

PERSPECTIVES IN CLINICAL GASTROENTEROLOGY AND HEPATOLOGY

Shifting Away From Fee-For-Service: Alternative Approaches to Payment in Gastroenterology



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Fee-for-service payments encourage high-volume services rather than high-quality care. Alternative payment models (APMs) aim to realign financing to support high-value services. The 2 main components of gastroenterologic care, procedures and chronic care management, call for a range of APMs. The first step for gastroenterologists is to identify the most important conditions and opportunities to improve care and reduce waste that do not require financial support. We describe examples of delivery reforms and emerging APMs to accomplish these care improvements. A bundled payment for an episode of care, in which a provider is given a lump sum payment to cover the cost of services provided during the defined episode, can support better care for a discrete procedure such as a colonoscopy. Improved management of chronic conditions can be supported through a per-member, per-month (PMPM) payment to offer extended services and care coordination. For complex chronic conditions such as inflammatory bowel disease, in which the gastroenterologist is the principal care coordinator, the PMPM payment could be given to a gastroenterology medical home. For conditions in which the gastroenterologist acts primarily as a consultant for primary care, such as noncomplex gastroesophageal reflux or hepatitis C, a PMPM payment can support effective care coordination in a medical neighborhood delivery model. Each APM can be supplemented with a shared savings component. Gastroenterologists must engage with and be early leaders of these redesign discussions to be prepared for a time when APMs may be more prevalent and no longer voluntary.

Keywords: Bundled Payments; Per-Member, Per-Month; Medical Home; Health Care Reform.

High-value gastroenterology care is critical in improving quality and reducing health care costs as part of health reform. The National Institutes of Health estimate that 60 to 70 million people are affected by digestive diseases in the United States, costing \$141.8 billion in 2004.¹ Medicare Part B spending for gastroenterology is \$1.52 billion annually, approximately 2% of Part B fee-for-service (FFS) spending.² This figure is much higher when ancillary services related to gastroenterologic diseases, influenced by gastroenterologists but not coded under gastroenterology, are taken into account. For example, colorectal cancer (CRC) treatment cost Medicare \$14.14 billion in 2010.³

Gastroenterology costs are driven by a few main procedures and conditions. Endoscopic procedures account for a large proportion of gastroenterologic services. In 2009, 18.6 million endoscopic procedures were performed in the United States, amounting to \$32.4 billion in outpatient costs.⁴ CRC screening is the most common screening test in America and can vary greatly in cost based on geography and setting.⁵ Medicare beneficiaries underwent more than 3.3 million colonoscopies in 2010. Half of all colonoscopies were performed for CRC screening and surveillance.⁴ Chronic conditions such as inflammatory bowel disease (IBD) and gastroesophageal reflux disease (GERD) also are major cost drivers in gastroenterology. IBD, which includes Crohn's disease and ulcerative colitis, affects more than 1 million people in the United States and is responsible for \$1.8 billion in direct costs.^{6,7} Crohn's disease is responsible for the majority of IBD costs and represents \$1.07 billion in direct annual medical costs.⁸ GERD, which is the leading gastroenterology-related diagnosis during outpatient visits, is responsible for \$12.1 billion in direct costs and affects 20% of Americans.^{8,9} Although not one of the top cost drivers in the past, hepatitis C, which affects approximately 3 to 4 million Americans and is the leading cause of liver transplants in the United States, will become increasingly relevant for costs because of the high expense of improved drug therapies, which alone accounted for \$1.1 billion in direct costs.^{7,8,10-12}

With gastrointestinal (GI)-related disorders and costs increasing, opportunities to improve care and avoid unnecessary spending have become more critical. Such opportunities include more effective use of CRC screening, reducing significant variations in upper GI endoscopy rates

Abbreviations used in this paper: ACO, Accountable Care Organization; AGA, American Gastroenterological Association; APM, alternative payment model; ASC, ambulatory surgical center; BPCI, Bundled Payments for Care Improvement; CRC, colorectal cancer; ECHO, Extension for Community Healthcare Outcomes; FFS, fee-for-service; GERD, gastroesophageal reflux disease; GI, gastrointestinal; IBD, inflammatory bowel disease; MAC, monitored anesthesia care; PCMH, patient-centered medical home; PCP, primary care provider; PMPM, per-member, per-month.

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and management patterns for conditions such as reflux esophagitis, variations across sites and providers in complication rates, and preventable complications from hepatitis and IBD.¹³⁻¹⁵ Moreover, opportunities exist for better coordination of care with primary care providers (PCP) (eg, informal consults and guidance that could head off more costly but unneeded formal consultations and procedures for patients with mild reflux), for performing procedures in less costly but appropriate settings (eg, ambulatory vs outpatient department CRC screening), and for using electronic communications (eg, e-mail or telemedicine) to manage their patients more efficiently and conveniently when feasible.

Similar to US health care in general, the gastroenterology FFS payment structure provides little or no support for these opportunities to improve care, instead encouraging high-cost, procedure-based services without respect to patient outcomes. In a FFS model, providers are penalized financially for reducing the use of unnecessary services, in addition to not being reimbursed for low-cost, high-impact interventions such as care coordination and non-face-to-face services. Simply adding additional paid services to FFS cannot address this problem efficiently because many important aspects of care are not easily broken into discrete services and simply adding on more payments would provide little encouragement to avoid low-value procedures.

Many stakeholders are exploring ways to support better care and lower costs through payment and delivery reforms. Alternative payment models (APMs) aim to correct the issues described earlier by shifting payments away from FFS to allow more resources to be used for supporting appropriate services while instituting new accountability for keeping overall costs down.^{14,16} Recognizing this need to move away from volume-based reimbursement toward value- and quality-based reimbursement, in January 2015 the Department of Health and Human Services announced a goal of tying 30% of traditional Medicare payments to APMs by the close of 2016, moving to 50% by the close of 2018.¹⁷ This goal was reinforced by Congress with the passage of the Medicare Access and CHIP Reauthorization Act of 2015, which repealed the sustainable growth rate formula for physician payments, instead linking payments to performance measures and providing incentives for participation in APMs.¹⁸ With payment reform implementation accelerating, gastroenterologists have an opportunity to influence how these reforms develop, with important implications for gastroenterology practice. In this article, we provide the framework to help gastroenterologists move forward with this challenge.

Implementing Alternative Payment Models in Gastroenterology

APMs in gastroenterology, similar to all APMs, aim to realign provider financial incentives to support

high-quality care by delinking payments from volume. A spectrum of APMs exist that transition away from traditional FFS through aggregation of payments at the individual provider level or across multiple providers, as summarized in Table 1. We describe how these APMs could be used to support care reforms in the 2 main components of gastroenterologic practice, procedures, and management of chronic conditions. We note that because GI practice is complex and varied, the specific reforms best suited to each practice will depend on the patient and service mix and that payment reform can be implemented in a stepwise fashion. In addition, although the main focus is on individual and group practices, the themes remain relevant for gastroenterologists practicing in academic settings and large health systems because large components of their payment remain directly or indirectly linked to volume. Many such systems already are moving to alternate payment and delivery models such as Accountable Care Organizations (ACOs) and bundled payments and the reforms described here can complement and inform those initiatives.

APMs relevant to each major component of a GI practice are described in detail. A bundled payment model is most relevant for discrete procedures, such as screening and surveillance colonoscopies, which are common in gastroenterological practice. In a fully implemented bundled payment model, a lump sum payment replaces the FFS payments to cover a specific set of services provided during an episode of care. For the treatment of chronic conditions such as IBD, we suggest a per-member, per-month (PMPM) payment to support the types of care coordination and expanded services that are necessary for patients with these conditions—these payments are best grounded in a gastroenterology medical home. For chronic conditions that require occasional specialty involvement but generally can be handled in a primary care setting, such as uncomplicated GERD or management of stable chronic hepatitis, we suggest a PMPM in conjunction with a primary medical home. The overall PMPM would be shared between the PCP, who acts as the clinical lead, and the gastroenterologist, who would have better support to provide consultation and assistance to the PCP. This version of a medical neighborhood model can be viewed as a variant of the medical home model in which specialist payment is better aligned with the goals of the medical home.¹⁹ These models can be implemented on a limited basis (ie, only replacing a small portion of FFS payments), or a more comprehensive basis (ie, as a more complete fixed payment for the episode or for all services provided during the month). Each model can be implemented in conjunction with a shared savings component for the nonbundled or noncapitated services, in which the providers share in any cost reductions in these remaining services that result from the improved quality of care. Shared savings support improvements in the health of the total population of patients for whom a provider is responsible, and requires identifying that patient population and tracking patient level outcomes and costs.

Table 1. Pathway for Gastroenterology Reform²⁰

	Payment model		
	Bundled payment	PMPM/partial capitation	Shared savings
Type of care	Discrete procedures	Chronic disease management	Population-level health management
Payment structure	Lump sum for a specific set of services provided during an episode of care	Supplementary per-member per-month case management fee	Total population-level costs are compared with a benchmark and any savings are shared with providers
Infrastructure requirements	Electronic medical records infrastructure that allows for data exchange between settings to produce timely, actionable clinical data Accurate data on use and costs to produce clearly defined bundle Ability to conduct risk adjustment	Electronic medical records infrastructure that allows for data exchange between settings to produce timely, actionable clinical data Multidisciplinary provider group Extended service hours, telephone hotlines, care coordination, social support services	Electronic medical records infrastructure that allows for data exchange between settings to produce timely, actionable clinical data Accurate data on use and costs to set benchmarks and determine savings
Actionable quality measures	Ensure use is appropriate	Ensure provision of expanded services	Ensure appropriate use of services and address population health
Strengths	Efficient and transparent market-based pricing tied to quality, not demand	Patient-centered, coordinated care Potential to minimize use of higher-cost services	Multispecialty approach for total cost of care Emphasis on population health
Weaknesses	Potential for inappropriate treatment owing to perception of constrained resources Care coordination outside the bundle is not supported	Potential administrative burden Add-on to fee-for-service with minimal change to provider incentives	Difficult to create provider networks Potential for inappropriate treatment owing to perception of constrained resources
Model example	Bundled payment for colorectal cancer screening and surveillance colonoscopy	Gastroenterology medical home for inflammatory bowel disease	Gastroenterology participation in Accountable Care Organization

Bundled Payment Model

Discrete procedures, particularly endoscopies, represent the majority of a gastroenterologists' time and revenue and lend themselves particularly well to a bundled payment model.²⁰ In a bundled payment model, providers are paid a lump sum for a set of services provided during an episode of care. The bundle might be limited to gastroenterology services only, which comprise the bulk of physician costs for CRC screening, or might include some or all related services outside gastroenterology such as anesthesiology, pathology, and facility fees. Provider reimbursement is based on the expected costs of providing this bundle of care. By providing a single lump-sum payment, providers assume the risk either individually or collectively for delivering effective and efficient care at a set price. This type of payment system encourages providers to carefully consider care options that can decrease the total costs of the bundle while providing equal or more effective treatment. To the extent that other providers are included, gastroenterologists can receive financial benefits from such steps as partnering with more efficient providers, shifting procedures to a lower-cost site, and coordinating care across all services included in the bundle to ensure that efforts are maximally effective and not duplicated. Importantly, bundled payment models should be linked closely with quality

metrics, such as those described in length by McClellan et al,²⁰ to help ensure that savings are being achieved without compromising care.

An important pilot effort for bundled payments in Medicare was the Acute Care Episode demonstration, which began in 2009 and focused on select inpatient, orthopedic, and cardiovascular procedures.²¹ In 2013, the Centers for Medicare and Medicaid Services Innovation Center began the Bundled Payments for Care Improvement (BPCI) initiative.²² BPCI piloted bundled payments for 48 different inpatient episodes of care including gastrointestinal hemorrhage, gastrointestinal obstruction, and digestive disorders.²² Although such inpatient bundles involve GI care, greater opportunities for bundled payment reform exist in outpatient settings. The primary opportunity is for endoscopic procedures, especially for CRC screening and surveillance using colonoscopy. As outpatient procedures, this bundle model is distinct from Medicare's BPCI initiative, and has been implemented mainly by private payers.

Centers for Medicare and Medicaid Services Screening and Surveillance Colonoscopy Bundle

The poor standardization and high cost variation of CRC screening and surveillance colonoscopy make the

procedure a popular target for payment reform. Colonoscopy fits well within a bundled payment model because, compared with many other services, colonoscopies provide a relatively easily defined episode of care. There is a clear beginning and end point with predictable services included throughout the episode.

Despite the ubiquity of colonoscopy in gastroenterology, the procedure is not well standardized, with variations in costs and services provided, leading to recent public criticism.^{23,24} The cost for a colonoscopy is radically different across parts of the country, and even within a single city. For example, San Francisco-based health plan Castlight Health found that the cost of a colonoscopy ranged from \$563 to \$3967 within a single private health plan in one geographic area.²⁵ One of the major reasons for this high variation in cost is owing to site-of-service differentials between a physician's office, an ambulatory surgical center (ASC), or a hospital outpatient department, which can result in differences of hundreds of dollars for the same procedure.^{5,26} With everything else held constant, a procedure performed at a hospital outpatient department can cost 150% more than if it were performed at an ASC.⁵ In addition, studies have indicated that many physicians are not following guidelines for follow-up colonoscopies. Patients with a positive initial examination who are supposed to have the procedure repeated every 3 to 5 years are underusing the procedure.¹³ Conversely, patients whose initial results were negative often are overusing the procedure, with 46% of patients undergoing a repeat colonoscopy before 10 years.¹⁴

Another major influence in the cost of a colonoscopy is the use of monitored anesthesia care (MAC) rather than nonanesthesiologist-led sedation. The inclusion of an anesthesiologist can make a colonoscopy 20% more expensive.²⁷ Many gastroenterologists increasingly are relying on propofol, a general anesthetic that currently requires MAC, owing to increased efficiency stemming from faster sedation and shorter recovery time, with equal or slightly superior patient satisfaction.^{27,28} Studies have shown that nonanesthesiologist-administered propofol can be safe, and may even be safer than traditional gastroenterologist-led sedation techniques.^{15,29,30} The inclusion of these services in a bundle can help to minimize variations in practice that might not align with best-evidence practices.

One concern with the bundled payment model is that it may not encourage efficient use of procedures; that is, although the procedure itself may be performed efficiently, this payment reform does not necessarily encourage the use of appropriate use of procedures in a population. However, a bundle could be coupled successfully with population-level screening quality measures such as frequency of procedure and adenoma detection rate to standardize some of the variation in provider decisions by specifying services included in the bundle and ensuring that providers are meeting quality thresholds. There is promise that population-level

payment reform such as shared savings could help reduce costs and improve quality.

Bundled payments can help reduce costs through a variety of methods. One manner is to enable gastroenterologists to share in the savings when they perform procedures in less-costly settings, such as in an ASC rather than in a hospital, or even in an office rather than in an ASC. Importantly, risk-stratification or bundle conditions should ensure that a higher-cost facility is not avoided when patient conditions indicate it should be used. Bundled payments, if anesthesia costs are included, also could encourage providers to move away from the significantly more costly MAC toward the less-costly nonanesthesiologist-monitored sedation. Alternatively, bundled payments could encourage providers to ensure that, when MAC is used, the anesthesiologist is within the patient's insurance network. Finally, because gastroenterologists assume risk for the professional fees incurred in the postprocedure period, bundled payments create more incentives and financial support for physicians to take steps that avoid complications that can lead to additional procedures such as repeat examinations caused by poor colon preparation.

Colorectal Cancer Bundle Implementation

As noted earlier, bundled payments for colonoscopy can cover some or all services related to a colonoscopy episode. The payment may be retrospective or prospective. In a retrospective payment model, providers continue to be paid on a FFS basis. After all the services are provided, the total price of the episode is compared with a predetermined baseline price, providers then must repay the overage or get an additional payment for savings. In a prospective model, providers receive a full payment amount for the episode up-front and are responsible for all services involved. Bundled models are likely to initially be a retrospective payment and then later potentially moved to a prospective payment model³¹; this also might allow for partial sharing of financial risk as the reform phases in. The colonoscopy bundle we exemplify would include services typically used for CRC prevention including screening, diagnosis of patients found to have an abnormality, and surveillance of patients who had an abnormality on a previous screening. Alternatively, some employers and health plans (eg, Safeway via Castlight) have used a bundled payment amount as a reference price, a set total payment by the plan. In this model, if the CRC screening provider bills more, the patient pays the difference; if the providers bill less, the patient may be able to keep the savings. This encourages patients to choose the most efficient provider, aligning patient incentives and addressing the copay problem.

The American Gastroenterological Association (AGA) has developed a framework that can serve as a detailed outline in putting together a colonoscopy bundle.^{32,33} In their suggested bundle, the AGA includes a comprehensive

list of services to include as well as the Current Procedural Terminology codes. The preprocedure period lasts 3 days and includes all services performed before colonoscopy including consultation by telephone or in the office, the bowel preparation, and patient instruction. The procedure period includes all services billed during the actual colonoscopy including the professional fee, sedation, intraoperative devices used to improve the bowel preparation, diagnostic and therapeutic procedures and biopsies, and pathology. Postprocedure treatment of 1 to 2 weeks includes follow-up evaluation in addition to directly related complications. The postprocedure treatment involves communication regarding the final procedure and pathology results as well as repeat colonoscopy due to bleeding or poor preparation/inadequate visualization and directly related complications. Bundling the cost of complications, repeat procedures, and other potential causes of higher costs acts as a warranty, providing financial encouragement for physicians to avoid these complications.

Although the AGA suggests a fairly comprehensive bundle, an initial partial bundle may facilitate the transition away from FFS. In a partial bundle, some of the services provided during a colonoscopy may not be included in the bundled fee and instead are paid separately. For example, abnormal findings such as the removal and testing of a polyp could trigger an additional payment. A fully bundled payment with an associated bundled copay would fix the problem of a beneficiary paying more for a positive examination that required polyp removal and testing, but also would require some revisions in Medicare copay rules. Alternatively, gastroenterologists initially might have limited, but not full, responsibility for any excess costs.

When bundles are implemented, beneficiaries typically continue to remain responsible for their share of nonbundled services, such as polyp removal and testing if it is excluded from the bundle. How Medicare would set copayments for a bundle comprising a free preventive service (CRC screening) and a service that Medicare has classified as nonpreventive (polyp removal and testing) might not be addressed. Assuming Medicare does not reclassify the entire bundle as a preventive service, the most straightforward approach might be a fixed copay based on the portion of the bundle cost attributable to the nonpreventive component; another possibility more in keeping with the notion of a fully bundled service is a single (significantly lower) fixed payment for all beneficiaries for the entire episode.

Examples of colonoscopy bundles currently exist with commercial payers such as Horizon Blue Cross Blue Shield of New Jersey (Horizon).³¹ Similar to the AGA-endorsed bundle, this bundle includes the surgical procedure as well as all before and after procedure services.³¹ However, the Horizon bundle has a slightly broader time window, starting 7 days before the procedure and extending to 21 days after the procedure. The payment model is retrospective, although it may be phased into a prospective model. The baseline target

price is based on 2-year practice-level data. Providers participating in the bundle are paid normally through FFS. Episode costs are calculated quarterly and compared with the baseline amount. If episode costs are below the target price, and quality and member satisfaction thresholds are met, providers are eligible to share in any of the savings. Currently, there is no downside risk if costs are greater than the target threshold.

Upper Endoscopy Bundle

Upper endoscopies also present a potential opportunity for a bundled payment, but experience is more limited and technical challenges are likely to be greater. Similar to colonoscopy, upper endoscopy involves a relatively well-defined episode of care with a start and end point. Thus, some of the same approaches described for a partial or full bundled lower GI endoscopy may exist here. However, in contrast to CRC screening, upper gastrointestinal indicators may be more heterogeneous and thus the need for partial bundles or multiple types of bundles is likely to be greater. Upper and lower endoscopies often are performed on the same day. In these cases, the bundles can be coordinated so that 100% of one procedure and 50% of the other procedure is paid to account for the overlap in services provided. As with other episode payment models, other payment changes may be needed to support appropriate use of endoscopy at the level of a patient population.

Per-Member, Per-Month Payment Model

To support better management of chronic conditions we suggest a PMPM payment analogous to a patient-centered medical home (PCMH). In this payment model, a provider or group of providers receives a set amount per attributed life. However, the delivery model differs based on the complexity of the condition. For conditions such as IBD, which require extensive involvement and care management by a gastroenterologist, a gastroenterology medical home can provide better aligned financial support for patient care. In contrast, for chronic conditions primarily treated by a PCP, such as uncomplicated GERD and stable chronic hepatitis, we suggest a medical neighborhood to support the gastroenterologist as a consultant and educator to the PCP.

Gastroenterology Medical Home

In this model, a gastroenterologist would lead a team of providers to develop a care plan, provide needed services including those currently not covered, and deliver coordinated care for patients with chronic diseases, similar to a PCMH. In the gastroenterology medical home, the gastroenterologist would be the designated attributed provider instead of the primary care physician. The gastroenterologist would not necessarily treat

every issue a patient experienced, such as a headache or urinary tract infection, just as an internist in a primary care medical home would not perform a colorectal cancer screening. However, because conditions such as IBD influence how patients experience other non-IBD issues and other medical treatments can affect the patient's IBD, the gastroenterologist would lead the team to help coordinate care and refer patients to appropriate providers. Gastroenterology medical homes can help engage patients and avoid hospitalizations through extended hours, availability of emergency clinic appointments, extended staff disciplines, on-call staff, and care coordinators. The care plan should be supported by clinical pathways and use of clinical service lines. Clinical service lines are bedside tools, aimed to improve workflow, which combine evidence-based guidelines with practice management tools and links to outcome registries. The AGA has clinical service lines available for IBD.^{34–36}

The payment reform in the gastroenterology medical home model comes through a PMPM payment given to the gastroenterology practice, similar to payments made for medical homes in other specialties. Similar to a PCMH, a gastroenterology medical home could require a specific set of extended services to reach formal medical home status and the payment is used to cover the necessary practice transformation. For example, the PMPM could be used toward the salary of a social worker who can help coordinate patient care as well as aid in overcoming any barriers to care patients may experience. The PMPM also could be used to run a telephone hotline or cover extended clinic hours. To ensure that practice transformations are linked to improved care, the PMPM is coupled with quality measures such as the use of best-practice guidelines and care expansion. Applied effectively, these new capabilities would be expected to reduce overall patient costs by avoiding duplicative and unnecessary services, preventable hospitalizations, and other costly complications. To ensure that the practice transformations result in overall cost reductions, the PMPM could be financed in part by reductions or replacements in FFS payments, and could be linked to shared saving and shared risk for achieving overall patient spending benchmarks. The new Centers for Medicare and Medicaid Services Oncology Care Model pilot, for example, has a \$160 PMPM with an additional payment related to quality and overall cost reduction.³⁷

Project Sonar is one example of a gastroenterology medical home model for the care of Crohn's disease, developed by the Illinois Gastroenterology Group.³⁸ Project Sonar uses a cloud-based patient portal to communicate regularly and proactively with patients by having them fill out a short questionnaire. Patient symptoms are scored and tracked, allowing the practice to predict a patient's need for care and avoid hospitalizations through early intervention. In addition, Project Sonar has clinical decision support tools embedded in their electronic medical record system to improve care. The project is supported through a \$46 PMPM that can

increase if cost savings become substantial. Annually, any savings gained from the project are shared with the group. The project has not been evaluated, but an unpublished preliminary analysis showed a 15% reduction in hospitalizations.²⁰

Medical Neighborhood

A medical neighborhood model is more appropriate for chronic conditions such as stable hepatitis C and GERD, which require more limited and targeted specialty involvement, and largely can be managed by a PCP. In a medical neighborhood, a PCP acts as the clinical lead for patient care, consulting with, or referring to, the gastroenterologist when necessary. The gastroenterologist can advise the PCP to help promote best practices and the use of appropriate diagnostics and follow-up evaluation.³⁹ In a medical neighborhood, the PCP would receive a PMPM to support practice reforms that improve care coordination and reduce costs. The gastroenterologist could receive a portion of this PMPM to support his or her participation in caring for a PCP's patient population, including advising the PCP and other nonreimbursed types of care such as e-consults.

A medical neighborhood could improve care by supporting better coordination of the myriad of clinical services required for a diagnostic work-up. For example, this support could help ensure that patients with uncomplicated acid reflux get appropriate and efficient screening laboratory tests, pharmaceuticals, and follow-up evaluation. Medical neighborhood support could be used for e-mails, calls, development of more efficient referral processes, and other interactions between primary care and specialists that are not supported under FFS and could avoid costs such as formal referrals and unnecessary tests and imaging.

The Extension for Community Healthcare Outcomes (ECHO) project offers an example of how a medical neighborhood model could be applied to enable a GI-led multidisciplinary care team to facilitate learning for PCPs to manage patients with complex chronic conditions in their communities. Project ECHO is implemented at more than 2 dozen sites across the country for a variety of conditions. Of particular relevance to gastroenterology is the University of New Mexico Project ECHO for hepatitis C that improves access to care for patients who have trouble accessing specialists. Through telehealth technology, a specialist connects virtually with a PCP in an underserved community to provide treatment for patients with hepatitis C. Through case-based learning, specialists provide training and support in delivering best-practice care to the community provider, who then interacts with the patient. In weekly meetings, the community providers present cases and talk through any difficulties they are experiencing with specialists. Initial results from Project ECHO indicate cure rates of hepatitis C equal to those found in a specialist hepatitis facility.¹⁰ Project ECHO

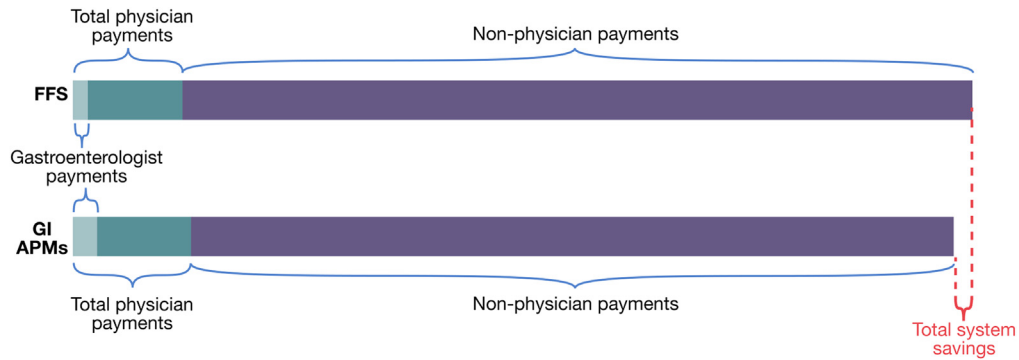


Figure 1. Alternative payment models reduce total cost of health care by reducing waste and inefficiency. Because physician payments make up only a small proportion of total health care costs, even a small reduction in total cost of care can result in a significant increase in physician payments. APMs, alternative payment models; FFS, fee-for-service; GI, gastrointestinal.

currently is supported through a grant, additional replication sites are in the design phase that will fund the specialist physician through a PMPM Medicaid pilot.

Shared Savings and Shared Risk Payment Models

Shared savings can be used to support a provider focus on population health. In a shared savings payment model, a benchmark level of spending is calculated. If actual spending is less than the benchmark, the provider group and the insurer can share in the savings accrued. Such population-level accountability can be implemented via 1-sided or 2-sided risk. In 1-sided risk, the provider group shares in any savings garnered from the model without any consequence if total spending is greater than the benchmark. In a 2-sided risk model, the provider group is responsible for covering a portion of the costs if the actual cost of care is greater than the benchmark. Because this 2-sided model creates downside financial risk for the provider group, it places stronger incentives on the providers to ensure that care is necessary and well coordinated, and typically insurers are willing to share more savings if costs are less than the target.

Shared savings models generally require maintaining or improving performance on quality measures so that the savings are passed on only as a result of improvements in care, rather than a reduction in services. Savings are shared between the payer and the practice, therefore both parties can benefit. Practices can use the money generated through shared savings to reinvest in practice transformations that improve population health, such as the use of a care coordinator or technology platforms. In addition, some portion of the shared savings would be passed on to the physicians. More testing and evidence is needed to evaluate any differences in the impact of shared savings based on employment model (ie, those in independent and small group settings compared with those in a larger organization or academic setting).

An ACO is an increasingly common population health model that uses shared savings. Early results from

Medicare ACO programs have shown improvements in quality metrics and reductions in total spending for the majority of participants.^{40,41} More likely, a gastroenterology practice will choose to participate in a multi-specialty ACO. In this scenario, the gastroenterology practice would share in accountability for the overall quality of care and costs for the ACO's given set of patients. Unlike PCPs, specialists are able to participate in multiple ACO arrangements. In each of these, the practice could continue to be paid as FFS, but would share in any of the savings if the cost of care for their patient population was less than expected. As such, gastroenterologists could be compensated for activities such as care coordination or performing services at lower-cost care sites. Alternatively, the gastroenterologists could negotiate an APM such as bundled payments. There are examples of ACOs in which gastroenterology groups have participated, such as Optimus Healthcare Partners.²⁰

As noted earlier, shared savings can be used to augment any of the previous models described. For example, instead of implementing a full-risk colonoscopy bundle, gastroenterologists could share in the savings if costs for a colonoscopy were less than the benchmark price. Digestive Healthcare Center has developed a partially bundled payment model for colonoscopy that includes a shared savings component for the gastroenterology practice.³¹ A gastroenterology medical home also could include a shared savings component in addition to the PMPM in which any savings, such as those from reduced emergency department visits, would be shared. Project Sonar is an example of how to apply a gastroenterology medical home model with a shared savings component. Some PCMHs in private insurance plans have transitioned to shared savings and shared risk. This can help ensure that the medical home reforms lead to reductions in overall costs, and shift more resources from traditional FFS activities to those that may be more beneficial for particular patients. Finally, a medical neighborhood could be augmented with a shared savings component. Depending on the relationship of the gastroenterologist with the medical neighborhood, he or

Table 2. Examples of How Physicians Can Reduce Total Health System Costs Using Each APM

Payment model	Potential areas for cost reductions
Bundle payment for colorectal cancer screening and surveillance colonoscopy	<ul style="list-style-type: none"> Following clinical guidelines for intervals between procedure Improved education on proper preparation techniques so fewer procedures need to be repeated Reduction in use or cost of monitored anesthesia care or reduction in use of out-of-network anesthesiologists Examinations performed in lower-cost settings
Gastroenterology medical home for inflammatory bowel disease	<ul style="list-style-type: none"> Extended clinic hours and emergency appointments to address acute concerns and reduce emergency department visits Regular patient monitoring to identify and address changes in health status early to avoid more extensive care Social support services to identify barriers to care so patients comply with proper treatment
Medical neighborhood for uncomplicated reflux or stable chronic hepatitis	<ul style="list-style-type: none"> Specialists as educators and consultants for primary care providers so that the majority of patient concerns can be addressed at the primary care provider’s office where site-of-service differentials are lower Consultation for when referral or further testing is necessary to avoid unnecessary use of specialist services such as upper endoscopy

she could receive a proportion of the population-level savings or risk. Such a model helps ensure that any new PMPM payments or a shift to bundled payments for episodes does not add to overall costs. Blue Cross Blue Shield of Michigan has implemented this type of model and enable preferred specialists for a PCP group to be eligible for an additional bonus based on overall savings for the group’s population.⁴²

Practice Level Implications of Payment Reform

Although payments to physicians account for only a small amount of total health care spending in the United States—in 2013, physician payments made up only 12.5% of total Medicare spending⁴³—physician actions can have a much larger impact on patient care and overall costs. As shown in Figure 1, because payments to gastroenterologists are only a small part of the overall costs and care for their patients, if a gastroenterologist is able to redirect resources and share in the savings that result from these models, even a small reduction in total cost of care can produce a significant increase in gastroenterology payments without increasing overall health care costs. Table 2 provides some examples of how APMs can support reductions in total system costs. For every APM, appropriate quality

measures are vital to ensure that patients are receiving high-quality care.

Figure 2 enlarges the gastroenterologist payment portion of Figure 1, showing how a gastroenterologist’s payment scheme could shift with the implementation of APMs. Because each APM is relevant to certain conditions, and every clinical practice may have a distinct mix of patients and services, the specifics of the shift will look different depending on the gastroenterologist. Each practice would need to identify the best opportunities for improving care and decreasing costs. This involves identifying the high-use and high-cost areas of clinical practice, then determining the best opportunities for improving care and the payment models that better align payments with these opportunities for improvement. Figure 2 shows the payment shift for a gastroenterologist seeing a mixed population of patients reflecting overall gastroenterology care in the United States. The FFS bar in Figure 2 shows the FFS payments connected to each condition for this particular practice. Each condition in Figure 2 is represented by a different color. The APM bar shows the potential APM payments for this practice. Because we suggest different APMs for particular conditions, the colors in each portion of the APM bar correspond to the colors of each condition shown in the FFS bar. For example, the medical neighborhood is dual-colored because it captures payment for both GERD and hepatitis C (Figure 2).

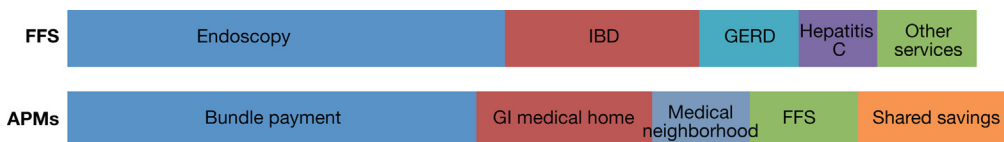


Figure 2. Schematic of how physician payments would shift under alternate payment models. A gastroenterologist would need to first identify the proportion of clinical areas covered in one’s practice and then determine the payment models which best align clinical efforts with current market practice. APMs, alternative payment models; FFS, fee-for-service; GERD, gastroesophageal reflux disease; GI, gastroenterology; IBD, inflammatory bowel disease.

Figure 2 shows the most extreme scenario of implementing every APM described in this article. Conversely, many gastroenterologists may only find one APM relevant to their practice. For example, a gastroenterologist whose practice is entirely endoscopy would implement only a bundled payment model and a gastroenterologist who specializes in IBD would implement a GI medical home. Many gastroenterologists would be between these two extremes.

Conclusions

As an increasingly important part of health care in the United States, gastroenterology is in need of payment reform to help realign financial and care incentives. The current FFS payment system encourages use of high-cost procedural services while doing little to encourage high-impact, potentially cost-saving interventions and opportunities to reduce costly complications and use more efficient sites of care. This article has discussed 3 of the most promising and feasible models of payment reform for procedures and chronic care management that make up a substantial part of GI care. APMs aim to improve the quality of care as well as reduce waste and inefficiency found in the FFS payment system by providing physicians more ability to direct resources to where they are most needed for a patient. Along with this shift away from payment for certain specific services comes more accountability for ensuring that the resulting care is better and less costly.

This is a critical time for payment reform given the new APM opportunities in the Medicare Access and CHIP Reauthorization Act along with recent commitments in Medicare, and among many private payers to move more quickly to payment systems that are based on value not volume. However, many gastroenterologists are not engaged in payment reform, and evidence on the impact of potential APMs affecting gastroenterology is limited compared with many other areas of specialty practice. By leading the development and evaluation of APMs that affect the care of GI patients, gastroenterologists can help ensure that these reforms are as effective as possible in improving care. Moreover, it is a relatively low-risk environment: many payment models are being introduced with the option of upside-only risk, so that physicians are not required to pay back funds if their costs turn out to be higher than expected. But it is likely that such relatively modest reforms and opportunities to pilot test them will not persist, with future reforms being driven by other provider groups or payers, and evolving toward requiring more financial risk. Delaying the development of reforms may mean an uphill battle in getting sufficient funding in the future for key ideas to improve care and decrease costs. As we have described here, however, it is possible to identify specific opportunities within the complex and changing payment landscape,

and many GI practices already are doing so. It is still early, but these payment reform challenges could turn into important steps to improve quality and decrease costs for patients who need care for gastrointestinal conditions.

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Conflicts of interest

The authors disclose no conflicts.

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