

REVIEW

Multiple Streams Framework Comparison of Anesthesiology Medicare Payment Policies in the United States Congress

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Academic Anesthesia

In 2007, anesthesiology policy was a salient topic in the House of Representatives, with two bills introduced within nine days of each other: the Medicare Access to Rural Anesthesiology Act of 2007 (MARA) and the Medicare Anesthesiology Teaching Funding Restoration Act of 2007 (MATFRA). A key distinction between these proposals was the presence of competing policy approaches addressing anesthesiology reimbursement and workforce considerations, with the MATFRA regarded as more technically feasible and cost-effective. Kingdon's (1984) Multiple-Streams Framework explains why MATFRA passed Congress, and MARA has failed to progress.

Introduction

In 2007, anesthesiology policy was a salient topic in the House of Representatives, with two bills introduced within nine days of each other: the Medicare Access to Rural Anesthesiology Act of 2007 (MARA) and the Medicare Anesthesiology Teaching Funding Restoration Act of 2007 (MATFRA).¹ A key distinction between these proposals was the presence of competing policy approaches addressing anesthesiology reimbursement and workforce considerations, with the MATFRA regarded as more technically feasible and cost-effective.

MATFRA was introduced on April 26, 2007, with 129 co-sponsors in the House and 30 co-sponsors in the Senate, while MARA was introduced on April 17, 2007, with 56 co-sponsors, the highest of any year it was introduced (see [Table 1](#)). The latter was not presented to the Senate during this time. MARA has since been introduced to the United States Congress 10 times since 2007, and most recently in 2024.² It has been introduced primarily in the House of Representatives, with a single introduction in the Senate. The bill has received bipartisan support across multiple legislative cycles.³

However, MATFRA gained momentum through successful committee introductions and markup sessions before being integrated into the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA). Consequently, the Centers for Medicare and Medicaid Services (CMS) released the updated payment guidelines for teaching physician anesthesiologists under the Medicare Physician Fee Schedule on November 20, 2009.⁴

Table 1. Legislative Characteristics of the Two Anesthesiology Bills

Key Legislative Characteristics	Medicare Access to Rural Anesthesiology Act	Medicare Anesthesiology Teaching Funding Restoration Act
First introduced	2006	2006
2007 introduction date	April 17, 2007	April 26, 2007
Chamber introduced (2007)	House of Representatives	House and Senate
Number of co-sponsors (2007)	56 (House)	129 (House), 30 (Senate)
Policy purpose	Provide Medicare reasonable-cost payment for anesthesiologists practicing in rural hospitals	Restore Medicare funding for anesthesiology teaching programs
Frequency of introduction	Introduced 10 times between 2006 and 2024	Introduced multiple times; less frequently than the Rural Access bill.
Bipartisan support	Yes	Yes
Legislative outcome	Not enacted into law	Not enacted as a standalone bill; key provisions incorporated into MIPPA (2008)

The latest bill stated the following: “This bill requires the Centers for Medicare & Medicaid Services (CMS) to provide Medicare payment on a reasonable-cost basis for anesthesia services furnished by an anesthesiologist in a rural hospital. Specifically, the CMS shall provide payment for such services in the same manner as payment is provided under current law for services furnished in a rural hospital by a certified registered nurse anesthetist.”³ The bill started with 3 co-sponsors in 2006, then peaked to 56 co-sponsors in 2007, and ended with 21 co-sponsors in 2024. Kingdon’s (1984) *Multiple-Streams Framework* explains why MATFRA’s provisions were ultimately enacted, and MARA has failed to progress.⁵

Multiple Streams Framework Literature

The policy making process begins with agenda setting. In Kingdon’s (1984) *Multiple-Streams Framework*, windows of opportunity open when the problem, policy, and politics streams intersect.⁴ First, in the problem stream, there needed to be evidence that a problem exists. The problem stream includes external actors such as the public and the media and focuses on how issues are conceptualized and defined.

Second, viable solutions must be available to address the identified problem. Legislators communicate with bureaucrats and subject matter experts to inform policy formulation and design, assessing technical feasibility, potential impact, and resource requirements. Political entrepreneurs play a pivotal role in this stream by developing and promoting policy proposals. These individuals facilitate the alignment of problems, solutions, and political conditions, thereby increasing the likelihood of policy adoption.⁶ The Policy entrepreneurs are also responsible for coupling across streams, advocating for specific proposals, and leveraging symbols, language, metaphors, and stories

to advance their policy goals⁷ Third, in the politics stream, the broader political environment must support action on proposed policies. Policy changes arise from the legislature's interactions with interest groups. Key considerations include upcoming elections, public sentiment, and the evolving power dynamics among political stakeholders.

Multiple Streams Framework and Rural Health

MSF has been utilized over 90 times on PubMed; however, none have specifically focused on anesthesiology or Medicare reimbursement policy. There have been 4 publications on rural health in areas such as urban family physician programs in Iran, India's National Rural Health Mission (NRHM), scaling up population health interventions in Australia, and the universalization of water supply in rural Brazil. All four publications are within the past five years, suggesting increasing application of MSF to rural policy contexts.⁸⁻¹¹

Cairney and Jones (2016) noted that MSF has historically been applied to a limited number of policy domains, including health and transportation, "however, it is a growing feature of more practitioner-focused studies, in areas such as health, which seek simple lessons from policy studies without a detailed focus on policy theory."¹² Rural Health issues have been recently examined through public policy literature, such as Street-Level Bureaucracy, to help retain staff and prevent staff burnout.¹³ In this paper, we aim to apply the Multiple Streams Framework to compare two anesthesiology-related Medicare policies, focusing on factors that contributed to the passage of MATFRA and the lack of progress of MARA. Prior literature has similarly used MSF to compare related policy proposals within the same domain.¹⁴

Multiple Streams Framework Comparison

Problem Stream

Without a "focusing event" (e.g., a disaster, crisis, or scandal) to force attention, issues may sit on the agenda for years. MATFRA was prompted by a clear policy-induced financial disruption, rooted in a 1995 Medicare rule that reduced payments to teaching anesthesiologists by approximately 50%. By the mid-2000s, this triggered a measurable crisis, with residency programs losing an average of \$400,000 annually. These losses posed a measurable threat to the stability of anesthesiology training programs and the future physician workforce.¹⁵

In contrast, MARA has not advanced, as rural anesthesia workforce challenges are often framed as a chronic issue rather than an acute crisis requiring immediate interventions. Moreover, GAO reports suggest that CRNAs provide comparable access and cost-effective anesthesia care.¹⁶ These findings make it difficult for advocates to maintain that the situation

constitutes a legislative emergency. However, these access-based assessments may not fully capture differences in patient acuity, procedural complexity, or availability of physician anesthesiologists for high-risk surgical care in rural settings.¹⁷ Additionally, the problem stream is inherently competitive, with numerous issues vying for policymakers' attention at any given time.¹⁸

Policy Stream

The Teaching Restoration Act focused on restoring prior reimbursement levels, offering a clearly defined and administratively straightforward policy solution. The proposal aimed at returning to pre-1995 payment rules, achieving parity with other teaching physicians, and addressing what was perceived as a regulatory inconsistency.

Several policy entrepreneurs contributed to advancing this proposal, including Dr. James Cottrell, who, during his 2003 tenure as the American Society of Anesthesiologists (ASA) President, spearheaded a pivotal shift in the specialty's strategic direction. After years of unsuccessful regulatory appeals to CMS regarding the '50 percent rule,' he and his colleagues concluded that restoring funding would require a direct legislative push through Congress rather than further administrative negotiation.^{4,19} In Congress, Senator Jay Rockefeller (D-WV) and Representative Xavier Becerra (D-CA) acted as the political entrepreneurs who introduced and championed the bill in their respective chambers. Sustained advocacy efforts by the ASA successfully framed the issue as a threat to the long-term anesthesiology workforce, strengthening alignment within the policy stream. In contrast, MARA proposes a new expenditure through cost-based reimbursement mechanisms, which is already uniquely carved out for Certified Registered Nurse Anesthetists (CRNAs). This distinction likely contributed to greater legislative hesitation, as the proposal raises broader questions regarding payment design and precedent for specialty-specific reimbursement pathways⁴

Political Stream

MATFRA benefited from a cohesive and aligned advocacy coalition, including the ASA, medical schools, and hospital associations. Importantly, there was minimal opposition from CRNA organizations, as the policy did not directly affect their reimbursement or scope of practice. However, MARA has stalled due to inter-professional opt-in and opt-out policies.

Recent literature has examined Medicare's requirement for physician supervision of nurse anesthetists and state-level opt-out policies, with 25 states and Guam having opted out of the federal supervision requirement for CRNAs.²⁰ However, evidence suggests that opt-out policies alone have not been sufficient to address anesthesia workforce shortages or meaningfully

Table 2. Multiple Streams Framework Comparison Two Anesthesiology Bills

MSF Streams	Medicare Access to Rural Anesthesiology Act	Medicare Anesthesiology Teaching Funding Restoration Act
Problem Stream	Lacked Focusing Event	Critical 'focusing event' rooted in a 1995 Medicare policy that slashed payments to teaching anesthesiologists by 50%.
Policy Stream	Would be a new expense, which is already uniquely carved out for CRNAs.	The policy solution was simplified to return to the pre-1995 payment rules to achieve parity with other teaching.
Political Stream	The Rural Access Act has stalled due to inter-professional opt-in and opt-out policies.	The Teaching Restoration Act had a unified advocacy coalition with the ASA, medical schools, and hospital associations. In addition, there was limited opposition reported from nurse anesthetist groups since they wouldn't be impact from physicians receiving their restored teaching funding.

improve access to care in rural settings, and additional policy measures may be necessary.²⁰⁻²² However, CRNAs play a significant role in rural health care, and the issue of opt-in and opt-out policies still remains debated.

Conclusion

In conclusion, the divergent paths of these two legislative efforts illustrate that policy success depends on the alignment of Kingdon's three streams. MATFRA succeeded because it transformed a chronic financial burden into an urgent crisis and well-defined problem, supported by a clear policy solution and a unified political coalition. In contrast, MARA has not advanced due to the absence of a clear focusing event, greater structural complexity within Medicare reimbursement policy, and persistent inter-professional disagreement regarding anesthesia care models. Additionally, variability in how the underlying policy problem is defined, whether as an issue of access, workforce distribution, or care model, continues to limit legislative momentum. Ultimately, the Rural Access Act will require alignment across the problem, policy, and political streams to progress in future legislative cycles.

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