Public Reporting Of Hospital Readmissions

A NAHDO White Paper

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THE NATIONAL ASSOCIATION OF HEALTH DATA ORGANIZATIONS
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PUBLIC REPORTING OF HOSPITAL READMISSIONS

EXECUTIVE SUMMARY
States, federal agencies, and private payers are searching for ways to reduce or contain cost and improve quality of care. Payment changes in Medicare are fast-tracking the measurement and scrutiny of hospital readmissions, though the issue is an all-payer one, not just Medicare.

Several states have been publicly reporting hospital readmission rates for several years and others are in the consideration phase. State reporting approaches vary, but clearly policy makers, purchasers, and providers are paying attention to the publicly-released data and this is expected to continue as state and federal budget deficits increase. With the expansion of reporting from individual states, such as Florida, Virginia, and Pennsylvania to the Centers for Medicare and Medicaid Services (CMS), there is mounting debate among providers, researchers, payers, and policy makers as to the best way to report on readmissions.

Recognizing the need for a national dialogue about the public reporting of hospital readmissions, the National Association of Health Data Organizations (NAHDO), with support from The Commonwealth Fund, convened state and federal officials in Alexandria, VA in a meeting titled, “Beyond Consensus: A State Roadmap for Reporting Hospital Readmissions” This report summarizes the highlights of the October 2009 meeting.

States are not new to public reporting on hospital quality. Twenty years ago, leading states began reporting hospital mortality rates which have been steadily declining. With readmission rates, states have a similar opportunity to again influence system-wide health care improvements.

Virginia, Florida, and Pennsylvania are states that have released hospital readmissions reports publicly, using slightly different approaches. Lessons learned by these states were shared with other state Initiatives, providing a framework for reporting hospital readmissions. States with successful readmissions reporting programs have the following components in place:

- Broad stakeholder engagement: All key stakeholders are included throughout the reporting cycle and rely on expert advisory committees
- Legislative authority: Legislation as a tool to assure that all providers are participating
- Mature and robust hospital reporting systems: A reporting program is in place and stakeholders have confidence in the administrative data
- Demonstrated analytic competency: The reporting initiative adopts sound scientific methods
- A transparent and fair process for building consensus: Providers have an opportunity to review results before release
- Sustainable funding: All of the leading states have strong hospital discharge data reporting programs. Cost estimates for the planning and implementation of a public quality reporting program will vary according to the structure of the initiative.
A roundtable discussion deliberated about what it would take to facilitate hospital readmissions reporting initiatives in every state. All agreed that reducing hospital readmissions is an urgent matter. States suggested a range of infrastructure essentials and technical assistance strategies to improve and expand readmissions reporting. Robust stakeholder engagement, sustainable funding, and legislative authority were cited as infrastructure components. Technical assistance needs were identified, beginning with a call for a State Learning Network that could coordinate and facilitate the following priorities:

- How to count readmission
- How to deal with transfers
- Zero and one-day lengths of stay
- Obstetrical and newborn records
- Pre-delivery and post-delivery admissions
- Psychiatric conditions are high volume and result in many readmissions—how to address
- Guidance on documenting the data quality and the methods for linking and reporting the data
- A mix of measures and guidance for when and how to report
- Guidance on risk adjustment—to do or not? Displaying data in a consumer-friendly way

Conference discussion underscored that currently there is no “one-size-fits-all” approach and measurement initiatives must carefully consider the reporting objectives when selecting measures and methods. Because state-sponsored readmissions reports are relatively recent, states have adopted various measures and methods for their reporting initiatives. The work ahead of states and the industry is to identify what measures could be uniform or similar and what measures might be necessary for unique applications.

CONFERENCE RESOURCES
For conference agenda and slides from the 2009 meeting go to:

For conference agenda and slides from the 2008 meeting go to:

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**Readmissions in Pennsylvania**

There is one story that makes an important point about readmissions and about the importance of state databases. About 10 years ago when we (PHC4) were first considering reporting readmission rates, we worked with a small group of surgeons in determining methodology and reporting strategies. We had provided individual readmission rates to each surgeon. One surgeon, after reviewing his results, indicated that he knew what his readmission rate was and said that the figures we had provided to him were too high. However, the surgeon was only aware of the patients who had returned to the facility where he had performed the surgery. He had no way to know that approximately 40% of the readmitted patients went to hospitals other than the one where the original surgery had been performed. His surprise was clearly evident. State databases are uniquely suited to looking at readmissions because, with the appropriate linking elements, we can track readmissions across facilities.

Flossie Wolf, NAHDO Readmissions Conference, October 2009
INTRODUCTION

Evidence suggests that public reporting on healthcare performance encourages quality improvement at the hospital level and increases consumer awareness about the variation in quality among providers (Hibbard et al. 2005). Hospital readmissions are increasingly a public policy concern due to the cost and quality burdens and public reporting is a key component of a growing number of state transparency and health care reform initiatives.

Recognizing the need for a system-wide approach and the unique role of the states with hospital reporting programs, the members of the National Association of Health Data Organizations (NAHDO) convened states in two national conferences. The first conference “Tracking Hospital Readmissions: Research and reporting Conference” was held in October 2008 in San Antonio, Texas with funding from the Agency for Healthcare Research and Quality. This conference established a baseline of state reporting practices and laid the foundation for the second national conference “Beyond Consensus: A State Roadmap for Reporting Hospital Readmissions” held in October 2009 in Alexandria, Virginia with funding support from The Commonwealth Fund. Through these national meetings of states and experts in the field, it became apparent that there are multiple purposes driving today’s measurement initiatives, adding complexity to the host of issues that policy makers and other stakeholders must consider.

This report is based on proceedings from these conferences and suggests a framework for implementing public quality reporting initiatives. While there are many private activities devoted to reducing readmissions and improving quality, there are unique technical and policy issues related to public measurement initiatives. Therefore, the scope of this issue brief is primarily focused on issues associated with state public reporting efforts.

BACKGROUND

States, federal agencies, and private payers are searching for ways to reduce or contain cost and improve quality of care. Payment changes in Medicare are fast-tracking the measurement and scrutiny of hospital readmissions, though the issue is an all-payer one, not just Medicare. States have been at the forefront of public reporting on health care access, cost, and quality information generated from their statewide hospital discharge data reporting systems. Beginning with Coronary Artery Bypass Graft outcomes reports in the late 1980’s, states have produced comparative performance reports on a range of conditions.

Hospitalizations make up a large percentage of expenditures, approximately 31% of total healthcare expenditures, and as a result are under scrutiny. Two facets of hospital care—lengths of stay and readmissions—are potential targets. Of these two, the latter is most strongly linked to both poor quality and excess cost. Studies show that poor inpatient quality of care increased the odds of patient readmission by 55% (Ashton et al., 1997). In terms of health care costs, according to a 2004 study, unplanned rehospitalizations for Medicare beneficiaries accounted for $17.4 billion.

of the $102.6 billion Medicare paid to hospitals in 2004 (Jencks, Williams & Coleman, 2009)³. These findings suggest that states, federal agencies and private entities should be targeting hospital’s performance related to readmissions, because of the implications for both cost and quality of health care, and the burden for patients and families (Friedman and Basu, 2004⁴; MedPAC, 2007)⁵.

Several states have been publicly reporting hospital readmission rates for several years and others are in the consideration phase. With 40 legislatively-mandated statewide hospital reporting programs in the U.S., it is plausible that readmissions reporting could rapidly expand with the convergence of public demand and consensus around measures and methods. With the expansion of reporting from individual states, such as Florida, Virginia, and Pennsylvania to the Centers for Medicare and Medicaid Services (CMS), there is mounting debate among providers, researchers, payers, and policy makers as to the best way to report on readmissions. Regardless of approach, clearly policy makers, purchasers, and providers are paying attention to the publicly-released data.

The timing of the two NAHDO conferences coincided with new developments in the national reporting arena. The National Quality Forum endorsed the first readmissions measures in May 2008 and in July 2009 CMS incorporated readmissions in their Value-based purchasing payment policy and will be deducting payments for readmissions. As state and federal budget deficits increase, policy makers are exploring payment reform options to reduce these deficits. All of these developments are converging, creating a dynamic environment for reporting initiatives.

Figure 1 below is a map indicating which states are releasing hospital-level quality information in 2010 including the six states reporting hospital readmissions.

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⁵ MEDPAC (2007) Reporting to the Congress: Promoting Greater Efficiency in Medicine, Chapter Five. Available at: 2007http://
STATE PANEL HIGHLIGHTS: 2009
A panel of states representing the various stages and approaches discussed their state experiences and lessons learned in measuring and reporting hospital readmissions. States likened readmissions reporting are to public reporting what mortality rates were 20 years ago. Mortality rates continue to decrease, so the focus has shifted to readmissions. With heightened focus, states have an opportunity to again influence health care improvements.

Virginia, Florida, and Pennsylvania are states that have released hospital readmissions reports publicly, using slightly different approaches. While this variation may impact the ability to make comparisons across states, comparisons can still be made within states, which may be more important for improvement efforts.
**Exhibit 1. States Releasing Hospital Readmissions Reports**

<table>
<thead>
<tr>
<th>Virginia Health Information (VHI)</th>
<th></th>
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<tbody>
<tr>
<td><strong>Motivation</strong></td>
<td>VHI is charged with collecting, analyzing, disseminating health care data in Virginia. Readmissions reports are promoting health care transparency.</td>
</tr>
<tr>
<td><strong>Methodology</strong></td>
<td>VHI creates a public use file that identifies records that are a readmission between 1-90 days after discharge. For VHI’s Cardiac Care Public reports, VHI uses 3M’s APR-DRGs to adjust for mortality risk and the severity index to calculate actual versus expected for the readmission. For cardiac care mortality VHI excludes hospice, certain transfers with death within 24 hours with APR severity level 4, etc.</td>
</tr>
<tr>
<td><strong>Lessons Learned</strong></td>
<td>Most of the quality problems occur the first 1-7 days post discharge. The readmits longest past discharge are more likely due to other issues, such as disease progression and care management.</td>
</tr>
</tbody>
</table>
| **Reports/Applications**         | - Quarterly Public Use Readmission Files  
- Cardiac Care Report with 30 Day Related Readmissions  
- Annual Service Line Reports  
- Custom reports for Providers  
- Special Reports (e.g. Bariatric Surgery)  
- All APR-DRG and Service line readmission rates for internal planning |
| **Future Plans/Need**            | - Inpatient hospitalization following Ambulatory Surgery  
- Enhance Virginia CODES (www.vacodes.org) with readmissions after hospitalizations for vehicle crashes  
- State Hospital to Private Acute Hospital Readmissions  
- More Service Line Readmission Reports |

<table>
<thead>
<tr>
<th>Pennsylvania Health Care Cost Containment Council (PHC4)</th>
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</tr>
</thead>
</table>
| **Motivation**                                           | PHC4 readmissions reports were driven by health system performance trends warranting further investigation:  
- Significant decreases in hospital lengths of stay  
- Wide variation in readmission rates among regions of the state, as well as individual hospitals and surgeons  
- The statewide 30-day readmission rate for CABG surgery patients (15.3%) was higher than general expectations  
- 43% of readmissions were to another hospital – surprising hospitals and surgeons, as well as PHC4 staff  
- Infection was identified as the top reason for readmissions |
### Methodology

**Detailed methods on reports:**
- [www.phc4.org/reports/cabg/06/docs/cabg2006technotes.pdf](http://www.phc4.org/reports/cabg/06/docs/cabg2006technotes.pdf)

- Readmissions are reported at 7 and 30 days in PHC4’s Cardiac Surgery Report
- Two readmission measures are reported at 30 days for PHC4’s Hospital Performance Report: readmissions for any reason and readmissions for complication or infection
- Readmissions (either those reported in the Cardiac Surgery Report or readmissions for complication or infection as reported in the Hospital Performance Report) are identified by PHC4’s Technical Advisory Group through a review of the principal diagnosis of the readmission (as identified by ICD.9.CM codes)
- Exclusions: patients who died, patients without linking data elements (SSN, gender, DOB,), and out-of-state residents
- PHC4 tests the probability of death, predicted LOS, patient characteristics
- Readmission rates displayed as symbols (after determining statistical significance) as:
  - Lower than expected ○
  - Not different than expected ⊙
  - Higher than expected ●

### Lessons Learned

- Surgeons initially preferred the 7-day readmission metric, but other stakeholders and literature reviews supported 30-day readmissions which may highlight other complications not emerging in 7 days post discharge
- The predicted length of stay is almost always the most important predictive variable
- Definitions of complication/infections need to be continuously updated
- Data issues, such as border hospital admissions, will continue to challenge reporting
- Linking challenges: A small percentage of SSNs are invalid; exploring solutions

### Reports/Applications

- Cardiac Surgery Report: [www.phc4.org/reports/cabg/07/default.htm](http://www.phc4.org/reports/cabg/07/default.htm)
- Readmission rates have been reported for both hospitals and surgeons since 2000
- 2006 data shows:
  - 13% readmitted within 30 days
  - The average length of stay for a CABG readmission was 5.8 days, as long as the initial stay
  - Mortality rate for readmissions was 2.1%, higher than the original hospital stay
  - Average hospital charge was $35,580
  - Infection was the top reason for readmissions
- Traditionally, patients with longer initial stays were more likely to be readmitted, even after adjusting for risk
- Hospital Performance Report: [www.phc4.org/reports/hpr/08/default.htm](http://www.phc4.org/reports/hpr/08/default.htm)
### Pennsylvania Health Care Cost Containment Council (PHC4) continued

| Reports/Applications (continued) | 30-day readmission rates for any reason have been reported since 1999 and 30-day readmission rates for complication or infection have been reported since 2001  
> There have been slight increases for both types of readmission rates |
| Future Plans | Identify preventable readmissions and refine the reasons for readmissions; Evaluate deeper what readmissions are really telling us - Might readmissions be expected to increase as mortality decreases?  
Examine the inpatient admissions of ambulatory surgery patients  
Continue to examine what is happening during the readmission and what it is actually costing |

| Florida Agency for Health Care Administration (AHCA) |
| Motivation | Transparency activities driven by the Affordable Health Care for Floridians Act, requiring a transparent health care delivery system by October 1, 2005, authorizing a series of reports and consumer websites. |
| Methodology | Evolved from the 3M/HIS APR-DRG-based 30 day readmission measure to the 3M/HIS Potentially Preventable Readmissions Classification System (PPRs). PPRs identify acute care hospital readmits that are potentially preventable, discharge data-based, indicating that a higher than expected readmission rate may indicate opportunities to improve the quality of care prior to and after discharge, including coordination of care. Key decisions:  
Reporting 15 day readmits (may expand to 30 days)  
Approx. 70 conditions/procedures for Adults (excludes cancer except mastectomy)  
Selected 16 conditions/procedures for Pediatrics  
Readmission rates across hospitals  
Reports readmissions higher or lower than expected and pairing rates with the discharge volume, charges, and length of stay (may move to star rating system) |
| Lessons Learned | Building consensus with stakeholders was an important first step  
AHCA’s first generation of facility-level readmission reports for all causes (not condition-specific) and with few exclusions (included psychiatric, hospital discharges and transfers) was not useful to consumers  
AHCA reports readmissions across facilities, posing problems for hospitals that want to verify the rates using multi-facility confidential data  
Careful verbiage explaining why reporting readmissions is important and steps patients can take to avoid readmissions are included in the website  
PPR rates do not identify the non-compliant patient or scheduled readmissions and do not include readmissions to the Emergency Dept.  
Some records are missing SSNs, challenging the linkage  
Consumers are not heavily using the site for personal health decisions; hospitals are using the information for quality improvement |
These states provide a framework for reporting hospital readmissions, with the following elements in place.

- **Broad stakeholder engagement:** All key stakeholders are included throughout the reporting cycle and rely on expert advisory committees
- **Legislative authority:** Legislation as a tool to assure that all providers are participating
- **Mature and robust hospital reporting systems:** A reporting program is in place and stakeholders have confidence in the administrative data
- **Demonstrated analytic competency:** The reporting initiative adopts sound scientific methods
- **A transparent and fair process for building consensus:** Providers have an opportunity to review results before release

In the absence of national standards for readmissions reporting, public reporting initiatives have adopted various measures and approaches, providing a degree of urgency to facilitate a national dialogue. The work ahead of us is to identify what measures could be uniform or similar and what measures might be necessary for a unique application for the purpose they are designed to serve.

**Findings from the Second National Conference, October 13, 2009:**

*Beyond Consensus: A State Roadmap for Reporting Hospital Readmissions*

- Readmissions are incorporated into health care and payment reform policies in states
- Understanding the costs of readmissions and complications will lead to solutions
- A local advisory panel is essential to any public reporting initiative, including readmissions
- States with a history of quality reporting have established trust and collaborative relationships which leverage expansion to readmissions reporting
- Unique patient identifiers and robust linkage methods are essential components for measuring readmissions
- Currently, there is a lack of consensus on linkage methodology
What will it take to have readmissions reporting in every state in the U.S? A Roundtable Discussion

Building on the state panel discussion, NAHDO conducted a facilitated discussion of all attendees. Since all agreed that public reporting of hospital readmissions plays a role in reducing them, the question was posed: “What will it take to have readmissions reporting in every state”? Recognizing that states with hospital readmissions reporting initiatives have solved many political and technical issues associated with releasing a readmissions report, we look to these states for answers.

Stakeholders

The importance of stakeholder involvement could not be emphasized enough by reporting states. The adage, “keep your friends close and your enemies closer” applies to public reporting. An inclusive process for building consensus and for guiding the initiative will garner broad stakeholder support. Advisory groups that are representative of all stakeholders is important to the success of the initiative. For example, establishment of an advisory council (technical and steering committee made up of stakeholders) is a way to maximize participation and tap into the diverse expertise of the community. The challenge for many states is keeping the stakeholders and committees involved throughout the duration, which is crucial to the report rollout. Table 1 below lists the stakeholders and the roles each is likely to plan in a reporting initiative.

Table 1: Stakeholders and Roles

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legislators</td>
<td>Enact the laws, fund the initiative. Ideally, they should stay engaged through the entire process.</td>
</tr>
<tr>
<td>Policymakers</td>
<td>Leadership and vision for a transparent, high-performing health system is essential to override initial opposition to reporting. Use of the information about the costs and variation related to readmissions as evidence to justify sustaining/expanding transparency initiatives.</td>
</tr>
<tr>
<td>Providers</td>
<td>As the source of the data and the subject of the reports, providers need a say in the reporting process and content. Providers may not know their readmissions rates at the hospital or department levels and benefit from aggregated, cross system information. An open, transparent process with validation and pre-review is important.</td>
</tr>
<tr>
<td>Physicians</td>
<td>The concerns are more clinical than statistical, overall or broad measures may not meet their information needs. Like providers, physicians likely do not know their own or department’s readmission rates and benefit from aggregated, cross system information to inform their practices.</td>
</tr>
<tr>
<td>Health Plans</td>
<td>Health plans now report readmissions at the plan levels, but aggregating this information across payer systems for a system wide view is a challenge for them. Understanding readmission rates by payer and payer type will also help inform community collaboratives.</td>
</tr>
<tr>
<td>Consumers</td>
<td>Do we need consumers to engage in quality reporting? While we must be mindful of consumer-oriented products and information, the hospital readmissions reporting agenda should not be dependent on consumers to solve and improve systems. In many states, advocacy groups serve as ‘proxy’ representatives of the public / consumer and are excellent allies.</td>
</tr>
<tr>
<td>Purchasers</td>
<td>Purchasers are seeking information that is system wide and independently validated comparing the performance of providers and are an important ally for any statewide reporting initiative, including readmissions.</td>
</tr>
</tbody>
</table>
**Legislation**

Legislation facilitates the compliance to data collection requirements and assures that all data suppliers are represented. States were advised to, where possible, work with Legislators and their research staff to keep legislative wording broad. Flexibility in reporting specifications is important because as time moves on, states are likely to get better data and measures are evolving rapidly. Florida is an example of a state with legislation that is very specific about what had to be done, but not prescriptive on how to implement reporting.

**Funding**

The diversity of state quality initiatives challenge estimating costs associated with the establishment and maintenance of a quality reporting system. Cost estimates will vary according to the structure of the initiative. Considerations include: will the quality report be a one-time release or will other quality reports follow and at what frequency? Is the reporting initiative an expansion of an established state health data agency with a robust data and analytic infrastructure? Will the report require probabilistic matching because there are insufficient patient identifiers? Is the data system a part of a large state agency that can draw on expertise across various programs, or is the reporting initiative an independent entity? What is the source of the underlying data? Does the agency maintain the hospital discharge data sets or will it have to acquire the data from another agency? Will the report development activities be absorbed by existing staff already generating utilization and other public products or will analytic services be outsourced to a vendor or require the hiring of new staff?

In some states, quality reports may be legislated, but may be unfunded. In other states, appropriations to support transparency initiatives have funded website and report development. Private quality reporting initiatives may rely on foundation funding and membership and access fees to establish and sustain the initiative. Assuming that the data collection and data warehouse are in place, costs generally associated with producing a quality report include costs associated with convening and conducting stakeholder meetings that guide the planning and implementation activities of the agency, additional analytic staff to produce preliminary and final statistics, and dissemination of results via print and the agency website. If the website has been established, the costs are minimal as compared to the development of a new one.

Regardless of funding mechanism, funding is rarely sufficient to fully support a state reporting initiative, requiring resourcefulness on the part of the agency. Leveraging resources and forging collaborative partnerships are essential. Establishing collaboration with Medicaid or incorporating readmissions reporting into larger health care reform initiatives will be key in many states. As in most instances, a champion or some support structure is important. In Pennsylvania, the Governor’s interest in readmissions through his “Prescription for PA” initiative is an example of support that other states can point to as a means of elevating a reporting initiative linked to state health policy.

**Building on Inpatient Hospital Reporting Programs**

A mature and robust hospital inpatient reporting system, with confidence in the hospital administrative data, is an essential building block to a readmissions reporting initiative. Forty-eight states have established statewide inpatient hospital reporting programs maintained by a state or private health data organization. States with experience in releasing hospital quality reports are in a good position to respond to demands for readmissions information.
**Variation in Methods and Measures are Appropriate**

State approaches vary in terms of analytic methods, data sources, definitions of readmission (i.e., period of time between discharge and readmission), definitions of numerators and denominators, measurement exclusions, and demographic and clinical factors used in risk adjusting readmission rates. One specific example of the variation in measurement is the time periods used as cut-points for determining whether a readmission has occurred. Various studies and state public reports use time periods ranging from seven days post-discharge up to one year post discharge. The Centers for Medicare and Medicaid Services (CMS) uses a 30-day discharge period for accountability purposes. Table 2 below reflects the importance of various measurement approaches to the stakeholders engaged in specific types of initiatives. For example, those engaged in payment reform initiatives are more likely to use short readmission periods and to focus on cost of readmissions, but those stakeholders engaged in quality improvement initiatives need clinically specific measures of readmission and are less focused on cost.

Table 2: Measurement Considerations for Various Uses

<table>
<thead>
<tr>
<th>Measurement Approaches</th>
<th>P4P</th>
<th>Payment reform</th>
<th>Transparency</th>
<th>Quality Improvement</th>
<th>Consumers</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-30 Day Readmissions</td>
<td>***</td>
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<tr>
<td>Potentially Preventable Readmissions</td>
<td>***</td>
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<td>**</td>
<td>**</td>
<td>*</td>
</tr>
<tr>
<td>Clinically-specific Measures</td>
<td>**</td>
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<td>*</td>
</tr>
<tr>
<td>Cost</td>
<td>***</td>
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<td>***</td>
<td>***</td>
<td>***</td>
</tr>
<tr>
<td>Risk adjustment</td>
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</table>

Unlike mortality measurement, readmissions measurement has no widely accepted parameters (Franklin et al., 1999). Conference discussion underscored that currently there is no “one-size-fits-all” approach and measurement initiatives must carefully consider the reporting objectives when selecting measures and methods. Because state-sponsored readmissions reports are relatively recent, states have adopted various measures and methods for their reporting initiatives.

Table 3 below demonstrates how FL, PA, and VA vary in their approaches to reporting readmissions.

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<table>
<thead>
<tr>
<th>State</th>
<th>Goals for Readmissions Reporting</th>
<th>No. of Days between discharge and readmit</th>
<th>Cause of Readmission</th>
<th>Which Conditions</th>
<th>Risk Adjustment Method</th>
<th>First Reported</th>
</tr>
</thead>
</table>
| **Florida (AHCA)** | Transparency driven by Affordable Health Care for Floridians Act requiring a transparent Health Care Delivery System by 10/1/2005. Work with FHA on reducing readmissions | 15 day readmissions | All cause readmissions | Approx 70 Adult Conditions and 16 conditions for Pediatrics | Evolved from 3M/HIS APR-DRG to 3M/HIS Potentially Preventable Readmissions Classification System | First reported as all-causes not condition specific in 2005
|  |  |  |  |  |  | Now reporting 70 conditions/ procedures for Adults; 16 conditions/ procedures for Pediatrics |
| **Pennsylvania (PHC4)** | Identify preventable readmissions; refine reasons for readmissions; examine inpatients admissions of ambulatory surgery patients; analyze impact on cost of care | 7 and 30 days | Readmissions for any reason; readmissions for complications or infections | Cardiac Conditions | 30 day readmissions for any reason since 1999; 30 day readmissions for infections since 2001 |
| PHC4 Cardiac Report |  |  |  |  |  |  |
| **Pennsylvania (PHC4)** | PHC4 Hospital Performance Report | All | Readmissions for any reason; readmissions for complications or infections | All conditions |  |  |
| **Virginia (VHI)** | Collect, analyze and release results publicly | 30 days | Cardiac care–related readmissions | Cardiac Conditions | 2003 |  |
| Cardiac Report | VHI Public Use Files, readmission indicator field | 1-90 days | All Cause | All conditions | 3M APR-DRGs | 1993 |
**Technical Considerations**

States agreed that it takes about 18 months from project start to public reporting, provided that a state has access to technical assistance and resources developed by other states. It is important to remember as with all measures, that what works for one state might not work for another state. A key component will be flexibility. States recommended that individual states determine what their state can support and start from there.

Data linkage to identify readmissions requires the collection of unique patient identifiers, a linkage methodology, and a means for validating the linkage and address attribution issues. A secure data exchange, robust data edits and a process for correcting errors, and a secure data repository were also cited as important.

States requested some form of a learning network to provide support and guidance as a way to promote uniformity and comparability in approaches and information across states. Priorities for this technical assistance listed in Table 3 below are those identified during the state roundtable discussion.

<table>
<thead>
<tr>
<th>Table 3: Technical Assistance Priorities for A State Learning Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to count readmission</td>
</tr>
<tr>
<td>Zero and one-day lengths of stay</td>
</tr>
<tr>
<td>Pre-delivery and post-delivery admissions</td>
</tr>
<tr>
<td>Guidance on documenting the data quality and the methods for linking and reporting the data</td>
</tr>
<tr>
<td>Guidance on risk adjustment—to do or not?</td>
</tr>
</tbody>
</table>

Other resource needs were cited:

- A hospital readmissions reporting on-line toolkit
- An updated inventory of other state readmissions reporting initiatives
- Tools and methods for validating data linkages

**Other Developments Likely to Influence Readmissions Reporting**

All Payer Claims Databases (APCDs) are filling important information gaps in an increasing number of states, providing inpatient, outpatient, and pharmacy utilization and cost data. These data systems that are at various stages of implementation in 13 states, have the capacity to link records across the continuum of care and define episodes of care, providing greater analytic power. As these data evolve, information about the outpatient services obtained by the patient between the index admissions and the readmission will go a long way to explaining variation in readmissions and discern patient and system factors contributing to readmissions.
States expect that emerging health Information Exchanges (HIE) will link data across sites of care and are seeking guidance on how to connect with their regional HIEs. One participant suggested that provider events, such as readmissions, might be flagged and sent through the HIE to the appropriate data aggregator. We expect variation in HIE structures and capacities and it is too soon to predict how HIEs and public reporting initiatives will interact.

CONCLUSIONS
Reducing hospital readmissions is an urgent matter and even though the measures and science are rapidly evolving, it is important to begin reporting and improve the metrics moving forward. Because most states have statewide hospital inpatient reporting programs, states are well-positioned to publicly report hospital readmissions as a means of reducing them. Despite political and technical challenges, it’s the right thing to do. States that have reported hospital readmissions have solved many of the political and technical challenges associated with reporting and have established a framework for other state initiatives.

States at all stages of reporting are seeking guidance and technical assistance to advance their reporting agendas. The next few years will be especially challenging as the public demands more quality information and measurement approaches rapidly evolve. A state learning network and a series of tools will provide the reporting flexibility that states need with the technical guidance they seek.

CONFERENCE RESOURCES
For conference agenda and slides from the 2009 meeting go to: http://www.nahdo.org/agenda-archive/2009

For conference agenda and slides from the 2008 meeting go to: http://www.nahdo.org/agenda-archive/2008