



Exploring the Cost of Cataract Surgery in Utah
July 2019 through June 2020

Utah Department of Health
Office of Health Care Statistics
Center for Health Data and Informatics

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About this Report

The Utah Department of Health, Office of Health Care Statistics (OHCS) produced this report at the request and under the direction of the Transparency Advisory Group (TAG). The TAG is a subcommittee of the Utah Health Data Committee (HDC). The mission of the Transparency Advisory Group is to identify opportunities to make high value information on health care cost and quality available to Utahns—including businesses, consumers, and providers. The Transparency Advisory Group also plans outreach and connections with stakeholders across Utah, and provides expertise, guidance, feedback, and input on data publications, to comply with state law (26-33a).¹

Consistent with this mission, the Transparency Advisory Group selected cataract surgeries as a procedure with high health care value for Utahns. This report identifies differences in costs between certain facilities as well as the variation that can exist within a health care provider.

About the Data

Utah's All Payer Claims Database

The OHCS is responsible for managing the Utah All Payer Claims Database (APCD) under authority granted to the Utah Department of Health (UDOH) and the Utah Health Data Committee.² Licensed commercial health insurance carriers and pharmacy benefit managers covering 2,500 or more Utahns are required to submit member eligibility, medical claims, dental claims, and pharmacy claims as well as a healthcare provider file by administrative rule. In addition to commercial insurance data, the APCD collects data from Medicaid. The OHCS contracts with Milliman MedInsight for APCD data collection and processing. Milliman also enhances these data with risk adjusters, cost calculations, quality measures, and patient-provider attribution before delivering the APCD back to the OHCS on a semi-annual basis.

¹ <https://le.utah.gov/xcode/Title26/Chapter33A/26-33a.html>

² Utah Code 26-33a-104, <https://le.utah.gov/xcode/Title26/Chapter33A/26-33a-S104.html>.

About the Office of Health Care Statistics

The OHCS implements the goals and directions of the HDC. The office collects, analyzes, and disseminates health care data. These data help people understand cost, quality, access, and value in our healthcare system and allow users to identify opportunities for *improvement*.

The data sets under the purview of the office include:

- **Consumer Assessment of Healthcare Providers and Systems (CAHPS)**—Annual customer satisfaction surveys relating to health plan performance.
- **Healthcare Effectiveness Data and Information Set (HEDIS)**—Annual quality measures relating to health plan performance.
- **Healthcare Facility Data (HFD)**—A collection of information about all inpatient, emergency room, and outpatient surgery/diagnostic procedures performed in the state.
- **All Payer Claims Data (APCD)**—A collection of data about health care paid for by third parties, including insurers, plan administrators, and dental and pharmacy benefits plans.
- **Patient Safety Surveillance and Improvement Program (PSSIP)**—A reporting mechanism which captures patient safety events (injuries, deaths, or other adverse events) associated with healthcare delivery and administration of anesthesia, which fosters conversations on how to minimize adverse patient safety events in Utah.

Utah Health Data Committee

The HDC was created by Utah Code 26-33a.³ Members are appointed by the governor, confirmed by the Senate, and represent various perspectives from industry and the community—public health, purchasers, providers, payers, and patients. By law, members are required to have experience with health data.

HDC Mission Statement (Adopted 1994, Amended 2020)

The mission of the HDC is to support health improvement initiatives through the collection, analysis, and public release of healthcare information. Through public-private collaboration, the HDC actively participates in the planning, development, implementation, and maintenance of a statewide health data reporting system, which provides accurate and independently validated information regarding healthcare in the state of Utah. The HDC implements policies to transform data into objective baseline, trend, and performance measurement information, which is made available while preserving patient privacy and confidentiality.

³ Utah Health Data Authority Act <https://le.utah.gov/xcode/Title26/Chapter33A/26-33a.html>

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Introduction

Cataract surgery is a common medical procedure. It is generally nonurgent and may be performed in more than one kind of medical facility. Depending on where the surgery is done, cost can differ significantly. This can place a financial burden on people who must consider factors such as, for example, paying for a portion of the cost themselves if they don't have medical insurance, have a high deductible plan, or a plan that has a high rate of cost sharing with the member.

Methods

The Utah All Payer Claims Database (APCD) was used for this analysis. The APCD contains 44 different payer datasets including commercial plans, Medicaid plans, Medicare Advantage plans, pharmacy benefit managers (PBMs), dental data sources, behavioral, and limited benefit plans. For this analysis, only data from commercial plans were used.

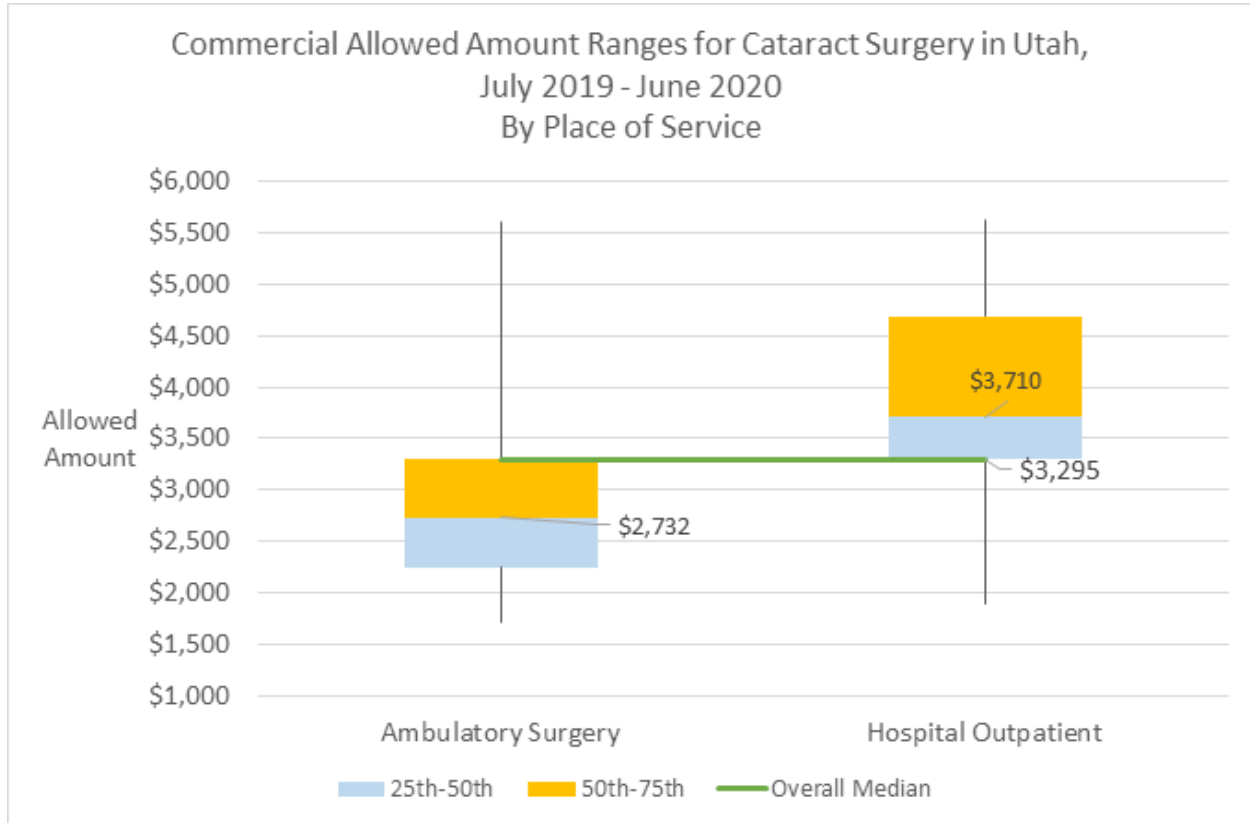
Cataract surgery claims were determined by the CPT4 code 66984. This code represents about 80% of all cataract surgeries performed and excludes the more complex surgeries. Claims from secondary insurance were excluded in this analysis. This was done to remove duplication of cost from the analysis and to report on the amount a provider was paid. Total costs were calculated by linking a cataract surgery claim to all facility costs for that day, as well as costs associated with other qualifying CPT4 codes. These other qualifying codes included anesthesiology and associated eye procedures and costs. Additionally, the top and bottom 10% of cataract surgery cases were removed from this analysis, to minimize the possibility of errors skewing results due to abnormally high or low costs. The APCD, which represents claims from multiple data suppliers, is a complex, yet rich dataset, but is not completely immune from entry error prior to being contributed to the state's dataset. Removal of the top and bottom 10% ensured this analysis remained focused on presenting what most Utahns are likely to pay for a cataract surgery.

Results

Using commercial APCD data available from July 2019 through June 2020, the amount a provider was paid (known as the *allowed amount*) for a cataract surgery, and related services, after removing the top and bottom 10% ranged from \$1,707 to \$5,624. The median amount paid (50th percentile) was \$3,295. The 25th percentile (meaning 25% of cataract surgeries cost this much or less) for the state was \$2,582, while the 75th percentile (meaning 75% of cataract surgeries cost this much or less) was \$4,033.

These statewide costs can be broken into two distinct places of service: ambulatory surgery and hospital outpatient. The median (midpoint) cost between these categories varies by \$978. The 75th percentile for those in ambulatory surgery settings matched the 25th percentile for the hospital outpatient setting. A graphic display of these differences is illustrated in figure 1.

Figure 1. Box and whisker plot of cataract surgery by place of service.



It should be noted the costs for the ambulatory surgery setting ranged from \$1,707 up to \$5,605, and the hospital’s range was \$1,900 to \$5,624. This means that although the majority of cataract surgeries performed in an ambulatory surgery setting are less expensive than those performed in an outpatient setting, there are some which were costlier. One of the main reasons for this and the wide range of costs include differences in negotiated rates between insurance companies and individual providers. Another reason that could explain some of the variation is differences in additional procedures performed (for example, the quantity and type of anesthesia used).

Looking closer into the “place of service” categories showed that amounts individual providers charged varied greatly. The lowest cost provider in the ambulatory surgery had a median allowed amount of \$1,877, while the highest cost providers across ambulatory surgery settings had a median allowed amount of \$4,069. The providers’ medians for hospital outpatient settings ranged from \$2,917 to \$5,168.

Aside from observing median variation between providers, an important aspect of understanding cataract surgery cost is the interquartile range (IQR). This range is the difference between the 25th

and 75th percentiles. A small IQR means there is less variation in cost for a given provider compared with a provider that has a larger IQR. Individual providers' IQR ranged from \$91 up to \$2,499. These differences in cost and cost ranges are illustrated in figures 2 and 3.

Figure 2. Comparison of allowed amounts for cataract surgery in Utah performed in ambulatory surgery settings.

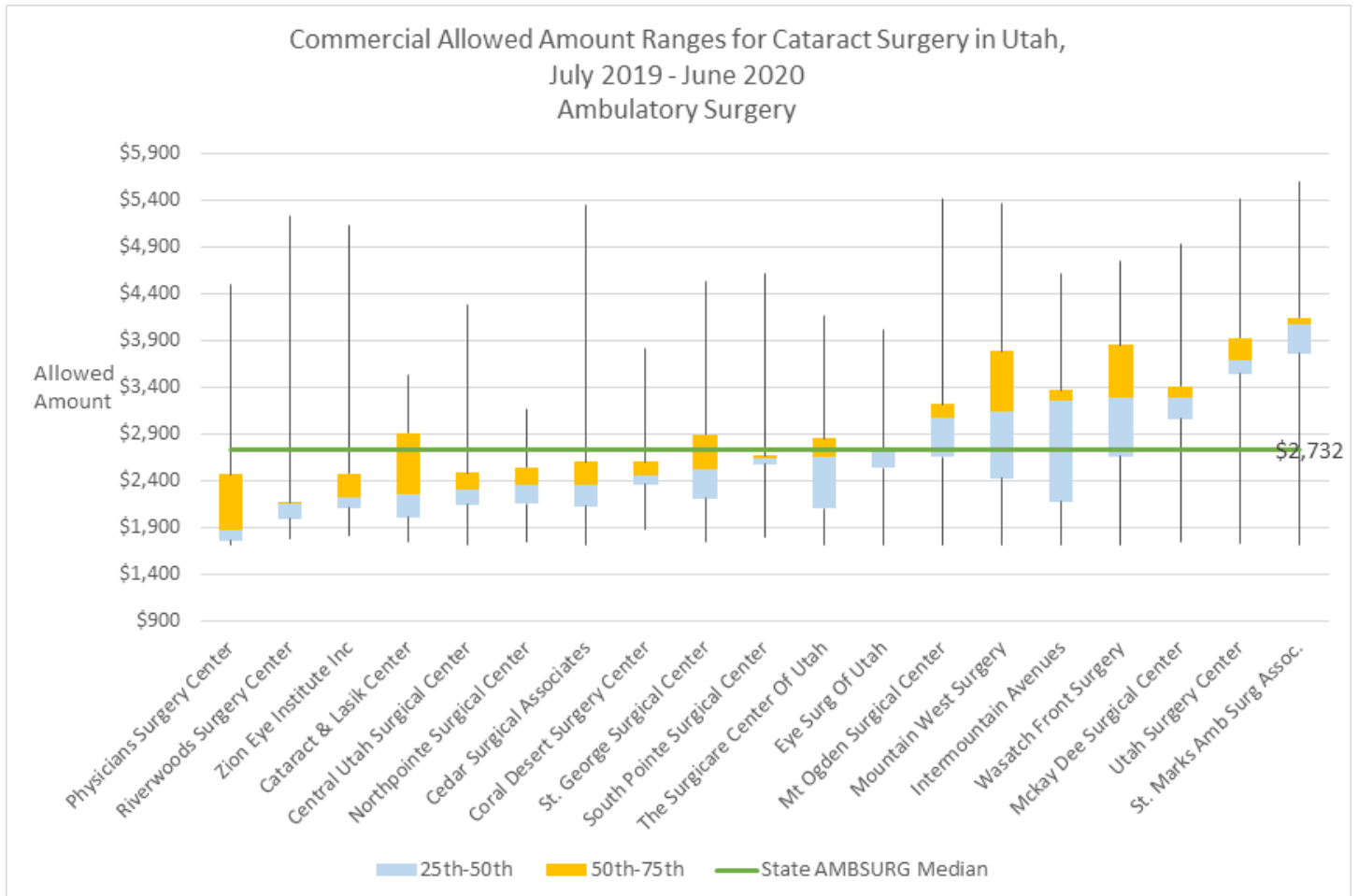
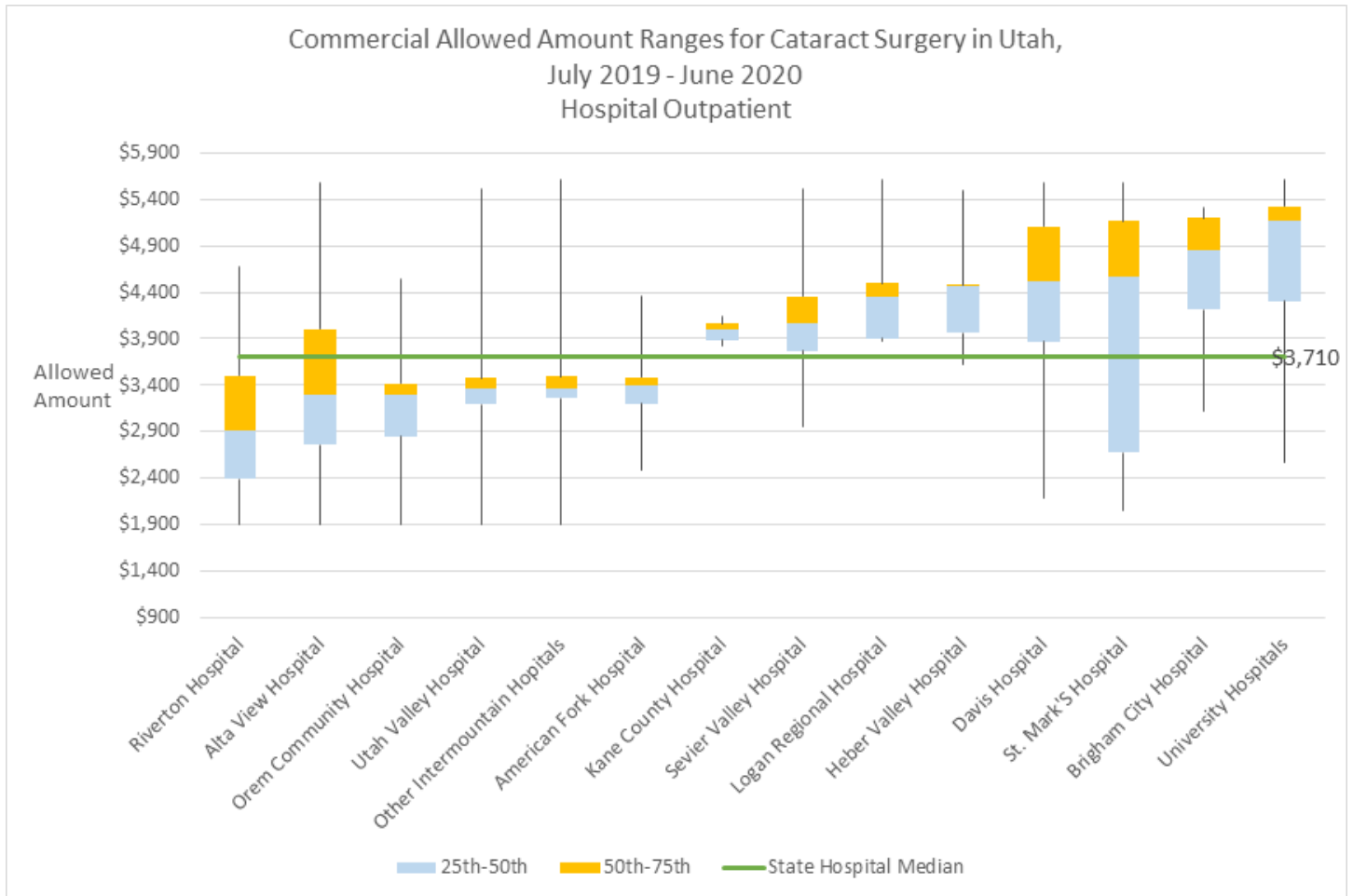


Figure 3. Comparison of allowed amounts for cataract surgery in Utah performed in hospital outpatient settings.



One other consideration for individuals who may not be covered by insurance or those who receive services that are considered out-of-network, is that they may be responsible for the full charged amount. Traditionally, the charged amount is higher than what insurance providers negotiate with the healthcare providers. The median charged amount in the ambulatory surgery setting was \$5,662 and \$7,810 in the hospital outpatient setting. If a patient is faced with responsibility for the full charged amount, it may be possible to negotiate the costs with the provider before the service is performed. Figures 4 and 5 compare the difference between the median allowed amount and the median charged amount. A full view of these data are available online.⁴

⁴ <https://opendata.utah.gov/browse?category=Health>

Figure 4. Comparison of charged and allowed amounts for cataract surgery in Utah in ambulatory surgery settings.

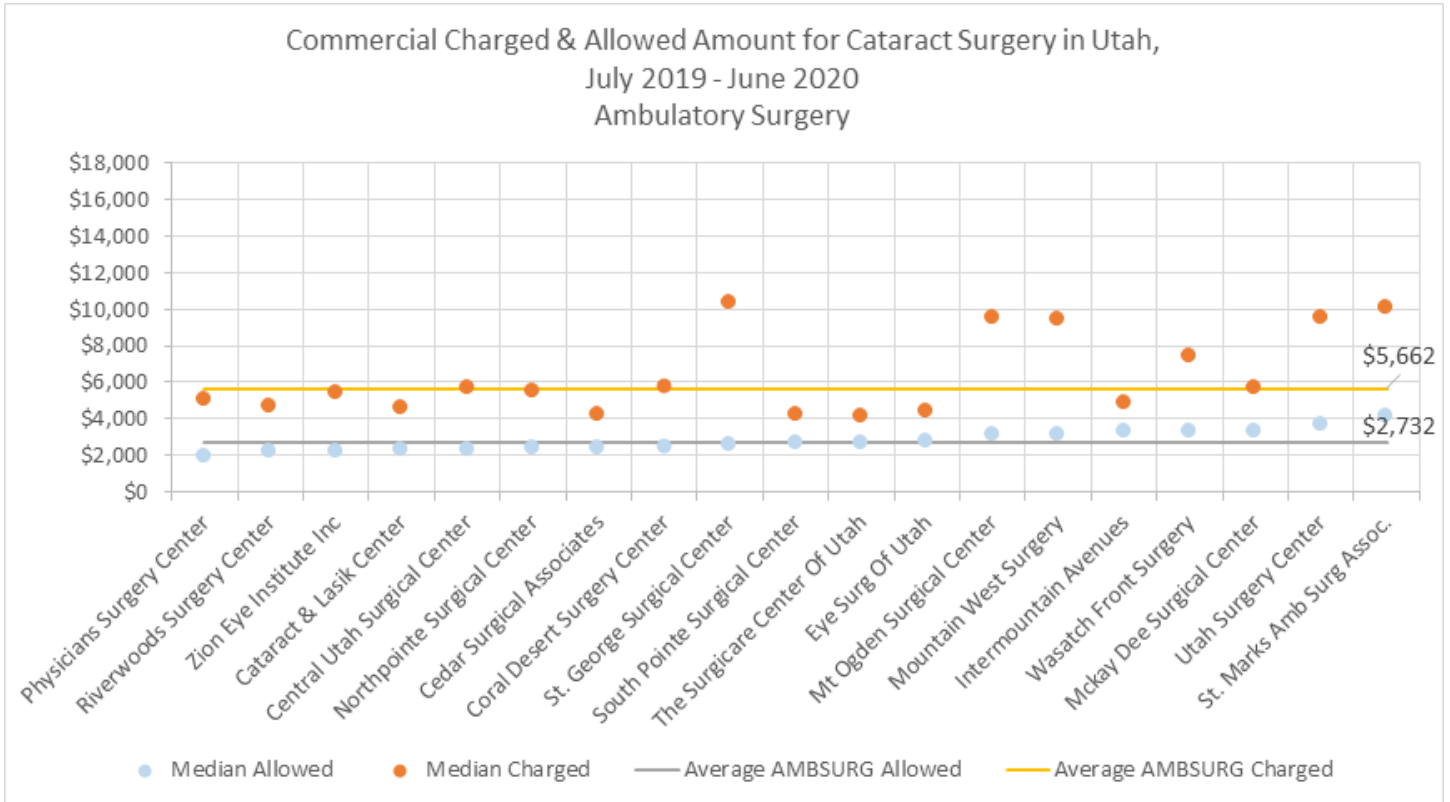
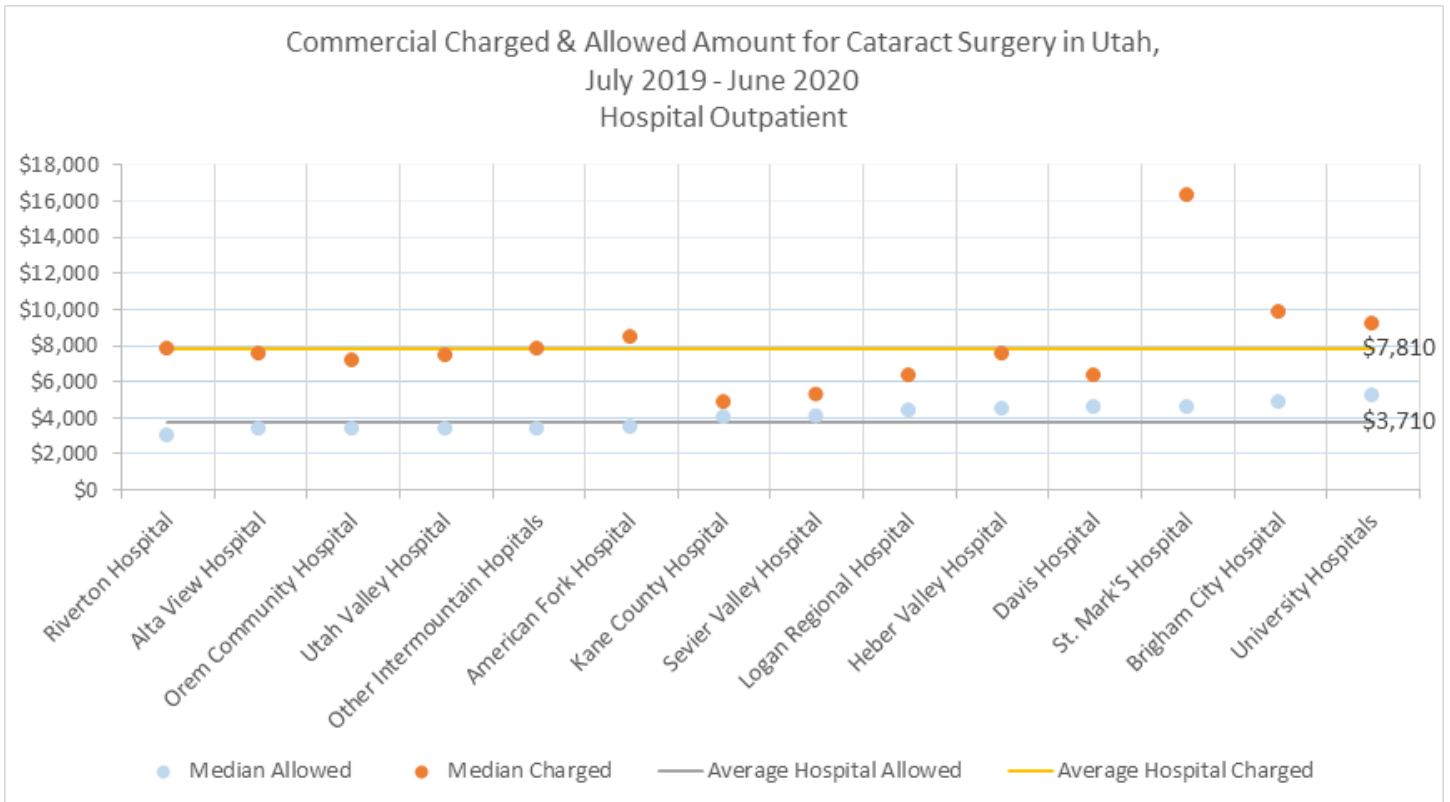


Figure 5. Comparison of charged and allowed amounts for cataract surgery in Utah in hospital outpatient settings.



Conclusion

The cost of a cataract surgery can vary depending on the provider and the negotiated allowed amounts across various insurance plans. There may be facilities which have lower cash pay options. This analysis is intended to demonstrate that there exists variation in the cost of a cataract surgery across the state, which can vary based on a number of factors. This analysis can also serve as a guide to show that selecting a low-cost provider may be possible. Patients are encouraged to check with their insurance carrier to explore in-network, low cost, and high-quality providers.

For more information regarding this analysis, please contact Brantley Scott at bsscott@utah.gov. Be sure to bookmark the Utah Department of Health’s Office of Health Care Statistics to stay updated with new analyses and publications.