City of Chicago

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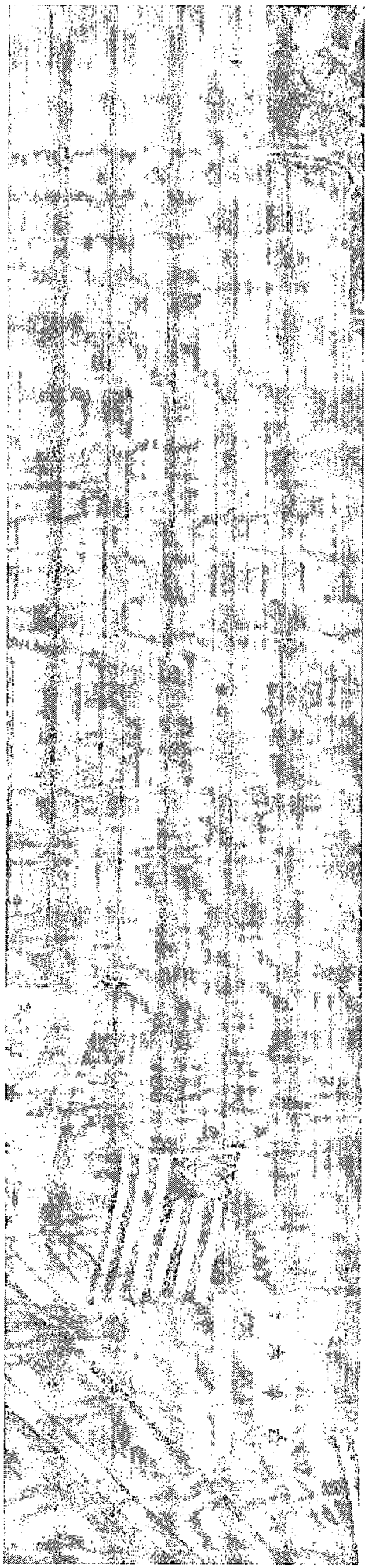

OFFICE OF INSPECTOR GENERAL
City of Chicago

REPORT OF THE OFFICE OF INSPECTOR GENERAL:

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DEPARTMENT OF FINANCE
EMERGENCY MEDICAL SERVICES BILLING AUDIT

JULY 2016

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Joseph M. Ferguson
Inspector General

July 20, 2016

To the Mayor, Members of the City Council, City Clerk, City Treasurer, and residents of the City of Chicago:

The City of Chicago Office of Inspector General (OIG) has completed an audit of the Department of Finance's (DOF) billing for emergency medical services provided by the Chicago Fire Department (CFD).

The objective of this audit was to determine if DOF billed accurately and completely for emergency medical services through its contract with a billing vendor. OIG found that,

- DOF billed accurately for emergency ambulance transports but opportunities exist to strengthen its compliance practices;
- DOF's billing for emergency ambulance transports was not complete, resulting in an estimated $160,799 of missed fee revenue in 2014;
- DOF could increase fee revenue by an estimated $696,594 annually if it expanded the range of City-provided emergency medical services subject to fees; and
- DOF could reduce costs by eliminating incentive fees from future contracts or, if the fees are maintained, clarifying how they are awarded.

Based on the audit results, OIG concluded that DOF billed accurately for emergency medical transports, but opportunities exist to increase fee revenue and reduce costs. We recommend that DOF take measures to ensure that it bills completely for all billable transports, and consider expanding the range of services subject to a fee. We also recommend that DOF consider eliminating the incentive fees from its contract with the billing vendor as a means of reducing costs. If it does not eliminate incentive fees, we recommend DOF more carefully review documentation used to justify monthly incentive payments. These improvements would build on the already solid foundation of DOF's billing program.

In response to our audit findings and recommendations, DOF stated it would evaluate the costs and benefits of implementing additional compliance activities to further align its compliance program with federal guidelines. DOF also committed to reviewing unbilled accounts to determine if any could have been billed. The Department stated that it will consider eliminating incentive fees from future vendor contracts, and work with CFD, the Office of Emergency Management and Communications (OEMC), and the Office of Budget and Management (OBM) to evaluate the costs and benefits of expanding the range of emergency medical services subject to fees.

We thank DOF, CFD, OEMC, OBM, and the emergency medical services billing vendor for their cooperation during this audit.

Respectfully,

Joseph M. Ferguson
Inspector General
City of Chicago

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Acronyms

ALS	Advanced Life Support
BLS	Basic Life Support
CFD	Chicago Fire Department
CFR	Code of Federal Regulations
DHFS OIG	Illinois Department of Healthcare and Family Services Office of Inspector General
DOF	City of Chicago Department of Finance
HCPCS	Healthcare Common Procedure Coding System
HHS	U.S. Department of Health and Human Services
ILCS	Illinois Compiled Statutes
MAC	Medicare Administrative Contractor
MCC	Municipal Code of Chicago
NGS	National Government Services
NPP	Notice of Privacy Practices
OBM	Office of Budget and Management
OEMC	Office of Emergency Management and Communications
OIG	City of Chicago Office of Inspector General
PCR	Patient Care Report

I. EXECUTIVE SUMMARY

The Office of Inspector General (OIG) conducted an audit of the Department of Finance's (DOF) billing for emergency medical services provided by the Chicago Fire Department (CFD).

The City began billing users for ambulance transports in 1985 "in order to take advantage of available reimbursements from Medicare, Medicaid and private insurance companies."[1] According to CFD, the City's total cost of providing emergency medical services—including both ambulance and fire company services—was $529.2 million in 2012, the most recent year for which CFD has performed this analysis. DOF does not bill for emergency medical services other than ambulance transports. Municipal Code of Chicago (MCC) § 4-68-130 gives DOF the authority to set "reasonable fees, as determined by the comptroller, for ambulance services rendered by public ambulances." DOF bills for ambulance transports through a contract with a vendor.

The objective of the audit was to determine if DOF billed for emergency medical services accurately and completely. OIG found that,

- DOF billed accurately for emergency ambulance transports, but opportunities exist to strengthen its compliance practices;
- DOF's billing for emergency ambulance transports was not complete, resulting in an estimated $160,799 of missed fee revenue in 2014;
- DOF could increase fee revenue by an estimated $696,594 annually if it expanded the range of City-provided emergency medical services subject to fees; and
- DOF could reduce costs by eliminating incentive fees from future contracts or, if the fees are maintained, clarifying how they are awarded.

OIG concluded that DOF billed accurately for emergency medical transports, but opportunities exist to increase fee revenue and reduce costs. We recommend that DOF consider reviewing unbilled accounts to ensure the completeness of billing, and expanding the range of services subject to a fee. We also recommend that DOF consider eliminating incentive fees from its contract with the billing vendor as a means of reducing costs. If it does not eliminate incentive fees, we recommend DOF more carefully review documentation used to justify monthly incentive payments.

In response to our audit findings and recommendations, DOF stated that it would evaluate the costs and benefits of implementing additional compliance activities to further align its compliance program with federal guidelines. DOF also committed to reviewing unbilled accounts to determine if any could have been billed. The Department stated that it will consider eliminating incentive fees from future vendor contracts, and work with CFD, the Office of Emergency Management and Communications (OEMC), and the Office of Budget and

[1] The City's website states that "prior to 1985, this service was provided free of charge." City of Chicago, Department of Finance, "Ambulance Bills," accessed March 16, 2016, http://www.cityofchicago.org/city/en/depts/fin/supp_info/revenue/ambulance_bills.html.

Management (OBM) to evaluate the costs and benefits of expanding the range of emergency medical services subject to fees.

The specific recommendations related to each finding, and DOF's response, are described in the "Audit Findings and Recommendations" section of this report.

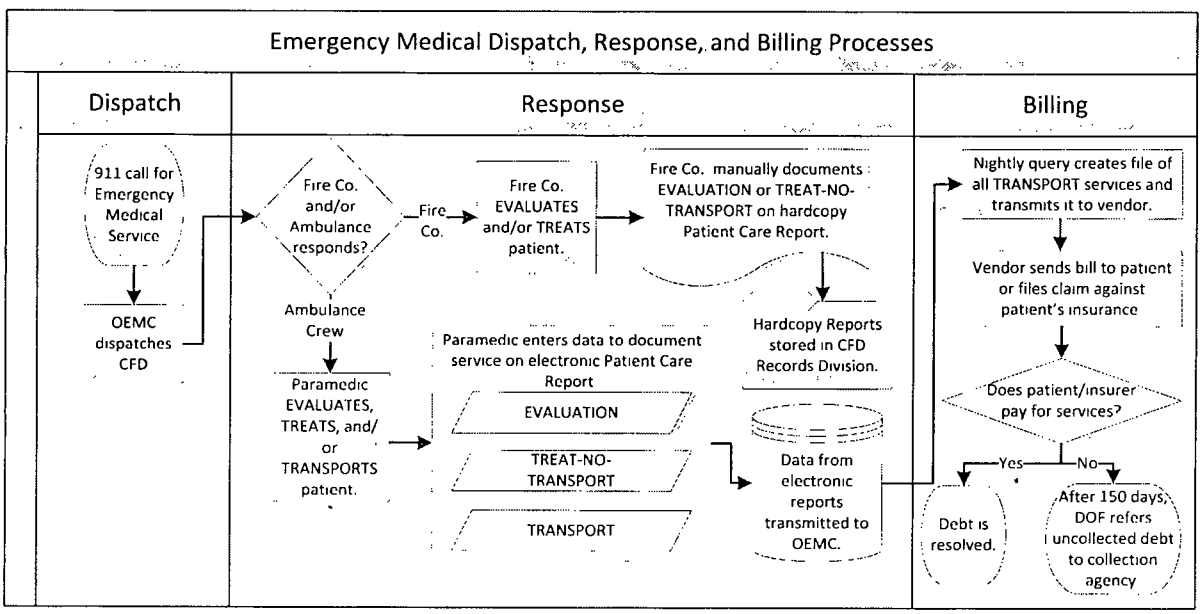
II. BACKGROUND

OEMC receives 911 calls and dispatches CFD ambulance and fire suppression companies to the scenes of medical emergencies. CFD provides the following types of emergency medical services:

- **Evaluations** – ambulance crew and/or fire company assesses the patient's condition, but does not provide treatment or transportation. The City does not bill for evaluations.
- **Treat-no-Transports** – ambulance crew and/or fire company assesses and treats the patient, but does not transport the patient to a hospital. The City does not bill for treat-no-transports.
- **Transports** – ambulance crew assesses, treats, and transports the patient to a hospital. The City bills for ambulance transports.

MCC § 4-68-130 provides that "The City of Chicago may levy reasonable fees, as determined by the comptroller, for ambulance services rendered by public ambulances." In addition to setting ambulance transport fees, DOF manages ambulance transport billing operations. From 2007 to date, it has contracted with the same vendor to perform that function.[2]

The flowchart below provides a high-level overview of the ambulance transport fee billing process.



Source: OIG depiction of processes as described by OEMC, CFD, and DOF.

[2] The original five-year contract term was January 1, 2007 through December 31, 2011. It was extended four times and is currently set to expire on June 30, 2016.

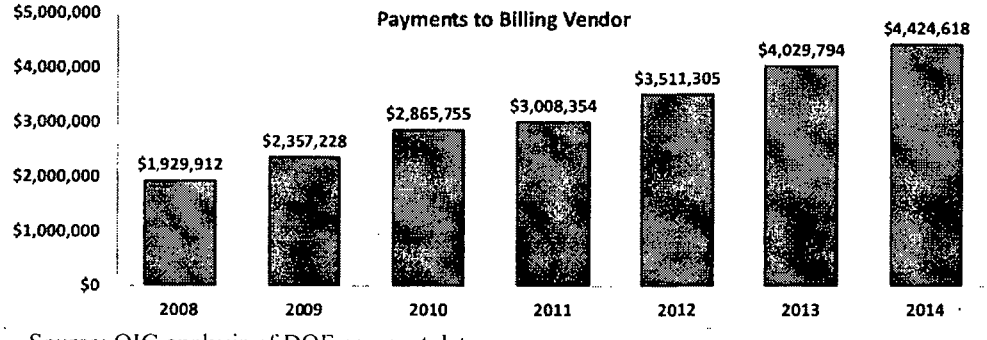
A. Costs Related to Provision and Billing of Emergency Medical Services

According to a CFD analysis, the provision of emergency medical services cost $518.3 million in 2011 and $529.2 million in 2012.[3] Those figures include costs incurred by the Department of Fleet and Facility Management, OEMC, and CFD for materials, equipment, and personnel. The table below summarizes the primary cost areas.

Cost Categories	2011	2012
Fire Suppression and Rescue Personnel	$329,637,502	$342,556,462
Ambulance Personnel	115,089,503	117,941,989
Indirect Costs	51,064,061	46,703,114
Equipment & Supplies	11,240,320	12,083,325
Dispatch	10,789,955	9,597,893
Support and Logistics Personnel	434,496	290,514
Total Cost	$518,255,838	$529,173,297

Source: OIG summary of CFD analysis of emergency medical service costs. Personnel costs include salaries, wages, fringe benefits, and premium pay.

The provision of ambulance transport services contributes virtually nothing to these costs; the figures would remain effectively the same if none of the calls for service resulted in transport. However, the City bills only for emergency medical services that involve transport. In 1985, the City of Chicago began billing users for ambulance transports "in order to take advantage of available reimbursements from Medicare, Medicaid and private insurance companies."[4] DOF has one full time employee who coordinates with the vendor to manage ambulance billing operations.[5] Over the seven-year period from 2008 through 2014, DOF paid the vendor $22.1 million for this service.[6] The chart below depicts annual payments.[7]



Source: OIG analysis of DOF payment data.

[3] CFD has not performed this analysis for subsequent years.

[4] The City's website states that "prior to 1985, this service was provided free of charge," accessed March 15, 2016. http://www.cityofchicago.org/city/en/depts/fin/supp_info/revenue/ambulance_bills.html.

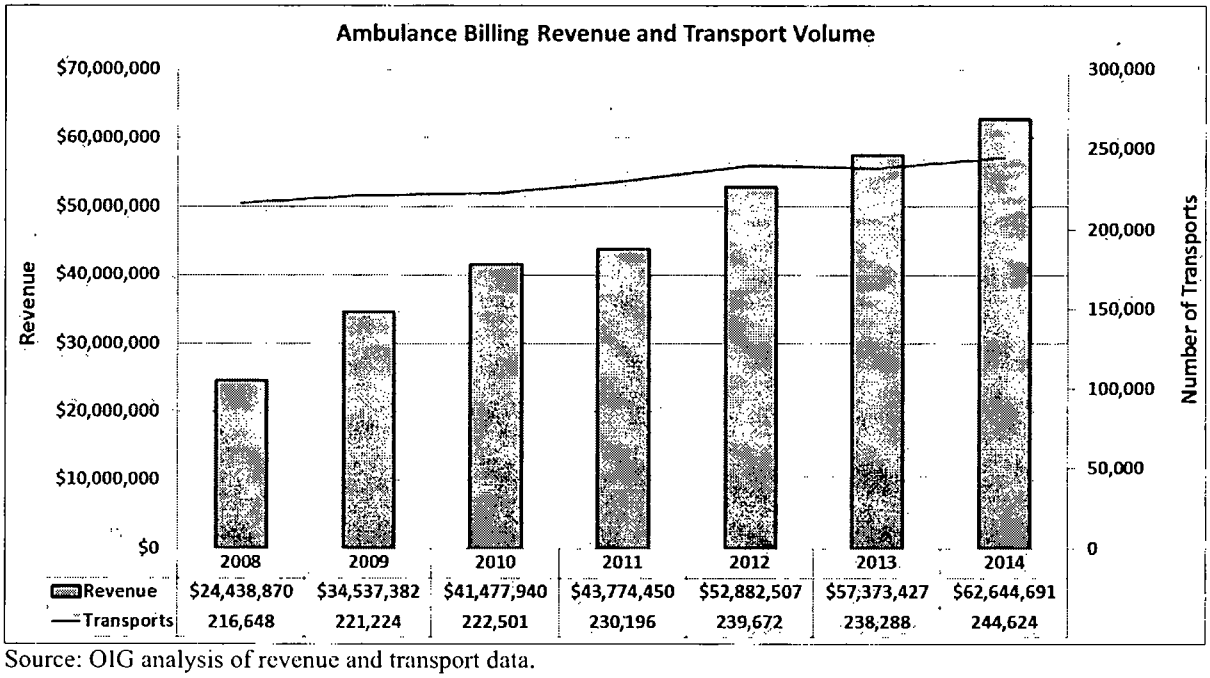
[5] In addition, certain DOF management personnel devote a portion of their time to ambulance billing operations.

[6] The vendor also began providing patient tracking services to CFD in May 2012. Our analysis excluded payments made by CFD for patient tracking services.

[7] Annual payments to the vendor grew as fee revenue increased, as shown in the next section. DOF did not always record payments to the vendor based on the date of service delivery. For example, 2014 payments include three payments for services delivered in 2013. This occurred because contract extension delays caused payment to be delayed past the City's financial reporting cutoff date, causing a large apparent increase between 2013 and 2014.

B. Ambulance Transport Fee Revenue

From 2008 through 2014, DOF collected $317.1 million in ambulance transport fee revenue. The chart below displays ambulance transport fee revenue each year, as well as the total number of transports each year.[8]



Source: OIG analysis of revenue and transport data.

1. Ambulance Transport Fee Increases

Although transports increased only 12.9% from 2008 to 2014, fee revenue more than doubled over the same period. Ambulance transport fee revenue grew, in part, because DOF increased ambulance transport fees each year from 2008 to 2013. DOF has not increased ambulance transport fees since 2013. The table below displays the fees DOF charged for ambulance transport services from 2008 through 2014.

Fee[9]	2008	2009	2010	2011	2012	2013	2014
Basic Life Support	$300	$600	$650	$725	$800	$900	$900
Advanced Life Support	$400	$700	$775	$850	$900	$1,050	$1,050
Advanced Life Support II	N/A	$875	$950	$1,025	$1,100	$1,200	$1,200
Non-resident fee	N/A	$100	$100	$100	$100	$100	$100
Mileage fee (per mile)	$8	$13	$14	$15	$16	$17	$17
Oxygen	N/A	$25	$25	$25	$25	$25	$25

Source: DOF-provided fee schedule.

[8] Fee revenue is recorded based on the date payment was received, while transports are based on the date the service occurred.

[9] For a discussion of Basic Life Support, Advanced Life Support, and Advanced Life Support II, please see Background section E.

2. Medicare and Medicaid Reimbursement Rates

Although fee increases contribute to fee revenue growth, relatively low Medicare and Medicaid reimbursement rates limit the additional fee revenue that can be generated. DOF bills Medicare, Medicaid, and private insurers by submitting claims that document the services provided by paramedics. Federal and state agencies set fee schedules that limit the total reimbursement to ambulance suppliers for transports provided to Medicare and Medicaid beneficiaries. These reimbursement limits, commonly referred to as the "allowed amount," are set independent of the City's fee. The table below compares 2014 City ambulance fees to Medicare and Medicaid allowed amounts. Note that the City typically receives less than 50% of its total fee for services provided to Medicare and Medicaid beneficiaries.

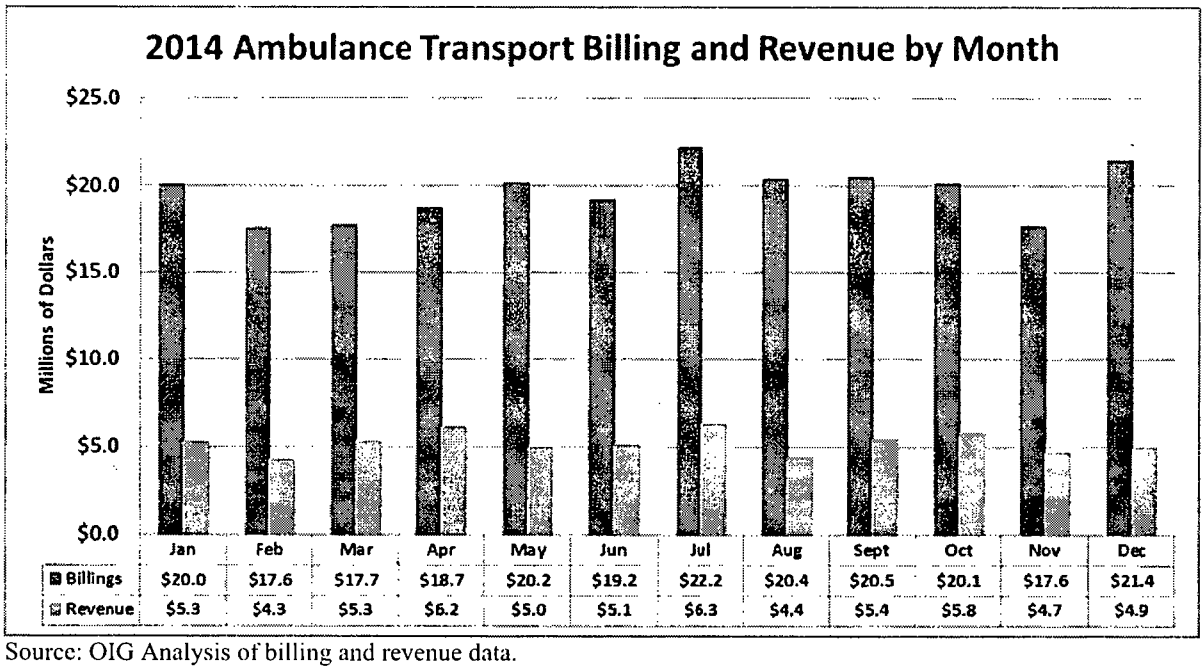
Fee	2014 City Ambulance Fee	2014 Medicaid Allowed Amount as Percent of City Fee		2014 Medicare Allowed Amount as Percent of City Fee [10]	
Basic Life Support	$900.00	$127.34	14.1%	$367.32	40.8%
Advanced Life Support	$1,050.00	$198.49	18.9%	$436.20	41.5%
Advanced Life Support II	$1,200.00	$198.49	16.5%	$631.34	52.6%
Non-resident fee	$100.00	N/A	N/A	N/A	N/A
Mileage fee (per mile)	$17.00	$5.00	29.4%	$7.16	42.1%
Oxygen	$25.00	$15.05	60.2%	N/A	N/A

Source: OIG analysis of 2014 reimbursement rates.

A 100% overall collection rate relative to billing amount is unattainable due to the Medicare and Medicaid reimbursement caps described above. For example, in 2013, 39.2% of the total billed amount was uncollectable due to the City's fees exceeding Medicare and Medicaid's allowed amounts. DOF management also stated that collection rates for self-pay accounts are even lower, ranging from 1% to 2% of the total billed amount.[11] Primarily as a result of low reimbursement from public insurers and low collection rates among self-pay patients, DOF collected only $62.6 million, or 26.6%, of the $235.7 million it billed in 2014. The following chart displays 2014 billings and collections by month.

[10] Medicare beneficiaries are responsible for coinsurance equal to 20% of the allowed amount; Medicare pays the balance of 80%. Medicaid pays 100% of the allowed amount.

[11] Self-pay accounts are those where patients are responsible for paying their bill directly, typically because they lack insurance.



Source: OIG Analysis of billing and revenue data.

C. Hardship Waiver

It should be noted that DOF allows low income patients to apply for a hardship waiver of ambulance transport fees. Patients must call DOF's ambulance billing customer service hotline—staffed by the vendor—to apply for the waiver.[12] The vendor relies on poverty guidelines issued by the U.S. Department of Health and Human Services (HHS) to calculate a discount based on income and family size. Individuals and families earning up to 100% of the poverty line are eligible for a full waiver, and those who earn between 100% and 200% of the poverty line are eligible for a prorated discount.

D. Vendor Responsibilities in the Ambulance Transport Fee Billing Process

The primary information used in the ambulance transport billing process is the Patient Care Report (PCR), an electronic document created at the time of dispatch and completed on laptop computers by paramedics. Paramedics document their assessment of the patient's condition, as well as any treatment provided. The paramedics' laptops wirelessly transmit completed PCRs to OEMC, which then transmits batches of the reports to the vendor on a nightly basis.

Once the vendor receives the nightly PCR transmission, it performs the following tasks in the billing process:

1. Uploads patient data to its system and creates accounts for all PCRs.
2. If possible, completes any missing patient demographic information. This process can include working with hospitals to collect patient data.

[12] City of Chicago, Department of Finance, "Ambulance Bills," accessed February 23, 2016. http://www.cityofchicago.org/city/en/depts/fin/supp_info/revenue/ambulance_bills.html.

3. Checks patient data against existing databases to determine if the patient is covered by Medicare, Medicaid, or private insurance.
4. If the patient is covered by Medicare or Medicaid, reviews the PCR to determine whether the transport is billable to those insurers.
5. Codes each transport using the Healthcare Common Procedure Coding System (HCPCS).[13]
6. Calculates the total bill based on HCPCS, the City's fee structure, and any insurance requirements.
7. Submits a claim to the insurance company and/or bills the patient directly.
8. Accepts credit card payments on the City's behalf over the phone.[14]
9. Refers to DOF accounts that remain unpaid after 150 days. DOF then sends unpaid bills with information sufficient for billing to a law firm for further collection action and writes off any unbillable accounts.[15]

E. Medical Necessity and Level of Service

As discussed above, DOF's vendor submits claims using HCPCS to document the provision of emergency medical services. To ensure accurate billing, the vendor reviews PCRs, compares clinical documentation to guidance provided by Medicare and Medicaid, and determines the appropriate HCPCS codes.[16] The two most important aspects of this review are the determination of medical necessity and level of service.

1. Medical Necessity

Medicare and Medicaid will only reimburse for medically necessary ambulance transports. According to 42 Code of Federal Regulations (CFR) § 410.40.D, "Medicare covers ambulance services, including fixed wing and rotary wing ambulance services, only if they are furnished to a beneficiary whose medical condition is such that other means of transportation are contraindicated."[17] According to 89 Illinois Administrative Code § 140.491, Medicaid covers transportation services "to the nearest available appropriate provider, by the least expensive mode that is adequate to meet the individual's need."[18] Medical coders must apply these

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[13] HCPCS is a set of standard codes used by medical professionals to identify medical procedures and services for billing purposes. See Centers for Medicare & Medicaid Services, "Healthcare Common Procedure Coding System," accessed May 9, 2016, https://www.cms.gov/Medicare/Coding/MedHCPCSGenInfo/Downloads/HCPCSLevelIICodingProcedures7-2011.pdf.

[14] DOF also accepts payments via mail, at self-service kiosks in various City buildings, and in person at City Hall.

[15] DOF does not refer unpaid accounts for patients 70 years of age or older to collections. DOF management told us that this practice began sometime between May 2003 and September 2006 and is not required, or otherwise addressed, by a documented policy.

[16] The vendor follows Medicare guidelines for private insurers, self-pay, and other payers.

[17] For the full text of 42 CFR § 410.40, see http://www.ecfr.gov/cgi-bin/text-idx?SID=6f2a7d7ffd4200877a44ae6cd7e0e820&mc=true&node=se42.2.410_140&rgn=div8.

[18] For the full text of 89 Illinois Administrative Code, § 140.491, see ftp://www.ilga.gov/JCAR/AdminCode/089/089001400D04910R.html.

standards to the specific circumstances documented on the PCR to determine whether the billed service was medically necessary.

If the vendor determines that the transport of a Medicare patient was not a medical necessity, the vendor flags the claim as not medically necessary before submitting it to Medicare.[19] Medicare denies claims that are not medically necessary. Once Medicare denies the claim, the vendor can bill the patient directly on behalf of the City.[20] If the vendor determines that the transport of a Medicaid patient was not medically necessary, it does not issue a bill to Medicaid or the patient, because Medicaid rules prohibit billing Medicaid patients directly. Instead, the City writes off the account and does not send a bill.

2. Levels of Service

The vendor classifies each transport as one of three levels of service—basic life support (BLS), advanced life support (ALS), or advanced life support II (ALS II). The Medicare Benefit Policy Manual[21] describes the circumstances that warrant each level of service for Medicare, while the Illinois Emergency Medical Services (EMS) Systems Act, 210 ILCS) 50/3.10, does the same for Medicaid.[22] These classification systems are complex, but, broadly speaking, BLS service involves treatment that can be provided by emergency medical technicians, while ALS and ALS II services involve more complex treatment that can only be provided by paramedics. ALS II service involves more advanced medical interventions than ALS service. Medical coders also take into account local rules governing the provision of emergency medical services. Because Chicago participates in EMS Region XI, medical coders rely on the Region XI EMS standing medical orders[23] and PCR documentation to determine the appropriate level of service to bill.

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[19] According to the Centers for Medicare and Medicaid Services, the flag "must be used when physicians, practitioners, or suppliers want to indicate that the item or service is statutorily non-covered or is not a Medicare benefit." See Centers for Medicare and Medicaid Services, "Pub 100-04 Medicare Claims Processing, Transmittal 2148," February 2011, 8, accessed March 10, 2015, https://www.cms.gov/Regulations-and-Guidance/Guidance/Transmittals/downloads/R2148CP.pdf.

[20] Although Medicare does not require ambulance suppliers to submit claims for non-covered services, the vendor told OIG that it submits these claims because the denial establishes the beneficiary's right to appeal and allows the vendor to bill secondary insurance when applicable.

[21] Centers for Medicare and Medicaid Services, "Medicare Benefit Policy Manual Transmittal 30.1.1," July 11, 2014, accessed March 11, 2016, https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/bp102c10.pdf.

[22] 210 ILCS 50/3.10 defines BLS and ALS, but does not reference ALS II transports. Illinois Medicaid pays the same rate for ALS and ALS II transports.

[23] Standing Medical Orders are available at the EMS Region XI website: http://regionxiemssystem.org/Home.php.

III. OBJECTIVE, SCOPE, AND METHODOLOGY

A. Objective

The objective of the audit was to determine if DOF billed accurately and completely for emergency medical services.

B. Scope

This audit evaluated the accuracy and completeness of emergency medical services billing performed by DOF and its emergency medical services billing vendor in 2014. Our evaluation included a review of DOF's management of its contract with the vendor.

We did not review patient-tracking services provided by the vendor to CFD, or the adequacy of either the City's emergency medical staffing or ambulance fleet.

C. Methodology

To assess the reliability of ambulance transport data, we reviewed the process that OEMC and CFD use to collect, store, and transmit patient information during and after emergency medical incidents involving an ambulance. This included interviews with staff involved in the recordkeeping process, as well as a review of documentation describing the process. We also compared the total number of ambulance transports recorded by the City to the total number of accounts created by the ambulance billing vendor. Based on this review, we determined that the ambulance records were sufficiently complete to support further analysis.

To assess the accuracy of ambulance transport billing, we reviewed a sample of 121 billed ambulance transport accounts created in 2014.[24] We reviewed each account in detail to confirm the accuracy of billing for medical necessity, level of service, provision of oxygen, mileage, and patient residency. For any exceptions identified, we went over the relevant account with the billing vendor to understand the underlying coding decisions. Where we could not reach agreement with the vendor on the appropriateness of a particular coding decision, we consulted with National Government Services (NGS)[25] and the Illinois Department of Healthcare and Family Services Office of Inspector General (DHFS OIG), who oversee Medicare and Medicaid billing, respectively.

To determine if DOF billed for all billable transports, we reviewed a sample of 121 unbilled accounts created in 2014. We reviewed each account in detail to determine if the vendor had

[24] After OEMC transmits PCRs, the vendor creates an account in its billing system. Typically, the vendor receives the PCR and creates an account within two days of a transport. Because our population includes all accounts created in 2014, it includes some transports that occurred prior to 2014, and does not include some transports that occurred in late 2014.

[25] National Government Services is a private health benefits company that serves as the Medicare Administrative Contractor (MAC) for Wisconsin, Minnesota, and Illinois. According to the Centers for Medicare and Medicaid Services, a MAC "is a private health care insurer that has been awarded a geographic jurisdiction to process Medicare Part A and Part B (A/B) medical claims or Durable Medical Equipment (DME) claims for Medicare Fee-For-Service (FFS) beneficiaries." See Centers for Medicare and Medicaid Services, "What is a MAC," February 2016, accessed March 4, 2016, https://www.cms.gov/Medicare/Medicare-Contracting/Medicare-Administrative-Contractors/What-is-a-MAC.html.

sufficient demographic information to bill—such as name, social security number, and address —and if the services provided were medically necessary and potentially billable. For any exceptions identified, we went over the relevant account with the billing vendor to understand the underlying coding decisions. Where we could not reach agreement with the vendor on the appropriateness of a particular coding decision, we consulted with DHFS OIG to confirm our determinations related to unbilled Medicaid accounts. DHFS OIG reviewed five specific Medicaid accounts for determinations of medical necessity, and we applied their reasoning to three similar accounts.

To determine if the City followed voluntary compliance program guidance for ambulance suppliers set forth by HHS OIG, we interviewed DOF and CFD staff to understand the City's compliance program and reviewed relevant documentation.

To assess DOF's management of its contract with the vendor, we reviewed DOF's process for evaluating the vendor's performance and awarding incentive payments.

To determine if Chicago's emergency medical services billing contract was on par with peer cities for comparable services, we reviewed contracts for eight cities: New York, Los Angeles, Houston, Boston, Washington, DC, San Antonio, Berkley, and Palo Alto. We reviewed these contracts to determine whether the scope of services for each was similar to the scope of Chicago's contract, and to compare the contracts' compensation structures.

D. Standards

We conducted this audit in accordance with generally accepted Government Auditing Standards issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

E. Authority and Role

The authority to perform this audit is established in the City of Chicago Municipal Code § 2-56-030 which states that OIG has the power and duty to review the programs of City government in order to identify any inefficiencies, waste, and potential for misconduct, and to promote economy, efficiency, effectiveness, and integrity in the administration of City programs and operations.

The role of OIG is to review City operations and make recommendations for improvement.

City management is responsible for establishing and maintaining processes to ensure that City programs operate economically, efficiently, effectively, and with integrity.

IV. FINDINGS AND RECOMMENDATIONS

Finding 1: DOF billed accurately for emergency ambulance transports, but opportunities exist to strengthen its compliance practices.

Based on a sample of billed accounts, OIG estimated that the City accurately billed 221,529 of 229,089, or 96.7%, of billed accounts created in 2014.[26] In its contract with the vendor, DOF set a goal of 95% accuracy.[27] Therefore, we concluded that the City's ambulance billing is accurate.

DOF's compliance program, however, has weaknesses that could be strengthened if the City were to follow voluntary federal guidelines for ambulance suppliers.[28] Specific weaknesses included:

- DOF did not review the accuracy of the vendor's medical coding to ensure that it billed only for medically necessary services at the correct level of service.
- The City did not have an EMS Compliance Officer or EMS Compliance Committee in place.
- DOF and CFD did not consistently check whether its employees had been sanctioned or excluded by HHS OIG or DHFS OIG on an annual basis.[29]
- DOF had a documented compliance plan, but had not reviewed and updated it since 2006.[30]

The gaps in DOF's current compliance program expose the City to the risk of financial penalties should the vendor's coding and billing practices change, or should the City select a new vendor.

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[26] The estimated error rate in the population is based on observing errors in our probability sample of 121 accounts. Because this estimate is based on a probability sample, it is subject to sampling error. A different probability sample could have produced different results. Based on the size of our sample and the method used to select it, we are 95 percent confident that DOF accurately billed between 91.7% and 99.1% of accounts created in 2014.

[27] The 95% accuracy threshold in the contract applies to a specific method of calculating errors in the monthly discovery sample, as described in detail in Finding 4. OIG used a stricter method to calculate the error rate for this finding.

[28] These federal guidelines do not impose requirements, but are intended to assist ambulance providers in designing compliance programs to prevent fraud and abuse. See United States Health and Human Services, Office of Inspector General, "OIG Compliance Program Guidance for Ambulance Suppliers," 68 Federal Register 56, March 23, 2008, 14245-14255, accessed March 14, 2016, https://federalregister.gov/a/03-6866.

[29] The HHS OIG Compliance Program Guidance for Ambulance Suppliers states that "ambulance suppliers should periodically (at least yearly) check the OIG and GSA web sites to ensure that they are not employing or contracting with individuals or entities that have been recently convicted of a criminal offense related to health care or who are listed as disbarred, suspended, excluded, or otherwise ineligible for participation in federal health care programs." United States Health and Human Services, Office of Inspector General, OIG Compliance Program Guidance for Ambulance Suppliers, 68 Federal Register 56, March 23, 2008, 14249, accessed March 14, 2016, https://federalregister.gov/a/03-6866.

[30] The HHS OIG Compliance Program Guidance for Ambulance Suppliers states that policies and procedures, "should be reviewed periodically (e.g., annually) and revised as appropriate to ensure they are current and relevant." United States Health and Human Services, Office of Inspector General, OIG Compliance Program Guidance for Ambulance Suppliers, 68 Federal Register 56, March 23, 2008, 14247, accessed April 22, 2016, https://federalregister.gov/a/03-6866.

Prior to January 2012, the City's Office of Compliance was responsible for managing the compliance program, including the assignment of an EMS Compliance Officer and the appointment of an EMS Compliance Committee. DOF and CFD were also responsible for certain aspects of the City's compliance program. After the City eliminated the Office of Compliance, DOF and CFD retained their responsibilities, but no department or individual assumed the role of conducting regular evaluations of the City's compliance program to ensure it functions as intended.[31]

Recommendation:

DOF should evaluate whether it would be cost effective to develop and implement a compliance program that follows the federal guidelines, and should document this evaluation for future reference. If the Department finds it cost effective, DOF should develop and implement an oversight structure (e.g., a compliance officer and compliance committee) sufficient to ensure that compliance activities are effectively designed to identify and mitigate risk, and are functioning as intended.

Management Response:

"DOF will conduct an evaluation which will include a comparison of its current compliance program to the recommended program, as well as a cost/benefit analysis of implementing additional compliance standards, if applicable, which further align DOF's compliance program with federal guidelines as recommended by the OIG."

[31] Although the City formally eliminated the Office of Compliance in January 2012, the office had ceased functioning upon the Compliance Officer's resignation in March 2010.

Finding 2: DOF's billing for emergency ambulance transports was not complete, resulting in an estimated $160,799 of missed fee revenue in 2014.

Based on a sample of 121 unbilled accounts, we estimate that DOF should have billed 1,321, or 8.3%, of the 15,917 unbilled ambulance transport accounts created in 2014.[32] After accounting for reimbursement levels and collection rates, we estimate that these 1,321 ambulance transports equated to $160,799 of missed fee revenue.

We reviewed each account in detail to determine if (1) DOF had sufficient demographic data to send a bill, such as the patient's name, address, and Social Security number, and (2) if the services described in the PCR were billable according to the City's practices. OIG's sample included ten transports that should have been billed, but were not. Eight were not billed because the vendor applied the medical-necessity criteria differently than DHFS OIG,[33] and two were not billed as the result of a software error.

DOF did not review any of the unbilled accounts and, therefore, did not discover these errors. DOF stated that the primary risk is overbilling, not underbilling, because overbilling can result in refunds and penalties. As such, DOF's review procedures focus on the accuracy of billed accounts, but do not consider medical necessity or level of service, as discussed in Finding 1.

Recommendation:

DOF should work with the billing vendor to ensure that the vendor (1) corrects any software errors that prevent it from researching and accurately billing all accounts, and (2) aligns its application of medical necessity coding criteria with DHFS OIG. In addition, DOF should evaluate the cost effectiveness of reviewing unbilled accounts to ensure that all billable accounts are billed appropriately, and document this evaluation for future reference. If the Department finds it to be cost effective, it should institute a routine review of unbilled accounts.

Management Response:

"The software issue which prevented billing of the two accounts identified by the OIG has been corrected. DOF will continue to identify and correct any errors with our billing vendor's software and to address any vendor errors causing incomplete billing. As the OIG noted in its report, the billing vendor already exceeds the contract's standards for billing accuracy, but the complex nature of EMS billing requires constant vigilance to minimize any occurrence of error.

[32] The estimated error rate in the population is based on observing errors in our probability sample of 121 accounts. Because this estimate is based on a probability sample, it is subject to sampling error. A different probability sample could have produced different results. Based on the size of our sample and the method used to select it, we are 95 percent confident that DOF could have billed between 4.1% and 14.6% of the accounts that the vendor classified as unbillable.

[33] As discussed in the Methodology section of this report, DHFS OIG reviewed five specific unbilled Medicaid accounts that we had identified as potentially billable during our review. We used DHFS OIG's determinations as guidance and applied their reasoning to three additional Medicaid accounts which were similar, for a total of eight accounts.

"DOF does and will continue to align its billing policies with the DHFS OIG's recommendations for medical necessity coding criteria. However, the DHFS OIG does not publish advisory opinions or provide formal guidance on these issues, and there are significant penalties for improperly billing Medicare/Medicaid based on medical necessity.

"The eight cases outlined in the OIG's Report demonstrate the uncertainty in determining medical necessity for billing. The City of Chicago's OIG submitted eight medical necessity cases to the DHFS OIG, but only received responses for five of them. It is unclear if the remaining three cases were not evaluated, found to have been billed in error, or were found to be billed correctly.

"For the five cases for which the OIG received a response, the DHFS OIG indicated that the accounts were potentially billable but did not indicate why this was the case. The determination of medical necessity is based on Medicare's Benefit Policy Manual which states 'Medical necessity is established when the patient's condition is such that use of any other method of transportation is contraindicated. In any case in which some means of transportation other than an ambulance could be used without endangering the individual's health, whether or not such other transportation is actually available, no payment may be made for ambulance services.' The majority of the five accounts reviewed involved transport of pregnant patients. Without explicit detailed guidance from DHFS OIG regarding which specific pregnancy symptoms render an EMS transport medically necessary, DOF is left to make assumptions as to why the DHFS OIG reached the conclusions it did. This makes it difficult for DOF to establish an effective, broad-ranging policy with respect to these types of patients. Any policy implemented based on these assumptions would not insulate DOF from the significant financial penalties for improper billing to Medicaid/Medicare if DHFS or Centers for Medicare and Medicaid Services disagree with DOF's assumptions.

"As recommended by the OIG, DOF will institute a review of unbilled accounts. The monthly review will consist of an assessment of a sample of unbilled accounts to determine if those accounts were billable. Billing issues identified as a result of the reviews will be addressed."

Finding 3: DOF could increase fee revenue by an estimated $696,594 annually if it expanded the range of City-provided emergency medical services subject to fees.

MCC § 4-68-130 authorizes DOF to set reasonable fees for all ambulance services, however, DOF does not bill for services that do not involve a transport. Based on our review of fee revenue analyses performed by DOF and OBM, we estimate that DOF could collect an additional $696,594 per year if it billed for incidents where ambulance crews provide treatment, but do not transport the patient.

Although Medicare and Medicaid do not pay for emergency medical services that do not involve a transport, cities such as Dallas, San Antonio, and San Francisco charge private insurers and self-pay patients for treat-no-transport services. In the past, DOF and OBM considered billing private insurers and self-pay patients for such services, but did not ultimately pursue the idea. Neither department could explain the basis for that decision.

The $696,594 in potential additional fee revenue we identify may be a conservative estimate, given that it only considers treat-no-transport services provided by ambulances. The estimate does not include treat-no-transport services provided solely by fire companies, because such services are documented on individual paper forms and not tracked or summarized electronically. In order to begin billing for fire company treat-no-transport services, the City would need to invest in additional hardware and software, as well as provide training to CFD staff. Without data regarding the number of this type of incident, we were unable to determine whether the potential fee revenue from fire company treat-no-transports would exceed the cost of required technical upgrades.

We recognize that the determination whether to begin billing for treat-no-transports may not be based solely on an increased amount of fee revenue. For instance, DOF expressed concern that billing for evaluation services provided by fire companies and ambulances could be perceived as unfair, especially in instances where a third party called 911 and the patient declined treatment. As a result, DOF was unsure what portion of evaluations would be billable. Furthermore, expanding the range of services subject to a fee could create a burden for low-income patients.

Recommendation:

DOF should consider charging a reasonable fee for ambulance treat-no-transport services and working with the ambulance billing vendor to begin billing for these services. In addition, DOF should evaluate the costs and benefits that would result from billing for other currently unbilled ambulance services, document that evaluation, and, if appropriate, work with CFD and OEMC to implement the necessary changes to begin billing for such services.

If DOF expands the range of emergency medical services that can be billed, the Department should consider adopting procedures to address its concerns related to patient-declined treatments, low-income patients, and other situations that may require exceptions to the billing process.

Management Response:

"DOF, working with CFD, OEMC and OBM, will undertake a cost/benefit analysis of charging for treat-no-transport services provided by both EMS and fire suppression teams. This analysis will take into account the negative customer service impact of billing for often unrequested services, the number of payers who will pay for such services and the costs associated with appropriately documenting such interventions. A copy of this evaluation will be retained by DOF for future reference.

"If it is determined that treat-no-transport charges will be implemented, DOF will work to develop a plan to minimize the impact on low-income patients and patients declining treatment."

Finding 4: DOF could reduce costs by eliminating incentive fees from future contracts or, if these fees are retained, by clarifying how they are awarded.

We compared ambulance billing contracts held by other municipalities with DOF's contract, and identified opportunities for DOF to reduce costs. We estimate that DOF could save between $883,211 to $1.5 million annually by adopting compensation provisions that are included in contracts between other municipalities and the same vendor.[34]

Specifically, there are three compensation provisions in the City's current contract with the vendor: a "Base Fee" (a percentage of monthly net collections); a "Compliance Incentive Fee" (a percentage of monthly net collections awarded if the billing error rate is below five percent); and an "NPP Fee" (which includes postage to send patients a Notice of Privacy Practices (NPP)).[35] The following table compares Chicago's contract provisions with those found in contracts between other municipalities and the same vendor.[36] The final line of the table shows the estimated amount Chicago would save each year if its contract with the vendor were more in line with the vendor's contracts with the other municipalities.[37]

	Chicago	Los Angeles	Boston	Berkeley	Palo Alto
Base Fee[38]	5.00%	5.50%	4.40%	4.75%	4.50%
Compliance Incentive Fee	2.00%	None	None	None	None
NPP Fee	$0.60/notice	$0.75/notice	N/A	$500/month	N/A
Estimated Annual Savings		$883,211	$1,470,729	$1,508,659	$1,529,547

Source: OIG analysis of ambulance billing contracts.

As noted in the table above, none of the other municipal contracts we reviewed included the compliance incentive fee that Chicago paid in every month of 2014. As a result, the other municipalities paid less. Even the Los Angeles contract, which included a higher base rate, results in lower total fees.

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[34] The estimated savings were calculated using 2014 data.

[35] The City's website states that a "Notice of Privacy Practices ('Notice') describes how the City of Chicago may use and disclose your protected health information ('PHI') to carry out treatment, payment, or health care operations and for other purposes that are permitted or required by law." City of Chicago, Department of Public Health, "Notice of Privacy Practices," accessed April 19, 2016, http://www.cityofchicago.org/city/en/depts/cdph/supp_info/notice_of_privacypractices.html.

[36] While Washington, DC and New York, NY also contracted with the same vendor, the agreed upon services differed from the Chicago contract and, thus, are not comparable.

[37] The NPP Fee was not applicable in Boston or Palo Alto. To calculate the estimated annual savings as compared to those municipalities, OIG assumed no change in the amount paid for that provision ($0.60 per notice). Furthermore, Boston's contract provided for a performance penalty or bonus based upon the average billing amount per month; specifically, a $10,000 vendor penalty if the monthly average does not meet a defined threshold or a $10,000 vendor bonus if it exceeds another defined threshold. OIG conservatively estimates a monthly $10,000 bonus in the annual savings calculation related to Boston's contract.

[38] Note that the City's current contract began in 2007, the Los Angeles and Boston contracts became effective in 2010, and the Berkeley and Palo Alto contracts began in 2012. Differences in contract pricing may be related to changes in the market, including efficiencies resulting from improved technology, between those years.

DOF stated that it may not be able to modify the compensation structure of its next EMS billing contract because it has already issued a Request for Proposals (RFP) requesting bids including a base rate plus a monthly incentive fee.[39]

Regarding the compliance incentive fee, OIG also reviewed the claims review processes and calculations defined in the contract which determine whether the fee is due to the vendor. We attempted to validate each monthly calculation, but found that the vendor had not supplied to DOF all necessary information for 5 of the 12 months. DOF did not realize this information was missing because, although it reviewed supporting documentation provided by the vendor each month, the Department made no attempt to use the information to validate the reported error rate.

In addition to the issue of missing information, we note that the contract contains ambiguous language that benefits the vendor by allowing it to use a formula that minimizes the reported error rate and increases the likelihood that the City will be required to pay the monthly incentive fee. If this language were interpreted differently, the City would have owed at least three fewer monthly compliance incentive fees than it paid in 2014. Those three fees totaled $292,401. (Clarification of the language could result in even fewer fees but, as mentioned earlier, OIG only had access to information for seven months rather than the full year.) The following bullet points describe the ambiguous contract language, as well as the vendor's application of that language.[40]

- The contract states that, "the error rate is calculated by dividing the net Overpayment identified in the sample by **the total dollar amount** associated with the items in the sample" (emphasis added). On its surface, this language seems very specific in defining the calculation for determining whether the vendor is entitled to the Compliance Incentive Fee. However, the vendor interprets "the total dollar amount" (the denominator in the calculation) to mean the total DOF-defined fee charged for ambulance transport services, rather than the total reimbursement available from Medicare and Medicaid. As explained in the Background of this report, the reimbursement levels for Medicare and Medicaid are set by federal and state agencies independent of the City's fee, and are significantly lower than that fee. Using the DOF-defined fee in the error rate calculation inflated the denominator, thereby minimizing the error rate.
- The contract also defines overpayment (used in the Compliance Incentive Fee calculation) as "the amount of money [the City] has received in excess of the amount due and payable under Federal or State health care program requirements." Related to this definition, we note that the vendor did not include the Medicare patient's coinsurance payment in the amount received, but did recognize it in the amount due and payable under federal health care program requirements. Therefore, the vendor's calculation understated the overpayment, which in turn minimized the error rate.

[39] We acknowledge that contract negotiations are subject to market conditions, and that DOF may not be able to secure the same terms secured by another city. For example, a City with a higher percentage of residents with commercial insurance may pay less for ambulance billing services as a percentage of fee revenue because commercial insurers pay more than government insurers.

[40] Please see Appendix A for a comparison of the vendor's error rate calculation and two alternative error rate calculations.

DOF was unaware of the impact of the ambiguous contract language because, as previously discussed, the Department made no attempt to validate the vendor's error rate calculations.

Recommendation:

DOF should consider eliminating the compliance incentive fee from future emergency medical services billing contracts. The Department's assessment of this issue should include an analysis of the impact that such an adjustment would have on the base fee rate and, ultimately, the total contract cost. In the near term, DOF should convey to the vendor the City's expectations regarding how the error rate should be calculated. In addition to its review of the supporting documentation that underlies Intermedix's error rate calculation, DOF should also review the error rate calculation each month to confirm that the vendor's calculation is accurate.

Management Response:

"DOF will consider removal of the compliance incentive fee from future contracts. However, removal of this fee is unlikely to decrease the overall rate charged to the City. The compliance fee was implemented as an additional measure to further enforce EMS billing compliance. The compliance fee is not a 'bonus' for compliance, but a penalty for non-compliance. Stated differently, even if the incentive fee had not been included in the current contract, the City would have paid a 7% rate instead of a 5% rate + 2% compliance fee. The 2% compliance fee puts the vendor at risk to lose 2% of their monthly fee for noncompliant billing.

"The 7% rate was highly competitive at the time the current contract was awarded in January 2007 and represented a significant savings over the previous vendor's rates. DOF will begin negotiating a new EMS billing contract in 2016 and will ensure the contracted rate is in line with current market rates for the contracted services.

"DOF will continue to review the vendor's error rate calculations on a monthly basis. The current method used by the vendor to calculate the compliance fee complies with the terms of the current contract. If the compliance fee is utilized in future contracts, DOF will negotiate the terms of the contract applicable to these calculations based on the suggestions of the OIG."

V. APPENDIX A: ALTERNATIVE ERROR RATE CALCULATIONS

This appendix uses eight Medicare and Medicaid claims to compare the vendor's error rate calculation to two alternative error rate calculations.

Insurer	Service Billed	Amount Billed	Allowed Amount	Payment Received	Actual Service Provided	Correct Allowed Amount	Over-payment
Medicaid	ALS	$1,050.00	$198.49	$198.49	ALS	$198.49	$0.00
Medicaid	ALS	$1,050.00	$198.49	$198.49	BLS	$127.34	$71.15
Medicaid	BLS	$900.00	$127.34	$127.34	BLS	$127.34	$0.00
Medicaid	BLS	$900.00	$127.34	$127.34	BLS	$127.34	$0.00
Medicare	BLS	$900.00	$367.32	$287.98	ALS	$436.20	-$55.49[41]
Medicare	ALS	$1,050.00	$436.20	$341.98	ALS	$436.20	$0.00[42]
Medicare	BLS	$900.00	$367.32	$287.98	BLS	$367.32	$0.00
Medicare	BLS	$900.00	$367.32	$287.98	Not Medically Necessary	$0.00	$287.98
Net Total		$7,650.00	$2,189.82	$1,857.58		$1,820.23	$303.64

Source: OIG analysis of monthly discovery samples.

The illustration below uses the data in the table above to compare the vendor's calculation to two alternative calculations. Alternative #1 uses the correct allowed amount as the denominator rather than the total billed amount. Alternative #2 also uses the correct allowed amount as the denominator, while the numerator is the difference between the allowed and the correct allowed amounts (rather than the overpayment). This second approach ensures that Medicare coinsurance payments are included in both sides of the equation.

Current Error Rate Calculation

Overpayment $303.64 ÷ Billed Amount $7,650.00 = Error Rate 4.0%

Alternative Error Rate Calculation #1

Overpayment $303.64 ÷ Correct Allowed Amount $1,820.23 = Error Rate 16.7%

Alternative Error Rate Calculation #2

Allowed - Correct Allowed $369.59 ÷ Correct Allowed Amount $1,820.23 = Error Rate 20.3%

Source: OIG analysis of discovery samples and contract language.

[41] In this case BLS was billed when ALS was actually provided. The vendor subtracted $287.98 (payment received) from $341.98 (payment that Medicare would have made for ALS) to determine the underpayment of $55.49.

[42] Historically, Medicare paid 80% of the allowed amount. The patient was responsible for a 20% coinsurance payment. In 2014, Medicare paid 78% due to sequestration. The patient responsibility did not change. Although Medicare paid less than the allowed amount, the vendor did not count it as an underpayment, because the underpayment was not the result of a billing error.

CITY OF CHICAGO OFFICE OF INSPECTOR GENERAL

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The City of Chicago Office of Inspector General (OIG) is an independent, nonpartisan oversight agency whose mission is to promote economy, efficiency, effectiveness, and integrity in the administration of programs and operations of City government. OIG achieves this mission through,

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From these activities, OIG issues reports of findings and disciplinary and other recommendations to assure that City officials, employees, and vendors are held accountable for the provision of efficient, cost-effective government operations and further to prevent, detect, identify, expose and eliminate waste, inefficiency, misconduct, fraud, corruption, and abuse of public authority and resources.

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