Medical Imaging and Medicare:
Five Years Later

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A Medical Imaging & Technology Alliance Report
Data Tabulation provided by Direct Research, LLC
As policymakers again consider significant reductions to Medicare payment for imaging services, the Medical Imaging and Technology Alliance (MITA) reviewed recent claims data—tabulated by Direct Research, LLC—to determine the impact of reimbursement cuts to medical imaging over the last five years on Medicare spending on imaging services and utilization of these services. The results follow.

**Medicare Spending for Imaging Services has Steadily Declined**

This analysis found that, contrary to perceptions of steady growth in imaging, per-beneficiary spending in Medicare carrier payments\(^1\) has declined by 13.2 percent since 2006.

This decline in imaging spending is in direct contrast with what is occurring in the rest of the Medicare program. During the same time period, Medicare carrier paid claims spending for non-imaging services grew by nearly 20 percent.

These findings counter the conventional wisdom among some policymakers that spending for imaging services in the Medicare program is growing. It also specifically contradicts the notion that imaging is adding to the rising financial burden on taxpayers and beneficiaries, as Medicare imaging spending per beneficiary is actually declining.

**Utilization of Imaging Services is Declining**

Growth in imaging utilization has also reversed in recent years. Utilization\(^2\) of imaging services has experienced marked declines over the last three years. In 2007, utilization of imaging services was growing by three percent; however, by 2010, it had dropped to a negative three percent growth rate.

The chart to the right illustrates that instead of continued growth in utilization, imaging has experienced a significant decline in utilization since 2007.

\(^1\) This MITA analysis covers annual Medicare Carrier Paid Claims through 2010. For the spending analysis, this report refers to total allowed charges for Carrier Paid Claims, as tabulated by Direct Research, LLC. For technical accuracy, the tabulated data excludes anesthesia payments.

\(^2\) For the utilization analysis, this report refers to utilization data tabulated by Direct Research, LLC. This measure accounts for both volume and intensity, based on 2010 Relative Value Units. For technical accuracy, the tabulated data excludes anesthesia payments.
This decline in Medicare beneficiaries’ use of medical imaging services is occurring despite new clinical indications for the use of imaging to diagnose disease—raising concerns that Medicare patients may not be receiving appropriate care.

This declining utilization trend is reflected across all advanced imaging technologies: Computed Tomography (CT), Magnetic Resonance (MR), and nuclear imaging.

As demonstrated on the graph to the left, each advanced imaging modality experienced similarly declining trends in utilization since 2007.

**Imaging as a Share of Total Medicare Spending is Shrinking**
Since 2006, the portion of total Medicare claims payments devoted to imaging has shrunk by 24.9%. This can be seen in the charts below, as imaging spending was 13.1% of Medicare carrier paid claims in 2006, and only 9.8% in 2010. Further, in comparing charts, we see that Medicare devoted a smaller portion of spending to imaging in 2010 than in 2001.

**Conclusion**
Review of the Medicare claims data reveals that per beneficiary imaging spending and per beneficiary utilization of imaging has substantially declined in recent years. In addition, imaging spending as a percentage of total Medicare spending is at its lowest level in more than a decade.
A Tale of Two Time Periods: Before and After the Deficit Reduction Act

Due to life-saving technological advances and new applications of existing technology, medical imaging experienced a marked increase in utilization and spending from 2001 to 2005. As with any high-tech field, medical imaging saw widespread utilization growth as imaging became central to good medical practice – decreasing the need for surgical procedures and delays in diagnosis.

A number of technologies came together to increase the use of advanced imaging in the late 1990's and early 2000’s era, including better computer technology and breakthroughs in medical application. Specifically in the years from roughly 1994 to 1999 abdominal CT scans replaced abdominal pain surgery consults, observation admissions and exploratory surgery of the abdomen.

Further, from around 2000-2005, PET scans replaced earlier nuclear cancer studies, such as gallium scans, and eventually replaced significant amount of "curative cancer surgery." This technology enabled doctors to better target many treatments and eliminate others that were unnecessary. During that same time period, chest CT scans largely replaced nuclear medicine ventilation perfusion scans (known as V/Q scans) in looking for pulmonary embolisms.

However, since 2006 that story has changed. The Deficit Reduction Act (DRA) reduced payments to imaging on a dramatic scale. Prior to enactment, the Congressional Budget Office (CBO) estimated that the first year of cuts would garner about $500 million in reimbursement cuts to medical imaging. However, a re-estimate after its first year of enactment found those cuts to have been closer to $1.6 billion. Therefore, in the first year alone, DRA policies reduced imaging payments by more than three times what Congress had anticipated.

Further compounding the effects of the DRA, Medicare reimbursements for medical imaging procedures have been cut six additional times since 2006, with payments, in some cases, being reduced to less than half of their previous levels as cuts continue to be implemented through 2013.

Today, imaging represents a smaller portion of Medicare carrier-paid claims than in 2001—declining by almost 25% since enactment of the DRA. Contrary to assertions that imaging is a growing part of Medicare spending, spending on imaging services has actually shrunk in comparison to other Medicare physician spending.