PERFORMANCE AUDIT REPORT

Reviewing The Health Care Plan For State Employees, Part II: Controls And Use

A Report to the Legislative Post Audit Committee
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REVIEWING THE HEALTH CARE PLAN FOR STATE EMPLOYEES, PART II: CONTROLS AND USE

OBTAINING AUDIT INFORMATION

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How does the experience of State employees compare with the experience of all Blue Cross and Blue Shield members Statewide? Although problems with the data limited some of the comparisons the auditors could make, State employees with traditional health insurance coverage do have higher rates of utilization than all Blue Cross subscribers Statewide. The primary reason for these differences is that a large proportion of State employees who are younger and relatively healthier have left the traditional plan to enroll in health maintenance organizations. Thus, there are fewer State employees left in the traditional plan over which to spread the costs and risks of health insurance. When all State employees are recombined into one group, their rates of use are about the same as the Statewide statistics. The health care use statistics just for those State employees with traditional coverage is likely to continue to be higher than the Statewide statistics as long as State employees have the option of enrolling in several different health insurance plans.

REVIEWING THE HEALTH CARE PLAN FOR STATE EMPLOYEES, PART II: CONTROLS AND USE

In October 1987, the State Employees' Health Care Commission released details of the proposed 1988 health insurance contract. The new contract created a health insurance plan for State employees that departed significantly from earlier plans. The approved plan, which went into effect January 1, 1988, resulted in decreased benefits while raising the premiums for both the employees and the State.

In explaining some of the reasons for premium increases to the Legislature, Blue Cross and Blue Shield officials pointed to the high use of the health care plan by State employees covered by the traditional plan, particularly when compared with all Blue Cross members Statewide or nationwide. Company officials attributed the difference primarily to the healthier State employees switching out of the traditional plan and into a health maintenance organization.

As a result of concerns about the new plan, the Legislative Post Audit Committee directed the Legislative Division of Post Audit to conduct an audit of the health care plan. That audit reviewed the contract negotiating process, determined how physicians were selected to participate in the plan, and compared the costs and benefits of the Kansas plan to state employee health insurance plans in other states.

Because of the time constraints on the first audit, several questions remained to be answered. Concerns were raised about the controls over the State's health care plan to ensure that payments were accurate and were made only for authorized employees and dependents. Other questions were raised about the reasons why State employees' use of health care services under the traditional plan appeared to be so much higher than other groups. To answer these questions, the Legislative Post Audit Committee approved a second audit relating to the State's health care plan. This audit addresses the following specific questions:

1. **What controls does Blue Cross and Blue Shield of Kansas have to ensure that all payments are accurate and legitimate?**

2. **How does the experience of State employees compare with the experience of all Blue Cross and Blue Shield members Statewide?**

To answer these questions, the auditors interviewed Blue Cross and Blue Shield officials about their controls for verifying that payments are accurate and legitimate, and they reviewed a sample of claims. They also surveyed officials in other states to determine the types of controls in place elsewhere. The auditors gathered statistical data on health insurance utilization from Blue Cross and Blue Shield. They compared the utilization figures for the State of Kansas employee group with figures for all Blue Cross and Blue Shield subscribers Statewide. (Statewide subscribers include such groups as State employees, federal employees, Farm Bureau members, and other large Kansas employers, as well as employees of many relatively small employers across the State.) The auditors had hoped to be able to make comparisons with na-

tional health care figures as well; however, the data for these national figures were inconsistent and did not lend themselves to meaningful comparisons.

In addition, the auditors interviewed Blue Cross and Blue Shield and other officials and reviewed pertinent literature to determine why health care usage varies among groups. They also analyzed demographic information provided by the company and the Health Care Commission on plan participants. Finally, they gathered utilization and demographic data for participants in HMO Kansas, Inc., a health maintenance organization that is a wholly owned subsidiary of Blue Cross and Blue Shield of Kansas.

In general, the auditors found that Blue Cross and Blue Shield's 1987 controls were adequate to ensure that State employee claims were processed and paid accurately. They did identify some potential control weaknesses, but the company has recently made changes to alleviate them. Problems with the available data limited some of the comparisons of health care utilization the auditors were able to make. Nevertheless, they could tell that health care use figures for State employees covered under a traditional Blue Cross and Blue Shield plan were higher than for comparable figures Statewide. The primary reason for these differences is the migration of younger and relatively healthier State employees to health maintenance organizations. When all State employees are added back together, the usage figures for State employees are about the same as the Statewide usage figures. These and other findings are discussed in this report.

What Controls Does Blue Cross and Blue Shield of Kansas Have To Ensure That All Payments Are Accurate and Legitimate?

The State of Kansas offers two types of health insurance plans to its employees. The traditional indemnity plan, which pays for covered services by hospitals, doctors, and dentists after the employee satisfies deductible and coinsurance provisions, has been available since the late 1960s. This plan is offered by Blue Cross and Blue Shield of Kansas, and about 70 percent of State employees had this traditional coverage in 1987.

Beginning in the early 1980s, State employees could choose to enroll in a health maintenance organization. In 1984, approximately 10 percent of State employees were enrolled in these organizations. By 1987, more than 30 percent of State employees were in health maintance organizations, with about half of these enrolled by HMO Kansas, Inc.

During calendar year 1987, Blue Cross and Blue Shield processed approximately 670,000 claims for the State's health care contract. This total included 600,000 claims processed by the company for employees and dependents covered by the traditional Blue Cross and Blue Shield plan, and 70,000 claims processed by HMO Kansas, Inc. Traditional and HMO Kansas claims are processed by separate units within Blue Cross and Blue Shield. For the traditional claims, the company

paid out about $52 million during 1987. Company officials could not provide estimates of the amount paid out by HMO Kansas for the State contract because HMO Kansas does not maintain separate records for State employees.

To determine what controls Blue Cross and Blue Shield has to ensure that claim payments are accurate and legitimate, the auditors interviewed company personnel and examined a sample of claims processed for the State contract during calendar year 1987. (Because of the time frame of this audit, the auditors did not examine processing procedures for the State's 1988 contract in detail.) They also reviewed recent audits of the State health care plan conducted by the Kansas Insurance Department and interviewed staff members for the Health Care Commission. Finally, the auditors surveyed officials from the surrounding states to determine what controls those states have over health care payments for employees.

The auditors found that Blue Cross and Blue Shield's controls over claim payments include processing procedures used before claims are paid, and broader controls generally used after claims are paid. For a sample of State employee claims from 1987, the auditors found that the company's processing procedures were adequate to ensure that payments were accurate. Although the auditors did not identify problems with individual claims, they noted that the company's established procedures for verifying that claimants were eligible and for processing drug claims had some potential control weaknesses. In 1988, Blue Cross and Blue Shield has made changes to address both these concerns. These findings are discussed in more detail in the following sections.

Blue Cross and Blue Shield Has Control Procedures For Reviewing Claims Before They Are Paid

Blue Cross and Blue Shield receives claims either directly from the service "providers" (hospitals, physicians, and the like), or indirectly from State employees who received the services. Some claim forms are physically mailed to the company's offices, while others are submitted on magnetic tape or entered directly in the company's computer system by the providers. Once Blue Cross and Blue Shield receives the claims, many of the procedures for processing them are automatically performed by computers. The company generally does not have special procedures for processing State employees' claims.

Although traditional Blue Cross and Blue Shield claims and HMO Kansas claims are processed separately, both systems use many similar control procedures. The major procedures for processing both types of claims include:

- —Verifying that the patient (State employee or dependent) was covered by the State health insurance contract
- —Verifying that the provider (hospital, doctor, or other health care professional) is eligible for reimbursement
- —Determining whether the claim has already been processed
- —Verifying that the billed services are covered by the State health care contract

—Determining whether the patient had any other health insurance coverage or whether the incident was accident- or job-related
—Re-computing the charges and calculating the payment amount

The company has some additional controls over large claims. For traditional claims, the manager of Blue Cross and Blue Shield's State processing unit reviews and approves all inpatient hospital claims for more than $10,000 and all other claims for more than $3,500 before the claims are paid. For HMO Kansas, all hospital claims are reviewed by quality control personnel in the processing area.

Coordination of Benefits

Blue Cross and Blue Shield of Kansas has procedures for determining whether a claimant is eligible for benefits under another health insurance program. The company's traditional plan and HMO Kansas each have units responsible for coordinating benefits, but both units use similar procedures. The company generally relies on a claimant or a provider to indicate that the patient has other coverage. After duplicate coverage is identified, the company investigates the claim to confirm the presence and obligation of any other carriers. This generally involves getting additional information from the other company or the patient. After this information is obtained, the company processes the claim.

State regulations and insurance industry standards restrict these coordination activities to determining whether an individual is covered by another group policy. The company does not determine whether claimants are also covered by individual health insurance policies.

To determine how well these procedures worked during 1987, the auditors reviewed a recent audit of the State Employee Group Health Insurance Plan conducted by the Kansas Insurance Department. They also reviewed samples of both traditional Blue Cross and Blue Shield claims and HMO Kansas claims processed during 1987. The auditors selected their sample of traditional claims from a larger sample of claims previously examined by the Insurance Department.

In 1987, the Insurance Department reviewed a sample of Blue Cross and Blue Shield's claim payments and found no errors. The Department's examiners reviewed a sample of 363 traditional claims processed during January 1987 to determine whether claim payments were made properly and whether the claimants were eligible for benefits. The sample included 16 traditional Blue Cross and Blue Shield claims for more than $10,000, but did not include any HMO Kansas claims. The Department's report was released in August 1987 and was subsequently sent to the Health Care Commission.

To determine whether they could rely on the Insurance Department's findings, the auditors reviewed a sample of 40 of the 363 claims examined by the Department. In addition, the auditors examined 40 claims processed by HMO Kansas during calendar year 1987. Their review of these 80 sample claims included:

—Examining copies of claim forms and any supporting documentation submitted by the provider or the employee
—Verifying that the patient was eligible for benefits by tracing him or her to both Blue Cross and Blue Shield records and Department of Administration records
—Comparing services listed on the claims to benefits provided by the State health care plan

—Re-computing the charges and comparing the amounts paid to the maximum allowable payments established by Blue Cross and Blue Shield for the services
—Reviewing Blue Cross and Blue Shield records for employees and dependents to determine whether claims were submitted and paid more than once
—Examining available records for indications that the patient had other health insurance coverage and determining whether the company handled the claim appropriately

Although no significant errors were found for the sample claims, the auditors did identify two potential control weaknesses in the company's processing procedures. The auditors found that the 80 sample claims generally were processed according to the company's established procedures, and the associated claim payments were accurate. For one traditional Blue Cross and Blue Shield claim, prescription drug charges of $165 incurred by an employee's spouse and dependents were processed as being incurred by the employee. When Blue Cross and Blue Shield processed this claim, the individual family members had not satisfied all their deductible and coinsurance payment provisions. As a result of the error, the company paid for $26 in charges that the family should have paid.

The auditors did note a few instances in which Blue Cross and Blue Shield initially processed claims incorrectly, and the company subsequently corrected the errors. These instances included originally paying for non-prescription drugs which generally are not covered by the State contract, paying charges twice, and paying incorrect amounts for services. In these cases, established quality control procedures generally allowed the company to identify and correct the initial processing errors. All these corrections were made prior to the auditors' examination. The company's quality control procedures will be discussed in more detail later in the report.

The auditors' review of the sample claims did reveal two potential control weaknesses. The first involved Blue Cross and Blue Shield's procedures for verifying that employees and their dependents with traditional coverage were eligible for benefits. Each month, the Department of Administration sent the company a list of enrollment changes related to new employees, terminated employees, and changes from single memberships to family memberships or vice versa. The company recorded those changes but did not periodically reconcile its traditional membership records to the Department of Administration's membership records. Although all individuals in the auditors' sample were eligible for benefits, the company potentially could have paid claims for ineligible persons without being aware of it. The company and the Department of Administration have recently taken steps to conduct monthly reconciliations of membership records. HMO Kansas has historically completed monthly reconciliations to State records.

The second area of concern involved the company's procedures for processing claims for prescription drugs. In 1987, the Blue Cross and Blue Shield employee processing a claim for drugs had to determine whether it was a prescription or non-prescription drug based on information submitted with the claim. In their sample

claims, the auditors noted instances in which the processor incorrectly recorded a non-prescription drug as a prescription drug, and the error was identified and corrected during quality control reviews. If those claims had not been reviewed, the company would have paid for services not covered by the State contract.

In 1988, the company began using national drug codes to process claims for contracts with prescription drug riders. The State's 1988 contract has such a rider, and the company's computer system now automatically determines whether drugs are prescription or non-prescription. Thus, this potential control weakness has been eliminated for the State's contract.

Blue Cross and Blue Shield Also Has Established Control Procedures For Reviewing Claims After They Have Been Paid

After claims have been processed, the company has some controls to ensure that the established procedures were followed and to help verify that hospitals and doctors submitted legitimate claims. The auditors interviewed company personnel responsible for these activities, reviewed independent audit reports for the company, and contacted officials in other states to identify their activities in these areas. The auditors did not verify that hospitals and doctors were only submitting claims for services that were actually provided.

Blue Cross and Blue Shield routinely conducts quality control reviews and internal audits of claims processing procedures. For quality control activities, claims processing supervisors for both Blue Cross and Blue Shield and HMO Kansas review daily samples of each processors' work. The actual number of claims reviewed for each processor depends on the individual's past performance; the acceptable error rate is three to five percent. An error refers to any item processed incorrectly, such as recording the wrong date or paying incorrect amounts or providers. Processors may make more than one error on an individual claim. In many cases, quality control reviews are completed before claims are actually paid.

In addition, Blue Cross and Blue Shield's internal audit department routinely examines samples of both traditional Blue Cross and Blue Shield claims and HMO Kansas claims. The internal auditors examined 14,754 traditional claims processed during 1987 and found that 14,459 claims, or 98 percent of the total, were processed accurately. The remaining 295 claims required such corrections as adjusting for over- or underpayments or payments to the wrong provider. For HMO Kansas claims, the internal auditors examined 374 claims for the first nine months of 1987 and found two errors.

Finally, a certified public accounting firm conducts annual financial audits of Blue Cross and Blue Shield, including an examination of claims processing procedures. The auditors examined the firm's audit reports for 1984 through 1986 and found no mention of weaknesses in the claims processing and payment procedures. The firm's report for calendar year 1987 had not been issued when this audit was conducted.

Blue Cross and Blue Shield also has procedures for verifying that claims submitted by hospitals and physicians are accurate and legitimate, although the company does not formally audit these providers. To help verify the accuracy and legitimacy of claims received from hospitals, physicians, and other health care professionals, the company sends payment information for each claim to the appropriate employee. The company also has more specific controls over claim payments, and different procedures are used for various types of claims.

For inpatient hospital claims submitted under the traditional Blue Cross and Blue Shield plan, the Cost Containment Division reviews all hospital bills and requires the hospitals to submit supporting medical documentation. For a sample of these hospital claims, Division staff actually visit the hospitals and examine more detailed documentation. These activities emphasize medical records rather than financial billing records because hospitals are generally reimbursed for inpatient services based on the overall medical procedure, rather than on specific charges for room and board, laboratory services, etc. For example, in 1987 the company's established maximum allowance for a cesarean section delivery (without complications) for Wichita hospitals was $2,816. A Wichita hospital submitting a $4,000 claim for that hospital stay received only $2,816. If the claim had been $2,500, Blue Cross and Blue Shield would have reimbursed the hospital $2,500 because the actual charges were less than the maximum allowance.

Far fewer claims submitted for services by physicians and other health care providers are routinely reviewed for accuracy and legitimacy. Each provider's services and charges are compared to information for similar providers over time, and any unusual patterns are identified. Personnel from the company's Professional Relations Department review deviations with individual providers and also conduct spot-checks of claims submitted by the providers. Representatives from this Department also follow up on any individual claims forwarded to them by other company personnel. Except for these follow-up activities and spot checks, health care professionals would not necessarily have their claims formally reviewed.

In general, HMO Kansas does not perform any systematic audit work or reviews to verify that claims are accurate and that services billed for were received. However, HMO Kansas does use various procedures to monitor services and costs. Planned hospital admissions for HMO Kansas members must be reported to the company, and claims for inpatient hospital services are compared to these pre-admission certifications.

For non-hospital claims, HMO Kansas relies on participating physicians to ensure the accuracy and validity of the charges. These doctors share the financial risk of HMO Kansas and are responsible for coordinating health care for their patients. The company monitors each physician's monthly activities, including services provided and any referrals to other physicians. Recently, HMO Kansas also established a program to conduct on-site reviews of its 450 primary care physicians over a five-year period (to date, 12 such reviews have been conducted). These on-site visits emphasize the appropriateness of treatment provided to patients, but do include examinations of

Blue Cross and Blue Shield Reimbursement Methods

When a hospital or other health care professional provides medical services to a State employee, Blue Cross and Blue Shield of Kansas reimburses the provider or employee for all or part of the cost. The actual reimbursement method depends on the individual provider and the type of services provided. The following reimbursement methods are generally used for Kansas providers, excluding those located in the Kansas City area. Special procedures are used for out-of-state and Kansas City area providers.

Reimbursement for most inpatient hospital services is based on the medical diagnosis of the patient's condition. Blue Cross and Blue Shield separates different medical conditions into Diagnosis-Related Groups (DRGs) and establishes a maximum payment for each. When hospitals submit bills, they are reimbursed for their charges or the DRG allowance, whichever is less. In addition, hospitals that have historically had lower charges may receive an incentive payment over and above the DRG allowance.

Reimbursement for out-patient services is also based on established maximum allowances. Providers who have agreed to accept these allowances as payment-in-full submit claims itemizing the services they provided to patients, and Blue Cross and Blue Shield reimburses them up to the maximum allowance for each service. When State employees are treated by health care professionals who have not agreed to accept the maximum allowances, the Company reimburses the employee directly. The employee is then responsible for paying the provider's charges, including any charges in excess of Blue Cross and Blue Shield's maximum allowances.

HMO Kansas also uses maximum allowances for services, but its participating physicians may be reimbursed somewhat differently. Each HMO Kansas member selects a primary care physician, and HMO Kansas pre-pays each physician monthly for certain services such as office visits, inpatient hospital care, and outpatient emergency care. The amount paid to cover these services is determined by the number of subscribers selecting the physician as their primary care physician, and the age and sex of those subscribers. The physician retains the monthly payment regardless of the services actually provided. Charges for other types of service provided by the physician or his designee are generally reimbursed using Blue Cross and Blue Shield's established allowances.

charges. Desk reviews are performed for all claims—both hospital and non-hospital—involving unusual circumstances.

To determine how other states and their health insurance carriers monitor provider activities, the auditors contacted the four surrounding states and Iowa. In many instances, they found that the other states' activities cannot be compared to the Kansas system because of differences in procedures for reimbursing providers. For example, Missouri generally reimburses hospitals for any reasonable charges and does not establish reimbursement limits based on overall medical procedures like Kansas does. To ensure that the charges submitted are accurate and legitimate, Missouri requires audits of all claims for more than $25,000.

Only Nebraska reported a reimbursement system similar to Kansas' system—limiting reimbursements to established maximum allowances for many procedures—and Nebraska officials indicated that their monitoring procedures were similar to Kansas' procedures.

Although their procedures for reimbursing and auditing providers are not comparable to Kansas' procedures, Oklahoma officials did report some review activities that do not necessarily depend on their reimbursement method. For traditional health insurance benefits, Oklahoma is self-insured and contracts with an independent firm to process its claims. The State employs a full-time auditor who conducts on-site re-

views of claims at the firm's place of business. In addition, Oklahoma provides financial incentives to encourage employees to report payment errors. Employees who report such errors receive one-half of any amount saved or recovered.

Conclusion

Blue Cross and Blue Shield's controls appeared to be adequate to ensure that claims submitted by hospitals, health care professionals, and individual employees are processed and paid accurately. Using both manual and computerized procedures, each claim is examined for accuracy prior to payment. The company also has some procedures for verifying that payments are made only for services that were actually provided, although some of these controls are less extensive than the processing procedures.

How Does the Experience of State Employees Compare With the Experience of All Blue Cross Members Statewide?

The first audit of the State employees' health care plan showed that health insurance premiums would be increasing significantly in 1988. Blue Cross and Blue Shield officials presented information indicating that one of the reasons for these increased premiums was the high use of the health care plan by State employees covered by the traditional plan, particularly when compared with all Blue Cross members with traditional coverage Statewide.

The State employee group with traditional coverage includes active employees (23,484 employees in 1987), retired employees who are not yet eligible for Medicare (624 employees in 1987), and certain other retired employees whose spouses are not yet eligible for Medicare (479 employees in 1987). Although health insurance coverage is available to all retired State employees, the analysis that follows generally excluded such employees if they have Medicare or other complementary insurance coverage. The Statewide figures include all subscribers across Kansas who have traditional Blue Cross and Blue Shield coverage as their primary health insurance, including State of Kansas employees, federal employees, Farm Bureau members, and employees of other large and small employers across the State. Subscribers who have complementary coverage, such as Medicare, are not included in the Statewide statistics.

To determine why some of the differences in use might be occurring, the auditors reviewed utilization data provided by Blue Cross and Blue Shield for such things as the number and type of inpatient hospitalizations, the number of outpatient hospital services, average admissions costs, and the like. They compared these statistics for the State employee group covered under the traditional plan with figures for all Blue Cross and Blue Shield subscribers with traditional coverage Statewide. Finally, the auditors analyzed demographic data on Blue Cross and Blue Shield subscribers, and reviewed utilization statistics from HMO Kansas.

In general, the auditors found that, although problems with the data limited some of the comparisons they could make, State employees with traditional health insurance coverage do have higher rates of utilization than all Blue Cross subscribers Statewide. The primary reason for these differences is that a large proportion of State employees who are younger and relatively healthier have left the traditional plan to enroll in health maintenance organizations. Thus, there are fewer State employees left in the traditional plan over which to spread the costs and risks of health insurance. When all State employees are recombined into one group, their rates of use are about the same as the Statewide statistics. The health care use statistics just for those State employees with traditional coverage is likely to continue to be higher than the Statewide statistics as long as State employees have the option of enrolling in several different health insurance plans. These and other findings are discussed in detail in the sections that follow.

Problems With the Available Data Limited Some of the Comparisons The Auditors Were Able to Make

To compare utilization statistics and determine why some of the differences might exist in the use of the traditional Blue Cross and Blue Shield plan, the auditors needed data on the number and types of health care services used by State of Kansas employees and by all Blue Cross and Blue Shield subscribers Statewide over the past several years, as well as historical demographic data. Most of the data the auditors used to make their comparisons came from Blue Cross and Blue Shield. Because they were relying heavily on these data, the auditors performed several tests to ensure that the data were accurate.

The utilization statistics for the State employee group appeared to be accurate, but some of the comparative Statewide statistics were based on slightly inaccurate data. To test the accuracy of the utilization data for the State employee group with traditional coverage, the auditors asked Blue Cross and Blue Shield to process one day's worth of data using the computerized program that normally is used to generate utilization figures. They compared the results with the results they obtained by manually calculating that same day's worth of data. After making some adjustments to account for using only one day's worth of data, the auditors were able to duplicate the computer results. Based on this testwork, they concluded that the utilization statistics for the State employee group were accurate.

Utilization statistics for all Blue Cross and Blue Shield subscribers Statewide are calculated manually. Several of the statistics require computations of utilization rates. To calculate these rates, company actuaries determine the total number of Blue Cross and Blue Shield contracts Statewide, including those for the State employee group. However, the auditors found that the total number of contracts used to generate Statewide utilization statistics did not include some contracts for the State employee group. The problem appeared to be the result of some confusion over which State employees were included in the Blue Cross contract count reports, which were the basis for calculating the Statewide contract count totals. Because the number of State employee contracts not included in the totals was relatively small, the auditors

concluded this problem would not likely have a significant effect on any of the audit findings.

Blue Shield services, which are non-hospital services, make up about half the State employees' total claims experience, but only limited data were available summarizing the use of these services. Blue Shield services include such things as doctor visits, x-rays, laboratory fees, and the like. Any service that is not billed directly by a hospital is generally considered to be a Blue Shield service.

For the State employee group with traditional coverage, these services represented more than half the $52 million in payments for claims in 1987. In addition, payments for Blue Shield claims grew by more than 41 percent between 1983 and 1986 for the State employee group. One factor contributing to the increase in claims payments was the addition of a dental rider for State employees in the 1984-1985 contract. However, very little historical information summarizing State employees' use of these services over time was available. Blue Cross and Blue Shield is beginning to compile more information on the number and types of Blue Shield services State employees use; however, only limited data are available before 1985. In addition, only total Blue Shield payment information was available for all Blue Cross and Blue Shield subscribers with traditional coverage Statewide.

Because of the limited availability of data on the use of Blue Shield services, the analysis in this report is limited to hospital—or Blue Cross—services.

The auditors identified several other problems that might have some effect on the analysis. Some of these problems involved inaccurate and incomplete data. Others involved data that the auditors would have liked to have obtained, but that Blue Cross and Blue Shield did not maintain, or did not maintain in a way that allowed for consistent comparisons. The problems included the following:

—The data used to calculate average age did not include the birthdate for about 4,000 contract-holders. Because these contract-holders could not be included in the calculations, the average age for subscribers in the Statewide statistics is slightly inaccurate.

—The data summarizing the number and types of inpatient hospitalization services in 1984 are incomplete, and complete data could not be recreated because it had already been purged. As a result, the comparisons using these data are not completely consistent from year-to-year. These problems affect both the State employee and Statewide statistics.

—Until 1985, data for the State employee group were calculated for a different time frame than the data for all Blue Cross and Blue Shield susbscribers Statewide. For example, the 1983 Statewide statistics are compared with State employee statistics covering the period July 1982 through August 1983. A number of factors could affect the comparability of State employee data for 1982 with Statewide data for 1983.

—Blue Cross and Blue Shield does not have historical data for several key pieces of demographic information, including age and county of residence of insurance subscribers. Thus, for example, the auditors were not able to determine whether the current age differences have always existed.

The auditors concluded that these inaccuracies were relatively slight and would not have a significant effect on any of the audit findings. As a result, the Blue Cross and Blue Shield data that were available were used in the following sections of the audit. In those instances where data were not available, the analysis is limited and less complete than the auditors would have preferred.

The State Employee Group With Traditional Coverage Does Have Higher Rates of Health Care Utilization Than All Blue Cross and Blue Shield Subscribers Statewide

The following table presents some of these differences for several statistics. The statistics include inpatient hospital admissions per thousand members, inpatient "case mix," average cost per inpatient admission, and outpatient admissions per thousand members. Case mix is an indication of admissions for more serious or severe procedures in comparison to the norm. In other words, the higher the case mix, the higher the proportion of people who are admitted for more serious or severe procedures.

Comparison of State of Kansas Employees Enrolled in the Traditional Blue Cross and Blue Shield Plan With All Blue Cross and Blue Shield Subscribers Statewide

Year [a]	Inpatient Hospital Admissions/1,000		Inpatient Case Mix		Average Cost Per Inpatient Admission		Outpatient Admissions/1,000	
	State	Statewide	State	Statewide	State	Statewide	State	Statewide
1982	160	161	-NA-	1.00000	-NA-	$2,172	-NA-	412
1983	155	142	1.01349	1.00000	-NA-	2,448	-NA-	387
1984	151	126	1.09712	1.00000	2,427	2,486	482	337
1985	126	114	1.08786	1.00000	2,798	2,568	576	408
1986	113	104	1.08879	1.00000	3,410	2,755	572	433

[a] For the State of Kansas employee group, the years refer to the following time periods: 1982: August 1981-July 1982 contract; 1983: August 1982-July1983 contract; 1984: August 1983-July 1984 contract. Beginning in 1985, all years are on calendar-year basis. For statistics for the Statewide Blue Cross figures, all years are on a calendar-year basis.

As the table shows, beginning in 1984 (State contract year August 1983 through July 1984), the State employee group's experience began to diverge significantly from the Statewide experience. For example, although the number of hospital admissions per thousand members for the two groups was essentially the same in 1982, in 1984 the rate of hospital admissions for State employees was 151 per thousand but Statewide was only 126 per thousand. These figures did level off somewhat in 1986. Also, it should be noted that hospital admissions have gone down significantly for both groups.

The case mix data follow the same pattern. As the table indicates, in 1983 State employees with traditional coverage had about the same mix of medical procedures as

the Statewide norm. In 1984, the State employees' case mix increased to 1.09712, nearly 10 percent higher than the Statewide norm. In other words, beginning in 1984, State employees with traditional coverage were more likely to be admitted to the hospital for more serious procedures than all Blue Cross and Blue Shield subscribers Statewide. Since then, the case mix for State employees with traditional coverage has leveled off, but has remained well above the Statewide norm.

The table also shows that the average cost of inpatient admissions was slightly lower for State employees with traditional coverage in 1984. Since 1985, the State employee group has always had a higher average inpatient admission charge. Despite the overall decline in the number of hospital admissions for both groups, the average costs per admission have risen for both groups. But between 1984 and 1986, the State's average cost increased 41 percent, while the average cost Statewide increased only 11 percent.

Finally, the table shows that outpatient admissions per thousand are higher for the State employee group than Statewide. Outpatient admissions per thousand increased for both groups between 1984 and 1986, the years for which comparable data were available. During that period, the State employee groups' outpatient admissions per thousand increased by 18.7 percent, compared with an increase of 28.5 percent Statewide.

The Primary Reason for the Higher Utilization Rates For State Employees With Traditional Coverage Appears To Be The Migration of Younger, Relatively Healthier State Employees To Health Maintenance Organizations

A number of reasons have been suggested to explain the different rates of utilization of health care services. The possibility that State employees with traditional coverage are older and more urban

Overall Trends in Health Care Utilization

Utilization statistics are generally somewhat higher for State of Kansas employees with traditional coverage than for all Blue Cross and Blue Shield subscribers Statewide. Nevertheless, the trends for both groups are relatively similar.

Since 1982 (the first year for which data were available), the rate of hospital admissions per thousand has dropped by about one-third for both groups.

One reason for the significant drop in hospital admissions was increased emphasis on ways to contain costs. A result of this emphasis on cost containment was that the use of outpatient facilities was encouraged as an alternative to inpatient hospital treatment. Thus, the use of outpatient services began to increase for both the State employee group and all Blue Cross and Blue Shield subsrcibers Statewide. From 1984 to 1986, outpatient claims per thousand increased about 19 percent for the State employee group and about 29 percent for subsrcibers Statewide.

Most of the cost containment efforts focused on hospital services. In fact, payments for Blue Cross, or hospital, services for all subscribers Statewide dropped from $174 million to $171 million, a decline of 1.7 percent between 1983 and 1986. During the same time period, Blue Cross payments for the State employee group fell 13.5 percent, from $23.6 million to $20.5 million. Although part of the drop may have been due to a declining number of contracts, some was also due to the efforts to contain hospital costs.

Payments for Blue Shield, or non-hospital, services grew considerably over that same time period. For all subsrcibers Statewide, payments for Blue Shield services increased from $112 million to $143 million, an increase of 27.9 percent. Blue Shield payments for the State employee group grew by an even steeper 41.3 percent, from $15.9 million to $22.5 million. Thus, by 1986, Blue Shield payments for the State employee group are greater than that group's Blue Cross payments.

than all members Statewide is discussed in the accompanying box. The auditors reviews showed that neither of these reasons explained the higher utilization rates for State employees with traditional coverage.

Age Differences and Geographic Factors Do Not Appear To Account for Differences In Utilization

Blue Cross officials cited two additional reasons for the higher use of health care services by the State employee group with traditional coverage than by all Blue Cross and Blue Shield subscribers Statewide. One reason is that the State employee group is older, on average, than Blue Cross and Blue Shield subscribers Statewide. The second reason is that the State employee group is more concentrated in urban areas than Blue Cross and Blue Shield subscribers Statewide.

To verify the age difference, the auditors requested age information from Blue Cross for both the State employees with traditional coverage and all Blue Cross and Blue Shield subscribers Statewide. The data were only available for 1985 through 1987 and included only the age of the contract-holder (data for dependents were unavailable).

The auditors found that the State employee group's average age is higher than the Statewide average, but by only one-half year or less. Therefore, the auditors concluded that an age difference does not explain differences in utilization of medical services by the groups.

To determine if the State employee group is more concentrated in urban areas than Blue Cross and Blue Shield subscribers Statewide, the auditors reviewed the percentages of contract-holders residing in the five urban counties of Douglas, Johnson, Sedgwick, Shawnee, and Wyandotte. They found that in 1987, about 27 percent of Statewide Blue Cross and Blue Shield contract-holders lived in these counties, compared with 46.5 percent of the State employee group.

Blue Cross did not have Statewide county residence data available for previous years, but officials indicated that the proportion of urban to rural contract-holders had probably not changed significantly in the past several years for subscribers Statewide. The proportion of urban to rural residents in the State employee group has also remained relatively constant over the past several years. As a result, it is likely that the State employee group has always been more urban than subscribers Statewide.

Based on this analysis, the auditors concluded that the greater urbanization of the State employee group does not fully explain their higher use of health care services beginning in 1984.

Their reviews did show that the relatively higher utilization rates for State employees appeared to be the result of State employees leaving the traditional plan and enrolling in a health maintenance organization. In 1984, only about 10 percent of all State employees were enrolled in a health maintenance organization; by 1987, that figure had grown to 32 percent. Some of the incentives to join health maintenance organizations include lower premiums and no deductibles or copayments. The following table shows this migration.

Migration of State of Kansas Employees to Health Maintenance Organizations

Year [a]	Total Contracts	Traditional Contracts	HMO Contracts	Percent HMO Penetration
1984	35,757	32,092	3,665	10.2
1985	34,705	26,795	7,910	22.8
1986	36,092	25,765	10,327	28.6
1987	36,262	24,587	11,675	32.2

[a] Information before 1983 was not available. The data presented were computed as of the following dates: 1984 (1983-1984 contract): December 1983; 1985 (1984-1985 contract): December 1984; 1986: December 1986; 1987: December 1987

The following table provides some information about State employees who are enrolled in health maintenance organizations. The urbanization data are for all State employees enrolled in a health maintenance organization. The other statistics are actual data for State employees enrolled in HMO Kansas, which includes about half the State employees who have joined a health maintenance organization.

Comparisons of State Employees Enrolled in Traditional Blue Cross and Blue Shield Plans and in Health Maintenance Organizations

	1985		1986		1987[b]	
	Traditional Blue Cross	HMO	Traditional Blue Cross	HMO	Traditional Blue Cross	HMO
Average age of State employee	43.3	36.0	43.4	37.0	43.7	36.9
Percent in urban counties	46.4%	70.1%	44.4%	64.2%	46.5%	69.7%
Inpatient admissions per 1,000	126	91	113	90	103	85
Average cost of inpatient admission [a]	$2,798	$1,699	$3,410	$2,179	$3,700	$2,279
Case mix [c]	-NA-	-NA-	-NA-	-NA-	1.11618	.85664

[a] The HMO data are for the lesser of the allowed charge or the actual charge while the traditional plan data are for the amount charged. In most cases reviewed, the auditors found that the traditional plan charge was less than the allowed amount. As a result, the average cost data are reasonably comparable.

[b] The 1987 data for the traditional group are based on data through October 1987; the HMO data are based on data through September 1987.

[c] Case mix statistics compare the State employee groups with the norm for all Blue Cross subscriber Statewide.

As the table shows, State employees who have joined health maintenance organizations are relatively younger than employees with traditional coverage. In addition, they tend to be hospitalized less frequently and for less expensive and less severe procedures.

This migration of the younger, relatively healthier State employees to health maintenance organizations has left the traditional plan not only with fewer employees but also with a different mix of employees than it had before health maintenance organizations were offered. State employees who now have traditional coverage are not necessarily experiencing higher rates of use than before; there are simply fewer healthy people to spread the health risks and costs over.

To determine whether this same pattern of migration to health maintenance organizations was occurring with employees in other groups covered under a traditional plan, the auditors contacted several of the larger employers insured by Blue Cross and Blue Shield. They found that one large group did not offer health maintenance organizations, and that one group had fewer than five percent of its eligible employees enrolled in a health maintenance organization. Two other large groups offered health

Comparison With National Utilization Statistics

During a legislative hearing, Blue Cross and Blue Shield officials presented information comparing Statewide statistics to national Blue Cross statistics. Generally, those statistics showed that the Statewide Blue Cross group had higher rates of hospital utilization than the nationwide Blue Cross group.

Some reasons for these discrepancies were theorized, but the primary reason seemed to be that Kansas had more hospitals, on average, than other states did. As a result, physicians were more likely to place their patients in hospitals.

The auditors found that Kansas does have a high number of hospitals in comparison with other states. Interestingly, however, they also found that when utilization statistics for the State population as a whole are compared with utilization statistics for the nation as a whole, Kansas looks much better than the United States. For instance, discharges per 1,000 population in Kansas in 1986 were 130. The comparable figure for the United States was 143 discharges per 1,000 population.

Overall, the Statewide-to-national comparisons are mixed. Because so many factors enter into the differences, no conclusions can be drawn about whether Kansans have higher health care utilization than people in the rest of the country.

maintenance organizations to their employees but, to date, fewer than 20 percent of the employees in either group have elected to join one.

According to Blue Cross and Blue Shield officials, most of the other people it insures work for small employers with fewer than 100 employees, and most are located in rural areas. In both instances, it is unlikely that health maintenance organizations would be offered or even available to these employees.

Based on the available evidence, the auditors concluded that the number and type of State employees enrolled in Blue Cross and Blue Shield's traditional indemnity plan has changed significantly in recent years, while the number and type of other employees Statewide with traditional coverage has remained much more constant. Because of these differences, the utilization rates for State employees with traditional coverage include those employees who may be more likely to have higher health care needs and costs, while the Statewide utilization figures generally are more representative of all types of employees.

When State employees are recombined into one group, their health care utilization rates are about the same as the Statewide rates. Blue Cross utilization statistics were gathered for the State employee group with traditional coverage. For the group of employees enrolled in HMO Kansas, the auditors gathered data from HMO Kansas. Finally, because the auditors had no reason to expect that State employees who were enrolled in HMO Kansas were any different from State employees enrolled in any of the other available health maintenance organizations, the auditors used the HMO Kansas data to estimate the total utilization experience of all State employees enrolled in health maintenance organizations.

Combining these data gives a picture of health care use by all State employees. Doing so also eliminates the effect of State employees' migration to health maintenance organizations, which makes the utilization rates for the State employee group more comparable to the Statewide statistics. The following table compares the health care use rates for all State employees with the Statewide rates. Data for all years were not available.

Available Statistics Comparing Combined State Employees' Use Rates With Statewide Rates

	1985	1986	1987
Inpatient Admissions/1,000:			
Combined State Employees	116	106	97[a]
Statewide Blue Cross and Blue Shield	114	104	104[a]
Case Mix [b]:			
Combined State Employees	-NA-	-NA-	1.02020
Statewide Blue Cross and Blue Shield	-NA-	-NA-	1.00000
Average Cost of Inpatient Admissions [b]:			
Combined State Employees	-NA-	-NA-	$3,073
Statewide Blue Cross and Blue Shield	-NA-	-NA-	$3,036

Note: These data were calculated using actual statistics for the HMO Kansas group of State employees. Those statistics were augmented based on the ratio of HMO Kansas contracts to all HMO contracts. Total HMO data were then added to actual data for the State employees covered by the traditional plan.

[a] Data on admissions per thousand are based on 1987 data through October for the traditional group and through September for the HMO group.
[b] Inpatient procedure information for HMOs was only available for 1987.

The table shows that, when the combined group of State employees is compared with the all Blue Cross and Blue Shield members with traditional coverage Statewide, use is about the same. Admissions per thousand members was very similar in 1985 and 1986. In 1987, the State employee group had only a slightly higher case mix, or proportion of higher cost and higher intensity hospital services. And the average inpatient admission cost for State employees was only $37 higher than for all Blue Cross and Blue Shield subscribers Statewide.

Conclusion

State employees with traditional coverage do have higher rates of utilization than all Blue Cross and Blue Shield subscribers with traditional coverage Statewide. However, the problem is not that State employees as a whole are generally sicker than or are using health care services more intensively than all other groups. Many of the younger, relatively healthier State employees have left the traditional plan and enrolled in a health maintenance organization. As a result, those who remain in the traditional plan tend to be the employees who have always had higher health care

needs and costs. For the most part, this migration has not occurred for other employee groups with traditional coverage. When all State employees are recombined into one groups (those covered by the traditional Blue Cross and Blue Shield plan and those covered by health maintenance organizations), their use of and costs for hospital services is about the same as Statewide.

State Employees With Traditional Coverage Are Likely to Continue To Have Higher Rates of Use Than All Blue Cross Subscribers As Long As State Employees Are Splintered Into Several Groups

In 1988, State employees had the option of enrolling in a health maintenance organization or in one of two plans offered by Blue Cross: Blue Select or traditional Blue Cross (only available to employees who live in an area where Blue Select is not offered). Blue Select is a hybrid plan. It incorporates aspects of a traditional plan—including fee-for-service payments to providers and the shared pay concepts of deductibles and coinsurance—and of a health maintenance organization, including the "gatekeeper" concept, which requires the selection of a primary care physician to coordinate all an employee's health care needs.

According to payroll data from the Division of Accounts and Reports, an even higher percentage of State employees enrolled in health maintenance organizations in 1988. These figures are shown in the following table.

1988 State Employee Enrollment in Health Insurance Plans

	Number of contracts			
Plan	1987(a)	% Of Total	1988(b)	% Of Total
Blue Cross Traditional or Blue Select	24,587	67.8%	20,997	60.3%
Health Maintenance Organizations	11,675	32.2	13,821	39.7
All employees	36,262	100.0%	34,818	100.0%

(a) Data as of December 1987
(b) Data as of January 1988

As the table shows, more than 2,000 additional State employees enrolled in a health maintenance organization in 1988. There was an even larger drop in the traditional insurance plan enrollment. As long as State employees are given the option to enroll in several different health insurance plans, the State group as a whole will lose the benefits of pooling its health insurance risks over the entire employee population. Blue Cross and Blue Shield has taken steps to avoid this splintering effect among its own employees; in January 1988, the company began offering its employees only one health plan option—Blue Select.

And as the State employee group with traditional coverage continues to lose the younger and relatively healthier employees to health maintenance organizations, the health care usage and cost figures for that group are likely to continue to grow.

APPENDIX A

Agency Responses

On March 16, 1988, copies of the draft audit report were sent to Blue Cross and Blue Shield of Kansas and the Insurance Department for review and comment. Those written responses are included in this appendix.

Blue Cross and Blue Shield
of Kansas

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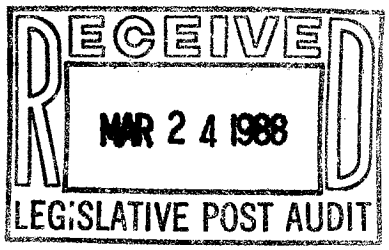
G. Wayne Johnston
President and
Chief Executive Officer

March 24, 1988



Mr. Meredith Williams
Legislative Post Auditor
State of Kansas
Suite 301 - 109 West 9th
Topeka, KS 66612-1285

Dear Mr. Williams:

We appreciate the opportunity to comment on the performance audit report, Reviewing the Health Care Plan for State Employees, Part II: Controls and Use.

It is our opinion that the report, when considered in its entirety, provides a reasonable and fair presentation of the two issues that the report addresses.

We commend your staff on the professional manner in which this examination was conducted.

Sincerely,

G. Wayne Johnston

G. Wayne Johnston
President and CEO

GWJ/cc

FLETCHER BELL

COMMISSIONER OF INSURANCE

March 24, 1988

Mr. Meredith Williams
Legislative Post Auditor
109 West 9th, Suite 301
Mills Building
Topeka, Kansas 66612-1285

Dear Mr. Williams:

We have reviewed the draft copy of the audit report, Reviewing The Health Care Plan On State Employees, Part II: Controls and Use, and appreciate having the opportunity to respond to it.

In 1987, the Insurance Department performed a financial audit of Blue Cross and Blue Shield of Kansas. That audit included a review of the state employee health care contract. Just as your staff concluded, we believe that Blue Cross and Blue Shield maintains adequate controls to ensure that claims submitted under the state contract are processed and paid correctly.

Additionally, we agree with your findings, that as a whole, state employees do not use health care services any more often than other Blue Cross and Blue Shield subscribers. However, because there is a trend for younger and healthier employees to move to health maintenance organizations for coverage, those who remain with Blue Cross and Blue Shield under the traditional plan do have a higher utilization rate for health care services than other subscribers.

Again, thank you for allowing me to respond to the draft copy of your report. If I can provide any further assistance with this audit, please let me know.

Very truly yours,

Fletcher Bell
Commissioner of Insurance

FB:RN:bf
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