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Overhauling the US health care **payment** system

During the next five years, rapid innovation may restructure the value chain of health care payments and change the sector's balance of power.

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The US health care payment system, which processes $1.9 trillion a year, is ripe for transformation. The system is inefficient, consuming 15 percent or more of each dollar spent on health care, compared with about 2 percent for the payment system in retailing. Expenditures on the processing of bills, claims, and payments; bad debt; and other transactions total more than $300 billion a year. Furthermore, without new approaches to streamlining the payment system, the movement to consumer-driven health care plans will likely drive up administrative costs and further frustrate patients. If left unaddressed, excess spending may undermine the emerging consumer-centric model, which promises to rein in medical costs and help expand access to insurance coverage.

Exhibit 1 shows the flow of dollars between the major entities in the health care system. The inefficiency is concentrated in the $250 billion that consumers pay to medical providers, such as doctors and hospitals, as well as the $1.3 trillion that insurance companies send to them. The crux of the problem is a mix of high transaction costs and the lack of an efficient way to make consumer-to-provider payments (Exhibit 2). The processing of transactions remains fragmented, paper based, and manual, despite progress by leading insurers in automating the adjudication of claims.

Article at a glance

The hugely inefficient US health care payment system is ripe for transformation.

The inefficiency is concentrated in the $250 billion that consumers pay doctors and hospitals and the $1.3 trillion that insurers send to these providers. The heart of the problem is a mix of high transaction-processing costs and the lack of an efficient way to make consumer-to-provider payments.

Over the next five years, rapid innovation may lead to a restructuring of the value chain of health care payments and to a shift in the sector's balance of power. Financial institutions have an opportunity to take on a more prominent role, while payers risk losing influence to new entrants. Providers stand to benefit as fewer dollars are wasted on transaction-processing inefficiencies.

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Solutions that could slice away tens of billions of dollars in operating expenses and bad debt, while creating big revenue streams, are in sight. Over the next five years, we expect rapid innovation that could lead to a restructuring of the health care payment value chain, as well as a shift in the sector's balance of power. Financial institutions have an opportunity to take on a more prominent role, while payers risk losing influence to entrants. Providers stand to benefit as fewer dollars are wasted on administrative inefficiency and transaction costs.

Consumer-to-provider transactions

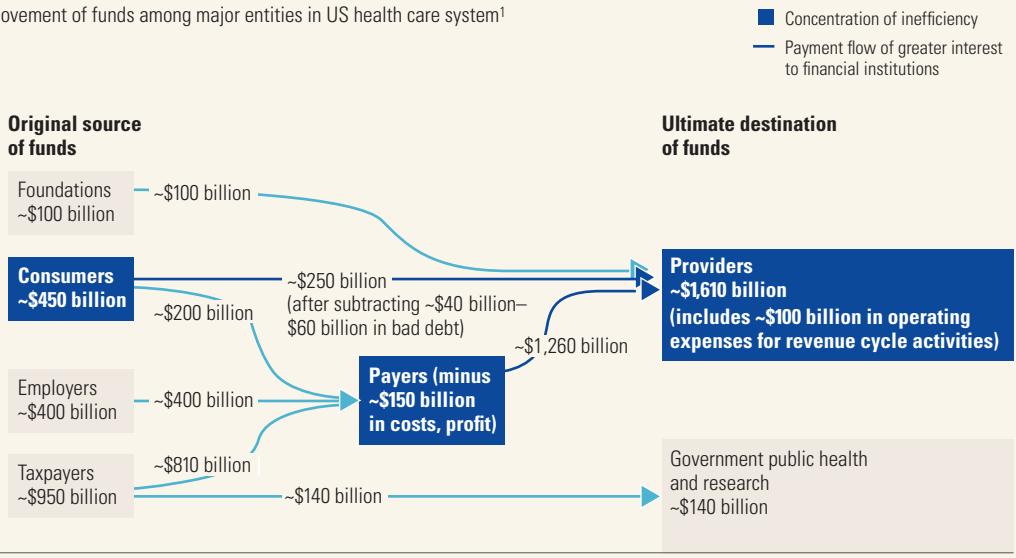
The health care sector lacks the kind of modern payment system found in retailing. Physicians, hospitals, and laboratories have designed their pricing and billing systems around wholesale (business-to-business) relationships with insurers. Transactions move in batches, long after patients have left their doctors' offices. Providers have only a limited ability to estimate their patients' liabilities at the point of service. Even when they do, few can present bills at the time of treatment and process credit or debit card payments.

Instead, providers must submit and settle claims with insurers and then rely on the "send a bill and hope the patient pays it" approach for any shortfall after claims settle. To confuse matters, patients also receive an explanation-of-benefits statement, or EOB, from their insurers. This document, which says "This is not a bill" in large type, frequently shows the patient owing an amount different from the one indicated on the provider's bill. The cost and complexity of consumer billing and collections are onerous, especially for physicians' offices, where the dollar amounts per visit are relatively small and success rates for payment of the postinsurance balance often low. As a result, physicians and hospitals typically collect only about 50 percent of this balance—and only 10 to 20 percent for self-pay patients. Across the sector, this adds up to almost $60 billion in bad debt annually (Exhibit 3).

EXHIBIT 1

Health care payment map

Movement of funds among major entities in US health care system[1]



[1]2005 estimate; latest available data.

Source: Office of the Actuary, US Centers for Medicare & Medicaid Services (CMS); McKinsey analysis

EXHIBIT 2

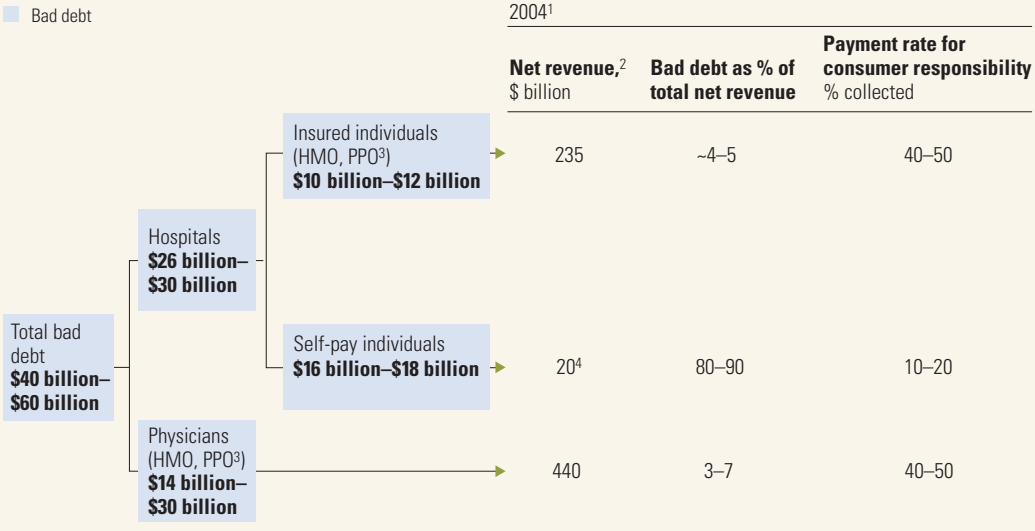
An ailing system

	US health care sector	US retail sector
Total underlying GDP	$1.9 trillion[1]	~$9.0 trillion
Number of participants	Many payers, many providers, many plans, and many consumers	Many merchants, many consumers
Intermediaries	Few in number; primarily proprietary (eg, payers)	Multiple in number; largely open access (eg, Federal Reserve, major credit/debit networks, NACHA[2])
Standardization	Some, defined by regulation	High degree
Transaction characteristics[3]		
• Exceptions	20–40%	1%
• Manual interaction required	30–40%	Low degree
• Paper processing	80–90%	Low degree
Accounts receivable as % of revenue	15–30%	5%
Processing cost per transaction	15–20%	2%

[1]2005 estimate; latest available data.
[2]NACHA—the Electronic Payments Association (formerly National Automated Clearing House Association).
[3]Health care transactions include all activities required to process a service rendered by a provider (eg, eligibility verification, claim adjudication, payment).

EXHIBIT 3

A growing problem



2004[1]	Net revenue,[2] $ billion	Bad debt as % of total net revenue	Payment rate for consumer responsibility % collected
Insured individuals (HMO, PPO[3]) $10 billion–$12 billion	235	~4–5	40–50
Self-pay individuals $16 billion–$18 billion	20[4]	80–90	10–20
Physicians (HMO, PPO[3]) $14 billion–$30 billion	440	3–7	40–50

[1]Latest available data.
[2]Includes hospitals only; excludes ambulatory surgical centers, laboratories, clinical diagnoses, and alternative-care sites (eg, rehabilitation centers, nursing homes).
[3]HMO = health maintenance organization; PPO = preferred-provider organization.
[4]Net revenue of $50 billion adjusted to $20 billion to reflect actual payments.

Source: American Hospital Directory; Medical Group Management Association (MGMA); McKinsey analysis

The growth of consumer-driven health care, with its increase in payments from patients and high-deductible insurance plans, threatens to make this problem worse. In 2005 consumers spent about $250 billion out-of-pocket on health care, a sum that could grow to $420 billion by 2015. Our analysis suggests that unless providers can raise payment rates from consumers, the increase will lead to a rise of two to four percentage points in the providers' bad-debt expense (as a percentage of revenues) by 2012. To put this estimate in context, a one-percentage-point increase in the bad-debt rate at a typical provider with a 4 percent operating margin would cut profits by 25 percent.

To address this challenge, the health care sector must create a sounder infrastructure for consumer-to-provider payments. Two competing approaches are emerging. In one, payers intermediate consumer-to-provider payments on behalf of insurance plan members. In the other, providers, in partnership with financial institutions, develop a retail-like revenue cycle. The potential rewards for winning business models are high: a drop of $5 billion to $10 billion or more in bad debt for providers and billions of dollars in new revenue for payers and financial institutions.

The payer-centric approach: payment assurance

Several leading insurers are experimenting with intermediating consumer-to-provider payments in one form or another. While the current programs vary in approach, and the market is still developing, our assessment of these programs suggests the following design elements will be part of a winning model:

- *Make transactions automatic*. When consumers enroll in an insurance plan, they also sign up for a medical-bill-payment or credit line program. The consumer accepts responsibility for paying any balance after insurance, with the money to be drawn automatically from a designated deposit account or credit line.

- *Minimize changes to the providers' business processes*. After providing care, the hospital or physician submits a claim in the usual way. The payer adjudicates the claim and determines the breakdown of payer–consumer responsibility. The payer and the financial institution settle the transaction for the postinsurance balance by debiting the consumer's account. Finally, the payer sends the payment to the provider.

- *Align benefits with costs*. To finance the program's operating expenses (including any consumer incentives), providers who wish to participate agree to pay a fee in exchange for receiving full payment from the insurer for the consumer's portion of the bill.

The payment-assurance model will create value if payers induce consumers to pay medical bills at a rate higher than providers could achieve on their own. Convenience and clarity will go a long way; the slew of bills and EOBs that consumers receive today is confusing for many. As a sweetener, payers and financial institutions might offer consumers a cash-back or points-based reward program. Consumers could receive a 3 to 5 percent rebate on payments for prompt settlement (compared with the 1 percent offered by some credit card programs) and still leave value on the table for providers, payers, and financial institutions.

Because this payment-assurance approach has the advantage of piggybacking on the current claims process, it requires minimal change in the providers' business practices. Consumers could receive a single bill, and providers could focus on medicine rather than on collecting bills. Companies such as UnitedHealth (through its Exante Financial Services unit) and Cigna (in partnership with American Express) are experimenting in this way.

The provider-centric approach: Retail revenue cycle

Although the payer-centric approach holds promise, it will address bad debt only from insured patients and, even then, only from those who enroll in medical-bill-payment or credit line programs. Furthermore, it does not give consumers all of the information they need to make informed choices at the time of treatment, since the financial consequences of their medical-care choices would be delayed by 30 days or more. For these reasons, another alternative for providers and patients might be a move to a retail revenue cycle, modeled after the one in the hospitality industry, for the payment of claims.

Hotels and rental-car companies rely primarily on credit cards for settling bills. Hoteliers once had to ask the customer to provide a deposit before checking in but now swipe a credit card, preauthorize transactions using estimates of the final bill, and then settle these transactions when the customer checks out. The credit card issuer is responsible for collecting payment—a big benefit for hoteliers. For this approach to work in health care three things are necessary:

- Providers must be able to tell patients how much they will owe while they are still at the hospital or doctor's office. The real-time adjudication of claims, while technically feasible today, could take years to gain acceptance in the providers' offices. Meanwhile, providers could give good-faith estimates by using pricing tools from a variety of vendors.

- Providers must have systems to accept credit or debit payments. For hospitals and providers undertaking larger transactions, sales finance programs similar to those offered by appliance and auto dealers should be available.

- Providers must become firmer, at the time of treatment, about requiring patients to arrange for payment, even if they have insurance coverage.

We expect that the real-time submission and adjudication of claims will gradually become more widespread and that providers will ultimately be able to settle credit card transactions while patients are present. Until then, providers can use a preauthorization approach: with help from financial institutions, they can take credit card numbers and process preauthorizations that stay open for 60 to 90 days, until claims clear.

It will take several years for financial institutions to roll out the tools that providers need to create a retail revenue cycle, and longer to embed it fully in the industry. In the medium term, this approach will coexist with payer intermediation.

Payer-to-provider transactions

Despite the massive dollar flow and increasing consolidation among insurers, payer-to-provider payments and transactions are relatively inefficient. Providers spend $100 billion or more managing the submission of claims. The cost structure of public and private payers represents an additional $150 billion. Some of this spending—on actuarial activities, disease management, customer service, and wellness programs, for example—is clearly beneficial, and health insurers deserve a fair return for risking capital in an insurance business. But much of this expense comes from the contracting, claims, and revenue-cycle processes, which are essentially payment and transaction-settlement functions. These can become much more efficient, reducing costs across the value chain.

Moving to electronic transactions

An important reason for these high costs is that more than half of the transactions between payers and providers are paper based and thus much more expensive than transactions using electronic channels (Exhibit 4). A single visit to a doctor can generate numerous transactions between the provider and the payer. The most common are verifying eligibility (analogous to an authorization in the credit card world), the submission of claims, and remittances for them.

In about 60 percent of all claims payments, the payers print and mail checks to the providers, which manually reconcile the claims and deposit the checks. The average systemwide cost per item is about $8. With an annual volume of 2.5 billion claims payments, the majority reimbursed by check, the system costs $15 billion to $20 billion a year in postage, item processing, and accounting. Increasing the rate of electronic penetration to 90 percent, from the current 40 percent, would save $6 billion or more across the industry.

The transition from paper checks to electronic formats is under way. In recent years, the health care sector has converged on government-endorsed electronic-data formats, and most software for managing the practices of physicians can receive them. Electronic-clearing approaches for financial transactions are widespread. The challenge is finding a way to encourage the adoption of these approaches, especially by doctors. It's the classic chicken-and-egg network problem. Today, each payer must agree with a provider to accept electronic payments. For institutional providers, such as hospitals, this approach is moving forward. But the pace is much slower for physicians, as a typical payer must enroll thousands of providers to make a meaningful dent in volumes. Yet providers, especially smaller ones, are reluctant to accept electronic payment unless it represents a significant portion of their claims volumes.

EXHIBIT 4

Transactional analysis

US health care: high-level overview of institutions' and physicians' transactions with payers, 2006 estimate

			Annual transactions,[2] billions	% of annual transactions that are electronic	
Providers	**Eligibility verification (270s and 271s[1])** Coverage status, explanation of benefits	Payers	1.4–3.5	30–50	• Large volume of transactions (30+ billion) across entire health care industry • Transactions are complex and involve many payers, providers, and consumers; limited, incomplete intermediation to facilitate efficiency • Large portions are still paper based, requiring manual processing
	Referrals/pre-authorization (278s[1]) Precertification of physician referrals		0.6–1.6	10–25	
	Claim submission (837s and 275s[1]) Preparing, auditing, and submitting specific payer claim forms, including claims attachments		4.4–7.2	40–60	
	Claim status check (276s and 277s[1]) Details of current status (pending, paid-in-full)		0.7–2.4	30–50	
	Claim remittance (835s[1]) Payer pays final claims (paper check or electronic-funds transfer) and sends provider remittance advice		1.2–3.4	40–60	
		Total	**8.3–18.1**	**~30–50%**	

[1]Standard forms defined by US Health Insurance Portability and Accountability Act of 1996 (HIPAA).
[2]Transactions represented here do not include ~3 billion pharmacy claims, ~7 billion clinical-lab and pharmacy orders, ~4 billion patient-to-provider payment transactions, ~1 billion government-to-provider transactions.

Source: Faulkner & Gray Health Data Directory; *Health Data Management*; HIPAA Survey—Claims and Payment Practices; Milliman; National Health Expenditures, US Centers for Medicare & Medicaid Services (CMS); US Department of Health and Human Services; McKinsey analysis

An alternative model to bridge the gap between paper and electronic formats could employ imaging technology, which transforms paper checks into electronic form. They are then processed electronically, just as a credit-card payment would be.

The direct revenue potential for financial institutions from electronic payments will be modest (as real-time processing is not required and fee levels will need to be competitive), so we expect only a few institutions to build viable businesses in this space. But the cost savings are compelling for payers, and we thus expect them to play an important role in promoting electronic payments.

Integrating information flows with financial flows

There is a more interesting opportunity from electronic transactions than just lower costs—achieving the full-cycle automation of information and payment flows, from the submission of claims to the receipt of payments and reconciliation. Consider credit card processing. If a retailer wants to accept card payments, it contracts with a merchant processor, which handles both outgoing requests for payment (the card swipes and authorizations) and the actual settlement of the transaction (the routing of funds from the consumer's card account to the merchant's bank account).

In health care, these two roles are split. Clearinghouses specialize in processing the outbound information transactions, such as claims submissions. Separately, banks process the inbound financial transactions. This division is inefficient. Providers, especially smaller ones, have difficulty reconciling their books and figuring out which claims have been fairly paid. That in turn complicates billing to consumers.

In the longer term, a single processor will probably handle outgoing claims and incoming payment flows. Several players are experimenting with not only integrating them but also helping providers to undertake reconciliation, denial management, and the rebilling of disputed claims. Financial institutions such as Bank of America and JPMorgan Chase are trying to expand their cash-management relationships with hospitals to provide these services. Attackers such as the medical-billing company athenahealth are moving to provide similar services to doctors. Big companies with IT systems units (GE, McKesson, and Siemens, for example) are also moving into this space. The value creation potential for providers is significant: these services make it possible to introduce sophisticated analytical tools and services to providers, which can increase their revenues as much as 3 to 5 percent by reducing the number of denials and underpaid claims.

This integrated model is now in an early stage of development; less than 2 percent of providers use it. But the value proposition is compelling, and there is a potential for rapid adoption among both doctors and hospitals. The banks and payment processors that provide these services have an opportunity to move away from the constantly declining per-transaction pricing that dominates health care payments and toward value-based pricing, with the processor receiving a percentage of the transaction. This approach would resemble the interchange fees that credit card companies receive for their services. The result could be not only attractive revenue streams for successful intermediaries but also a fundamental shift in the distribution of profits across the value chain as new intermediaries take a bite out of the surplus currently captured by payers.

Imperatives for players

We expect rapid change in the world of health care payments over the next five to ten years, with implications for the share of health care profits captured by payers, providers, and financial institutions. The young business models driving this transformation will evolve quickly. As in other payments arenas, there will be first-to-scale advantages. Once companies gain them, it will be much more difficult for others to succeed. Here's how industry participants might think about their next steps.

Payers

Payers are firmly at the center of the payment flow in today's business-to-business health care world, but they lack the retail capabilities that will become increasingly important in the industry. Credit and debit card players powered by large payment networks could end up taking a leading role. If payers are to preserve their position, they must help providers and members of insurance plans solve the payment challenge.

For one thing, payers can generate near-term cost savings by driving the conversion of payer-to-provider transactions to electronic formats, which would help them move away from the messy business of data entry, mail sorting, and check printing. They should also undertake pilot programs to intermediate consumer-to-provider payments. While it's too early to predict that the payment-assurance model will succeed, some payers aren't standing still, and one or more competitors will probably use it to gain market share. Providers will likely try to raise their prices during network-contracting negotiations in order to compensate for the incremental costs and bad debt related to retail collections, thus raising costs for payers. In the longer term, a failure to embrace payment assurance may help the provider-centric retail revenue cycle to achieve much higher penetration rates.

Providers

Providers will have to make the biggest changes: moving to retool their back-office systems and the way they interact with patients. Yet they also stand to gain the most, as they now bear a disproportionate burden of the bad debt and transaction-processing costs of the present system. They should build a retail revenue cycle while at the same time supporting payer-driven payment-assurance programs. All else being equal, providers stand to benefit more from a retail revenue cycle, since it could address a much bigger portion of the present inefficiency. But both approaches are preferable to the current trajectory, which leads to more revenue lost through bad debt.

What's more, providers should automate their interactions with payers, a move that would enable them not only to lower their transaction costs but also to manage the revenue cycle more successfully. Larger providers will likely continue to have staff focused on high-value tasks such as managing claims disputes and coding claims correctly. Small providers may choose to outsource these functions to specialized billing and payment-processing companies, as many do today.

Financial institutions

Financial institutions will finally have a chance to position themselves closer to the center of the health care payment flow, since they have both the retail-payment and electronic-payment-processing capabilities that the sector needs. They should move aggressively to help create the infrastructure that would make consumer-to-provider payments more efficient, partnering with providers and payers to make the payment-assurance and retail-revenue-cycle approaches successful. Credit cards account for less than 20 percent of the consumer's out-of-pocket spending on health care, or $45 billion; most of today's out-of-pocket spending goes through checks, which are a cost center for banks. With the right business models, credit card spending in the health care sector could reach $150 billion by 2015.

In addition, financial institutions should help promote electronic and simplified payer-to-provider transactions. Banks with cash-management businesses serving the health care sector should expand their ability to handle electronic health care transactions by forming partnerships and making acquisitions. Banks with small-business franchises serving doctors should look to create the same electronic capabilities and value propositions for them. Q

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