United States Senate
Special Committee on Aging
Hearing on Solutions to STOP
Medicare and Medicaid Fraud

Testimony of Steve Horne, Vice President
Master Data Management
Dow Jones Enterprise Media Group

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Good afternoon Chairman Kohl, Ranking Member Martinez and Members of the Special Committee on Aging. Thank you for inviting me here today to testify about how leveraging the right data and data systems can allow the government to monitor potential waste, fraud and abuse of federal funds.

My name is Steve Horne and I am the Vice President of Master Data Management for the Dow Jones's Enterprise Media Group. I have spent over 30 years building sophisticated databases and transforming very complex data into usable information. Dow Jones has provided transparency to the marketplace in the form of indexes, publicly and privately held corporate information, news and analysis for over 100 years.

It has been well documented that there is a tremendous amount of waste, fraud and abuse within the Medicare system. According to a recent Government Accountability Office (GAO) report, the Centers for Medicare & Medicaid Services (CMS) is now estimating that $10.4 billion in improper payments were made to fee-for-service providers in 2008 alone.

CMS currently oversees several initiatives to help identify waste, fraud and abuse within the Medicare system. These initiatives include Comprehensive Error Rate Testing, Recovery Audit

Contractors, and the Disclosure Financial Relationships Report. One problem with reports generated by these types of initiatives is that they are based upon "samples of data" that do not bring to the surface the key areas within the Medicare system that comprise the largest volume of waste, fraud and abuse.

The Medicare system is made up of hundreds of processors, hundreds of thousands of providers and millions of recipients, all of whom can independently contribute to waste, fraud and abuse. In the past, it was thought to be prohibitively expensive to rebuild the infrastructure to provide the information necessary to assert proper controls over the Medicare system. Today, at a fractional cost of funds lost to waste, fraud and abuse, it is possible to improve the current Medicare computer system to enable it to systematically track transactions between the various parties in an individual Medicare claim. An improved computer system could also track transactions from the original submission of a claim to the final disposition, and all of the processes in between, without rebuilding the infrastructure upon which Medicare has been based. By extracting the data from all of the various systems, normalizing it into a single, comprehensive format, applying the rules -- or what is known as "meta data" -- to the data collected and then transforming it into information, one can accurately track those processors, providers or recipients who are not following the rules by either acts of omission or intentional acts of fraud, and more effectively address any problems in near real time.

The original computer systems designed to process Medicare claims are based on older, "mainframe" based technology that were designed to efficiently process data at the lowest cost possible. These computer systems have not been very effective at creating useful analysis that could lead to a reduction in waste, fraud and abuse.

Today, it is cost effective to extract the data from the current computer systems in near real time. Using specialized processes, data can be transformed into actionable information that can be analyzed by applying potentially hundreds of thousands of "rule" combinations to create true transparency and oversight of the Medicare system, capture those parts of the process that are

susceptible to waste, fraud, and abuse, and provide the appropriate analysis to correct the problem.

For example, in a recent Health and Human Services (HHS) Inspector General's (IG) Report[1] for Inhalation Therapy drugs dispensed through durable medical equipment (DME), or more commonly known as inhalation therapy devices, there was an audit performed that showed that aberrant claim activity (more than 20 times the volume for similar treatments in other geographies) was happening in certain parts of South Florida. The process the IG went through is a traditional and admirable audit:

- They used the Medicare National Claims History file to identify all inhalation drug claims in 2007.

- They compared the average number of paid claims and the dollar amount paid for inhalation drug claims for beneficiaries in South Florida (Miami-Dade, Broward, and Palm Beach Counties) to beneficiaries in the rest of the country.

- They compared the average amount submitted and paid per supplier for beneficiaries in South Florida to the average amount submitted and paid per supplier for beneficiaries in the rest of the country.

- They compared the average Medicare spending per beneficiary for inhalation drugs in South Florida and the rest of the country to the amounts associated with the maximum milligrams listed in the local coverage determination (LCD).

- Finally, they determined the percentage of paid South Florida inhalation drug claims in 2007 for which the beneficiary did not have any Medicare Part B service claims (e.g., a Medicare-billed office visit) occurring in 2005, 2006, or 2007 with the physician who reportedly prescribed the drug.

Although only 2 percent of Medicare beneficiaries live in South Florida, this area accounted for 17 percent of Medicare spending on inhalation drugs in 2007. Medicare paid almost $143 million for

inhalation drugs in Miami-Dade County alone—an amount 20 times greater than the amount paid in Cook County, Illinois, the county (outside South Florida) with the next highest total payments. However, according to Medicare enrollment data, Cook County is home to almost twice as many Medicare beneficiaries as Miami-Dade County.

With today's technology-based data mining and analysis tools, the data that was found by the IG's audit would set off system alarms as soon as the thresholds for reasonable volumes were breached. This would create two possible opportunities for managing waste, fraud and abuse.

First, it would deny claims that were outside the bounds of reasonable norms as soon as they were identified and allow the HHS to recover those claims paid that fell into the category identified.

Second, it would enable the IG's office to identify and act on problems as they occur, rather than having to react to problems after the fact. This technology would not only reduce the amount of funds lost through waste, fraud and abuse, it would serve as a "traffic cop" for the Medicare system to deter misuse.

In addition to the obvious opportunity to identify fraudulent claims, the new database technology will get at the potentially larger problem of waste and abuse of the Medicare system.

The processes an individual claim may go through from submission to final disposition can sometimes be called a "Rube Goldberg" combination of procedures that no one can figure out, particularly when Medicare and Medicaid transactions intersect with each other.

Databases, when programmed correctly, are much better at figuring out the "tree logic" that these claims follow which may branch off into dozens of directions based upon the interaction between the various rules and jurisdictions of each of the agencies and processes indicated by an individual claim. Although these claims may represent a fraction of the total claims processed by the system, they probably take up the majority of the expense of processing because

of the amount of human interaction required to get them right. This is where there is the greatest potential for waste.

There is also a substantial "Pareto Factor" in the system. Pareto's Law, also known as the 80-20 rule, applies in a case where 80 percent of the instances of waste, fraud and abuse occur in 20 percent of the total cases. I believe that after further analysis we will find that the numbers are more like 90 percent – 10 percent. Reducing the percentage of instances of problems and segmenting these problems into manageable groups will allow the system to manage the problems on a more cost-effective basis. The present system is not capable of achieving such results because it cannot identify the 10 percent of specific possibilities for waste, fraud and abuse.

According to the IG's[2] office, the government paid more than $1 billion in questionable Medicare claims for medical supplies just in 2007 that showed little relation to a patient's condition, including blood glucose strips for sexual impotence and special diabetic shoes for leg amputees. Other questionable claims included wheelchairs or wheelchair accessories for patients listed as having a deformed nose or sprained wrist; shoe inserts for those with leg amputation or "precocious sexual development"; and, walkers for people diagnosed with paraplegia. In cases such as these, the lines between waste, fraud and abuse are blurred. It has been shown that mis-codification of a specific condition may have led to these types of errors. In other cases it is a result of sloppy and undisciplined processing by the providers or processors. These errors, regardless of intent, would have likely been prevented if a codification validation system were in place. The facially-absurd examples set forth above would fall into an outlier category and would have been rejected because of the edits and validation in the system that would block the combinations of services that fall outside of the permissible combinations. This type of tool would help CMS and the IG's office reduce the amount of waste, fraud and abuse in the Medicare system simply by eliminating those situations that can be managed by data driven processes.

Cost effective technology to help prevent waste, fraud and abuse is available today. We can extend the life of the existing Medicare computer systems if they are used for the purposes for which they

were originally designed; namely, to process claims. Outliers can be identified by a computer system that incorporates technology-based data mining and analysis tools to enable CMS and the IG's office to efficiently act on cases of fraud and abuse and process management optimization techniques can be initiated to counteract waste.

Thank you Mr. Chairman, Ranking Member Martinez, and Members of the Committee for your time and attention.

Footnotes

[1] ABERRANT CLAIM PATTERNS FOR INHALATION DRUGS IN SOUTH FLORIDA Daniel R. Levinson, Inspector General, April 2009 OEI-03-08-00290

[2] Office of the Inspector General Report on CMS COMPREHENSIVE ERROR RATE TESTING Daniel R. Levinson, Inspector General August 2008 OEI-05-07-00202