

Chapter 8: Laboratory and Radiology

Executive Summary

Description

Independent laboratory and radiology service expenditures remained relatively flat over the FY 2005-2007 period. The principle explanation is the movement of 50,000 beneficiaries out of the fee-for-service (and HealthConnect) program due to the expansion of HealthWave in 2007. However, population-specific analysis indicates an increasing number of users, and a corresponding increase in total expenditures among the remaining aged, disabled, and other populations. The highest-cost services in this category are MRIs, CT scans, and lab tests for sexually transmitted diseases. Kansas Medicaid usually ties coverage and payment decisions to federal Medicare policies.

Key Points

- Maintaining consistency, equity, and efficiency in Medicaid coverage of laboratory and radiology services is difficult given the high rate of innovation in laboratory and radiological procedures.
- New coverage is based on comparisons with Medicare and other insurers, but over time, both pricing and coverage restrictions (e.g., diagnosis restrictions) become dated.
- Costs for the population remaining in fee-for-service, the aged and disabled, are increasing even though reimbursement to providers is not.

Recommendations

- Consider adopting Medicare coverage criteria in order to stay current with federal determinations of technology and appropriate use.
- Explore the development of a universal pricing methodology linked to the Medicare program as a systematic approach to maintaining an up-to-date program.

Program Description

Laboratory and radiology services are mandatory services that must be provided through Medicaid. KHPA reimburses providers for over one thousand laboratory procedures and six hundred radiological procedures. As a result of constant advances in technology, new procedures are developed every year and KHPA program staff use the best available evidence to determine which proce-

dures will be reimbursed by Medicaid. The purpose of this report is to evaluate trends in utilization and expenditures for independent lab and radiology services reimbursed through the Kansas Medicaid fee-for-service program.

Kansas Medicaid defines independent lab and radiology providers as stand-alone entities not directly attached to or affiliated with a hospital. Laboratory and radiology services provided for patients in the inpatient hospital setting are covered under the diagnosis related group (DRG) payment for inpatient services. Lab and radiology services provided by hospitals, but not associated with an inpatient stay, are reimbursed through a fee-for-service (FFS) payment mechanism. All procedures performed at a hospital were grouped together in this year's Medicaid Transformation process and are included in the hospital program review. As a result, procedures analyzed in this review represent the subset of all laboratory and radiology procedures, i.e. those performed outside of an inpatient stay.

Program Management

There are three main objectives for the management and oversight of independent laboratory and radiological services: 1) evaluating and adopting a consistent stream of new technologies, 2) reviewing and updating coverage criteria for currently reimbursed tests, and 3) evaluating and updating reimbursement rates for diagnostic tests and procedures. KHPA uses an internal medical work group consisting of nurse and non-nurse program managers, the medical director, and a physician consultant to evaluate new technology and coverage criteria. The Medical Care Advisory Committee (an external advisory board made up of consumers, providers, and other stakeholders) provides additional input on coverage decisions as needed.

Coverage of new tests

KHPA continues to review new technology for the feasibility of coverage. The agency program staff review Medicare coverage rules, information from other insurance carriers and peer-reviewed literature when determining coverage for both radiology and laboratory codes and procedures. In addition, KHPA uses this information to help determine whether a diagnosis restriction and/or prior authorization are necessary.

When a new service is covered, it may be placed on prior authorization (PA). By putting the new service on prior authorization, the KHPA program manager can review the appropriateness of every potential use and monitor the utilization and total cost of the new service. The program manager designs specific criteria for each service placed on PA. These criteria use medical conditions, diagnoses, and medical necessity statements to help determine the appropriateness of the service for each individual. As the service coverage continues, KHPA continues to revise its PA criteria as needed. KHPA may occasionally remove services from PA, but will usually maintain a diagnosis restriction to help maintain program integrity.

One radiological procedure currently under review is the positron emission tomography (PET) scan. KHPA does not reimburse for PET scan, computer-based functional radiological imaging used in the diagnosis and treatment of cancer. PET scans cost approximately \$1800 per procedure and their utility in diagnosis and treatment is still being evaluated. KHPA continues to review this service for possible future coverage. It may be more feasible to cover these services if they are provided through a prior authorization process.

Reviewing and updating coverage criteria

For laboratory and radiology codes that are already covered, KHPA uses an ad hoc review process. The program manager and the medical workgroup review criteria on a case-by-case basis. Prior authorization criteria and diagnosis restrictions remain in place once initially adopted and are updated as needed. With limited staff resources and nearly two thousand lab and radiology codes, regular review of each individual code is not feasible.

In contrast, the Medicare program and other large insurers, who are able to devote more resources to program management conduct comprehensive coverage reviews and update their coverage criteria on a quarterly or annual basis. KHPA's current ad-hoc process has the potential to leave the agency with procedure and diagnosis restrictions that are in some cases outdated and/or inconsistent with current medical practice. These differences may cause reimbursement difficulties for providers when a Medicaid beneficiary has both Medicare and Medicaid.

By implementing an annual procedure and diagnosis code review process, KHPA could better mirror Medicare's coverage and restriction changes and therefore reduce reimbursement problems. Adopting this annual review process would also provide KHPA with the means to stay current and comprehensive in its coverage criteria, likely increasing the cost-effectiveness of care reimbursed through the fee-for-service Medicaid program. KHPA is reviewing the fiscal impact of implementing an annual procedure and diagnosis code review process.

Reimbursement

Reimbursement issues are brought to the attention of program staff by providers or discovered through the research of program managers. Several reimbursement and billing issues have been identified for the independent laboratory and radiology program.

When a policy is implemented, KHPA prices the new procedure code at a percentage of Medicare—85% for laboratory codes and 80% for radiology codes. This rate stays the same until a new policy is implemented to change the rate. Medicare, however, changes their reimbursement rates every year which means that each year the Medicaid reimbursement varies as a percentage of Medicare. Medicaid reimbursement could fall below the initial 85 or 80% of Medicare or in some cases rise above the initial percentage.

One example of a billing issue is when providers bill for a service with both a technical and professional component. Under Medicare rules, each such service has a base code that a provider uses when they bill for both components of a service. If the provider only bills for one component (technical or professional) of the service, a modifier is used to identify the component they provided.

The modifier *TC* (technical component) is used when billing for the technical portion of a service. The *TC* includes the provision of equipment, supplies and technical personnel. The modifier *26* is used when billing for the professional portion of a service. The professional component encompasses all of the physician's work in providing the service, including interpretation and reporting of the procedure. In the Medicare program, when the reimbursement rates for the technical and professional components are added together, the result equals the base code reimbursement. However, KHPA's current separate component reimbursement rates (*TC*, *26*) do not always equal the base code reimbursement. Current Medicaid reimbursement for the base code is usually greater than the sum of the reimbursements for the components. This discrepancy has caused dif-

faculty for providers when they attempt to receive adequate reimbursement for their services.

KHPA continues to review the radiology procedure codes that use contrast material for appropriate reimbursement. Contrast material is currently considered by KHPA and several other insurance providers to be part of the service. The reimbursement rate has been set accordingly. Occasionally KHPA receives requests to review specific contrast materials for additional reimbursement because the provider feels that the current reimbursement does not adequately cover the cost of some of the more expensive contrast materials. A random sample of radiology codes were reviewed by the KHPA program manager and the current reimbursement is consistent with Medicare's current reimbursement. Medicare currently considers the contrast material as content of service to the radiological procedure code.

Finally, the KHPA hospital manual does not allow independent laboratories to bill for services while a beneficiary is in a hospital. KHPA policy considers independent laboratory services provided during a hospital stay to be content of service of the hospital (drug related grouper) DRG payment. KHPA plans to research and implement an edit in its payment system to deny any independent laboratory claims billed during an inpatient hospital stay.

Recent Program Changes

Over the past few years KHPA has implemented many changes within the Medicaid fee-for-service program to improve reimbursement and coverage for laboratory and radiology services. These changes were developed in response to provider feedback and as a result of reviewing the literature and the policies of other insurance companies. The most recent and prominent changes are described below.

Radiology code coverage

In October 2006 program staff wrote a policy that added 20 previously uncovered radiology codes to all Medicaid benefit plans. Agency staff determined that these additional procedures were necessary for effective diagnosis and treatment of Medicaid beneficiaries.

Expansion of procedures billable by radiologists

Medicaid began allowing radiologists to bill for codes for interventional radiology in November 2006. Prior to this change radiologists were not reimbursed for these services; however, they could dispute denied claims and request a medical review. As a result of the medical review of several disputed claims and a subsequent review of the literature, KHPA decided to expand coverage to include interventional radiology services. Since the majority of the disputed claims were paid after the medical review process, this change was determined to have no fiscal impact.

Many radiologists have expanded their practices to include services other than traditional radiological procedures. Some laryngoscopy procedures allowing providers to look at the back of the patient's throat fall under these expanded services. In April 2008, a Medicaid policy was implemented which allowed radiologists to be reimbursed for 28 laryngoscopy procedure codes. These two policies updated Medicaid's reimbursement for radiological procedures and made it consistent with current radiology practice.

Obstetrical Sonograms

In June 2008, a Medicaid policy was implemented to expand the covered diagnosis list for obstetrical (OB) sonograms to better mirror Medicare and other insurance providers. Several providers requested KHPA to review the covered diagnosis list for OB sonograms and to consider using the same diagnoses as Medicare. After reviewing the medical literature and other insurers' policies, KHPA approved a new list of covered diagnosis codes for OB sonograms. This new list is more comprehensive and consistent with current medical practice. The policy was calculated to have no fiscal impact because the diagnosis codes were previously manually reviewed and approved through the medical review process.

KHPA has also written a policy to change the chest X-Ray diagnosis restrictions to mirror Medicare and other insurance providers. KHPA has decided to use the previously referenced OB sonogram policy as a guide for the implementation of the X-Ray policy. However, the X-Ray policy encompasses a much larger group of diagnoses compared to the OB sonogram policy.

Trofile testing

KHPA implemented a policy in June, 2008, to expand independent laboratory coverage to include Trofile testing. This test assists prescribing providers to determine which medication(s) will best treat multi-drug resistant AIDS.

Analysis of Program Expenditures

This section reviews independent laboratory and radiological spending in detail in order to identify trends and explain changes in spending and utilization. The two types of services are examined separately.

Independent laboratory Expenditures

Figure 1

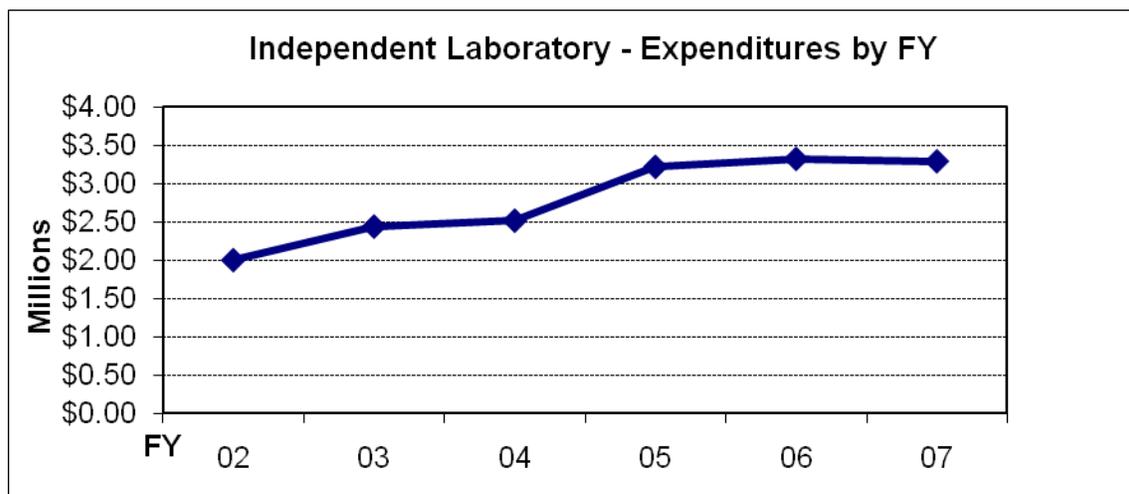


Figure 1 depicts total independent lab expenditures by fiscal year. In fiscal year (FY) 2005 KHPA experienced an increase in independent laboratory expenditures from approximately \$2.5 million to \$3.2 million dollars. During this same time period there was an increase in the number of bene-

ficiaries using independent laboratory services and an increased number of independent laboratory procedure codes covered. In FY 2005, KHPA experienced two one-time events. First, because of the way the calendar fell in relationship to the fiscal year, FY 2005 included 53 weeks of payment rather than the normal 52. In addition, due to state budget concerns, claims from one week in June 2004 were pended into state fiscal year 2005, resulting in an additional week of payments in FY 2005.

From FY 2005 to FY 2007, independent laboratory expenditures did not change substantially despite a transfer of approximately 50,000 beneficiaries to the managed care plans (HealthWave) in FY 2007. Program staff may have anticipated a decrease in expenditures with the decrease in beneficiaries. However, those who transferred out of the program tended to be healthy families and low users of the services.

Figure II

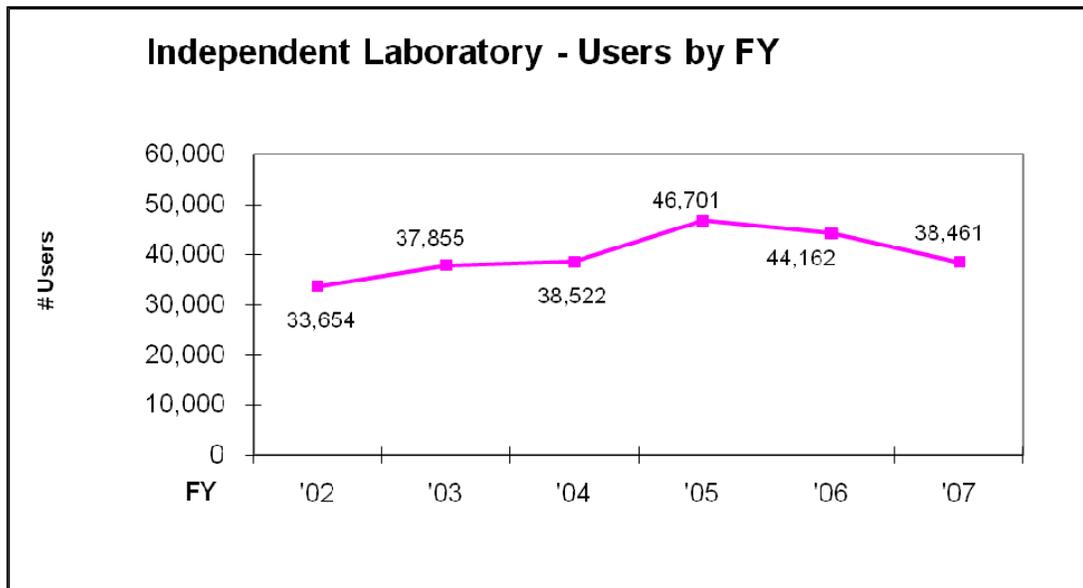
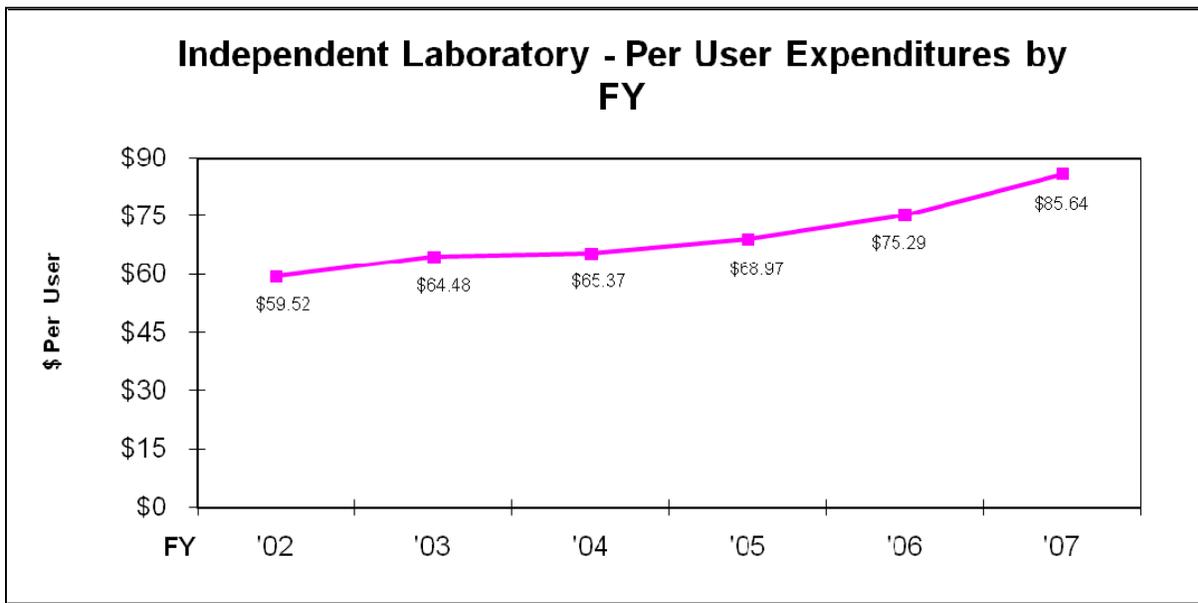


Figure II represents the number of beneficiaries actually receiving independent laboratory tests. From FY 2002 to FY 2007, KHPA saw an overall 14.3 % increase in the number of users of independent laboratory services. However, from FY 2005 to FY 2007, there was a decline in users (46,701 to 38,361). As previously mentioned, KHPA moved beneficiaries from HealthConnect into HealthWave in FY 2007, which increased the number of beneficiaries eligible for managed care and decreased the number of beneficiaries eligible for fee for service Medicaid.

The decline in users illustrated in Figure II from 2005 through 2007, coupled with the stable expenditures illustrated in Figure I, indicates a rise in overall per-user independent laboratory expenditures in FY 2006 and 2007. Expenditures per user are illustrated in Figure III.

Figure III



Expenditures per user have steadily increased from FY 2002 to FY 2007. Over the five year time-frame, there was a 43.9% increase in per-user expenditures. Increases in per-user spending have continued despite the decrease in the total number of independent laboratory users from FY 2005 to FY 2007. This trend suggests that either beneficiaries are using services in greater amounts, more expensive services are being ordered, or reimbursements are increasing.

Figure IV

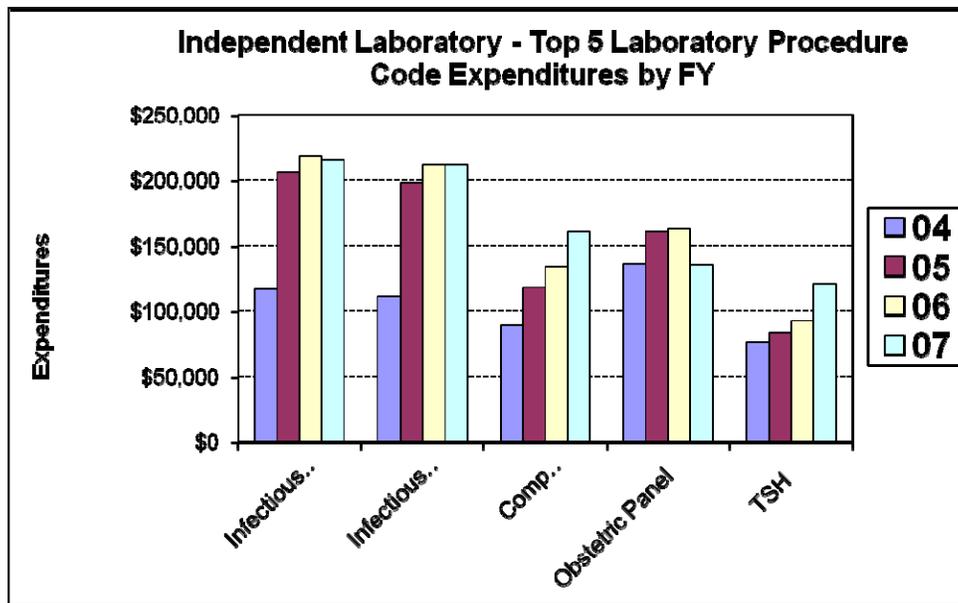


Figure IV shows the top 5 independent laboratory procedure codes billed by year. These tests are routine procedures that are used to determine medical conditions and guide treatment options. Independent laboratory procedures show a large growth in the last 3 years. These laboratory procedure codes are high volume, high turnover codes. As the technology and new laboratory standards change, use of existing laboratory procedure codes change accordingly. The individual growth rates for some tests are higher than the overall growth rate of the independent laboratory program.

There was a decrease in expenditures for some lab tests (for example, the obstetric panel) in FY 2007 because of the shift of families to managed care. The top two procedure codes billed continue to be those used for testing for sexually transmitted diseases. However in 2007, expenditures for those codes did not increase. Expenditures for metabolic panels and Thyroid Stimulating Hormone (TSH), associated with diagnosis and treatment of chronic diseases, continue to increase because of the continued presence of the aged and disabled population in the Medicaid fee-for-services (FFS) programs.

Table A
Independent Laboratory - Top 5 Laboratory Procedure Codes (From Figure IV)

Code Description	2004		2005		2006		2007	
	# Claims	\$/Claim						
INFECTIOUS AGENT	2,867	\$40.55	5,502	\$37.40	5,570	\$39.16	5,290	\$40.39
INFECTIOUS AGENT	2,753	\$40.14	5,329	\$37.13	5,492	\$38.55	5,249	\$40.37
COMP MET PANEL	7,192	\$12.35	11,733	\$10.02	13,513	\$9.87	12,991	\$12.37
OBSTETRIC PANEL.	2,845	\$47.70	4,446	\$36.06	3,687	\$44.08	2,921	\$46.22
TSH	4,905	\$15.54	6,934	\$11.97	7,805	\$11.83	7,740	\$15.63

Table A shows the number of claims and average reimbursement per claim for the top 5 procedure codes listed in Figure IV. The average reimbursement from FY 2004 to FY 2007 remains fairly constant. This further suggests that the per-user increase in expenditures is related to an increase in utilization.

Figure V

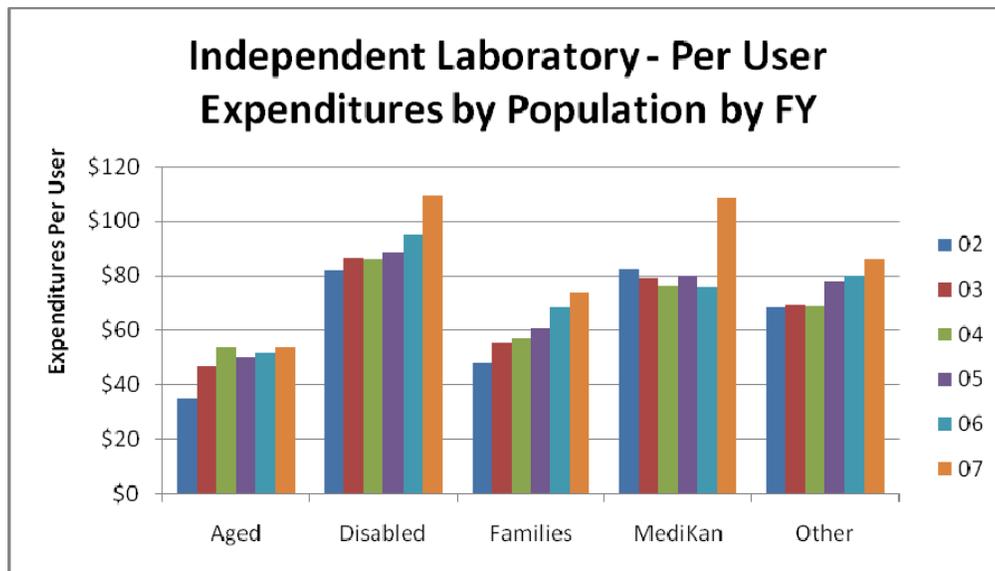


Figure V shows the independent laboratory expenditures per user by population groups. From FY 2002 to FY 2007, there was an increase in expenditures in each population group. In FY 2007, there was a greater increase in user expenditures in the MediKan and disabled populations than in other groups. This increase was likely associated with an increased level of disability in the Medi-

Kan population with the implementation of the Presumptive Medical Disability program (PMD). The PMD program tightened eligibility criteria for MediKan which may have raised the overall level of disability and medical need, leading to increased utilization in this group relative to other beneficiaries.

Figure VI

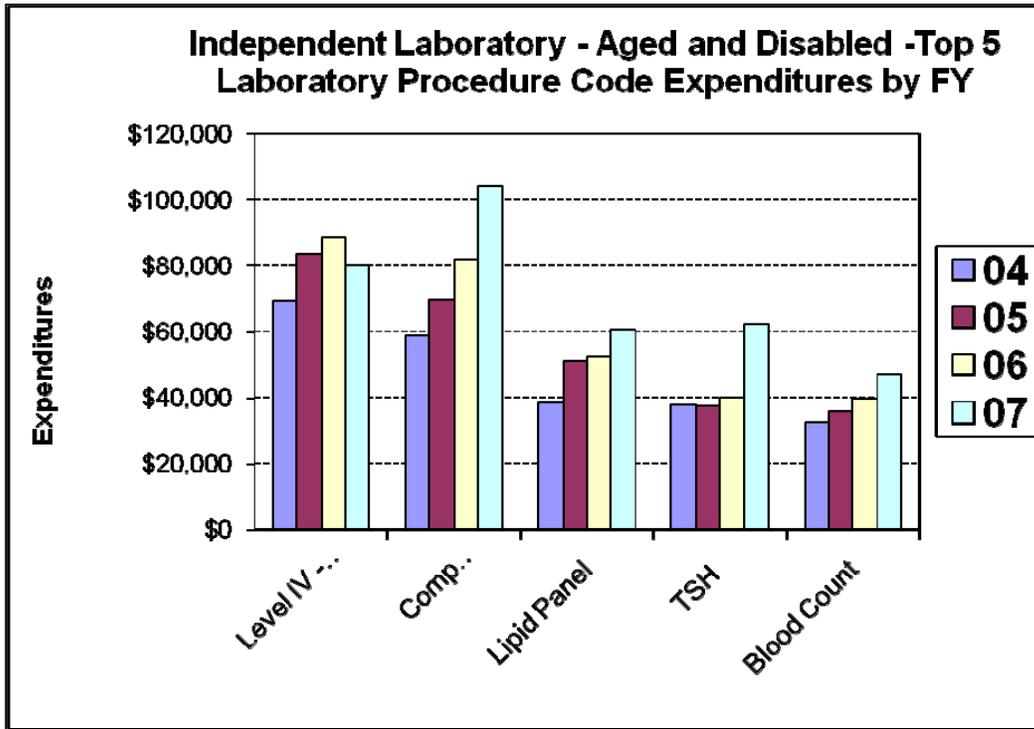


Figure VI shows the top 5 independent laboratory procedure codes billed each year for the aged and disabled population. This figure illustrates that expenditures for four out of five top procedures continue to increase for this population. This increase is occurring despite the fact that reimbursement rates per procedure illustrated in Table A have remained steady. The increases are also consistent with a high and increasing rate of chronic disease in the aged and disabled population.

Figure VII

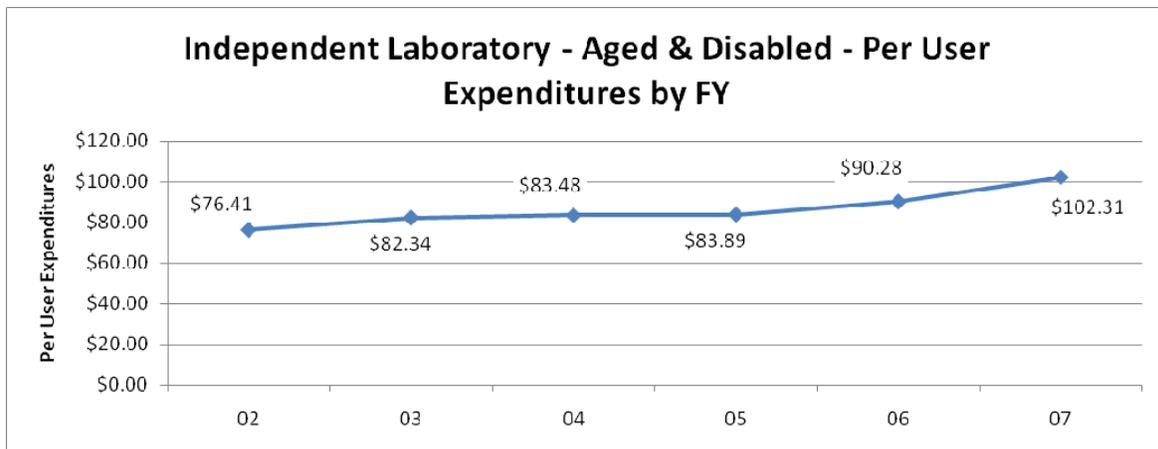


Figure VII illustrates the continued increase in per user expense for the aged and disabled population. From FY 2005 to FY 2007, KHPA has seen an increase in expenditures from \$83.89 to \$102.31 (22%). Based on this analysis, it is likely that expenditures for the independent laboratory program will begin to increase over the next few fiscal years. Analysis of expenditures in the aged and disabled population supports the need for increased management of chronic disease in this group.

Radiology Expenditures

Figure VIII

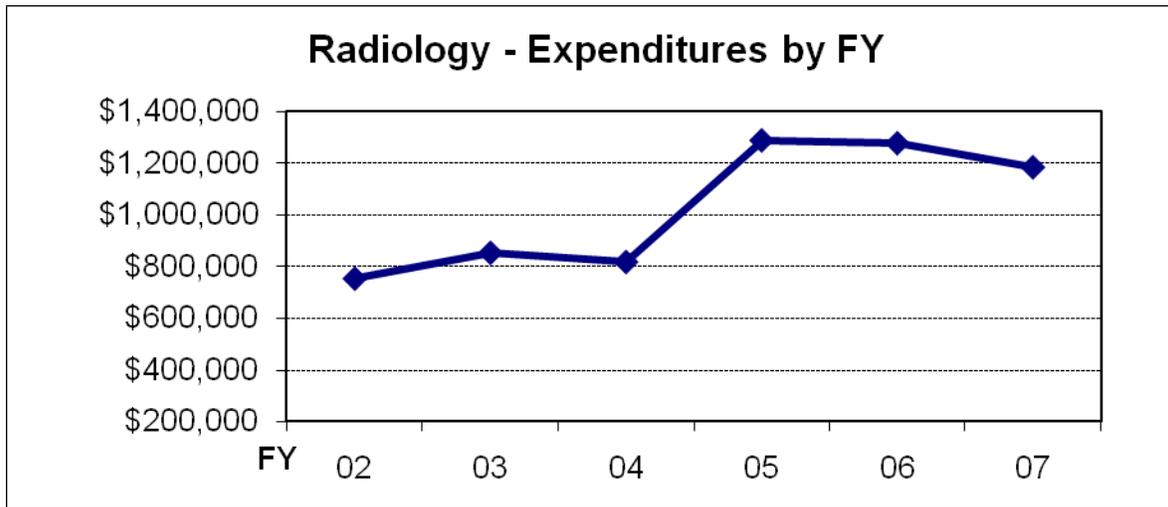


Figure VIII illustrates the total independent radiology expenditures by fiscal year. In FY 2005, KHPA experienced an increase in radiology expenditures from approximately \$816 thousand to \$1.29 million dollars. During this same time period, KHPA had an increase in the number of beneficiaries receiving radiological tests and increased coverage in radiology procedure codes. Fiscal year 2005 was also the year in which we processed a larger number of pended claims from the previous year and had 53 rather than 52 weeks. From FY 2005 to FY 2007, overall radiology expenditures declined.

Figure IX

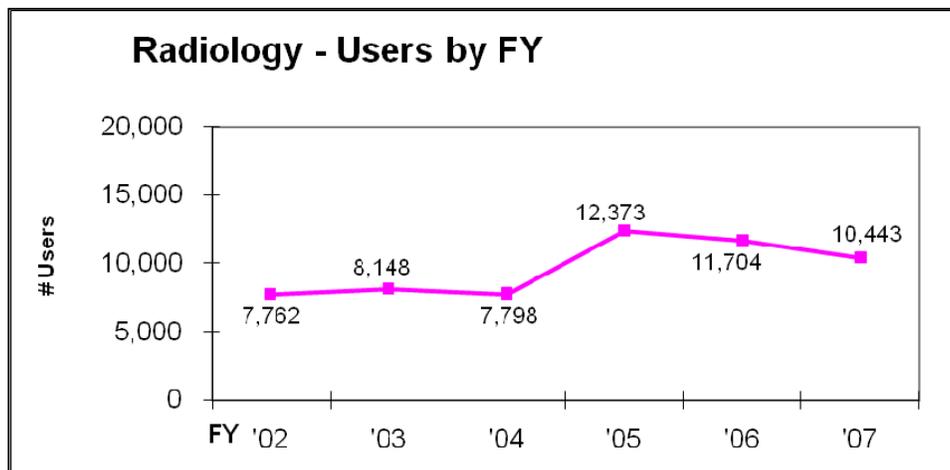
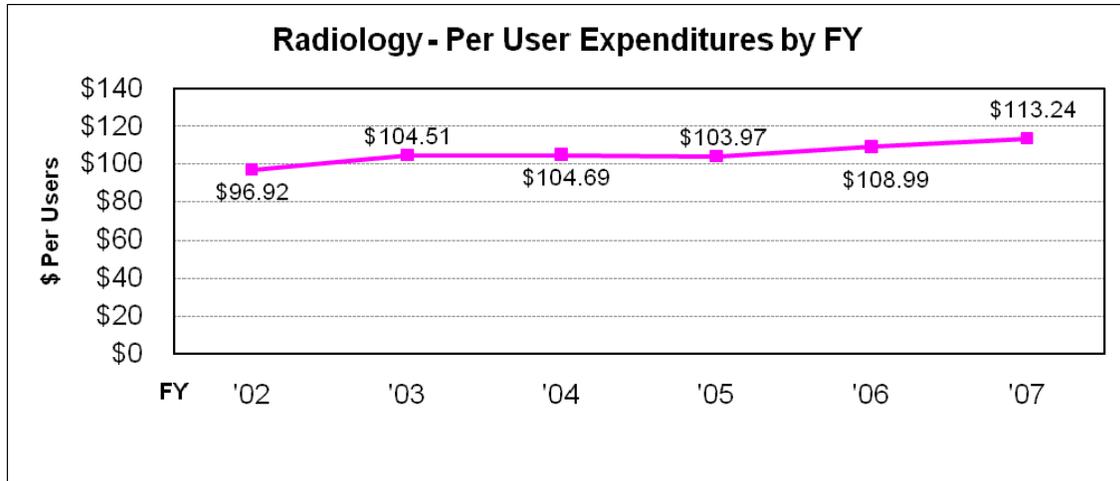


Figure IX shows the number of beneficiaries using radiological tests. There was an increase in radiology users from FY 2004 to FY 2005 (7,798 to 12,373) associated with the increase in expenditures noted above. However, from FY 2006 to FY 2007, KHPA saw a decline in radiology users (11,704 to 10,443). This decline coincides with the previously mentioned transition of families to HealthWave in FY 2007.

Figure X



KHPA had a gradual increase in per user expenditures from FY 2002 to FY 2007 as illustrated in Figure X. This increase has occurred even though KHPA has seen a slight decrease in the total number of beneficiaries using radiology services. The increase in FY 2006 may have been associated with the provider assessment tax implemented that year, a portion of which was used to raise the reimbursement rate of some radiology procedure codes. Overall from FY 2002 to FY 2007, KHPA has seen a 16.8% increase in per user expenditures. To further examine the cause of the increase in per user expenditures, we analyze the expenditures by procedure.

Figure XI

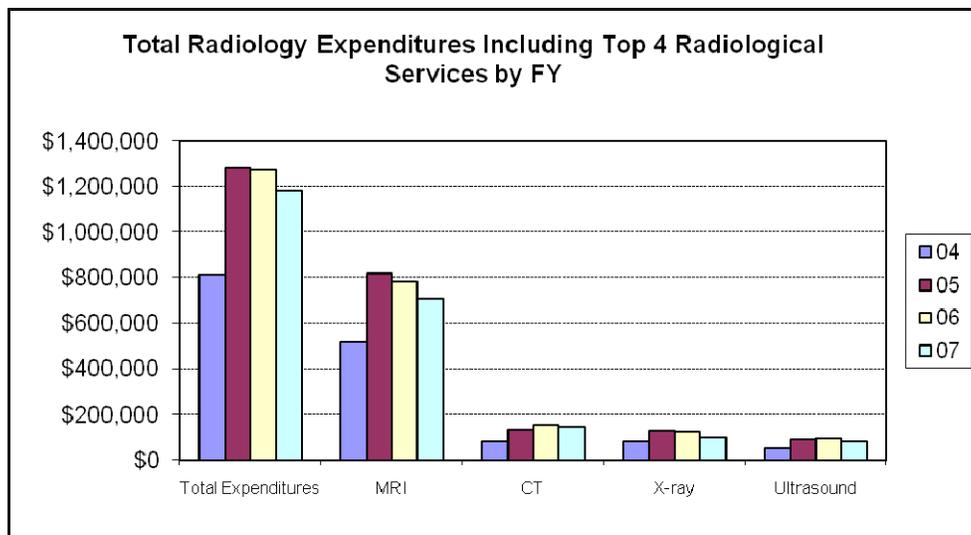
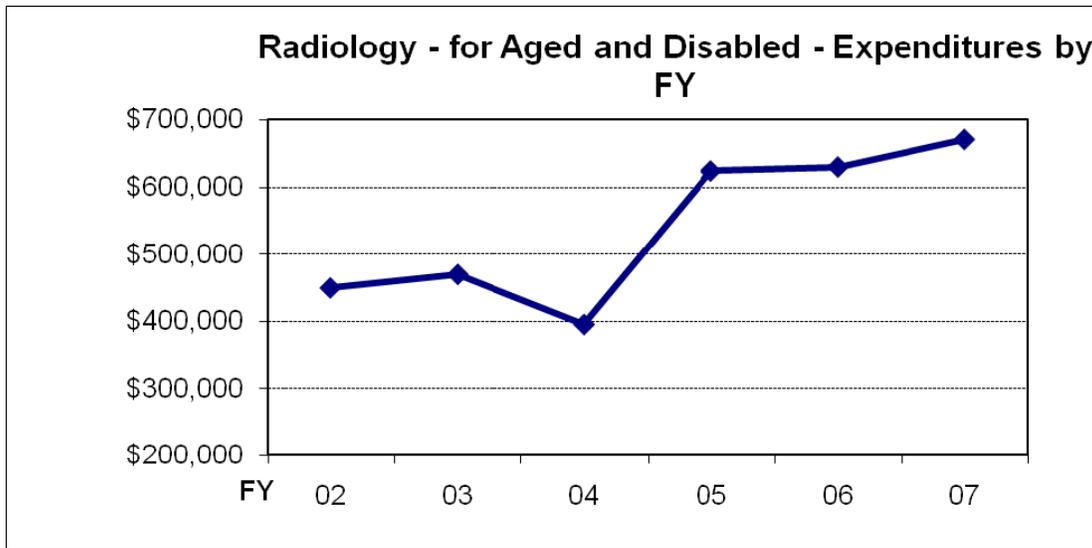


Figure XI shows the top four types of radiology services that make up approximately 90% of the total radiology expenditures. The average individual percentages of total radiological expenditures per service are: MRI 62%, CT 11%, X-Ray 10%, and Ultrasound 7%. This graph illustrates that

expenditure patterns are consistent across technologies, suggesting that no particular type of test is driving the changes in spending but rather that widespread changes in overall utilization and/or reimbursement are driving the increase.

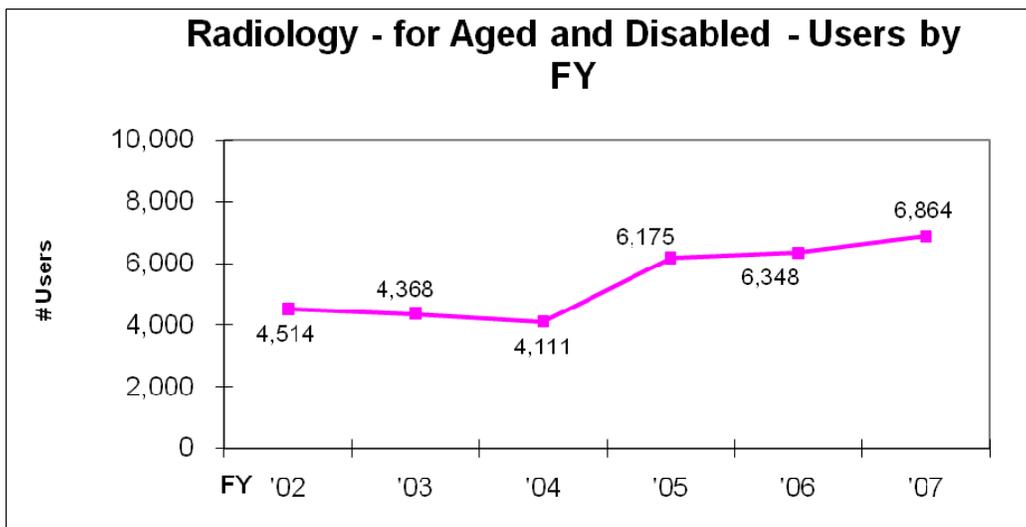
The analysis below focuses on the predominant populations remaining in the fee-for-service population, the aged and disabled, to identify any consistent trends in the program.

Figure XII



Examination of radiology expenditures for the aged and disabled population illustrates a continued increase. Figure XII shows an increase in FY 2005 from approximately \$395,000 to \$623,000. During this period, KHPA had an increase in the number of beneficiaries receiving radiological tests and increased coverage in radiology procedure codes. Apart from the deviation in FY 2004 and FY 2005, likely due to cash-flow and payment issues, there has been a steady increase in radiology spending in this population.

Figure XIII



Data illustrated in Figure XIII indicates that the rise in radiology expenditures (seen in the previous Figure XII) tracks very closely with the rise in users. In FY 2005 KHPA saw a 50.2% increase in aged and disabled users and in FY 2007 KHPA saw another 8.1% increase.

Figure XIV

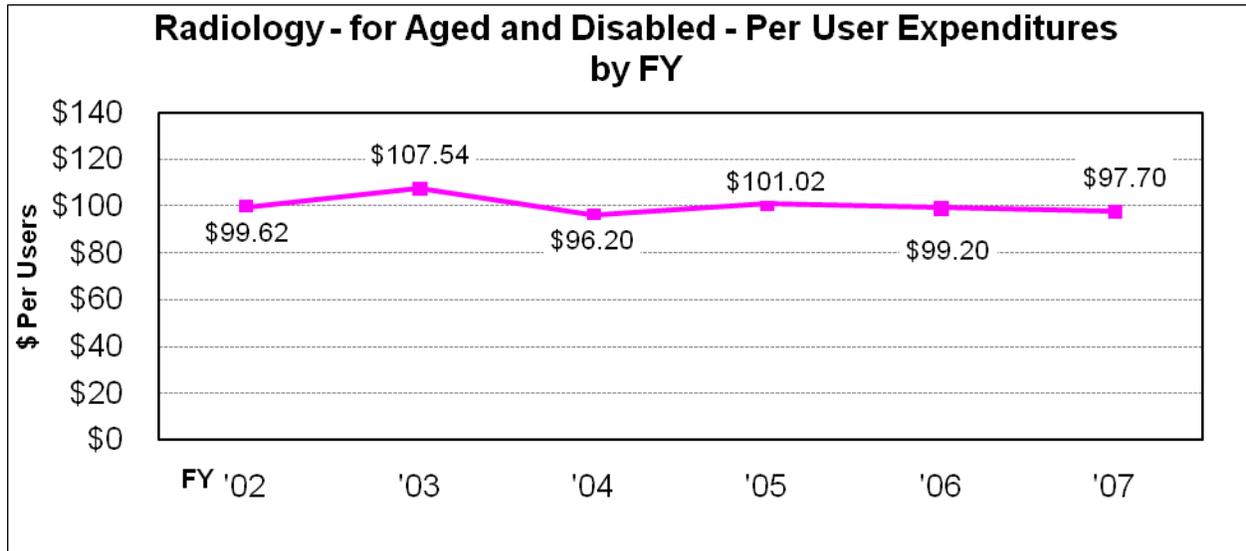


Figure XIV shows the per user expenditures for aged and disabled beneficiaries remained fairly stable from FY 2004 to FY 2007 with only a 1.6% increase. Together, the last three analyses indicate that the upward trend in spending in the independent radiology program is most likely associated with the increase in the number of aged and disabled beneficiaries in Medicaid FFS and/or an increase in the rate of chronic disease in this population.

Figure XV

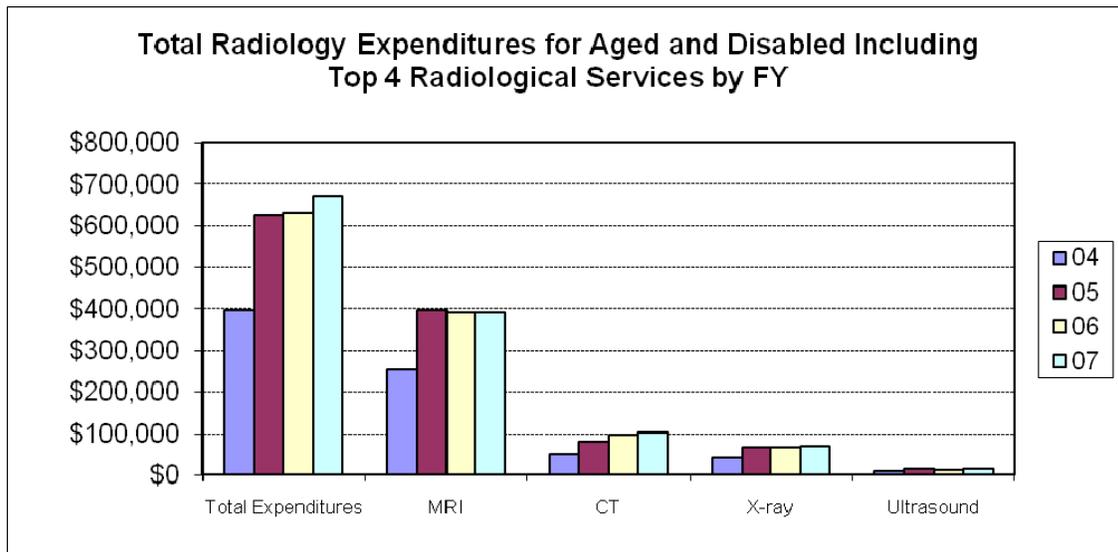


Figure XV shows the top 4 types of radiology services that make up approximately 88% of the total radiology expenditures for the aged and disabled population. This graph illustrates that expenditure patterns are consistent across technologies. As with the analysis of laboratory tests, this analysis suggests that no particular type of radiological test is driving the changes in spending, but

rather changes in the number of aged and disabled beneficiaries and/or the rate of chronic disease, which is causing the use of radiology services to go up.

Conclusion

Independent laboratory program:

- Costs for the remaining population (aged and disabled, MediKan) are increasing even though reimbursement has not
- Reimbursement in relationship to Medicare varies across test over time
- Limited staff resources make it difficult to conduct a regular and systematic review of existing prior authorization and coverage criteria, which may lead to outdated criteria over time

Independent radiology program:

- The number of aged and disabled users of radiology services is increasing
- Expenditures for the aged and disabled population are increasing even though reimbursement has not
- Program staff continues to assess new, expensive technology for possible coverage.
- The program continues to have reimbursement issues which must be addressed

Recommendations

Systematic application of Medicare coverage criteria

KHPA and Medicare may have different coverage or restrictions, such as diagnoses, for the same service code. These differences may cause providers difficulty in accessing coverage and reimbursement for their services when a Medicaid beneficiary has both Medicare and Medicaid. Several providers have requested that KHPA mirror Medicare's coverage and restrictions on services. These differences also imply that KHPA is not taking advantage of the investments the Medicare program has made in determining appropriate coverage criteria. By implementing a global methodology, KHPA may better mirror Medicare's coverage and restriction changes and therefore reduce the number of provider reimbursement issues. A decision to adopt Medicare coverage criteria will require further analysis for feasibility and cost-effectiveness.

Systematic application of Medicare reimbursement

Payment rates are set when technologies are initially presented, and they typically follow a coverage decision by Medicare. Initial payment is tied to a percentage of Medicare's rate, but staff resources do not allow for frequent updates of rates for the large number of lab and radiology codes covered. Over time, the appropriate relationship between the costs of the tests and KHPA's reimbursement weakens. One option to remain current is to routinely take advantage of Medicare payment information, and benchmark all radiology rates to a fixed (budget-neutral) percentage of Medicare's rates. This is the process used to keep pace with Medicaid hospital rates. KHPA will explore adoption of a Medicare payment standard to support routine and budget neutral updates for independent laboratory and radiology services.