.58	1080	15.14	1232	17.27	0	0.00	7132
43	Boise City	3126	88.23	175	4.94	242	6.83	0	0.00	3543
44	Buffalo	3269	73.64	1170	26.36	0	0.00	0	0.00	4439
45	Clayton	8052	60.72	5208	39.28	0	0.00	0	0.00	13260
46	Arnett	4165	76.45	795	14.59	488	8.96	0	0.00	5448
47	Taloga	5646	88.18	757	11.82	0	0.00	0	0.00	6403
	Total	2865827	91.11	271570	8.63	8188	0.26	0	0.00	3145585

Exhibit 9

Proposal 2 Population Traveling Distance Distribution of All Counties

(See note at end of exhibit 3)

No	County	25 Miles or Less	Percent of Pop.	25-38 miles	Percent of Pop.	38-50 miles	Percent of Pop.	More Than 50 miles	Percent of Pop.	Total Pop.
1	Adair	8315	45.14	10106	54.86	0	0.00	0	0.00	18421
2	Alfalfa	4145	64.60	2271	35.40	0	0.00	0	0.00	6416
3	Atoka	11834	92.61	944	7.39	0	0.00	0	0.00	12778
4	Beaver	5032	83.55	827	13.73	164	2.72	0	0.00	6023
5	Beckham	16684	88.69	809	4.30	1319	7.01	0	0.00	18812
6	Blaine	5728	49.94	5742	50.06	0	0.00	0	0.00	11470
7	Bryan	30848	96.13	1241	3.87	0	0.00	0	0.00	32089
8	Caddo	20076	67.94	9474	32.06	0	0.00	0	0.00	29550
9	Canadian	68796	92.46	5613	7.54	0	0.00	0	0.00	74409
10	Carter	39719	92.54	3200	7.46	0	0.00	0	0.00	42919
11	Cherokee	34049	100.00	0	0.00	0	0.00	0	0.00	34049
12	Choctaw	15302	100.00	0	0.00	0	0.00	0	0.00	15302
13	Cimarron	3126	94.70	175	5.30	0	0.00	0	0.00	3301
14	Cleveland	174253	100.00	0	0.00	0	0.00	0	0.00	174253
15	Coal	5232	90.52	548	9.48	0	0.00	0	0.00	5780
16	Comanche	108386	97.22	3100	2.78	0	0.00	0	0.00	111486
17	Cotton	2777	41.75	3874	58.25	0	0.00	0	0.00	6651
18	Craig	14104	100.00	0	0.00	0	0.00	0	0.00	14104
19	Creek	38514	63.23	22401	36.77	0	0.00	0	0.00	60915
20	Custer	26070	96.93	827	3.07	0	0.00	0	0.00	26897
21	Delaware	28070	100.00	0	0.00	0	0.00	0	0.00	28070
22	Dewey	4906	88.38	645	11.62	0	0.00	0	0.00	5551
23	Ellis	4375	97.29	122	2.71	0	0.00	0	0.00	4497
24	Garfield	56361	99.34	374	0.66	0	0.00	0	0.00	56735
25	Garvin	23533	88.45	3072	11.55	0	0.00	0	0.00	26605
26	Grady	39969	95.74	1778	4.26	0	0.00	0	0.00	41747
27	Grant	1224	21.52	3908	68.69	557	9.79	0	0.00	5689
28	Greer	6559	100.00	0	0.00	0	0.00	0	0.00	6559
29	Harmon	288	7.59	3505	92.41	0	0.00	0	0.00	3793
30	Harper	3057	75.24	1006	24.76	0	0.00	0	0.00	4063
31	Haskell	2948	26.95	6882	62.91	1110	10.15	0	0.00	10940
32	Hughes	5844	44.87	7179	55.13	0	0.00	0	0.00	13023
33	Jackson	28072	97.59	692	2.41	0	0.00	0	0.00	28764
34	Jefferson	207	2.95	5828	83.14	975	13.91	0	0.00	7010
35	Johnston	5390	53.73	4642	46.27	0	0.00	0	0.00	10032
36	Kay	47191	98.20	865	1.80	0	0.00	0	0.00	48056
37	Kingfisher	12726	96.32	486	3.68	0	0.00	0	0.00	13212

No	County	25 Miles or Less	Percent of Pop.	25-38 miles	Percent of Pop.	38-50 miles	Percent of Pop.	More Than 50 miles	Percent of Pop.	Total Pop.
38	Kiowa	10672	94.05	675	5.95	0	0.00	0	0.00	11347
39	Latimer	6519	63.09	3814	36.91	0	0.00	0	0.00	10333
40	Le Flore	35590	82.25	7680	17.75	0	0.00	0	0.00	43270
41	Lincoln	15187	51.98	14029	48.02	0	0.00	0	0.00	29216
42	Logan	9964	34.35	19047	65.65	0	0.00	0	0.00	29011
43	Love	4902	60.10	3255	39.90	0	0.00	0	0.00	8157
44	McClain	20125	88.29	2670	11.71	0	0.00	0	0.00	22795
45	McCurtain	29133	87.14	3354	10.03	946	2.83	0	0.00	33433
46	McIntosh	1882	11.22	13910	82.90	987	5.88	0	0.00	16779
47	Major	8055	100.00	0	0.00	0	0.00	0	0.00	8055
48	Marshall	5001	46.18	5828	53.82	0	0.00	0	0.00	10829
49	Mayes	26334	78.92	7032	21.08	0	0.00	0	0.00	33366
50	Murray	5325	44.22	6717	55.78	0	0.00	0	0.00	12042
51	Muskogee	65510	96.23	2568	3.77	0	0.00	0	0.00	68078
52	Noble	9463	85.68	1582	14.32	0	0.00	0	0.00	11045
53	Nowata	7835	78.41	1825	18.26	332	3.32	0	0.00	9992
54	Okfuskee	3487	30.19	8064	69.81	0	0.00	0	0.00	11551
55	Oklahoma	595980	99.39	3631	0.61	0	0.00	0	0.00	599611
56	Okmulgee	36490	100.00	0	0.00	0	0.00	0	0.00	36490
57	Osage	27170	65.24	14475	34.76	0	0.00	0	0.00	41645
58	Ottawa	30561	100.00	0	0.00	0	0.00	0	0.00	30561
59	Pawnee	10344	66.41	5231	33.59	0	0.00	0	0.00	15575
60	Payne	61507	100.00	0	0.00	0	0.00	0	0.00	61507
61	Pittsburg	37517	92.45	3064	7.55	0	0.00	0	0.00	40581
62	Pontotoc	34119	100.00	0	0.00	0	0.00	0	0.00	34119
63	Pottawatomie	46008	78.30	12752	21.70	0	0.00	0	0.00	58760
64	Pushmataha	9079	82.56	1918	17.44	0	0.00	0	0.00	10997
65	Roger Mills	1606	38.73	2053	49.51	488	11.77	0	0.00	4147
66	Rogers	55170	100.00	0	0.00	0	0.00	0	0.00	55170
67	Seminole	25412	100.00	0	0.00	0	0.00	0	0.00	25412
68	Sequoyah	33828	100.00	0	0.00	0	0.00	0	0.00	33828
69	Stephens	41423	97.93	876	2.07	0	0.00	0	0.00	42299
70	Texas	11390	69.37	3719	22.65	1310	7.98	0	0.00	16419
71	Tillman	8970	86.38	1414	13.62	0	0.00	0	0.00	10384
72	Tulsa	503341	100.00	0	0.00	0	0.00	0	0.00	503341
73	Wagoner	42375	88.50	5508	11.50	0	0.00	0	0.00	47883
74	Washington	48066	100.00	0	0.00	0	0.00	0	0.00	48066
75	Washita	10950	95.71	491	4.29	0	0.00	0	0.00	11441
76	Woods	7272	79.89	1831	20.11	0	0.00	0	0.00	9103
77	Woodward	18555	97.78	421	2.22	0	0.00	0	0.00	18976
	Total	2865827	91.11	271570	8.63	8188	0.26	0	0.00	3145585

Exhibit 10

Proposal 3 Population Traveling Distance Distribution

(See note at end of exhibit 3)

No.	Service Area	25 Miles or Less	Percent of Pop.	25-38 miles	Percent of Pop.	38-50 miles	Percent of Pop.	More Than 50 miles	Percent of Pop.	Total Pop.
1	Oklahoma City	716269	98.96	7535	1.04	0	0.00	0	0.00	723804
2	Tulsa	560900	97.23	15993	2.77	0	0.00	0	0.00	576893
3	Lawton	113765	95.32	5589	4.68	0	0.00	0	0.00	119354
4	Norman	123475	100.00	0	0.00	0	0.00	0	0.00	123475
5	Enid	59991	93.81	3833	5.99	128	0.20	0	0.00	63952
6	Muskogee	80746	86.64	11460	12.30	987	1.06	0	0.00	93193
7	Stillwater	58701	95.40	2832	4.60	0	0.00	0	0.00	61533
8	Bartlesville	58669	85.06	9969	14.45	332	0.48	0	0.00	68970
9	Ponca City	52093	92.12	4338	7.67	115	0.20	0	0.00	56546
10	Shawnee	78821	79.83	19917	20.17	0	0.00	0	0.00	98738
11	Ardmore	52338	77.19	15241	22.48	228	0.34	0	0.00	67807
12	Altus	29966	91.15	2909	8.85	0	0.00	0	0.00	32875
13	Duncan	43850	83.37	7998	15.21	747	1.42	0	0.00	52595
14	McAlester	40316	81.05	9428	18.95	0	0.00	0	0.00	49744
15	Ada	42885	72.76	14254	24.18	1799	3.05	0	0.00	58938
16	Chickasha	49206	89.66	5677	10.34	0	0.00	0	0.00	54883
17	Okmulgee	41585	73.88	12520	22.24	2180	3.87	0	0.00	56285
18	Claremore	80456	93.84	5278	6.16	0	0.00	0	0.00	85734
19	Miami	31441	100.00	0	0.00	0	0.00	0	0.00	31441
20	Durant	36954	91.29	3524	8.71	0	0.00	0	0.00	40478
21	Woodward	18607	88.59	2145	10.21	251	1.20	0	0.00	21003
22	Elk City	22049	82.59	3437	12.87	1210	4.53	0	0.00	26696
23	Tahlequah	42113	85.50	7144	14.50	0	0.00	0	0.00	49257
24	Weatherford	31652	79.04	8393	20.96	0	0.00	0	0.00	40045
25	Guymon	11390	76.67	3466	23.33	0	0.00	0	0.00	14856
26	Cushing	32618	73.74	11616	26.26	0	0.00	0	0.00	44234
27	Poteau	34807	79.91	6693	15.37	2056	4.72	0	0.00	43556
28	Sallisaw	40638	80.43	9885	19.57	0	0.00	0	0.00	50523
29	Idabel	29133	95.18	1474	4.82	0	0.00	0	0.00	30607
30	Pauls Valley	26357	70.78	10882	29.22	0	0.00	0	0.00	37239
31	Hugo	20049	94.65	1133	5.35	0	0.00	0	0.00	21182
32	Vinita	26094	91.19	2520	8.81	0	0.00	0	0.00	28614
33	Alva	10006	80.04	2182	17.45	314	2.51	0	0.00	12502
34	Frederick	8970	86.38	1414	13.62	0	0.00	0	0.00	10384
35	Hobart	14297	82.64	3003	17.36	0	0.00	0	0.00	17300
36	Kingfisher	30735	61.95	18876	38.05	0	0.00	0	0.00	49611
37	Mangum	7323	79.88	1735	18.93	109	1.19	0	0.00	9167

No.	Service Area	25 Miles or Less	Percent of Pop.	25-38 miles	Percent of Pop.	38-50 miles	Percent of Pop.	More Than 50 miles	Percent of Pop.	Total Pop.
38	Atoka	16745	86.04	2716	13.96	0	0.00	0	0.00	19461
39	Fairview	12361	74.45	3527	21.24	716	4.31	0	0.00	16604
40	Jay	28328	92.93	2155	7.07	0	0.00	0	0.00	30483
41	Pawnee	15521	72.43	5907	27.57	0	0.00	0	0.00	21428
42	Beaver	4820	69.17	1080	15.50	1068	15.33	0	0.00	6968
43	Boise City	3126	88.23	175	4.94	242	6.83	0	0.00	3543
44	Shattuck	3943	73.22	954	17.72	488	9.06	0	0.00	5385
45	Buffalo	3269	73.64	1170	26.36	0	0.00	0	0.00	4439
46	Clayton	8052	60.72	5208	39.28	0	0.00	0	0.00	13260
	Total	2855430	90.78	277185	8.81	12970	0.41	0	0.00	3145585

Exhibit 11

Proposal 3 Population Traveling Distance Distribution of All Counties

(See note at end of exhibit 3)

No	County	25 Miles or Less	Percent of Pop.	25-38 miles	Percent of Pop.	38-50 miles	Percent of Pop.	More Than 50 miles	Percent of Pop.	Total Pop.
1	Adair	8315	45.14	10106	54.86	0	0.00	0	0.00	18421
2	Alfalfa	4145	64.60	2271	35.40	0	0.00	0	0.00	6416
3	Atoka	11834	92.61	944	7.39	0	0.00	0	0.00	12778
4	Beaver	5032	83.55	991	16.45	0	0.00	0	0.00	6023
5	Beckham	16684	88.69	809	4.30	1319	7.01	0	0.00	18812
6	Blaine	5728	49.94	5742	50.06	0	0.00	0	0.00	11470
7	Bryan	30848	96.13	1241	3.87	0	0.00	0	0.00	32089
8	Caddo	20076	67.94	9474	32.06	0	0.00	0	0.00	29550
9	Canadian	68796	92.46	5613	7.54	0	0.00	0	0.00	74409
10	Carter	39719	92.54	3200	7.46	0	0.00	0	0.00	42919
11	Cherokee	34049	100.00	0	0.00	0	0.00	0	0.00	34049
12	Choctaw	15302	100.00	0	0.00	0	0.00	0	0.00	15302
13	Cimarron	3126	94.70	175	5.30	0	0.00	0	0.00	3301
14	Cleveland	174253	100.00	0	0.00	0	0.00	0	0.00	174253
15	Coal	5232	90.52	548	9.48	0	0.00	0	0.00	5780
16	Comanche	108386	97.22	3100	2.78	0	0.00	0	0.00	111486
17	Cotton	2777	41.75	3874	58.25	0	0.00	0	0.00	6651
18	Craig	14104	100.00	0	0.00	0	0.00	0	0.00	14104
19	Creek	38514	63.23	22401	36.77	0	0.00	0	0.00	60915
20	Custer	25943	96.45	954	3.55	0	0.00	0	0.00	26897
21	Delaware	28070	100.00	0	0.00	0	0.00	0	0.00	28070
22	Dewey	0	0.00	4584	82.58	967	17.42	0	0.00	5551
23	Ellis	4153	92.35	344	7.65	0	0.00	0	0.00	4497
24	Garfield	56361	99.34	374	0.66	0	0.00	0	0.00	56735
25	Garvin	23533	88.45	3072	11.55	0	0.00	0	0.00	26605
26	Grady	39969	95.74	1778	4.26	0	0.00	0	0.00	41747
27	Grant	1224	21.52	3908	68.69	557	9.79	0	0.00	5689
28	Greer	6559	100.00	0	0.00	0	0.00	0	0.00	6559
29	Harmon	288	7.59	3505	92.41	0	0.00	0	0.00	3793
30	Harper	3057	75.24	1006	24.76	0	0.00	0	0.00	4063
31	Haskell	2948	26.95	6882	62.91	1110	10.15	0	0.00	10940
32	Hughes	613	4.71	8431	64.74	3979	30.55	0	0.00	13023
33	Jackson	28072	97.59	692	2.41	0	0.00	0	0.00	28764
34	Jefferson	207	2.95	5828	83.14	975	13.91	0	0.00	7010
35	Johnston	5390	53.73	4642	46.27	0	0.00	0	0.00	10032
36	Kay	47191	98.20	865	1.80	0	0.00	0	0.00	48056
37	Kingfisher	12726	96.32	486	3.68	0	0.00	0	0.00	13212
38	Kiowa	10672	94.05	675	5.95	0	0.00	0	0.00	11347

No	County	25 Miles or Less	Percent of Pop.	25-38 miles	Percent of Pop.	38-50 miles	Percent of Pop.	More Than 50 miles	Percent of Pop.	Total Pop.
39	Latimer	6519	63.09	3814	36.91	0	0.00	0	0.00	10333
40	Le Flore	35590	82.25	7680	17.75	0	0.00	0	0.00	43270
41	Lincoln	21877	74.88	7339	25.12	0	0.00	0	0.00	29216
42	Logan	9964	34.35	19047	65.65	0	0.00	0	0.00	29011
43	Love	4902	60.10	3255	39.90	0	0.00	0	0.00	8157
44	McClain	20125	88.29	2670	11.71	0	0.00	0	0.00	22795
45	McCurtain	29133	87.14	3354	10.03	946	2.83	0	0.00	33433
46	McIntosh	1882	11.22	13910	82.90	987	5.88	0	0.00	16779
47	Major	8055	100.00	0	0.00	0	0.00	0	0.00	8055
48	Marshall	5001	46.18	5828	53.82	0	0.00	0	0.00	10829
49	Mayes	26334	78.92	7032	21.08	0	0.00	0	0.00	33366
50	Murray	5325	44.22	6717	55.78	0	0.00	0	0.00	12042
51	Muskogee	65510	96.23	2568	3.77	0	0.00	0	0.00	68078
52	Noble	9463	85.68	1582	14.32	0	0.00	0	0.00	11045
53	Nowata	7835	78.41	1825	18.26	332	3.32	0	0.00	9992
54	Okfuskee	1842	15.95	9709	84.05	0	0.00	0	0.00	11551
55	Oklahoma	597234	99.60	2377	0.40	0	0.00	0	0.00	599611
56	Okmulgee	36490	100.00	0	0.00	0	0.00	0	0.00	36490
57	Osage	27170	65.24	14475	34.76	0	0.00	0	0.00	41645
58	Ottawa	30561	100.00	0	0.00	0	0.00	0	0.00	30561
59	Pawnee	10344	66.41	5231	33.59	0	0.00	0	0.00	15575
60	Payne	61507	100.00	0	0.00	0	0.00	0	0.00	61507
61	Pittsburg	37517	92.45	3064	7.55	0	0.00	0	0.00	40581
62	Pontotoc	34119	100.00	0	0.00	0	0.00	0	0.00	34119
63	Pottawatomie	55138	93.84	3622	6.16	0	0.00	0	0.00	58760
64	Pushmataha	9079	82.56	1918	17.44	0	0.00	0	0.00	10997
65	Roger Mills	1606	38.73	2053	49.51	488	11.77	0	0.00	4147
66	Rogers	55170	100.00	0	0.00	0	0.00	0	0.00	55170
67	Seminole	10230	40.26	15182	59.74	0	0.00	0	0.00	25412
68	Sequoyah	33828	100.00	0	0.00	0	0.00	0	0.00	33828
69	Stephens	41423	97.93	876	2.07	0	0.00	0	0.00	42299
70	Texas	11390	69.37	3719	22.65	1310	7.98	0	0.00	16419
71	Tillman	8970	86.38	1414	13.62	0	0.00	0	0.00	10384
72	Tulsa	503341	100.00	0	0.00	0	0.00	0	0.00	503341
73	Wagoner	42375	88.50	5508	11.50	0	0.00	0	0.00	47883
74	Washington	48066	100.00	0	0.00	0	0.00	0	0.00	48066
75	Washita	10950	95.71	491	4.29	0	0.00	0	0.00	11441
76	Woods	7272	79.89	1831	20.11	0	0.00	0	0.00	9103
77	Woodward	18397	96.95	579	3.05	0	0.00	0	0.00	18976
	Total	2855430	90.78	277185	8.81	12970	0.41	0	0.00	3145585

Exhibit 12
Bed Requirement for 99.5% Service Satisfaction of Proposal 1

No.	Service Area	Total Population Served.	High Level Bed Requirement	Standard Bed Requirement	Low Level Bed Requirement
1	Oklahoma City	736413	914		
2	Tulsa	576893	717		
3	Lawton	119354		146	
4	Norman	138015		153	
5	Enid	63952		105	
6	Muskogee	93193		145	
7	Stillwater	63949		105	
8	Bartlesville	68970		112	
9	Ponca City	56546		95	
10	Ardmore	67807		111	
11	Altus	32875		82	
12	Duncan	52595		90	
13	McAlester	49744		86	
14	Ada	44097		78	
15	Chickasha	54883		93	
16	Okmulgee	50154		86	
17	Claremore	85734		135	
18	Miami	31441		59	
19	Durant	40478		72	
20	Woodward	21003		57	
21	Elk City	26469		54	
22	Tahlequah	49257		85	
23	Weatherford	40045		72	
24	Guymon	14856		49	
25	Cushing	47281		82	
26	Poteau	43556		77	
27	Sallisaw	50523		87	
28	Seminole	87098		137	
29	Idabel	30607		58	
30	Pauls Valley	37239		68	
31	Hugo	21182		44	
32	Vinita	28614		55	
33	Alva	12502		30	
34	Frederick	10384			3
35	Hobart	17300		41	
36	Kingfisher	49611		85	

No.	Service Area	Total Population Served.	High Level Bed Requirement	Standard Bed Requirement	Low Level Bed Requirement
37	Mangum	9167			3
38	Atoka	19461		41	
39	Fairview	16604		36	
40	Jay	30483		58	
41	Pawnee	21428		44	
42	Beaver	7132			2
43	Boise City	3543			2
44	Buffalo	4439			2
45	Clayton	13260		31	
46	Arnett	5448			2
	Total	3145585	1631	3044	14

With Population of 3145585 for one Service Area, Bed Requirement = 3455

Exhibit 13

Bed Requirement for 99.5% Service Satisfaction of Proposal 2

No.	Service Area	Total Population Served.	High Level Bed Requirement	Standard Bed Requirement	Low Level Bed Requirement
1	Oklahoma City	736413	914		
2	Tulsa	576893	717		
3	Lawton	119354		146	
4	Norman	138015		153	
5	Enid	63952		105	
6	Muskogee	93193		145	
7	Stillwater	63949		105	
8	Bartlesville	68970		112	
9	Ponca City	56546		95	
10	Ardmore	67807		111	
11	Altus	32875		82	
12	Duncan	52595		90	
13	McAlester	49744		86	
14	Ada	44097		78	
15	Chickasha	54883		93	
16	Okmulgee	50154		86	
17	Claremore	85734		135	
18	Miami	31441		59	
19	Durant	40478		72	
20	Woodward	19028		57	
21	Elk City	25824		54	
22	Tahlequah	49257		85	
23	Weatherford	39076		72	
24	Guymon	14856		49	
25	Cushing	47281		82	
26	Poteau	43556		77	
27	Sallisaw	50523		87	
28	Seminole	87098		137	
29	Idabel	30607		58	
30	Pauls Valley	37239		68	
31	Hugo	21182		44	
32	Vinita	28614		55	
33	Alva	12502		30	
34	Frederick	10384			3
35	Hobart	17300		41	
36	Kingfisher	49611		85	

No.	Service Area	Total Population Served.	High Level Bed Requirement	Standard Bed Requirement	Low Level Bed Requirement
37	Mangum	9167			3
38	Atoka	19461		41	
39	Fairview	13790		36	
40	Jay	30483		58	
41	Pawnee	21428		44	
42	Beaver	7132			2
43	Boise City	3543			2
44	Buffalo	4439			2
45	Clayton	13260		31	
46	Arnett	5448			2
47	Taloga	6403			2
	Total	3145585	1631	3044	16

With Population of 3145585 for one Service Area, Bed Requirement = 3455

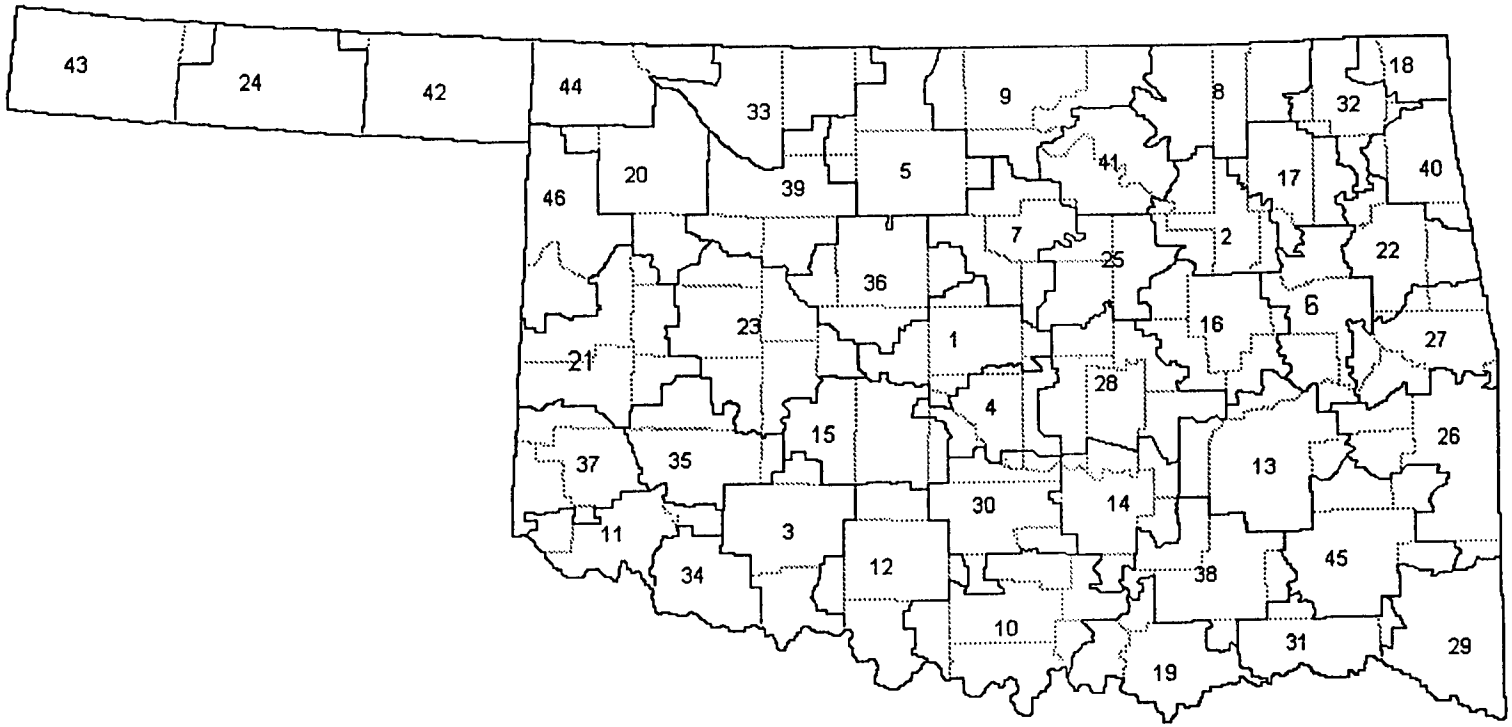
Exhibit 14
Bed Requirement for 99.5% Service Satisfaction of Proposal 3

No.	Service Area	Total Population Served.	High Level Bed Requirement	Standard Bed Requirement	Low Level Bed Requirement
1	Oklahoma City	723804	914		
2	Tulsa	576893	717		
3	Lawton	119354		146	
4	Norman	123475		145	
5	Enid	63952		105	
6	Muskogee	93193		145	
7	Stillwater	61533		102	
8	Bartlesville	68970		112	
9	Ponca City	56546		95	
10	Shawnee	98738		152	
11	Ardmore	67807		111	
12	Altus	32875		82	
13	Duncan	52595		90	
14	McAlester	49744		86	
15	Ada	58938		98	
16	Chickasha	54883		93	
17	Okmulgee	56285		95	
18	Claremore	85734		135	
19	Miami	31441		59	
20	Durant	40478		72	
21	Woodward	21003		57	
22	Elk City	26696		54	
23	Tahlequah	49257		85	
24	Weatherford	40045		72	
25	Guymon	14856		49	
26	Cushing	44234		78	
27	Poteau	43556		77	
28	Sallisaw	50523		87	
29	Idabel	30607		58	
30	Pauls Valley	37239		68	
31	Hugo	21182		44	
32	Vinita	28614		55	
33	Alva	12502		30	
34	Frederick	10384			3
35	Hobart	17300		41	

No.	Service Area	Total Population Served.	High Level Bed Requirement	Standard Bed Requirement	Low Level Bed Requirement
36	Kingfisher	49611		85	
37	Mangum	9167			3
38	Atoka	19461		41	
39	Fairview	16604		36	
40	Jay	30483		58	
41	Pawnee	21428		44	
42	Beaver	6968			2
43	Boise City	3543			2
44	Shattuck	5385			2
45	Buffalo	4439			2
46	Clayton	13260		31	
	Total	3145585	1631	3073	14

With Population of 3145585 for one Service Area, Bed Requirement = 3455

Exhibit 15
Service Area Boundaries for Proposal 1



Service area shapes for the proposed solution. The irregular boundaries shapes are due to the irregular shapes of census tracts and the assumption of centering the primary care facilities at existing towns with populations of 5000 or greater.

Appendix A

Sample Detail Report

This is a one-page example of the detail report. The entire detail report is available and gives the entire set of census and geographical information set.

Detail Report
for
Service Area: Oklahoma City

Census Tract/ BNA	Block Group	Latitude	Longitude	Population	Distance To Service Area Center
** Canadian County					
301398	2	W35.457056	N 97.786283	1102	16.05
3011	1	W35.500100	N 97.740353	2051	15.05
3011	2	W35.482496	N 97.734750	3386	13.52
3007	3	W35.442082	N 98.022315	359	30.37
3012	1	W35.504000	N 97.747674	881	15.74
300801	2	W35.572968	N 97.771748	1418	21.86
3012	2	W35.504050	N 97.755149	899	16.16
300802	2	W35.591056	N 97.734020	636	20.98
3012	3	W35.499133	N 97.756324	769	15.89
3009	2	W35.529300	N 97.697539	1009	14.66
3012	4	W35.495900	N 97.746049	1648	15.08
3009	4	W35.488248	N 97.697507	1636	11.82
3012	5	W35.485100	N 97.746149	2163	14.34
301001	9	W35.469750	N 97.697599	70	10.55
3012	6	W35.487000	N 97.755157	1213	14.98
301003	2	W35.469141	N 97.748840	1302	13.39
301397	2	W35.534667	N 97.820933	17	21.98
301005	2	W35.441150	N 97.715424	2930	13.16
301398	1	W35.516300	N 97.750902	471	16.77
300801	1	W35.590167	N 97.700204	1216	19.02
301403	1	W35.397367	N 97.687221	1301	14.59
3009	1	W35.515864	N 97.725438	4113	15.30
301403	2	W35.398320	N 97.727559	1331	16.80
3009	5	W35.499300	N 97.730057	1410	14.42
301403	3	W35.383470	N 97.735513	2628	18.27
301004	1	W35.454835	N 97.706407	4247	11.70
300802	1	W35.587000	N 97.720754	1393	19.96
3009	3	W35.502933	N 97.726878	1503	14.49
301003	1	W35.466433	N 97.732243	1912	12.36
3007	2	W35.428056	N 97.874872	684	23.04
301403	4	W35.385400	N 97.716599	1314	17.08
301403	5	W35.385639	N 97.689810	622	15.55
301404	1	W35.393347	N 97.757201	2338	18.81
301404	4	W35.387933	N 97.777851	941	20.35
301404	9	W35.350525	N 97.749333	1177	21.33
** Subtotal **				52090	
** Cleveland County					
201902	1	W35.372150	N 97.532440	1089	7.63
201902	2	W35.368573	N 97.542307	3019	8.43
201602	1	W35.343450	N 97.507305	1307	8.89
201602	2	W35.342667	N 97.510338	1233	8.77
2022	9	W35.306967	N 97.479099	3172	13.00
201603	5	W35.339217	N 97.494865	506	9.88
201604	3	W35.328067	N 97.505341	2421	10.06

Appendix B

Queueing Formulas

Queueing formula and the definition of the variables
Part A (For small calling population - demand rate)

λ = Demand rate for beds/1000 = 400 bed days /year/1000

μ = Service rate = 6 days/patient

$\rho = \frac{\lambda}{\mu}$

B = Number of bed days required.

$\frac{B}{365}$ = Number of hospital beds required.

P_n = Probability there are n in the system

Queuing formula (M/M/C: N/∞/∞): (M/M/C/C)

$$P_n = \begin{cases} \frac{\rho^n}{n!} P_o & 0 \le n \le c \\ \frac{\rho^n}{c!\, c^{n-c}} P_o & c \le n \le N \end{cases}$$

if N= C $P_N = \frac{\frac{\rho^N}{N!}}{\sum_{i=0}^{N} \frac{\rho^i}{i!}}$

Part B (For big population -high demand rate)

D = Demand $\sigma = \sqrt{\lambda} = 20$

$E(D) = \frac{Population}{1000}\lambda = k\lambda \quad (k = \frac{Population}{1000})$

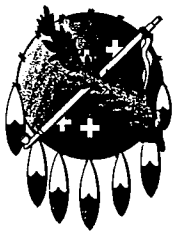
$\sigma_d = \sqrt{k\lambda}$

Pr { B>D} = 0.01

$\Pr\{B \frac{k\lambda}{\sqrt{k\lambda}} > D \frac{k\lambda}{\sqrt{k\lambda}}\} = 0.01$

$\Rightarrow B \frac{k\lambda}{\sqrt{k\lambda}} = Z_{0.01}$ = Standard Normal Variate

$B = Z_{0.01}\sqrt{k\lambda} + k\lambda$



Oklahoma Initiative on
Health Care Financing Reform

Funded by the Robert Wood Johnson Foundation

APPENDIX 3

Peat Marwick Report

Oklahoma Initiative on Health Care Financing Reform

Actuarial Report on the Financial Impact of the Family Choice Health Plan

July, 1994

KPMG Peat Marwick

This report was prepared by:

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SECTION 1: EXECUTIVE SUMMARY

KPMG was engaged by the Oklahoma Initiative on Health Care Financing Reform to estimate the costs under a proposed health reform plan developed by the Initiative known as the Family Choice Health Plan (FCHP). FCHP would provide universal coverage to the under age 65 population of Oklahoma, including those now uninsured or on Medicaid. The under-65 population of Oklahoma in 1994 is almost 2.8 million people, with 700,000 who are uninsured and 300,000 on Medicaid.

Background on the Family Choice Health Plan

The Oklahoma Initiative on Health Care Financing Reform is an organization supported by a grant awarded to the Governor's Office in 1992 by the Robert Wood Johnson Foundation. Their mission is to "develop a systematic approach to the delivery of a continuum of health care such that all citizens of Oklahoma have access to high quality cost effective health care."

The basic objectives of the Family Choice Health Plan are to:

- Provide access to basic health services for all Oklahoma citizens, which emphasizes prevention and primary care.
- Stress individual cost-consciousness by allowing consumers to become more involved in the purchase of health care coverage.
- Control skyrocketing health care costs by giving consumers full choice in a reformed market.

The Family Choice Health Plan (FCHP) would result in universal coverage to all Oklahomans under age 65 through an individual mandate, which establishes individual Family Health Accounts -- accounts set up for each household for the tax-free purchase of health care coverage. Accounts would be administered through a public trust and held in existing financial institutions. Contributions into Family Health Accounts would come from existing financial sources - individuals, employers, state government and federal government. Employers would be required to pay 50% of the average premium cost for single employees. State subsidies would be available to employers, on a sliding scale basis, who are unable to afford this minimum contribution level. State subsidies would also be available to employees and unemployed persons on a sliding scale basis.

SECTION 1: EXECUTIVE SUMMARY (CONTINUED)

The cornerstone of FCHP is that the reform plan provides freedom of choice, while holding medical costs down via market forces. Consumers would be able to choose from a broad range of standardized plans offered by insurers, HMOs and other entities. Plans would provide standardized consumer satisfaction and quality information to educate consumers in their purchasing decision. Because individuals and families would select their own coverage and pay for it through the health accounts, it is expected that many would choose managed care which is expected to be the least expensive and most efficient form of coverage.

FCHP would reorganize the group health insurance market as it exists today. Medicaid would be folded into FCHP. Medicare, the Indian Health Service program and CHAMPUS -- which are solely federal programs -- are not considered part of the Oklahoma Family Choice Health Plan for the purposes of this study. These federal government programs are expected to remain unchanged once FCHP is implemented. Workers Compensation and medical coverage under automobile insurance are also expected to remain unchanged and are outside of the scope of reform for the purposes of this study.

KPMG's study of the Family Choice Plan

KPMG performed an actuarial study of the expected health care premium costs over the period 1995-97 with and without implementation of the Family Choice Health Plan. We also looked at the financing mix between payers of these total premium costs. Payers include employers, individuals, state and federal government.

For the purposes of this study, health care costs are equal to premiums paid to insurance entities. Premiums include the expected claims costs plus administrative and risk charges. Premiums do not include the cost of administering the individual Family Health Accounts, or the negative expense of interest accumulation on moneys held in the accounts. Premium costs also do not reflect out-of-pocket costs paid by individuals (deductibles, coinsurance, etc.). These costs are difficult to measure in aggregate and are assumed to remain basically the same with or without reform. The only exception to this definition of cost is in the case of the uninsured, where there is no "premium cost". Uninsured costs represent out-of-pocket costs paid by the uninsured.

SECTION 1: EXECUTIVE SUMMARY (CONTINUED)

We based our cost estimates on data available on the state of Oklahoma wherever possible (we used Midwest or nationwide data otherwise). In projecting the data to 1995-1997, we used assumptions based on historical trends and the parameters of the Family Choice Health Plan.

The key assumptions made about FCHP for the purposes of this study only are as follows:

1. Medicare, Indian Health Services, CHAMPUS, Workers Compensation and medical coverage under automobile insurance are not considered part of reform-- these programs will remain in tact and are outside the scope of reform.
2. Medicaid recipients would be included in the Family Choice Health Plan.
3. The Family Choice Health Plan would be implemented on 1/1/95 and would be mandatory, covering everyone under age 65.
4. Consumers would be able to choose an indemnity, HMO or Point-of-Service Plan. We assumed there would not be a PPO option for the purposes of this study only.
5. Premiums for the employed would be funded by employers, individuals and state government (state subsidies would be available for some employers).
6. Premiums for low income individuals would be funded by the state and federal governments.
7. Premiums for the unemployed would be subsidized by the state.
8. Premiums for self-employed individuals would be paid by the individual, with state subsidies for those who couldn't afford to pay the entire cost.
9. Premiums would be fully community rated -- the only variation in rates is due to the type of plan (indemnity, HMO or POS). The term community rated means that the premium rates are not based on the age, sex, occupation, health status or geographic location of the individual.

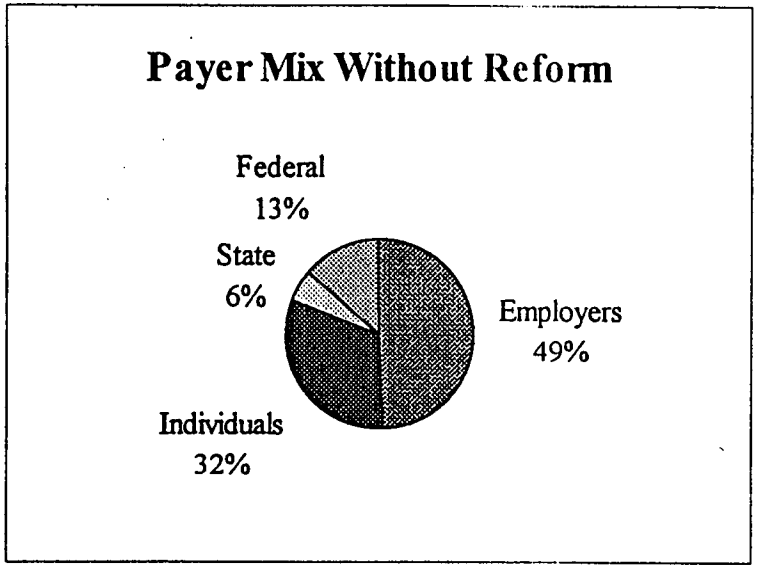
SECTION 1 :EXECUTIVE SUMMARY (CONTINUED)

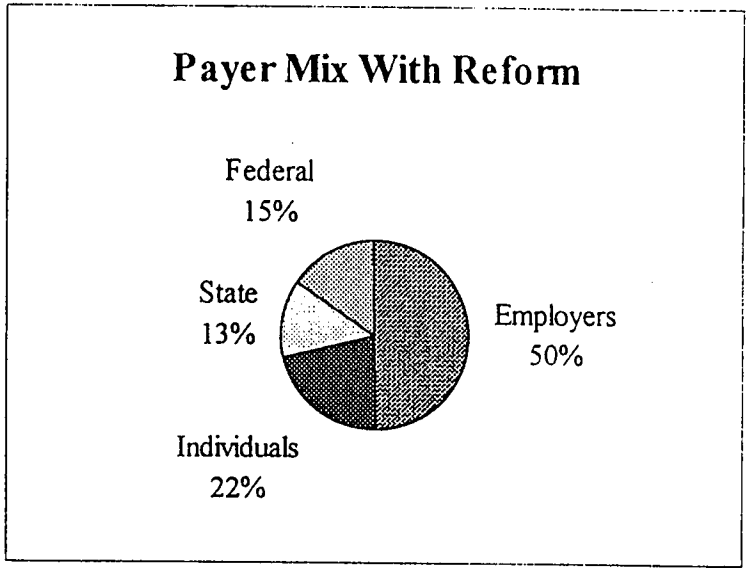
Based on these assumptions, we projected the total health care premium costs for Oklahoma (see chart below). The projections show that health care costs under the Family Choice Health Plan would be higher in 1995 and 1996 than the costs without reform. This is primarily due to the expansion of health care coverage to those currently uninsured. By 1997, costs under FCHP would be lower than costs without reform as market forces drive consumers towards more cost-efficient managed care plans. In 1998 and beyond, cost savings under FCHP are expected to be even greater as the migration towards managed care continues and plans become even more efficient, with lower annual trend increases than traditional indemnity plans.

Total Health Care Premium Costs (In Billions)			
Year	Without Reform	With Reform	% Change
1995	$5.3	$5.8	9%
1996	$6.0	$6.3	4%
1997	$6.9	$6.8	-1%

SECTION 1: EXECUTIVE SUMMARY (CONTINUED)

We estimated that the payer mix would also change with the implementation of reform. The shift is primarily due to coverage of the uninsured which is expected to slightly increase employer contributions (due to mandated coverage), increase state contributions (due to subsidies for small employers and low income persons) and increase federal government contributions (due to an expansion of the current Medicaid program to cover more low income persons who were previously uninsured). The following charts show the approximate payer mix for the period 1995-97:





SECTION 2: PURPOSE AND LIMITATIONS

Purpose

The purpose of this report is to project health care costs and the financial share of those costs among payers if the Family Choice Health Plan was implemented for the under age 65 population in the state of Oklahoma. It is not intended for other uses and may not be appropriate for other uses.

Limitations

Applies to the Family Choice Health Plan Only. The study is limited to projections under the Family Choice Health Plan as outlined by the Oklahoma Initiative on Health Care Financing Reform as of the date of this report. The study does not reflect any changes to the Plan after this date.

Assumptions are reasonable, but not absolute. We selected assumptions for cost projections based on experience relevant to Oklahoma. Where Oklahoma-specific data was not available we used Midwest or national experience. We believe the assumptions are reasonable in their totality. However, there are many tangible and intangible factors affecting health insurance trends that cannot be predicted with certainty. There can be no guarantee that actual experience will conform to the assumptions used. Any variance of the actual experience from the assumptions can significantly affect the financial amounts projected.

Sensitivity to assumptions. The report is sensitive to all the assumptions used and is subject to the limitations outlined in the report. Therefore, we recommend the user of the report review the assumptions in detail to become comfortable with them and with their impact on expected financial results.

SECTION 2: PURPOSE AND LIMITATIONS (CONTINUED)

Use of report. This report is intended for the sole use of the management of the Oklahoma Initiative on Health Care Financing Reform and their consultants, advisors, potential lenders and attorneys. KPMG should be advised of any wide distribution of the report to other parties.

Report should be read in its entirety. This report is intended to be read in its entirety. No conclusions should be drawn before reading the entire document.

Updating of report. KPMG has no obligation to update this report or revise the analysis because of events and transactions occurring subsequent to the date of this document.

Health care costs exclude administration of Family Health Accounts. The costs developed in this study represent premium costs which would be paid to an entity (i.e. insurance company, HMO) administering the health coverage. They do not include other costs associated with the implementation of FCHP such as expenses for establishing and administering the Family Health Accounts which would be held through a public trust. The costs also do not include out-of-pocket costs, such as copays, deductibles and coinsurance. These costs are difficult to measure in aggregate and are assumed to remain basically the same with or without reform.

SECTION 3: METHODOLOGY

We researched current population and health care costs in Oklahoma (or the Midwest/U.S. if state-specific data was not available) based on the following data sources:

- KPMG "Health Benefits in 1993" Employer Survey
- Employee Benefit Research Institute (EBRI), "Sources of Health Insurance and Characteristics of the Uninsured", 1994
- HCFA Report #2082 -- Oklahoma Medicaid data, 1992
- The Urban Institute, "Health Care Financing Reform:A State Data Resource", 1992
- Statistical Abstract of the United States, 1992

Step 1: Projection of population under age 65

We projected the under age 65 population for Oklahoma based on population statistics from the Statistical Abstract of the United States. Using the KPMG survey and EBRI data we then estimated the portions of population covered by employer plans, individual plans, Medicaid and those who are uninsured. For the projections under reform we estimated the portions of the population who are employed, self-employed, unemployed and low income (which is basically an expansion of Medicaid). These breakdowns were used because they are logical categories of the under 65 population after reform and have extremely different payer mixes.

Step 2: Development of per person costs

We developed current health care costs per person for each of the categories of coverage described in Step 1. The costs are primarily based on KPMG's employer survey and HCFA Medicaid data. We used average family size and the distribution of coverage by family status (single vs. family) assumption to translate single and family costs to average per person costs. We trended the resulting per person costs forward to 1995-97 based on historical trend rates. These trend rates range from 9% to 17% depending on the type of plan.

SECTION 3: METHODOLOGY (CONTINUED)

Step 3: Calculation of total costs

We calculated total costs for each year (1995,1996,1997) by multiplying the projected population figures from Step 1 by the appropriate per person costs for each category of coverage from Step 2. This is shown in Table 1 (without reform) and Table 3 (with reform).

Step 4: Breakdown of cost by payer

We estimated the current payer mix (that is, who pays for the costs) using KPMG's employer survey and HCFA data on Medicaid for Oklahoma. The percentage of total costs paid by each payer was multiplied by the total cost to estimate the costs by payer. The details are shown in Table 1 (without reform) and Table 3 (with reform).

SECTION 4: ASSUMPTIONS

1. Population The 1991 total population for Oklahoma is 3.2 million people according to the US Census Bureau. The average annual change in population from 1980 to 1990 was +0.4% per year. Based on this average change rate, we projected the population for 1995-1997 to be just over 3.2 million. Out of this total population, about 2.8 million people are under age 65 based on historical breakdowns by age. The details are shown in Table A.

2. Coverage by Insured Status *Without Reform*: For the 2.8 million people under age 65, we based the distribution by insured status (employer plans, individual -- meaning privately purchased non-group insurance, Medicaid, uninsured) on published data for Oklahoma from EBRI. For those covered under employer plans, we used a distribution by plan type (Indemnity, HMO, PPO, Point-of-Service) from the KPMG survey of employers. The details are contained in Table B. *With Reform*: We estimated the proportion of the population under 65 who were employed, self-employed, unemployed and low income. We used different breakdowns for the "with reform" projections because individual, Medicaid and uninsured categories do not apply. These new breakdowns distinguish groups with different payer mixes. We also used a distribution by plan type (Indemnity, HMO and POS) that assumes consumers, who have a greater cost-awareness under reform, would be incented to choose the less expensive managed care options. The details are contained in Table H.

3. Coverage by Single vs. Family Status We made an assumption about the mix of coverage by single vs. family coverage based on a national study showing the number of persons who are single vs. those who are married and/or have children. For details, refer to Table C (without reform) and Table I (with reform).

4. Average Family Size National studies conclude the average family size is approximately 3.2 persons. We assumed indemnity and PPO plans would have a slightly lower average family size -- 3.0 persons. We assumed HMOs and POS plans would have a higher average -- 3.3 persons. This variance is due to the expectation that larger families will choose managed care plans which have richer benefits. For details, refer to Table D (without reform) and Table J (with reform).

SECTION 4: ASSUMPTIONS (CONTINUED)

5. Financing -- Payer Mix *Without reform*: Currently, health care is funded by employers, individuals, state government and federal government depending on the insured status of the person. We used the KPMG employer survey to determine what percent of premiums employers are currently paying by both plan type and single vs. family status. Those enrolled in individual plans are assumed to pay the full cost. Medicaid data for Oklahoma indicates that 70% of Medicaid costs are paid by the federal government with the remaining 30% paid by the state. Uninsured costs are out-of-pocket and are therefore paid for by the individual. For details, refer to Table E. *With reform*: FCHP would be financed by the same payers as the current system -- employers, individuals, state and federal government. FCHP would require an employer to contribute at least 50% of the average cost of single person coverage. We expect that employers who currently offer health coverage would continue to contribute the same amount. We expect that employers who currently do not offer coverage would contribute on average 40% of the cost, with state subsidies and individuals paying the rest. Self-employed persons would pay the entire cost themselves. Unemployed persons would be subsidized by the state, with a small portion being paid by the individual. Low income persons are assumed to be subsidized by both the state and federal government similar to the current Medicaid program. For details, refer to Table K.

6. Annual Premium Cost *Without reform*: Annual premium costs were tabulated by insured status and type of plan. Premium costs for employer plans were based on a KPMG employer survey for 1993 and projected forward to 1995-97 based on the trend assumptions described in #7 below. Premium costs for Medicaid in the state of Oklahoma were obtained from HCFA and projected based on historical trends. For details, refer to Table F. *With reform*: Annual premium costs were estimated based on costs without reform modified for plan design changes and coverage of the uninsured. Costs vary only by the type of plan (indemnity, HMO and POS), since FCHP requires the use of strict community rating (i.e. everyone pays the same premium regardless of age, sex, insured status, health status, etc.). For details, refer to Table L.

7. Trend Health care trend represents the annual increase in costs per person due primarily to inflation, increased utilization and cost-shifting. Trend rates tend to vary based on the insured status (without reform only) of a given group and the type of plan (indemnity, HMO, PPO or POS). The annual trend rates assumed in the projections are contained in Table G (without reform) and Table M (with reform).

SECTION 4: ASSUMPTIONS (CONTINUED)

8. Benefit Plans Offered For the purposes of this study, the Family Choice Health Plan offers consumers a choice of three standard benefit plans -- indemnity, HMO and Point-of-Service, which are expected to be fairly similar to those currently offered by insurance companies and HMOs. In reality, FCHP would enable consumers to choose from all plans available in their area. Standard minimum benefit plans, however, will be developed in concert with consumer groups and the insurance industry.

SECTION 5: TABLES

Summary Tables:

Table 1 - Oklahoma Under Age 65 Health Care Costs without Health Care Reform (3 tables - 1995, 1996, 1997)

Table 2 - Analysis of Cost Changes Under Health Care Reform (1995)

Table 3 - Oklahoma Under Age 65 Health Care Costs with Health Care Reform (3 tables - 1995, 1996, 1997)

Oklahoma Initiative on Health Care Financing Reform

Table 1 - Year 1995

Oklahoma Under Age 65 Health Care Costs in 1995
Without Health Care Reform

Item	Number of Lives Under 65 [1,2]	Per Capita Cost [3]	Total Cost (In Millions)	Cost by Payer							
				Employer		Individual		State Gvmt		Federal Gvmt	
				Amount	%	Amount	%	Amount	%	Amount	%
I. Employer Plans:											
A. Indemnity	703,227	$2,244	$1,578	$1,294	82%	$284	18%	$0	0%	$0	0%
B. HMO	307,662	$1,797	$553	$395	72%	$158	29%	$0	0%	$0	0%
C. PPO	366,264	$2,312	$847	$742	88%	$105	12%	$0	0%	$0	0%
D. POS	87,903	$2,133	$188	$139	74%	$48	26%	$0	0%	$0	0%
E. Subtotal	1,465,056	$2,160	$3,165	$2,570	81%	$595	19%	$0	0%	$0	0%
II. Individual	281,849	$2,721	$767	$0	0%	$767	100%	$0	0%	$0	0%
III. Medicaid	306,964	$3,306	$1,015	$0	0%	$0	0%	$304	30%	$710	70%
IV. Uninsured	736,714	$441	$325	$0	0%	$325	100%	$0	0%	$0	0%
V. TOTAL	**2,790,582**	**$1,889**	**$5,272**	**$2,570**	**49%**	**$1,687**	**32%**	**$304**	**6%**	**$710**	**13%**

Assumptions:

[1] *2.8 million lives under 65 with 53% covered by employer plans, 10% covered by individual plans, 11% covered under Medicaid and 26% uninsured.*

[2] *Of the 53% covered by employer plans, 48% are covered by an indemnity plan, 21% by an HMO, 25% by a PPO and 6% by a POS plan.*

[3] *Annual costs for 1993 were developed as follows and trended forward to 1995 (see table G for trend rates):*

Employer plans - Premium costs for the Midwest Region were used from KPMG's Health Benefits in 1993 survey.

Individual plans - Premium costs were assumed to be 22% higher than employer indemnity plans due to higher morbidity.

Medicaid - Costs per Medicaid recipient were tabulated for the under-65 Medicaid population from HCFA's 2082 report on Oklahoma.

Uninsured - Costs per person uninsured were assumed to be 0.5 times employer indemnity plan (based on 1987 National Medical Expenditure Survey), times 0.4 (40% of costs are out-of-pocket as opposed to uncompensated care according to NMES).

Oklahoma Initiative on Health Care Financing Reform

Table 1 - Year 1996

Oklahoma Under Age 65 Health Care Costs in 1996
Without Health Care Reform

Item	Number of Lives Under 65 [1,2]	Per Capita Cost [3]	Total Cost (In Millions)	Cost by Payer							
				Employer		Individual		State Gvmt		Federal Gvmt	
				Amount	%	Amount	%	Amount	%	Amount	%
I. Employer Plans:											
A. Indemnity	661,912	$2,625	$1,738	$1,425	82%	$313	18%	$0	0%	$0	0%
B. HMO	323,601	$2,012	$651	$466	72%	$186	29%	$0	0%	$0	0%
C. PPO	367,729	$2,658	$978	$856	88%	$121	12%	$0	0%	$0	0%
D. POS	117,673	$2,411	$284	$211	74%	$73	26%	$0	0%	$0	0%
E. Subtotal	1,470,916	$2,481	$3,650	$2,958	81%	$692	19%	$0	0%	$0	0%
II. Individual	282,976	$3,184	$901	$0	0%	$901	100%	$0	0%	$0	0%
III. Medicaid	308,192	$3,604	$1,111	$0	0%	$0	0%	$333	30%	$777	70%
IV. Uninsured	739,660	$512	$378	$0	0%	$378	100%	$0	0%	$0	0%
V. TOTAL	**2,801,744**	**$2,156**	**$6,040**	**$2,958**	**49%**	**$1,972**	**33%**	**$333**	**6%**	**$777**	**13%**

Assumptions:

[1] *2.8 million lives under 65 with 53% covered by employer plans, 10% covered by individual plans, 11% covered under Medicaid and 26% uninsured.*

[2] *Of the 53% covered by employer plans, 48% are covered by an indemnity plan, 21% by an HMO, 25% by a PPO and 6% by a POS plan.*

[3] *Annual costs for 1993 were developed as follows and trended forward to 1996(see table G for trend rates):*

Employer plans - Premium costs for the Midwest Region were used from KPMG's Health Benefits in 1993 survey.

Individual plans - Premium costs were assumed to be 22% higher than employer indemnity plans due to higher morbidity.

Medicaid - Costs per Medicaid recipient were tabulated for the under-65 Medicaid population from HCFA's 2082 report on Oklahoma.

Uninsured - Costs per person uninsured were assumed to be 0.5 times employer indemnity plan (based on 1987 National Medical Expenditure Survey), times 0.4 (40% of costs are out-of-pocket as opposed to uncompensated care according to NMES).

Oklahoma Initiative on Health Care Financing Reform

Table 1 - Year 1997

Oklahoma Under Age 65 Health Care Costs in 1997
Without Health Care Reform

Item	Number of Lives Under 65 [1,2]	Per Capita Cost [3]	Total Cost (In Millions)	Cost by Payer							
				Employer		Individual		State Gvmt		Federal Gvmt	
				Amount	%	Amount	%	Amount	%	Amount	%
I. Employer Plans:											
A. Indemnity	590,720	$3,071	$1,814	$1,488	82%	$327	18%	$0	0%	$0	0%
B. HMO	383,968	$2,254	$865	$619	72%	$247	29%	$0	0%	$0	0%
C. PPO	354,432	$3,057	$1,084	$949	88%	$134	12%	$0	0%	$0	0%
D. POS	147,680	$2,724	$402	$299	74%	$103	26%	$0	0%	$0	0%
E. Subtotal	1,476,799	$2,821	$4,166	$3,355	81%	$811	19%	$0	0%	$0	0%
II. Individual	284,108	$3,725	$1,058	$0	0%	$1,058	100%	$0	0%	$0	0%
III. Medicaid	309,425	$3,928	$1,216	$0	0%	$0	0%	$365	30%	$851	70%
IV. Uninsured	742,619	$594	$441	$0	0%	$441	100%	$0	0%	$0	0%
V. TOTAL	**2,812,951**	**$2,446**	**$6,880**	**$3,355**	**49%**	**$2,310**	**34%**	**$365**	**5%**	**$851**	**12%**

Assumptions:

[1] *2.8 million lives under 65 with 53% covered by employer plans, 10% covered by individual plans, 11% covered under Medicaid and 26% uninsured.*

[2] *Of the 53% covered by employer plans, 48% are covered by an indemnity plan, 21% by an HMO, 25% by a PPO and 6% by a POS plan.*

[3] *Annual costs for 1993 were developed as follows and trended forward to 1997(see table G for trend rates):*

Employer plans - Premium costs for the Midwest Region were used from KPMG's Health Benefits in 1993 survey.

Individual plans - Premium costs were assumed to be 22% higher than employer indemnity plans due to higher morbidity.

Medicaid - Costs per Medicaid recipient were tabulated for the under-65 Medicaid population from HCFA's 2082 report on Oklahoma.

Uninsured - Costs per person uninsured were assumed to be 0.5 times employer indemnity plan (based on 1987 National Medical Expenditure Survey), times 0.4 (40% of costs are out-of-pocket as opposed to uncompensated care according to NMES).

Oklahoma Initiative on Health Care Financing Reform

Table 2

Analysis of Cost Changes under Health Care Reform (Oklahoma Family Choice Health Plan)

(All dollar amounts are in millions)

Item	Category Of Coverage	1995 Total Cost Without Reform [1]	Elimination of Uncompensated Care [2]	Increase in Uninsured Utilization [3]	Coverage of Preventive Care [4]	Changes in Cost Sharing [5]	Elimination of Medicaid Discounts [6]	Total Cost Changes	1995 Estimated Cost With Reform [7]
I.	**Employer Plans:**								
A.	**Indemnity**	$1,578	($237)	$0	$0	$16	$447	$226	
B.	**HMO**	$553	($83)	$0	$0	($14)	$162	$66	
C.	**PPO**	$847	($127)	$0	$0	$0	$223	$96	
D.	**POS**	$188	($28)	$0	$0	$0	$20	($8)	
E.	**Subtotal**	$3,165	($475)	$0	$0	$2	$853	$380	
II.	**Individual**	$767	($115)	$0	$0	$8	$162	$55	
III.	**Medicaid**	$1,015	$0	$0	$0	$0	($1,015)	($1,015)	
IV.	**Uninsured**	$325	$590	$487	$0	$0	$0	$1,077	
V.	**TOTAL**	$5,272	$0	$487	$0	$10	($0)	$497	**$5,769**

[1] *Total costs from Table 1 - 1995.*

[2] *Estimated to be 15% of costs for private plans (employer plans and individual plans).*

[3] *Additional utilization expected when uninsured have coverage -- estimated to be 1.5 times 1995 uninsured cost of $325 million. This makes the uninsured per person cost approximately 90% of the rest of the population --90% was assumed due to younger age and less females in the Oklahoma uninsured population vs. total population.*

[4] *Additional costs expected due to coverage of preventive care (annual exams, well baby care, etc.). Assumed that savings are equal to cost of preventive care.*

[5] *Change in costs expected due to different deductibles, coinsurance and copays included in plan designs proposed under reform.*

[6] *Medicaid discounts will no longer be valid under reform. Medicaid discounts are estimated to be 32% on average.*

[7] *The breakdowns in this column (employer plans, individual, Medicaid, uninsured) really don't apply under reform. Only the total number is relevant.*

Oklahoma Initiative on Health Care Financing Reform

Table 3 - 1995

Oklahoma Under Age 65 Health Care Costs in 1995
With Health Care Reform (Family Choice Health Plan)

Item	Number of Lives	Per Capita Cost	Total Cost (In Millions)	Cost by Payer							
				Employer		Individual		State Gvmt		Federal Gvmt	
				Amount	%	Amount	%	Amount	%	Amount	%
I. Employed											
A. Indemnity	1,105,070	$2,233	$2,468	$1,759	71%	$512	21%	$197	8%	$0	0%
B. HMO	552,535	$1,903	$1,051	$816	78%	$151	14%	$84	8%	$0	0%
C. POS	184,178	$2,081	$383	$276	72%	$77	20%	$31	8%	$0	0%
D. Subtotal	1,841,784	$2,119	$3,903	$2,851	73%	$740	19%	$312	8%	$0	0%
II. Unemployed											
A. Indemnity	33,487	$2,233	$75	$0	0%	$28	38%	$46	62%	$0	0%
B. HMO	16,743	$1,903	$32	$0	0%	$12	38%	$20	62%	$0	0%
C. POS	5,581	$2,081	$12	$0	0%	$4	38%	$7	62%	$0	0%
D. Subtotal	55,812	$2,119	$118	$0	0%	$45	38%	$73	62%	$0	0%
III. Self Employed											
A. Indemnity	133,948	$2,233	$299	$0	0%	$299	100%	$0	0%	$0	0%
B. HMO	66,974	$1,903	$127	$0	0%	$127	100%	$0	0%	$0	0%
C. POS	22,325	$2,081	$46	$0	0%	$46	100%	$0	0%	$0	0%
D. Subtotal	223,247	$2,119	$473	$0	0%	$473	100%	$0	0%	$0	0%
IV. Low Income[1]											
A. Indemnity	0	$2,233	$0	$0	n/a	$0	n/a	$0	n/a	$0	n/a
B. HMO	669,740	$1,903	$1,274	$0	0%	$0	0%	$382	30%	$892	70%
C. POS	0	$2,081	$0	$0	n/a	$0	n/a	$0	n/a	$0	n/a
D. Subtotal	669,740	$1,903	$1,274	$0	0%	$0	0%	$382	30%	$892	70%
V. TOTAL	**2,790,582**	**$2,067**	**$5,769**	**$2,851**	**49%**	**$1,258**	**22%**	**$768**	**13%**	**$892**	**15%**

[1] *Low income is considered to be an expansion of Medicaid to include the poorest among those who were previously uninsured.*

Oklahoma Initiative on Health Care Financing Reform

Table 3 - 1996

Oklahoma Under Age 65 Health Care Costs in 1996
With Health Care Reform (Family Choice Health Plan)

Item	Number of Lives	Per Capita Cost	Total Cost (In Millions)	Cost by Payer							
				Employer		Individual		State Gvmt		Federal Gvmt	
				Amount	%	Amount	%	Amount	%	Amount	%
I. Employed											
A. Indemnity	554,745	$2,591	$1,437	$1,024	71%	$298	21%	$115	8%	$0	0%
B. HMO	924,576	$2,112	$1,953	$1,515	78%	$281	14%	$156	8%	$0	0%
C. POS	369,830	$2,330	$862	$620	72%	$172	20%	$69	8%	$0	0%
D. Subtotal	1,849,151	$2,299	$4,252	$3,160	74%	$752	18%	$340	8%	$0	0%
II. Unemployed											
A. Indemnity	16,810	$2,591	$44	$0	0%	$17	38%	$27	62%	$0	0%
B. HMO	28,017	$2,112	$59	$0	0%	$22	38%	$37	62%	$0	0%
C. POS	11,207	$2,330	$26	$0	0%	$10	38%	$16	62%	$0	0%
D. Subtotal	56,035	$2,299	$129	$0	0%	$49	38%	$80	62%	$0	0%
III. Self Employed											
A. Indemnity	67,242	$2,591	$174	$0	0%	$174	100%	$0	0%	$0	0%
B. HMO	112,070	$2,112	$237	$0	0%	$237	100%	$0	0%	$0	0%
C. POS	44,828	$2,330	$104	$0	0%	$104	100%	$0	0%	$0	0%
D. Subtotal	224,140	$2,299	$515	$0	0%	$515	100%	$0	0%	$0	0%
IV. Low Income[1]											
A. Indemnity	0	$2,591	$0	$0	n/a	$0	n/a	$0	n/a	$0	n/a
B. HMO	672,419	$2,112	$1,420	$0	0%	$0	0%	$426	30%	$994	70%
C. POS	0	$2,330	$0	$0	n/a	$0	n/a	$0	n/a	$0	n/a
D. Subtotal	672,419	$2,112	$1,420	$0	0%	$0	0%	$426	30%	$994	70%
V. TOTAL	**2,801,744**	**$2,254**	**$6,317**	**$3,160**	**50%**	**$1,316**	**21%**	**$846**	**13%**	**$994**	**16%**

[1] *Low income is considered to be an expansion of Medicaid to include the poorest among those who were previously uninsured.*

Oklahoma Initiative on Health Care Financing Reform

Table 3 - 1997

Oklahoma Under Age 65 Health Care Costs in 1997
With Health Care Reform (Family Choice Health Plan)

Item	Number of Lives under 65	Per Capita Cost	Total Cost (In Millions)	Cost by Payer							
				Employer		Individual		State Gvmt		Federal Gvmt	
				Amount	%	Amount	%	Amount	%	Amount	%
I. Employed											
A. Indemnity	185,655	$3,005	$558	$398	71%	$116	21%	$45	8%	$0	0%
B. HMO	1,299,583	$2,345	$3,047	$2,364	78%	$439	14%	$244	8%	$0	0%
C. POS	371,310	$2,610	$969	$698	72%	$194	20%	$78	8%	$0	0%
D. Subtotal	1,856,548	$2,464	$4,574	$3,460	76%	$748	16%	$366	8%	$0	0%
II. Unemployed											
A. Indemnity	5,626	$3,005	$17	$0	0%	$6	38%	$10	62%	$0	0%
B. HMO	39,381	$2,345	$92	$0	0%	$35	38%	$57	62%	$0	0%
C. POS	11,252	$2,610	$29	$0	0%	$11	38%	$18	62%	$0	0%
D. Subtotal	56,259	$2,464	$139	$0	0%	$53	38%	$86	62%	$0	0%
III. Self Employed											
A. Indemnity	22,504	$3,005	$68	$0	0%	$68	100%	$0	0%	$0	0%
B. HMO	157,525	$2,345	$369	$0	0%	$369	100%	$0	0%	$0	0%
C. POS	45,007	$2,610	$117	$0	0%	$117	100%	$0	0%	$0	0%
D. Subtotal	225,036	$2,464	$554	$0	0%	$554	100%	$0	0%	$0	0%
IV. Low Income [1]											
A. Indemnity	0	$3,005	$0	$0	n/a	$0	n/a	$0	n/a	$0	n/a
B. HMO	675,108	$2,345	$1,583	$0	0%	$0	0%	$475	30%	$1,108	70%
C. POS	0	$2,610	$0	$0	n/a	$0	n/a	$0	n/a	$0	n/a
D. Subtotal	675,108	$2,345	$1,583	$0	0%	$0	0%	$475	30%	$1,108	70%
V. TOTAL	**2,812,951**	**$2,435**	**$6,850**	**$3,460**	**51%**	**$1,355**	**20%**	**$927**	**14%**	**$1,108**	**16%**

[1] *Low income is considered to be an expansion of Medicaid to include the poorest among those who were previously uninsured.*

SECTION 5: TABLES (CONTINUED)

Detailed Tables:

Table A:	Oklahoma Population
Table B:	Coverage by Insured Status and Plan Type: Without Reform
Table C:	Coverage by Single vs. Family: Without Reform
Table D:	Average Family Size: Without Reform
Table E:	Financing by Payer: Without Reform
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Table H:	Coverage by Insured Status and Plan Type: With Reform
Table I:	Coverage by Single vs. Family: With Reform
Table J:	Average Family Size: With Reform
Table K:	Financing by Payer: With Reform
Table L:	Annual Health Care Premium Costs: With Reform
Table M:	Trend Assumptions: With Reform

Oklahoma Initiative on Health Care Financing Reform

Table A

Oklahoma Population

Item	Description	1991	1992 (est)	1993 (est)	1994 (est)	1995 (est)	1996 (est)	1997 (est)
I.	**Total Population** [1]							
A.	**Count**	3,175,000	3,187,700	3,200,451	3,213,253	3,226,106	3,239,010	3,251,966
B.	**Percent Change from Prior Year** [2]	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
II.	**Population by Age**							
A.	**Over 65**							
(1)	**Percentage of Total Population** [1]	13.5%	13.5%	13.5%	13.5%	13.5%	13.5%	13.5%
(2)	**Count**	428,625	430,340	432,061	433,789	435,524	437,266	439,015
B.	**Under 65**	2,746,375	2,757,360	2,768,390	2,779,464	2,790,582	2,801,744	2,812,951

[1] *Source: Statistical Abstract of the United States, 1992.*

[2] *Based on average percent change per year from 1980-1990 (Statistical Abstract, 1992).*

Oklahoma Initiative on Health Care Financing Reform

Table B

Coverage by Insured Status and Plan Type: Without Reform

Item

I. **Coverage by Insured Status**

	Insured Status	1992	1993 (est)	1994 (est)	1995 (est)	1996 (est)	1997 (est)
A.	Employer	53%	53%	53%	53%	53%	53%
B.	Individual	10%	10%	10%	10%	10%	10%
C.	Medicaid	11%	11%	11%	11%	11%	11%
D.	Uninsured	26%	26%	26%	26%	26%	26%
E.	Total	100%	100%	100%	100%	100%	100%

Source: Employee Benefit Research Institute Study - Sources of Health Insurance and Characteristics of the Uninsured, Table 16 Page 38.

II. **Employer Insurance by Plan Type**

	Plan Type	1993	1994 (est)	1995 (est)	1996 (est)	1997 (est)
A.	Indemnity	52.0%	50.0%	48.0%	45.0%	40.0%
B.	HMO	19.0%	20.0%	21.0%	22.0%	26.0%
C.	PPO	26.0%	26.0%	25.0%	25.0%	24.0%
D.	POS	3.0%	4.0%	6.0%	8.0%	10.0%
E.	Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: KPMG Health Benefits in 1993 Survey Page 17. Marion Merrell Dow Managed Care Digest, HMO Edition, 1993. Page 17.

Oklahoma Initiative on Health Care Financing Reform

Table C

Coverage by Single vs Family: Without Reform

Coverage by Single vs. Family Status

Item			1993		1994-1997	
			Single	Family	Single	Family
I.	Employer Plans					
	A.	Indemnity	30%	70%	30%	70%
	B.	HMO	20%	80%	20%	80%
	C.	PPO	30%	70%	30%	70%
	D.	POS	20%	80%	20%	80%
II.	Individual		25%	75%	25%	75%
III.	Medicaid		13%	87%	13%	87%
IV.	Uninsured		29%	71%	29%	71%

Source: Sources of Health Insurance and Characteristics of the Uninsured. EBRI Special Report, January 1994. Page 29

Oklahoma Initiative on Health Care Financing Reform

Table D

Average Family Size: Without Reform

Item		Average Family Size				
		1993	1994	1995	1996	1997
I.	**Employer Plans**					
A.	**Indemnity**	3.00	3.00	3.00	3.00	3.00
B.	**HMO**	3.30	3.30	3.30	3.30	3.30
C.	**PPO**	3.00	3.00	3.00	3.00	3.00
D.	**POS**	3.30	3.30	3.30	3.30	3.30
II.	**Individual**	3.00	3.00	3.00	3.00	3.00
III.	**Medicaid**	n/a	n/a	n/a	n/a	n/a
IV.	**Uninsured**	n/a	n/a	n/a	n/a	n/a

N/A = not applicable

Note: Average family size according to the US Census Bureau Current Population Reports was 3.17 in 1990.

Oklahoma Initiative on Health Care Financing Reform

Table E

Financing by Payer: Without Reform

Item	Coverage		1993-1997 Employer	Individual	State Gvmt	Federal Gvmt
I.	**Employer - Indemnity**					
A.		Single	87%	13%	0%	0%
B.		Family	82%	18%	0%	0%
C.		Average	82%	18%	0%	0%
II.	**Employer - HMO**					
A.		Single	75%	25%	0%	0%
B.		Family	70%	30%	0%	0%
C.		Average	72%	29%	0%	0%
III.	**Employer -PPO**					
A.		Single	89%	11%	0%	0%
B.		Family	87%	13%	0%	0%
C.		Average	88%	12%	0%	0%
IV.	**Employer -POS**					
A.		Single	82%	18%	0%	0%
B.		Family	71%	29%	0%	0%
C.		Average	74%	26%	0%	0%

Oklahoma Initiative on Health Care Financing Reform

Table E

Financing by Payer: Without Reform

Item	Coverage		1993-1997 Employer	Individual	State Gvmt	Federal Gvmt
V.	**Individual**					
A.		**Single**	0%	100%	0%	0%
B.		**Family**	0%	100%	0%	0%
C.		**Average**	0%	100%	0%	0%
VI.	**Medicaid**		0%	0%	30%	70%
VII.	**Uninsured**		0%	100%	0%	0%

Based on 1993 data and is assumed to remain unchanged through 1997.

Sources: Employer Plans -- KPMG Health Benefits in 1993 Survey;
Medicaid -- HCFA Unpublished tables

Oklahoma Initiative on Health Care Financing Reform

Table F

Annual Health Care Premiums: Without Reform

Item			1993			1994		
			Single	Family	Per Person	Single	Family	Per Person
I.	Employer [1]	Indemnity	$1,968	$4,776	$1,639	$2,303	$5,588	$1,918
A.		HMO	$1,812	$4,632	$1,432	$2,029	$5,188	$1,604
B.		PPO	$2,028	$5,124	$1,748	$2,332	$5,893	$2,010
C.		POS	$2,076	$5,412	$1,671	$2,346	$6,116	$1,888
II.	Individual [2]		$2,401	$5,827	$1,988	$2,809	$6,817	$2,326
III.	Medicaid [3]				$2,660			$3,006
IV.	Uninsured [4]				$328			$380

[1] *Employer Plans -- KPMG "Health Benefits in 1993 Survey", Page 8.*

[2] *Individual -- Employer plans indemnity cost increased by 22% for additional morbidity;*

[3] *Medicaid -- HCFA 2082 Report for Oklahoma*

[4] *Uninsured -- Indemnity Cost x 0.5 (uninsured morbidity based on 1987 National Medical Expenditure Survey) x .4 (40% of costs are out-of-pocket based on NMES study) . Uncompensated care is included as part of private plans' premiums.*

Oklahoma Initiative on Health Care Financing Reform

Table F

Annual Health Care Premiums: Without Reform

Item			1995			1996			1997		
			Single	Family	Per Person	Single	Family	Per Person	Single	Family	Per Person
I.	Employer [1]	Indemnity	$2,694	$6,538	$2,244	$3,152	$7,649	$2,625	$3,688	$8,950	$3,071
A.		HMO	$2,273	$5,810.	$1,797	$2,546	$6,508	$2,012	$2,851	$7,289	$2,254
B.		PPO	$2,682	$6,776	$2,312	$3,084	$7,793	$2,658	$3,547	$8,962	$3,057
C.		POS	$2,651	$6,911	$2,133	$2,995	$7,809	$2,411	$3,385	$8,824	$2,724
II.	Individual [2]		$3,287	$7,976	$2,721	$3,845	$9,332	$3,184	$4,499	$10,919	$3,725
III.	Medicaid [3]				$3,306			$3,604			$3,928
IV.	Uninsured [4]				$441			$512			$594

[1] *Employer Plans -- KPMG "Health Benefits in 1993 Survey", Page 8.*

[2] *Individual -- Employer plans indemnity cost increased by 22% for additional morbidity;*

[3] *Medicaid -- HCFA 2082 Report for Oklahoma*

[4] *Uninsured -- Indemnity Cost x 0.5 (uninsured morbidity based on 1987 National Medical Expenditure Survey) x .4 (40% of costs are out-of-pocket based on NMES study). Uncompensated care is included as part of private plans' premiums.*

Oklahoma Initiative on Health Care Financing Reform

Table G

Trend Assumptions: Without Reform

Item				1992-1993	1993 - 1994	1994-1995	1995-1996	1996-1997
I.		Employer[1]	Indemnity	17.0%	17.0%	17.0%	17.0%	17.0%
	A.		HMO	12.0%	12.0%	12.0%	12.0%	12.0%
	B.		PPO	15.0%	15.0%	15.0%	15.0%	15.0%
	C.		POS	13.0%	13.0%	13.0%	13.0%	13.0%
II.		Individual		17.0%	17.0%	17.0%	17.0%	17.0%
III.		Medicaid[2]		13.0%	13.0%	10.0%	9.0%	9.0%
IV.		Uninsured[3]		16.0%	16.0%	16.0%	16.0%	16.0%

[1] *Source: KPMG Report - "Health Care Trends in1993". Average trend from 1988-1993 was used.*

[2] *Source: HCFA Medicaid data for Oklahoma. Trend for 1995-1997 is assumed to decrease due to managed care initiatives.*

[3] *Assumed to be indemnity trend minus 1%.*

Oklahoma Initiative on Health Care Financing Reform

Table H

Coverage by Insured Status and Plan Type: With Reform

Item				
I.	Coverage by Insured Status			
		1995	1996	1997
A.	Employed	66.0%	66.0%	66.0%
B.	Unemployed	2.0%	2.0%	2.0%
C.	Self-Employed	8.0%	8.0%	8.0%
D.	Low Income	24.0%	24.0%	24.0%
E.	Total	100%	100%	100%

Oklahoma Initiative on Health Care Financing Reform

Table II

Coverage by Insured Status and Plan Type: With Reform

Item			1995	1996	1997
II.	Coverage by Plan Type for Each Insured Status				
A.	Employed				
(1)		Indemnity	60.0%	30.0%	10.0%
(2)		HMO	30.0%	50.0%	70.0%
(3)		POS	10.0%	20.0%	20.0%
B.	Unemployed				
(1)		Indemnity	60.0%	30.0%	10.0%
(2)		HMO	30.0%	50.0%	70.0%
(3)		POS	10.0%	20.0%	20.0%
C.	Self-Employed				
(1)		Indemnity	60.0%	30.0%	10.0%
(2)		HMO	30.0%	50.0%	70.0%
(3)		POS	10.0%	20.0%	20.0%
D.	Low Income				
(1)		Indemnity	0.0%	0.0%	0.0%
(2)		HMO	100.0%	100.0%	100.0%
(3)		POS	0.0%	0.0%	0.0%

Oklahoma Initiative on Health Care Financing Reform

Table I

Coverage by Single vs Family: Post-Reform

Item		1995		1996		1997	
		Single	Family	Single	Family	Single	Family
A.	Indemnity	30.0%	70.0%	30.0%	70.0%	30.0%	70.0%
B.	HMO	20.0%	80.0%	20.0%	80.0%	20.0%	80.0%
C.	POS	20.0%	80.0%	20.0%	80.0%	20.0%	80.0%

HMO and POS plans are expected to attract more families than indemnity plans due to their richer benefits.

Oklahoma Initiative on Health Care Financing Reform

Table J

Average Family Size: Post-Reform

Item		Average Family Size		
		1995	1996	1997
A.	Indemnity	3.10	3.10	3.10
B.	HMO	3.25	3.25	3.25
C.	POS	3.20	3.20	3.20

HMO and POS are expected to larger families than indemnity plans, due to their richer benefits.

Oklahoma Initiative on Health Care Financing Reform

Table K

Financing by Payer: Post-Reform

1995-1997

Item	Coverage		Employer	Individual	State Gvmt	Federal Gvmt
I.	**Employer - Indemnity**					
A.		Single	81%	11%	8%	0%
B.		Family	67%	25%	8%	0%
C.		Average	71%	21%	8%	0%
II.	**Employer - HMO**					
A.		Single	90%	2%	8%	0%
B.		Family	74%	18%	8%	0%
C.		Average	78%	14%	8%	0%
III.	**Employer -POS**					
A.		Single	84%	8%	8%	0%
B.		Family	69%	23%	8%	0%
C.		Average	72%	20%	8%	0%
IV.	**Unemployed - All Plans**					
A.		Single	0%	30%	70%	0%
B.		Family	0%	40%	60%	0%
C.		Average	0%	38%	62%	0%
V.	**Self-Employed - All Plans**	Average	0%	100%	0%	0%
VI.	**Low Income - All Plans**	Average	0%	0%	30%	70%

Oklahoma Initiative on Health Care Financing Reform

Table L

Annual Health Care Premium Cost[1] : Post-Reform

Item		1995			1996			1997		
		Single	Family	Per Person	Single	Family	Per Person	Single	Family	Per Person
A.	**Indemnity**	$2,691	$6,728	$2,233	$3,122	$7,804	$2,591	$3,621	$9,053	$3,005
B.	**HMO**	$2,422	$6,055	$1,903	$2,688	$6,721	$2,112	$2,984	$7,460	$2,345
C.	**POS**	$2,610	$6,526	$2,081	$2,924	$7,309	$2,330	$3,274	$8,186	$2,610

[1] *These are community rates -- the same rates are charged for all individuals regardless of age, sex, health status, location, etc.*

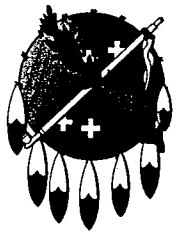
Oklahoma Initiative on Health Care Financing Reform

Table M

Trend Assumptions: Post-Reform

Item		1995 to 1996			1996 to 1997		
		Single	Family	Per Person	Single	Family	Per Person
A.	**Indemnity**	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%
B.	**HMO**	11.0%	11.0%	11.0%	11.0%	11.0%	11.0%
C.	**POS**	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%

Trend rates under reform are assumed to be equal to trend rates without reform minus 1%. This reduction in trend is expected to occur due to increased competition in the health insurance marketplace.



Oklahoma Initiative on
Health Care Financing Reform

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APPENDIX 4

Employees of the Oklahoma Health Care Initiative

The following former employees of the Initiative now hold positions with the Oklahoma Health Care Authority:

Garth Splinter, M.D., M.B.A.
Chief Executive Officer

Leigh Brown, J.D., M.P.H.
Associate Director for Health Policy

Karen Collier, J.D.
Business & Contracts Manager

Beverly Blake
Public Information Officer

Kurt Snodgrass
Publications & Media Specialist

Vickie Kersey
Benefits/Procurement Officer

Carolyn Starks
Administrative Assistant II

Other former employees of the Initiative:

Alan Grubb, Ph.D.

Cynthia Goodman

Michael Barbouche

Daryl Baker

Bob Compton