



What You Need to Know about Potentially Preventable Events

Emerge profitable from healthcare payment reform



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The \$125 Billion Gap

According to a [recent industry report](#),* states must close an estimated \$125 billion gap between projected spending and revenue for state fiscal year 2012. At least 25 states have proposed deep, identifiable cuts in healthcare—primarily Medicaid provider rate cuts, benefit and eligibility cuts, and cost-sharing increases.

The report states that such cost-cutting too often harms the quality of care. A more sustainable solution would be to reduce the waste in a fragmented healthcare delivery system. One immediate source of savings would be to reduce potentially avoidable events.

The Shift from Volume to Value

Rising healthcare costs will inevitably result in reduced payments to providers. Payers are doing this by imposing payment cuts across the board. However, this is a reverse incentive. It penalizes efficient, high-quality providers more than inefficient, low-quality providers. As a result, many opponents have objected to the approach as unfair and unproductive.

Another approach is to reform payment systems to get increased value from healthcare expenditures. Performance-based payment—including pay for performance (P4P), value-based purchasing, shared savings, and accountable care programs—links payment to quality. It sets clear financial incentives for providers to increase efficiency and improve quality outcomes, generating greater value. This approach can be implemented today in a way that is practical and transparent.

Why is Reform Needed?

With the current fee-for-service payment model, unnecessary services result in increased payment. When providers improve the quality of their care and eliminate unnecessary services, they receive less reimbursement. Ironically, they have no financial incentive to improve quality. Performance-based payment reform provides a financial incentive for providers to reduce unnecessary services, thereby lowering costs, improving quality and increasing value.

Potentially Preventable Events (PPEs) are services that may be unnecessary if more effective care had been delivered. PPEs represent waste that not only increases cost, but represents a significant quality problem. From the perspective of care providers, one way to improve efficiency and quality—to generate greater value—is to better identify and avoid PPEs.

* "Smart Payment Reforms Can Reduce Costs and Improve Quality: A Short Primer," Community Catalyst, March 2011, found at www.communitycatalyst.org.

What Are Potentially Preventable Events?

There are five types of healthcare encounters or events that are potentially preventable and may lead to unnecessary services:

- Potentially Preventable Complications (PPCs)
- Potentially Preventable Readmissions (PPRs)
- Potentially Preventable Admissions (PPAs)
- Potentially Preventable Emergency Room Visits (PPVs)
- Potentially Preventable Ancillary Services (PPSs)



A \$134 Billion Opportunity

A [2009 analysis of hospital claims](#) in California and Maryland databases* estimated that potentially preventable hospital-acquired complications (PPCs) account for 9.4 to 9.7% of the cost of inpatient care.

That points to a \$135 billion cost-savings opportunity. Government sources estimate that costs for inpatient hospital care nationwide were \$759 billion in 2009.** Physician and clinical services accounted for another \$675 billion. The 9.4% PPC rate translates into \$71 billion and \$63 billion, respectively, a total of over \$134 billion in potentially avoidable costs.

* "Estimating the Costs of Potentially Preventable Hospital Acquired Complications," Richard L. Fuller, M.S., Elizabeth C. McCullough, M.S., Mona Z. Bao, M.S., and Richard F. Averill, M.S.; Health Care Financing Review, Summer 2009, Volume 30, Number 4, p. 17.

** Sources: Centers for Medicare & Medicaid Services, Office of the Actuary, National Health Statistics Group; and U.S. Department of Commerce, Bureau of Economic Analysis and Bureau of the Census.



Potentially Preventable Complications

PPCs are harmful events or negative outcomes that occur after a patient is admitted to a hospital or long-term care facility (LTCF). They result from the process of care and treatment rather than from a natural progression of underlying disease and could reasonably be prevented according to accepted standards of care.

Potentially Preventable Readmissions

PPRs are return hospitalizations that may result from deficiencies in care or treatment provided during a previous hospital stay. PPRs can also result from inadequate post-hospital discharge followup. They do not include unrelated events that occur post discharge.

Readmissions may result from actions taken or omitted during the initial hospital stay, such as incomplete treatment or poor care of the underlying problem. In addition, a readmission may reflect poor coordination of services at the time of discharge and afterwards such as incomplete discharge planning, and/or inadequate access to care after discharge.

Current studies on readmission rates have concluded that between 5 and 38 percent of hospital readmissions within 30 days are preventable. A recent evaluation by hospitalists at four community hospitals concluded that 15% of readmissions at their facilities were overtly preventable; another 46% were considered "possibly preventable."^{*}

^{*} "Hospitalists Assess the Causes of Early Hospital Readmissions," Douglas Koekkoek, MD, K. Bruce Bayley, PhD, Allen Brown, B, D. Leif Rustvold, MA, MS; *Journal of Hospital Medicine*, Vol. 6, No 7, September 2011, p. 383.



Potentially Preventable Admissions (PPAs)

PPAs are admissions to a hospital or long-term care facility (LTCF) that could reasonably be prevented if care and treatment was provided according to accepted standards of care. PPAs involve ambulatory sensitive conditions for which adequate patient monitoring and followup often can avoid the need for hospitalization. The occurrence of high rates of PPAs represents a failure of the ambulatory care provided to the patient.

The list of PPAs is more comprehensive than the AHRQ list of ambulatory care sensitive conditions, in large part because of advances in our understanding of the role coordinated care can play in avoiding admissions. Furthermore, the list of PPAs could expand over time. As risk-adjusted PPA rates are compared across providers, excessive admission rates will emerge within a wider range of conditions. Also, more PPAs will be identified and tracked as healthcare entities with the full responsibility for coordination and preventive services are implemented.

Potentially Preventable Emergency Room Visits (PPVs)

PPVs are emergency room visits for conditions that could otherwise be treated by a care provider in a non-emergency setting. PPVs are similar to PPAs in that they involve ambulatory sensitive conditions that could be treated effectively with adequate patient monitoring and followup, rather than requiring emergency medical attention. In general, the occurrence of high rates of PPVs represents a lack of adequate or effective ambulatory care for the patient, including followup.

Potentially Preventable Ancillary Services (PPSs)

PPSs are ancillary services provided or ordered by primary care physicians or specialists to supplement or support the evaluation or treatment of patient. They include diagnostic tests, laboratory tests, therapy services, radiology services and pharmaceuticals that may be redundant or are not reasonably necessary for providing care or treatment.

Ambulatory Care Sensitive Conditions

Learn more about ambulatory care sensitive conditions (ACSCs) and how the hospitalization rate for ACSCs is measured at the [National Quality Measures Clearinghouse](#) on the AHRQ website.





Summary of Potentially Preventable Events

Potentially Preventable. . .		Description	Result from or caused by	Examples
Complications	PPCs	Harmful events or negative outcomes	Process of care and treatment	Accidental laceration during surgery; hospital-acquired pneumonia
Readmissions	PPRs	Return hospitalizations	Actions or omissions during hospital stay or lack of post-discharge followup	Readmission for a surgical wound infection; unfilled prescription
Admissions	PPAs	Hospital admissions	Inadequate access to care or poor coordination of ambulatory care	Hospitalization for asthma that could be controlled with medication
Emergency Room Visits	PPVs	Emergency room visits	Inadequate access to care or poor coordination of ambulatory care	ED treatment for an asthma patient with shortness of breath
Ancillary Services	PPSs	Tests, procedures or pharmaceuticals	Not useful to diagnosis and treatment	An MRI for mild low back pain



Adjusting for “At Risk” Patients

As the name suggests, PPE are generally preventable. However, they will never be totally eliminated, even with optimal care. There will always be a residual rate of PPEs for even the best-performing providers.

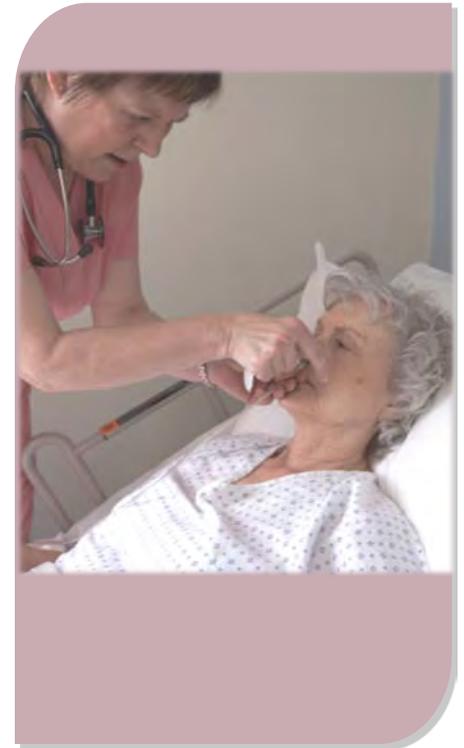
A patient’s susceptibility to a PPE depends on the underlying clinical condition. Therefore, population data is adjusted for risk before calculating and comparing rates. This involves:

- Identifying the subset of patients at risk for having a preventable healthcare event
- Adjusting the provider’s expected rate of PPEs to identify the rate of excess PPEs for an individual provider

Identifying Patients at Risk for a PPE

It is difficult to determine whether an adverse event is preventable when the patient has a catastrophic or complex disease. For example, patients with metastatic malignancies, serious multiple trauma or extensive burns require complex care, making it difficult to assess whether a complication or readmission is preventable. Such patients should be excluded from the calculation of a provider’s risk-adjusted expected rate of PPEs.

In addition to the exclusion of extremely complex patients, specific clinical circumstances may also make it unlikely that particular events could be prevented. For example, a post-admission stroke may not be considered preventable for a patient admitted for treatment of a brain malignancy. PPCs, PPRs and post-hospital discharge PPVs all require additional clinical exclusions in order to determine the patients at risk for these events. PPAs, PPVs unrelated to a hospitalization and PPSs are all presumptively preventable and do not require additional clinical exclusions.





Over time, the need for PPE exclusions will diminish as healthcare networks assume full responsibility for coordination of care spanning ambulatory care, medical practice, and acute care settings. Whether care is provided by acute care organizations or medical homes, the trend is toward specialty or disease management programs that focus on patients with multiple chronic diagnoses, special needs populations or dually entitled individuals.

Determining Excess PPEs for a Provider

Once the patients at risk for a particular type of PPE have been identified, a provider's risk-adjusted expected rate of each type of PPE can be computed. This is compared to the actual rate to determine whether there is an excessive number of actual PPEs beyond the expected rate. The excess PPEs can then be used as the basis for provider performance reporting or payment adjustment.

The method of risk adjustment is not the same for all PPEs. PPCs and PPRs and post-hospital care relates to the patient's condition at the time of the hospitalization. Risk adjustment for these situations are based on the acute conditions that necessitated the hospitalization.

PPAs, PPVs and PPSs are unrelated to a previous hospitalization. Risk adjustment for them relates to the patient's chronic illness burden. Thus, the method of risk adjustment differs across the different types of PPEs.



3M PPE Solutions

3M is the innovator of several methodologies for identifying PPEs and adjusting the PPE rate for risk. We offer comprehensive software for PPCs, PPRs and post-hospital-discharge PPVs that include global and clinical exclusion for determining the patients at risk and the identifying PPCs and PPRs.

All Patient Refined DRGs (APR DRGs) are a comprehensive method of determining a patient's reason for admission and severity of illness. [3M™ APR DRG Software](#) is widely used today for adjusting large volumes of data to reflect severity of illness and risk of mortality. It creates a common measurement across disparate patient types, allowing for comparison of hospital service lines, individual physician performance and patient outcomes.

APR DRGs are used to risk adjust PPCs and PPRs within [3M™ Potentially Preventable Complication \(PPC\) Grouping Software](#) and [3M™ Potentially Preventable Readmission \(PPR\) Grouping Software](#). These applications identify avoidable PPCs and PPRs, allowing healthcare facilities, payers and public health officials to target areas for improvement.

Enhanced Ambulatory Patient Groups (EAPGs) are a comprehensive method of determining the cause of ambulatory visits. The method can be used to identify PPVs and PPSs, as with [3M™ Enhanced Ambulatory Patient Grouping \(EAPG\) System](#).

Clinical Risk Groups (CRGs) are a comprehensive method of determining the chronic illness burden of a patient, including both inpatient and ambulatory encounters. With [3M™ Clinical Risk Grouping \(CRG\) Software](#), payers can risk adjust PPAs, PPVs and PPSs.

Quick links to 3M Solutions for PPEs:

[3M APR DRG Classification System](#) for severity of illness and risk of mortality

[3M PPC Grouping Software](#) for PPCs

[3M PPR Grouping Software](#) for PPRs

[3M EAPG System](#) for PPVs and PPSs

[3M CRG Software](#) for payers to risk adjust PPAs, PPVs and PPSs





Achieving and Establishing Accountable Care

The key and final step to achieving accountable care is establishing provider entities that are accountable for patients' clinical outcomes (provider performance, quality measures, and utilization), or financial risk, or both. There is no "one size fits all" accountable care entity or structure. Payment reform is likely to include a mix of medical homes, integrated delivery networks, and accountable care organizations (ACOs).

Although organizations will differ in their structure and risk-sharing arrangement, their success in adapting to payment reforms will depend on the same critical abilities:

- Avoiding unnecessary services and eliminating waste
- Monitoring and improving quality outcomes
- Providing transparency to care providers, patients, payers and advocate organizations

An enterprise-wide program to identify and avoid PPEs can help organizations meet these expectations.

[Click here](#) to see how one pilot project successfully proposed a sustainable, scalable approach to changing payment incentives.* The project identified \$200 million in savings for a self-funded medical home model with 36 primary care physicians serving nearly 12,900 members.

* "Building the Affordable Medical Home," Richard L. Fuller, MS; Scott Clinton, BS; Norbert I. Goldfield, MD; William P. Kelly, MBA, MPH; *Journal of Ambulatory Care Management*, Vol. 33, No. 1, pp. 71–80.

Summary – What You Need to Know

PPEs represent a critical component of healthcare payment reform. PPEs concretely express the amount and type of savings that are possible when payers work with providers to coordinate care and improve access to appropriate services. Although many researchers, such as the Dartmouth Atlas project, contend a high rate of 30-40% waste in the healthcare system, they do not provide any details on the types and actual quantity of services that are potentially preventable. PPEs can quantify the level of waste in a transparent manner to payers, providers and consumers.

PPEs are just one element of a broad healthcare cost containment strategy. Ultimately, both payment and delivery system reforms are necessary. They are not mutually exclusive but, as with PPE-based P4P, are complementary.

Delivery systems must be changed to integrate independent provider entities (such as physician offices and hospitals) so that they work together as new provider organizations (such as accountable care organizations and medical homes). These new organizations must be capable of providing comprehensive and coordinated care. They will need tools to monitor and reward participating providers for efficient and high-quality care. The techniques employed for payment system reform, such as PPE-based P4P, can and should provide the basis for those tools.

The 3M Advantage

3M can help you deliver quality with tools to help you:

- Evaluate quality indicators
- Analyze events that impact patient safety and revenue
- Coordinate care to your most vulnerable patients
- Streamline utilization review

Visit our [State Initiatives web page](#) for more information about payment and reporting initiatives in your state.

Or browse the [3M blog](#) for current advice on healthcare compliance and quality outcomes.



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