Vermont State Auditor

Douglas R. Hoffer

Report to the General Assembly and the Green Mountain Care Board

Health Care Price Transparency Part II: Act 54 and Beyond

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Mission Statement

The mission of the Vermont State Auditor's Office is to hold government accountable. This means ensuring taxpayer funds are used effectively and efficiently, and that we foster the prevention of waste, fraud, and abuse.

Principal Investigator

Christoph M. Demers

Non-Audit Inquiry

This is a non-audit report. A non-audit report is a tool used to inform citizens and management of issues that may need attention. It is not an audit and is not conducted under generally accepted government auditing standards. A non-audit report has a substantially smaller scope of work than an audit. Therefore, its conclusions are more limited, and it does not contain recommendations. Instead, the report includes information and possible risk-mitigation strategies relevant to the entity that is the object of the inquiry.

Dear Colleagues,

The State Auditor's Office's (SAO) 2014 report, VHCURES: Past, Present, and Future Opportunities for Health Care Price Transparency and Greater Consumer Information, found strong evidence to suggest that it would be feasible for the State or a third party to use VHCURES to provide consumers with greater price transparency. This memorandum, Health Care Price Transparency Part II: Act 54 and Beyond, examines the current state of health care price and quality transparency for consumers in Vermont, and reviews best practices for healthcare transparency initiatives derived from an SAO literature review.

Because of the 2016 U.S. Supreme Court decision in Gobeille v. Liberty Mutual Insurance Company, some large companies in Vermont are no longer required to submit data to VHCURES. The Green Mountain Care Board (GMCB) informed us that a significant number of employer health plans have ceased to submit data, resulting in a loss of over 55,000 members' data from VHCURES. This reduction in claims data may impact the GMCB's ability to measure health care utilization as well as health outcomes, especially as the demographics and health status of self-insured commercial populations may differ significantly from other groups in Vermont.

Our analysis finds that the approximately 30,000 uninsured Vermont residents must rely on publicly available information that does not provide health care price information specific to them and their families, or must turn to third-party providers of health care price and quality information that provide similarly incomplete price and quality information. Nevertheless, publicly available price information highlights the significant price discrepancies in charges for medical services across the state. For example, the most expensive listed charge for an appendectomy in Vermont is at Northeastern Vermont Regional Hospital, at $24,063, which is $8,867 more than the $15,196 charge at Copley Hospital, forty-one miles away.

Additionally, we reviewed price and quality information that Vermont insurers make available to their members. The two largest insurers in Vermont are Blue Cross Blue Shield of Vermont (BCBSVT), and MVP Health. The State contracts with BCBSVT so we were able to review their health care transparency tools. MVP Health declined to grant us access to their online transparency tools, so we cannot comment on their functionality.

SAO's review of BCBSVT's health care price and quality tools found that price information for medical services required by Act 54 – colonoscopy, mammography, and radiological services, were each available for 60 percent of sampled facilities. SAO sampled searches for price and quality information for other common medical procedures and found a broad range in availability of such information. For example, we found that price information was available for 40 percent of physicians providing services related to diabetes, 80 percent of physicians

providing services related to mental health, and 60 percent of physicians providing services related to osteoarthritis. According to BCBSVT, these figures are expected to increase over time as the system matures.

Quality information made available by Blue Cross Blue Shield of Vermont does not allow for relative comparison across providers, because it is in the format of binary "Recognitions" that a physician or facility either does or does not have. Furthermore, we found that when a user enters a search term that does not result in price information, Blue Cross Blue Shield of Vermont's tool does not automatically re-direct users to search results with relevant price information, which may cause confusion for less digitally literate users. For example, our searches for the University of Vermont Medical Center did not display a main hospital page with price information, as the tool does with other hospitals. The first five results for the search "University of Vermont Medical Center" are the University of Vermont Medical Center Occupational and Physical Therapy Department, Pharmacy, Pharmacy again, Multi-Specialty Clinic, and Central Vermont Medical Center. Other than Central Vermont Medical Center, health care price information is not available for any of these results. Finally, while not directly part of the online transparency website, BCBSVT provides extremely responsive customer service, and BCBSVT claims that the customer service department and the online price and quality tool are meant to work in tandem for members.

It is important to note that the various resources described in this report are a snapshot in time of health care cost and quality information available to Vermont residents. While Act 54 has increased the availability of such information, there is significant room for improvement. It is my hope that this report will stimulate further discussion about health care price and quality transparency in Vermont.

Finally, we appreciate the assistance provided by MVP Healthcare, Cigna, and the Green Mountain Care Board. We are especially grateful to BCBSVT, which was very helpful throughout the project.

Sincerely,

Doug Hoffer

Douglas R. Hoffer
Vermont State Auditor

Introduction

In 2014, the State Auditor's Office (SAO) conducted an inquiry into the Vermont Health Care Uniform Reporting and Evaluation System (VHCURES) to assess the extent to which the all-payer claims database could be used to "provide greater transparency of health care costs and to better inform consumers of the price of specific medical procedures."[1] The report, *VHCURES: Past, Present, and Future Opportunities for Health Care Price Transparency and Greater Consumer Information* found strong evidence to suggest that it would be feasible for the State or a third party to use VHCURES to provide consumers with greater price transparency. In addition, the report noted that significant opportunities exist for the State to work with commercial insurers to provide patient specific price information to both the insured and uninsured population.

SAO conducted this analysis as a follow-up to the 2014 report. This review outlines the current state of health care price and quality transparency for consumers in Vermont, examines price and quality tools made available to Vermont residents by the State, by a major insurance plan, and by third parties. Finally, this memorandum reviews best practices for healthcare transparency initiatives derived from an SAO literature review.

Highlights

1. For residents without health insurance--about 5 percent of the population, or just over 30,000 residents--obtaining health care price and quality information presents a serious challenge. They must rely on publicly available information that does not provide health care price information specific to them and their families, and provides varying levels of quality information.
2. SAO analysis of Blue Cross Blue Shield of Vermont (BCBSVT) price and transparency tool found that price information was available for 60% for each of the following services at medical facilities: radiology, mammography, and colonoscopy. However, the tool does not provide users with a direct comparison of costs or quality. The tool allows users to create a provider "directory" that compares providers across Specialty, Address, Hours, Accepting New Patients, Languages Spoken, Gender, Organizational Affiliation, Education, and Recognitions. It is important to note that while some of this information may be useful to consumers, such as location, hours, and languages spoken, the information does not directly address health care cost or quality. Cost is not available for comparison, and BCBSVT quality measures do not communicate the quality information in a comparative manner.

1 See: VHCURES: Past, Present, and Future Opportunities for Health Care Price Transparency and Greater Consumer Information

3. Some studies have shown that price transparency tools can have broad market impacts, even when usage rates are relatively low: In a national study, consumer awareness of comparative laboratory provider prices led to a 3.4 percent overall reduction in price per test, suggesting that relatively low usage rates could result in lower system-wide healthcare costs. When providers are pressured to lower their prices because some consumers are making health care decisions based on price information, all health care consumers benefit. Such market-level effects, while difficult to measure, are important to note since a frequent criticism of health care transparency contends that they cannot have an impact because only a small proportion of enrolled consumers use such tools.
4. As a result of the 2016 Supreme Court decision, *Gobeille v. Liberty Mutual Insurance Company*, some large companies in Vermont are no longer required to submit data to VHCURES. These self-insured plans may voluntarily continue to submit claims data, however, SAO discussions with insurance industry representatives indicate that firms believe that because the submission is voluntary, they may face a HIPAA compliance risk by doing so. That risk, coupled with what they argue are significant labor resources involved in submitting the data may lead some firms to conclude that submission does not align with their business interests. SAO discussions with the Green Mountain Care Board (GMCB) indicate that a significant number of health plans have declined to do so, resulting in a loss of over 55,000 members' data from VHCURES. This reduction in claims data may impact the GMCB's ability to measure health care utilization as well as health outcomes, especially as the demographics and health status of self-insured commercial populations may differ significantly from other groups in Vermont.
5. Third-party providers of health care price and quality information (non-profit and for-profit organizations) do not provide sufficient information for consumers to make health care decisions that balance both price and quality information.

Background

State level efforts at greater health care cost and quality transparency have gained traction across the United States. Most states have attempted to increase price transparency at the state level, and all but seven states have addressed the issue through some form of legislation.[2] Neighboring and nearby states, such as New Hampshire and Maine have built statewide online cost and quality transparency tools available to anyone, regardless of whether they are insured or by whom they are insured.[3] Currently, Vermont does not have such statewide tools available to all residents. However, there has been legislative action aimed at increasing health care price and quality transparency for state residents.

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2 See: Report Card of State Price Transparency Laws, Health Care Incentives Improvement Institute

3 Comparemaine.org website, and nhhealthcost.nh.gov website

VHCURES, an all-payer claims database, was created in 2009 in accordance with statute (18 V.S.A. §9410) and Regulation H-2008-01 of the former Department of Banking, Insurance, Securities and Health Care Administration (BISHCA) – restructured as the Department of Financial Regulation (DFR), with some of BISHCA's key health care responsibilities shifted to the newly formed Green Mountain Care Board.[4] The GMCB has been fully responsible for maintaining VHCURES since July 2013, and the board is statutorily charged with this duty for the purposes of:

1. Determining the capacity and distribution of existing resources;
2. Identifying health care needs and informing health care policy;
3. Evaluating the effectiveness of intervention programs on improving patient outcomes;
4. Comparing costs between various treatment settings and approaches;
5. **Providing information to consumers and purchasers of health care**; and
6. Improving the quality and affordability of patient health care and health care coverage.[5]

In addition, 18 V.S.A. §9410 called for the development of a comprehensive health care information system. [6] The SAO's report in 2014 found that Vermont's health care price and quality transparency system offered patients limited information for making health care decisions.[7]

In 2015 the State legislature passed Act 54, which requires health insurers with more than 200 covered lives in Vermont to establish an internet-based application to enable its members to compare the price of health care in Vermont. The act specifies that office visits, emergency care, radiological services, and preventative care, such as mammography and colonoscopy be included in the application, which "shall provide the member with an estimate for each provider of the amount the member would pay for the service or procedure, an estimate of the amount the insurance plan would pay, and an estimate of the combined payments. The price information shall reflect the cost-sharing applicable to a member's specific plan, as well as any remaining balance on the member's deductible for the plan year." In addition, provider quality information shall be included, as available.[8]

Furthermore, Act 54 directed the Green Mountain Care Board to "evaluate potential models for allowing consumers to compare information about the cost and quality of health care services available across the State," including examining models in neighboring states as well as those developed by insurance companies.[9] Subsequently the GMCB, working with Human Services

4 See: Opportunities for Health Care Price Transparency and Greater Consumer Information

5 18 V.S.A. §9410 a(1)

6 18 V.S.A. §9410 3(A)

7 See: VHCURES: Past, Present, and Future Opportunities for Health Care Price Transparency and Greater Consumer Information

8 See: 18 V.S.A. § 9413

9 See: No. 54. An act relating to health care.

Research Institute and NORC, released a report in October 2015 titled *Consumer Information and Price Transparency Report.*[10,11] The report highlights the strengths and weaknesses of insurer-based and centralized state-based approaches to price and quality transparency:

- Insurer-based: Insurers have specific information about customers' plans, including deductibles, co-insurance, co-pay, and in-network/out-of-network information. However, the insurer-based model is only available to current members and there would likely be little standardization across plans.
- State-based: The centralized approach is available to all consumers regardless of insurer, and can provide information in a standardized manner, but state-based plans do not have the detailed consumer-specific information that insurers would have, and can be expensive to build and maintain.[12]

While VHCURES is a state-based system for collecting claims data, it has not been developed for public use, and the GMCB report claimed that creation of a website that uses VHCURES data would incur significant implementation and continuing operational costs to the State.[13] A further complication to VHCURES data use is a 2016 Supreme Court decision, *Gobeille v. Liberty Mutual Insurance Company*, in which the court ruled that the Employee Retirement Income Security Act (ERISA) of 1974 bars states from imposing a data submission requirement on self-insured plans. The result of the ruling is that some large companies in Vermont, which are the most likely to be self-insured, are no longer required to submit data to VHCURES, potentially limiting the usefulness of the database.[14] These self-insured plans may voluntarily continue to submit data, and in states with voluntary all-payer claims databases, many do. Other firms believe that because the submission is voluntary, the firm may face a HIPAA compliance risk by doing so.[15,16] That risk, coupled with what firms argue are significant labor resources necessary to submit the data may lead some firms to conclude that submission does not align with their business interests.[17] SAO discussions with the GMCB indicate that a significant number of health plans have declined to continue to submit claims, resulting in a loss of over 55,000

10 NORC is a research center at the University of Chicago. From 1941 to 2010, the organization was known as the National Opinion Research Center. As of 2010, NORC is the official title of the organization and is not an acronym.

11 See: Green Mountain Care Board Consumer Information and Price Transparency Report

12 Ibid, 43.

13 Op. cit., 43.

14 Read: National Public Radio: Supreme Court Strikes At States' Efforts On Health Care Transparency

15 HIPAA refers to the national standards for electronic health care transactions and security, for more information, see: Health Insurance Portability and Accountability Act of 1996 (HIPAA)

16 Information in this section stems from SAO discussions with insurance industry representatives.

17 Ibid.

members' data from VHCURES.[18] This reduction in self-insured population may impact GMCB's ability to measure health care utilization as well as health outcomes, especially as the self-insured commercial population may differ significantly from other groups in Vermont.[19]

Currently, Vermont residents seeking health care price and quality information can use publicly available resources, such as the information available through the Vermont Department of Health (DOH), through their insurer, and through third-party providers. SAO evaluated each of these three types of resources for the availability of price and quality information, as well as for ease of navigation and use.

Healthcare Transparency Availability

Publicly Available Information

For residents without health insurance--about five percent of the population, or just over 30,000 residents--obtaining health care price and quality information presents a serious challenge, as they must rely on what SAO found to be sparse and often confusing publicly available information. [20] The Vermont Department of Health provides some health care cost and quality information on their website, which informs site visitors that they can use "quality ratings to learn about a health care facility that you or someone you care about will go to for treatment."[21] Most importantly, the DOH publishes Hospital Report Cards, which provide consumers with information across the following measures: Hospital Quality Ratings, Financial and Pricing, Infection Prevention and Control, Nurse Staffing, Patient Safety, and Vermont Hospital HRC Websites. Hospital Quality Ratings can be searched across nine conditions or topics, three of which relate to cardiology, three of which are patient survey results, while the other four are pneumonia, deaths or returns to hospital, infections, and other surgeries.[22]

Price Information: Price information is presented in the form of average gross charges for the twenty most common procedures by hospital. As noted in SAO's 2014 report, the price information would not be relevant to many health care consumers as the price information is based on charges, not payment rates, and does not address out-of-pocket cost of care for

18 Because SAO did not examine self-insured plans' third-party contractors (generally insurance companies), we cannot comment on the availability of health care price and quality information for these Vermont residents. However, many of the insurance companies that act as the third parties do make available price and quality tools for their broader membership.

19 From October 2016 email correspondence with the GMCB.

20 See: Kaiser Family Foundation: Health Insurance Coverage of the Total Population

21 See: Vermont Department of Health Hospital Report Card Website

22 Ibid.

consumers.[23,24] Notwithstanding the limitations of this resource, the price information displayed in the Financial and Pricing section highlights the significant price discrepancies in charges for medical services across the state. For example, the most expensive listed charge for an appendectomy in Vermont is at Northeastern Vermont Regional Hospital, at $24,063, which is $8,867 more than the $15,196 charge at Copley Hospital, forty-one miles away.[25] For the full Hospital Pricing report card, see Appendix A.

Quality Information: Many of the quality ratings are not reported because of a lack of available data, limiting the use of the website. An SAO review of treatments at five large hospitals in Vermont found that there was quality information for twenty-seven of the forty-five available procedures or procedure-related outcomes, while the remaining eighteen comparisons reported "Not Enough Data to Report" for one or more hospitals. [26] Specifically, all five hospitals were rated average for ten of these treatments, and all hospitals were rated better than average for one treatment. Patient survey results and surgical patient safety had the largest range in quality ratings, with quality results ranging from below average to better than average.

Ease of Navigation and Use: The DOH Hospital Report Cards webpage clearly describes the Report Cards and directly addresses why Vermont residents should use them, stating "you can compare Vermont's hospitals, and use the information as a starting point for conversations about the care you and your family receive."[27] Navigation through the site is simple and intuitive.

When a user selects "Hospital Quality Ratings" under the "Hospital Report Cards" menu, they are led to a DOH "Find Hospitals" page.[28] This page allows users to quickly search for hospitals and other health care providers in Vermont, allowing a user to input a location and a search radius. A 70-mile search radius around Montpelier displays 11 hospital results, with the number of beds, the type of hospital (non-profit, private, community), and a rating of Below Average, Average, and Better than Average. Users can select a hospital and examine procedures at the hospital using the same ratings. Each of the three ratings also has a defined shape and color, so that the rating can quickly and easily be identified. Each of these procedures has an information button that can be clicked, with brief descriptions of the procedure and what the rating means, and is written in plain English.

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23 Op. cit.

24 See: VHCURES: Past, Present, and Future Opportunities for Health Care Price Transparency and Greater Consumer Information

25 See: Vermont Department of Health 2016 Table 1A - Hospital Pricing of Top 2014 Diagnoses

26 Quality ratings for procedures or procedure outcomes include deaths or returns to the hospital, heart failure, heart attack and chest pain, heart surgeries and procedures, pneumonia, infections, other surgeries, patient safety, and surgical patient safety, and patient survey results. See Hospital Report Card

27 See: Vermont Department of Health Hospital Report Card Website

28 Visit: Find Hospitals

However, price and quality information for each condition cannot quickly be matched together. Price information may not be relevant to consumers, as what they pay for procedures may be significantly different than the charges listed on the website. In particular, uninsured patients usually pay above the average cost because they are charged full price rather than the price negotiated between hospitals and insurance companies, further complicating the use of such information.

Insurer-Based Information

The following insurer analysis focuses on BlueCross BlueShield of Vermont (BCBSVT), which holds approximately 80 percent market share in the state, while MVP Health and Cigna hold roughly 13 percent and 7 percent, respectively.[29] SAO employees are covered by and therefore have access to the BCBSVT website, which made our research possible. SAO discussed the price and quality transparency tools available to Vermont residents with MVP Health and Cigna, and includes a summary of the kinds of tools made available by those insurers.

BlueCross BlueShield of Vermont

For BCBSVT members to receive price and quality information, they must log into the Blue Cross Blue Shield of Vermont account with their member number and additional personal information.[30] Once logged in, users can choose from a list of resources, such as Resource Center, My Profile, and My Claims, as well as Explore Costs and Physician Reviews. Selecting Explore Costs and Physician Reviews leads to a page that informs the user that they are leaving the Blue Cross Blue Shield of Vermont website and will be redirected to the BCBS Association National Provider Finder. It states: "This site allows you to explore procedure costs with in-network providers and hospitals and write reviews of your experience with providers you have seen."

Once on the National Provider Finder site, users must again enter insurance network information, and can then search by provider name, specialty, procedure, or any other keyword. Location and a mileage search radius are available as well. Other filters include: Patient Ratings, Recognitions, Accepting New Patients, Languages Spoken, Quality Measures, Extended Hours, Affiliations, Gender, and Blue Distinction (see page 12 below).

When a user enters a search term and additional information such as search distance radius, the website presents providers mixed along with hospitals with their location, organizational affiliation, and whether there are reviews from patients. Once a user selects a provider there are "Ratings and Reviews," "Specialties & Procedures," "Affiliations," and "Recognitions." In addition, there is a link to "Explore Procedure Costs." This leads to a page that lists out-of-pocket costs for members. Users can select a button, "View Member Out-of-Pocket Cost,"

29 See: Kaiser Family Foundation: Market Share and Enrollment of Largest Three Insurers

30 The following Insurer-Based Information section is based on SAO review of resources and tools available on the BlueCross BlueShield of Vermont Member website.

which displays a user's cost for a procedure and, for example, the cost of a short, medium, and long office visit based on their plan. When price information is available, it is specific to the member's plan and breaks down the out of pocket costs, and includes their remaining deductible, co-pay, and co-insurance.

In SAO correspondence with BCBSVT, a company representative stated that the tool has been available to BCBSVT members since July 2016, and has been in what BCBSVT describes as a "soft opening" phase. BCBSVT noted that they are actively monitoring and working to improve the tool, and that 63 members had logged in to the website during the third quarter of 2016, 5 of which were repeat users. They stated that they plan to continue to conduct outreach and provide members with information about these tools in their Member Materials, during Open Enrollment meetings, through interactions with Customer Service Representatives, and through a member newsletter.

Price Information: To examine price and quality tools available to BCBSVT members, SAO searched procedures that were specified for inclusion by Act 54: radiological services, mammography, and colonoscopy. In addition, because Vermont residents receive medical services related to procedures beyond those required by Statute, SAO searched providers and facilities related to the most prevalent disease groups among all age groups, according to a 2012 study published in Mayo Clinic Proceedings (note, again, that the following conditions are not required for inclusion by Statute): skin disorders, osteoarthritis and joint disorders, general respiratory disease, anxiety, depression and bipolar disorders, neurological disorders, hypertension, headaches and migraines, and diabetes.[31]

SAO searched both the terms listed above as well as keywords that a user might search when looking for medical procedures related to such keywords that may yield relevant results. For example, SAO searched for providers related to "anxiety" as well as "psychiatric", a keyword provided by the tool's list of specialties, and "mammogram" in addition to "mammography." In addition, where appropriate, SAO used the tool's filtering functions to limit searches to facilities where procedures would take place, rather than performing a broader search that would include individual physicians. For example, SAO searched facilities rather than providers for mammography, radiological services, and colonoscopy. For other searches, such as those related to dermatology or mental health, consumers may be interested in comparing across individual physicians. SAO's literature review indicates that many consumers are unaware of specific health plan details, and may avoid treatment because of cost expectations that may or may not be accurate.[32,33] Therefore, SAO searched broadly for price information, as a consumer

31 St. Sauver, Jennifer L. et al, "Why Patients Visit Their Doctors: Assessing the Most Prevalent Conditions in a Defined American Population," *Mayo Clinic Proceedings*, 88, no. 1, (2013): 56 – 67. Read the article.

32 Greene, Jessica, et al, "Comprehension and choice of a consumer-directed health plan: an experimental study," *The American Journal of Managed Care,* June 2008.

33 Reed, Mary, et al, "In Consumer-Directed Health Plans, A Majority of Patients Were Unaware Of Free or Low-Cost Prevention Care," *Health Affiars,December 2012,* vol. 31, no. 12.

unsure of the specifics of their health plan might. For example, if price information for either an office visit or a specific treatment was available for physicians offering dermatological services, SAO recorded this physician as having price information. Searches were conducted for providers or facilities that perform each of these procedures or treat these conditions within 75 miles of Montpelier, a radius which includes Burlington, Rutland, and Hanover/Lebanon, as well as most of Chittenden, Franklin, Orleans, Windsor, and Orange counties. Finally, SAO conducted searches and examined overall price and quality information available for five large hospitals in the state, as well as Dartmouth-Hitchcock Medical Center in New Hampshire.

The number of results and the availability of corresponding price information varied widely, a result of the tool's requirement that only providers that had performed a statistically significant volume of services in the last six months be presented, which is intended to ensure accuracy of the estimates. BCBSVT notes that Vermont's relatively low population results in a smaller number of providers that perform a high enough number services to achieve such statistical significance than might be available in relatively larger markets.[34] SAO chose ten providers or facilities, or a 10 percent sample of resulting searches (whichever was higher) to assess the frequency of price information that a user might encounter when utilizing the website. Note that SAO's analysis does not assess the absolute frequency of price information available through the BCBSVT tool, but rather seeks to estimate the results a Vermont resident seeking health care price information on the BCBSVT website may achieve. Overall price information availability derived from analysis conducted by BCBSVT indicates that price information is available for 60% of Vermont providers (2,899 of 4,889), while inpatient pricing information is available for 10 of 14 acute care hospital facilities and 13 of 14 for outpatient facilities.[35]

34 From SAO discussions with BCBSVT representatives.

35 October 2016 email correspondence with BCBSVT representatives.

Table 1 Blue Cross Blue Shield – Search Results for Conditions with Price Information	
Search Term	Percentage of Providers or Facilities with Price Information from Random Sample
Mental Health*	80%
Colonoscopy**	60%
Dermatology*	60%
Osteoarthritis*	60%
Radiological Services**	60%
Mammogram/Mammography**	60%
High Blood Pressure*	55%
Migraines/Headaches*	50%
Neurological Disorders*	40%
Diabetes*	40%
Respiratory*	30%

Random sample of higher number: 10 physicians or 10% of results
*These search terms are broad categories, and we include any sampled search result with related price information for providers as relevant price information.
**Indicates SAO search was limited to facilities.

Price information for procedures that require reporting by Act 54– radiological services, mammography, and colonoscopy – resulted in similar availability of price information: when SAO narrowed searches to include only hospitals and other medical facilities, 60% of search results had price information for each of the following: radiological services, mammography, and colonoscopy. The Website Ease of Use section below discusses why achieving such results may be difficult for some users, and may result in consumers obtaining widely variable price information.

SAO conducted hospital price searches for five large hospitals available to Vermont residents. Hospital-wide specific price information was available for four of the five hospitals SAO searched. For each of the four, an extensive list of costs was available for hundreds of medical services and procedures. The fifth hospital, University of Vermont Medical Center, was difficult to find through the search function and only displayed individual departments within that hospital. SAO was unable to find a similarly extensive list of procedures at this institution as was available for the other four hospitals we reviewed.

Quality Information: The Blue Cross Blue Shield Association National Provider Finder offers limited quality information. According to BCBSVT, 16 percent of primary care providers have quality reports. The most common quality recognition is “Blue Distinction Total Care.” The website describes the recognition this way: “Blue Distinction recognizes doctors and healthcare facilities that focus on delivering value to patients through quality, efficient care.” Users must navigate away from the website to “Learn more about Blue Distinction.” The Blue Distinction Total Care website informs users that it is a national program that recognizes doctors who spend more time than others on “prevention, holistic, and personalized care planning for their

patients," and broadly explains some of the criteria providers need to meet to receive the recognition.[36] Providers or facilities that receive such recognitions must submit data that is then verified by the Blue Cross Blue Shield Association.[37] Providers either have the recognition or they do not. The binary nature of the Blue Distinction Total Care recognition results in a quality system where users are not reliably able to compare relative quality performance across providers or hospitals. Table 2 displays whether health care quality information, in this case BCBS recognitions, were available for common conditions and procedures, as well as those specified for price information in Act 54 (which states that quality information shall be included as available).

Table 2
Blue Cross Blue Shield - Search Results for Conditions with Quality Information

Search Term	Percentage of Providers or Facilities with Quality Information from Random Sample
Diabetes	90%
Osteoarthritis	70%
High Blood Pressure	50%
Dermatology	60%
Migraines/Headaches	60%
Colonoscopy*	50%
Neurological Disorders	50%
Radiological Services*	50%
Mammography*	50%
Respiratory	40%
Mental Health	0%

Random sample of higher number: 10 physicians or 10% of results
* SAO narrowed search to facilities rather than physicians.

Additional recognitions are presented in a binary format as well. Below are descriptions of each:

- Electronic Health Record Incentive Program: Doctors are recognized for using electronic health record technology in meaningful ways that lead to higher quality care, improved patient safety, and shared decision-making with patients. Doctors receive incentive payments from the federal government when they complete certain requirements.
- BTE Systems Recognition Physician Office: The Physician Office System Recognition Program is designed to recognize practices that use information systems to enhance the quality of

36 BlueCross BlueShield Blue Distinction Total Care

37 November 2016 discussions with BCBSVT representatives.

patient care. To obtain Recognition, practices must demonstrate that they have implemented systematic office processes to reduce errors and increase quality.[38]

- Maintenance of Certification Program: This is intended to enhance the physician certification process, moving from once in a lifetime, or periodic recertification, to an ongoing commitment to continuous maintenance of high quality clinical competencies. The program ensures that a participating physician is committed to lifelong learning and ongoing self-assessment in six areas of competency. Measurement of these competencies may vary according to the medical specialty.[39]

On the Resource Center's "Price and Quality Tools" website, "Compare Hospital Quality" provides a link to the State of Vermont Hospital Report Card (discussed above in Publicly Available Information section), a link to the U.S. Department of Health & Human Services, and a link to a third-party quality provider, Leapfrog Group Patient Safety Data, which will be discussed in the Third-Party Information section.

Ease of Navigation and Use:

First, while not directly part of the online transparency website, BCBSVT provides extremely responsive customer service, and BCBSVT claims that the customer service department and the online price and quality tool are meant to work in tandem for members. Our email inquiries were answered within twenty-four hours and often much sooner, and customer service by telephone is available 24/7. BCBSVT is willing to put together price and quality reports for members upon request and offers to help plan members find information based on service/procedure, provider, outpatient/inpatient, facility, and additional anticipated services, among others. Such customer service may be of particular value for consumers that are less digitally literate.

The search tool does not re-direct users to more appropriate search terms or results, which may cause confusion for some users. For example, searches for the term "hypertension" yielded only results for children's and adolescent cardiologists, even though adults are most at risk for the condition.[40] Searches for "high blood pressure," however, yielded 200 results. Searches for "depression" and "bipolar" yielded one result each that were both for adolescent medical providers. A search for "anxiety" produced no results, however, price and quality information for psychiatrists and psychiatric services produced relevant results that included price information for services related to anxiety. The tool does not re-direct user searches related to conditions and procedures required by Statute to have price information. When the terms "colonoscopy" "mammogram" or "radiology" are searched, the tool displays hospitals, physicians, and other facilities that specialize in related fields, although these procedures are

38 Bridges to Excellence (BTE) Systems Recognition Physician Office is a program of HCI3, a nonprofit whose aim is to "improve health care quality and value with evidence-based incentive programs."

39 See: Blue Cross Blue Shield of Vermont Health Trio Connect Webpage

40 See: High Blood Pressure (hypertension) Risk Factors

generally performed at hospitals or group facilities, rather than by individual physicians. Price and quality information for these default-setting results varies widely: price information is available for 90 percent of those providing colonoscopies, 5 percent of those providing mammography services, and 40 percent of those providing radiological services. Therefore, users less proficient with technology may struggle to find relevant price information.

An additional issue SAO encountered was the tool's ability to search for specific procedures. For example, when SAO searched conditions and procedures related to "respiratory disease" or "pulmonary disease", price information was frequently available for spirometry tests, a common office procedure that assesses lung function.[41] However, when we simply entered the search term "spirometry test" the search displayed no results. Fluid drains, a frequently available procedure when conducting searches related to osteoarthritis, are an additional example. If a user attempts to directly search the term "fluid drain," the tool displays results for "Durable Medical Equipment Suppliers" in Vermont, a search result that is unlikely to be relevant to users seeking fluid drain procedure price information.

SAO searches for price and quality information for facilities had mixed results. Searches for some facility locations provide results that may not be helpful to users. In the case of UVM Medical Center, the first result is for the physical and occupational therapy departments, and price information is not available for this department. Other facilities, however, such as Central Vermont Medical Center and Rutland Medical Center, are the first result and display costs for a wide range of procedures available. For all hospitals, the sheer number of search results for a single facility– over 100 for each – may cause confusion for users.

The Blue Cross Blue Shield National Doctor and Hospital Finder does provide a comparison tool. However, this tool does not provide users with a direct comparison of costs or quality. The tool allows users to create a provider "directory" that compares providers across Specialty, Address, Hours, Accepting New Patients, Languages Spoken, Gender, Organizational Affiliation, Education, and Recognitions. It is important to note that while some of this information may be useful to consumers, such as location, hours, and languages spoken, the information does not directly address health care cost or quality. Cost is not available for comparison, and "Recognitions" do not communicate the quality information in a comparative manner. Lastly this comparison tool is the only function on the website that allows users to save the results of their search.

After a period of time, the Blue Cross Blue Shield Association National Provider Finder logs out of the user's profile. It continues to allow users to search the National Doctor and Hospital Finder, but without the personal insurance information, such as deductible or copay, that is normally included. This log-out causes the Member Out-of-Pocket Expense calculator to inform the user that out-of-pocket costs are not available but, importantly, fails to inform the user that the log-out has occurred. Therefore, users actively searching may continue to comb the website

41 See: Spirometry Test Description

for cost information, but will be unsuccessful. The amount of time a user has before this log-out is unclear. SAO found that BCBS's National Doctor and Hospital Finder performance differed significantly across internet browsers. Google Chrome logged out in several minutes, while Mozilla Firefox continued to display Member-Out-Of-Pocket costs for over a half-hour of searching. Users are not warned or informed of these background log-outs, and no message appears to recommend one type of browser over another. When this log-out occurs, users seeking price information will find that procedures are listed and the "Explore Costs" button appears, but when the user clicks on it a message appears that states "No cost available for the selected office visit."

MVP Health Care

As MVP Health Care (MVP) price and quality transparency tools are only available to members, the following description is based on resources provided by MVP Health Care.[42] Therefore, SAO cannot comment on the functionality or ease of use of these tools.

MVP Treatment Cost Calculator allows members to:

- Search for medical treatments, services, or conditions
- Review estimated treatment costs based on a member's plan
- Search for doctors, hospitals, and clinics
- Compare those doctors by cost and location

SAO reviewed examples of searches for services provided by MVP. The tool allows members to compare doctors across in-network or out-of-network status, specialty, whether they are accepting new patients, and hours. In addition, users are shown price information that includes "Your Share," or the price that the user would directly be responsible for, "Employer/Plan Share," and "Total Cost," as well as Quality and whether the chosen provider has any associated providers. MVP states that "limited quality information can be accessed for in-network Primary Care Providers (PCPs) and hospitals." Hospital quality information is based on Centers for Medicare & Medicaid Services data, and PCP quality information is based on Health Effectiveness Data and Information Set (HEDIS), which is a widely-used health care performance measure in the United States.[43]

Cigna

Cigna has a market share of approximately 7%. In discussions with SAO, Cigna representatives described the price and quality resources that they make available to their members. The tool allows members to search for a person, place, or procedure, for individual providers or facilities, and by location. The tool provides price information based on member's health plan, including deductible, co-insurance, and out-of-pocket costs. According to Cigna, its tools

42 The following section is based on information and examples provided to SAO by MVP Health Care.

43 See HEDIS Measures

provide quality and price information, based on standards of care that designate certain providers as "top providers" in their market in terms of quality and price. Cigna states that these top providers are calculated for each market.

In discussions with SAO, Cigna claimed that upwards of 70% of their national membership have used their online price and quality information tools. They conduct outreach at the client level, at health fairs, with fliers, and work with provider groups to conduct outreach to consumers.[44]

Third-Party Information

Vermont residents and employers may use third-party resources, which include non-profit and for-profit organizations, to obtain health care price and quality information.

Self-insured employers, usually organizations with a large number of employees, have been turning to third-party companies to help them understand health care price and quality for their employees, as well as educate their employees to make informed health care decisions. Because of their size, these large employers can compare health care costs as well as demand lower prices. Castlight Health is one prominent third-party provider that builds web-based portals for self-insured employers to examine health care price and quality. Furthermore, employees of these organizations can shop for their own health care. These third-party systems, including Castlight Health, can also assist employers in incentivizing their employees to choose lower price, higher quality providers.[45] For example, Lowe's Company, the hardware and appliance store, sends all of its insured employees nationwide to the Cleveland Clinic for heart procedures. The difference in procedure cost is significant enough that Lowe's incentivizes its employees to choose this specific clinic by covering travel and hotel costs and waiving the $500 deductible for its employees.[46] Literature reviewed by SAO indicates that an increasing number of self-insured employers are examining ways to actively participate in health care decisions and incentivize employees to do the same.[47]

Additional examples of third-party providers are listed below (note that this list is not exhaustive):

- Healthcarebluebook.com collects prices paid for individual treatments by ZIP code throughout the United States, and maintains a website that provides users a list of "fair prices" based on the data they collect from health care providers, employers, and insurance companies. This information can then be used as a bargaining tool for patients. SAO searches on the website found that it does display their calculated fair price based on location, but procedure and medical service prices availability was inconsistent. In addition,

44 From SAO discussions with Cigna representatives.

45 Read: The New York Times: Online Tools to Shop for Doctors Snag on Health Care's Complexity

46 Read: Bloomberg.com: Cheaper Surgery Sends Lowe's Flying to Cleveland Clinic

47 Muir, Morgan, and Stephanie Alessi, Jaime King, "Clarifying Costs: Can Increased Price Transparency Reduce Healthcare Spending?" SSRN Electronic Journal. 2013 Legal Studies Research Paper Series (Research Paper No. 38). Read the article.

the website automatically generates a pricing agreement that users can then take to their provider. However, the website does not provide any tools for calculating cost of procedure based on insurance information, nor does it provide any type of quality information.

- SaveOnMedical.com lists procedures and provider locations. Users can then choose a specific provider, such as a hospital, and SaveOnMedical.com will then contact the provider for an estimate. Because the website directly contacts and negotiates with providers, SAO did not conduct a test of their system.
- Leapfrog Group Patient Safety Data is a website that allows consumers to examine hospital quality ratings across a variety of measures (see footnote).[48] An SAO search for hospitals within fifty miles of Montpelier resulted in two of eight hospitals with quality data: Alice Peck Day Memorial Hospital and Littleton Regional Healthcare. Some of the largest hospitals, including University of Vermont Medical Center, Rutland Regional Medical Center, Dartmouth-Hitchcock Medical Center, and Central Vermont Medical Center, were listed as "Declined to respond."[49]

Best Practices

As states, third-parties, and private insurers continue to implement various health care transparency systems, evaluations of these programs indicate that such transparency can impact health care markets. SAO's literature review found best practices for transparency initiatives, which are outlined below.

1. **Price Information should directly inform the consumer of their out-of-pocket costs.**
   Consumers are usually indifferent to costs borne by their insurance company, and including those costs in pricing information may confuse consumers. Price information should be clearly labeled and indicate what is or is not included. Additional costs from common complications should be included and clearly explained.[50]

2. **Quality information should focus on simple ways to communicate relevant quality information to consumers.**
   Most consumers do not have advanced medical literacy to accurately access industry quality measures. The consumer should easily be able to determine quality for each provider across a ratings scale. Quality measures should include brief contextual information, such as

48 These measures include Inpatient Care Management, Medication Safety, Maternity Care, High-Risk Surgeries, and Infections and Injuries. See Leapfrog Group.

49 See: Leapfrog Group.

50 Price Transparency in Health Care: Report from the HFMA Price Transparency Task Force. Read the report.

reminding consumers that hospital quality information for one department does not indicate hospital quality across all departments.[51]

3. **Price information should be paired with quality information.**
   Quality and price information should be presented together. Without additional contextual information, many consumers believe "you get what you pay for" and may conclude that higher price indicates higher quality, as it sometimes does in other markets.[52] [53]

4. **Information should be displayed in a manner that reduces information-gathering costs.**
   Transparency tools should only provide information necessary for consumers to make informed decisions. Too much information can lead to confusion or misinterpretation.[54] A 2012 report for the State conducted by University of Massachusetts Medical School researched best practices for presenting health care quality and cost information to consumers. The report notes that health care quality and cost information presented to consumers should focus on the following aspects:
   a) Attention: Websites should briefly and clearly explain why the consumer should value and use the information made available in their health care decisions.
   b) Understanding: Group data into broad categories, such as "safety" or "patient experience," and when possible, rank results from best to worst.
   c) Use Visual Cues: Visual cues that indicate the highest value for the consumer are especially useful, and avoid complicated graphs that are not interpreted for consumers.
   d) Interpret: Provide non-clinical interpretations of data, and explain in plain language what goes into a score or rating.
   e) Content: Include information about individual providers, such as hospitals, because consumers are interested in their specific providers.[55]

Finally, SAO's literature review indicates that when such best practices are followed, health care price and quality transparency can have a wide range of positive impacts, directly for consumers utilizing the tools and for the broader health care market.

Consumer effects: Patients are able to make appropriate value decisions based on quality and price information. As a recent GMCB report notes, "a website's ability to compare facilities on

51 DVHA: Best Practices in Publically Reporting Quality Information to Consumers, and Price Transparency in Health Care: Report from the HFMA Price Transparency Task Force. Read the report.

52 Wu, Sylwestrzak, Shah, DeVries, "Price Transparency for MRIs Increased Use of Less Costly Providers And Triggered Provider Competition" Health Affairs , August 2014.

53 U.S. Government Accountability Office, Health Care Price Transparency: Meaningful Price Information is Difficult for Consumer to Obtain Prior to Receiving Care, 2011. Read the report.

54 Price Transparency in Health Care: Report from the HFMA Price Transparency Task Force. Read the report.

55 DVHA: Best Practices in Publically Reporting Quality Information to Consumers

cost and quality simultaneously for a procedure is essential not only for minimizing cognitive burden but also for helping users come to a conclusion quickly."[56] In a study of 1,421 consumers given multiple scenarios, 80 percent were able to select the provider that had the highest value.[57] Another study found that improvements in the presentation of information, so that it is quickly and easily interpreted, resulted in an increase from 19 to 76 percent in the proportion of consumers who could recognize the best providers.[58] The literature indicates that when patients are able to access and gather price and quality information together without high information-gathering costs, they make health care decisions that are the highest value to them.[59]

SAO's literature review suggests that significant out-of-pocket savings are possible for consumers that compare provider cost and quality. A 2016 report by the Health Cost Institute, a non-profit health care research organization, found that the average health care consumer could adjust one-third of their annual out-of-pocket expenses by shopping for services.[60]

Market effects: In addition to directly benefiting consumers, price and quality transparency initiatives can have broader market impacts. One study found that when the California Public Employee's Retirement System (CalPERS) began to steer patients to lower priced hospitals for knee and hip replacements, higher priced hospitals saw a drop in volume. In response, CalPERS negotiated lower prices in order to increase procedure volumes for those hospitals.[61] In a national study, consumer awareness of laboratory provider prices led to a 3.4 percent reduction in price per test.[62] Such results demonstrate how price transparency can have broader market impacts. When providers are pressured to lower their prices because some consumers are making health care decisions based on price, all health care consumers benefit from lower prices.[63] Such market level effects, while difficult to measure, are important to note as a frequent criticism of health care transparency contends that only a small proportion of enrolled consumers use such tools.

56 See: Green Mountain Care Board Consumer Information and Price Transparency Report

57 Wu, Sylwestrzak, Shah, DeVries, "Price Transparency for MRIs Increased Use of Less Costly Providers And Triggered Provider Competition" Health Affairs , August 2014.

58 U.S. Government Accountability Office, Health Care Price Transparency: Meaningful Price Information is Difficult for Consumer to Obtain Prior to Receiving Care, 2011. Read the report.

59 Wu, Sylwestrzak, Shah, DeVries, "Price Transparency for MRIs Increased Use of Less Costly Providers And Triggered Provider Competition" Health Affairs , August 2014.

60 Spending on Shoppable Services in Health Care, Health Care Cost Insititute. Read the article.

61 White, Ginsburg, et al. "Healthcare Price Transparency: Policy Approaches and Estimated Impacts on Spending," May 2014. Read the report.

62 Whaley, Christopher, "Provider Responses to Online Price Transparency." Read the article.

63 Ibid

Appendix A: Vermont Department of Health Financial Hospital Report

The following charts from the Vermont Department of Health website are Financial Hospital Reports made available to consumers. These reports demonstrate the vast differences in procedure and service pricing at hospitals across Vermont, even for relatively routine procedures. For example, the most expensive listed charge for an appendectomy in Vermont is at Northeastern Vermont Regional Hospital, at $24,063, compared to the $15,196 charge at Copley Hospital, 41 miles away.

2016 Hospital Report Card

Inpatient Diagnosis		Hospital System		Vermont Community Hospitals - Charges Displayed Include Each Hospital's Top Diagnoses By Volume													
MDC and MS-DRG [1]	Diagnosis Description	System Number of Cases [2]	System Average Gross Charges [3]	Brattleboro Memorial Hospital	Central Vermont Medical Center	Copley Hospital	Gifford Medical Center	Grace Cottage Hospital	Mt. Ascutney Hospital [4]	North Country Hospital [4]	Northeastern Vermont Regional Hospital	Northwestern Medical Center	Porter Medical Center	Rutland Regional Medical Center	Southwestern Vermont Medical Center	Springfield Hospital [4]	University of Vermont Medical Center
MDC 8: Diseases and Disorders of the Musculoskeletal System and Connective Tissue																	
460	Fusion of spinal vertebra of the chest or low back w/o MC	314	$57,265		$53,053							$40,628			$52,081		$74,706
462	Bilateral or multiple major joint procedures of lower extremity w/o MCC	179	$59,354											$63,001		$48,204	$65,981
470	Hip or knee replacement or reattachment of feet or legs w/o MC	1903	$40,965	$28,432	$31,028	$47,286	$55,963			$40,916	$58,872	$35,098	$55,494	$40,437	$37,637	$39,121	$40,248
473	Cervical spinal fusion w/o CC/MCC	140	$34,939									$25,908					$38,576
481	Hip & femur procedures except major joint w CC	292	$37,548	$27,167								$27,578	$43,530	$38,343	$28,533		$44,539
484	Upper extremity major joint & limb reattachment w/o MC	115	$49,951			$52,253											$53,598
494	Lower extremity & humerus procedures except hip, foot, femur w/o CC/MCC	195	$29,746			$36,622								$28,609	$22,678		$31,882
536	Fractures of hip & pelvis w/o MCC	149	$11,213		$11,261	$6,913									$9,329		$15,400
552	Medical back problems w/o MC	229	$14,734		$11,004	$6,070								$16,225	$13,514		$21,148
563	Fracture, sprain, strain & dislocation except femur, hip, pelvis & thigh w/o MCC	141	$11,894												$10,279		$16,042
MDC 9: Diseases and Disorders of the Skin, Subcutaneous Tissue and Breast																	
603	A deep infection of the skin w/o MC	651	$11,867	$13,825	$14,567	$5,869	$14,411			$13,448		$9,881	$10,111	$11,719	$9,792	$13,286	$12,707
MDC 10: Endocrine, Nutritional and Metabolic Diseases and Disorders																	
638	Diabetes with CC	209	$14,031		$15,380							$10,761		$13,718	$13,873		$16,565
641	Dehydration w/o MC	451	$12,443	$12,153	$11,277	$4,873	$11,611			$8,654	$13,197	$8,809		$12,727	$10,002	$7,747	$17,382
MDC 11: Diseases and Disorders of the Kidney and Urinary Tract																	
683	Renal failure with C	392	$16,771		$12,958							$12,773		$15,610	$13,121		$23,019
689	Kidney or urinary tract infection with MC	122	$15,606										$12,642			$16,669	$19,474
690	Kidney or urinary tract infection w/o MC	532	$12,022		$12,277	$5,016	$9,720		$8,931	$11,785	$14,442	$10,532	$12,736	$13,601	$11,706	$10,108	$15,679
698	Other kidney & urinary tract diagnoses w MCC	132	$20,801											$21,870	$18,002		$23,361
MDC 13: Diseases and Disorders of the Female Reproductive System																	
743	Surgical procedures of the uterus or ovaries (not cancer) w/o C	160	$22,311	$16,633										$20,869			$22,202
MDC 14: Pregnancy, Childbirth, and the Puerperium																	
765	Cesarean section with C	595	$18,741	$14,135	$14,375					$18,136		$11,097	$22,946	$17,763	$16,889	$15,588	$21,005
766	Cesarean section w/o C	861	$14,561	$12,775	$11,908	$18,379	$23,988			$15,669	$18,135	$10,692	$19,020	$15,541	$13,884	$15,153	$14,436
774	Vaginal delivery (normal birth) with C	691	$10,133	$9,321	$11,928	$8,009	$15,082			$7,513	$13,141	$5,251	$9,099	$9,234	$11,109	$8,386	$10,753
775	Vaginal delivery (normal birth) w/o C	3207	$8,014	$6,993	$9,329	$5,507	$14,683			$6,792	$9,076	$4,347	$7,451	$8,724	$8,388	$6,468	$8,442

Available at: Vermont Department of Health Hospital Report Cards where the reader can enlarge the table for easier viewing.

Appendix A (Continued)Vermont Department of Health Financial Hospital Report

2016 Hospital Report Card

Inpatient Diagnosis		Hospital System		Vermont Community Hospitals - Charges Displayed Include Each Hospital's Top Diagnoses By Volume													
MDC and MS-DRG [1]	Diagnosis Description	System Number of Cases [2]	System Average Gross Charges [3]	Brattleboro Memorial Hospital	Central Vermont Medical Center	Copley Hospital	Gifford Medical Center	Grace Cottage Hospital	Mt. Ascutney Hospital [4]	North Country Hospital [4]	Northeastern Vermont Regional Hospital	Northwestern Medical Center	Porter Medical Center	Rutland Regional Medical Center	Southwestern Vermont Medical Center	Springfield Hospital [4]	University of Vermont Medical Center
MDC 1: Diseases and Disorders of the Nervous System																	
66	Stroke w/o CC	244	$19,342	$14,683	$16,797									$17,431	$13,311		$24,645
69	Transient ischemia	92	$15,310											$15,876			$21,054
MDC 4: Diseases and Disorders of the Respiratory System																	
176	Pulmonary embolism w/o MCC	225	$15,212									$12,374		$18,056	$11,695		$18,302
178	Respiratory infections & inflammation with C	238	$29,374		$20,348									$25,285		$14,041	$40,628
189	Pulmonary edema & respiratory failure	473	$21,642		$18,493							$19,149		$23,878	$16,190	$18,387	$23,789
190	Chronic lung disease (emphysema) with MC	539	$17,041	$15,657	$19,609	$8,851				$13,017		$15,195	$15,846	$23,259	$14,696		$18,571
191	Chronic lung disease (emphysema) with C	366	$14,762		$14,409					$16,310		$14,416	$13,371	$17,711	$11,533	$11,135	$16,532
192	Chronic lung disease (emphysema) w/o C	309	$11,988	$8,915	$11,021	$5,539				$20,607	$11,195	$8,491	$13,311	$13,210		$10,538	$15,088
193	Pneumonia with MC	508	$20,581	$21,683	$20,587							$20,285	$16,638	$29,659	$17,333	$20,970	$23,989
194	Pneumonia with C	868	$13,863	$13,090	$15,064	$6,857	$13,507	$6,210	$9,791	$13,684	$16,793	$13,410	$13,967	$18,732	$12,484	$12,668	$14,342
195	Pneumonia w/o C	360	$10,422	$11,373	$10,015	$6,890	$11,411			$13,873	$10,935	$10,463	$11,047	$11,346	$9,844	$9,617	$10,930
MDC 5: Diseases and Disorders of the Circulatory System																	
291	Heart failure with MC	440	$19,707		$20,484							$15,248	$15,352	$24,520	$14,940		$23,173
292	Heart failure with C	552	$15,887	$15,728	$17,262	$6,599	$19,018		$13,719	$15,188	$15,150	$14,641	$13,827	$20,090	$12,629	$13,883	$17,787
293	Heart failure w/o C	258	$12,295		$13,817	$6,006				$15,916			$11,871		$11,372		$13,084
309	Heart rhythm disturbances with C	400	$12,685	$14,636	$14,263	$6,286						$10,160		$15,683	$11,108		$13,147
310	Heart rhythm disturbances w/o C	435	$9,533		$12,019	$4,048	$10,016			$14,622		$7,120	$9,912	$10,895	$9,215		$8,899
312	Syncope & collapse	179	$12,984											$14,595	$12,004	$8,595	$15,657
MDC 6: Diseases and Disorders of the Digestive System																	
343	Appendectomy w/o C	141	$19,046			$15,196					$24,063			$16,956			$18,809
378	Bleeding from the stomach or intestine with C	448	$16,977	$17,087	$17,928							$12,095		$17,566	$15,624	$10,583	$20,235
389	G.I. obstruction with C	233	$13,813		$13,498							$13,558		$14,752	$13,360		$18,387
390	G.I. obstruction w/o C	249	$10,521		$9,979							$9,917		$11,179	$9,909		$12,211
392	Irritation or ulcer of the esophagus or stomach w/o MC	801	$12,899	$11,382	$12,769	$5,800	$10,923			$15,767	$12,168	$10,962	$11,700	$14,543	$11,830	$10,310	$15,655