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RESEARCH REPORT

Exploring the Addition of Physician Identifiers to the California Hospital Discharge Data Set

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Sponsored by the California HealthCare Foundation

The research described in this report was sponsored by the California HealthCare Foundation and was conducted within RAND Health, a division of the RAND Corporation.

The commentary and assessment provided here do not represent legal advice or a formal legal opinion. The RAND Corporation does not provide legal advice or opinions, which (if desired) must be sought from counsel in the context of an attorney-client relationship. Instead, this report includes an informal summary of some relevant background provisions of California law, simply as a basis for understanding competing policy options concerning the incorporation of physician identifiers into the existing California Hospital Discharge Data Set.

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Published 2013 by the RAND Corporation
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Preface

California remains unique among the 48 states with hospital discharge data reporting programs in that it does not collect physician identifiers. To advance consideration of whether California should collect and release physician-identified data, the California HealthCare Foundation asked the RAND Corporation to explore issues associated with requiring the inclusion of physician identifiers in the California hospital discharge data set and the potential use of physician-identified data by the state and/or release to others. RAND conducted interviews with a broad set of California stakeholders, reviewed the legal and regulatory authority of Office of Statewide Health Planning and Development (OSHPD) to collect and release physician identifiers, and interviewed representatives from other states to understand any issues encountered by the states in their collection and use of physician-identified data. This report contains the findings from our study, which could be used to inform actions by the OSHPD, the state office with the authority to implement the addition of physician identifiers in the hospital discharge data set.

The research was conducted in RAND Health, a division of the RAND Corporation. A profile of RAND Health, abstracts of its publications, and ordering information can be found at www.rand.org/health.

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Summary

Although research studies have shown large unexplained variation in how physicians care for patients with similar medical conditions,^{1,2,3} there is an absence of routine measurement and reporting of individual physician performance. Such measurement could help:

- providers understand how their performance compares with peers to stimulate quality improvement
- consumers make more informed choices about providers when they need care
- researchers with understanding factors associated with variations in processes of care and health outcomes
- payers with value-based purchasing efforts.

In a 2010 white paper prepared under a grant from the California HealthCare Foundation, the National Association of Health Data Organizations (NAHDO) observed that state health data reporting systems are “well-positioned to drive [health care] system improvements by making physician-level data available for multiple purposes,” even while acknowledging that many states are falling short of this goal because they either do not collect or do not publicly release physician identifiers.⁴ As of 2012, California remains the last of 48 states with a hospital discharge data reporting program that does not collect physician identifiers.⁵

A variety of stakeholders have raised the question, “Should California collect and publicly release data containing physician identifiers that could be used to profile physician performance?” To advance consideration of whether California should go forward in adding physician identifiers to the hospital discharge data set, the California HealthCare Foundation

¹ Brenda Sirovich and Elliott Fisher. (2006). Regional variations in health care intensity and physicians’ perceptions of care quality. *Annals of Internal Medicine*, 145(10), 789.

² *Managed Care*. (August 2009). A conversation with the Dartmouth Atlas Project’s Elliott Fisher, MD, MPH: National data, national impact. As of November 27, 2012: http://www.managedcaremag.com/archives/0908/0908.qna_fisher.html

³ The Dartmouth Institute for Health Policy and Clinical Practice. (2012). The Dartmouth Atlas of Health Care. As of November 27, 2012: <http://www.dartmouthatlas.org/keyissues/issue.aspx?con=1338>

⁴ Denise Love, Emily Sullivan, Robert Davis, et al. (2010). *The Collection and Release Practices of Physician Identifiers in Statewide Hospital Discharge Data Reporting: A NAHDO White Paper*. National Association of Health Data Organizations. As of November 27, 2012: https://www.nahdo.org/data_resources/data_collection_management

⁵ The only condition for which public reporting at the physician level is mandated in the statute in California is coronary artery bypass graft surgery, and this is done under a separate reporting effort from the hospital discharge data reporting (see Cal Health & Saf Code § 128745(c) and (d) (2012)).

asked the RAND Corporation to explore a range of issues associated with requiring the inclusion of physician identifiers in the California hospital discharge data and the potential use of these data directly by the state and/or release of the data to others. The key issues center on (1) the potential opportunities, challenges, and considerations associated with collecting physician identifiers as part of the hospital discharge data set and (2) how to release the data, to whom, and for what purposes. The term “release” of the physician-identified data could refer to many different approaches, ranging from release of raw data to some or all parties who request the file, to the state of California analyzing the data and making publicly available comparative reports of physician performance.

Findings of This Study

Current Legal Authority to Collect

- California’s Office of Statewide Health Planning and Development (OSHPD) has the statutory authority to add physician identifiers as a required data element to the hospital discharge data set after issuing a notice of proposed rulemaking and taking into account public comments in making a final ruling, in accordance with the full requirements of the California Administrative Procedures Act.
- Data elements captured on the hospital uniform billing form (UB-04)—including physician identifiers—do not count toward the statutory limit of data elements that OSHPD can add to the hospital discharge data set within a five-year period.

Feasibility of Data Collection and Data Accuracy

- According to interviews with a variety of California stakeholders, the collection of physician identifiers as part of the hospital discharge data set appears feasible and would not present an additional data collection burden on hospitals, because California hospitals already routinely capture and code physician identifiers as part of the UB-04 form required by Medicare and private payers. The UB-04 contains fields to capture the name and the National Provider Identifier (NPI) for both the attending physician and operating

physician, and hospitals are required to complete these fields in order to receive reimbursement from payers.⁶

- Representatives for the seven states that were interviewed for this study did not report difficulties collecting physician identifiers. These representatives also reported that they did not engage in extensive verification to ensure accuracy of the data.
- Among the 47 states that do collect physician identifiers, some of the states collect only one physician identifier and some collect more than one.
- Concerns were raised about varying definitions of *attending physician* across hospitals and accuracy of the data; however, California stakeholders agreed that use of the data would prompt hospitals and their staffs to improve the data's accuracy. Irrespective of how *attending physician* is defined, there was concern about the nature and variability of practice among attending physicians that would impact on how to consistently code the attending physician across hospitals.

Benefits to Collecting Physician Identified Data and Issues for Consideration

- All California stakeholders who were interviewed for the purposes of preparing this report saw some potential benefits associated with collecting and using physician-identified data, particularly related to generating benchmarking data for providers to use in quality improvement efforts and for providing information to help consumers make informed decisions about where and from whom to receive care.
- Concerns that emerged from discussions with stakeholders included the accuracy of the physician identifiers, the need to risk-adjust outcome measures, careful consideration of defining who is accountable for the management or care of the patient, how data would be presented, and whether consumers would correctly interpret the results.
- Stakeholders agreed that identifying a responsible physician would be fairly straightforward for the operating physician but more challenging for the attending physician. Determining who was responsible for the care delivered would be particularly

⁶ The hospital uniform billing form (UB-04) has standard definitions for the operating physician and attending physician. The *attending* physician is defined as the individual who has overall responsibility for the patient's medical care and treatment reported in a claim/encounter. The *operating* physician is defined as the individual with primary responsibility for performing the surgical procedure(s) and is required when a surgical procedure is listed. Department of Health and Human Services. Centers for Medicare and Medicaid Services. (November 2, 2006).

challenging for more medically complex patients who have longer hospital stays and multiple physicians involved in the patient's care.

- Attribution of performance measures to individual physicians highlighted the issue of defining what types of measures are truly meaningful and appropriate for reporting performance at the physician level. Providers were particularly interested in being involved in determining what measures would be reported at the physician level and for which medical conditions and procedures.
- Contextual factors can be important in correctly interpreting the data, and it was recommended that contextual factors should be considered when defining performance measures and presenting results.
- While the discussion focused on physician-identified data and holding individual physicians accountable for results, a number of stakeholders thought that the entire “care team” determines patient outcomes, not just the actions of a single physician. Some stakeholders expressed a desire to define the “care team” but recognized the challenges associated with mapping individual physicians and other health care providers to care teams as in many cases the teams are not static.

Release and Use of the Data

- If OSHPD collects physician identifiers as a data element in the hospital discharge data, the office is mandated by statute to disclose them to certain parties unless an individual patient's rights of confidentiality would be violated. OSHPD would have to decide whether to release physician identifiers in situations in which the statutes authorize but do not mandate release.
- The California Health Data and Advisory Council Consolidation Act does not specifically protect the identity of physicians. Because OSHPD is authorized to release public use data files in a standard file format, the public release files would presumably include the physician identifiers.
- There was variation among California stakeholders regarding who they thought should have access to physician-identified data and what uses of the data would be appropriate.
- The states with which we held discussions differed in their approaches to making data available to potential end users, ranging from limiting release to contributing hospitals

and their providers to making the data widely available with data use agreements. In a few cases, states collect but do not publicly report physician-level data. Not all of the 47 states that collect hospital discharge data release the data, and states that do release hospital discharge data vary in how and to whom they release the data.

- A small number of states—namely New York, Pennsylvania, New Jersey, California, and Massachusetts—produce and publicly release physician-identified risk-adjusted outcome reports (RAORs) for a limited set of procedures, and in these situations physicians are provided an opportunity to review the results. Other states report the volume of procedures performed by physicians.
- OSHPD currently has statutory authority to produce RAORs based on the hospital discharge data. If OSHPD had physician identifiers and wanted to produce physician-level RAORs on conditions other than coronary bypass graft surgery (CABG), then the agency would be required to convene a clinical panel, and the panel would need to approve the risk-adjustment model in order to enable production of additional RAORs. If OSHPD decided to pursue collecting additional clinical data, then OSHPD would have to follow the statutory limits on how many data elements can be added in total. The impact or burden on hospitals would depend on the number of additional data elements that would need to be collected and the ease of retrieving the data elements, and could range from minimal to significant impact.

Recommendations

The two central policy questions are (1) *whether* California should go forward in adding physician identifiers to the hospital discharge data set and, as highlighted by our discussions with stakeholders, (2) *how* California should proceed with both the collection and release of those data.

The collection of physician identifiers as part of the hospital discharge data set represents an opportunity for California to generate performance data at the physician level that could be used by many stakeholders for a variety of purposes. Almost all other states currently collect physician identifiers and do so without substantial burden to hospitals, and the data have been released and/or used without major problems or incident that should cause California pause. Based on our review, we recommend that:

- OSHPD should move forward without delay to add physician identifiers to the list of data elements it routinely collects as part of the hospital discharge data.
- Because there was consensus among those we interviewed that attributing responsibility for a procedure to the operating physician was straightforward, this minimally represents a place where OSHPD should begin the process of including a physician identifier to the hospital discharge data. Even basic information on the number of procedures a physician performed annually could be useful to consumers, and understanding differences in the outcomes across physicians performing like surgeries could be extremely helpful in reducing variation and improving outcomes for patients.
- Because the identity of the attending physician also is routinely collected by most states without problem and is part of the UB-04 billing form requirements such that hospitals are already routinely capturing these data, California should collect the identity of the attending physician as part of the hospital discharge data.
- OSHPD should ask hospitals to use the standard definitions for *operating physician* and *attending physician* that are already used by hospitals in reporting these identifiers to the Centers for Medicare and Medicaid Services (CMS) as part of the standard UB-04 billing process.
- As OSHPD and the California stakeholders gain experience, the type of physician identifiers that are captured could be expanded to include, for example, physicians associated with secondary procedures and for other care settings—emergency departments (ED) and ambulatory surgery (AS) centers.
- Stakeholders expressed a desire to be engaged in the process for determining the specifics for how this is done in California and, from the provider’s perspective, in helping disseminate results back to providers to help them improve. Given genuine concerns about how the data will be analyzed and used once collected, we recommend that the stakeholders should come together to forge a blueprint for appropriate data use that could be used to guide the actions of the state and end users of the data. The blueprint could serve to address a variety of concerns about how the data could be used and misused, for example, what types of measures are appropriate at the physician level, which physician(s) are appropriate to attribute responsibility for the care delivered to the patient,

and how the data should be analyzed and interpreted. The development of the blueprint should happen in parallel with the regulatory process.

It is clear that many stakeholders are interested in this topic, and nearly all, including physicians, see benefits associated with collecting and using this information. The findings from this study highlight some of the key issues and questions we believe will need to be addressed as OSHPD and the California stakeholders consider how best to advance inclusion of physician identifiers in the hospital discharge data set.

Acknowledgments

Funding for this work was provided under a grant from the California HealthCare Foundation. We thank Stephanie Teleki (senior program officer), Maribeth Shannon (director of the foundation's Market and Policy Monitor program), and Sandra Shewry (director of State Health Policy) at the California HealthCare Foundation for their guidance and helpful feedback during the project. We are grateful to the individuals who agreed to be interviewed for this study and who gave generously of their time to share their experiences and perspectives. We also thank M. Susan Ridgely, senior policy analyst at RAND, for her assistance with the review of OSHPD's legal and regulatory authority.

We are appreciative of the constructive and helpful critiques of the draft version of this report that were provided by the two peer reviewers, Michael Greenberg, senior social scientist at RAND, and Lee Hilborne, care coordination medical director and professor of pathology and laboratory at the UCLA Health System. The study team addressed the reviewers' comments as part of RAND Health's rigorous quality assurance process.

Finally, we are indebted to Lynn Polite for her assistance with preparation of the final report, scheduling of interviews, and organizing meetings.

Abbreviations

AS	ambulatory surgery
CABG	coronary artery bypass graft
CCORP	California CABG Outcomes Reporting Program
CIPA	California Information Practices Act
CMS	Centers for Medicare and Medicaid Services
CPRA	California Public Records Act
Data Act	California Health Data and Advisory Council Consolidation Act
ED	emergency department
HIPAA	Health Insurance Portability and Accountability Act of 1996
ICU	intensive care unit
NAHDO	National Association of Health Data Organizations
NPI	National Provider Identifier
OSHPD	Office of Statewide Health Planning and Development
RAOR	risk-adjusted outcome report
RLN	record linkage number
SLN	state license number
U-PIN	unique physician identifier number
UB-04	hospital uniform billing form

1. Background

In March 2011, the U.S. Department of Health and Human Services released the *National Strategy for Quality Improvement in Health Care*, which established three core aims to guide local, state, and national efforts to improve the quality of health care in the United States:⁷

- **Better Care:** Improve the overall quality, by making health care more patient-centered, reliable, accessible, and safe.
- **Healthy People and Communities:** Improve the health of the U.S. population by supporting proven interventions to address behavioral, social, and environmental determinants of health in addition to delivering higher-quality care.
- **Affordable Care:** Reduce the cost of quality health care for individuals, families, employers, and government.

A central strategy to help drive improvements in these areas is measuring the quality performance of health care providers at all levels of the system, and reporting that information to providers to guide quality-improvement efforts and to consumers for use in making decisions about where and from whom to receive care. To that end, the federal government, as part of requirements under the Affordable Care Act,⁸ is moving to assess the performance of individual physicians. As part of the Medicare Value-Based Physician Payment Modifier, the Centers for Medicare and Medicaid Services (CMS) will require physicians to report their performance on a variety of clinical quality and resource use measures beginning in measurement year 2014, and providers will be eligible for additional payments based on their cost and quality performance starting in 2015. CMS intends to publicly release these performance results on the Medicare Compare website to provide Medicare beneficiaries with comparative data to use in selecting doctors. CMS is also working with regional health care collaboratives to provide physician-identified data for use in quality measurement, improvement, and transparency efforts. Additionally, a number of states are working to advance all-payer claims databases that include

⁷ Department of Health and Human Services. (March 11, 2011). National Quality Strategy will promote better health, quality care for Americans. Press release. As of November 27, 2012: <http://www.hhs.gov/news/press/2011pres/03/20110321a.html>

⁸ Patient Protection and Affordable Care Act, Pub. L. No. 111-148, §2702, 124 Stat. 119, 318–319 (2010).

data on individual providers, payments to providers, and procedures and diagnoses, with the expectation that these data can be leveraged to drive improvements in care.⁹

Performance Measurement and Reporting as a Path to Improvement

To improve quality and outcomes for patients, it is important to measure where variations in care are occurring, why the variations exist, and to use the information to improve the quality of care and efficiently deploy resources in providing care. Much of the early variation work explored community-level geographic variation in procedure rates across the United States;¹⁰ however, over the past decade, efforts to understand and reduce variation have focused on examining differences in performance at smaller units of analysis, such as at the hospital and physician levels. Although research studies have shown large unexplained physician-level practice variation with cost and quality implications,^{11,12} there is an absence of routine measurement and reporting of individual physician performance to help providers understand where and how they vary compared with peers. Creating this understanding is a first step in efforts to reduce practice variations.

In a 2010 white paper that was prepared under a grant from the California HealthCare Foundation, the National Association of Health Data Organizations (NAHDO) commented that state health data reporting systems are “well-positioned to drive [health care] system improvements by making physician-level data available for multiple purposes,” even while acknowledging that many states are falling short of this goal because they either do not collect or do not publicly release physician identifiers.¹³ The authors argued that policymakers seeking ways to improve the public availability of health care quality and cost information should include “look[ing] for ways to expand the ability of existing data sets to support emerging information

⁹ Denise Love, William Custer, and Patrick Miller. (2010). *All-Payer Claims Databases: State Initiatives to Improve Health Care Transparency*. The Commonwealth Fund.

¹⁰ The Dartmouth Institute for Health Policy and Clinical Practice. (2012). The Dartmouth Atlas of Health Care. As of November 27, 2012: <http://www.dartmouthatlas.org/keyissues/issue.aspx?con=1338>

¹¹ Dana Gelb Safran. (2009). Using performance measurement to improve quality: Good data are only the beginning. Paper presented at the Academy Health Annual Research Meeting, Chicago, IL.

¹² Dana Gelb Safran, Melinda Karp, Kathryn Coltin, et al. (2006). Measuring patients’ experiences with individual primary care physicians: Results of a statewide demonstration project. *J Gen Intern Med*, 21(1), 13–21.

¹³ Denise Love, Emily Sullivan, Robert Davis, et al. (2010). *The Collection and Release Practices of Physician Identifiers in Statewide Hospital Discharge Data Reporting: A NAHDO White Paper*. National Association of Health Data Organizations.

needs in a more cost-effective manner.”¹⁴ While acknowledging the concerns of physicians and the technical challenges associated with the use of such data for public reporting, NAHDO nevertheless argued that there will be continued demand for public reporting and that states should find a way to report outcomes data at the physician level that aligns with their particular legal and regulatory environment.¹⁵

California’s Experience Compared with That of Other States

In California, there is a statutory mandate to collect hospital discharge data, and the Office of Statewide Health Planning and Development (OSHPD) is the state agency that maintains the hospital discharge database. At the time that the NAHDO report was released in 2010, there were 48 states with hospital discharge data reporting programs, of which 46 collected physician identifiers for attending and operating physicians and, in some states, other physician types. Alabama and Idaho did not have hospital discharge data reporting programs.

The two states that NAHDO reported as having hospital discharge data reporting systems but not collecting physician identifiers were California and Wyoming. In preparing this report, we rechecked the status of Wyoming and, according to a verbal report from the Wyoming Hospital Association, Wyoming has been collecting physician identifiers since 2007 as part of the state’s voluntary discharge reporting program. Thus, as of 2012, California remains the last of 48 states with a hospital discharge data reporting program that does not collect physician identifiers.

Among the states that collect physician identifiers as part of their hospital discharge data, 28 states release the physician-identified data in some way, although not necessarily to the public. The majority of states that release physician-level data do so as internal reports or reports to health care providers. For example, in Wyoming, the Wyoming Hospital Association, which maintains the discharge data, releases the data back to hospital facilities (all data), to the Healthcare Cost and Utilization Project (HCUP) database (with no hospital or physician identifiers), and to research firms under special requests that must be approved by the Wyoming Hospital Association board. Fourteen states release physician-identified data only through special requests or for research purposes (e.g., requests from universities or research

¹⁴ *Id.* at 7.

¹⁵ *Id.* at 25.

organizations), while the other 14 release physician identifiers in their standard release files (two of which encrypt the physician identifier field).¹⁶

According to the NAHDO study, only six states “have produced or plan to produce agency-sponsored public reports that identify physicians.”¹⁷ The NAHDO white paper does not mention California’s coronary artery bypass graft (CABG) Outcomes Reporting Program (CCORP), described later in this report, by which OSHPD produces a public report displaying risk-adjusted physician-level outcomes for CABG surgery. California is among an elite tier of states—with New York, Pennsylvania, New Jersey, and Massachusetts—that currently provide physician-specific risk-adjusted outcome reports (RAORs) to the public. OSHPD does release a subset of the raw CCORP data, including the physician license number, to qualified individuals at universities or research organizations who both secure approval from the Committee for the Protection of Human Subjects and have a data use agreement with OSHPD. OSHPD does not allow release of these data to researchers who wish to identify individual physicians in research studies.

Exploring Whether California Should Collect and Publicly Release Data Containing Physician Identifiers

There is growing interest among a variety of stakeholders in California in collecting physician identifiers within the hospital discharge data and either releasing physician-identified data or reporting provider-specific performance. Discussions among the stakeholders center on the potential opportunities, challenges, and considerations associated with collecting a unique identifier for the operating and attending physician as part of the inpatient hospital discharge data and then making those data files available for others to use and/or for the state of California to use to produce RAORs.

Physician identifiers are already routinely captured on the hospital uniform billing form (UB-04) used by Medicare and other private payers to reimburse hospitals and physicians for the care they provide. The UB-04 has standard definitions for the *operating physician* and *attending physician*. The *attending physician* is defined as the individual who has overall responsibility for the patient’s medical care and treatment reported in a claim/encounter. The *operating physician*

¹⁶ *Id.* at 18.

¹⁷ *Id.* at 21.

is defined as the individual with primary responsibility for performing the surgical procedure(s) and is required when a surgical procedure is listed on the billing form.¹⁸

To advance consideration of adding physician identifiers to the hospital discharge data set, the California HealthCare Foundation asked the RAND Corporation to explore a range of issues associated with including a physician identifier in the California hospital discharge data set and the release of those data for a variety of potential uses. The goal of the inquiry was to help inform California policymakers who are considering the possible addition of physician identifiers to the data that hospitals already submit to the state. The issues identified as part of this project could be used to inform actions by OSHPD, the state office with the authority to implement the addition of such an identifier. While the focus of this study was on exploring the addition of physician identifiers for the inpatient discharge data, California could also consider collecting, releasing, and/or reporting physician-identified data for ambulatory surgery (AS) and emergency department (ED) discharges.

This report summarizes what we learned from our review of OSHPD's legal and regulatory authority and from discussions with California stakeholders and representatives from other states that collect physician identifiers as part of their hospital discharge data reporting systems.

¹⁸ Department of Health and Human Services. Centers for Medicare and Medicaid Services. (November 2, 2006). CMS Manual System. Pub 100-04 Medicare Claims Processing.

2. OSHPD’s Current Hospital Discharge Data Collection and Release Policies

California’s Hospital Discharge Data

The California Health Data and Advisory Council Consolidation Act¹⁹ (hereafter, the Data Act) gives OSHPD the authority to collect data on all hospital inpatients discharged from all licensed hospitals in California in order to “provide greater understanding of the characteristics of care rendered by hospitals.”²⁰ Among other required filings, an organization that “operates, conducts, owns or maintains” a hospital in California must file with OSHPD a “hospital discharge abstract record” for each patient discharge.²¹

Briefly, under the statute, OSHPD is charged with collecting the hospital discharge abstract records, identifying errors in the data, and guiding the reporting facilities toward compliance with data requirements.²² In turn, OSHPD makes this information available to the public as required by statute²³ “in order to promote informed decision-making in today’s healthcare marketplace, to assess the effectiveness of California’s healthcare systems, and to support statewide health policy development and evaluation.”²⁴ The original purpose of collecting and analyzing these hospital data was to look at costs—with an eye toward cost containment—not to assess quality of care.²⁵

Beginning in 1980, the California Legislature specified in statutory language the data elements to be collected as part of the hospital discharge abstract record. Table 2.1 shows the elements that are collected in the discharge abstract record, as of 2012.

Physician identifiers (such as first and last name of attending physician, National Provider Identifier [NPI], and/or California license number) are *not* currently included in the required data elements for the hospital discharge, ED, or AS databases maintained by OSHPD.

¹⁹ Cal Health & Saf Code § 128675 *et seq.* (2012).

²⁰ History of the Patient Data Program, in Office of Statewide Health Planning and Development, *California Inpatient Data Reporting Manual, Medical Information Reporting for California, Seventh Edition*, March 2011.

²¹ Cal Health & Saf Code § 128735(g) (2012).

²² History of the Patient Data Program, *supra* note 10 at viii.

²³ Cal Health & Saf Code § 128765(a) (2012).

²⁴ History of the Patient Data Program, *supra* note 10 at viii.

²⁵ Personal communication, OSHPD staff, March 2, 2012.

The Data Act authorizes OSHPD to add or delete data elements in consultation with “affected state agencies and the affected industry”²⁶ and after considering feasibility, benefits, costs, and administrative burden to the hospitals, among other issues.²⁷ No more than a net of 15 data elements can be added to the hospital discharge data set over any five-year period, with the exception of any elements contained in the Health Insurance Portability and Accountability Act of 1996 (HIPAA) uniform claims transaction set or uniform billing form.²⁸ To date, OSHPD has neither added nor deleted any data elements from the hospital discharge data set.²⁹ The last changes to the list of data elements were made by the Legislature in 2001.³⁰

Table 2.1. Specified Data Elements for California’s Hospital Discharge Data Set, 2012

Type of Data	Specific Elements
Patient identifiers	(1) Date of birth; (2) sex; (3) race; (4) ZIP code; (5) principal language spoken; (6) Social Security Number
Do Not Resuscitate (DNR) orders	(7) Whether do not resuscitate (DNR) order was written within 24 hours of admission
Admission/discharge information	(8) Date, (9) source, and (10) type of admission; (11) discharge date; (12) disposition of patient at discharge
Diagnoses	(13) Principal diagnosis; (14) other diagnoses; (15) external cause of injury [all diagnoses include a present on admission indicator]
Procedures	(16) Principal procedure and date; (17) other procedures and dates
Payment	(18) Total charges; (19) expected source of payment
Facility	(20) Facility Identification Number
Type of care	(21) One of the following: acute; chemical dependency recovery; psychiatric; physical rehabilitation; or skilled nursing / intermediate

Note: The OSHPD manual lists 19 data elements; however, there are “Additional Reporting Requirements,” which include two data elements (facility identifier and type of care).

OSHPD’s comprehensive data programs (hospital discharge, ED, and AS) were set up by statute to allow OSHPD to be a data resource. In the case of the hospital discharge data set, OSHPD receives the source data files (discharge data from hospitals) and prepares the data for a

²⁶ Cal Health & Saf Code § 128680(e) (2012).

²⁷ Cal Health & Saf Code § 128738(b) (2012).

²⁸ Health Insurance Portability and Accountability Act of 1996, Pub. L. No. 104-191, 110 Stat. 1936 (1996) codified at 42 U.S.C. § 300gg and 29 U.S.C § 1181 *et seq.* and 42 U.S.C 1320d *et seq.* The HIPAA transactions and code set standards are rules to standardize the electronic exchange of health information.

²⁹ According to OSHPD staff, there was an attempt to add “clinical data elements” to the hospital discharge data set starting around 2006. A notice of proposed rulemaking was published but then officially withdrawn. Hospital officials cited concern with the lack of electronic health record capacity to produce clinical data (meaning that manual input would be required) and concern that it was the wrong time to increase the reporting burden just as hospitals were in the middle of ICD-10 implementation. (Personal communication, OSHPD staff, February 28 and March 2, 2012.)

³⁰ Senate Bill 680 added patient’s “principal language spoken,” which was made effective for discharges on January 1, 2009. *See History of the Patient Data Program, supra* note 10 at ix.

variety of uses. The hospital discharge data are used by OSHPD itself to develop analytic products available to the public, including RAORs (described below), statistical compilations, and “health facts,” which are written for consumers and persons interested in health care policy and placed on the OSHPD website.³¹

Currently, OSHPD also releases the actual hospital discharge data to various end users in different formats. For example, OSHPD releases a public patient-level data file that is de-identified. OSHPD may also release confidential data under the California Information Practices Act (CIPA), to eligible academic institutions/researchers and other state governmental departments. Under the Data Act,³² OSHPD is mandated to release a limited data set to local public health departments, local health officers, California hospitals, and certain federal agencies such as the Centers for Disease Control and Prevention.³³ OSHPD also performs custom data runs (i.e., non-patient-identifiable subsets or summaries of confidential data) by specific request. In preparing these products, there is no requirement for review of the data by named hospitals, and it is unclear what, if any, possibility there would or could feasibly be for named physicians to review data and data products before release. There is a requirement for physician and hospital review only for RAORs, not for data release and not for non-risk-adjusted analyses. For release to certain users (e.g., eligible researchers), OSHPD creates confidential files that may include a unique “record linkage number” (RLN), which is an irreversibly encrypted form of the Social Security number.³⁴ This allows patients to be traced anonymously through the data files, for example, within a year to identify multiple hospitalizations.³⁵

Risk-Adjusted Outcome Reports

In addition to collecting and publicly releasing the hospital discharge data, the Data Act also authorizes OSHPD to publish (starting in 1993) annual RAORs on “medical, surgical, and obstetric conditions and procedures.”³⁶ The conditions are to be selected by OSHPD and the reports for surgical procedures are to be published by individual hospital and individual surgeon “unless [OSHPD] in consultation with medical specialists in the relevant area of practice

³¹ Personal communication, OSHPD staff, March 2, 2012.

³² Cal Health & Saf Code § 128766 (2012).

³³ Personal communication, OSHPD staff, October 4, 2012.

³⁴ Personal communication, OSHPD staff, March 8, 2012. Not all records received from hospitals have a Social Security number and records that lack a Social Security number will not have an RLN either.

³⁵ *Id.*

³⁶ SB 680, which was codified at Cal Health & Saf Code § 128745–128748 (2012).

determines that it is not appropriate to report by individual surgeon.”³⁷ When deemed appropriate, data for non-surgical procedures and conditions may also be reported by individual physician as well as by hospital.

The statute requires that before the RAOR is made public, OSHPD must furnish the report to each hospital included in the report for the hospital’s review. If the RAOR includes physician-level data, the physician has the right to review his or her outcome scores and compare them to those of other physicians, contest the accuracy of the analysis with OSHPD, and, if not satisfied, appeal to a clinical panel before the report is made public.³⁸

It is worth noting, however, that the references to physician-level data in this section of the statute seem incongruent, given that there was no physician identifier in the hospital discharge data set at the time that the statute was passed—nor is there now. Currently, OSHPD does not have access to the data that would be needed to publish physician-level outcome reports.³⁹

OSHPD has analyzed and produced hospital-level RAORs on acute myocardial infarction (AMI) and community-acquired pneumonia (CAP). However, these reports are not presented in a format that would make hospital-to-hospital comparisons easy for consumers.⁴⁰ Because there are only a few clinical data elements in the hospital discharge data set to risk-adjust the outcomes of various conditions or procedures, the RAORs are necessarily limited to a few measures (such as length of stay and mortality).

California CABG Outcomes Reporting Program (CCORP)

The only condition for which public reporting at the physician level is mandated in the statute in California is CABG surgery.⁴¹ Prior to becoming a public reporting program via legislation in 2001, a public-private partnership existed between OSHPD and the Pacific Business Group on Health (PBGH) to run what was then called the California CABG Mortality Reporting Program. Starting in 1996, hospitals were asked to voluntarily report hospital-identified data on clinical risk factors and in-hospital deaths to construct risk-adjusted mortality for patients undergoing CABG. In 2001, this voluntary reporting program was “grafted” onto the existing Data Act to

³⁷ Cal Health & Saf Code § 128745(b) (2012).

³⁸ Cal Health & Saf Code § 128750 (2012).

³⁹ Personal communication, OSHPD staff, March 2, 2012.

⁴⁰ See, for example, California Office of Statewide Health Planning and Development, Healthcare Information Division: Quality of care, web page, 2012. As of November 27, 2012: <http://www.oshpd.ca.gov/HID/Products/quality.html>

⁴¹ Cal Health & Saf Code § 128745(c) and (d) (2012).

create the California CABG Outcomes Reporting Program (CCORP). CCORP is a mandatory reporting program run by a unit of OSHPD that is separate from the unit that manages the hospital discharge data program.⁴²

Under CCORP, OSHPD collects and analyzes hospital clinical and outcome data and reports uniform hospital and surgeon-level mortality data, adjusted for differences across hospitals in the mix of patients undergoing isolated CABG procedures at California hospitals.⁴³ Mortality rates are published at the hospital level annually and the surgeon level biannually.⁴⁴ This requires legislative approval of ongoing funding appropriations. Hospitals that perform CABG procedures report the required data elements to OSHPD via online data submission to OSHPD's Cardiac Online Reporting for California website. The data elements for CCORP are shown in Table 2.2.

CCORP includes many more clinical data elements than does the hospital discharge data set to permit detailed risk adjustment of clinical outcomes. The CCORP program seeks to align its data collection with the national Society of Thoracic Surgeons' Adult Cardiac Surgery Database that is used by many surgeons and hospitals across California. In the context of the CCORP, OSHPD captures the responsible surgeon's name and California medical license number.

The physician identifier in CCORP includes three fields for surgeon name (last name, first name, middle initial) and a separate field for California medical license number. The presence of the physician identifier among the data elements allows CCORP to produce risk-adjusted mortality results at the physician level—which increases the usefulness of the publicly reported data to patients, hospitals, health plans, and policymakers. According to OSHPD, CCORP data are not released other than possibly to academic institutions/researchers under the CIPA. However, CCORP's data collection and reporting impacts only a minority of California hospitals (as of 2012, only 120 hospitals perform CABG procedures). By contrast, an expansion of the data captured as part of the hospital discharge data program would affect all 450–500 hospitals in California.

⁴² Personal communication, OSHPD staff, March 2, 2012.

⁴³ See California Office of Statewide Health Planning and Development, *California CABG Outcomes Reporting Program (CCORP) Data Abstractor Training Handbook, Version 2.0* (undated) at 9.

⁴⁴ As with the RAORs discussed earlier, physicians have the right to review, contest, and appeal before CCORP reports are made public.

Table 2.2. Data Elements for the California CABG Outcomes Reporting Program

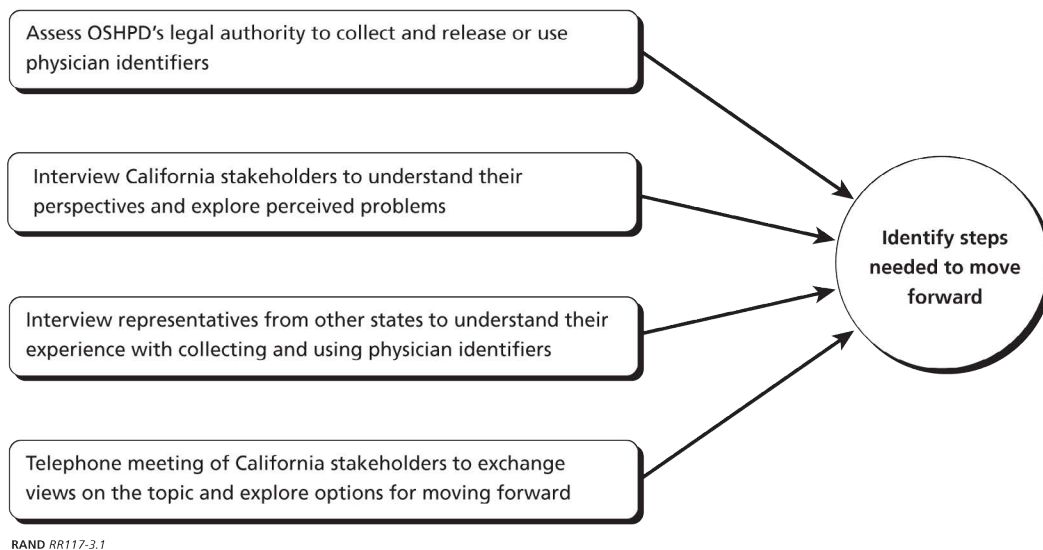
Medical Record Number	Prior Myocardial Infarction, When
Isolated CABG	Heart Failure within 2 weeks
Date of Surgery	Classification - NYHA
Date of Birth, Patient Age	Cardiogenic Shock
Sex	Resuscitation
Race, Ethnicity	Arrhythmia When, Type
Date of Discharge	Meds - Coumadin (within 24 hours)
Discharge Status	Warfarin Use (within 5 days)
Date of Death	Number of Diseased Coronary Vessels
Responsible Surgeon Name	Left Main Disease
Responsible Surgeon CA License Number	Ejection Fraction Done, %, Method
Weight (kg)	PA Systolic Pressure Measured, Pressure
Height (cm)	Insufficiency - Mitral
INR	Incidence (1st cardio. surgery, etc.)
Total Bilirubin	Status (Elective, Urgent, Emergent, etc.)
Total Albumin	Emergent Reason
Last Creatinine Level	CPB Utilization, Combination Plan
Diabetes, Diabetes Control	Internal Mammary Artery Used
Dialysis	Left Anterior Descending Artery Bypassed
Hypertension	Valve Procedure
Infectious Endocarditis, Type	Aortic / Mitral Valve, Procedures
Chronic Lung Disease	Tricuspid Procedure
Liver Disease	Pulmonic Procedure
Immunocompromise	Reoperation for Bleed
Peripheral Arterial Disease	Reintervention - Graft Occlusion
Cerebrovascular Disease	Deep Sternal Infection
Prior Cerebrovascular Accident, When	Neuro – Stroke Permanent
CVD–TIA, Carotid Stenosis, Prior Carotid Surgery	Pulm – Ventilation Prolonged
Previous Coronary Artery Bypass Graft	Renal - Renal Failure, Dialysis Requirement
Previous Valve	Other - A Fib
Previous PCI, Interval	Facility Identification Number

3. Study Approach

The RAND team sought to explore a range of legal, operational, and substantive issues associated with including a physician identifier in the California hospital discharge data set and the release of physician-identified data for a variety of potential uses. In particular, RAND wanted to understand whether stakeholders saw any benefits associated with physician-level measurement and reporting, to identify any operational issues or barriers to collecting physician identifiers and reporting physician-identified data, and to suggest strategies for addressing any identified barriers to advancing the collection of physician identifiers. To consider the range of issues, RAND used a multipronged approach (Figure 3.1) that included

- summarizing legal and regulatory issues related to collection and reporting of physician identifiers in California
- interviews with California stakeholders to understand the issues from a variety of potential end-user perspectives
- interviews with representatives from states with experience collecting and reporting physician-identified data to understand policy and operational issues they faced
- a 90-minute telephone discussion with California stakeholders to discuss the findings from our legal review and interviews, to exchange views on this topic, and to more fully explore any issues or concerns that would need to be resolved to advance inclusion of a physician identifier in the California hospital discharge data set.

Figure 3.1. Study Approach



This study was limited to exploring the potential issues associated with adding physician identifiers in the hospital inpatient data. The RAND research team did not explore the issues associated with adding physician identifiers to hospital outpatient (i.e., ED and AS) data.

Interviews with California Stakeholders

We drew a purposive sample of individuals from a variety of stakeholder organizations that are potential users of physician-identified data (raw or publicly reported) as well as affected parties, namely hospitals that would have to capture and submit the data to the state and hospital-based physicians whose information would be collected and potentially disclosed. We attempted to get a cross-section of stakeholders to participate in the interviews and provide their perspectives. The candidate organization list of stakeholder organizations was developed and refined in collaboration with project staff from the California HealthCare Foundation and OSHPD. The sample of organizations included physician specialty organizations and affected specialists (e.g., maternity, cardiology, and orthopedics), consumer organizations, purchaser organizations, multi-stakeholder collaboratives engaged in measurement and public reporting, hospitals, health plans, provider associations, and researchers.

We invited 29 representatives from the stakeholder organizations to participate in a one-on-one, one-hour phone interview between December 1, 2011, and January 31, 2012. We selected the individual or individuals in each organization who would have knowledge about this issue

and understand how their organization might use the information or be impacted by collection of the information. Interviewees included specialty society chapter presidents; hospital directors of clinical quality/outcomes; chief executives/executive directors; vice presidents/directors of policy, quality measurement, or improvement; and research directors/principal investigators. Candidates were sent email invitations to participate, and, when there was no response, we followed up with email and phone calls to encourage participation. Of the 29 invitees, 16 responded and completed interviews, one declined, three could not make time for an interview within the two-month interview period, and nine did not respond to repeated attempts to solicit their participation. Table 3.1 shows the distribution of respondents by type of stakeholder group.

Table 3.1. Distribution of California Stakeholder Interviews, by Type of Stakeholder Group

Stakeholder Group	Sample Frame (all attempts)	Interview Complete	Declined Participation	Unable to Schedule Due to Time Constraints	Non- Response
Health plan	4	2	0	2	0
Physician specialty	8	5	1	0	2
Consumer	2	2	0	0	0
Multi-stakeholder	2	1	0	1	0
Purchaser	3	2	0	0	1
Association	4	1	0	0	3
Hospital	3	2	0	0	1
Medical group	1	0	0	0	1
Researcher	2	1	0	0	1
TOTAL	29	16	1	3	9

We queried the California stakeholders on a variety of topics (listed below). We did not address all topics in every interview, as some stakeholders possessed knowledge to address only certain questions. For example, hospitals have direct knowledge about how they currently capture data on physician identifiers as part of their standard billing practices—so these questions were specifically targeted toward the hospital participants in our sample of stakeholders.

Questions About Collecting Data

- Knowledge of whether physician identifiers are being collected in California, other states, and nationally.
- General impression of collecting this kind of information routinely (i.e., utility of information, how information would be useful, and who would find it useful).
- Ease or difficulty of accurately collecting identifiers of physicians associated with care for specific hospitalized patients.
- Ease or difficulty identifying the operating physician associated with a specific surgery.
- Ease or difficulty identifying the attending physician for most hospitalized patients.
- Accuracy and completeness of the physician identifier data currently being captured by the hospital and potential problems that might emerge in collecting it.

- Ease or difficulty identifying the attending physician with primary responsibility for patient’s care for a complex patient with a long hospitalization and many procedures.
- Time required to code the physician identifier and potential additional costs (e.g., time, staff, IT resources).
- Type of identifier that would be available (the NPI, the state license number [SLN], or name of physician) and which one might be best.
- Extent to which interviewee felt it is meaningful or not very meaningful to make an association between the specific physician and the process or outcomes of care for the patient in the hospital (surgeon, attending).
- Whether more than one physician should be considered as “responsible” and which kinds of physicians are responsible.

Questions About Releasing and/or Reporting Data

- Knowledge of any benefits or problems related to release of physician-identified data.
- Ease of accurately reporting data about process and outcomes of care for individual physicians associated with hospitalized patients in California hospitals.
- Issues that might arise with ensuring that the data for each physician are reported accurately (process that might be appropriate for verifying data).
- Potential concerns about reporting data when there are only a small number of cases for some physicians.
- Issues related to need to adjust outcomes for the characteristics of patients, such as co-morbidities, complexity of a medical problem, or hospital characteristics.
- Fairness of associating the operating physician (case of a routine patient hospitalization) with patient outcomes such as complications, length of stay, cost of stay, or readmission in public reporting of the data.
- Fairness of associating the operating surgeon (case of a complex patient with a long hospitalization and many procedures) for the principal procedure with patient outcomes such as complications, length of stay, cost of stay, or readmission in public reporting of the data.

- Fairness of associating the attending physician (case of a routine patient hospitalization) with patient outcomes such as complications, length of stay, cost of stay, or readmission in public reporting of the data.
- Fairness of associating the attending physician (case of a complex patient with a long hospitalization and many procedures) with patient outcomes such as complications, length of stay, cost of stay, or readmission in public reporting of the data.
- Any benefits from collecting and reporting publicly reported data on physician identifiers.
- The types of groups in California that would favor/oppose doing this and reasons.
- Personal opinion about routinely reporting physician-identified data associated with hospitalized patients (i.e., surgeons, attending physicians).
- How stakeholders would want to be involved in the discussion if this is proposed in California.

Interviews with Representatives from Selected States

We drew a small purposive sample of states to participate in interviews, attempting to get a cross-section of states that collect and publicly report physician identifiers as well as some that collect and do not report physician-identified data, or report such data on a limited basis. The goal was to understand different approaches and some of the underlying issues regarding why states have chosen different approaches to releasing and using physician-identified data. Examples of different approaches to the release of physician-identified data cited in the 2010 NAHDO report include release back to providers for their own use, preparation of internal reports, research purposes, special requests, in standard release files (in some cases displaying an encrypted identifier), or through RAORs.

Our sample included 11 states, for which we were able to complete seven state interviews. All state interviews were conducted in January 2012. The type of individuals we interviewed in the various states included executive directors; directors for biometrics, health statistics, and health information analysis; and hospital data managers. We used a semi-structured protocol, and each one-on-one interview was 45 minutes to an hour in duration. We also examined materials related to the content of data sets and data use agreements that were available on the Internet and, in some case, re-contacted our informant to resolve questions. Table 3.2 shows the distribution of

our sampling and interviews, organized by the states' approach to the use of the physician-identified data. The states we completed interviews with were New York, Virginia, Pennsylvania, Arizona, Nevada, Washington, and Colorado (as shown by bold font in the first column of Table 3.2).

Table 3.2. Distribution of Out-of-State Interviews

Approach to Reporting and Use of Physician-Identified Within State	Number of States Sampled	Number of Interviews Completed
Public Reporting (New York, Virginia, Pennsylvania , Florida)	4	3
Collects and Reports (Arizona, Nevada, Washington , Wisconsin, Texas)	5	3
Collects, No Release (Oregon, Colorado)	2	1
TOTAL	11	7

We addressed the following topics in the state interviews:

- Policy-level issues:
 - How difficult was it to implement data collection and reporting?
 - What were the key factors that resulted in implementation?
 - What has been the experience in getting data collection implemented?
 - How well has it worked?
 - What problems have been encountered?
 - What lessons were learned in implementation?
 - How much, by whom, for what have the data been used?
 - What risk-adjustment approaches and models have they used?
 - What results have they observed, if any?
 - What coding criteria, rules, and procedures are used?
- Operational-level issues:
 - Which data are included: inpatient discharges, ambulatory surgery, ED visits, other?
 - Which physician types are included: attending, operating, other?
 - Which identifiers are collected (NPI, SLN, name, other)?
 - What type of validation techniques and standards are used? What has been their experience with the validity of the data?
 - Is there a physician review process prior to public reporting? How does it work?

Telephone Meeting with Stakeholders to Discuss Draft Report Findings

We hosted a 90-minute telephone and web-based meeting with California stakeholders on October 29, 2012, to discuss the findings of a draft version of this report. The meeting was attended by 24 California stakeholders (physicians, hospitals, purchasers, consumers, researchers, multi-stakeholder collaboratives, and health plans), one representative from Arizona that collects physician identifiers, California HealthCare Foundation staff, OSHPD staff, and RAND project staff. This discussion focused primarily on the concerns about collecting such data, release of the data and how the data would be used and interpreted, and fairness if outcomes are reported publicly for individual physicians. We also discussed steps that could be taken to address concerns and what steps need to be taken to advance inclusion of physician identifiers in California hospital discharge data. The comments we heard in the telephone meeting did not differ significantly from the comments we heard in our stakeholder interviews.

Organization of the Report

In the following sections of this report, we present the findings from our analysis of legal and regulatory issues (Section 4), discussions with California stakeholders (Section 5), and conversations with state representatives (Section 6). Section 7 contains a summary of key findings and recommendations based on these discussions that would need to be considered by OSHPD should it decide to move forward with requiring the inclusion of physician identifiers as part of the hospital discharge data set.

4. Background on Legal Issues Related to OSHPD's Authority to Add a Physician Identifier to the Hospital Discharge Data Set

OSHPD has the authority to add a physician identifier to the hospital discharge data by issuing a notice of proposed rulemaking and taking into account public comments in making a final ruling, in accordance with the full requirements set out in the California Administrative Procedures Act. If OSHPD were to pursue the addition of physician identifiers, the agency would then have to comply with all statutory mandates related to the release of hospital discharge data—and would also have to decide whether to release physician identifiers where the statutes authorize but do not mandate release. Because the Data Act basically requires OSHPD to disclose data unless an individual patient's rights of confidentiality would be violated, one consideration would be whether adding physician identifiers to the data file might allow a user to re-identify patient-level data. At a minimum, OSHPD would have to reassess the re-identification standards it uses to ensure that end users would not be able to identify patients.

By definition, the raw hospital discharge data, if released in a public file, would not be risk-adjusted. However, OSHPD releases information in the form of RAORs using both the hospital discharge data and the CCORP data. If a physician identifier were added to the hospital data set, it would mean that OSHPD could potentially produce RAORs at the physician level, as it does now at the hospital level. On the other hand, OSHPD's ability to produce RAORs could be limited by the relative lack of clinical data elements in the current hospital discharge data set (unlike the more detailed set of clinical risk factors collected as part of the clinical data registry for the CCORP). If OSHPD were to pursue collecting additional clinical data, it would need to adopt regulations to do so (following all of the requirements of the California Administrative Procedures Act) and follow the limits set in the Data Act about how many data elements can be added or subtracted in total. OSHPD would also be required by the Data Act to create a clinical advisory panel for each risk-adjusted outcome study, creating additional burdens for OSHPD staff. There would also be due process rights for the physicians because, like CCORP, there is a physician notice, contest, and appeal mechanism for the RAORs produced by OSHPD.

California Laws That Could Affect Whether Physician Identifiers Could Be Released

Laws other than the Data Act could impose limits on the release of information contained in hospital discharge records.

California Public Records Act

The California Public Records Act (CPRA) is one of a series of California “sunshine” laws that provide ordinary citizens access to monitor the functioning of public agencies.⁴⁵ However, each of the patient data collection programs that OSHPD operates has a CPRA exemption. For the inpatient hospital discharge (as well as ED and AS) data sets, the exemption specifically states that “Patient social security numbers and any other data elements that the Office believes could be used to determine the identity of an individual patient shall be exempt from the disclosure requirements of the California Public Records Act.”⁴⁶ The exemption for the CCORP data is nearly identical but uses the term “medical record number” rather than “social security number,” as CCORP uses a different patient identifier.⁴⁷ Therefore, any data element that OSHPD believes could *not* be used to determine the identity of an individual patient would *not* be exempt from disclosure under the CPRA. It is likely that these particular statutory CPRA exemptions would *not* exempt physician identifiers from disclosure unless the disclosure of the physician identifier would pose a risk of patient identification. There may, however, be issues about whether physician names or other identifiers might have other privacy protections.

California Information Practices Act

The California Information Practices Act (CIPA) of 1977 imposes broad restrictions on state agencies in collecting and releasing personally identifiable records.⁴⁸ The purpose of the law is to “assure the fair treatment of individuals who are the subject of state agency records.”⁴⁹

The statute specifies that, as a general rule, no agency may disclose any personal information in a manner that would link the information to the individual without prior written voluntary

⁴⁵ In addition to CPRA, for example, Proposition 19 amended the California Constitution to grant the right of public access to meetings of government bodies and writings of government officials (Cal. Constitution, art. I, § 3)

⁴⁶ Cal Health & Saf Code § 128735–128737.

⁴⁷ Cal Health & Saf Code § 128745.

⁴⁸ Cal Civ Code § 1798.1 *et seq.* (2012).

⁴⁹ Office of Information Practices, State Personnel Board, *The Information Practices Act of 1977 with Guidelines and Commentary*, September 9, 1991.

consent of the individual or the individual's guardian or conservator. However, other provisions modify the general rule. For example, subsection (e) states that such information can be transferred "to a person or to another agency where the transfer is necessary for the transferee agency to perform its constitutional or statutory duties, and the use is compatible with a purpose for which the information was collected." Subsection (f) allows disclosure "to a governmental entity when required by state or federal law." The transfer of hospital discharge information from hospitals to OSHPD is required by statute and necessary for OSHPD to perform statutory duties—therefore, it would appear that permission from hospitals, physicians, or patients is not required, at least for transfers that are arguably squarely within OSHPD's statutory duties.

OSHPD Privacy Policy

State law requires each state agency to develop and maintain an agency-specific privacy policy with regard to collection and use of personally identifiable information.⁵⁰ OSHPD's privacy policy states that OSHPD does not "disclose, make available, or use any personally identifiable data for purposes other than the reasons specified at or before the time of collection" without the consent of the individual or as authorized by law or regulation.⁵¹

OSHPD's position is that the agency has a responsibility to protect patient identifiers; however, even if physician identifiers were considered to be personal information, the privacy policy states that OSHPD may disclose personally identifiable data as authorized by law or regulation. Therefore, the privacy policy would not necessarily prevent disclosure of physician identifiers. OSHPD has not conducted a formal analysis of this issue. If legislation were involved, specific rules governing disclosure could be set through that mechanism.⁵²

⁵⁰ Cal Gov Code § 11019.9 (2012).

⁵¹ http://www.oshpd.ca.gov/General_Info/Privacy.html

⁵² For example, in the case of the Medicare program, Congress instructed the Centers for Medicare and Medicaid Services (CMS) to provide access to Medicare claims data for use in provider performance reports. CMS published the Final Rule implementing this requirement effective January 6, 2012. To be eligible to participate, a "qualified entity" must have specific experience in tasks related to calculating and reporting performance measures, must have a data use agreement with CMS, and must share methods, measures, and results with physicians 30 days prior to publication of the performance data. See *CMS Fact Sheet, Final Rule on Release of Medicare Data to Be Used for Performance Measurement*, Monday December 5, 2011.

Physician Challenges to Release of Physician-Identifiable Outcome Data

Public reporting on physician performance using outcomes derived from administrative data has increased in the past few years. In response, physicians (often represented by state and county medical associations) have taken various actions, including filing lawsuits, lobbying legislatures, and encouraging regulatory interventions, to challenge physician-level reporting programs in such states as Massachusetts, Connecticut, New York, Washington, Colorado, and California.⁵³ Physicians have challenged various methods of physician rating, including web-based programs (such as HealthGrades and RateMDs.com) and physician reporting and “tiering”⁵⁴ programs conducted by health insurers and public employee organizations.⁵⁵ These actions suggest that public reporting programs may need to meet certain standards in order to survive legal challenges.

The challenges to public reporting programs have been largely based on problems identified in the programs themselves, including “faulty methodologies, reporting systems focused solely on cost or anonymous web comments, statistical errors, and a lack of transparency, among other concerns.”⁵⁶ Physicians are particularly concerned that, because of underlying methodological problems, rating systems may misclassify a physician’s performance (in other words, the outcome scores generated from administrative data will not reflect “true” performance) and therefore patients will be misled. Physicians argue that poorly conceived public reporting programs could negatively impact both physicians (in terms of their professional reputation and livelihood) and patients (for example, if physicians’ performance is misclassified).⁵⁷

Most of the recent cases and government actions have involved disclosure of performance data or rankings by private entities (health plans). To the extent that public agencies in other states have been sued, the agencies have more typically been the defendant—sued by news

⁵³ Ann Greiner and Michelle Johnston-Fleece. (2008). American Board of Internal Medicine Foundation, Issue Brief #8, *The Patient Charter: A Way to Enhance the Rigor and Relevance of Physician Reporting Programs*, at 1.

⁵⁴ Physician “tiering” refers to the practice of incentivizing health plan members to choose higher-rated physicians by, first, rating physicians on measures of cost and/or quality and then either placing the higher-rated physicians in a limited network (tier) or allowing access to higher-rated physicians with lower cost sharing (and lower-rated physicians with higher cost sharing).

⁵⁵ *Id.* at 1.

⁵⁶ *Id.*

⁵⁷ Emma Dolan. (2012). *Reliability in Publicly Reported Performance Data: Framing the Debate*. Integrated Healthcare Association, Issue Brief No. 6.

organizations and other parties to compel the release of data, including physician identifiers that could be used to rank physician performance.⁵⁸

Unlike private organizations, state and local government agencies in California have an obligation, under both the federal and California Constitutions, to provide due process protections for individuals (including, obviously physicians) in situations where “life, liberty or property” (including income) are at issue. Although specific statutory mandates to report data would likely absolve public agencies from disclosure liability, protections for physicians such as those provided in CCORP (e.g., prior notice, an opportunity to review data before it is made public, an opportunity to provide contrary evidence, and an opportunity to appeal) may be more than desirable.

Some legal scholars have also suggested the potential for other “legal” consequences (including the effects of public reporting programs on informed consent and medical malpractice liability) should also be taken into account in thinking about the development of public reporting programs.

Conclusion

OSHPD has the statutory authority to add physician identifiers as a required data element to the hospital discharge data set after issuing a notice of proposed rulemaking and taking into account public comments in making a final ruling, in accordance with the full requirements of the California Administrative Procedures Act. If OSHPD were to collect the physician identifiers, OSHPD would be mandated to disclose the physician identifiers in keeping with statutory requirements.

There is broad consensus, however, on how to address perceived shortcomings when reporting outcomes. This includes (1) the need for risk adjustment to control for differences in case mix in order to avoid bias in reporting differences in outcomes across providers and (2)

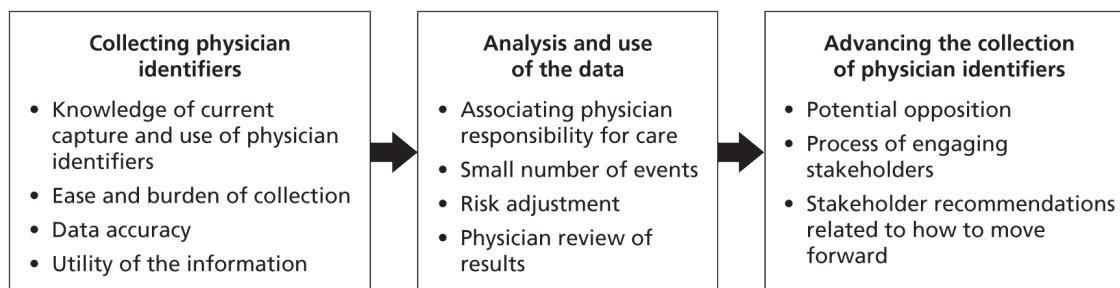
⁵⁸ See *New York Times Co. v. New York State Dep't of Health*, 80598, SUPREME COURT OF NEW YORK, APPELLATE DIVISION, THIRD DEPARTMENT, 243 A.D.2d 157; 674 N.Y.S.2d 826; 1998 N.Y. App. Div. LEXIS 7774; 26 Media L. Rep. 2213, June 25, 1998, Decided June 25, 1998, entered, as amended, August 26, 1998. In this New York case, two newspapers requested hospital data under the Freedom of Information Act, but the department denied the requests, finding that the unconditional release of all data requested would constitute an unwarranted invasion of personal privacy. The newspapers filed an action to challenge the department's determination. The trial court granted the petition and the appellate court affirmed, finding that the trial court correctly rejected the New York State Department of Health's argument that the disclosure of physician identifiers would lead to the identification of patients.

allowing physicians prior notice before the data are released and an opportunity to review and correct errors and to appeal before making public comparative results on outcomes.

5. Summary of Interviews with California Stakeholders

In this section, we summarize the findings from interviews we held with 16 California stakeholders and a follow-on phone meeting with 24 stakeholders to discuss the results of our interviews, identify other issues that were not raised during the phone interviews, and explore steps to address concerns. Figure 5.1 displays the organization of our presentation of the topics that were discussed with stakeholders.

Figure 5.1. Topics Discussed with Stakeholders



RAND RR117-5.1

Collecting Physician Identifiers

Knowledge of Capture and Use of Physician Identifiers

California stakeholders varied in their knowledge about which identifiers are already being collected, either in California or nationally, and how those data are being released, reported, and used. Some stakeholders knew a lot, but many others' knowledge of the current state of affairs was limited. Some stakeholders commented that CMS was collecting these data through efforts such as the Physician Quality Reporting System (PQRS), and they believed that CMS intended to publicly report physician-level performance results in the future. There was some knowledge that other states had reported on procedure volumes or outcomes for a handful of clinical conditions. A few respondents indicated that they thought that in New York some physicians had avoided treating high-risk patients as a result of public reporting of outcomes from CABG surgery; this was counterbalanced by a comment that low-volume surgeons had stopped performing CABG surgery and that was likely a good thing. Among all respondents, there was general understanding that hospitals already collect this information internally as part of standard billing practices.

The Ease or Difficulty of Collecting Physician Identifiers and Potential Cost Burdens to Hospitals and Physicians

There was universal agreement among those we interviewed that collecting physician identifiers should be easy for hospitals to do, since it is already being done⁵⁹ and no additional time would be spent by hospitals coding this particular field. As one stakeholder remarked, “It shouldn’t be costly, unless more data elements beyond the physician identifier are needed.” It was noted that if additional fields were required to capture information on patient comorbidities or risk factors to enable the construction of risk-adjusted outcomes, this would entail additional burden on hospital staff and coders. Data collection costs become an issue when more detailed clinical elements are needed to support the reporting of various outcomes. Therefore, the burden issue depends on whether only the physician identifier is added or whether other elements are added along with the physician identifier to enhance the ways in which the data can be analyzed.

In our discussions, hospitals indicated they were using the SLN, the NPI, or both. This is consistent with the 2010 NAHDO study, which found that states which were collecting physician identifiers were capturing various identifiers, including the NPI, SLN, and physician name.

Some of those we interviewed stated that the NPI was preferred, as it is used for Meaningful Use requirements under the CMS incentive program to eligible providers. One stakeholder said that their organization uses the SLN to link to information on birth certificates. Some stakeholders suggested capturing both the SLN and NPI in the beginning to allow cross-checking.

Accuracy of the Physician Identifier in Data That Are Currently Captured by Hospitals

There was general agreement that the physician identifier information collected is quite good, especially for the operating physician. This could be validated by going back to the operative report. One stakeholder who had experience with testing the accuracy of physician identifiers stated that

For short stays with a single procedure, the information is 90 to 95 percent accurate with procedure/operating physician. We also found very few errors even with multiple procedures. What is more difficult is for Intensive Care Unit (ICU) patients with multiple physicians involved in a patient’s care. In longer lengths of stay the attending changes over time.

⁵⁹ Department of Health and Human Services. Centers for Medicare and Medicaid Services. (November 2, 2006). CMS Manual System. Pub 100-04 Medicare Claims Processing.

Sixty to 80 percent of the time it is right, but it would be very problematic when it is wrong.

One respondent observed that “Accuracy may be problematic if many physicians are involved in patient stay, as the UB-04 only has a place for a single physician to be listed in each of the operating and attending fields.” While physician-identified information would be very helpful if those data are accurate, one respondent expressed the opinion that “This issue is so important. It has the potential to provide good information that’s useful or bad information that is damaging.” A number of stakeholders expressed the opinion that the identifier information would require auditing or some type of validation.

One person thought that inconsistencies in the data could occur because of differences in the definitions used across hospitals, particularly for the attending physician, and the structure of data collection tools. While the accuracy of the data is critical, several stakeholders commented that if the physician identifiers were used, the accuracy of the information would improve over time. Another stakeholder commented that “[Adding physician identifiers] is a question of political will. It is difficult to find the middle ground for an acceptable level of accuracy.”

Utility of Information

Collecting and reporting physician-identified data was seen as beneficial by all 16 California stakeholders we interviewed. One stakeholder remarked, “The benefits would be enormous to all parties. This is long overdue.” The impression that the data would be useful held true even among the providers that we interviewed. One said that “This is a good thing and it will be very important and allow quality improvement,” while another reported that “Physicians will do better if they know others are keeping score.”

The benefits were viewed as accruing to everyone, especially physicians, who would be able to track their own performance and improve. Others who would find the data useful are consumers, payers, hospital quality-improvement programs, researchers, and regulators. One stakeholder commented that “As a consumer, I should know a physician’s volume for a procedure that I need and also their complication rate.” Another stated that it would be “very helpful for physicians to see their performance compared to other physicians.” Another stakeholder said that the information “could be useful but it really depends on the goals. For quality improvement and benchmarking and feedback to physicians, there is huge value. But public reporting worries me.” However, another stakeholder remarked that “In New York, as a

result of public reporting of CABG outcomes, small-volume physicians and hospitals stopped performing those surgeries. You could view this as a good thing.” Another stakeholder indicated that collecting physician-identified data is a good thing, but the accuracy of the data and how they are used and interpreted can be good or very bad, stating

It is important for doctors to know how they’re doing and quality improvement requires measurement. It can be bad if we’re trying to assign accountability to one person when doctors are only one element of care team.

Interviewees felt that even capturing volume as an outcome measure would be useful as a proxy for quality. One stakeholder said, “For certain procedures, like hip-and-knee replacement, there is a known correlation between volume and outcome, so just reporting volume of procedures can be useful information.” A few stakeholders said they believed it is worthwhile to do, but that it was hard to comment in the abstract without knowing the specific details. For example, one noted that it would be valuable to report by procedure, but the value was less clear if one were evaluating a medical condition.

Analysis and Use of the Data

Identifying the Physician with Primary Responsibility for Care and Outcomes

We explored how easy or difficult it would be to identify the physician with primary responsibility for the patient’s care and outcomes from treatment for both attending and operating physicians. We also asked stakeholders to consider the ease or difficulty of assigning responsibility depending on whether patients needed routine care or had more complex clinical needs (e.g., had a long hospitalization, many procedures).

Stakeholders’ views about how meaningful it is to hold an individual physician responsible for the care delivered and outcomes depend on what is being measured (i.e., outcomes from procedures or medical management). This was summed up by the comment that “There are areas where this is easy, and there are areas where this is quite difficult.” Most stakeholders expressed the opinion that it would be straightforward to identify the operating physician with primary responsibility for any true procedure. One person commented that “It is easy by procedure because usually one physician is involved. It is difficult for overall care because many are involved, so depends on what you are measuring.” In selected cases for procedures, there are multiple operators. While the operating physician typically is the one that dictates the report, this

may not be universally true. Some large facilities may hire nurse practitioners to help with more minor procedures, and, in teaching institutions, residents often dictate the report.

Providers expressed concern related to their ability to control all events, so assigning responsibility to one individual may not be appropriate depending on what is being measured and reported. For example, one stakeholder remarked

It depends on how data are going to be used. For cardiac surgery outcomes like mortality, it would have meaning. For something like readmissions, it isn't clear who is in charge or responsible. For example I had a patient who was going to be discharged on the weekend when I wouldn't be there. I went through detailed discharge instructions with a hospitalist, but then the patient got readmitted because they got a medication that I specifically instructed the patient not to get. If I'm the physician listed as "responsible" (if only one name provided) then it looks like it is my fault. It is important to consider these types of scenarios.

Another stakeholder commented that "For most elective procedures, readmission is attributable to procedure," suggesting that in this specific example the stakeholder felt that the readmission is likely due to the care the patient received while in the hospital. The discussions with providers flagged a need for clarity in what physicians would be measured on and potentially held accountable for to ensure that the identified physician could reasonably have been expected to control the outcome of interest.

Most agreed that it would be meaningful to associate short stays with a single procedure to a surgeon. Comments included:

- "Yes, unequivocally for surgeons. But team and hospital are also important to determining outcomes. So we should report on both of these things."
- "[It is] fair to associate the operating physician with patient outcomes, but accountability is held jointly between team and hospital."
- "[The] closest association is for surgeon and outcome of surgery. Readmission attribution depends on type of surgery; probably fair for patients not in ICU before surgery."
- "For certain procedures, volume is clearly linked to outcomes and those are fair game."

A number of stakeholders also thought that, in addition to procedures, an individual physician could potentially be associated with the management of a few specific diagnoses or medical conditions (e.g., pneumonia, congestive heart failure, arrhythmia, and maybe myocardial infarction). Generally, if there was one physician involved in the care, then stakeholders did not see a problem making this association.

Opinions diverged regarding the feasibility of associating the attending physician with the patient's care or outcomes. Many stakeholders said that assigning responsibility ("attribution") would be hard when there is a prolonged stay, since the attending physician could be the physician first associated with the patient, but then many other physicians are involved in the patient's care during the stay. Because attending physicians often cover for each other, stakeholders felt that it would be more challenging to determine who is responsible. One stakeholder stated that

For attending physician[s], there are many and they rotate, so [it's] not easy to identify a single one. [The] challenge is that there is not a standardized definition across hospitals for *attending physician*.

Another stakeholder commented that "In small hospitals this will be easier as there is usually one attending who makes more decisions as they typically don't use hospitalists." Another stakeholder noted "For nonsurgical procedures, physicians rotate, so do you assign accountability to a single physician? Doesn't square with how care is provided in 2012 (i.e., team-based)." Others agreed with this comment: "I don't know that one person is totally responsible for the outcome."

Even if many physicians were involved in the patient's care, a number of stakeholders felt the attending physician is still responsible for the overall management of the patient. Others were more skeptical on holding one person responsible:

Assuming there are no residents, the attending physician is responsible for primary care. In teaching hospitals, this is more complicated because residents also are performing procedures; however, the attending should be accountable.

The attribution terrain was viewed as more challenging for complex, long-stay patients who have multiple physicians involved in their care. For example, one stakeholder expressed the opinion that

It may be ok to attribute responsibility to an attending physician for a certain number of straightforward diagnoses (e.g., uncomplicated pneumonia) and conditions, but certainly not across the board. In the ICU, it is very difficult to attribute responsibility to the attending.

Some had the opinion that complex cases should be excluded from attributing responsibility to a single physician; however, it was also noted these are the situations where outcomes vary and physician skill is most important.

The other issue that was raised was a need to identify what exactly the physician is accountable for, and this is where a greater understanding of what a physician would be

measured on would help frame consideration of the whether a physician-identifier should be included in the hospital discharge data. For example, one stakeholder commented that

It depends on the process or outcome being considered. Whether a physician prescribed a specific medication at discharge? That is absolutely the physician's responsibility. For readmissions, partly physician's responsibility, but the patient contributes as well. It is challenging to try to pin such outcomes to a single physician without a better understanding of all the relevant factors leading to the readmission.

Another remarked, "Metrics are very role-specific." Assignment of responsibility depends on the situation. In the area of obstetrics and gynecology (OB-GYN) care, it would be easy for gynecological care—in cases where a single doctor is involved from start to end (100 percent responsible), but difficult for obstetrics. Often a labor takes more than one day, and it may involve multiple doctors. It was noted that you could identify the doctor who performed the delivery, but management of the delivery likely involved many physicians, and not all physicians who are involved are identified in the medical record or billing data.

Several stakeholders saw problems with trying to assign responsibility to an individual physician since "We're supposed to be moving toward team-based care." For example, in orthopedics, it would be important to also list the names of the anesthesiologist and primary care doctor, as these physicians are "involved" providers.

Concerns Related to a Small Number of Cases for Some Physicians

Among the 16 stakeholders we interviewed, there were mixed opinions on whether data should be released or results reported for physicians with a small number of cases. Some thought that there should be thresholds established for reporting outcomes, excluding those physicians who fell below the threshold, while others thought that the small numbers problem could be addressed by various statistical techniques, such as statistical significance testing (small providers would show up as no different than the comparison group due to large confidence intervals around their estimates), or by establishing a reliability threshold (e.g., of 0.70 or higher to ensure that the estimate has sufficient signal rather than random noise). If a reliability approach were to be used, it was noted that it is not appropriate to set a single threshold across all outcomes. Rather, reliability is measure-dependent and would need to be determined on a measure-by-measure basis. Several stakeholders expressed concerns that people looking at data may not be savvy enough to properly interpret the information, so the challenge will be figuring out how to explain

the results clearly enough. These stakeholders did not believe that physicians with small numbers should be excluded from publicly reported data, but cautioned “Care should be taken in presenting the data.” There was also sentiment expressed that “Yes, this could present a problem when reporting, but physicians shouldn’t do procedures that they only do once in a while.”

Risk Adjustment

Risk adjustment refers to a statistical technique that uses patient-level clinical and demographic information (i.e., risk factors) to adjust for differences across hospitals in the mix of patients that are associated with the outcome of interest, such as mortality. The need for risk adjustment is contingent on how the physician-identified data would be used and, in particular, what measures or indicators of performance are generated. Among our interviewees, risk adjustment was not considered an issue if what would be reported was the volume of procedures or whether certain care processes were delivered (e.g., aspirin at arrival for patients with acute myocardial infarction). However, should the data be used to report on outcomes of care (clinical or resource use), all respondents were in agreement that it would be important to adjust the data to account for different risk factors that influence outcomes. This was viewed as necessary to level the playing field when developing comparative reports of performance. While all considered risk adjustment of clinical and cost outcomes important, it was noted that “It can be challenging to get agreement on the set of variables that will be used as adjusters.”

Physician Review of Data Prior to Use

All stakeholders indicated that physicians should definitely have the opportunity to review what is going to be publicly reported about them and to verify the data used to generate the performance score. Several commented that this was necessary because physicians are concerned that the results will affect their patient volume and their pay. One challenge with data validation is the time and burden required for physicians to thoroughly review that data when they and their staff are already overwhelmed. To facilitate this, one stakeholder commented, “We need the process [to be] as simple and user-friendly as possible. Perhaps the hospital could check the data before it comes to the physician.” The other issue that surfaced was the need to minimize the time lag between when care occurs and when data are available for review and use.

Advancing the Collection of Physician Identifiers

Potential Opposition

Among the California stakeholders, there was agreement that organized medicine and individual physicians would likely be opposed to including a physician identifier in the hospital discharge data. It was noted that physicians have concerns about potentially misleading the public and unfairly damaging physician reputation and livelihood. Hospitals also might oppose this if they were required to do additional work beyond what they already capture (i.e., physician identifiers for operating and attending physicians as part of the UB-04 claim) to enable case-mix adjustment or to capture additional outcomes of care. Hospital stakeholders could envision substantial additional coding of clinical risk factors to support case-mix adjustment in the context of reporting clinical outcomes.

Process of Engaging Stakeholders Moving Forward

All of the stakeholders agreed that it would be important to engage those who are affected (doctors, other practitioners, and hospitals) in the design and dissemination of the information back to physicians. In particular, it was recommended that physician specialty organizations be at the table. Many shared the view expressed in this comment: “Everyone has to be at the table—physicians, payers, consumers, purchasers, hospital leaders, consumers, state regulators.”

Stakeholder Recommendations

There was consensus among all of the California stakeholders that we interviewed, including physician and hospital representatives, that collecting physician identifiers would be useful to many parties, especially to physicians and hospitals in their quality-improvement efforts. All of those interviewed personally believe that physician identifiers should be collected and reported, although differences of opinion exist about release and/or reporting to whom and for what purposes.

To advance this issue, the stakeholders we interviewed offered a number of recommendations:

- **Engage stakeholders early and often:** There was consensus that physicians, hospitals, consumers, and other key stakeholders need to be included as early as possible, particularly in the choice and development of any outcome measures that will be used. Physicians specifically want to be involved in the selection of measures of their

performance, observing that some indicators of performance would make more sense at the hospital level or the team level as the unit of analysis. The process should be as inclusive as possible, and trust can be built by engaging the stakeholders early and often. One respondent noted, “If the goal of any physician identifiers is to raise the bar, then I think physicians can be a true partner in it.”

- **Verify the data and work toward a standardized definition of attending physician, if that is collected for use:** All respondents felt that data accuracy was key and the data should be validated. There were fewer concerns about the accuracy of the operating physician identified on the billing form, but more concerns about the correctness of who was listed as the attending physician and whether that person could be held responsible for overall outcomes of care. This problem seemed more acute in teaching hospitals, where residents are involved, and in complex, longer hospital stays, where there are rotations in staff assigned to specific patients. Need was expressed for a system of verification, so that doctors can review which patients/cases are being assigned to them for responsibility. It was suggested that hospitals may be able to perform at least an initial review for accuracy to minimize burden on the physicians. Whatever the process, the aim should be to minimize the time lag in release of the data for use.
- **Consider a test period:** Several respondents recommended a testing stage to “work out the kinks,” as reflected in this comment: “Recommend that this be beta-tested for a year without the intention of public reporting to iron out bumps in accurate collecting and reporting.”
- **Clarify the scope of what is reported:** Across the board, stakeholders were sensitive to the concerns of physicians about how much they could be held solely accountable for the delivery of specific processes of care or outcomes. One respondent observed that concerns could be minimized through limited public reporting with sufficient vetting of selected procedures.
- **Start with areas that are more clearly defined:** There seemed to be general consensus that it would be possible to include both operating and attending physicians for any “invasive” procedure. However, with medical conditions the issue of assigning responsibility to a single person becomes more complex and problematic. Several

respondents thought it would be good to start with small, clearly defined areas where assigning responsibility would be more straightforward, such as a single surgery.

- **Accompany public reporting with other initiatives, since public reporting alone is not sufficient to address the quality problems:** Several respondents, while supportive of public reporting of physician-identified data, observed that public reporting needed to be accompanied by other quality-improvement initiatives and changes in the cost structures to improve hospital and physician performance on quality and costs.
- **Consider using CCORP as a model:** One respondent commented that if the focus was to report risk-adjusted outcomes, the cardiac registry model used in California for CCORP is a model that could be considered for other types of conditions and outcomes.

Additional Issues Identified in the Telephone Meeting with Stakeholders

The issues that were identified during the 90-minute phone meeting largely echoed what had been learned through the stakeholder interviews. Key issues that surfaced during the stakeholder call were:

- **A need to recognize the team component in determining outcomes of care:** Several stakeholders expressed a desire to map individual physicians to teams but recognized the challenges of doing so, as some teams are well dictated while others are spontaneous. Mapping individual physicians to teams could prove challenging.
- **Timeliness of the data:** Timeliness of the data is a major issue for hospitals with regard to quality-improvement practices. Anything beyond three to six months is too long to inform improvement work. Timeliness of data is also a concern in terms of use by consumers for decisionmaking. If data release is delayed substantially, the data are less valuable for this purpose.
- **Contextual factors are key to interpreting results:** When attributing individual physicians to procedures and hospital stays, it is important to understand the context for each specialty and procedure to correctly interpret the physician-level results. An example was given for physicians who work with midwives. Midwives handle the routine deliveries, leaving the physician to handle more complicated deliveries. The physician's C-section rate could look quite high relative to other physicians who do not work with nurse midwives. It would, therefore, be important to have a process for vetting the use of

the information to assess whether the results are accurate and what the data actually represent. Another example of contextual factors was raised related to looking at the volume of procedures a physician has performed. While several noted that volume data would be good to collect, there was concern that physicians just starting in practice would have low volumes because they have not amassed a large number of cases, although they may have had a high case volume in training, even though they were not the physician of record. This was cited an example of where context and circumstances matter in interpreting the data.

- **Concerns about possible unintended consequences:** There was concern expressed about release of physician-level results and potential effects on market behavior that may lead to unintended consequences, such as making it difficult for hospitals to attract physicians. There was also concern about the added administrative costs of verification and due process for physicians to the extent they are invited to review information prior to release.
- **Collecting Identifiers for other physicians may be useful:** If possible, do not necessarily limit the collection to the physicians listed on the UB-04 form. There are other types of physicians besides the attending and operating physicians, and it would be useful to have the identifiers captured for the other types of physicians or providers treating the patient.
- **Need for standard definitions for the attending physician:** There may be significant variation across hospitals in how they code the “doctor of record.” It will be important to have a standard set of definitions as to who is the attending physician so that all hospitals capture the identifier in a consistent manner.
- **The need for pilot testing:** There was a desire to pilot the collection of the data and do some testing to verify the data integrity; however, it was also noted that one can test and find errors forever. At some point, what will drive improvements in the accuracy of the data is the impact that the data have (e.g., if publicly reported).

Summary of California Stakeholder Interviews

California stakeholders thought that the operating and attending physicians could be readily identified from the medical record and reported accurately. They felt that attributing patient

outcomes to the operating physician was reasonable but were less sure about attributing outcomes to the attending physician particularly for medical admissions.

Stakeholders thought that physician-identified data would be easy to collect from the UB-04 billing form, as the attending and operating physicians are required fields; however, they noted that collecting the additional clinical data required for risk-adjusting clinical outcomes would be difficult and burdensome. They viewed the time that they would be required to spend to verify the data as imposing an additional burden on hospitals and providers.

Views on public reporting of physician-identified data varied considerably across stakeholders. Consumers and others viewed public reporting as promoting improvements in quality, while some physicians feared that inaccurate data or poor reporting could damage their reputations and be harmful to patients by directing them to low-value providers. Most physicians felt that risk-adjusting any reported outcomes was essential. They called for confidential release of the preliminary data and results to physicians for review and verification before the information was reported publicly. However, consumers were more interested in having timely information, so that results would be relevant for subsequent decisionmaking.

However, despite such concerns, most stakeholders saw a variety of uses for physician-identified data, including benchmarking, giving patients information to use when selecting physicians and hospitals, encouraging physicians to stop performing low-volume or poorly executed procedures, incentivizing physicians and hospitals to improve continuity of care, and informing decisions about contracting and value-based purchasing programs. Stakeholders also thought that these data could increase understanding of the factors associated with variation in care outcomes as well as being predictors of better outcomes.

6. Summary of Interviews with Representatives in Other States

Of the 48 states with hospital discharge data systems, 47 collect physician identifiers and use or release that information in various ways. RAND staff talked with informants in seven states about their hospital discharge data collection and data release experiences, focusing on physician identifiers.

The Experience of Other States with Data Collection and Validation

No state informant reported any significant problems with collecting physician identifiers. The hospital discharge reporting systems are well established, and many have been operating for up to 30 years. Physician identifiers are standard fields on the UB-04 form, and most hospital discharge reporting systems draw from the information captured on this form. The UB-04 includes standard definitions for physician identifier fields that apply for Medicare billing purposes, so to this extent they are standardized across hospitals. The exception seemed to be New York, where the informant indicated that the state uses its own versions of definitions. States reported using the NPI and/or the physician's SLN.

Validation of physician identifiers on the hospital discharge data was generally limited to a check against a list of valid identifiers of the type being used, the SLN or NPI that was collected along with other standard data checks for completeness or out-of-range values. Problem records are returned to the hospital for verification or correction. This process seems to be handled between the state agency that collects the data and the hospitals that provide them (or the hospitals' vendors), without much involvement from individual physicians.

As reported below, states varied in the coverage of their databases. Some cover only inpatient stays, while others have extended to outpatient visits, ED, and ambulatory surgeries. Some cover only outpatient visits and ambulatory surgeries that take place on the premises of licensed hospitals, but others are more inclusive. Data collection for additional services was added over time, after the database for inpatient stay discharges was established. At a minimum, the states collect the name of the operating physician in relation to the principal procedure and the attending physician. Some states collect "other" physician identifiers and/or the physicians associated with additional procedures.

How Other States That Include Physician Identifiers Release Data

Release of data is handled differently in different states. As indicated in Table 6.1, New York data with physician identifiers are publicly available as part of a standard release file. They are considered part of the SPARCS Non-Identifying Data set (or “non-deniable data”) and are released after approval of a data request that focuses on maintaining patient confidentiality. Data may be released to 14 categories of recipients, including “consumers.” This follows a 1998 New York Appeals Court decision in which the state was required to provide physician identifiers to a newspaper that requested them under the Freedom of Information Act.⁶⁰

In Pennsylvania, our informant indicated that the hospital discharge data, including physician identifiers, are sold nationally and are used by researchers and commercial clients, such as HealthGrades and WebMD. In Virginia, the data are available with a standard license agreement, again focusing on maintaining patient confidentiality. New York, Massachusetts, Pennsylvania, New Jersey, and Virginia have comparative risk-adjusted outcomes data at the physician level that are publicly released. New York, New Jersey, and Massachusetts have Cardiac Surgery Reporting Systems that report on risk-adjusted mortality following CABG surgery. Pennsylvania provides CABG outcomes annually and has previously reported on hip and knee replacement surgery outcomes and heart attack outcomes. Virginia has physician-level reports on risk-adjusted OB outcomes.

⁶⁰ See *New York Times Co. v. New York State Dep't of Health*, 80598, SUPREME COURT OF NEW YORK, APPELLATE DIVISION, THIRD DEPARTMENT, 243 A.D.2d 157; 674 N.Y.S.2d 826; 1998 N.Y. App. Div. LEXIS 7774; 26 Media L. Rep. 2213, June 25, 1998, Decided, June 25, 1998, entered, as amended, August 26, 1998. In this New York case, two newspapers requested hospital data under the Freedom of Information Act, but the department denied the requests, finding that the unconditional release of all data requested would constitute an unwarranted invasion of personal privacy. The newspapers filed an action to challenge the department's determination. The trial court granted the petition and the appellate court affirmed, finding that the trial court correctly rejected the New York State Department of Health's argument that the disclosure of physician identifiers would lead to the identification of patients.

Table 6.1. Hospital Discharge Data Collection and Availability in States with Public Reporting of Comparative Outcome Data

	New York	Pennsylvania	Virginia
Type of discharge coverage	Inpatient stays and outpatient visits to hospitals and ambulatory surgery centers	All inpatient stays and outpatient visits to hospitals and ambulatory surgery centers (selected procedures)	Inpatient stays
Hospital/Facility coverage	All licensed hospitals and ambulatory surgery centers licensed under same operating certificate as hospitals	General acute care, psychiatric, rehabilitation and long-term acute care hospitals, freestanding and hospital-based ambulatory surgery centers	All hospitals in the state
Physician identifiers collected	SLN, but will be supplanted by NPI	State license number, open to NPI in future	NPI since 2008, previously state unique identifier
Types of physicians	Attending, operating, and other based on New York data definitions	Referring, attending, operating, and other provider types	Attending and operating
Data availability for hospital discharge data	Hospital discharge data including physician identifiers are released following a standard request procedure; patient identifiers are omitted from standard data sets	Physician-identified data sold nationally and used by researchers and commercial clients such as HealthGrades or WebMD	Public Use File including physician identifiers available with license agreement
Validation of hospital discharge data	No specific auditing of physician identifier fields	Check for valid IDs, routinely verified with hospitals	Check for valid IDs
Comparative data provided	Cardiac Surgery Reporting System, risk-adjusted mortality following CABG	CABG outcomes annually, previously hip and knee replacement and heart attack outcomes	OB outcomes (1 in 8 discharges based on risk adjustment done by University of Virginia)

The RAND team talked with representatives in three other states that release physician-identified data but do not use the information to compile comparative outcomes data (see Table 6.2). In Arizona, the informant indicated that the data are used by state agencies, county health departments, and native tribal groups and are shared with the Veterans Administration as well as researchers and data companies that compile reports for insurance companies and hospitals. However, to the informant’s knowledge, no one who has accessed the data is using the data to make physician-level reports available to the public—that issue is “not on the radar screen.” Nevada is preparing for release of physician-level procedure volumes in response to recent legislation. The state is planning to limit release initially to both the principal procedure and principal operating physician. As a check on the accuracy of the data, Nevada is attempting to link the physician specialty to the physician identifier for a given procedure or surgery in an effort to flag provider types that look inconsistent with the procedure being performed, which has proven quite difficult. Nevada is sending apparent mismatches to the reporting hospitals for

verification or correction. There are no current plans to provide data on volumes to physicians for checking prior to making the reports available to the public, although hospitals will review the website before it is publicly available and may involve physicians in checking, if they wish. Once the information is posted, physicians will be able to respond and provide feedback. In Washington, our informant told us that the hospital discharge file, including physician identifiers, is available with a standard licensing agreement, and Thomson-Reuters (a health care consulting firm) and TeleMed (a medical device manufacturer) use the data to construct physician-level reports for their clients.

Table 6.2. Hospital Discharge Data Collection and Availability in States That Collect and Release Data but Do No Public Reporting

	Arizona	Nevada	Washington
Type of discharge coverage	All inpatient stays and emergency departments	All inpatient stays and ambulatory surgery	All inpatient stays
Hospital/facility coverage	All licensed hospitals	All Nevada hospitals and ambulatory surgery centers	97 hospitals
Physician identifiers collected	NPI, SLN	Unique physician identifier number (U-PIN), NPI, and SLN, but NPI alone is acceptable	Currently NPI, SLN or U-PIN but moving to NPI only
Types of physicians	Attending, operating, and other provider types	Attending, operating, and other provider types	Attending, operating, and other provider types
Data availability for hospital discharge data	Data shared with other state agencies, county health departments, tribal groups, the VA, researchers and sold to data companies. Hospitals may use data for QI and possibly recruiting physicians	Currently data are available for "valid research" in public health, health policy, and market analysis, currently planning release of operating physician procedure and diagnosis-related group (DRG) volumes	Available and used by Thomson-Reuters and TeleMed to construct physician-level reports for clients. Washington hospital association uses it for quality-improvement purposes
Validation of hospital discharge data	Conducts validation checks between the collected hospital data and the records of the various state clinician licensing boards, including whether the license number is valid (i.e., currently active in good standing and identified with the correct licensing board/discipline), and whether the correct physician is reported (i.e., does the reported valid license number actually belong to the clinician for whom it is reported). Requires 98.5% accuracy rate in audits.	Data are audited and returned to hospitals if there are problems (5%); no planned validation for volumes data other than match of specialty and procedures	Checks that NPI is valid number

Finally, in Colorado (Table 6.3) the data are collected by the state hospital association on a voluntary basis and are shared only among participating institutions. The data are primarily used for internal analyses and business planning.

Table 6.3. Hospital Discharge Data Collection and Availability in Colorado

Colorado	
Type of discharge coverage	All inpatient stays and ambulatory surgery; recently included emergency departments and surgeries not in hospitals
Hospital coverage	Voluntary effort, but most hospitals participate
Physician identifiers collected	SLN
Types of physicians	Attending and operating
Data availability for hospital discharge data	Used by hospitals for internal analyses, business planning. No other users. No other uses currently under discussion.
Validation of hospital discharge data	Some automatic auditing; hospitals must correct data

With the exception of Nevada, which is implementing a new data release, none of the informants indicated awareness of any current issues or problems in connection with their data release policies. Some reported initial resistance but said that some of those most opposed turned out to be supporters over time. Many referred to broader initiatives promoting transparency, such as the development of the all-payer databases.

Conclusions from Discussions with Other States

Although we did not investigate the experiences of all states that are collecting physician identifiers in their hospital discharge data, representatives of the seven states with whom we spoke reported little or no difficulty with collecting physician identifiers as part of their discharge data and minimal efforts required for verification of identifiers for operating and admitting physicians. Their policies on access and use of the data varied from making the data publicly available to limiting use only to contributing hospitals, depending on state laws and preferences. However, in the states where data are publicly available, our informants reported few problems.

7. Key Findings and Recommendations

OSHPD has the statutory authority to add physician identifiers as a required data element to the hospital discharge data set after issuing a notice of proposed rulemaking and taking into account public comments in making a final ruling, in accordance with the full requirements of the California Administrative Procedures Act. If OSHPD were to collect the physician identifiers, OSHPD would be required to disclose the physician identifiers in keeping with all statutory mandates and would have to decide whether to release them in situations in which the statutes authorize but do not mandate release.

The two central policy questions are (1) *whether* California should go forward in adding physician identifiers to the hospital discharge data set and, as highlighted by our discussions with stakeholders, (2) *how* California should proceed with both the collection and release of those data. Below, we provide our recommendations based on the information we collected and analyzed.

Should California Implement Collecting Physician Identifiers as Part of Its Hospital Discharge Data Reporting System?

Almost all of the stakeholders we talked with agreed that the collection of physician identifiers as part of the hospital discharge data set represents an opportunity for California to generate performance data at the physician level that could be used by many stakeholders for a variety of purposes. The most immediate and widely recognized purpose is providing information to improve the quality of care provided to patients in the hospital setting.

Our exploration of this issue found that virtually all other states currently collect physician identifiers, they do so without substantial burden to hospitals, and the data have been released and used in other states without major problems or incident that should cause California pause. Based on our review, we recommend that:

- OSHPD should move forward without delay to add physician identifiers to the list of data elements it routinely collects as part of the hospital discharge data from hospitals.
- Because there was consensus among those we interviewed that attributing responsibility for a procedure to the operating physician was straightforward, this minimally represents a place where OSHPD should begin the process of including a physician identifier to the hospital discharge data. Even basic information on the number of procedures a physician

performed annually could be useful to consumers, and understanding differences in the outcomes across physicians performing like surgeries could be extremely helpful in reducing variation and improving outcomes for patients.

- Because the identity of the attending physician also is routinely collected by most states without problem and is part of the UB-04 billing form requirements such that hospitals are already routinely capturing these data, California should collect the attending physician as part of the hospital discharge data.
- OSHPD should ask hospitals to use the standard definitions for *operating physician* and *attending physician* that are already used by hospitals in reporting these identifiers to the Centers for Medicare and Medicaid Services (CMS) as part of the standard UB-04 billing process.
- Initially, OSHPD should collect both the SLN and NPI, as is already done in a number of other states.
- As OSHPD and the California stakeholders gain experience, the type of physician identifiers that are captured could be expanded to include, for example, physicians associated with secondary procedures and for other care settings—emergency departments (ED) and ambulatory surgery (AS) centers.

How Should California Implement Collecting Physician Identifiers as Part of Its Hospital Discharge Data Reporting System?

States we talked with have chosen different paths on *how* to proceed, with respect to the process for data verification and release of the data. In California, this process would be governed by existing law and procedures that currently apply to the discharge data that are already being collected by OSHPD from California hospitals and made available to users. These laws and procedures appear to indicate that if OSHPD were to collect physician identifiers as a data element in the hospital discharge data, the agency would be mandated by statute to disclose the data to certain parties unless an individual patient's rights of confidentiality would be violated. OSHPD would have to decide whether to release the physician-identified data in situations in which the statutes authorize but do not mandate release. Because the Data Act does not specifically protect the identity of physicians, the public release files would presumably include the physician identifiers.

Potential users of the data (including health services researchers and others working on behalf of insurers, regulators, consumer groups, or the press) have varying levels of analytic and clinical sophistication. There would be no requirement that physicians be allowed to review their results prior to public release, although there would certainly be opportunity for commenting on the accuracy and appropriateness of the interpretation contained in such reports after they are published. Due to concerns expressed by stakeholders, particularly providers, related to the release and use (and potential misuse) of physician-identified data,

- OSHPD should address, perhaps with advice from the full range of stakeholders, whether there should be any requirements that end users of the data must meet to gain access to the data for use in creating and publicly disseminating provider performance profiles. For example, Medicare requirements related to release of physician-identified Medicare claims data include experience in computing and reporting performance measures, having a data use agreement in place, and requirements to provide methods for computing performance scores, measures, and results to physicians 30 days prior to publication of performance data.⁶¹
- The stakeholders should come together to forge a blueprint or set of guidelines for appropriate data use that could be used to guide the actions of the state and end users of the data. The blueprint would focus on addressing important and valid concerns related to what types of measures are appropriate at the physician level, which physician(s) are appropriate to attribute responsibility to for the care delivered to the patient, and how the data should be analyzed and interpreted and contextual issues related to interpretation.
 - Because contextual factors are critically related to the appropriate analysis and interpretation of the data, it will be extremely important for providers to be engaged in shaping this blueprint and identifying contextual factors in clinical practice that should be considered by end users of the data. The guidelines could also identify the types of measures that are credible to physicians and appropriate to attribute responsibility to the physician.
 - We anticipate that, if the key players are involved, the appropriate balance between making the data useful and appropriately defining their limitations can be struck.

⁶¹ See *CMS Fact Sheet, Final Rule on Release of Medicare Data to Be Used for Performance Measurement*, Monday December 5, 2011.

While it will probably not be possible to enforce the use of the blueprint or guidelines in any official way, their existence does set some expected boundaries for responsible use and presentation of the data.

- It will take some time for OSHPD to complete regulatory requirements for adding physician identifiers, and there will likely be a brief initial period for phasing in data collection and verification before the data are ready for release. Therefore, we recommend that the development of the blueprint for data use happen in parallel to the regulatory process.
- At a minimum, validation of the physician identifiers could be carried out much as it is now for other data fields. States that collect physician-identified data typically check for valid NPI or SLN in their initial review of data submitted by hospitals, which includes checks for data completeness, out-of-range values, and other data submission errors. Any errors found could be fed back to the hospitals for correction, perhaps along with NPIs or SLNs that appear infrequently in general or in relation to specific hospitals.

Actual use of the data will identify both possibilities, in terms of what information different end users see as valuable and limitations related to how these data can be analyzed and used. While not exhaustive, the questions we list below will help to more specifically shape policy regarding how to move forward with inclusion of physician identifiers in the hospital discharge data and uses of those data.

Key Questions for OSHPD's Consideration

- Which identifiers should be collected (i.e., operating, attending, other providers)?
- Which identifier should be used to ensure that physicians are uniquely identified (name, SLN, NPI, or multiple identifiers)?
- What type of validation and audit procedures might be needed to ensure data integrity?
- Will there be a beta-test period to iron out any issues related to accurate collection of the data, and how long should the beta-test process take?

Key Questions for Stakeholder Consideration

- What types of physician-level metrics are truly meaningful and appropriate to report as opposed to team-based care metrics?

- How should providers be engaged to help define and/or select measures and to flag any contextual factors that would affect measurement and interpretation of results?
- Should additional data elements be captured to permit risk adjustment of outcome measures that might be generated at the physician level?
- How should the role of attending physicians be interpreted in relation to procedures at different hospitals?
- How should data users address the issue of “treatment teams” and the role of identified physicians in different treatment contexts?
- What specific safeguards, if any, should be afforded to providers to ensure the opportunity to review the data for accuracy before they are released?
- What specific guidance, if any, should be provided to help the consumers of this information understand and interpret the information that will become available?

It is clear that many stakeholders are interested in this topic, and nearly all, including physicians, see benefits associated with collecting and using this information. As OSHPD moves forward with considering various approaches to including physician identifiers in the hospital discharge data set, stakeholder input and continued involvement will be vital regarding policy design and implementation. The following quote from the California stakeholder interviews summarizes this point:

Everyone has to be at the table—physicians, payers, purchasers, consumers, hospital leaders, state regulators.