DEPARTMENT OF HEALTH & HUMAN SERVICES

Office of Inspector General

Washington, D.C. 20201

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TO: Herb Kuhn
Acting Deputy Administrator
Centers for Medicare & Medicaid Services

FROM: Daniel R. Levinson Daniel R. Levinson
Inspector General

SUBJECT: Memorandum Report: "Medicaid Payments and Services Related to Hurricanes Katrina and Rita," OEI-05-06-00140

This memorandum report describes Medicaid payments and services made for evacuees from Hurricanes Katrina and Rita for outpatient and other physician services (referred to as medical services) and prescription drugs. It also compares average Medicaid payments per evacuee to those per nonevacuee for medical services and prescription drugs.

After the hurricanes struck, the Secretary (the Secretary) of the Department of Health and Human Services (HHS) approved 32 hurricane-related demonstration projects. In response to the extensive, almost nationwide waiving of Medicaid requirements meant to protect the program from potential fraud and abuse, this memorandum report provides an initial, aggregate-level analysis of medical services and prescription drugs for eight States in the first two quarters of fiscal year (FY) 2006. A companion memorandum report, "Louisiana Medicaid Payments and Services Related to Hurricanes Katrina and Rita: Data Compendium" (OEI-05-07-00300), provides a series of tables and figures examining Louisiana Medicaid payments and services related to Hurricanes Katrina and Rita for the same period.

BACKGROUND

In August and September 2005, the Gulf States were struck by two significant hurricanes. By October 2005, the Federal Emergency Management Agency had registered more than 1.7 million individuals for disaster assistance due to Hurricanes Katrina and Rita.[1] Responding to the need for immediate health care in the wake of the hurricanes, the Secretary of HHS began granting Medicaid waiver and expenditure authorities, allowed

[1] Hurricane Katrina: How is FEMA Performing Its Mission at This Stage of Recovery?: Hearings Before the U.S. Senate Committee on Homeland Security and Governmental Affairs, 109th Cong. 467 (2005). Statement of R. David Paulison, Acting Under Secretary for Emergency Preparedness and Response and Acting Director of the Federal Emergency Management Agency, U.S. Department of Homeland Security.

under Section 1115 demonstration projects[2] (hereinafter referred to as hurricane-related demonstration projects), to ensure the delivery of health care services to affected individuals and evacuees.

Section 1115 demonstration projects have been used in the past following national disasters. For example, after the September 11, 2001, terrorist attacks, the State of New York requested and received approval for a Medicaid Section 1115 demonstration project known as Disaster Relief Medicaid. This demonstration project allowed New York to develop a program responsive to the emergency situation by allowing self-attestation of income, on-the-spot approval of eligibility, and a temporary eligibility period.[3]

However, Disaster Relief Medicaid was not without vulnerabilities. A December 2005 report prepared for the New York State Department of Health identified some services, including dental services, as possible causes for concern.[4] In testimony before a Senate committee in March 2006, the Centers for Medicare & Medicaid Services (CMS) cited the New York report, stating that there were patterns of suspect Medicaid utilization in Disaster Relief Medicaid.[5] Because the hurricane-related demonstration projects, like the New York Disaster Relief Medicaid program, waived measures meant to protect the Medicaid program from potential fraud and abuse, there was similar potential for suspect Medicaid utilization. The extensive, almost nationwide waiving of Medicaid requirements heightened concerns that fraud or abuse may have occurred.

Soon after the hurricanes, the HHS Office of Inspector General (OIG) joined a broad effort by Inspectors General to evaluate the Federal response to Hurricanes Katrina and Rita.[6] These activities include assessing whether response funds were spent appropriately and identifying any cases of fraud and abuse. This study is part of the larger, overall effort by Inspectors General.

Medicaid

Federal and State governments jointly fund the Medicaid program, a health insurance program for certain low-income and medically needy individuals. Each State, district, or

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[2] Social Security Act, § 1115.

[3] Maria Calicchia, et al., Cornell University, School of Industrial and Labor Relations. "Disaster Relief Medicaid Evaluation Project," December 2005. Available online at http://www.nyhealth.gov/health_care/medicaid/related/docs/drm_report.pdf. Accessed March 8, 2007.

[4] Ibid.

[5] Bolstering the Safety Net: Eliminating Medicaid Fraud: Hearings Before the Subcommittee on Federal Financial Management, Government Information, and International Security, 109th Congress (March 28, 2006). Verbal statement of Dennis Smith, Director, Center for Medicaid and State Operations, Centers for Medicare & Medicaid Services. Available online at http://hsgac.senate.gov. Accessed April 28, 2006.

[6] President's Council on Integrity and Efficiency/Executive Council on Integrity and Efficiency. "Oversight of Gulf Coast Hurricane Recovery: A 90-Day Progress Report to Congress." December 30, 2005.

territory (herein referred to collectively as States) develops and administers a State Medicaid program. Within broad Federal parameters outlined in the Social Security Act, each State establishes eligibility requirements, benefits packages, and payment rates.[7] CMS administers the Medicaid program at the Federal level.

The Social Security Act allows States to modify Federal program requirements using a variety of mechanisms to make their Medicaid programs more flexible. States can request permission to modify their Medicaid programs at any time. These modifications are typically used to implement special projects, managed care delivery systems, or community-based long-term care.

Section 1115 of the Social Security Act allows the Secretary of HHS (the Secretary) to authorize demonstration projects in the Medicaid program. Demonstration projects utilize two types of Medicaid authority: waiver authority and expenditure authority. The first allows the Secretary to waive certain statutory Medicaid requirements so that States can make changes to the Medicaid program, including changes to eligibility requirements.[8] Expenditure authority allows the Secretary to authorize reimbursement for the cost of medical services that would not otherwise meet the definition of medical assistance.[9]

Section 1115 Use for Hurricanes Katrina and Rita Relief

Following the 2005 hurricanes, CMS announced that States could request emergency Section 1115 demonstration projects to aid their relief efforts. The hurricane-related demonstration projects were intended to assist States in providing Medicaid services to evacuees. CMS defined an evacuee in the terms and conditions of the Section 1115 hurricane-related demonstration projects as "an individual who is a resident of the emergency area affected by a National Disaster as declared by the President . . . and has been displaced from his or her home by the emergency, and is not a non-qualified alien. . . ."[10] The Deficit Reduction Act of 2005 (DRA)[11] used different terminology. It defined an affected individual as one who resided in a county or parish declared to be an emergency area as a result of Katrina and continued to reside in the same State as the emergency area, and an evacuee as an affected individual who was displaced to another State. Throughout this report, we use the term evacuee to denote both evacuees and affected individuals unless otherwise indicated.[12]

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[7] Social Security Act, Title XIX.
[8] Social Security Act, § 1115(a)(1).
[9] Social Security Act, § 1115(a)(2).
[10] Each approved 1115 demonstration project included Title XIX waivers, Medicaid costs not otherwise matchable (expenditure authorities), and special terms and conditions. These demonstration authorities were approved by CMS between September 22, 2005, and March 26, 2006, and are on file with CMS.
[11] Deficit Reduction Act of 2005, Pub. L. No. 109-171, § 6201(b).
[12] All of the States included in this study, except Louisiana, had both evacuees and affected individuals residing in their State. Louisiana had only affected individuals and no evacuees.

The Secretary began approving hurricane-related demonstration projects in September 2005. In total, the Secretary approved projects in 32 States (see Appendix A).

Under the Section 1115 waiver authority, the hurricane-related demonstration projects provided, among other things, simplified eligibility requirements for Medicaid and allowed Medicaid applicants to self-declare eligibility information.[13] Under the Section 1115 expenditure authority, also referred to as costs not otherwise matchable, States were authorized to expand benefits during a temporary eligibility period for certain evacuees. Applications or Medicaid based on evacuee status were accepted through January 31, 2006. Approved individuals were eligible for Medicaid coverage up to 5 months from their approval date. The last possible date of service under these demonstration projects was June 30, 2006.

Hurricane-Related Funds in the Deficit Reduction Act of 2005

The DRA authorized the Secretary to pay the non-Federal share of certain health care-related expenses to eligible States.[14] Sections 6201(a)(1)(A) and (C) allow the Secretary to reimburse States for the non-Federal share of medical assistance provided under an approved hurricane-related demonstration project, for both evacuees and affected individuals. Section 6201(a)(3) allows for reimbursement of the non-Federal share for medical assistance provided under existing State plans for certain counties or parishes.[15] All 32 States that received approval for hurricane-related demonstration projects were allocated funds pursuant to either or both Sections 6201(a)(1) or (3).

In February 2006, Section 6201(e) of the DRA appropriated funds for the activities authorized in Section 6201. In March 2006, CMS released $1.5 billion to States approved to implement hurricane-related demonstration projects.[16] Later in 2006, CMS obligated approximately $360 million in additional DRA funding to approved States.[17] Overall, the DRA appropriated $2 billion in funds for these projects to remain available until expended; the remainder is expected to be dispersed in FY 2007.

CMS based the initial allocation of funds on States' projected expenditures. Twelve States received at least $1 million each from CMS in the first allocation released through

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[13] Each approved 1115 demonstration project included Title XIX waivers, Medicaid costs not otherwise matchable (expenditure authorities), and special terms and conditions. These demonstration authorities were approved by CMS between September 22, 2005, and March 26, 2006, and are on file with CMS.
[13] Deficit Reduction Act of 2005, Pub. L. No. 109-171, § 6201(b).
[14] Deficit Reduction Act of 2005, Pub. L. No. 109-171, § 6201.
[15] Only Louisiana, Alabama, and Mississippi were eligible for reimbursement pursuant to Section 6201(a)(3).
[16] HHS News Release. "HHS Releases First Round of Katrina Aid to 32 States To Help With Evacuee Health Cost." March 24, 2006. Available online at http://www.hhs.gov/news/press/2006pres/20060324.html. Accessed March 29, 2006.
[17] HHS, CMS. "Fiscal Year 2008: Justification of Estimates for the Appropriation Committees," pp. 192–193.

the DRA. These 12 States accounted for $1.49 billion—nearly 100 percent of the initial allocation. Louisiana, Mississippi, and Texas accounted for 90 percent of the initial allocation.

Related Work

As previously mentioned, OIG is engaged in a larger Federal effort to evaluate the response to Hurricanes Katrina and Rita.[18] As part of this effort, OIG has issued a number of reports examining the Federal response to the hurricanes, including studies examining nursing home preparedness and evacuation planning (OEI-06-06-00020), the Public Health Service Commissioned Corps' response after Katrina (OEI-09-06-00030), and the appropriate use of Government purchase cards to obtain needed supplies (OEI-07-06-00150). As a companion to this memorandum, OIG has issued a memorandum containing data for the State of Louisiana (OEI-05-07-00300). Ongoing work by OIG includes audits on topics such as all hurricane-related contractual procurements greater than $500,000, transportation of medically needy evacuees, and duplication of benefits.[19]

METHODOLOGY

Scope

This study focuses on the Medicaid payments and services associated with beneficiaries who were deemed eligible under the hurricane-related demonstration project waiver authority or who resided in an affected county or parish and received services under an existing State plan. It does not determine whether any Medicaid beneficiaries were wrongly deemed eligible to receive Medicaid or provide a medical record review of the appropriateness of Medicaid claims. It also does not review payments and services rendered using an uncompensated care pool. In addition, the data are State-reported, administrative data. Therefore, the payments discussed in this report represent the total payments made by the Medicaid program: the payments have not been adjusted to represent rebates, appeals, or the Federal-State share. Lastly, this study does not examine claims related to Medicare or the State Children's Health Insurance Program.

Data Sources

The Medicaid Management Information System (MMIS) and the Medicaid Statistical Information System (MSIS) were the primary Medicaid data sources used in this study. The MMIS is a State-level system that contains claims data, provider enrollment data, and beneficiary eligibility information. The MSIS is a CMS system that contains data

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[18] President's Council on Integrity and Efficiency/Executive Council on Integrity and Efficiency. "Oversight of Gulf Coast Hurricane Recovery: A 90-Day Progress Report to Congress." December 30, 2005.

[19] Department of Health and Human Services, Office of the Inspector General. "Semiannual Report to Congress: April 1, 2006–September 30, 2006."

extracted from States' MMISs related to beneficiaries' eligibility and claims data. See Appendix B for a detailed description of these data sources and a detailed methodology.

Data Collection
We requested eligibility and claims data from the 12 States that received at least $1 million each from CMS in the first allocation released through the DRA. We requested Medicaid eligibility and claims information for the first two full quarters of FY 2006 (October 1, 2005, to March 31, 2006), which were the first two full quarters after the hurricanes. We first attempted to collect these data at the Federal level through the MSIS. When this was not possible, a data request was made to States for eligibility and claims data from the MMIS.

Of the 12 States from which we requested data, 8 are included in our final analysis: Alabama, Arkansas, California, Georgia, Louisiana, Mississippi, South Carolina, and Texas. These eight States include the three with the largest initial allocations of funds. Overall, these eight States account for 99 percent of the initial allocation of funds.

Of the four States not included in our final analysis, three did not have data available in the MSIS, nor were they able to provide complete MMIS data. The fourth State submitted all of the requested data, but our data verification efforts detected a significant coding error. This State was unable to resolve this problem in time to resubmit its data for this study but plans to resubmit data to CMS. The four States not included in the analysis accounted for less than 1 percent of the initial DRA allocation.

Data Analysis
We analyzed Medicaid eligibility and claims data. Our analysis included only claims for individuals who were both Medicaid eligible and received a service during our 6-month study period. Further, we focused our analysis on two of the four Medicaid claims files: other services and prescription drugs. We did not review inpatient or long-term care claims. The other services file includes outpatient hospital services, physician services, and other noninstitutional services. We focused our study on medical services and prescription drugs because their utilization is more likely to fluctuate based on mass migrations and disaster situations. Hereinafter, any discussion of claims refers only to medical services and prescription drug claims.

We conducted both descriptive and comparative analyses. For the descriptive analysis, we analyzed payments and services by individual State and aggregated across the eight States. The comparative analysis evaluated average Medicaid payments and rates of utilization by evacuees against those by nonevacuees. For our analysis, the nonevacuee group represents benchmark patterns of payments and utilization.

To facilitate our analysis, we categorized medical services using the Berenson-Eggers Type of Service (BETOS) classification system. Although the BETOS coding system

was developed primarily to analyze growth in Medicare expenditures, its use here allowed us to analyze services across States. A common coding scheme is necessary to conduct aggregate analysis across State Medicaid programs because of State variation in MSIS coding schemes for service type.

BETOS is a three-level classification system that groups services based on the procedure code[20] submitted on the claim. At its third, most detailed level, each procedure code is assigned to only 1 of 106 BETOS categories. We analyzed the data using the BETOS categories at the second level of classification. At the second level, the 106 third-level BETOS categories are grouped into 28 categories.[21] We added a 29th category for all services we could not classify using BETOS. Seventy-four percent of evacuee dollars paid were classified using the 28 BETOS categories and 26 percent were classified in our additional category. Hereinafter, BETOS categories will be referred to as medical service categories.

We grouped prescription drug claims according to the Standard Therapeutic Classification (STC) system. The STC system groups National Drug Codes[22] according to their most commonly intended use. The prescription drug claims in this study were classified in 97 of 100 STCs.

To determine the medical service categories or STCs on which to conduct analysis, we used two criteria: first, the medical service category or STC had to have at least 1,000 evacuee beneficiaries; second, it had to have at least $100,000 in paid evacuee claims. Twenty-eight of the twenty-nine medical service categories met these criteria, as did 64 of the 97 STCs.

Data Limitations

The data used in this report are self-reported by each State. We did not validate the data using supporting documentation. The claims data do not distinguish between claims paid in different funding categories of the DRA. Further, for States other than Louisiana, we were unable to differentiate whether a claim was for an evacuee from Hurricanes Katrina or Rita.

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[20] Procedure codes can include Common Procedural Terminology (CPT) codes and Level II Healthcare Common Procedure Coding System (HCPCS) codes. CPT codes are a numeric coding system consisting of descriptive terms that are used primarily to describe medical services and procedures furnished by physicians and other health care practitioners. HCPCS codes describe products, supplies, and services not included in the CPT codes.

[21] For example, the BETOS system has six categories of standard imaging at its third level. The second level of BETOS groups these into one standard imaging category.

[22] Assigned by the Food and Drug Administration, a National Drug Code is a three-part universal identifier that specifies the drug's manufacturer, name, dosage form, strength, and package size.

RESULTS

For Eight Selected States, Medicaid Paid $716 Million for Medical Services and Prescription Drugs Under the Hurricane-Related Demonstration Projects

In the first two quarters of FY 2006, Medicaid paid $14 billion for medical services and prescription drugs for all Medicaid enrollees in eight selected States. Of this, Medicaid paid $716 million, or 5 percent, for hurricane evacuees in the eight States. Nearly two-thirds—$448 million—was paid for medical services and the remainder—$268 million—was paid for prescription drugs. Louisiana accounted for over 95 percent of evacuee expenditures, followed by Texas with 2 percent. Table 1 lists expenditures for all eight States.

Table 1: Expenditures for Evacuees Who Received a Medical Service or Prescription Drug by State for Eight Selected States

State	Expenditures	Percentage of Total Expenditures in Eight Selected States
Louisiana	$692,576,910	96.7%
Texas	$13,887,713	1.9%
Georgia	$4,492,117	0.6%
Alabama	$2,140,181	0.3%
Mississippi	$2,049,113	0.3%
Arkansas	$559,053	0.1%
South Carolina	$501,368	0.1%
California	$188,976	0.03%
Total	**$716,395,431**	**100%**

Source: OIG analysis of eight States' Medicaid data, October 1, 2005–March 31, 2006.

Nearly 13.3 million people received at least one medical service or prescription drug through Medicaid in these eight States during the first two quarters of FY 2006. Approximately 736,000, or 5.5 percent, were evacuees.[23] Eighty-three percent of evacuees received a medical service and 52 percent received a prescription drug. Similar to expenditures, over 90 percent of evacuees who received services were located in Louisiana. Texas, with 4 percent, had the next largest concentration of evacuees who received services. Table 2 on the following page shows the number of evacuees who received services for all eight States.

[23] This number includes 26,345 evacuees in Louisiana eligible due to Hurricane Rita. The seven other States did not readily distinguish between Katrina and Rita evacuees.

Table 2: Distribution of Evacuees Who Received a Medical Service or Prescription Drug by State for Eight Selected States

State	Evacuees	Percentage of Total Evacuees in Eight Selected States
Louisiana	681,053	92.6%
Texas	29,413	4.0%
Georgia	16,428	2.2%
Alabama	2,879	0.4%
Mississippi	2,766	0.4%
Arkansas	1,980	0.3%
South Carolina	811	0.1%
California	181	0.02%
Total	**735,511**	**100%**

Source: OIG analysis of eight States' Medicaid data, October 1, 2005–March 31, 2006.

In the Eight Selected States, a Greater Percentage of Evacuees Than Nonevacuees Received Medical Services and Prescription Drugs But Average Total Payment per Evacuee Was Less

A greater percentage of evacuees than nonevacuees received a medical service or prescription drug. Eighty-five percent of evacuees received at least one medical service or a prescription drug compared to 52 percent of nonevacuees. In 19 of the 28 medical service categories we reviewed, a greater percentage of evacuees received services than nonevacuees. Medical service categories in which evacuees received more services than nonevacuees included emergency room visits; imaging; and major procedures related to cardiology, orthopedics, and ophthalmology. In 33 of the 64 STCs, an equal or greater percentage of evacuees received prescription drugs than nonevacuees. Two of the STCs in which evacuees received more prescription drugs than nonevacuees were antihistamines and muscle relaxants. See Tables C-1 through C-4 in Appendix C for the percentage of evacuees and nonevacuees who received medical services or prescription drugs in each of the medical service categories and STCs.

Overall and in each State, the average total payment per evacuee was less than that per nonevacuee for medical services and prescription drugs. Overall, the average total payment per evacuee who received a medical service or prescription drug was $974. The average total payment per nonevacuee who received a medical service or a prescription drug was $1,060.

Analysis by State revealed that each State's average total payment per evacuee for medical services and prescription drugs was less than the average payment per nonevacuee. The difference between evacuee average total payment and nonevacuee average total payment varied greatly across States, ranging from $56 to $910.

Separate analysis of medical services and prescription drugs revealed a similar pattern. For each State, the average payment per evacuee for medical services was less than that

per nonevacuee. This was also true for prescription drug payments. See Table 3 for differences in average payments for medical services and prescription drugs by State.

Table 3: Difference Between Average Payment per Evacuee and Nonevacuee

State	Analytic File		
	Medical and Prescription Drug	Medical	Prescription Drug
Arkansas	($909.54)	($665.97)	($266.70)
Alabama	($645.03)	($438.40)	($291.75)
South Carolina	($641.82)	($469.81)	($295.95)
Georgia	($541.17)	($368.28)	($201.40)
Mississippi	($399.51)	($227.11)	($167.71)
Texas	($343.65)	($205.02)	($253.62)
Louisiana	($212.67)	($110.57)	($95.86)
California	($56.17)	($65.34)	($40.90)

Source: OIG analysis of eight States' Medicaid data, October 1, 2005–March 31, 2006.

In a few specific categories, the average payment per evacuee exceeded that per nonevacuee by 50 percent or more. Analysis of the 92 different medical service and prescription drug categories indicated that, in the majority of these categories, the average payment per evacuee was either less than the average payment per nonevacuee or exceeded the average payment per nonevacuee by less than 50 percent. Table C-5 in Appendix C shows the percentage differences in average payments for medical service categories. For prescription drugs, Table C-6 lists the 51 STCs in which the average payment per evacuee exceeded that of nonevacuees by less than 50 percent.

However, in 15 of the 92 medical service and prescription drug categories, the average payment per evacuee exceeded the average payment per nonevacuee by 50 percent or more. These areas were oncology and dental services and 13 STCs for prescription drugs. The identified areas constituted relatively small portions of the total dollars spent under the hurricane-related demonstration projects.

The average payment per evacuee for oncology and dental services exceeded that per nonevacuee by more than 90 percent. The average oncology payment for evacuees was 133 percent greater than that for nonevacuees. Evacuee expenses were proportionally twice those of nonevacuees. However, both evacuee and nonevacuee oncology expenses were less than 1 percent of each groups' total expenses. Further, evacuees and nonevacuees utilized oncology services at similar rates—both at less than 1 percent.

In addition, the per-evacuee average dental payment was 94 percent greater than that per nonevacuee. Evacuee dental expenses accounted for 4 percent of total evacuee dollars and 2.5 percent of total nonevacuee dollars. Nonevacuees utilized dental services at a rate of 6.5 percent compared to 3.3 percent of evacuees.

A number of factors may have influenced the difference in average payment between evacuees and nonevacuees. These factors include differences in Medicaid fee schedules, types of procedures billed within a category of service, access to services, and quantity of services billed. We did not determine which factors most influenced the difference in average payment.

The average prescription drug payment per evacuee exceeded that per nonevacuee by 50 percent or more for 13 standard therapeutic classifications. Thirteen STCs had average payments per evacuee that were at least 50 percent greater than the payments per nonevacuee; six of these were more than 100 percent greater. Average payments per evacuee were more than 200 percent greater than per nonevacuee for nonnarcotic analgesics and water-soluble vitamins.

Table 4 details the 13 STCs and the percentage by which the evacuee average payment was greater than the nonevacuee average. As shown in Table 4, the nonnarcotic analgesic STC had an average payment per evacuee 532 percent greater than the average payment per nonevacuee. Nonnarcotic analgesics are common pain-relief medications.

Other STCs for which the average payment per evacuee greatly exceeded that per nonevacuee included drugs such as water-soluble vitamins, cough medicine, heart medication, penicillin, and antivirals. These STCs contain drugs one might expect to see in a disaster situation. As previously mentioned, Table C-6 in Appendix C provides a list of the percentage difference for the remaining 51 STCs.

Table 4: STCs With Average Payment per Evacuee at Least 50 Percent Greater Than Average Payment per Nonevacuee

STC	Common Usage	Evacuees	Percentage Difference
Nonnarcotic Analgesics	Pain Relief	12,426	532.4%
Water-soluble Vitamins	To replace B-complex group vitamins and vitamin C	4,943	203.1%
Vasodilators coronary	Treatment of angina; dilation of blood vessels	7,475	116.7%
Xanthine derivatives	To improve breathing; used for asthma, bronchitis, emphysema	1,220	108.4%
Laxatives	To relieve constipation	10,843	104.5%
Tetracyclines	To treat nonviral infections	12,206	100.7%
Multivitamins	To provide extra vitamins	30,196	77.6%
Penicillins	To treat infection	123,137	77.1%

Table 4: STCs With Average Payment per Evacuee at Least 50 Percent Greater Than Average Payment per Nonevacuee - continued

STC	Common Usage	Evacuees	Percentage Difference
Anesthetic local topical	To numb the surface of a body part	7,089	70.1%
Antivirals	To treat viral infections	13,327	56.8%
Glucocorticoids	To reduce cancer pain; help control nausea from chemotherapy	83,898	54.5%
Antihistamines	To control or prevent allergic reactions	107,288	54.3%
Cough preparations/expectorants	To loosen congestion and reduce coughing	21,103	50.8%

Source: OIG analysis of eight States' Medicaid data, October 1, 2005–March 31, 2006.

Despite the large percentage difference in average payments between evacuees and nonevacuees, these 13 STCs had relatively small expenditures and low rates of utilization, as shown in Table 5. In all but 1 of the 13 STCs, expenditures were less than 6 percent of total expenditures; most were less than 1 percent. Similarly, rates of utilization were low, often less than 1 percent.

Evacuee and nonevacuee utilization were similar in most cases. For example, penicillins were used by 6.6 and 6.1 percent of the evacuee and nonevacuee populations, respectively. However, in one case, nonnarcotic analgesics (the STC with the largest difference in average payment), evacuee utilization rates were only one-fifth the rate for nonevacuees. Table 5 provides a list of evacuee and nonevacuee rates for expenditure percentages and rates of utilization for the 13 STCs.

Table 5: Expenditure and Utilization for STCs With Average Payment per Evacuee 50 Percent Greater Than Nonevacuees

	Percentage of Total Expenditures		Rate of Utilization	
STC	Evacuees	Nonevacuees	Evacuees	Nonevacuees
Nonnarcotic analgesics	0.6%	0.6%	0.7%	3.5%
Water-soluble vitamins	0.1%	0.02%	0.3%	0.1%
Vasodilators coronary	0.2%	0.1%	0.4%	0.5%
Xanthine derivatives	0.1%	0.1%	0.1%	0.1%
Laxatives	0.2%	0.2%	0.6%	0.9%
Tetracyclines	0.2%	0.1%	0.6%	0.5%
Multivitamins	0.4%	0.2%	1.6%	1.1%
Penicillins	1.7%	1.1%	6.6%	6.1%
Anesthetic local topical	0.3%	0.2%	0.4%	0.3%
Antivirals	8.4%	5.3%	0.7%	0.6%
Antihistamines	2.4%	1.2%	5.7%	3.8%
Cough preparations/expectorants	0.2%	0.2%	1.1%	1.3%
Total	**14.9%**	**9.2%**	**18.7%**	**18.6%**

Source: OIG analysis of eight States' Medicaid data, October 1, 2005–March 31, 2006.

As with medical services, a number of factors could influence the differences in average STC payments, including the number of prescriptions per person and drug prices. For example, one drug used to treat angina was prescribed an average of 3.3 times per evacuee who received that specific drug. In contrast, the same drug was only prescribed 1.9 times per nonevacuee who received it. Another reason for the differences, previously documented by OIG, is variation in Medicaid drug pricing for the same drug between States.[24] We did not determine which factors most influenced the difference in average payment.

DISCUSSION

This analysis provides, for eight States, an initial, aggregate-level analysis of payments and service utilization under the hurricane-related demonstration projects. It finds that a greater percentage of evacuees received medical services or prescription drugs than nonevacuees but that the average total payment per evacuee was less than that per nonevacuee. This analysis does not suggest significant problems with overall service utilization or payments.

However, in a few medical service and prescription drug categories, the average payment per evacuee was considerably greater than that per nonevacuee. These areas were oncology and dental within medical services and 13 STCs within prescription drugs. While these areas constituted relatively small percentages of the total dollars spent under the hurricane-related demonstration projects, further investigation into these areas may be warranted.

If you have any questions about this memorandum report, please do not hesitate to contact me, or one of your staff may contact Claire Barnard, Director, External Affairs, at (202) 619-1665 or through e-mail [Claire.Barnard@oig.hhs.gov]. To facilitate identification, please refer to memorandum report number OEI-05-06-00140 in all correspondence.

[24] "Variation in State Medicaid Drug Prices" (OEI-05-02-00681), September 2004.

APPENDIX A

32 States With Approved Hurricane-Related Demonstration Projects

Alabama	Nevada
Arizona	North Carolina
Arkansas	North Dakota
California	Ohio
Delaware	Oregon
Florida	Pennsylvania
Georgia	Puerto Rico
Idaho	Rhode Island
Indiana	South Carolina
Iowa	Tennessee
Louisiana	Texas
Maryland	Utah
Massachusetts	Virginia
Minnesota	Washington, D.C.
Mississippi	Wisconsin
Montana	Wyoming

APPENDIX B

Detailed Methodology

Data Sources

Medicaid Management Information System. The Medicaid Management Information System (MMIS) is a State-level system that contains claims data, provider enrollment data, and beneficiary eligibility information. States extract a subset of data from this system and submit it to the Centers for Medicare & Medicaid Services (CMS).

Medicaid Statistical Information System. The data States send to CMS make up the Medicaid Statistical Information System (MSIS). The MSIS consists of an eligibility file and four claims files: (1) prescription drugs; (2) inpatient services; (3) long-term care services; and (4) all other services, including outpatient services. The MSIS eligibility file contains information that identifies why an individual is eligible for Medicaid, including whether his or her eligibility is due to coverage under a disaster-related waiver or demonstration project, such as the hurricane-related demonstration project. The claims files contain information on the types of services provided, providers of services, service dates, costs, types of reimbursement, and demographic information.

Data Collection

We requested data from Alabama, Arkansas, California, Florida, Georgia, Louisiana, Mississippi, Pennsylvania, South Carolina, Tennessee, Texas, and Virginia. Each of these States received at least $1 million from CMS in the initial allocation of the Deficit Reduction Act of 2005 (DRA) funds. These 12 States accounted for nearly 100 percent of the initial allocation of $1.5 billion. At the time of our data collection, projected expenditures were the most current monetary information available.

Of the 12 selected States, only 8 are included in our final analysis. Three States did not have data available in the MSIS, nor were they able to provide complete MMIS data. In the fourth excluded State, we found large increases in evacuee enrollment between the first and second quarters. After we had further discussion with staff from that State's Medicaid office, the staff discovered an error in their program coding. The State has developed a plan of action to correct the problem and plans to resubmit data to CMS. However, we excluded the State from our analysis because of our concern about the enrollment data. The four States (Florida, Pennsylvania, Tennessee, and Virginia) not included in our analysis accounted for less than 1 percent of the initial allocation of DRA funds to all 32 States receiving hurricane-related demonstration project approval.

For six of the eight States, we were able to obtain data at the Federal level through the MSIS. The remaining two States submitted data from the MMIS.

Data Analysis
We used SAS and Excel to analyze Medicaid eligibility and claims data. We hired a contractor with programming expertise to assist primarily with the development of SAS programming language. The contractor also provided a partial analysis for five of the individual States, which we verified and augmented with additional analysis. We analyzed the remaining three States' data in SAS and completed the aggregate analysis in Excel.

First, we matched the Medicaid claims to the Medicaid eligibility files to find individuals eligible for Medicaid during the period October 1, 2005, to March 31, 2006. Then, we used the eligibility file to construct evacuee and nonevacuee analytic files for each State. (See Table B-1.)

Table B-1: Analytic Files for Each State

Eligibility	Type of Claim
Evacuee	Medical services
Evacuee	Prescription drug
Evacuee	Combined medical services and prescription drug
Nonevacuee	Medical services
Nonevacuee	Prescription drug
Nonevacuee	Combined medical services and prescription drug

Source: OIG analytic files for eight States' Medicaid data, October 1, 2005–March 31, 2006.

After we constructed the analytic files, we performed both a descriptive and a comparative analysis. The descriptive analysis examined payments and services at the State and aggregate levels. The comparative analysis compared Medicaid services and payments for evacuees to those of nonevacuees. We completed all descriptive and comparative analyses using each of the analytic files listed in Table B-1.

As part of our descriptive analysis, we conducted a variety of analyses at both the State and aggregate levels. For each analytic file, the analysis included:

- unique enrolled evacuees by county and within and across States;
- unique evacuee beneficiaries by county, State, and service category;
- unique beneficiaries and payments by age group;
- monthly service utilization and payments;
- top 10 services by service utilization and payments;
- average payment per beneficiary by county; and
- total and average payment within and across States, by age group, service category, service category per beneficiary, for the top 30 services, and by billing and servicing providers.

Then, we compared evacuees to nonevacuees by:

- percentage of enrolled evacuees receiving services;
- rates of service utilization;
- average payments by age group;
- average payments within and across States; and,
- percentage difference between average payments by medical service category, procedure code, Standard Therapeutic Classification (STC), and National Drug Code.

Although we conducted all of the analyses listed above, not all analyses yielded significant findings. Therefore, not all of the analyses are discussed in this memorandum report.

APPENDIX C

Detailed Analysis Tables

Table C-1: Evacuees Who Received Greater Percentages of Medical Services Than Nonevacuees for Eight Selected States

Medical Service Category	Evacuees	Nonevacuees
Major procedure—eye	5.51%	2.85%
Other tests	5.44%	4.43%
Undefined codes	5.31%	5.14%
Major procedure—cardiovascular	4.75%	4.33%
Anesthesia	4.02%	2.96%
Emergency room visit	3.62%	3.31%
Consultations	2.86%	0.39%
Major procedure—orthopedic	2.37%	2.01%
Echography/ultrasonography	1.92%	1.56%
Ambulatory procedures	1.87%	1.66%
Advanced imaging	1.35%	1.18%
Hospital visit	1.30%	1.00%
Home or nursing home visit	0.83%	0.79%
Standard imaging	0.71%	0.60%
Specialist	0.46%	0.42%
Endoscopy	0.44%	0.39%
Imaging/procedure	0.30%	0.28%
Major procedure	0.19%	0.14%
Other: Berenson-Eggers Type of Service (BETOS)	0.07%	0.06%

Source: OIG analysis of eight States' Medicaid data, October 1, 2005–March 31, 2006.

Table C-2: Evacuees Who Received Lesser Percentages of Medical Services Than Nonevacuees for Eight Selected States

Medical Service Category	Evacuees	Nonevacuees
Other: Non-BETOS matches	24.78%	25.30%
Office visits	15.88%	16.85%
Dialysis	7.49%	11.12%
Minor procedures	3.54%	6.80%
Durable medical equipment	2.45%	3.05%
Lab tests	2.22%	2.81%
Oncology	0.19%	0.39%
Medicare fee schedule (dental)	0.10%	0.11%
Non-Medicare fee schedule	0.04%	0.07%

Source: OIG analysis of eight States' Medicaid data, October 1, 2005–March 31, 2006.

Table C-3: Evacuees Who Received Greater Percentages of Prescription Drugs Than Nonevacuees for Eight Selected States

Standard Therapeutic Classification	Evacuees	Nonevacuees
Penicillins	6.60%	6.17%
Antihistamines	5.75%	3.83%
Miscellaneous	5.58%	3.21%
Narcotic analgesics	5.41%	4.13%
Bronchial dilators	4.74%	4.02%
Glucocorticoids	4.50%	3.75%
Erythromycins	4.40%	3.31%
Cephalosporins	4.26%	3.08%
Topical nasal and otic preparations	3.10%	2.41%
Fungicides	2.83%	2.42%
Ataractics—tranquilizers	2.29%	2.17%
Other antibiotics	2.10%	1.38%
Sulfonamides	2.02%	1.26%
Diuretics	1.76%	1.73%
Multivitamins	1.62%	1.16%
Muscle relaxants	1.34%	0.75%
Hematinics and blood cell stimulators	1.12%	0.97%
Antiparasitics	0.99%	0.79%
CNS stimulants	0.85%	0.43%
All other dermatologicals	0.82%	0.52%
Amphetamine preparations	0.75%	0.29%
Antispasmodic and anticholinergic agents	0.72%	0.65%
Antivirals	0.71%	0.60%
Tetracyclines	0.65%	0.48%
Anesthetic local topical	0.38%	0.30%
Estrogens	0.35%	0.31%
Water-soluble vitamins	0.27%	0.12%
Other hormones	0.19%	0.12%
Enzymes	0.15%	0.13%
Adrenergics	0.13%	0.05%
Sedative barbiturate	0.13%	0.09%
Xanthine derivatives	0.07%	0.07%
All other antiobesity preparations	0.06%	0.01%

Source: OIG analysis of eight States' Medicaid data, October 1, 2005–March 31, 2006.

Table C-4: Evacuees Who Received Lesser Percentages of Prescription Drugs Than Nonevacuees for Eight Selected States

Standard Therapeutic Classification	Evacuees	Nonevacuees
Antiarthritics	3.74%	4.99%
Psychostimulants—antidepressants	2.91%	2.94%
Other hypotensives	2.72%	3.10%
Antiulcer preparations/gastrointestinal preparations	2.40%	2.87%
Other cardiovascular preparations	2.17%	2.69%
Ophthalmic preparations	1.81%	1.84%
Anticonvulsants	1.62%	1.75%
Lipotropics	1.44%	2.18%
Diabetic therapy	1.42%	1.86%
Systemic contraceptives	1.34%	1.76%
Cough preparations/expectorants	1.13%	1.29%
Antinauseants	1.12%	1.13%
Other	0.88%	1.38%
Electrolytes and miscellaneous nutrients	0.88%	2.07%
Urinary antibacterials	0.81%	1.06%
Medical supplies	0.78%	0.83%
Sedative nonbarbiturate	0.77%	0.79%
Anticoagulants	0.76%	0.77%
Cold and cough preparations	0.70%	6.00%
Nonnarcotic analgesics	0.67%	3.55%
Laxatives	0.58%	0.89%
Thyroid preparations	0.56%	0.80%
Vasodilators coronary	0.40%	0.46%
Diagnostics	0.38%	0.53%
Antiparkinson	0.29%	0.38%
Parasympathetic agents	0.24%	0.28%
Digitalis preparations	0.23%	0.26%
Folic acid preparations	0.21%	0.31%
Antineoplastics	0.15%	0.18%
Aldosterone antagonists	0.13%	0.15%
Antimalarials	0.10%	0.19%

Source: OIG analysis of eight States' Medicaid data, October 1, 2005–March 31, 2006.

Table C-5: Difference in Average Payment Between Evacuees and Nonevacuees by Medical Service Category

Medical Service Category	Evacuees	Percentage Difference Between Payments for Evacuees and Nonevacuees
Oncology	1,061	132.9%
Medicare fee schedule (dental)[1]	89,056	91.9%[2]
Office visits	398,923	41.9%
Undefined codes	100,961	34.2%
Imaging/procedure	7,644	29.2%
Consultations	48,278	20.4%
Other: BETOS	133,427	12.8%
Echography/ultrasonography	59,534	11.7%
Anesthesia	32,673	8.3%
Major procedure—cardiovascular	4,653	3.9%
Ambulatory procedures	17,755	3.5%
Lab tests	188,256	3.1%
Endoscopy	11,627	0.4%
Non-Medicare fee schedule	4,680	-1.3%
Hospital visit	46,972	-3.6%
Major procedure—orthopedic	1,770	-12.7%
Major procedure	20,849	-13.6%
Specialist	90,907	-22.4%
Standard imaging	119,279	-26.4%
Minor procedures	61,583	-28.2%
Durable medical equipment	55,663	-30.5%
Other tests	138,557	-30.5%
Advanced imaging	33,983	-31.3%
Emergency room visit	136,667	-35.9%
Dialysis	2,422	-51.8%
Home or nursing home visit	11,031	-56.9%
Other: non-BETOS matches	622,582	-73.8%
Eye procedure	71,792	-81.9%

[1]This medical service category consists primarily of dental claims. Ninety-four percent of recipients in this category received a dental service, and 99 percent of the expenditures were from dental claims.

[2]When analyzing only the subset of dental claims in this service category, the average payment per evacuee for dental claims is 94 percent greater than that per nonevacuee.

Source: OIG analysis of eight States' Medicaid data, October 1, 2005–March 31, 2006.

Table C-6: Standard Therapeutic Classification In Which Average Payment per Evacuee Exceeded That per Nonevacuee by Less Than 50 Percent

Standard Therapeutic Classification	Evacuees	Percentage Difference Between Payments for Evacuees and Nonevacuees
Other antibiotics	39,084	49.2%
Antinauseants	20,974	49.2%
Sedative barbiturate	2,492	44.8%
Medical supplies	14,489	44.0%
Cephalosporins	79,496	43.9%
Topical nasal and otic preparations	57,746	41.9%
Muscle relaxants	24,917	41.5%
All other dermatologicals	15,305	39.5%
Antiparasitics	18,370	37.9%
Sulfonamides	37,684	35.7%
Antimalarials	1,815	33.3%
Thyroid preparations	10,504	33.3%
Bronchial dilators	88,300	32.5%
Fungicides	52,679	29.9%
Diuretics	32,732	28.9%
Erythromycins	82,125	28.3%
Antiulcer preparations/gastrointestinal preparations	44,776	28.2%
Anticoagulants	14,161	22.2%
Digitalis preparations	4,272	20.0%
Diabetic therapy	26,500	19.1%
All other antiobesity preparations	1,175	17.7%
CNS stimulants	15,801	17.4%
Antineoplastics	2,743	16.0%
Estrogens	6,456	15.6%
Diagnostics	7,046	15.2%
Other cardiovascular preparations	40,528	14.2%
Antiarthritics	69,714	13.6%
Folic acid preparations	4,002	13.2%
Other hypotensives	50,747	12.9%
Anticonvulsants	30,168	12.9%
Enzymes	2,817	11.0%
Sedative nonbarbiturate	14,318	10.8%
Lipotropics	26,922	10.3%
Amphetamine preparations	14,054	10.1%
Hematinics and blood cell stimulators	20,882	9.6%
Narcotic analgesics	100,886	8.4%
Electrolytes and miscellaneous nutrients	16,459	8.4%
Cold and cough preparations	13,134	8.0%
Aldosterone antagonists	2,489	8.0%

Table C-6: Standard Therapeutic Classification In Which Average Payment per Evacuee Exceeded That per Nonevacuee by Less Than 50 Percent - continued

Standard Therapeutic Classification	Number of Evacuees	Percentage Difference Between Payments for Evacuees and Nonevacuees
Antispasmodic and anticholinergic agents	13,430	6.5%
Antiparkinson	5,441	4.8%
Urinary antibacterials	15,155	3.8%
Parasympathetic agents	4,523	3.2%
Systemic contraceptives	24,946	1.0%
Psychostimulants-antidepressants	54,345	-2.0%
Other hormones	3,495	-7.9%
Ophthalmic preparations	33,684	-10.0%
Ataractics-tranquilizers	42,738	-20.3%
Adrenergics	2,516	-22.6%
Miscellaneous	104,003	-26.2%
Other	16,481	-34.6%

Source: OIG analysis of eight States' Medicaid data, October 1, 2005–March 31, 2006.