OVER THE LAST FEW DECADES, the U.S. health care system experienced dramatic changes. The populations of elderly and chronically ill have expanded (He, Sengupta, Velkoff, & DeBarros, 2005; Wu & Green, 2000), medical technology and science have progressed (Altman, 2006), under and uninsurance have grown (Institute of Medicine [IOM], 2009), and health care costs have risen exponentially (Catlin, Cowan, Hartman, & Heffler, 2008). These demographic, economic, and scientific shifts have been accompanied by an increasing awareness of suboptimal, uneven, and error-prone care.

Beginning with reports published by the IOM (1994), the nation has had to come to terms with a fragmented, inefficient, and unsafe health care system.

In 1997, then-President Clinton appointed the Advisory Commission on Consumer Protection and Quality in the Health Care Industry to contend, at least in part, with the confluence of these challenges. Quality First: Better Health Care for All Americans was released the following year and recommended, among other things, establishing national aims for quality improvement, adopting uniform health care performance measurement and reporting standards, stimulating improvements in quality through discretion among purchasers in contracting with high-performing providers, and increasing consumer engagement in health care decision making (President’s Advisory Commission on Consumer Protection and Quality in the Health Care Industry, 1998). Since the late 1990s, more contemporary discoveries have confirmed the system’s underperformance (Asch et al., 2006; Mangione-Smith et al., 2007; McGlynn et al., 2003) and strengthened the case for health care transparency and accountability (IOM, 2000; 2001; 2006; 2007).

Transparency and accountability are terms that typically refer to activities aimed at measuring and holding providers responsible for their performance through such vehicles as public disclosure of comparative results.

Today, transparency and accountability policies are widely accepted strategies to drive quality improvement and stimulate consumer choice.

Yet nursing, the single largest health care profession, has not yet been engaged in these policy directions nor considered in their design or implementation.

The framework reported here offers nurses and their professional organizations a model for which to advocate for policy change.

Hospital and health system executives who have the freedom to establish institutional policies might implement this framework to achieve higher value.

This framework provides both the context and components of a system that, if implemented, would measure, report, and reward hospital nursing’s contributions to high value.

EXECUTIVE SUMMARY

- Transparency and accountability are terms that typically refer to activities aimed at measuring and holding providers responsible for their performance through such vehicles as public disclosure of comparative results.
- Today, transparency and accountability policies are widely accepted strategies to drive quality improvement and stimulate consumer choice.
- Yet nursing, the single largest health care profession, has not yet been engaged in these policy directions nor considered in their design or implementation.
- The framework reported here offers nurses and their professional organizations a model for which to advocate for policy change.
- Hospital and health system executives who have the freedom to establish institutional policies might implement this framework to achieve higher value.
- This framework provides both the context and components of a system that, if implemented, would measure, report, and reward hospital nursing’s contributions to high value.

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such vehicles as public disclosure of comparative results (IOM, 2007). Today, transparency and accountability are widely accepted strategies to drive quality improvement and stimulate consumer choice (Berwick, James, & Coye, 2003). Paired with complimentary strategies to financially reward high performance (e.g., value-based purchasing, pay-for-performance, performance-based payments), transparency and accountability policies are being pursued by employers, purchasers, accreditors, and policymakers to stimulate quality improvement while controlling costs and eliminating waste. Ultimately, transparency, accountability, and performance-based payment programs are intended to achieve higher-value health care (U.S. Department of Health and Human Services [DHHS], 2009; IOM, 2010).

Value is defined as “a specified stakeholder’s...preference-weighted assessment of a particular combination of quality and cost of care performance” (National Quality Forum [NQF], 2009, p. vi). In simple terms, value is the quality of health services, including stakeholders’ perceived adequacy of and experiences with them, provided for the cost of obtaining those services. It is only within the last few years that intentions have shifted from merely improving the state of health care quality and safety to improving the value and efficiency of care.

This deliberate focus on achieving higher value through accountability and transparency has necessitated the emergence of an infrastructure that supports the measurement and reporting of performance results and establishes the basis for performance-based payment programs. Referred to as the “quality enterprise,” this infrastructure is dependent on the contributions of a variety of stakeholders—consensus-setting organizations (e.g., NQF), voluntary quality alliances (e.g., Hospital Quality Alliance), regional and local collaboratives, government agencies, measure developers, quality improvement organizations, accreditors, trade and professional groups, certification and medical specialty boards, private vendors, and others. This enterprise functions to set national priorities, develop and endorse performance measures, gather and analyze performance data, and foster quality improvement through public reporting and performance-based payment programs (Stand for Quality in Health Care, 2009). Despite the fact that achieving higher value is now an expectation among stakeholders and a byproduct of the quality enterprise, little progress has been made in incorporating nursing’s unique assets into this infrastructure or translating the enterprise’s functions to be relevant to the profession (Kurtzman, Dawson, & Johnson, 2008).

This Transparency and Accountability Framework for High-Value Inpatient Nursing Care (see Figure 1) responds to these expectations by adapting the components of the quality enterprise to the work and contributions of hospital nurses. The framework is organized into five main sections which mirror the functions of the quality enterprise: (a) priority setting, (b) performance measurement, (c) public reporting, (d) data quality and availability, and (e) rewards and incentives. To move from the existing quality enterprise to one that is robust and flexible, fully operable, and recognizes nursing’s contributions to high-value inpatient care, significant efforts must be undertaken. Recommendations in each of the five areas of the framework provide a roadmap for nurses and their professional organizations, hospitals and health systems, measure developers, information and technology vendors, public and private payers, accreditors, and policymakers that, if implemented, would harness the power of the inpatient nursing workforce in attaining higher-value health care.

**Nursing’s Relationship to the Quality Enterprise**

Nurses represent the single largest group of health care providers. There are approximately 2.9 million registered nurses (RNs) who hold U.S. licenses (Bureau of Labor Statistics, 2009; DHHS, 2002). Add to that number the nearly 900,000 active licensed practical nurses (LPN) (referred to as licensed vocational nurses in some states; DHHS, 2004) and the nursing workforce exceeds 3.5 million. While nurses can be found working in every health care setting and are frequent points of patient contact, more than one-half of RNs and one-third of LPNs work in hospitals. Because of the relative size of the nursing workforce and its proximity to inpatient care, a high priority should be placed on ensuring care provided by hospital nurses is transparent and accountable. For this reason, the translation of components of the quality enterprise into terms that are relatable to nurses is essential.

Furthermore, a maturing body of evidence links nurse staffing to adverse events and inpatient outcomes of care (Needleman, Kurtzman, & Kizer, 2007). Among specific subpopulations, for example, studies have consistently demonstrated a nurse staffing-quality effect for failure to rescue, inpatient mortality, and length of stay (Kane, Shamiyan, Mueller, Duval, & Wilt, 2007; Kurtzman, 2010a). The Interdisciplinary Nursing Quality Research Initiative (INQRI), funded by the Robert Wood Johnson Foundation (2010), aims to “generate, disseminate and translate research to understand how nurses contribute to and can improve the quality of patient care.” Although the evidence base is substantial, it is largely unacknowledged by the
current quality enterprise. Together findings from the existing evidence with additional contributions from research funded by INQRI and other sources provide the scientific basis for relating nursing to quality and are the foundations for strengthening nursing’s transparency and accountability.

To date, because much of the quality enterprise has been driven by the DHHS, the emphasis has been on designing and implementing a performance measurement and reporting system that monitors and incentivizes providers who hold contracts with Medicare: physicians, hospitals, skilled nursing facilities, home health agencies, end stage renal dialysis centers, etc. As a result, hospital nursing is effectively invisible in the national transparency and accountability agenda. Based on a set of guiding principles (see Table 1), a coordinated and comprehensive plan for measuring, reporting, and rewarding high-performance nursing care follows.

**Priority Setting**

Recognizing priorities are a fundamental cornerstone to effective quality improvement (McGlynn, Cassel, Leatherman, DeCristofaro, & Smits, 2003) and a fulcrum in focusing efforts and resources on a select set of key performance targets, the Advisory Commission on Consumer Protection and Quality in the Health Care Industry advised the President to exert national leadership to improve health care. Specifically, the Commission recommended the creation of an Advisory Council for Health Care Quality which would, among other functions, identify national aims and specific objectives for performance improvement (President’s Advisory Commission Consumer Protection and Quality in the Health Care Industry, 1998).

Although this recommendation as expressed by the Commission was never achieved, over the last few years there have been
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Table 1.
Framework’s Guiding Principles

1. Because of the relative size of the nursing workforce, its proximity to inpatient care, and the empiric-base substantiating a nurse staffing-quality effect, a high priority should be placed on adapting the quality enterprise to reflect the care provided by hospital nurses.

2. All health care professionals, including nurses, should be held accountable for and incentivized to achieve high-value care.

3. Improvements in care, including those driven by nurses, should be aligned with national priorities and goals for high value.

4. Progress in achieving national priorities and goals for high value, including nursing’s contributions, should be measured and publicly reported.

5. Measures that have been empirically linked to nursing care should be the foundation on which the transparency and accountability of inpatient nursing care are based.

6. To the extent possible, measuring and reporting nursing’s contribution to high value should not require any significant, additional investment in the quality enterprise.

7. Synchronicity and alignment should be achieved in the design and implementation of any transparency and accountability framework for high-value inpatient nursing care with current policy directions, the emerging quality enterprise, and practice innovations.

8. Ideally, rewards, incentives, and performance-based payment programs should be designed to stimulate higher value.

9. Health care teams and their individual members whose performance can be measured and reported should be financially rewarded and incentivized for their contributions to high value.

Table 2.
Translated Priorities That Reflect Nursing’s Contributions to High-Value Inpatient Care

Recommendation 1a | Efforts to strengthen the transparency, accountability, and value of inpatient nursing care should be based on nursing’s contributions to performance improvements that reflect agreed upon national priorities and goals.

Recommendation 1b | As a first step, national priorities and goals that have been identified through consensus (e.g., NPP) should be interpreted for nursing’s use across practice settings, patient populations, and characteristics of the nursing workforce (e.g., licensure/certification, education).

substantial investments in identifying consensual goals for health care quality. In 2008, for example, the National Priorities Partnership (NPP), a group of more than two dozen leading health care, consumer, employer, and public and private payer groups, released a set of six national priorities (patient and family engagement, population health, safety, care coordination, palliative and end-of-life care, and overuse) selected for their potential to eliminate waste, harm, and disparities and achieve high-value health care (NPP, 2008).

Such national priorities are a natural starting point for establishing nursing-specific priorities and goals. In fact, as envisioned by NPP, policymakers, health care leaders, and the community have been challenged with developing actions in each of the major areas to drive improvement. Furthermore, to be relevant, each NPP priority and goal is sufficiently broad to be further interpreted at the provider and setting-specific levels.

The following demonstrates how an NPP goal might be translated for nursing’s use:

NPP Priority: Care coordination

NPP Goal: All health care organizations and their staff will work collaboratively with patients to reduce 30-day readmission rates.

Nursing-specific goal: By 2015, nurse-led evidence-based models, which have effectively reduced 30-day readmission rates (e.g., the Transitional Care Model [Naylor et al., 2004]), should be widely adopted among 35% of the nation’s hospitals. A target of 12% reduction by 2015 has been established for this purpose.

While merely illustrative, this example, along with specific recommendations in this area (see Table 2), offer a sense of how nursing-specific priorities and goals could be established.

Performance Measurement

Measure development is expensive, time consuming, and requires specific, technical expertise. For this reason, enormous investments (e.g., financial, technological, operational) have been made by both public and private sector organizations to develop performance measures that are adequate for use in transparency and accountability initiatives. The federal government (e.g., Centers for Medicare & Medicaid Services
Historically, developers have typically applied this second approach, designing measures that portray hospital performance more generally and deeming those that have been empirically associated with nursing as “nursing sensitive.” The American Nurses Association’s National Database of Nursing Quality Indicators®, the American periOperative Registered Nurses’ Perioperative Nursing Data Set, the Collaborative Alliance for Nursing Outcomes Database, and the Veteran’s Administration Nursing Outcomes Database are examples. Nursing-sensitive outcomes developed by these organizations have served as the natural antecedents to nationally standardized performance measures. In 2004, the National Quality Forum, a public-private partnership organization founded in response to the recommendations of the Clinton Advisory Commission, endorsed a set of national voluntary consensus standards for nursing-sensitive care (see Table 3; NQF, 2004). Among others, these measures include pressure ulcer prevalence, catheter-associated urinary tract infection, nursing hours per patient day, and voluntary turnover. Together, these NQF-endorse® standards provide a natural foundation on which to base this transparency and accountability framework.

Although appealing for purposes of this framework, these measures also have recognized limitations. First, the experts convened to evaluate and recommend these measures agreed on a number of existing inadequacies. Gaps in key content areas were viewed as high priorities for measure development and data issues were identified as needing to be resolved in order to close the health care quality chasm. Furthermore, the science on which endorsement decisions were made in 2004 is now “dated” which necessitates re-evaluation. Finally, while it should be noted that the NQF-endorse® measures have gained widespread acceptance as reflecting the quality of inpatient nursing care, the associations are not causal and the measures do not differentiate the care provided by nurses in achieving these processes and outcomes from the contributions of non-nurse health care practitioners.

Table 3
NQF-Endorsed® National Voluntary Consensus Standards for Nursing-Sensitive Care

- Death among surgical inpatients with treatable serious complications (failure to rescue)
- Pressure ulcer prevalence
- Falls prevalence
- Falls with injury
- Restraint prevalence (vest and limb only)
- Urinary catheter-associated urinary tract infections for patients in intensive care unit (ICU)
- Central line catheter-associated blood stream infections for ICU and high-risk nursery (HRN) patients
- Ventilator-associated pneumonia for ICU and HRN patients
- Smoking cessation counseling for acute myocardial infarction*
- Smoking cessation counseling for heart failure*
- Smoking cessation counseling for pneumonia*
- Skill mix (RN, LPN, UAP, and contract)
- Nursing care hours per patient day (RN, LPN, and UAP)
- Practice Environment Scale-Nursing Work Index (composite and five subscales)
- Voluntary turnover

* NOTE: Following review in 2009, endorsement of these measures was not maintained.
Proposed recommendations (see Table 4) address, at least in part, these limitations.

**Public Reporting**

Despite the sizable investment in measure development, adoption of the NQF-endorsed nursing-sensitive standards has been relatively slow. Only a handful of organizations, for example, routinely publish performance results for at least one of the nursing-sensitive measures. As previously described in the literature (Kurtzman et al., 2008), although the number of hospital performance measurement and reporting initiatives has grown (e.g., CMS’ Hospital Compare, Joint Commission’s Quality Check™, U.S. News & World Report), the number portraying the performance of nursing care, either in part or in total, remains relatively small. Between 2004, when NQF-endorsed its consensus standards, and 2010, for example, few nursing-sensitive measures were adopted by CMS for use on Hospital Compare.

Although national implementation has been limited, several state-wide efforts have incorporated measures that portray inpatient nursing care quality. In Maine, the state legislature promulgated a nursing-specific data collection and reporting requirement for hospitals. These data are publicly reported by the Maine Quality Forum on behalf of acute care hospitals (Maine Quality Forum, 2010). A voluntary effort undertaken by the Massachusetts Hospital Association (MHA) and Massachusetts Organization of Nurse Executives and referred to as PatientCareLink, has resulted in publicly accessible provider-level results on a number of nurse-sensitive measures (MHA, 2010).

As public reports have been popularized over the last decade, health care stakeholders have also invested in establishing agreed upon principles for data gathering and analysis and consumer reporting. Most notably, in 2003, NQF published a Comprehensive Framework for Hospital Care Performance Evaluation which offered a standard direction, uniform approach, and set of criteria to direct hospital performance measurement and reporting activities. Many of the reporting entities that publish hospital performance reports have applied these uniform criteria. These existing guidelines and performance reports provide the basis on which to construct performance reporting recommendations under this framework (see Table 5).

**Data Quality and Availability**

The implementation of a performance measurement and public reporting system is based, at least in part, on the availability of data elements to construct the measures. Data for performance measurement is derived from two

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**Table 4. Performance Measurement That Quantifies Nursing’s Contributions to High-Value Inpatient Care**

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2a</td>
<td>A sizable investment should be made to develop measures that reflect nursing-specific priorities and goals.</td>
</tr>
<tr>
<td>2b</td>
<td>Until new measures are developed, fully tested, and endorsed, the current NQF-endorsed national voluntary consensus standards for nursing-sensitive care should be the foundation on which a transparency and accountability framework for high-value inpatient nursing care is based.</td>
</tr>
<tr>
<td>2c</td>
<td>To move beyond the current state of provider and practitioner-level performance measures, ultimately, measures should be developed that reflect the contributions of the health care team to high value.</td>
</tr>
<tr>
<td>2d</td>
<td>All measures used for accountability and transparency, including measures utilized in reward and incentive programs, should be NQF-endorsed.</td>
</tr>
<tr>
<td>2e</td>
<td>Measures that reflect nursing’s contributions to high value should be developed in a coordinated and synchronized manner to ensure their timely endorsement for use in transparency and accountability programs.</td>
</tr>
</tbody>
</table>

**Table 5. Public Reporting of Performance That Reflects Nursing’s Contributions to High-Value Inpatient Care**

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3a</td>
<td>National, regional, and statewide public (e.g., CMS) and private (e.g., The Joint Commission) entities that routinely disclose health care performance results should incorporate measures that portray nursing’s contributions to inpatient safety, health care quality, and value.</td>
</tr>
<tr>
<td>3b</td>
<td>Reports of inpatient nursing care performance and entities reporting results should adopt and adhere to consensually agreed upon approaches to data transmission, measure aggregation, results verification, and reporting (e.g., NQF’s Comprehensive Framework for Hospital Care Performance Evaluation).</td>
</tr>
</tbody>
</table>
primary sources: administrative records (e.g., discharge abstracts) and patient charts. There has been widespread debate about the trade-offs between measurement validity and reliability and feasibility of gathering these data in the construction of publicly reported performance measures (Zhan & Miller, 2003). On one side, administrative data are readily available and relatively less burdensome to collect; while patient-level data from charts and other abstracted sources are more reliable and valid.

While this debate rages and in the absence of a fully electronic health record, consideration of what is available under the “current” state is necessary. An important conclusion can be drawn from that which exists – many of the measures currently utilized in the quality enterprise were developed for alternative purposes. They simply do not account for the needs created by a system where performance is publicly reported and financially incentivized. For this reason in the United States, we currently live with a “legacy” system – measures that are publicly reported but that do not reflect priorities and priorities identified for national action but that do not have corresponding performance measures. While stakeholders are transfixed on developing measures that synch with priorities and goals, we suffer from an “in-between” state.

Recommended priority setting and measure development activities will, at least in part, mitigate this “in-between” state. Meanwhile, it would be imprudent to ignore the available data generated by nationally collected and reported nursing-sensitive measures. Namely, five NQF-endorsed nursing-sensitive performance measures are being collected by hospitals and reported to CMS now or in the near future (failure to rescue, pressure ulcer prevention, falls with injury, catheter-associated urinary tract infections [UTIs], vascular catheter-associated bloodstream infections). These five measures, although limited, provide a data platform on which subsequent transparency and accountability efforts could be forged (see Table 6).

### Rewards and Incentives

An organized attempt by purchasers to improve the quality of health programs when negotiating costs is known as value-based purchasing (VBP) (DHHS, 1997). VBP includes both “pay-for-reporting” programs that pay financial incentives in exchange for the submission of specific performance data (e.g., RHQDAPU, Physician Quality Reporting Initiative) and “pay-for-performance” programs that reward high-performing hospitals (e.g., Leapfrog Hospital Rewards Program™ and physicians (e.g., Rewarding Results, Bridges to Excellence). In recent years, these programs have gained widespread appeal; more than 100 accounts of such programs sponsored by health plans and employer groups have been reported in the literature (Baker & Carter, 2004-2005). Combined with public efforts, it is estimated that these VBP efforts cover an estimated 50 million beneficiaries (Scott, 2007). The extension and translation of these programs to reflect the contributions of all health care professionals, including nurses, have not yet been achieved (see Table 7).

The federal government, as the single largest payer of health care, has the most at stake. In recent years, CMS has launched a

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### Table 6. Accessible, Reliable, Valid, and Integrated Electronic Health Data to Compute Performance and Portray Nursing’s Contributions to High-Value Inpatient Care

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4a</td>
<td>Initially, efforts to strengthen the transparency and accountability of inpatient nursing care should be based on data that, while imperfect, exist in current national reporting systems.</td>
</tr>
<tr>
<td>4b</td>
<td>Longer term, manual and electronic data collection systems should be adjusted to accommodate discrete data elements that will enable the construction of all NQF-endorsed nursing-sensitive performance measures or, as their replacements, measures that reflect nursing-specific priorities and goals.</td>
</tr>
<tr>
<td>4c</td>
<td>Data systems should be flexible enough to accommodate new data elements as nursing-sensitive measures are added, subtracted, and/or modified to reflect contemporary transparency and accountability initiatives.</td>
</tr>
<tr>
<td>4d</td>
<td>All hospital performance measures, including those related to nursing care, should be specified for an electronic format, based on a standardized code language, and linked to patients’ clinical records to enable the automatic collection of data elements as part of the process of clinical care.</td>
</tr>
<tr>
<td>4e</td>
<td>Ultimately, the use of a standardized nursing language, across all settings of care must be fully developed and adopted into emerging electronic platforms; a fundamental principle that must be enthusiastically supported and implemented by the vendor community and other health care stakeholders.</td>
</tr>
</tbody>
</table>
number of performance-based payment demonstrations and initiatives in hospitals, physician offices, nursing homes, home health agencies, and dialysis facilities. Although CMS has promulgated various VBP policies and conveyed its plan to expand these programs in its report to Congress (DHHS, 2007), because hospital nurses are not under contract to the Medicare program, nurses are ineligible to participate in these CMS-sponsored programs:

- **Reporting Hospital Quality Data for Annual Payment Update (RHQDAPU).** Under RHQDAU hospitals are penalized -2.0% in their Medicare Annual Payment Update (APU) for failure to collect and submit performance data on an expanding number of required measures. For the purpose of this framework, it is particularly relevant to note select measures required under RHQDAPU have been both qualitatively (Kurtzman, 2010b) and quantitatively (Landon et al., 2006) linked to the nursing workforce.

- **Hospital-Acquired Conditions (HACs) Policy.** In October 2008, CMS implemented HACs, its first bona fide performance-based payment policy (CMS, 2007). Under RHQDAU hospitals are penalized -2.0% in their Medicare Annual Payment Update (APU) for failure to collect and submit performance data on an expanding number of required measures. For the purpose of this framework, it is particularly relevant to note select measures required under RHQDAPU have been both qualitatively (Kurtzman, 2010b) and quantitatively (Landon et al., 2006) linked to the nursing workforce.

### Table 7.
**Rewards and Incentives That Recognize Nursing’s Contributions to High-Value Inpatient Care**

<table>
<thead>
<tr>
<th>Recommendation 5a</th>
<th>The design, development, testing, and refinement of incentive models that reward hospital nurses for their contributions to high-value inpatient care should be a priority of providers, practitioners, researchers, funders, and other stakeholders.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendation 5b</td>
<td>The basis for any financial reward or incentive must be in exchange for either vital performance data, high performance, or quantifiable improvements in performance.</td>
</tr>
<tr>
<td>Recommendation 5c</td>
<td>Reward and incentive systems must take advantage of existing, endorsed performance measures rather than rely on the creation of new or unique measures.</td>
</tr>
<tr>
<td>Recommendation 5d</td>
<td>In the absence of process, outcome, and structural measures that quantify the health care team’s contributions to improved performance, incentives should be based on provider and practitioner-level measures including but not limited to, nursing-sensitive performance measures.</td>
</tr>
<tr>
<td>Recommendation 5e</td>
<td>Recognizing that hospital nurses do not typically contract with Medicare nor are they directly remunerated by other private payers, short term, any reward or incentive system aimed at nurses must be designed and implemented by hospitals and their leaders.</td>
</tr>
<tr>
<td>Recommendation 5f</td>
<td>Although Medicare policy does not directly target but highly influences hospital nurses, the impact of any Medicare value-based purchasing program on nurses should be examined closely before such programs are promulgated and implemented.</td>
</tr>
<tr>
<td>Recommendation 5g</td>
<td>Ideally, systems that reward and incentivize performance should be reward rather than penalty-based. Methods to shift economies achieved and savings gained from measurable improvements in performance to add-on payments to nurses and other health care practitioners should be explored vigorously.</td>
</tr>
<tr>
<td>Recommendation 5h</td>
<td>Short term, rewards and incentives to hospital nurses should be built on and derived from existing hospital pay-for-reporting and pay-for-performance initiatives rather than novel designs that have not been adopted nor are in widespread use.</td>
</tr>
<tr>
<td>Recommendation 5i</td>
<td>Eligibility for any federal payment policy aimed at achieving higher value including, but not limited to value-based purchasing, medical homes, bundled payments, accountable care organizations, and financial incentives for such innovations as health information technology and care coordination should be extended to all qualified licensed independent practitioners including advanced practice registered nurses.</td>
</tr>
</tbody>
</table>

- **Hospital-Acquired Conditions (HACs) Policy.** In October 2008, CMS implemented HACs, its first bona fide performance-based payment policy (CMS, 2007). Under this policy, Medicare eliminated additional payments for select hospital-acquired conditions that are considered common, costly, and preventable. While initially, CMS proposed the elimination of payment for eight HACs, it systematically expanded the list to ten. Indications suggest the number of these conditions will expand further. Of particular note is that four of the ten HACs (see Table 8) have been linked by evidence to the nursing workforce and endorsed by NQF as “nursing sensitive.” This suggests nurses, at least in part, contribute to the prevention and eradication of these events.
To build on existing Medicare programs, transition rapidly to a system that recognizes nursing’s contributions, and achieve simplicity in the necessary infrastructure, two models are provided as examples of how performance-based payment policies could be extended to hospital nurses. In both instances, the models are based on four underlying assumptions:

1. The model applies to any hospital that participates in the Medicare program.
2. The incentive payment is made annually.
3. The incentive payment percentage is calculated based on the relative cost of nursing salaries to the direct-care budget (Kane & Siegrist, 2002; Welton, Unruh, & Halloran, 2006), which is 30%.
4. The incentive payment benefits all employed hospital nurses rather than targeting any specific unit, subcategory of employee (e.g., by shift, educational level), or individ-

Table 8.
Estimates of the Incidence and Costs Associated with the Nursing-Sensitive Hospital-Acquired Conditions (HACs)*

<table>
<thead>
<tr>
<th>Nursing-Sensitive HACs</th>
<th>Number of Cases (FY 2007)</th>
<th>Cost per Hospitalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure ulcers (stages III and IV)</td>
<td>257,412</td>
<td>$43,180</td>
</tr>
<tr>
<td>Falls and trauma</td>
<td>193,566</td>
<td>$33,894</td>
</tr>
<tr>
<td>Catheter-associated urinary tract infections</td>
<td>12,185</td>
<td>$44,043</td>
</tr>
<tr>
<td>Vascular catheter-associated infections</td>
<td>29,536</td>
<td>$103,027</td>
</tr>
</tbody>
</table>

* For this purpose, data for only those HACs linked to nursing are provided.

Table 9.
Illustration of Approach to Calculating Incentive Payment

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
<th>Column 5</th>
<th>Column 6</th>
<th>Column 7</th>
<th>Column 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Diagnosis + Nursing-Sensitive HACs</td>
<td>DRG Payment without Complication</td>
<td>DRG Payment with Complication</td>
<td>Difference in DRG Payment Under HAC Policy</td>
<td>Number/Eliminated Medicare Payment Due to HACs in Previous FY</td>
<td>Number/Eliminated Medicare Payment Due to HACs in Current FY</td>
<td>Difference in Number of HACs</td>
<td>Medicare Savings (loss) Due to HACs</td>
</tr>
<tr>
<td>Patient in with pneumonia and…. catheter-associated UTI (Saint et al., 2009)</td>
<td>$6,072</td>
<td>$8,346</td>
<td>-$2,274</td>
<td>74</td>
<td>66</td>
<td>-8</td>
<td>+$18,192</td>
</tr>
<tr>
<td>Patient in with intracranial hemorrhage and…. catheter-associated UTI (Kurtzman &amp; Buerhaus, 2008)</td>
<td>$7,027</td>
<td>$8,117</td>
<td>-$1,090</td>
<td>25</td>
<td>32</td>
<td>+7</td>
<td>-$7,630</td>
</tr>
<tr>
<td><strong>Total(s)</strong></td>
<td><strong>+$10,562</strong></td>
<td><strong>+$3,169</strong></td>
<td><strong>+$10,562</strong></td>
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<td><strong>+$10,562</strong></td>
</tr>
</tbody>
</table>

Portion attributable to nursing and representing incentive payment

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To build on existing Medicare programs, transition rapidly to a system that recognizes nursing's contributions, and achieve simplicity in the necessary infrastructure, two models are provided as examples of how performance-based payment policies could be extended to hospital nurses. In both instances, the models are based on four underlying assumptions:

1. The model applies to any hospital that participates in the Medicare program.
2. The incentive payment is made annually.
3. The incentive payment percentage is calculated based on the relative cost of nursing salaries to the direct-care budget (Kane & Siegrist, 2002; Welton, Unruh, & Halloran, 2006), which is 30%.
4. The incentive payment benefits all employed hospital nurses rather than targeting any specific unit, subcategory of employee (e.g., by shift, educational level), or individ-
For this reason, the incentive payment is made to the hospital’s department of nursing for use on a hospital-wide basis and to benefit all its nurses. Examples would include, but are not limited to, continuing education programs, training scholarships, celebrations and/or recognition events.

**Model 1: Reward for Performance Reporting (aka RHQDAPU)**

Under the Reward for Performance Reporting Model, nurses are rewarded and incentivized for enabling the hospital to meet RHQDAPU data submission requirements. The model is based on the assumption that without the knowledge, expertise, engagement, and contribution of nurses, hospitals would be unable to collect, analyze, or submit these data.

- The incentive payment is contingent on the hospital meeting its budget and obtaining its full APU in the prior fiscal year.
- The incentive payment is based on a portion of the 2.0% APU for the prior fiscal year that the hospital realized as a result of meeting its RHQDAPU requirements.
- The incentive payment is 30%, the relative cost of nursing salaries to the direct-care budget, of the Medicare payment that is attributable to meeting the RHQDAPU requirement (e.g., 2.0% APU).

### Table 10. Comparison of Nursing-Focused Incentive Models

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Incentive Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“Reward for Performance Reporting”</td>
</tr>
<tr>
<td></td>
<td>“Reward for Performance Improvement”</td>
</tr>
<tr>
<td>Type</td>
<td>Pay for reporting</td>
</tr>
<tr>
<td></td>
<td>Pay for performance</td>
</tr>
<tr>
<td>Origin</td>
<td>Reporting Hospital Quality Data for Annual Payment Update (RHQDAPU)</td>
</tr>
<tr>
<td></td>
<td>Hospital-acquired conditions policy</td>
</tr>
<tr>
<td>Orientation of Existing Policy</td>
<td>Penalty</td>
</tr>
<tr>
<td></td>
<td>Penalty</td>
</tr>
<tr>
<td>Trigger</td>
<td>Submission of required hospital-level performance measure results</td>
</tr>
<tr>
<td></td>
<td>Occurrence of one or more of the selected hospital-acquired conditions determined by CMS to be common, costly, and preventable</td>
</tr>
<tr>
<td>Provision</td>
<td>Annual payment update is reduced by 2.0% for hospitals that fail to submit required quality data</td>
</tr>
<tr>
<td></td>
<td>Inpatient hospital discharge is no longer assigned to a higher paying MS-DRG if HAC is not present on admission (e.g., case is paid as though the secondary diagnosis was not present)</td>
</tr>
<tr>
<td>Amount</td>
<td>-2.0% annual payment update</td>
</tr>
<tr>
<td></td>
<td>Varies depending on MS-DRG assignment and hospital location</td>
</tr>
<tr>
<td>Conceptual Basis for Extension to Nurses</td>
<td>Nurses’ knowledge, expertise, engagement, and contribution enables hospitals to collect, analyze, and submit data required under RHQDAPU</td>
</tr>
<tr>
<td></td>
<td>Nurses’ knowledge, expertise, engagement, and contribution enables hospitals to reduce the incidence of events for which Medicare has eliminated payment</td>
</tr>
<tr>
<td>Empirical Basis for Extension to Hospital Nurses</td>
<td>Select measures required under RHQDAPU have been both qualitatively and quantitatively linked to the nursing workforce</td>
</tr>
<tr>
<td></td>
<td>Four of the HACs (pressure ulcers, inpatient injuries that result from falls, catheter-associated UTIs, and vascular catheter-associated infections) have been linked by evidence to the nursing workforce and endorsed by NQF as “nursing-sensitive”</td>
</tr>
<tr>
<td>Source</td>
<td>Portion of the Medicare payment attributable to meeting the RHQDAPU requirement in the prior fiscal year</td>
</tr>
<tr>
<td></td>
<td>Portion of the estimated net Medicare savings as a result of reductions in the incidence of its nursing-sensitive HACs in the current fiscal year as compared to the previous fiscal year</td>
</tr>
<tr>
<td>Nursing Portion</td>
<td>30% which is equal to the relative cost of nursing salaries to the direct-care budget</td>
</tr>
<tr>
<td></td>
<td>30% which is equal to the relative cost of nursing salaries to the direct-care budget</td>
</tr>
</tbody>
</table>

A Transparency and Accountability Framework for High-Value Inpatient Nursing Care

SERIES

NURSING ECONOMICS$/September-October 2010/Vol. 28/No. 5
Today’s health care system is suboptimal, fragmented, and excessively costly. Based on the assumption that without the knowledge, expertise, engagement, and contribution of nurses, hospitals would be unable to reduce the incidence of events for which Medicare has eliminated payment.

- The incentive payment is made only if the hospital has realized a net Medicare savings as a result of reductions in the incidence of its nursing-sensitive HACs in the current fiscal year as compared to the previous fiscal year.
- The incentive payment is based on a portion of the savings achieved as a result of the total reductions in the incidence of nursing-sensitive HACs.
- The incentive payment percentage is 30%, the relative cost of nursing salaries to the direct-care budget.

Table 9 illustrates how this formula would be applied in a real-world example. In this particular case, hospital nurses successfully reduced the incidence of catheter-associated UTIs among patients with pneumonia by eight cases from the previous fiscal year which effectively resulted in a $18,192 savings. However, these savings were somewhat offset by reduction in Medicare reimbursement by $7,630 resulting from an increase in the incidence of UTIs among patients admitted for intracranial hemorrhage. The net effect of these two is +$10,562. Under this model, the incentive payment made to nursing would be $3,169.

While these models are merely examples, they may prove both appealing and readily implementable. A summary of each model’s attributes is provided for comparison purposes (see Table 10).

Conclusion

Today’s health care system is suboptimal, fragmented, and excessively costly. Over the past decade, federal transparency and accountability policies, aimed at driving higher value, have been rapidly promulgated. Yet nursing, the single largest health care profession, has not yet been engaged in these policy directions nor considered in their design or implementation. To this end, this framework offers nurses and their professional organizations a model for which to advocate for policy change. Hospital and health system executives who have the freedom to establish institutional policies might implement this framework to achieve higher value. Public and private payers implementing performance-based payment programs can use this framework as the basis for their designs. Finally, measure developers can rely on this roadmap to underscore gaps in measurement and areas of high priority for measure development and testing. Ultimately, this framework provides both the context and components of a system that, if implemented, would measure, report, and reward hospital nursing’s contributions to high value.

REFERENCES


Centers for Medicare and Medicaid Services (CMS), HHS. (2006). Medicare program; Changes to the hospital inpatient prospective payment systems and fiscal year 2009 rates; payments for graduate medical education in certain emergency situations; changes to disclosure of physician ownership in hospitals and physician self-referral rules; updates to the long-term care prospective payment system; updates to certain IPPS-excluded hospitals; and collection of information regarding. Federal Register, 73(161), 48433-49084.


