Trends in Imaging Services Billed to Part B Medicare Carriers and Paid under the Medicare Physician Fee Schedule, 1999-2009

Executive Summary

Prepared for the Access to Medical Imaging Coalition (AMIC)

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THE MORAN COMPANY

Executive Summary Objectives

We analyzed volume and spending on physician imaging services* to:

- Evaluate utilization and spending trends over 1999-2009;
- Discuss trends for Advanced Diagnostic Imaging Services (MR, CT, Nuclear Medicine, PET, PET/CT);
- Evaluate Mammography and DXA utilization; and
- Analyze site of service trends.

* Defined as services billed to Part B Medicare contractors and paid under the Medicare Physician Fee Schedule (MPFS)

Key Findings: Aggregate Trends

Volume and spending increased from 1999-2009, but with slowing growth or declines in more recent years:

- In 2009, there were 172 million imaging procedures performed at a cost to Medicare of approximately $11.8 billion compared to 117 million procedures and $5.8 billion in 1999.
  - 4.0% CAGR in volume
  - 7.3% CAGR in spending
- In 2005, the rate of total volume growth began to slow after peaking in 2000-2005.
- Between 2008 and 2009 total volume of imaging services decreased by 7.1%.

CAGR: Compound Average Annual Growth Rate

Key Findings: Aggregate Trends

Total Volume and Spending for Imaging Procedures 1999-2009

Year to Year Percent Change in Total Imaging Volume and Spending

	99 v. 00	00 v. 01	01 v. 02	02 v. 03	03 v. 04	04 v. 05	05 v. 06	06 v. 07	07 v. 08	08 v. 09	CAGR 99 v. 09
Volume	5.2%	9.7%	10.1%	6.7%	7.6%	5.2%	1.3%	0.8%	1.5%	-7.1%	4.0%
Spending	13.8%	20.4%	8.5%	15.6%	16.3%	11.2%	4.2%	-13.3%	2.9%	-2.1%	7.3%

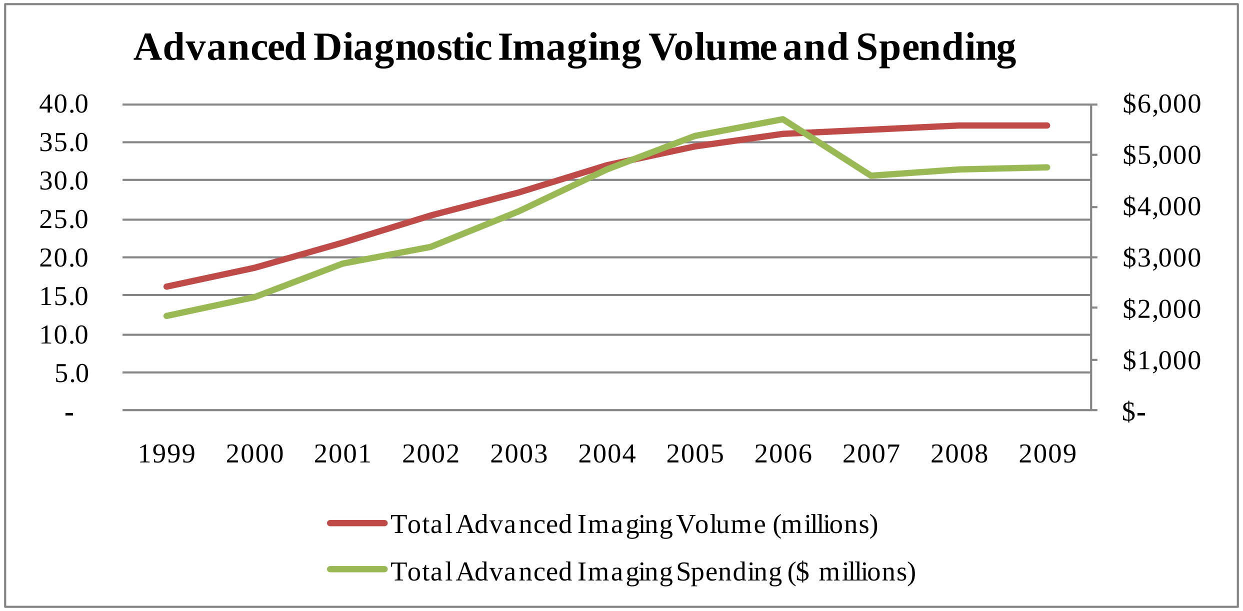
Total Imaging Volume and Spending (in millions), PSPS Data Files 1999 - 2009

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Volume	117	123	135	148	158	170	179	181	183	186	172
Spending	$5,848	$6,653	$8,010	$8,695	$10,055	$11,696	$13,007	$13,555	$11,752	$12,096	$11,841

CAGR: Compound Average Annual Growth Rate

Key Findings: Advanced Diagnostic Imaging Services

- Spending for advanced diagnostic imaging services (ADIS)* reached a 10 year high in 2006.
- By 2007, spending was down from previous years.
- In 2009, volume decreased (-0.1%) while spending increased slightly (1.2%). Spending is still below 2006 levels.

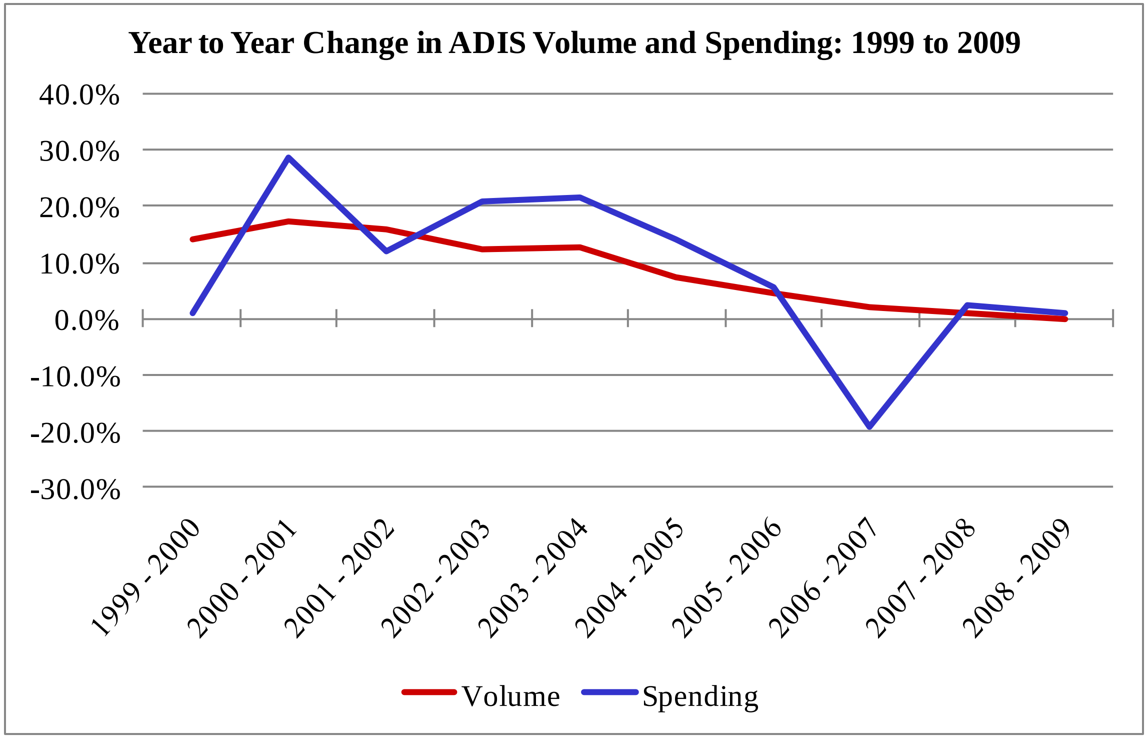


*ADIS defined as CT, MR, NM, PET, and PET/CT

Key Findings: ADIS, cont.

Year to Year Percent Change in Volume and Spending

- Decrease in spending on ADIS evident in 2007 with the implementation of the DRA.
- Volume growth for ADIS decreasing from 2001 to 2009



Key Findings: ADIS, cont.

Total Volume and Spending for ADIS 1999-2009

Total Volume and Spending for ADIS , 1999-2009 (millions)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Volume	16.3	18.6	21.8	25.3	28.5	32.1	34.4	36.0	36.7	37.1	37.0
Spending	$1,855	$ 2,238	$ 2,875	$3,216	$3,882	$ 4,725	$5,392	$5,696	$ 4,602	$ 4,710	$ 4,764

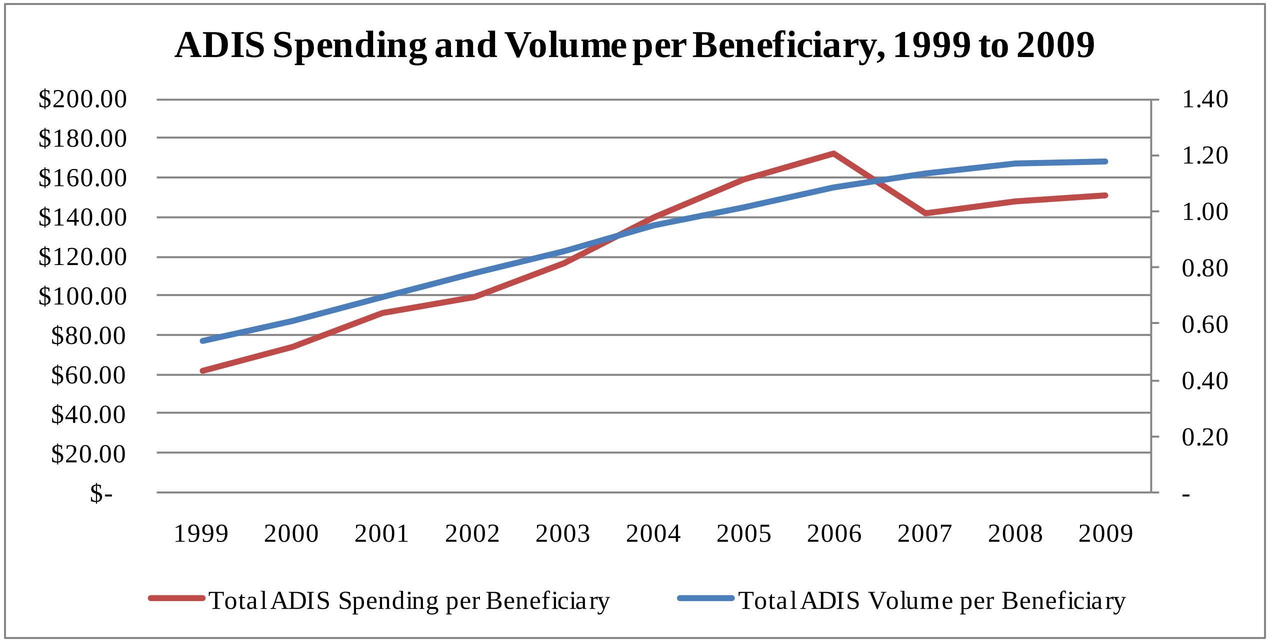
Year to Year Percent Change in Volume and Spending for ADIS, 1999 - 2009

	99 v. 00	00 v. 01	01 v. 02	02 v. 03	03 v. 04	04 v. 05	05 v. 06	06 v. 07	07 v. 08	08 v. 09
Volume	14.2%	17.4%	15.9%	12.3%	12.6%	7.4%	4.6%	1.9%	1.1%	-0.1%
Spending	1.2%	28.5%	11.8%	20.7%	21.7%	14.1%	5.6%	-19.2%	2.3%	1.2%

Key Findings: Spending per Beneficiary

ADIS Spending and Volume per Beneficiary

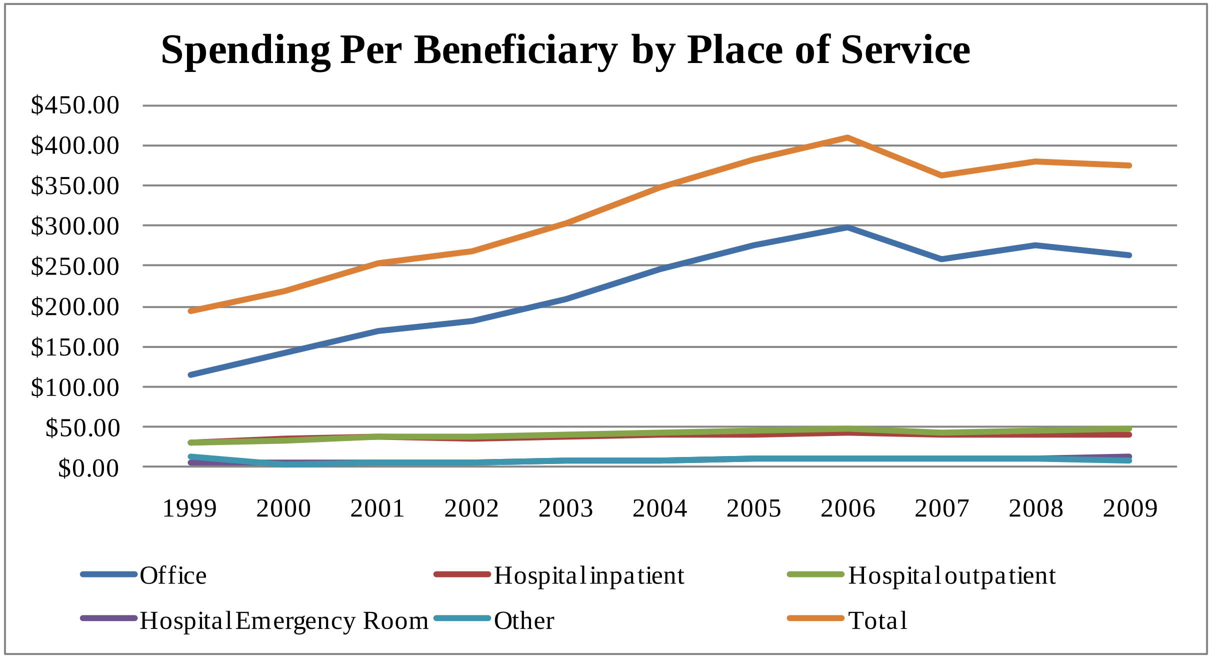
- Spending per beneficiary peaked in 2006.
- Inception of the DRA evident in 2007 showing decline in per beneficiary spending.



Key Findings: Spending per Beneficiary, cont.

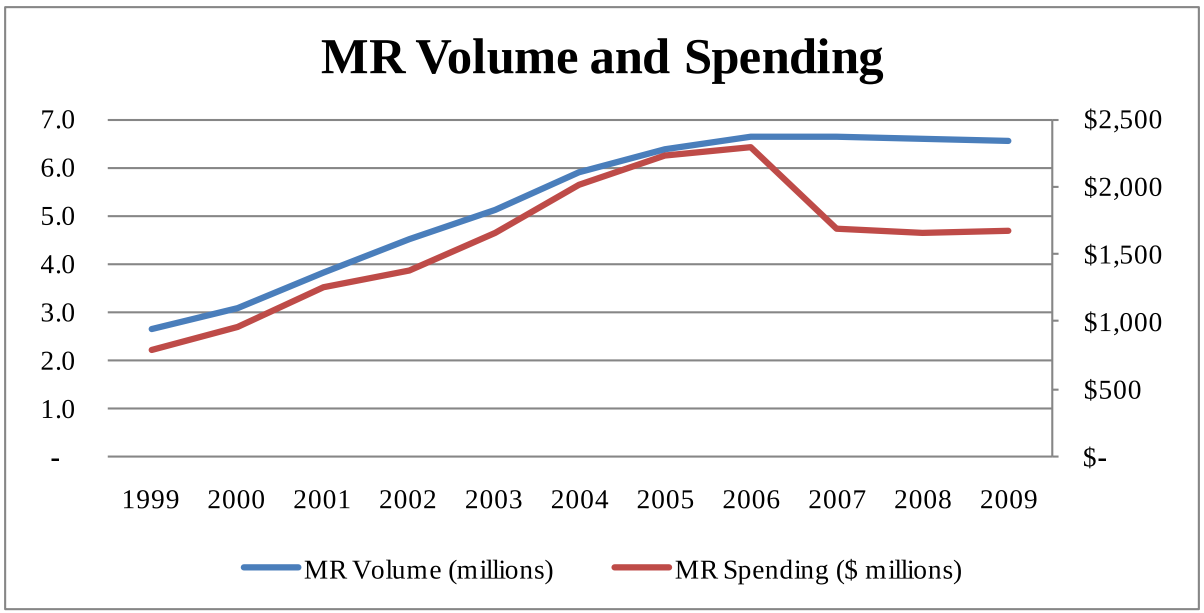
Total Imaging Spending per Beneficiary, Place of Service

- Spending per beneficiary in the office peaked in 2006.
- Spending per beneficiary in other settings has remained relatively stable from 1999 to 2009.



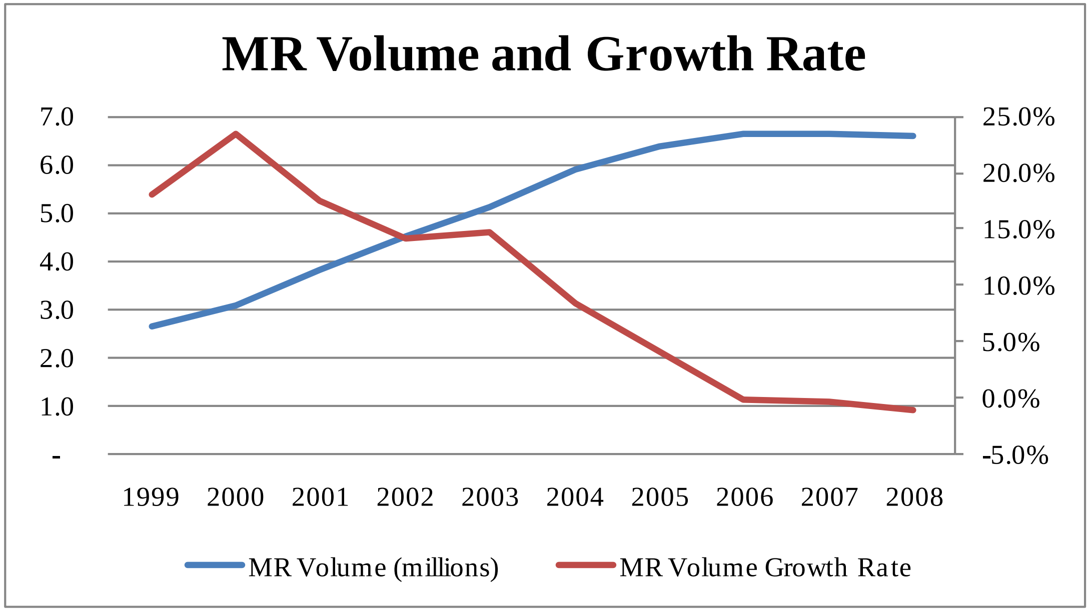
Key Findings: Magnetic Resonance Imaging (MR) Volume and Spending

- MR volume decreased from 2008 to 2009 by 1.2%.
- Spending increased slightly from 2008 to 2009 by 0.8%.
- Spending has remained relatively constant since the inception of the DRA in 2007.



Key Findings: MR Volume and Growth Rate

- The MR growth rate on a steady decline since 2000.
- Volume steadily increasing until 2006 and has remained relatively stable since that time.



Key Findings: CT Volume and Spending

- Volume and spending for CT services increasing from 1999 to 2009.

- Spending decreased in 2007 with implementation of the DRA.

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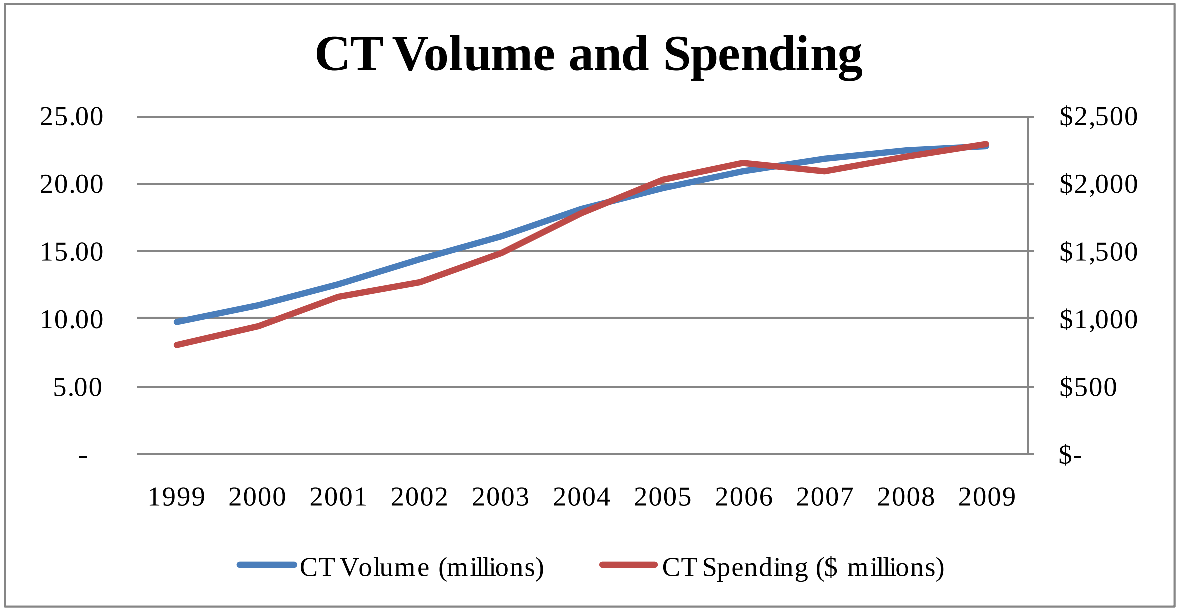
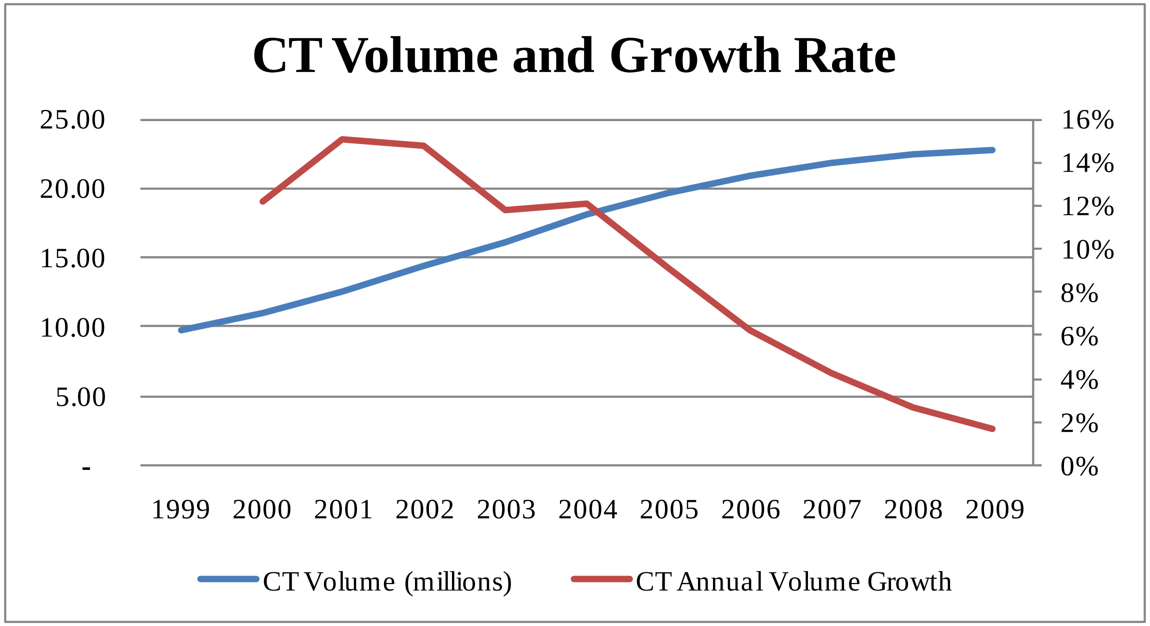


Key Findings: Computed Tomography (CT) Volume

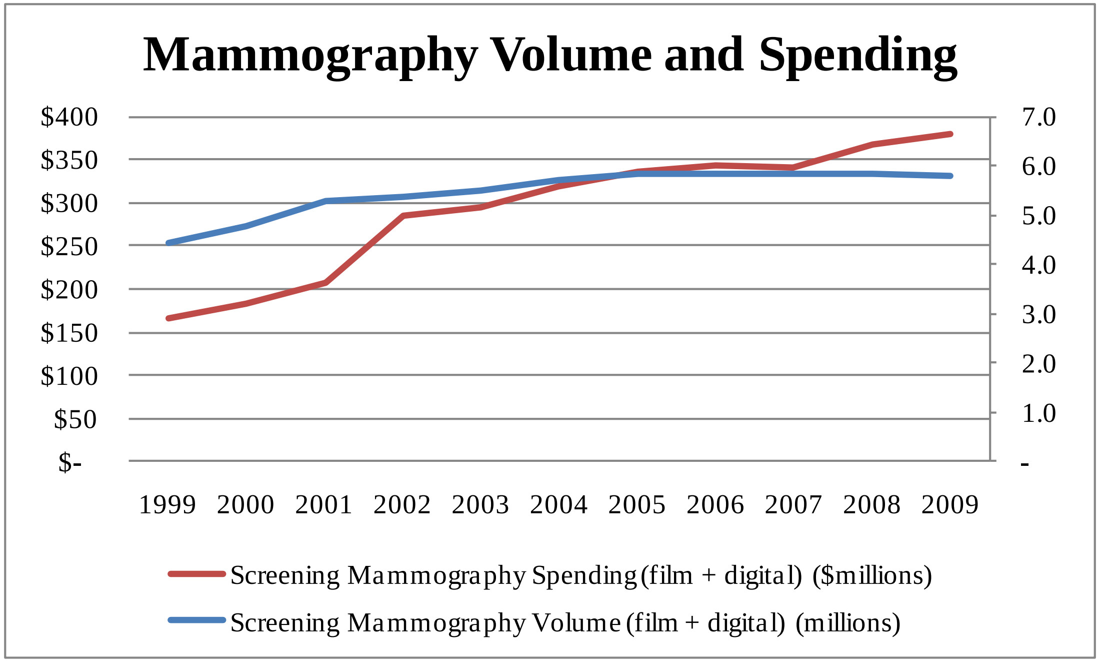
- Starting in 2005, the rate of growth in CT slowed compared to 2000-2005.

- The 2008-2009 rate of growth for CT procedures was nearly half that of the previous year (2.6% down to 1.6%).



Key Findings: Mammography Volume and Spending

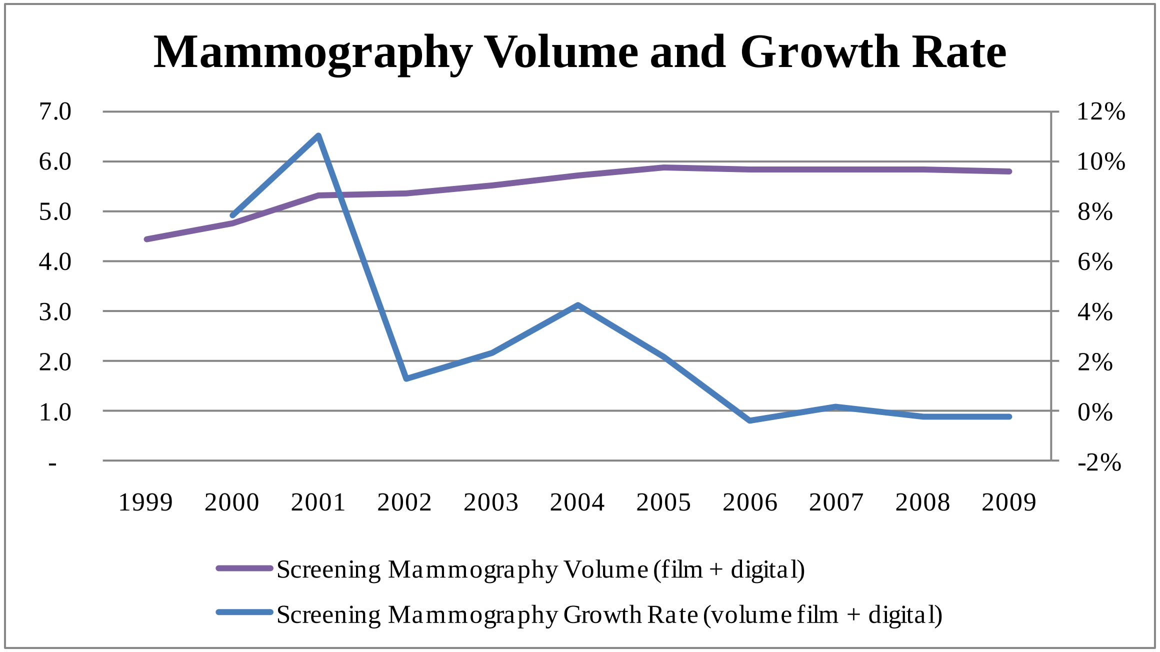
- The volume of mammography services has remained stable with spending increasing from 1999 to 2009.



Mammography volume includes both digital and film screening.

Key Findings: Screening Mammography Volume

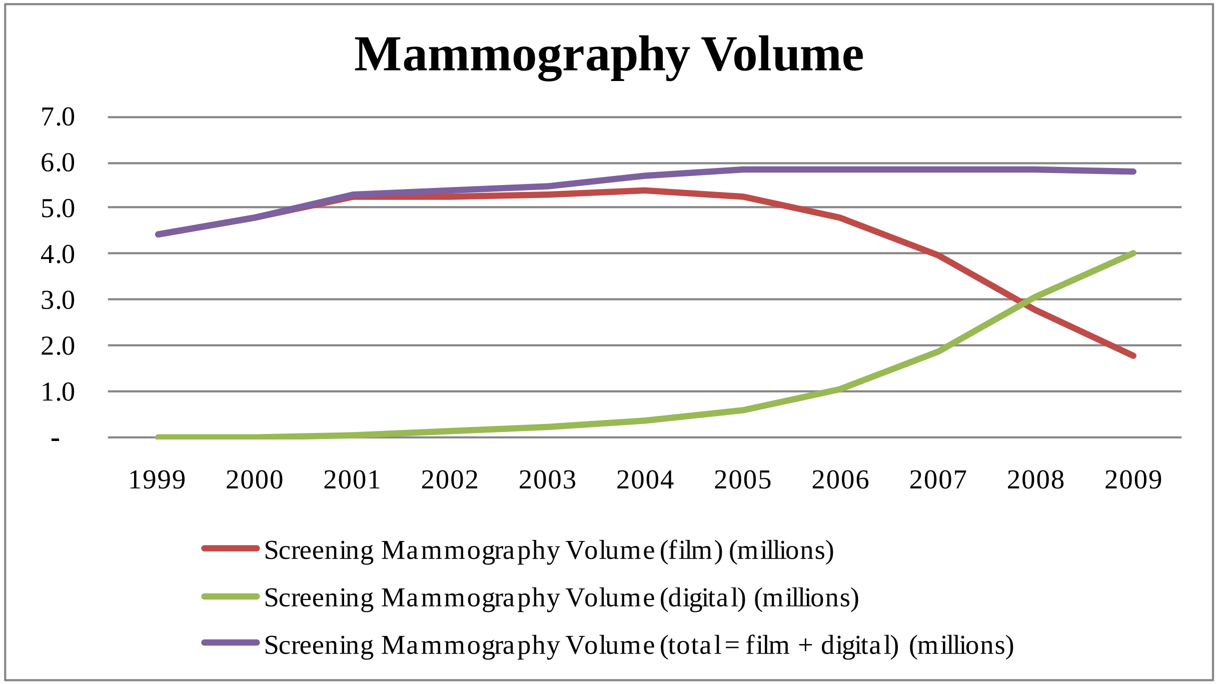
- The rate of growth in volume for screening mammography has declined or remained steady since 2004.
- From 2008 to 2009, total volume decreased by 0.3% compared to a 2.8% CAGR for the 10 year period.



Screening mammography includes both plain film and digital mammography
Screening mammography not subject to DRA provisions

Key Findings: Screening Mammography Volume cont.

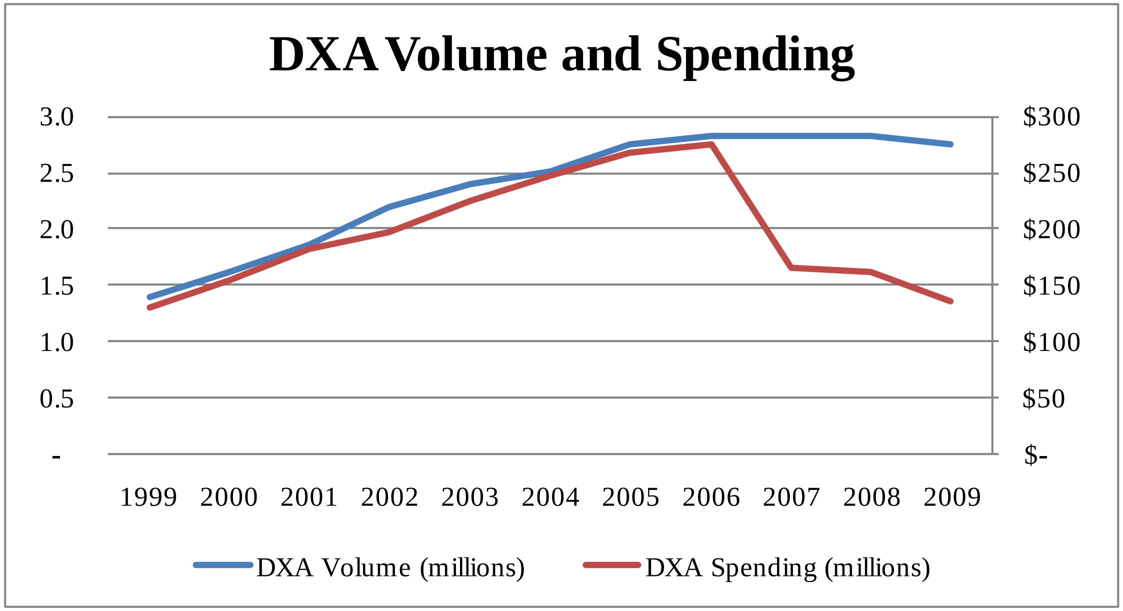
- Total volume has remained relatively constant since 2005.
- The steady rate of volume over time likely explained by substitution effect of film to digital mammography.



Screening mammography not subject to DRA provisions

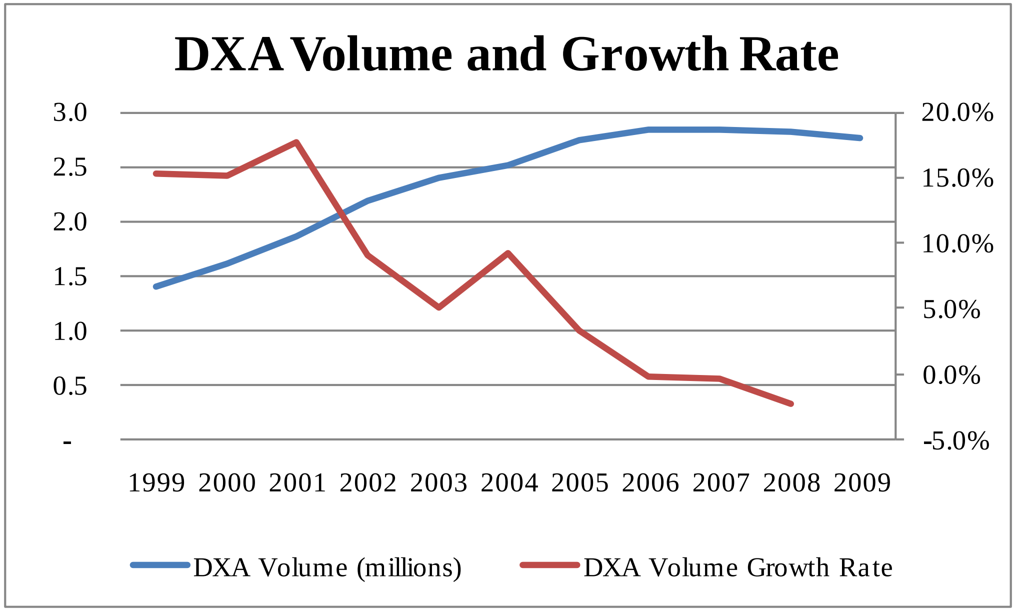
Key Findings: DXA Volume and Spending

- DXA volume reached its peak in 2005 and has been slowly declining since.
- From 2008-2009 total volume decreased by 2.2%.
- From 2008-2009 total spending decreased by 16.0% ($162 million to $136 million).



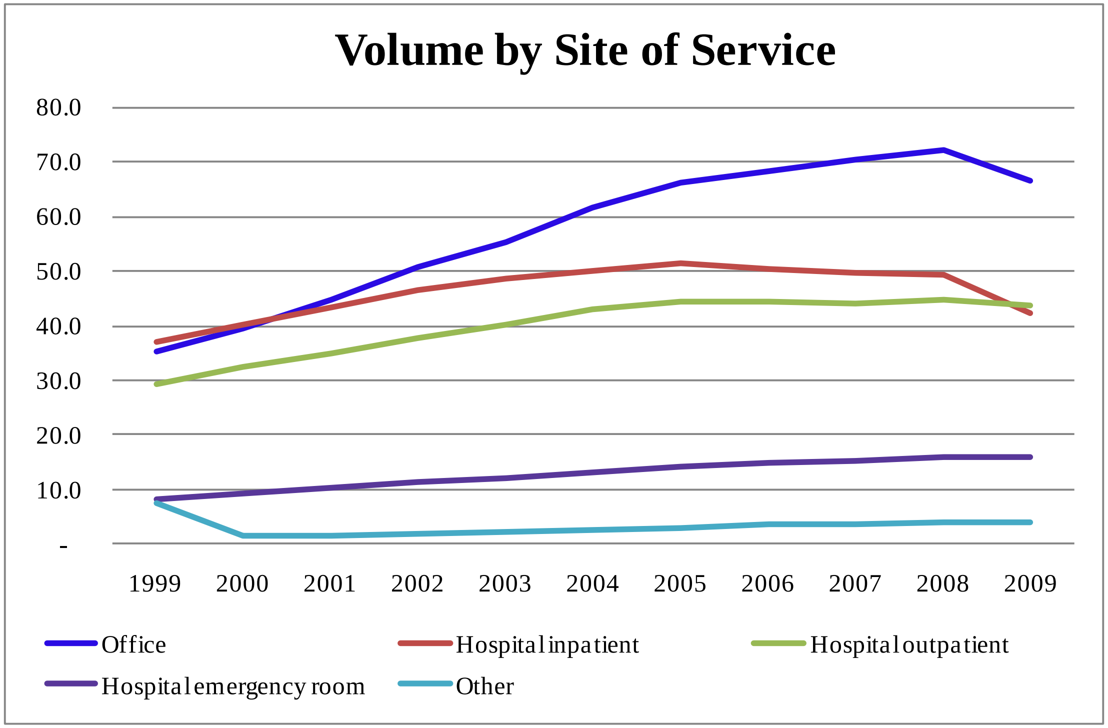
Key Findings: DXA Volume and Growth Rate

• The volume of DXA services has remained relatively stable, while the rate of growth in volume continues to decline.



Key Findings: Site of Service

- Volume in the office setting declined by 7.7% from 2008 to 2009.
- Hospital inpatient and outpatient volume also declined, 14.3% and 2.0% respectively.
- Imaging performed in the emergency room department increased slightly by1.2%.



Volume in millions