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The Honorable Seema Verma  
Administrator  
Centers for Medicare & Medicaid Services  
U.S. Department of Health and Human Services  
Hubert H. Humphrey Building  
200 Independence Avenue, SW  
Washington, DC 20201

Dear Administrator Verma:

On behalf of the physician and medical student members of the American Medical Association (AMA), I appreciate the opportunity to provide our views on how the physician self-referral law (Stark) imposes undue burdens on physicians and serves as an obstacle to coordinated care and efforts to deliver better value and care for patients. We commend the Department of Health and Human Services (HHS) and the Centers for Medicare & Medicaid Services (CMS) for focusing on removing unnecessary government obstacles to coordinated care, real or perceived, caused by the Stark law. In updating Stark, CMS should allow physicians to receive reimbursement for the value of care provided, and promote competition and choice by allowing physicians the same opportunities hospitals have in delivering care.

Significant changes in health care payment and delivery have occurred since the enactment of Stark. Numerous initiatives are attempting to align payment and coordinate care to improve the quality and value of care delivered. The delivery of care is going through a digital transformation. However, Stark—in its almost 30 years of existence—has not commensurably changed.

Stark was enacted in a fee-for-service world that paid for services on a piecemeal basis. The fraud and abuse laws act as a deterrent against overutilization, inappropriate patient steering, and compromised medical judgment with heavy civil and criminal penalties like treble damages, exclusion from participation in federal health care programs, and potential jail time.

The health care system is moving to a world that pays health professionals to manage episodes of patient care in a more comprehensive way. However, this approach to payment can run afoul of the fraud and abuse laws. For example, even if the primary purpose of an arrangement is to improve patients' health outcomes, as long as one purpose of the arrangement's payments is to induce future referrals, the fraud and abuse laws are implicated (e.g., an arrangement that pays for a nurse coordinator to coordinate a recently discharged patient's care among a hospital, physician specialists, and a primary care physician may induce future referrals to the primary care physician to avoid an unnecessary readmission to the hospital).

Fostering the shift to Alternative Payment Models (APMs) has necessitated reviewing and, in some situations, updating fraud and abuse laws to ensure that they do not unduly impede the development of value-based payment. Through specific statutory authority, both the CMS and the Office of Inspector General (OIG) have deemed it necessary to waive the requirements of certain fraud and abuse laws to test the viability of innovative models that reward value and outcomes.

Outside of those models, however, the fraud and abuse laws may still pose barriers to initiatives that align payment with quality and improve care coordination. Tying compensation to the value of care provided, equipping providers with tools to improve care, and investing in tools to clinically and financially integrate all may run afoul of these laws. For example, the Stark law impedes care coordination. Specifically, in certain circumstances, it prohibits physicians from coordinating care on behalf of their patients. Instead, the patient, in addition to dealing with the physical and emotional aspects of a disease or condition, must also attempt to coordinate their own care in a fragmented and siloed system. Placing the obligation on the patient to know how to properly manage follow-up on care without the assistance of their physician or care coordinator may have a negative impact on patient care and the physician-patient relationship.

Accordingly, the AMA has urged Congress and the Administration to **create a Stark exception to facilitate coordinated care and promote well-designed APMs**. This exception should be broad, covering both the development and operation of a model to allow physicians to transition to an APM model, and provide adequate protection for the entire care delivery process to include downstream care partners, entities, and manufacturers who are linking outcomes and value to the services or products provided.

### **Structure of arrangements between parties that participate in alternative payment models or other novel financial arrangements**

Generally, the AMA has concerns about the ability of financial arrangements to satisfy Stark exceptions that involve shared savings or incentive payments being distributed based on the value of care provided by physicians either in a group or independent practice. For example, a financial arrangement that is based on managing individuals with a chronic disease rewards an individual physician for properly coordinating care with nursing staff and intervening proactively with a beneficiary to prevent unnecessary hospitalization. This reward can be interpreted as running afoul of the Stark prohibition on compensation being related to the value or volume of services ordered by the physician.

### **Terminology related to alternative payment models and the physician self-referral law**

The term “alternative payment model” should be broadly defined to cover a variety of financial arrangements that promote value-based care (e.g., advanced alternative payment models, physician-focused payment models, Merit-based Incentive Payment System [MIPS] APMs, and other payer APMs). The term should also provide flexibility to cover future financial arrangements that are not yet created or contemplated. Thus, any definition of the term “alternative payment model” should include a provision that allows the Secretary to designate any other arrangement as an APM through public notice.

The term “care coordination” should provide protection for interactions between all individuals and entities involved in physician-led team-based care. Patient care in the community can involve physicians creating a care plan and working with allied health professionals like nurses, care coordinators, social workers, and home health aides to implement the care plan.

## **Revisions, additions, and clarification to exceptions to the physician self-referral law**

CMS should update Stark by revising, creating, and clarifying the application of Stark exceptions for value-based and fee-for-service arrangements. The complexities and ambiguities of Stark drive increased costs and creates unnecessary risks. For example, **it remains unclear how CMS will view measures that promote value** given its long-standing belief that rewarding physicians for meeting utilization targets or for reducing or limiting services generally violate Stark.<sup>1</sup>

### *New APM Exception*

The AMA believes that a single exception—if broad enough—provides sufficient protection for all types of financial arrangements (e.g., shared savings, bundled payments, incentive payments). The AMA has no objections in amending existing exceptions or definitions to promote care coordination. However, a multifaceted approach that establishes multiple new exceptions would only add more burden and complexity to an already confusing law.

As above, CMS should create a Stark exception to facilitate coordinated care and promote well-designed APMs. The financial arrangement that fits within the exception should be for the purposes of operating and developing an APM. Protecting the development of the APM is a key to help shift physicians from transitioning from MIPS to APMs. The development should cover start-up and infrastructure costs. The exception should cover any arrangement between the APM, one or more of the APM's participants, downstream care partners, entities, and manufacturers who are linking outcomes and value to the services or products provided, or a combination thereof.

Flexibility is important for innovation. Yet flexibility in a new payment system also may raise fraud and abuse concerns. To help address these concerns, the Stark exception could incorporate provisions that increased transparency and accountability through a board of directors approval; require the arrangement to be tied to the goals of the alternative payment model; and allow freedom of choice for patients by prohibiting stinting on medically necessary care.

While participation agreements work well in the context of specific payments models, the AMA believes they would likely be impractical for Medicare generally. As an alternative, the parties to the arrangement could set forth in writing the arrangement, their goals for patient care quality, utilization, and costs, and the items and services covered under the arrangement.

### *Group Practice Definition*

In order to qualify as a group practice, a physician practice may not compensate a physician who is a member of the practice directly or indirectly based on the volume or value of referrals by the physician. However, under the special rule for profit shares of a group practice of at least five physicians and productivity bonuses of any group practice size, a group practice may pay a physician in the group practice a share of overall profits of the group provided that the share is not determined in any manner that is directly related to the volume or value of referrals by the physician. A group practice may also pay a physician in the group practice a productivity bonus based on services that the physician has personally performed or services “incident to” such personally performed services, or both, provided that the bonus

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<sup>1</sup> 69 Fed. Reg. 16054, 16088 (Mar. 24, 2004); 72 Fed. Reg. 51052; 51046 (Sept. 5, 2007).

is not determined in any manner that is directly related to the volume or value of referrals by the physician. CMS has expressly stated that the productivity bonus cannot be directly related to any other referrals, such as diagnostic tests or hospital admissions.<sup>2</sup>

To encourage and incentivize coordinated care, CMS should **revise the productivity bonus requirement or create a new type of value-based care bonus** that allows physicians to receive shared savings or incentive payments that directly take into account the volume or value of referrals and still qualify as a group practice. Thus, for example, physicians could be rewarded for reducing hospital admissions or could individually receive bonuses directly tied to patient outcomes.

More generally, CMS should also remove the barrier involving the minimum size of a group practice component for purposes of profit sharing. The “at least five physician” requirement unfairly punishes small, rural, and specialty-focused group practices. Moreover, it implies that CMS believes that small group practices are somehow more inherently suspect and more susceptible to overutilization than larger group practices without providing any evidence. This requirement may also lead to further market consolidation and less competition.

#### *Virtual Groups and the Group Practice Definition*

Starting on January 1, 2017, eligible clinicians began participation in the Quality Payment Program in one of two ways: (1) MIPS or (2) Advanced APMs. To encourage broader MIPS participation for solo practitioners and groups with 10 or fewer eligible clinicians, CMS created a virtual group option. Many solo practitioners and groups of 10 or fewer MIPS eligible clinicians have limited resources and technical capabilities. Virtual groups will involve preparation of health information technology systems and training staff to be ready for implementation, sharing and aggregating data, and coordinating workflows. While these are necessary steps to ensure the success of virtual groups, these steps could raise concerns involving Stark.

By pooling resources together to participate in MIPS, individual physicians may receive an ownership interest in the virtual group or other compensation arrangement from the virtual group (e.g., disbursement of any incentive payments). Moreover, physicians may prefer to refer patients within their own virtual group to control unnecessary costs and provide higher quality care because both physicians’ performance is tied to the same virtual group’s MIPS score. Any of these referrals within the virtual group between physicians could violate Stark. This outcome is different from a normal “group practice” where some of these referrals are protected from Stark through exceptions.

“Virtual groups,” by definition, are not “group practices” as that term is specifically defined under Stark because virtual groups do not constitute a “single legal entity.” Virtual groups consist of at least two legal entities. Thus, because virtual groups do not meet this definition, the Stark in-office ancillary services exception and the physician services exception does not apply. Furthermore, the anti-kickback safe harbor for investments in group practices also does not apply. Accordingly, physicians in a virtual group with a financial relationship with such a virtual group may not be eligible to make referrals for designated health services payable by Medicare to the virtual group.

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<sup>2</sup> 72 Fed. Reg. 51012, 51024 (Sept. 5, 2007).

Thus, the AMA recommends amending 42 CFR § 411.352 (Group Practice) by adding an additional subsection (j) stating that “notwithstanding the above, a virtual group (as defined in 42 CFR § 414.1305) is considered a group practice for the purposes of this subpart.” While this solution will allow virtual groups to operate in the same manner as group practices, we believe that additional changes under Stark are needed to allow both virtual groups and group practices to be successful as the health care system transitions to more value-based care models.

#### *Fair Market Value*

CMS should amend and revise the definition of “fair market value” to account for new payment models that are based on quality improvement, care coordination, value, and/or health outcomes rather than productivity. For example, CMS should allow for incentive payments for efficient and better care rather than on the number of hours or Relative Value Units worked. Moreover, the regulatory definition of fair market value should match the original language of the statute. Thus, the regulatory definition needs to be revised in order to de-link fair market value from the volume or value of the referral requirement and to remove the requirement that fair market value is calculated as if the parties are not in a position to generate business for each other. Both of which have created confusion in the physician community and misinterpretation in the courts.

CMS should also create a presumption that a financial arrangement generally meets fair market value. Stark law has substantial penalties with potentially ruinous exposure to a physician practice including non-payment for submitted claims and false claims act liability. With false claims, a relator does not need to prove that a physician or hospital intended to violate Stark. Instead, all the relator needs to prove is intent to submit a false claim, not the underlying conduct. Thus, currently, the burden of proof on compliance with Stark shifts to physicians and hospitals very easily. This means that weak claims make it through the Motion to Dismiss phase and subjects physicians and hospitals to discovery which can be long and costly. Accordingly, to reduce meritless claims, compliance costs, and burden, CMS should create a presumption that financial arrangements meet the definition of fair market value. Alternatively, the presumption of fair market value could be presumed if the parties to the arrangement received a valuation from a qualified individual or entity that the financial arrangement falls within the range of fair market value.

#### *Commercial Reasonableness*

The AMA believes that CMS should provide explicit clarification that commercial reasonableness (1) involves the analysis of whether the purchase is practical or useful for the entity’s business and (2) does not involve any analysis regarding whether the amount of the purchase is reasonable (which is subject to fair market value analysis). These clarifications promote financial and clinical integration by allowing group practices or hospitals to purchase physician practices at a net loss to the entity.

#### *Clarifying in Office Ancillaries*

The in-office ancillary services exception (IOASE) recognizes that referral within a group practice promotes continuity of care in a setting that is lower cost and more convenient to the patient and that coordinated care is a key principle of improving the health care system. We strongly believe that the **IOASE should be preserved and should not be restricted** for advanced imaging, radiation therapy, anatomic pathology, and physical therapy. Ancillary services are essential tools used on a daily basis by practices seeking to provide comprehensive patient-centered services. Limiting the IOASE would impede

care coordination, force patients to receive ancillary services in a new and unfamiliar setting, increase inefficiencies, present significant barriers to appropriate screenings and treatments, and make health care both less accessible and less affordable.

The Medicare Payment Advisory Commission has recommended against limiting the Stark Law exception for ancillary services, citing potential “unintended consequences, such as inhibiting the development of organizations that integrate and coordinate care within a physician practice.”<sup>3</sup> Moreover, removing or limiting the IOASE would force more patients to seek services in hospital settings, where Medicare reimbursement rates are often significantly higher. Indeed, restricting the IOASE would likely accelerate the consolidation trend of hospital acquisition of physician practices, which will undermine competition and in turn raise costs to the entire health care system over the long term.

#### *Cybersecurity Exception*

The AMA is deeply concerned that our nation’s health care providers have been insufficiently prepared to help meet the cybersecurity challenges of an increasingly digital health care system. We firmly believe that this is a national priority and that physicians and other health care providers need tools to secure sensitive patient information in the digital sphere. Unfortunately, Stark prevents the sharing of cybersecurity tools and resources, thereby hindering collaborative industry cybersecurity efforts. Thus, the AMA recommends that CMS create an exception that allows for the sharing of cybersecurity items and services.

The AMA recently requested that OIG create a safe harbor that allows for the sharing of cybersecurity items and services with detailed suggestions into the structure of a potential safe harbor including definitions, scope, donors, recipients, the value of technology, and appropriate safeguards.<sup>4</sup> We believe that a similar exception should be created under Stark. Alternatively, if CMS does not have the authority to create a cybersecurity Stark exception, it should seek appropriate statutory authority from Congress. Overall, the AMA stresses that any cybersecurity Stark exception or anti-kickback safe harbor be easy to understand, interpret, and enforce so that donors and recipients can readily distinguish permissible activities from those that violate Stark or the Anti-Kickback Statute.

#### *Electronic Health Records Exception*

Physician-led team-based care needs electronic access across different care sites to information necessary to properly coordinate care and to make appropriate and informed decisions about patient care. Accordingly, CMS should revise the electronic health records exception to promote coordination and interoperability by (1) making the exception permanent; (2) broadening the definition of “electronic health record” beyond clinical diagnosis and treatment to include activities like information sharing and data analysis; and (3) allowing for the donation of technology that replaces similar technology.

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<sup>3</sup> Medicare Payment Advisory Commission, Report to the Congress: Medicare and the Health Care Delivery System (June 2011).

<sup>4</sup>AMA, *Letter to OIG in Response to Solicitation of Safe Harbors*, (Feb. 2018), available at <https://searchlf.ama-assn.org/undefined/documentDownload?uri=%2Funstructured%2Fbinary%2Fletter%2FLETTERS%2F2018-2-26-Letter-to-Levinson-re-Draft-OIG-Annual-Solicitation.pdf>.

### *Interaction with the Anti-kickback Statute*

CMS should eliminate all regulatory requirements in Stark exceptions that a financial arrangement does not violate the anti-kickback statute. This regulatory requirement unnecessarily changes a strict liability statute into an intent-based one and causes confusion without any additional benefit or protection to the Medicare program.

### **Recent Studies**

On behalf of the AMA, an independent actuarial firm conducted a study on in-office ancillary service trends in the Medicare fee-for-service population, examining Medicare claims for certain services that had received U.S. Government Accountability Office scrutiny for possible overutilization and higher costs due to “self-referrals.” **Results show no significant increases in use or costs and that movement to limit self-referral might actually result in increased costs.**<sup>5</sup>

The data simply do not support the contention that self-referral causes overutilization or increased Medicare spending. Instead, these results indicate that:

- For most of these services, the number provided in physician offices rather than hospital settings were relatively few, suggesting that imposing pay cuts or self-referral restrictions on them would not produce significant savings.
- Generally, five-year annualized utilization and spending trends for these services showed declining and even negative growth rates in office settings.
- Taken together, these trends indicate that concerns about potential cost and utilization related to physician ownership are unwarranted.

There is a real risk that policies intending to discourage physician investment in ancillary services could backfire by accelerating movement out of physicians’ offices where Medicare and its beneficiaries often pay less than for identical services provided in a hospital.

Accordingly, **CMS should conduct a study on the effectiveness of Stark** in accomplishing its goals of preventing unnecessary utilization and other forms of program abuse. The study should not just measure whether Stark is preventing overutilization in physician practices but should also measure whether overutilization has shifted to other health care providers, especially those providers who are owned and operated by corporate interests or have a higher reimbursement rate for the same services that physicians could provide in office.

### **Competition and Choice**

The AMA strongly supports and encourages competition between and among health care providers, facilities, and insurers as a means of promoting the delivery of high quality, cost-effective health care. Providing patients with more choices for health care services and coverage stimulates innovation and incentivizes improved care, lower costs, and expanded access. The health care system in the United States is undergoing substantial consolidation through mechanisms ranging from mergers and acquisitions to

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<sup>5</sup> Milliman, *Outpatient ancillary trends in the Medicare fee-for-service population: 2008-2012*, (Dec. 2014). Please see the full report which is attached.

institutional affiliations to single service agreements. Such consolidation reduces choices for patients without controlling costs. This is unacceptable—in the Executive Order *Promoting Health Care Choice and Competition*, President Trump made clear the Administration’s commitment to advancing competition in health care markets. CMS needs to take action in response.

When considering revising or creating new exceptions, CMS should ensure that any change is entity agnostic and does not further promote consolidation of the health care system. This means that a rural, one physician practice should have the same capability to implement the exception as a large health system. Moreover, any change should not unnecessarily increase administrative burden on practices. Exceptions that favor certain larger entities or increase burden may lead to further consolidation and increase costs. Physicians should not have to be employed by a hospital or sell their practice to a hospital in order to participate in Medicare or in innovative delivery models. Ultimately, physicians should be able to maintain their independent practice while at the same time have access to the infrastructure and resources necessary to participate in APMs.

#### *Repealing the Ban on Physician-Owned Hospitals*

The federal ban on physician-owned hospitals reduces and restricts competition and choice in health care markets. Prior to the enactment of the Affordable Care Act (ACA), physicians enjoyed a “whole hospital exception” from the Physician Self-Referral Law (also known as the Stark law). If physicians had an ownership interest in an entire hospital and were authorized to perform services there, physicians could refer patients to that hospital. However, provisions within the ACA eliminated the Stark exception for physicians who do not have an ownership interest as of December 31, 2010.<sup>6</sup> Furthermore, existing physician-owned hospitals cannot expand their treatment capacity unless certain restrictive exceptions can be met. In order to promote competition and choice in health care markets, the federal ban on physician-owned hospitals must be repealed.

The AMA believes physician-owned hospitals should be allowed to compete equally with other hospitals in the delivery system. Limiting the role of physician-owned hospitals only reduces access to high-quality health care for patients. Physician-owned hospitals are a benefit to patients and their communities and represent the type of coordinated care that is needed for the future of health care delivery. These hospitals provide: patient access to the best quality health care available; tens of thousands of jobs nationally; and a local economic engine through property taxes and higher-wage jobs. Furthermore, the presence of physician-owned hospitals has not had an impact on the financial viability of surrounding hospitals showing no effect on inpatient volumes, revenues, or profits.<sup>7</sup>

Physician-owned hospitals can also serve the role of adding much-needed competition into the hospital market. Hospitals continue to merge and consolidate. Hospital mergers and consolidation generally result in higher prices. This is true across geographic markets and different data sources. When hospitals merge in already concentrated markets, the price increases can be dramatic, often exceeding 20 percent.<sup>8</sup> Thus, the appropriate role of physician-owned hospitals includes having physician-owned hospitals act as a true

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<sup>6</sup> ACA § 6001 (42 U.S.C. § 1395nn).

<sup>7</sup> D M Blumental, *Access, quality, and costs of care at physician owned hospitals in the United States: Observational Study*, British Medical Journal (2015), available at <https://doi.org/10.1136/bmj.h4466>.

<sup>8</sup> Martin Gaynor & Robert Town, *The Impact of Hospital Consolidation – Update*, Robert Wood Johnson Foundation (June 2012), available at [http://www.rwjf.org/content/dam/farm/reports/issue\\_briefs/2012/rwjf73261](http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2012/rwjf73261)



competitor with other hospitals. Competition forces traditional hospitals to improve and innovate. This benefits patients and the health care system as we work to improve care. In addition, in physician-owned hospitals, physicians—who are fundamentally responsible for the existence of the hospital and the maintenance of its standards—can manage hospital costs through innovation and improved efficiency, which increases value. Physician-owned hospitals already are more likely to have operating rooms that they use more efficiently than traditional hospitals.<sup>9</sup> Physician-owned hospitals are also more engaged in general medical and surgical care than other hospitals.<sup>10</sup> Accordingly, by lifting the ban and allowing physician-owned hospitals to compete with other hospitals, the delivery system benefits by increasing competition and patient choice.

The current restrictions on physician-owned hospitals have also had a negative effect on health care delivery and patient choice. The restrictions on physician-owned hospitals have effectively eliminated the formation of new hospitals and additional choices for patients to receive quality care. For example, the restrictions resulted in freezes on the construction and expansion of 45 partially completed physician-owned hospitals.<sup>11</sup> In Texas, 13 physician-owned hospitals were formed after enactment of the ACA; however, because of the restrictions; they did not accept any Medicare or Medicaid patients.<sup>12</sup> Currently, all of these physician-owned hospitals have either been sold or are part of bankruptcy filings.<sup>13</sup>

The restrictions on physician-owned hospitals are without merit and have no valid justifications. Physician-owned hospitals provide better or same quality care at the same costs as other hospitals and do not cherry-pick or lemon drop patients. Several studies have shown high levels of quality care and patient satisfaction in physician-owned hospitals. Recently, the *British Medical Journal* found that physician-owned hospitals performed comparably with other hospitals on both disease-specific and composite measures of mortality, congestive heart failure, readmissions for myocardial infarction, and pneumonia.<sup>14</sup> Studies have also shown that these hospitals provide more net community benefits through uncompensated care and taxes than not-for-profit competitors as a share of total revenues.

Accordingly, physician-owned hospitals should play an integral role in the delivery system as a true competitor with no restrictions. The inability of physician-owned hospitals to address the growing demand for high-quality health care services in their community is bad for the entire health care market and does nothing but penalize patients who should have the right to receive care at the hospital of their choice. **Thus, the federal ban on physician-owned hospitals should be repealed and the President's Budget for the next fiscal year should include such a legislative proposal.**

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<sup>9</sup> Elizabeth Plummer & William Wempe, *The Affordable Care Act's Effects on the Formation, Expansion, and Operation of Physician-Owned Hospitals*, Health Affairs 35, no. 8 (2016), available at <http://content.healthaffairs.org/content/35/8/1452.full.pdf+html>.

<sup>10</sup> *Id.*

<sup>11</sup> D M Blumental, *Access, quality, and costs of care at physician owned hospitals in the United States: Observational Study*, British Medical Journal (2015), available at <https://doi.org/10.1136/bmj.h4466>.

<sup>12</sup> Elizabeth Plummer & William Wempe, *The Affordable Care Act's Effects on the Formation, Expansion, and Operation of Physician-Owned Hospitals*, Health Affairs 35, no. 8 (2016), available at <http://content.healthaffairs.org/content/35/8/1452.full.pdf+html>.

<sup>13</sup> *Id.*

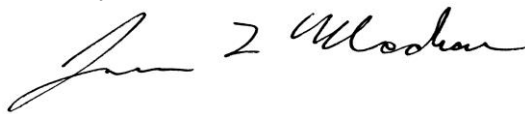
<sup>14</sup> D M Blumental, *Access, quality, and costs of care at physician owned hospitals in the United States: observational study*, British Medical Journal (2015), available at <https://doi.org/10.1136/bmj.h4466>.

## **Conclusion**

As initiatives advance to align payment and care coordination to improve the quality and value of care delivered, physician leadership is instrumental to optimizing care, improving population health, and reducing costs. Physicians provide the care, take care of the patients, and see the cost inefficiencies and overutilization. In helping physicians achieve the goals of value-based care, we urge CMS to create a Stark exception to facilitate coordinated care and promote well-designed alternative payment models.

Thank you for the opportunity to comment. The AMA is committed to engaging with CMS and other stakeholders going forward on ensuring that legal structures keep pace with evolving health care delivery and payment systems. We offer our assistance as CMS considers the impact of Stark on physician participation in innovative payment and delivery models. Should you have any questions, please contact Paul Westfall, Washington Counsel, Division of Legislative Counsel at [paul.westfall@ama-assn.org](mailto:paul.westfall@ama-assn.org) or 202-789-7430.

Sincerely,

A handwritten signature in black ink, appearing to read "James L. Madara". The signature is fluid and cursive, with a large initial "J" and "M".

James L. Madara, MD

Enclosure



# Outpatient ancillary trends in the Medicare fee-for-service population: 2008-2012<sup>1</sup>

By Milliman, Inc.

Summary and analysis by the American Medical Association

## Background

Physicians recommend a wide range of services for their patients. In many cases, these recommendations involve the use of equipment or skilled personnel within those physicians' practices. This practice of "self-referral" for certain types of services has come under increased scrutiny in recent years, primarily over concerns that it may lead to over-utilization and higher overall health care costs. The U.S. Government Accountability Office (GAO) conducted several studies of self-referred services subject to the in-office ancillary services exception (IOASE) to the Stark Law, examining data from 2004 to 2010. Although none of the GAO studies suggested repealing the IOASE, proposals to eliminate it have been made by some members of Congress and the Administration.

To explore the issue in more depth, the AMA contracted for a study by the independent actuarial firm Milliman, Inc., to examine Medicare claims for several types of service that were the subject of recent GAO scrutiny, including advanced imaging, intensity-modulated radiation therapy (IMRT), physical therapy, and pathology or laboratory services. Milliman used claims from 2008 to 2012 from the 5 percent sample of Medicare fee-for-service enrollees to examine changes in spending and utilization for these services. They were able to include not just physician claims, but also claims from other relevant outpatient settings including hospital outpatient departments (HOPD), independent labs, and home health providers, and a much broader universe of procedure codes (and two more recent years of data) than GAO examined.

While this study does not distinguish between services that were self-referred and those that were referred by others in the physician office setting, the results can be examined for trends that could serve as potential markers for the impact of in-office referral. These markers include changes in spending and utilization for the affected services, trends in the percentage of enrollees receiving the services, and shifts in utilization between physician offices and other settings. Notably, during the period in question, the analysis also points to health status changes that would have been expected to increase spending for patients in fee-for-service Medicare.

In short, the data simply do not support the argument that self-referral encourages inappropriate utilization or increased Medicare spending. Instead, these results indicate that:

- **For most of the ancillary services, the proportion provided in physician offices compared to hospital settings is relatively small, suggesting that imposing pay cuts or**

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<sup>1</sup> Damier and DeLilo, Milliman Inc., "Outpatient ancillary trends in the Medicare fee-for-service population: 2008-2012." December 18, 2014. Available online: <http://www.ama-assn.org/resources/doc/washington/x-pub/medicare-ancillary-services-report.pdf>.

**self-referral restrictions on these services will not produce significant savings.**

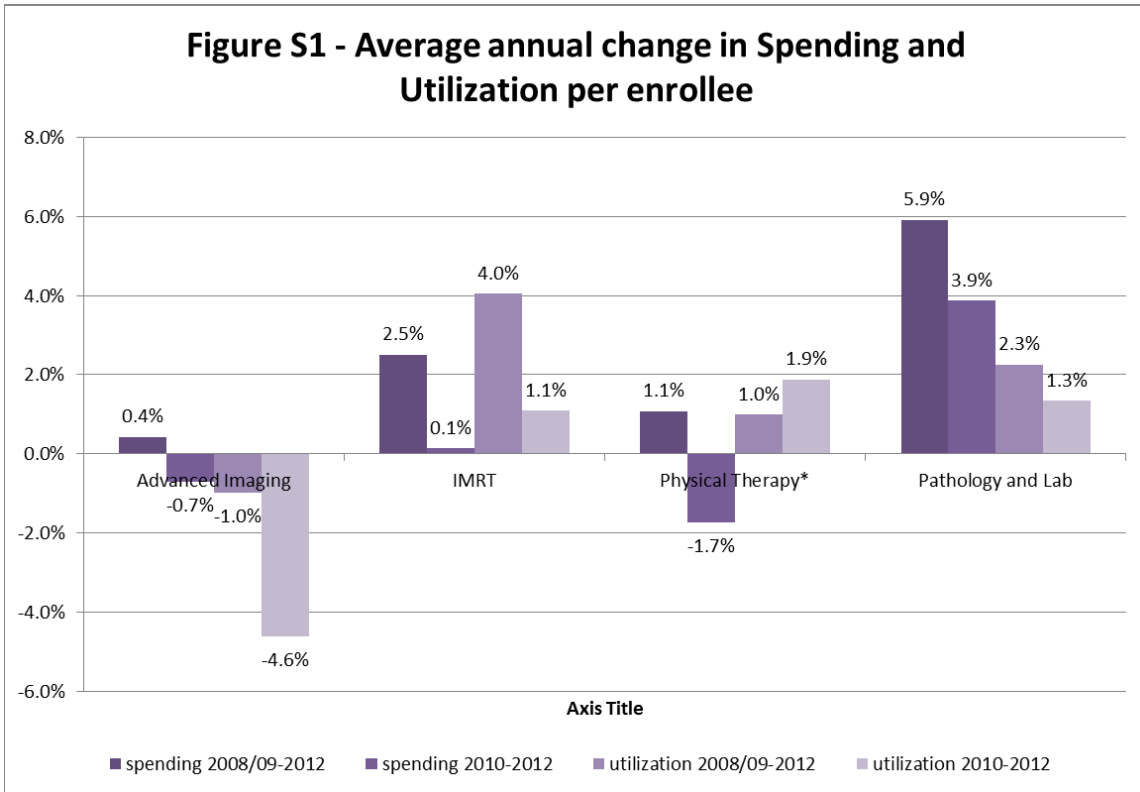
Physician offices account for less than 20 percent of outpatient physical therapy and laboratory services spending and less than 30 percent of advanced imaging spending (and a substantial percentage of these “office” services are provided through free-standing centers that rely on referrals from unrelated physician practices). Physician offices provide a more significant share of IMRT services, but that share dropped from 59 percent in 2008 to 53 percent in 2012, and again, much of that utilization is provided through free-standing centers that rely on referrals from unrelated physician practices. For physical therapy and laboratory services, physicians account for only 17 to 18 percent of total allowed charges.

- **In general, five-year annualized utilization and spending trends for these services show declining and even negative growth rates in office settings.** For most, the downward trend was even more remarkable in 2011 and 2012. Growth rates for these services in hospital outpatient departments also moderated but it was less pronounced than in physician offices.
- **Taken together, these trends indicate that concerns about potential cost and utilization related to physician ownership are unwarranted.** In fact, the evidence suggests that rather than increasing, the share of these ancillary services provided in physician offices is generally declining. Notably, all major categories except physical therapy have experienced a decline in the proportion provided in physician offices.
- **In addition, per unit costs of these ancillary services are generally less when delivered in the physician office than in the hospital.** A prime example can be seen in advanced imaging, where Medicare payment in 2014 was 36 to 53 percent higher in the hospital outpatient department than in the office.
- **There is a real risk that policies intended to preclude or discourage physician investment in ancillary services could backfire by accelerating their movement out of physicians’ offices where Medicare and its beneficiaries often pay less than when the identical services are provided in the hospital.**

Following is a summary of key findings from the Milliman analysis.

## **Trends in utilization and spending**

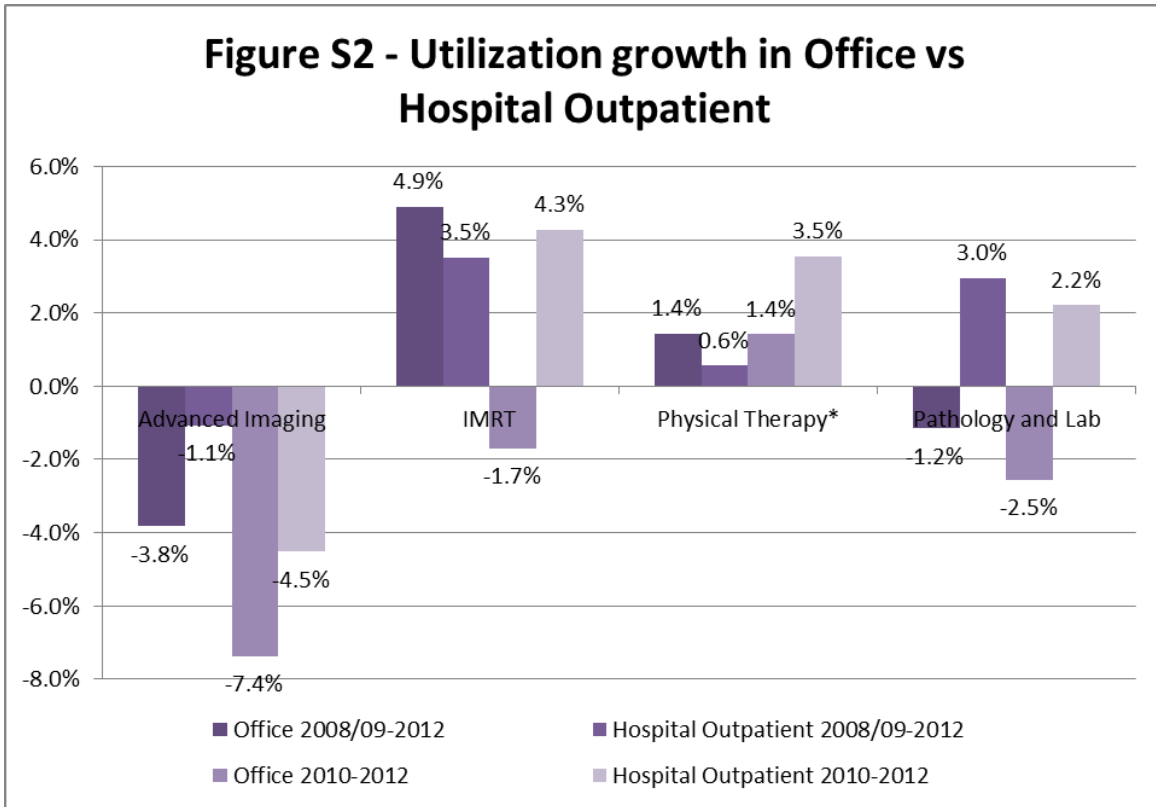
Figures S1 to S3 summarize Milliman’s results on growth in spending and utilization per enrollee across outpatient settings, which include the physician office and hospital outpatient departments for all the service categories shown (as well as home health for physical therapy and independent laboratories for pathology).



\*Due to a data anomaly for 2008, the study period for physical therapy is from 2009 to 2012.

**Spending growth overall is declining or has gone negative for most of these services (Figure S1).** From 2008 to 2012, Medicare spending growth per fee-for-service enrollee for advanced imaging, IMRT and pathology averaged 0.4 percent, 2.5 percent and 5.9 percent, respectively. Growth in spending per enrollee for physical therapy averaged just 1.1 percent per year from 2009 to 2012. And, spending growth rates for all these services were notably lower in more recent years, from 2010 to 2012, with an outright decline in spending per enrollee for advanced imaging and physical therapy and a virtually flat growth rate for IMRT. These changes came at a time when the risk adjusters Medicare uses to measure beneficiaries' need for medical care rose by almost 5 percent. During the same period, overall Medicare spending growth per enrollee averaged 2.1 percent from 2008 to 2012, and 1.2 percent from 2010 to 2012.

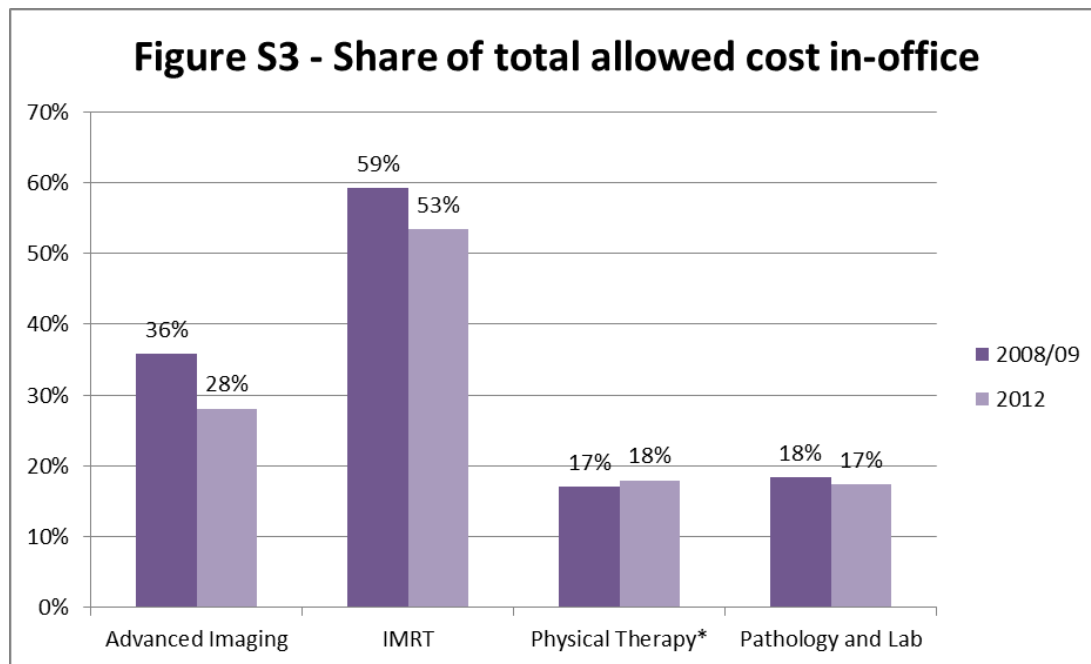
**Utilization growth has also been low or negative (Figure S1).** Utilization of advanced imaging services per enrollee declined by an annual average of 1.0 percent per year from 2008 to 2012, and experienced negative growth (-4.6 percent) per year from 2010 to 2012. Growth in use of IMRT and pathology averaged 4.0 percent and 2.3 percent per year, respectively, from 2008 to 2012, and then dropped to about 1 percent from 2010 to 2012. Growth in use of physical therapy per enrollee averaged 1.0 percent from 2009 to 2012, increasing to 1.9 percent average growth for 2010 to 2012. It should be noted that utilization was measured as the number of units of service, which does not capture changes in the intensity of service use.



\*Due to a data anomaly for 2008, the study period for physical therapy is from 2009 to 2012.

By the end of the study period, utilization growth in hospital outpatient departments was outpacing growth in physician offices for all four categories of ancillary services (Figure S2). In physician offices, both advanced imaging and pathology had negative five-year annualized utilization growth rates of -3.8 percent and -1.2 percent, respectively. In hospital outpatient departments, use of advanced imaging services declined by a more modest -1.1 percent while pathology and lab services increased by 3 percent. Over the five-year period, average annual growth for use of IMRT and physical therapy was somewhat higher in the office setting (4.9 percent and 1.4 percent) than in the outpatient department (3.5 percent and 0.6 percent). In the latter years of the period, however, the relationship reversed with IMRT dropping by almost 2 percent a year in the office and rising by about 4 percent in the outpatient department, while physical therapy grew less than half as fast in the office as in the outpatient department. While utilization in physician offices was declining for three of the four ancillary service categories (all but physical therapy) by the end of the study period, it fell for only one category (advanced imaging) in the outpatient department.

Also of note, some services are frequently provided in settings other than the hospital outpatient department or physician office. For example, utilization for pathology and laboratory services increased even faster in the independent laboratory setting (3.6 percent) than in the hospital outpatient department (3.0 percent) because of use by physician practices that do not self-refer.



\*Due to a data anomaly for 2008, the study period for physical therapy is from 2009 to 2012.

Lower growth of utilization and expenditures in physician offices has led to a decline in the share of spending in physicians' offices for all but one of the studied service categories (Figure S3). As a share of the total in all outpatient settings, physician office spending over the course of the study period rose slightly (from 17 to 18 percent) for physical therapy and fell slightly (from 18 to 17 percent) for pathology. The in-office share of total spending for IMRT showed a larger decline from 59 percent in 2008 to 53 percent in 2012 and was most dramatic in advanced imaging where it dropped from 36 percent of the total in 2008 to 28 percent in 2012.

Less in-office use may increase overall Medicare spending. When provided in a hospital outpatient department, Medicare reimbursement for some services will include both a facility payment under the outpatient prospective payment system and a professional payment under the physician fee schedule. This total often significantly exceeds the in-office payment. For example, the average 2014 Medicare allowed amount for "CT abdomen & pelvis w/contrast" was \$482.91 when performed in the hospital outpatient department, compared to \$327.42 in the office. In fact, among the top five advanced imaging services, the 2014 national average Medicare hospital outpatient department payment was 36 to 53 percent higher than the in-office amount.

In summary, the Milliman analysis clearly refutes the arguments of those who wish to limit physician investment in ancillary services that have become an integral part of the services they provide. Cutting payments for these services or targeting them for referral restrictions would disrupt multispecialty practice models, discourage delivery system innovation, and reduce continuity of care for Medicare beneficiaries with no discernible benefit to the Medicare program. As shown in this analysis, the cost and utilization trends for the services in question do not support arguments that physician ownership of the services leads to overutilization and increases Medicare spending. In fact, they suggest that to the contrary, efforts to discourage availability of these services in physician's office could actually increase costs to Medicare and its beneficiaries.



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# Outpatient ancillary trends in the Medicare fee-for-service population: 2008-2012

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## I. INTRODUCTION

Milliman Inc. (Milliman) was retained by the American Medical Association (AMA) to perform a trend analysis of certain Medicare ancillary services. The services include:

- Radiology with a focus on advanced imaging
- Intensity modulated radiation therapy (IMRT)
- Pathology and laboratory
- Physical therapy

This document provides the results of the analysis. It should be noted that we do not recommend or promote any particular policy decisions related to the Medicare program or the provision of these specific services.

The services provided for this project were performed under the signed consultant agreement between Milliman, Inc. and the American Medical Association dated August 25, 2014. The project was funded solely by the American Medical Association. The work was intended for use by the American Medical Association. Milliman does not intend to benefit any third-party recipient of its work product, even if Milliman consents to the release of its work product to such third party. Any third-party recipient of this work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs. Any release of this report to a third party should be in its entirety.

In performing this analysis, we relied on data and other information obtained from public data sources. We have not audited or verified this data and other information. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. Robert M. Damler is a member of the American Academy of Actuaries and meets the qualification standards of the American Academy of Actuaries to render the actuarial opinion contained herein. To the best of his knowledge and belief, this information is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices.

## II. EXECUTIVE SUMMARY

Medicare is the federal health insurance program for elderly people age 65 and older, people with disabilities, and people with end-stage renal disease (ESRD). Medicare benefits are structured and administered through four different packages:

- Part A covers inpatient hospital, skilled nursing facility, home health, and hospice services.
- Part B covers physician services and other outpatient care.
- Part C is the Medicare Advantage (MA) program, which is an optional managed care service delivery system for Medicare enrollees. Enrollees can receive Part A and Part B benefits through Medicare Advantage.
- Part D is the outpatient prescription drug benefit.

The scope of services examined in this paper is a subset of services provided in the outpatient setting under Medicare Part B. The chart in Figure 1 illustrates each of our areas of focus as a percentage of total Part A and Part B allowed amounts. In total, the areas of analysis represent 10.9% of combined Part A and Part B fee-for-service allowed charges in calendar year 2012.

The report reviews each service area below at a composite level and by site of service. The underlying metrics that describe medical trend will be also reviewed. These metrics include the average monthly allowed charges per beneficiary (AMPB), utilization per 1,000 members, allowed charges per unit, and the percentage of beneficiaries receiving the service.

**Figure 1: Report Study Items as a Percentage of Medicare Part A and Part B Allowed Charges**

American Medical Association Medicare 5% Sample Fee-for-Service Population				
	Total Allowed Charges (CY 2012)*	Percentage of Total Medicare Part A/B Allowed Amount	Allowed AMPB (CY 2012)	Percentage Receiving
<b>Total Medicare Part A/B</b>	\$ 408,902.1	100%	\$ 1,056.79	n/a
<b>Advanced Imaging</b>	\$ 7,886.4	1.9%	\$ 20.38	1.2%
<b>Other Radiology</b>	\$ 8,707.8	2.1%	\$ 22.50	59.2%
<b>Pathology and Lab</b>	\$ 11,777.3	2.9%	\$ 30.44	80.0%
<b>Physical Therapy</b>	\$ 14,582.5	3.6%	\$ 37.69	20.7%
<b>IMRT</b>	\$ 1,438.3	0.4%	\$ 3.72	0.3%
<b>All Other Services</b>	\$ 364,509.8	89.1%	\$ 942.06	n/a

**\*Notes**

- Total expenditures in millions extrapolated to 100% fee-for-service population.
- Assumes approximately 32,250,000 Medicare fee-for-service enrollees in 2012.

### III. METHODOLOGY

We utilized the Medicare 5% Sample file from calendar years 2008 through 2012 to perform the analysis. The 5% Sample contains de-identified publicly available data for the Medicare fee-for-service (FFS) population. It contains information for every 20<sup>th</sup> Medicare FFS enrollee, and we extrapolated our results to the entire Medicare FFS population by multiplying by a factor of 20. The results of our analysis exclude any services performed while a Medicare beneficiary was enrolled in a Medicare Advantage plan. The scope of our analysis is limited to Medicare Part B services.

We included members enrolled only in both Medicare Part A and Part B. Members with ESRD were excluded from the analysis.

Medical trend is driven by the cost of the service (fee), the number of people receiving the service, the frequency of the service, and the mix of services provided. The Medicare data was extracted to prepare metrics that depict each trend component. These metrics include the following.

- **Estimated total allowed charges.** Allowed charges are the portion of the total billed charge that Medicare covers or “allows” the provider to collect from all sources.
- **Annualized utilization per 1,000 members.** This is the average number of units of service used by 1,000 enrollees in a year.
- **Allowed charges per unit.** For each of the service areas in this report, unit cost is provided at a composite level. It should be noted that unit cost at this level may be influenced by service mix and thus a comparison of unit cost between site of service and the trend over time may be inappropriate.
- **Average monthly allowed charges per beneficiary (AMPB).** This metric is calculated as the total allowed charges on the claims divided by the member months for the study population.
- **Percentage of beneficiaries receiving the service (percentage receiving).** This is calculated as the number of unique beneficiaries receiving the service as a percentage of the average Part B fee-for-service enrollment.

Medicare payments for many of the services in this report have two components. First, there is a technical component, which covers the equipment, supplies, and technical staff. Second, there is a professional component, which covers the physician interpretation of the image or service. In some cases a unit will be counted when there is a technical and professional claim line billed separately. For example, if a person receives an x-ray in a hospital outpatient setting, it is common for a technician to perform the x-ray (technical component) and a physician to read and interpret the image (professional component). In this example, our study would count this single encounter as two distinct units. In other instances or settings, this could be counted as one unit under a global claim line.

We have reviewed the above metrics in total, by site of service, across all specialty referrals, and in some cases by the diagnosis code present on the claim in order to understand the Medicare trends. This research report provides a depiction of the high-level trends observed in the data.

## IV. MEDICARE POPULATION TRENDS

The underlying morbidity of a population changes over time for many reasons, including the aging of the population and selection differences caused by varying levels of participation in delivery systems. In the Medicare program, individuals have shifted between the fee-for-service (FFS) and managed care programs.

Medicare utilizes the Centers for Medicare and Medicaid Services-Hierarchical Condition Category (CMS-HCC) risk adjustment methodology to provide higher reimbursement to Medicare Advantage (MA) plans enrolling sicker members, and lower reimbursement to MA plans enrolling healthier members. Risk scores measure individual beneficiaries' relative risk and risk scores are used to adjust payments for each beneficiary's expected expenditures in the Medicare Advantage program.

The CMS-HCC risk score represents the relative level of total expected healthcare costs for an individual and may not be representative of the expected healthcare costs associated with any one specific service. The CMS-HCC risk score does not measure the morbidity relationship of subcomponents without further calibration. Therefore, we have not adjusted the values presented in the report for the CMS-HCC risk score because the values are subcomponents.

We are providing the scores to highlight the potential changes in the morbidity profile of the FFS population, although we have not utilized the factors to adjust any of the values illustrated in this report.

Over the period of 2008 through 2012, the composite risk scores for Medicare FFS beneficiaries increased each year, before normalization. Figures 2 and 3 illustrate the composite CMS-HCC risk score for the Medicare FFS population and the penetration of Medicare Advantage in the overall Medicare population. Readers of this report should be cognizant that over the reported time period the risk scores associated with the FFS population have increased. Note that the risk adjustment process is recalibrated each year to dampen the effect of such trend, and that the process is revised every few years, by adding or deleting conditions and revising the hierarchies, to attempt to smooth out the risk scores over time and to improve the correlation between an individual's risk scores and their costs.

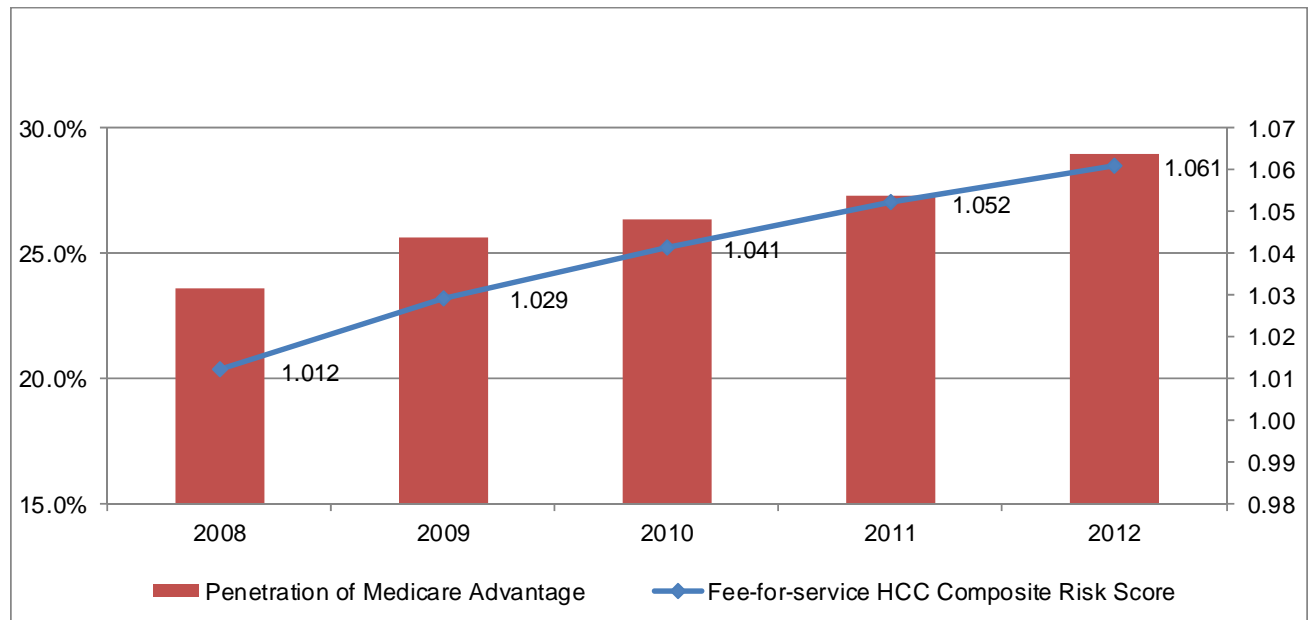
**Figure 2: CMS-HCC Risk Score and Medicare Advantage Penetration Trend**

American Medical Association Medicare 5% Sample Fee-for-Service Population					
	2008	2009	2010	2011	2012
<b>Fee-for-Service HCC Composite Risk Score</b>	1.012	1.029	1.041	1.052	1.061
<b>Penetration of Medicare Advantage</b>	23.6%	25.7%	26.4%	27.3%	29.0%

**Notes**

- Excludes ESRD beneficiaries.
- Risk scores calculated using the CMS-HCC model for 2014.

Figure 3: CMS-HCC Risk Score and Medicare Advantage Penetration Trend (CY 2008-2012)



## V. RADIOLOGY AND ADVANCED IMAGING

Radiology is the broad service category that focuses on diagnosing and treating diseases and injuries using various medical imaging techniques. For the purposes of our analysis, we have separated this broad category into four different subsets. Advanced imaging includes techniques such as computed tomography (CT), positron emission tomography (PET), magnetic resonance imaging (MRI), and intensity-modulated radiation therapy (IMRT). A detailed listing of codes used to identify advanced imaging is included in Appendix 1. The remaining services that fall within the radiology service category are further categorized as other diagnostic radiology and other therapeutic radiology. Appendix 1 also includes a complete listing of the codes used to identify other therapeutic and diagnostic radiology.

### Advanced imaging

At a composite level, the observed annualized trend in advanced imaging APMB over the five-year period (“5-year Annualized Trend”) is 0.4%. Figure 4 illustrates cost and utilization trend metrics by year as well as the five-year trend rate.

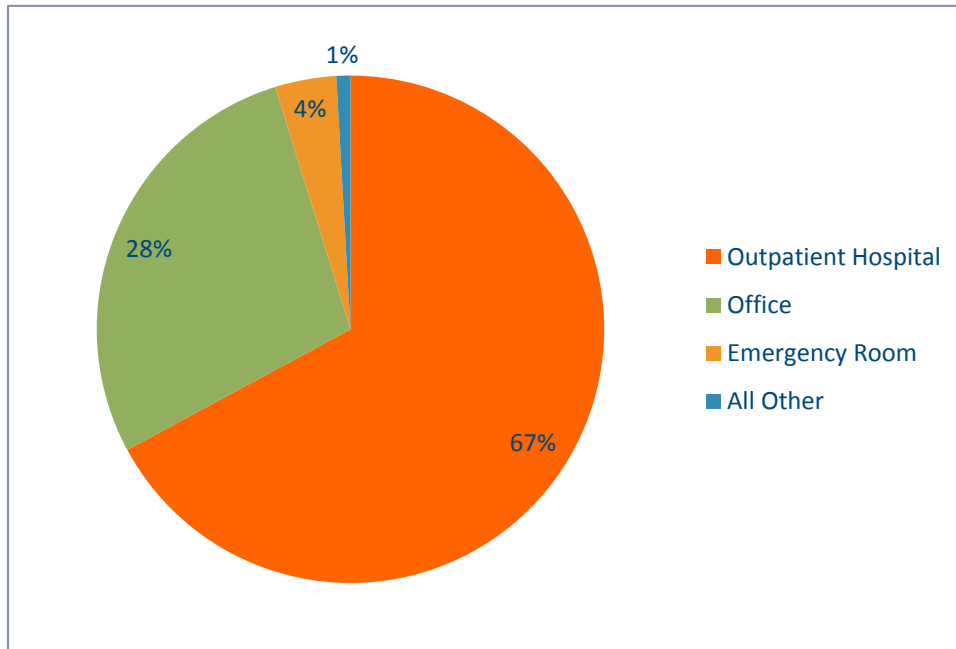
**Figure 4: Advanced Imaging Composite Trends**

American Medical Association Medicare 5% Sample Fee-for-Service Population						
	CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	5-year Annualized Trend
<b>AMPB</b>	\$ 20.04	\$ 21.39	\$ 20.67	\$ 19.27	\$ 20.38	0.4%
<b>Utilization per 1,000</b>	1,114.0	1,169.4	1,177.1	1,045.5	1,070.9	(1.0%)
<b>Allowed Charges per Unit</b>	\$ 215.87	\$ 219.50	\$ 210.72	\$ 221.18	\$ 228.37	1.4%
<b>Percentage Receiving</b>	26.39%	27.09%	27.08%	27.42%	27.63%	1.2%
<b>Total Allowed Cost *</b>	\$ 7,526.7	\$ 7,994.2	\$ 7,817.7	\$ 7,370.4	\$ 7,886.4	1.2%

\* Value in millions; extrapolated to 100% of fee-for-service population.

Advanced imaging is primarily delivered in outpatient hospital and office settings. Figure 5 provides the percentage distribution of the 2012 allowed charges by site of service.

**Figure 5: Advanced Imaging by Site of Service (CY 2012 % of allowed charges)**



Figures 6 and 7 illustrate cost and utilization trend metrics for outpatient hospital and office, respectively. The five-year annualized trend for the AMPB in the outpatient hospital setting is 3.3%. The five-year annualized trend for the AMPB in the office setting is (5.5%).

**Figure 6: Advanced Imaging Outpatient Hospital Trends**

American Medical Association Medicare 5% Sample Fee-for-Service Population						
	CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	5-year Annualized Trend
<b>AMPB</b>	\$ 12.00	\$ 13.06	\$ 12.69	\$ 11.97	\$ 13.68	3.3%
<b>Utilization per 1,000</b>	699.0	732.9	734.6	648.6	669.7	(1.1%)
<b>Allowed Charges per Unit</b>	\$ 206.01	\$ 213.84	\$ 207.30	\$ 221.46	\$ 245.12	4.4%
<b>Percentage Receiving</b>	17.99%	18.69%	18.80%	19.21%	19.70%	2.3%
<b>Total Allowed Cost *</b>	\$ 4,508.7	\$ 4,881.3	\$ 4,801.8	\$ 4,579.1	\$ 5,293.1	4.1%

\* Value in millions; extrapolated to 100% of fee-for-service population.



**Figure 7: Advanced Imaging Office Trends**

American Medical Association Medicare 5% Sample Fee-for-Service Population						
	CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	5-year Annualized Trend
<b>AMPB</b>	\$ 7.16	\$ 7.37	\$ 6.95	\$ 6.33	\$ 5.72	(5.5%)
<b>Utilization per 1,000</b>	262.8	269.8	262.0	233.1	224.8	(3.8%)
<b>Allowed Charges per Unit</b>	\$ 326.94	\$ 327.80	\$ 318.32	\$ 325.87	\$ 305.34	(1.7%)
<b>Percentage Receiving</b>	10.40%	10.45%	10.09%	9.97%	9.60%	(2.0%)
<b>Total Allowed Cost *</b>	\$ 2,691.6	\$ 2,755.3	\$ 2,629.9	\$ 2,419.3	\$ 2,214.6	(4.8%)

\* Value in millions; extrapolated to 100% of fee-for-service population.

It should be noted that allowed charges per unit as reported in Figures 4, 6, and 7 may be influenced by service mix and the setting where the service was provided. Figure 8 has been developed to facilitate an understanding of the variances that are due to each of these items. Figure 8 illustrates what Medicare allows for a service delivered in the outpatient hospital setting versus the physician office setting and the proportion of the total advanced imaging services within each setting represented by that procedure. The services depicted include the top five services by total allowed charges in calendar year 2012 where the service is paid under the Medicare Physician Fee Schedule and the Outpatient Prospective Payment System.

**Figure 8: Top 5 Advanced Imaging Fees by Site of Service**

American Medical Association Medicare 5% Sample Fee-for-Service Population					
Service	Code	What Medicare Allows in the Office Setting <sup>1</sup>	Procedures as a Percentage of Total Office Setting <sup>3</sup>	What Medicare Allows in the Hospital Outpatient Setting <sup>2</sup>	Procedures as a Percentage of Total Outpatient Hospital Setting <sup>3</sup>
CT abdomen & pelvis w/contrast	74177	\$ 327.42	5%	\$ 482.91	9%
CT head/brain w/o dye	70450	\$ 125.02	3%	\$ 169.46	20%
CT abdomen & pelvis w/o contrast	74176	\$ 218.88	4%	\$ 330.63	7%
MRI lumbar spine w/o dye	72148	\$ 246.10	10%	\$ 371.08	4%
MRI brain stem w/o & w/dye	70553	\$ 397.27	4%	\$ 609.70	3%

**Notes**

1. 2014 Medicare Physician Fee Schedule non-facility total payment (global).
2. 2014 Outpatient Prospective Payment System and the professional component of the physician fee schedule.
3. Of all advanced imaging in the setting. Values are rounded.

**Other diagnostic radiology**

At a composite level, other diagnostic radiology has a five-year annualized trend in the AMPB of (1.2%). Figure 9 illustrates cost and utilization trend metrics by year as well as the five-year trend rate.

**Figure 9: Other Diagnostic Radiology Composite Trends**

American Medical Association Medicare 5% Sample Fee-for-Service Population						
	CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	5-year Annualized Trend
<b>AMPB</b>	\$ 17.26	\$ 17.67	\$ 16.82	\$ 17.67	\$ 16.47	(1.2%)
<b>Utilization per 1,000</b>	3,768.7	3,857.5	3,640.0	3,679.5	3,643.1	(0.8%)
<b>Allowed Charges per Unit</b>	\$ 54.96	\$ 54.97	\$ 55.45	\$ 57.63	\$ 54.25	(0.3%)
<b>Percentage Receiving</b>	59.96%	60.43%	59.88%	59.79%	59.20%	(0.3%)
<b>Total Allowed Cost *</b>	\$ 6,485.7	\$ 6,603.8	\$ 6,362.2	\$ 6,758.8	\$ 6,374.0	(0.4%)

It should be noted that allowed charges per unit as reported in Figure 9 may be influenced by service mix and the setting where the service was provided. Figure 10 has been developed to facilitate an understanding of the variances that are due to each of these items. Figure 10 illustrates what Medicare allows for a service delivered in the outpatient hospital setting versus the physician office setting and the proportion of the total diagnostic radiology services within each setting represented by that procedure. The services depicted include the top five services by total allowed charges in calendar year 2012 where the service is paid under the Medicare Physician Fee Schedule and the Outpatient Prospective Payment System.

**Figure 10: Top 5 Other Diagnostic Radiology Fees by Site of Service**

American Medical Association Medicare 5% Sample Fee-for-Service Population					
Service	Code	What Medicare Allows in the Office Setting <sup>1</sup>	Procedures as a Percentage of Total Office Setting <sup>3</sup>	What Medicare Allows in the Hospital Outpatient Setting <sup>2</sup>	Procedures as a Percentage of Total Outpatient Hospital Setting <sup>3</sup>
Ht muscle image spect mult	78452	\$ 486.47	4%	\$ 1,233.50	2%
Chest x-ray 2 view frontal & lateral	71020	\$ 31.17	10%	\$ 68.46	15%
Chest x-ray 1 view frontal	71010	\$ 24.00	<1%	\$ 66.66	9%
DXA bone density axial	77080	\$ 49.44	5%	\$ 100.55	3%
Us exam abdom complete	76700	\$ 142.93	1%	\$ 175.77	1%

**Notes:**

1. 2014 Medicare physician fee schedule non-facility total payment (global)
2. 2014 outpatient prospective payment system
3. Values are rounded

## **INTENSITY MODULATED RADIATION THERAPY (IMRT)**

Intensity modulated radiation therapy (IMRT) is a form of radiation therapy used to treat tumors, cancerous or benign. IMRT is a newer therapy that has been adopted because the radiation can be focused narrowly to the specific area or tumor requiring intervention.

At a composite level, IMRT services have a five-year annualized trend in the AMPB of 2.5%. Figure 11 illustrates utilization and cost metrics for IMRT from 2008 through 2012.

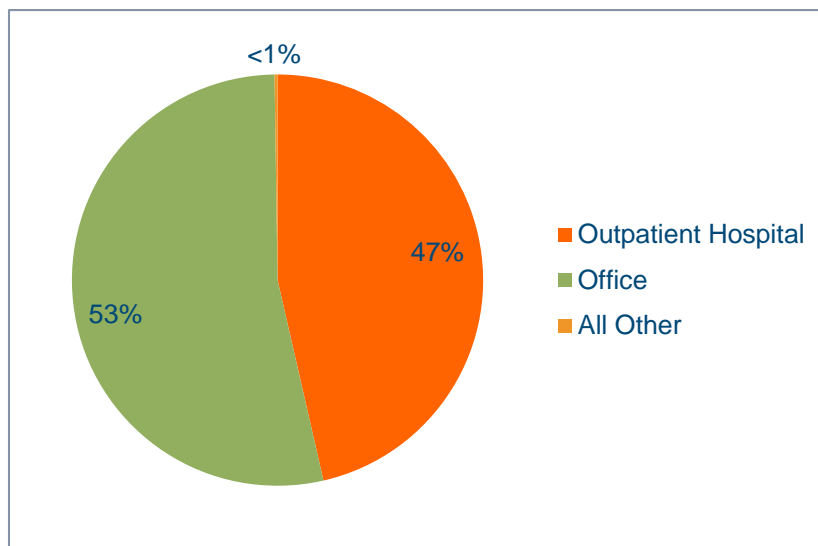
**Figure 11: IMRT Composite Trends**

American Medical Association Medicare 5% Sample Fee-for-Service Population						
	CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	5-year Annualized Trend
<b>AMPB</b>	\$ 3.37	\$ 3.44	\$ 3.71	\$ 4.18	\$ 3.72	2.5%
<b>Utilization per 1,000</b>	79.7	84.1	91.4	98.3	93.4	4.0%
<b>Allowed Charges per Unit</b>	\$ 507.40	\$ 490.84	\$ 487.09	\$ 510.27	\$ 477.94	(1.5%)
<b>Percentage Receiving</b>	0.27%	0.29%	0.29%	0.31%	0.31%	3.5%
<b>Total Allowed Cost *</b>	\$ 1,264.6	\$ 1,284.2	\$ 1,403.3	\$ 1,598.3	\$ 1,438.3	3.3%

\* Value in millions; extrapolated to 100% of fee-for-service population.

Figure 12 illustrates the percentage of the 2012 allowed charges by site of service. IMRT is primarily delivered in the office and outpatient hospital settings.

**Figure 12: IMRT by Site of Service (CY 2012 % of Allowed Charges)**



Figures 13 and 14 illustrate the trend metrics for IMRT by site of service. IMRT in the outpatient hospital setting has a five-year trend in AMPB of approximately 6.6% while the office setting has a (0.3%) trend in AMPB.

**Figure 13: IMRT Outpatient Hospital Trends**

American Medical Association Medicare 5% Sample Fee-for-Service Population						
	CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	5-year Annualized Trend
<b>AMPB</b>	\$ 1.34	\$ 1.45	\$ 1.48	\$ 1.77	\$ 1.73	6.6%
<b>Utilization per 1,000</b>	41.2	41.7	43.5	48.1	47.3	3.5%
<b>Allowed Charges per Unit</b>	\$ 390.29	\$ 417.27	\$ 408.28	\$ 441.58	\$ 438.90	3.0%
<b>Percentage Receiving</b>	0.14%	0.15%	0.15%	0.16%	0.16%	3.4%
<b>Total Allowed Cost *</b>	\$ 503.5	\$ 542.3	\$ 558.7	\$ 678.7	\$ 668.0	7.3%

\* Value in millions; extrapolated to 100% of fee-for-service population.

**Figure 14: IMRT Office Trends**

American Medical Association Medicare 5% Sample Fee-for-Service Population						
	CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	5-year Annualized Trend
<b>AMPB</b>	\$ 2.00	\$ 1.96	\$ 2.21	\$ 2.39	\$ 1.98	(0.3%)
<b>Utilization per 1,000</b>	37.9	41.9	47.5	49.9	45.9	4.9%
<b>Allowed Charges per Unit</b>	\$ 633.25	\$ 561.34	\$ 558.32	\$ 574.75	\$ 517.65	(4.9%)
<b>Percentage Receiving</b>	0.13%	0.14%	0.16%	0.16%	0.15%	3.6%
<b>Total Allowed Cost *</b>	\$ 749.5	\$ 734.0	\$ 837.9	\$ 913.9	\$ 768.0	0.6%

\* Value in millions; extrapolated to 100% of fee-for-service population.

### Other therapeutic radiology

At a composite level, other therapeutic radiology has a five-year annualized trend in the AMPB of 0.5%. Figure 15 illustrates cost and utilization trend metrics by year as well as the five-year trend rate.

**Figure 15: Other Therapeutic Radiology Composite Trends**

American Medical Association Medicare 5% Sample Fee-for-Service Population						
	CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	5-year Annualized Trend
<b>AMPB</b>	\$ 5.90	\$ 6.07	\$ 5.79	\$ 6.06	\$ 6.03	0.5%
<b>Utilization per 1,000</b>	409.9	399.7	381.0	379.3	373.4	(2.3%)
<b>Allowed Charges per Unit</b>	\$ 172.73	\$ 182.24	\$ 182.36	\$ 191.72	\$ 193.79	2.9%
<b>Percentage Receiving</b>	2.55%	2.69%	2.88%	3.03%	3.27%	6.4%
<b>Total Allowed Cost *</b>	\$ 2,216.9	\$ 2,269.1	\$ 2,189.8	\$ 2,318.1	\$ 2,333.8	1.3%

\* Value in millions; extrapolated to 100% of fee-for-service population.

It should be noted that allowed charges per unit as reported in Figure 15 may be influenced by service mix and the setting where the service was provided. Figure 16 has been developed to facilitate an understanding of the variances that are due to each of these items. Figure 16 illustrates what Medicare allows for a service delivered in the outpatient hospital setting versus the physician office setting and the proportion of the total services within each setting represented by that procedure. The services depicted include the top five services by total allowed charges in calendar year 2012 where the service is paid under the Medicare Physician Fee Schedule and the Outpatient Prospective Payment System.

**Figure 16: Top 5 Other Therapeutic Radiology Fees by Site of Service**

American Medical Association Medicare 5% Sample Fee-for-Service Population					
Service	Code	What Medicare Allows in the Office Setting <sup>1</sup>	Procedures as a Percentage of Total Office Setting <sup>3</sup>	What Medicare Allows in the Hospital Outpatient Setting <sup>2</sup>	Procedures as a Percentage of Total Outpatient Hospital Setting <sup>3</sup>
Radiation treatment delivery	77413	\$ 224.25	12%	\$ 192.28	17%
Radiation treatment delivery	77414	\$ 252.55	10%	\$ 192.28	15%
Radiation treatment aid(s)	77334	\$ 150.46	4%	\$ 277.61	5%
Radiation therapy dose plan	77300	\$ 67.35	5%	\$ 146.89	5%
Set radiation therapy field	77290	\$ 507.25	3%	\$ 392.33	3%

**Notes**

1. 2014 Medicare Physician Fee Schedule non-facility total payment (global).
2. 2014 Outpatient Prospective Payment System and the professional component of the physician fee schedule.
3. Values are rounded.

## VI. PHYSICAL THERAPY

Physical therapy is the treatment of disease and injury through physical methods, such as massage and exercise. Appendix 1 includes a full listing of CPT codes used to identify physical therapy services.

The four-year composite AMPB trend for physical therapy services is 1.1%. We used four years of data for our analysis of physical therapy experience, which is due to a data anomaly in 2008. The Medicare 5% Sample did not contain home health agency billings in 2008. Figure 17 illustrates utilization and cost metrics for physical therapy from 2009 through 2012.

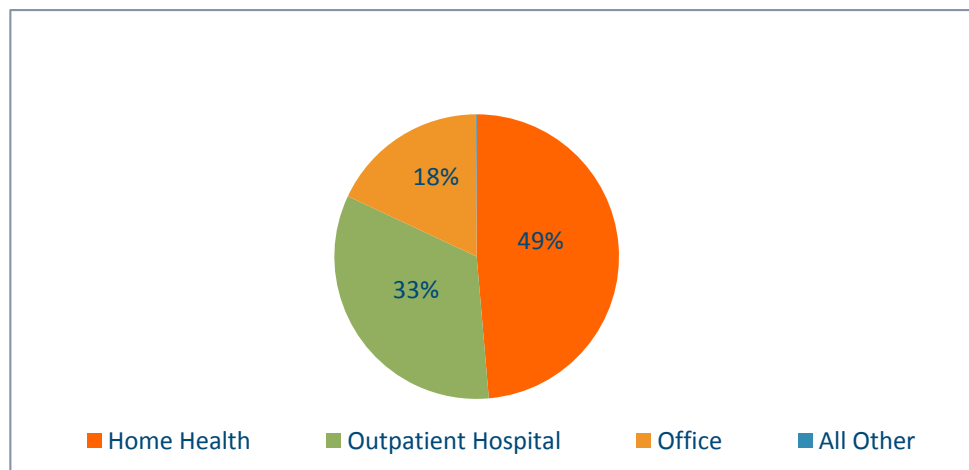
**Figure 17: Physical Therapy Composite Trends**

American Medical Association Medicare 5% Sample Fee-for-Service Population					
	CY 2009	CY 2010	CY 2011	CY 2012	4-year Annualized Trend
<b>AMPB</b>	\$ 36.50	\$ 39.04	\$ 38.21	\$ 37.69	1.1%
<b>Utilization per 1,000</b>	6,535.1	6,483.4	6,697.3	6,729.5	1.0%
<b>Allowed Charges per Unit</b>	\$ 67.02	\$ 72.26	\$ 68.46	\$ 67.21	0.1%
<b>Percentage Receiving</b>	19.62%	20.02%	20.29%	20.70%	1.8%
<b>Total Allowed Cost *</b>	\$ 13,641.9	\$ 14,769.2	\$ 14,613.9	\$ 14,582.5	2.2%

\* Value in millions; extrapolated to 100% of fee-for-service population.

Figure 18 illustrates the percentage of CY 2012 AMPB by site of service. Physical therapy is primarily delivered in the home health, outpatient hospital, and office settings.

**Figure 18: Physical Therapy by Site of Service (CY 2012% of allowed charges)**



Figures 19, 20, and 21 illustrate the trend metrics for physical therapy by site of service. Physical therapy in the outpatient hospital and office settings have similar four-year trends in AMPB of approximately 2.7% and 2.8%, respectively. The home health setting has a slightly negative trend at (0.5%).

**Figure 19: Physical Therapy Home Health Trends**

American Medical Association Medicare 5% Sample Fee-for-Service Population					
	CY 2009	CY 2010	CY 2011	CY 2012	4-year Annualized Trend
<b>AMPB</b>	\$ 18.63	\$ 20.55	\$ 19.41	\$ 18.33	(0.5%)
<b>Utilization per 1,000</b>	1,144.2	1,228.6	1,212.4	1,190.8	1.3%
<b>Allowed Charges per Unit</b>	\$ 195.39	\$ 200.72	\$ 192.11	\$ 184.72	(1.9%)
<b>Percentage Receiving</b>	6.52%	6.84%	6.89%	6.87%	1.8%
<b>Total Allowed Cost *</b>	\$ 6,963.8	\$ 7,773.1	\$ 7,424.7	\$ 7,092.2	0.6%

\* Value in millions; extrapolated to 100% of fee-for-service population.

**Figure 20: Physical Therapy Outpatient Hospital Trends**

American Medical Association Medicare 5% Sample Fee-for-Service Population					
	CY 2009	CY 2010	CY 2011	CY 2012	4-year Annualized Trend
<b>AMPB</b>	\$ 11.62	\$ 11.87	\$ 12.10	\$ 12.57	2.7%
<b>Utilization per 1,000</b>	3,248.8	3,081.6	3,232.5	3,303.9	0.6%
<b>Allowed Charges per Unit</b>	\$ 42.92	\$ 46.22	\$ 44.92	\$ 45.66	2.1%
<b>Percentage Receiving</b>	8.70%	8.73%	8.86%	9.21%	1.9%
<b>Total Allowed Cost *</b>	\$ 4,343.3	\$ 4,491.0	\$ 4,626.9	\$ 4,863.2	3.8%

\* Value in millions; extrapolated to 100% of fee-for-service population.

**Figure 21: Physical Therapy Office Trends**

American Medical Association Medicare 5% Sample Fee-for-Service Population					
	CY 2009	CY 2010	CY 2011	CY 2012	4-year Annualized Trend
<b>AMPB</b>	\$ 6.22	\$ 6.59	\$ 6.67	\$ 6.76	2.8%
<b>Utilization per 1,000</b>	2,133.3	2,163.9	2,243.3	2,226.1	1.4%
<b>Allowed Charges per Unit</b>	\$ 34.99	\$ 36.55	\$ 35.68	\$ 36.44	1.4%
<b>Percentage Receiving</b>	7.12%	7.29%	7.43%	7.66%	2.5%
<b>Total Allowed Cost *</b>	\$ 2,324.2	\$ 2,492.6	\$ 2,550.4	\$ 2,615.1	4.0%

\* Value in millions; extrapolated to 100% of fee-for-service population.

## VII. PATHOLOGY AND LABORATORY

Pathology services primarily focus on analyzing and testing tissue and body fluids to diagnose a disease. Appendix 1 includes a complete listing of the codes used to identify the broad category of laboratory and pathology.

At a composite level, pathology and laboratory has a five-year annualized trend in the AMPB of 5.9%. Figure 22 illustrates cost and utilization trend metrics by year as well as the five-year trend rate.

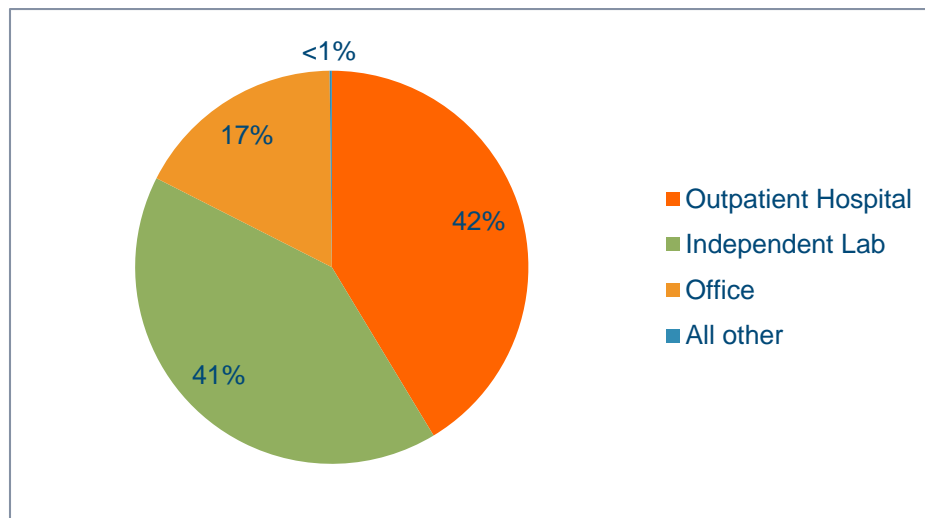
**Figure 22: Pathology and Laboratory Composite Trends**

American Medical Association Medicare 5% Sample Fee-for-Service Population						
	CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	5-year Annualized Trend
<b>AMPB</b>	\$ 24.19	\$ 27.10	\$ 28.21	\$ 29.09	\$ 30.44	5.9%
<b>Utilization per 1,000</b>	20,126.4	20,950.5	21,425.6	21,688.4	22,001.3	2.3%
<b>Allowed Charges per Unit</b>	\$ 14.42	\$ 15.52	\$ 15.80	\$ 16.10	\$ 16.60	3.6%
<b>Percentage Receiving</b>	78.93%	79.93%	79.99%	80.02%	79.97%	0.3%
<b>Total Allowed Cost *</b>	\$ 9,087.7	\$ 10,127.6	\$ 10,672.6	\$ 11,124.1	\$ 11,777.3	6.7%

\* Value in millions; extrapolated to 100% of fee-for-service population.

The majority of pathology and laboratory services are delivered by independent labs, physician offices, and outpatient hospital departments. Figure 23 illustrates the percentage of 2012 allowed charges by site of service.

**Figure 23: Pathology and Laboratory by Site of Service (CY 2012 % of allowed charges)**





Figures 24, 25, and 26 illustrate the trend metrics by each site of service for the pathology and laboratory category. Independent laboratory has the highest five-year annualized AMPB trend at 7.1%. The five-year annualized trend for the AMPB in the outpatient hospital setting is 5.4%. The office setting has the lowest trend for the AMPB at 4.4%

**Figure 24: Pathology and Laboratory Outpatient Hospital Trends**

American Medical Association Medicare 5% Sample Fee-for-Service Population						
	CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	5-year Annualized Trend
<b>AMPB</b>	\$ 10.18	\$ 11.16	\$ 11.53	\$ 12.00	\$ 12.58	5.4%
<b>Utilization per 1,000</b>	8,516.2	8,911.1	9,158.8	9,380.9	9,567.3	3.0%
<b>Allowed Charges per Unit</b>	\$ 14.34	\$ 15.03	\$ 15.11	\$ 15.35	\$ 15.78	2.4%
<b>Percentage Receiving</b>	48.72%	49.70%	50.15%	50.63%	51.03%	1.2%
<b>Total Allowed Cost *</b>	\$ 3,823.4	\$ 4,169.9	\$ 4,360.2	\$ 4,588.9	\$ 4,869.2	6.2%

\* Value in millions; extrapolated to 100% of fee-for-service population.

**Figure 25: Pathology and Laboratory Independent Lab Trends**

American Medical Association Medicare 5% Sample Fee-for-Service Population						
	CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	5-year Annualized Trend
<b>AMPB</b>	\$ 9.53	\$ 10.86	\$ 11.46	\$ 11.85	\$ 12.52	7.1%
<b>Utilization per 1,000</b>	6,734.8	7,079.2	7,361.3	7,504.9	7,766.9	3.6%
<b>Allowed Charges per Unit</b>	\$ 16.98	\$ 18.41	\$ 18.68	\$ 18.95	\$ 19.34	3.3%
<b>Percentage Receiving</b>	47.49%	48.63%	48.80%	48.81%	48.48%	0.5%
<b>Total Allowed Cost *</b>	\$ 3,579.3	\$ 4,057.3	\$ 4,333.7	\$ 4,532.9	\$ 4,844.5	7.9%

\* Value in millions; extrapolated to 100% of fee-for-service population.

**Figure 26: Pathology and Laboratory Office Trends**

American Medical Association Medicare 5% Sample Fee-for-Service Population						
	CY 2008	CY 2009	CY 2010	CY 2011	CY 2012	5-year Annualized Trend
<b>AMPB</b>	\$ 4.44	\$ 5.03	\$ 5.18	\$ 5.19	\$ 5.28	4.4%
<b>Utilization per 1,000</b>	4,807.9	4,888.9	4,833.5	4,726.4	4,590.3	(1.2%)
<b>Allowed Charges per Unit</b>	\$ 11.08	\$ 12.35	\$ 12.86	\$ 13.18	\$ 13.80	5.6%
<b>Percentage Receiving</b>	49.09%	49.66%	49.24%	48.83%	48.27%	(0.4%)
<b>Total Allowed Cost *</b>	\$ 1,668.0	\$ 1,879.0	\$ 1,958.5	\$ 1,984.5	\$ 2,042.1	5.2%

\* Value in millions; extrapolated to 100% of fee-for-service population.

## **APPENDIX 1: ANALYSIS CODES FOR RESEARCH**

**American Medical Association**

**Appendix 1: Analysis Codes for Research**

<b><u>Pathology Procedure Codes</u></b>		<b><u>Pathology Revenue Codes</u></b>
88304	G0430	0300
88305	G0431	0301
88307	G0434	0302
88312	G9143	0303
88313	P2028	0304
88342	P2029	0305
36415	P2031	0306
36416	P2033	0307
80047 - 81099	P2038	0309
81200	P7001	0310
81205 - 81229	Q0111	0311
81240 - 81251	Q0112	0312
81255 - 81319	Q0113	0314
81330 - 81408	Q0114	0319
82000 - 82776	Q0115	0923
82784 - 86148	Q3031	0925
86155 - 86431	S2120	0971
86481 - 86688	S3600	
86692 - 86698	S3601	
86704 - 86710	S3618	
86713 - 86826	S3620 - S3630	
86849 - 87385	S3650 - S3890	
87400 - 87533	S9529	
87539 - 89622		
87640 - 87906		
87999 - 88302		
88309		
88311		
88314 - 88334		
88346 - 88372		
88380 - 89240		
ATP02 - ATP23		
G0027		
G0103		
G0265		
G0266		
G0306		
G0307		
G0328		
G0394		

**American Medical Association**

**Appendix 1: Analysis Codes for Research**

<u>Advanced Imaging Procedure Codes</u>		<u>Advanced Imaging Revenue Codes</u>
70450	76094	0350
70551	76355	0351
70553	76360	0352
71250	76362	0359
71260	76370	0404
71275	76380	0610
72141	76390	0611
72148	76393	0612
72158	76394	0614
73221	76400	0615
73721	76497	0616
74176	76498	0618
74177	77011 - 77013	0619
74178	77021 - 77022	
77014	77058	
78815	77059	
70336	77078	
70460 - 70549	77079	
70552	77084	
70554 - 70559	78459	
71270	78491	
71550 - 71555	78492	
72125 - 72133	78608	
72142 - 72147	78609	
72149 - 72157	78811 - 78816	
72159	G0219	
72191 - 72198	G0235	
72292	G0252	
73200 - 73220	G0288	
73222 - 73225	S8035	
73700 - 73720	S8037	
73722 - 73725	S8042	
74150 - 74175	S8085	
74181 - 74185	S8092	
74261 - 74263		
75552 - 75574		
75635		
76070		
76071		
76093		

**American Medical Association**

**Appendix 1: Analysis Codes for Research**

**Physical Therapy  
Procedure Codes**

97001 - 97546  
G0283  
92507  
92508  
97750 - 97799  
98925 - 98929  
G0281  
G0282  
G0295  
G0329  
G9041 - G9044  
S8940  
S8990

**Physical Therapy  
Revenue Codes**

0420  
0421  
0422  
0423  
0424  
0429  
0430  
0431  
0432  
0433  
0434  
0439  
0440  
0441  
0442  
0443  
0444  
0449  
0470  
0471  
0472  
0479  
0530  
0531  
0539  
0930  
0931  
0932  
0951  
0952  
0977  
0978  
0979

**Other Therapeutic  
Radiology Procedure  
Codes**

77418  
75900 - 75902  
75945 - 75954  
75960 - 75968  
75978  
76936  
76941  
76942  
76946 - 76965  
77261 - 77417  
77422 - 77799  
79005 - 79999  
S8030  
S8049  
S8055

**American Medical Association**

**Appendix 1: Analysis Codes for Research**

**Other Therapeutic  
Radiology Revenue  
Codes**

0330  
0333  
0339  
0342  
0344  
0973  
0974

**Other Diagnostic  
Radiology Procedure  
Codes**

70010 - 70332  
70350 - 70390  
71010 - 71130  
72010 - 72120  
72170  
72190  
72200 - 72291  
72295 - 73140  
73500 - 73660  
74000 - 74022  
74190 - 74260  
74270 - 74775  
75600 - 75630  
75650 - 75898  
75940  
75956 - 75959  
75970  
75980 - 75996  
75998  
75998  
76000  
76001  
76003  
76005  
76006  
76010  
76012 - 76066  
76075 - 76078  
76080  
76082 - 76092  
76095  
76096  
76098 - 76377  
76496  
76499  
76506 - 76776  
76778  
76800 - 76932

76937  
76940  
76945  
76970 - 76977  
76986  
76998 - 77003  
77031 - 77057  
77071 - 77077  
77080 - 77083  
77421  
78000 - 78011  
78015 - 78070  
78075  
78099  
78102 - 78458  
78460 - 78483  
78494 - 78740  
78760  
78761 - 78808  
78890 - 78999  
G0130  
G0202  
G0204  
G0206  
G0275  
G0278  
G0389  
Q0092  
R0070  
R0075  
R0076  
S8080  
S9024

**American Medical Association**

**Appendix 1: Analysis Codes for Research**

**Other Diagnostic  
Radiology Revenue  
Codes**

0320

0321

0322

0323

0324

0329

0340

0341

0343

0349

0400

0401

0402

0403

0409

0972