Oregon Hospital Payment Report: Diagnostic Imaging and Testing 2016

July 1, 2018

Oregon Health Authority
Health Policy & Analytics Division
Office of Health Analytics

Oregon Health Authority

Oregon Hospital Payment Report: Diagnostic Imaging and Testing

The Oregon Hospital Payment Report is an annual report that contains median payment information from commercial insurers to hospitals for common inpatient and outpatient procedures. This fulfills the requirement set forth in Oregon Revised Statute (ORS) 442.466. This sub-report of the Oregon Hospital Payment Report contains payment information for diagnostic imaging and testing procedures only. Diagnostic imaging and testing are procedures to collect pictures, video, or heart signals in a non-invasive manner in order to diagnose disease. Payment information for outpatient procedures, inpatient procedures, procedures relating to pregnancy, and radiation and chemotherapy procedures are found in separate sub-reports.

Due to the U.S. Supreme Court's March 2016 ruling in *Gobeille v. Liberty Mutual Insurance Company*, the Oregon Health Authority may no longer require self-insured Employment Retirement Income Security Act (ERISA) covered health plans to submit claims. It is estimated that Oregon's All Payer All Claims (APAC) database has over 300,000 fewer covered lives reported from the commercial market since the Gobeille decision. As a result, the number of procedures reported has decreased, which in turn affects whether data can be reported.

Highlights of the diagnostic imaging and testing sub-report are:

- Most procedures show sizable variations in paid amounts. Variation is seen both within and between hospitals.
- Nuclear medicine examinations of the cardiovascular system had the highest median paid amount in 2016 at $2,300.
- Nuclear medicine examination of the cardiovascular system also had the largest median paid amount increase in 2016, up $173 from 2015.
- The procedure with the largest percent increase in median amount paid was electrocardiograph stress tests, increasing by 31% from 2015.
- The weighted average change in median paid amounts for diagnostic imaging and testing was a decrease of $12. The range of change in median paid amount was -$209 to +$173.

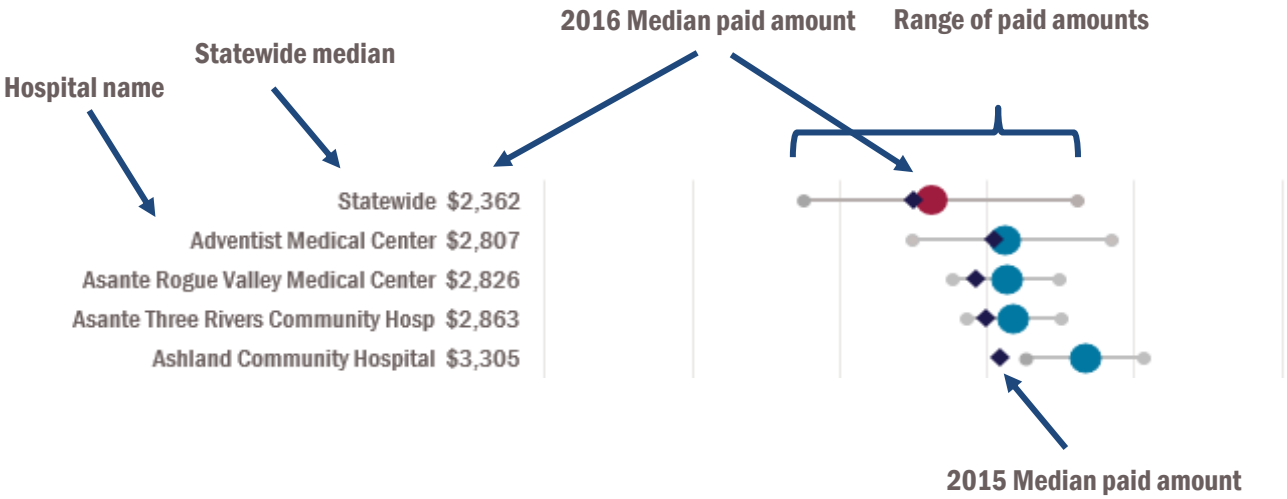
Report Contents

Procedures for 2016 are broken into several smaller reports. This report contains information for diagnostic imaging and testing. Other procedure types may be found in their own sub-report.

Diagnostic Imaging and Testing

How To Use This Report

This report presents information on the amount paid for outpatient diagnostic imaging and testing at hospitals in Oregon. The data on these paid amounts come from submissions made to Oregon's All Payer All Claims database (APAC) from commercial reporting entities. The range of typical paid amounts for each procedure is included at the statewide and hospital levels, and a median amount paid is also displayed. The median is the middle value in the range of typical paid amounts.



The graphs included in this report contain four main points of information: the hospital name, the 2015 and 2016 median paid amounts, and the range of paid amounts. The **hospital name** is the name of the hospital facility that performed the procedure. Only procedures that were performed at one of Oregon's sixty acute care hospitals are included in this report. The **2016 median paid amount** is reported next to the hospital name, and is also represented on the graph as the large dot. The statewide median paid amount is provided at the top of every graph. The median represents the point that divides the paid amounts in two parts, half above and half below the median amount. This is also known the 50th percentile. The **range of paid amounts** is represented in the charts as the small grey dots and the grey line. This range excludes outliers in the data and is also known as the interquartile range. It is the range between the lower 25th percentile and the upper 75th percentile. By removing the lower 25% of the data and the upper 25% of the data, we remove outliers that can skew the median values. This range represents the middle 50% of all paid amounts. The **2015 median paid amount** is shown for reference as the dark diamond. Hospitals that do not have a 2015 median paid amount mean that procedures in that year did not qualify for reporting based on established methodology.

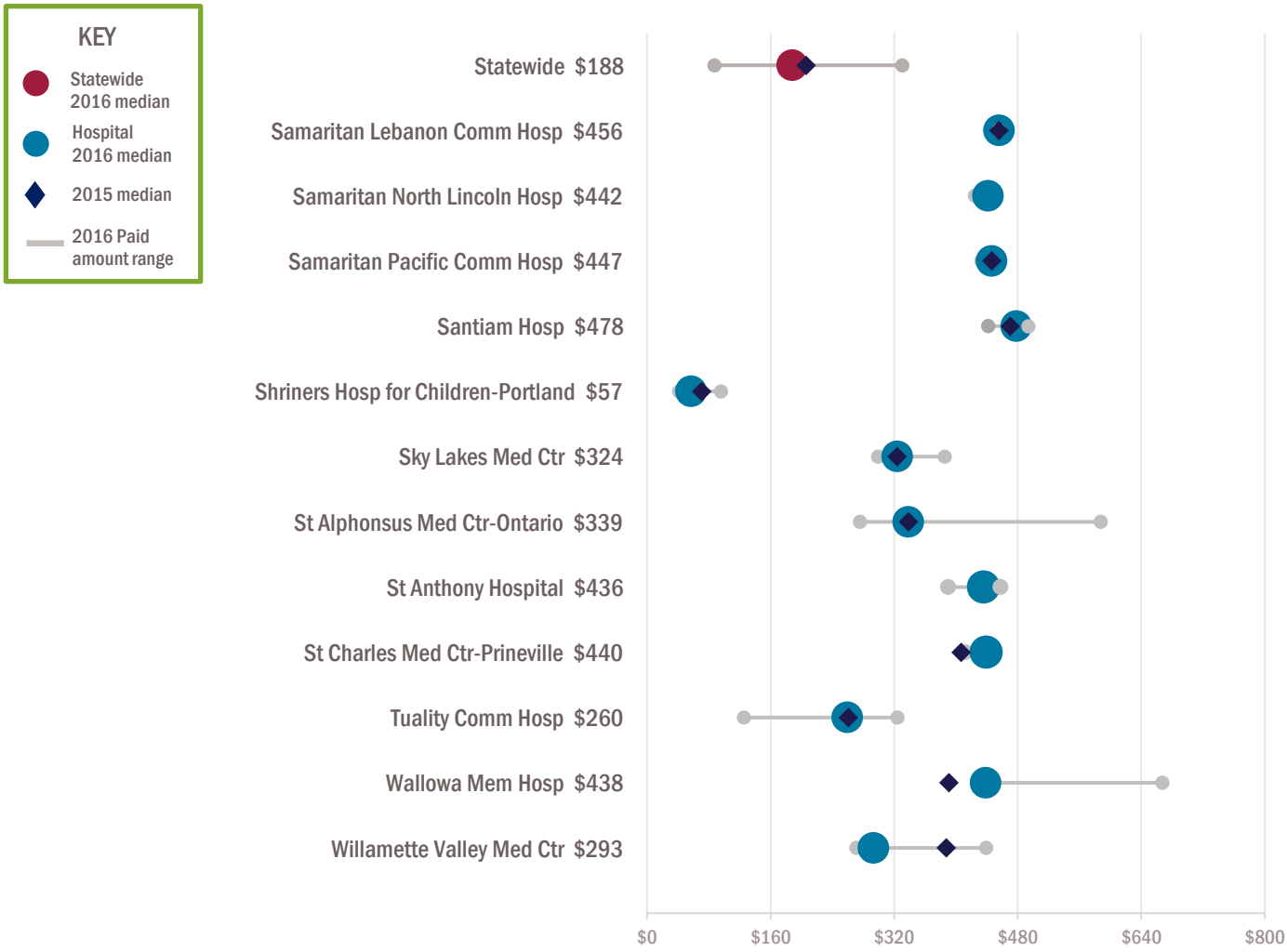
The median amount (large dot in the charts) is not necessarily the center point of the interquartile range (grey line and dots). This is because paid amounts are not evenly distributed across the range. It is common to see paid amounts clustered around certain dollar amounts resulting in the median being pulled off center. The variance in the paid amounts within a hospital come from the different co-payment and deductible amounts paid by patients, as well as different levels of severity in the patient's condition. The differences in paid amount between hospitals include the above reasons, as well as each hospital's negotiated payment rate with commercial insurance companies.

Bone Study

A bone study is a specialized X-ray examination of the skeleton used to determine bone density, bone age, bone length, or other characteristics of the bone. The most common bone study procedure is the Dual Energy X-ray Absorptiometry or DEXA scan. The DEXA scan measures bone mineral density and is used to diagnose osteoporosis.

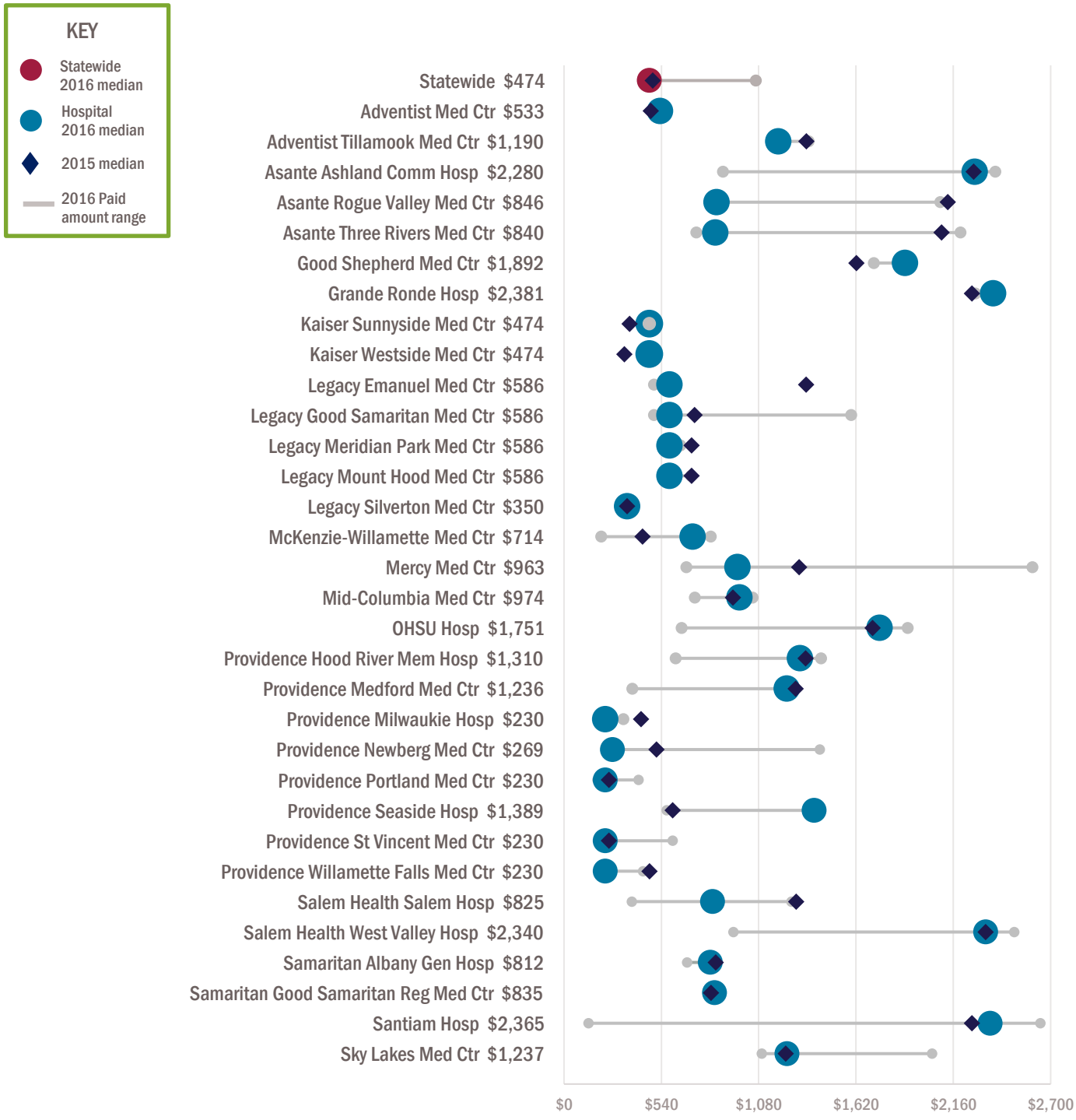
Bone Study Cont.

A bone study is a specialized X-ray examination of the skeleton used to determine bone density, bone age, bone length, or other characteristics of the bone. The most common bone study procedure is the Dual Energy X-ray Absorptiometry or DEXA scan. The DEXA scan measures bone mineral density and is used to diagnose osteoporosis.



CT Scan: Abdomen

A computerized tomography scan (CT scan) is a specialized way of creating images by taking multiple X-rays from many different angles around the body. A computer combines all the images together into cross-sectional views of the body. The paid amounts below are for CT scans of the abdominal and pelvic region and mostly include examinations of the digestive system. These scans **do not** include use of a contrast material.



CT Scan: Abdomen Cont.

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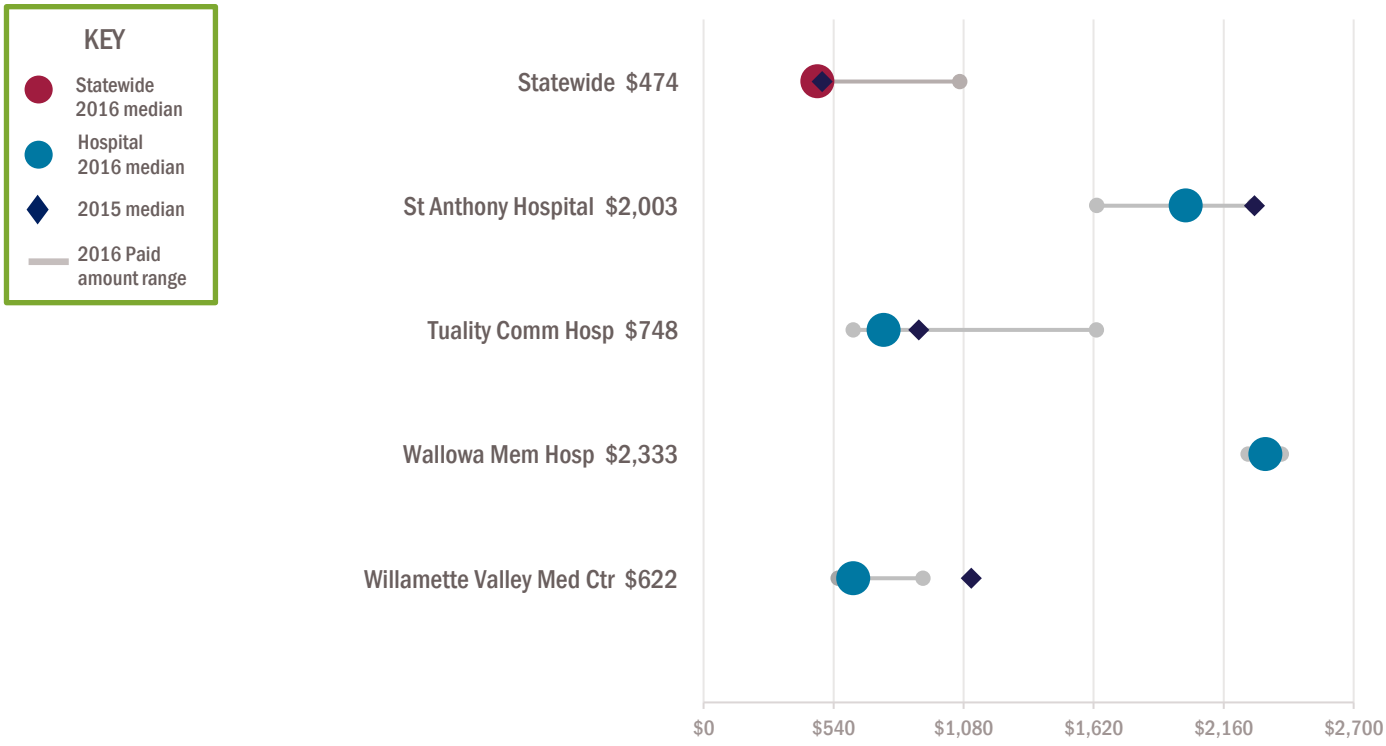


CT Scan with Contrast: Abdomen

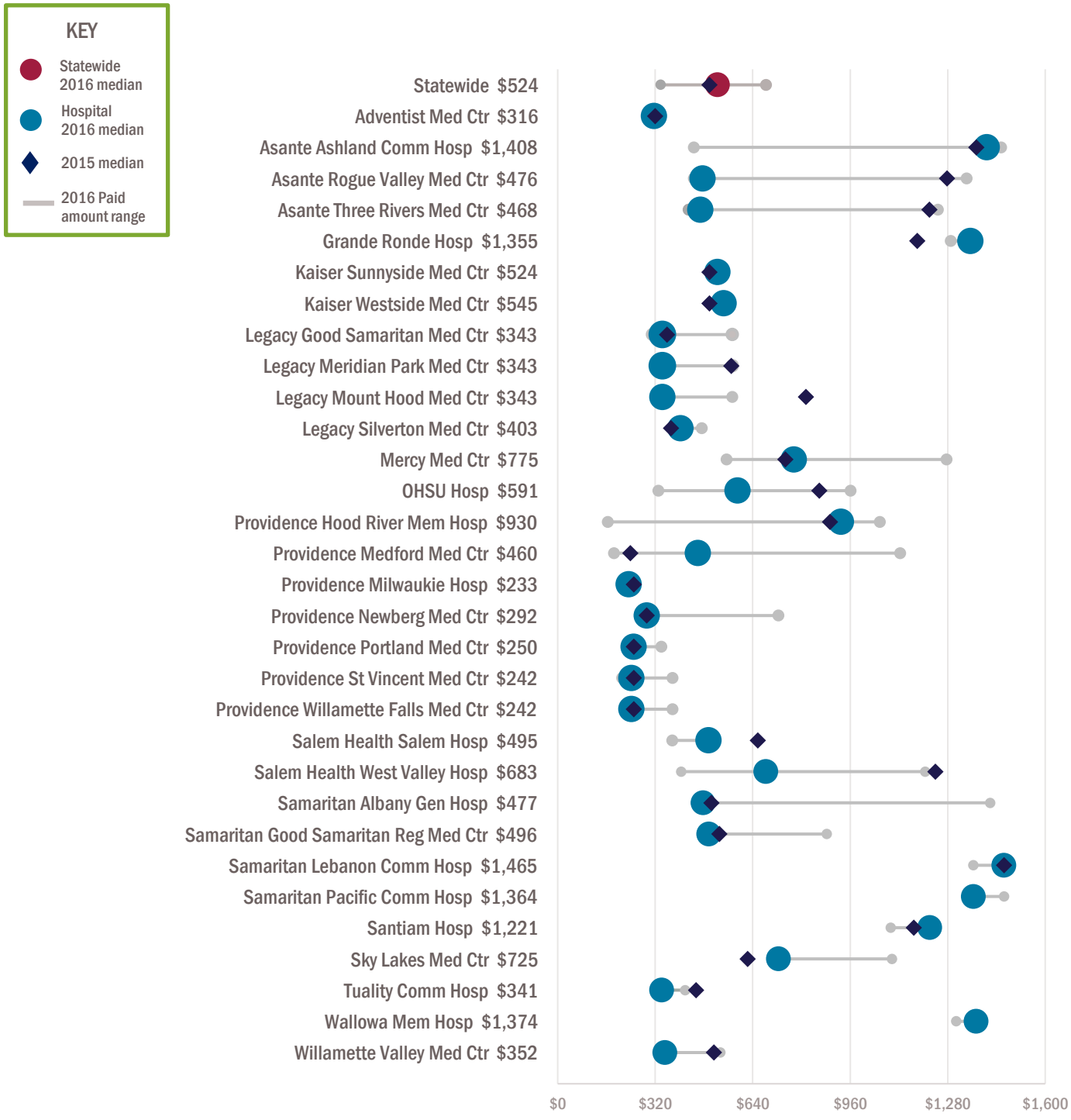
A computerized tomography scan (CT scan) is a specialized way of creating images by taking multiple X-rays from many different angles around the body. A computer combines all the images together into cross-sectional views of the body. The paid amounts below are for CT scans of the abdominal and pelvic region and mostly include examinations of the digestive system. These scans include injection of a contrast material to highlight body structures.

CT Scan with Contrast: Abdomen Cont.

A computerized tomography scan (CT scan) is a specialized way of creating images by taking multiple X-rays from many different angles around the body. A computer combines all the images together into cross-sectional views of the body. The paid amounts below are for CT scans of the abdominal and pelvic region and mostly include examinations of the digestive system. These scans include injection of a contrast material to highlight body structures.

CT Scan: Chest

A computerized tomography scan (CT scan) is a specialized way of creating images by taking multiple X-rays from many different angles around the body. A computer combines all the images together into cross-sectional views of the body. The paid amounts below are for CT scans of the chest and mostly include examinations of the cardiovascular system. These scans **do not** include injection of a contrast material.



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CT Scan with Contrast: Chest Cont.

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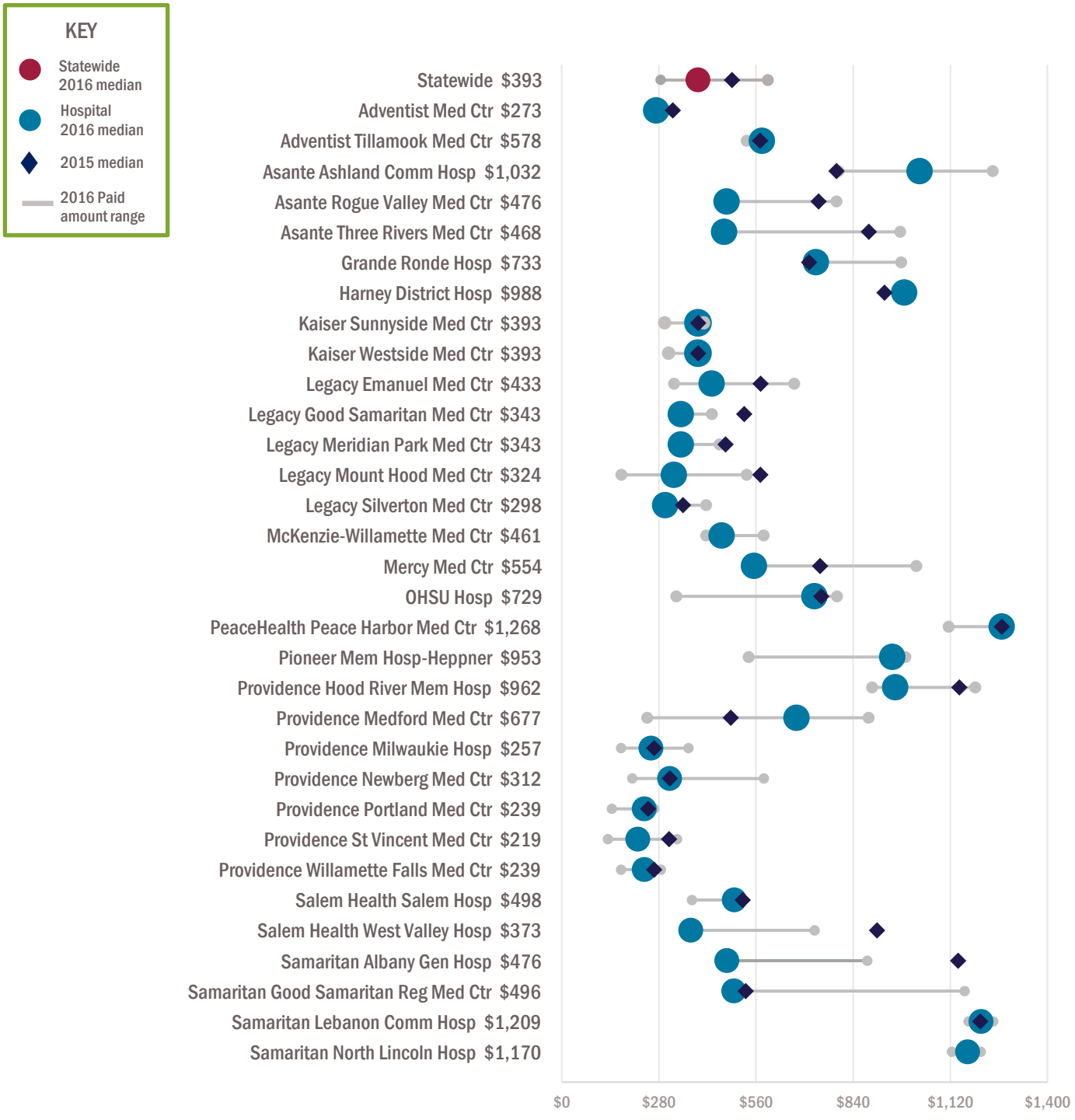
CT Scan: Extremities

A computerized tomography scan (CT scan) is a specialized way of creating images by taking multiple X-rays from many different angles around the body. A computer combines all the images together into cross-sectional views of the body. The paid amounts below are for CT scans of the arms and legs. These scans **do not** include injection of a contrast material.

CT Scan: Head and Neck

A computerized tomography scan (CT scan) is a specialized way of creating images by taking multiple X-rays from many different angles around the body. A computer combines all the images together into cross-sectional views of the body. The paid amounts below are for CT scans of the head and neck. These scans **do not** include injection of a contrast material.



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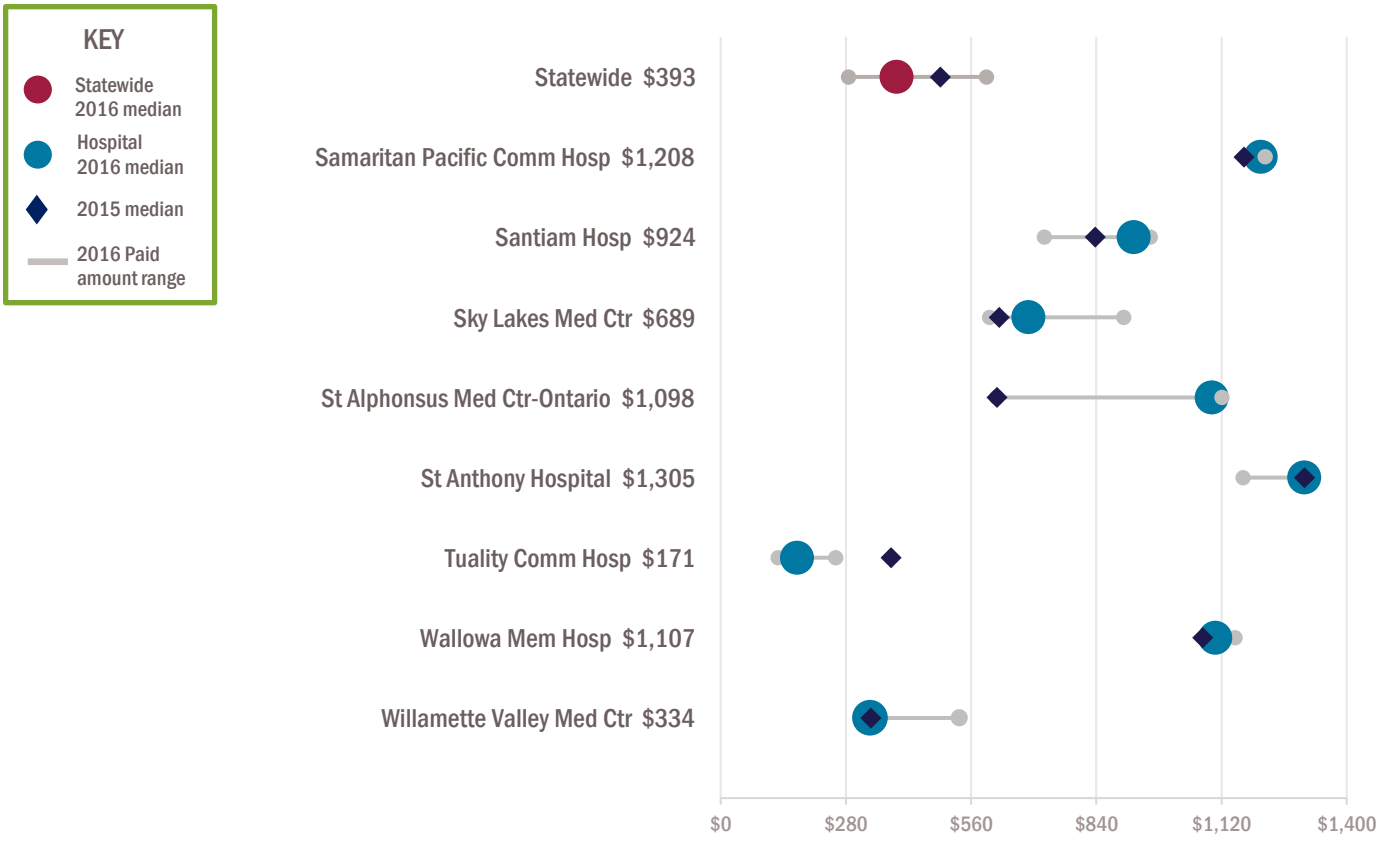

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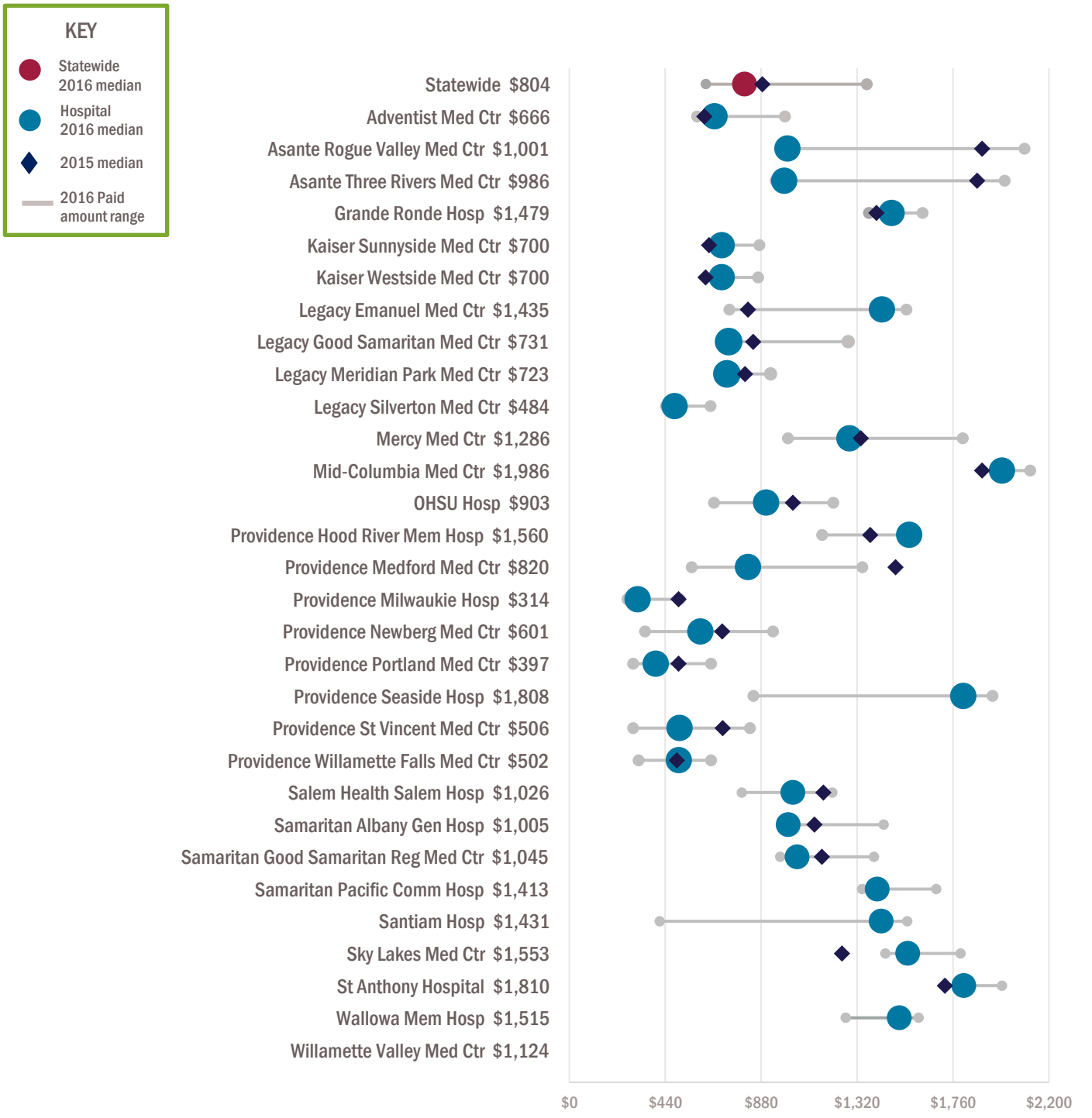
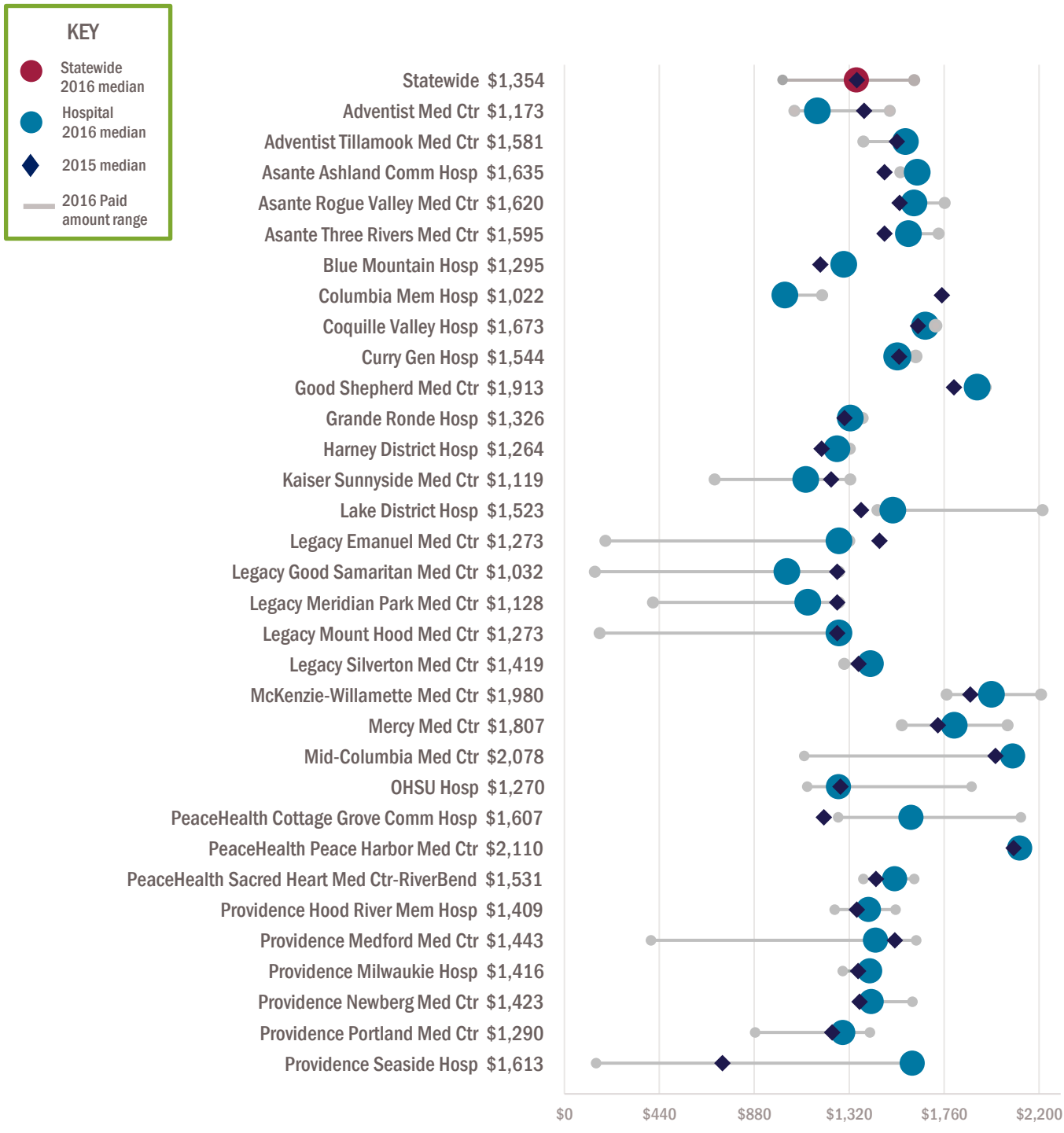


CT Scan: Spine

A computerized tomography scan (CT scan) is a specialized way of creating images by taking multiple X-rays from many different angles around the body. A computer combines all the images together into cross-sectional views of the body. The paid amounts below are for CT scans of the spine. These scans **do not** include injection of a contrast material.

Echocardiography

An echocardiograph, or echo, is a special type of ultrasound used to examine the heart. An echo uses sound waves to generate images of the heart to diagnose heart diseases and evaluate heart function. Echos can also be used to measure the volume of blood that is moving through the heart and blood vessels.



Echocardiography Cont.

An echocardiograph, or echo, is a special type of ultrasound used to examine the heart. An echo uses sound waves to generate images of the heart to diagnose heart diseases and evaluate heart function. Echos can also be used to measure the volume of blood that is moving through the heart and blood vessels.

Electrocardiography

Electrocardiography, or ECG, is the process of recording the electrical activity of the heart. In the standard ECG test, ten electrodes are placed on a patient's chest and limbs. The rhythm of the heart beat is recorded as a graph of the voltage the heart produces as it beats. Doctors use the graph to evaluate problems with normal rhythm of the heart.

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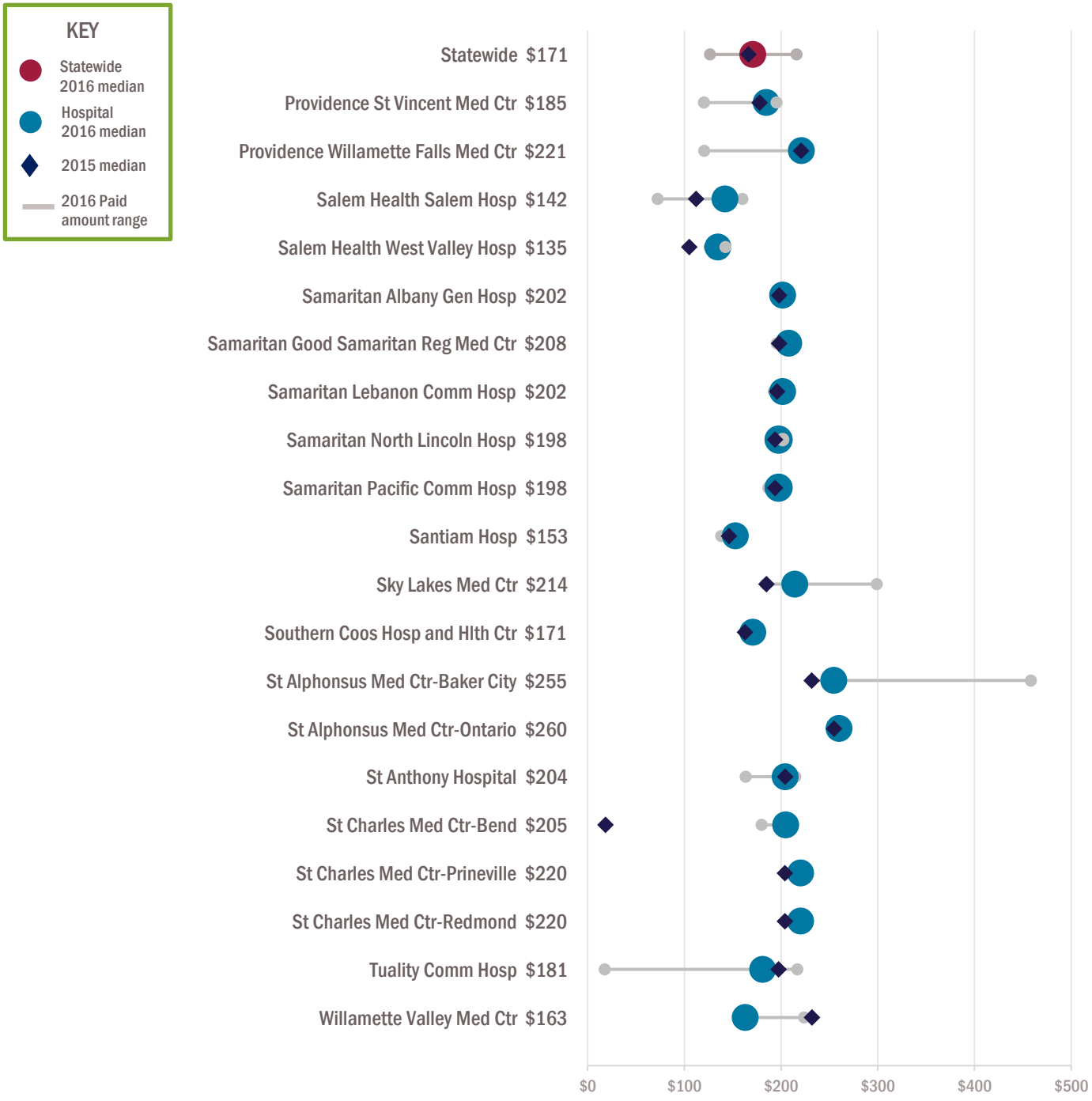
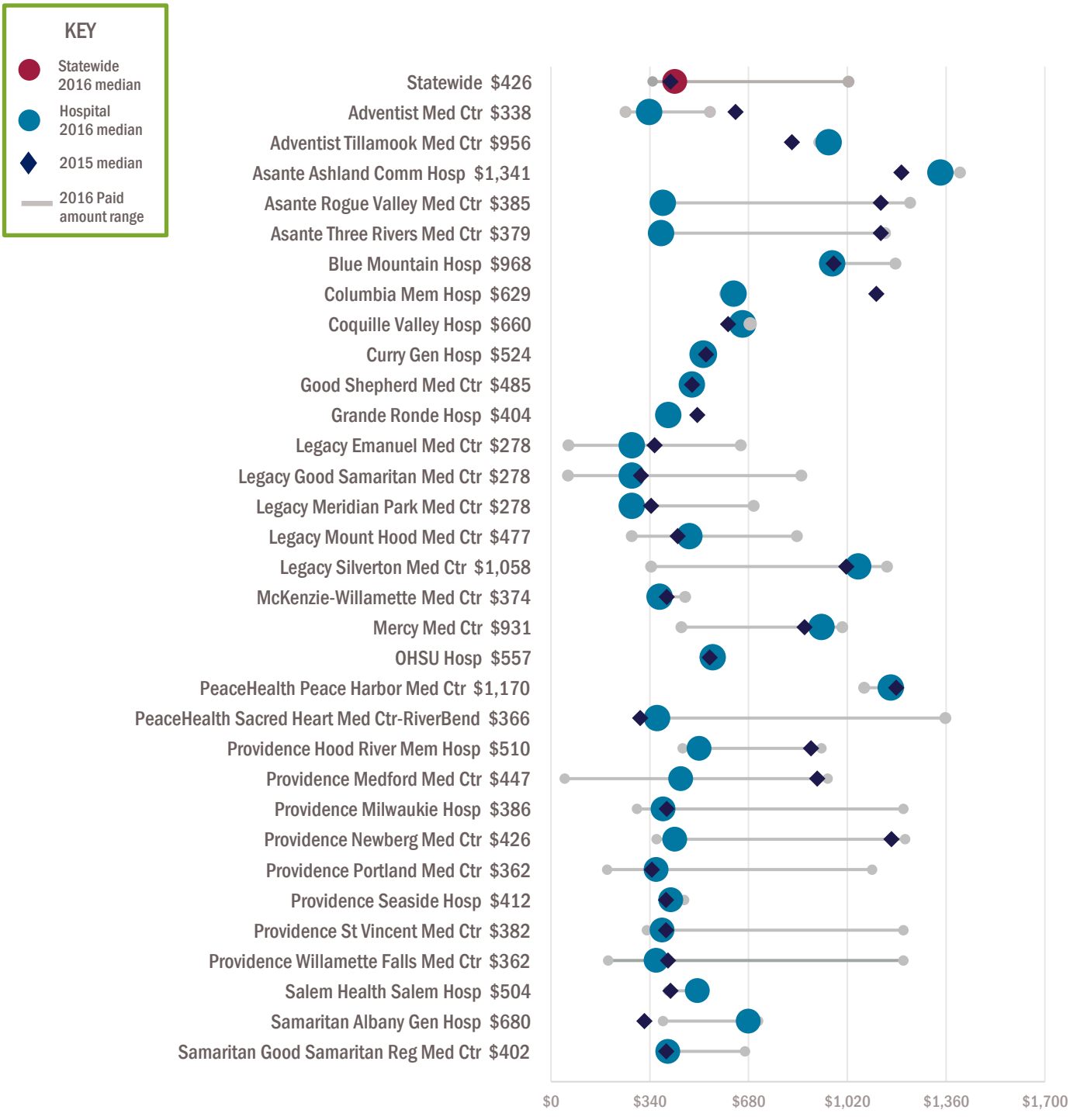


ECG Stress Test

An ECG stress test is a method of collecting electrocardiograph data while intentionally stressing the heart. This is done by having the patient walk or jog on a treadmill, or by injecting drugs to speed the heart up. This test detects heart problems that only surface when the heart rate increases.

Mobile Heart Monitoring

Mobile heart monitoring is attaching a wearable, continuously monitoring, electrocardiograph. Patients usually wear the mobile heart monitor for 24 or 48 hours. It detects heart issues that occur sporadically or randomly.



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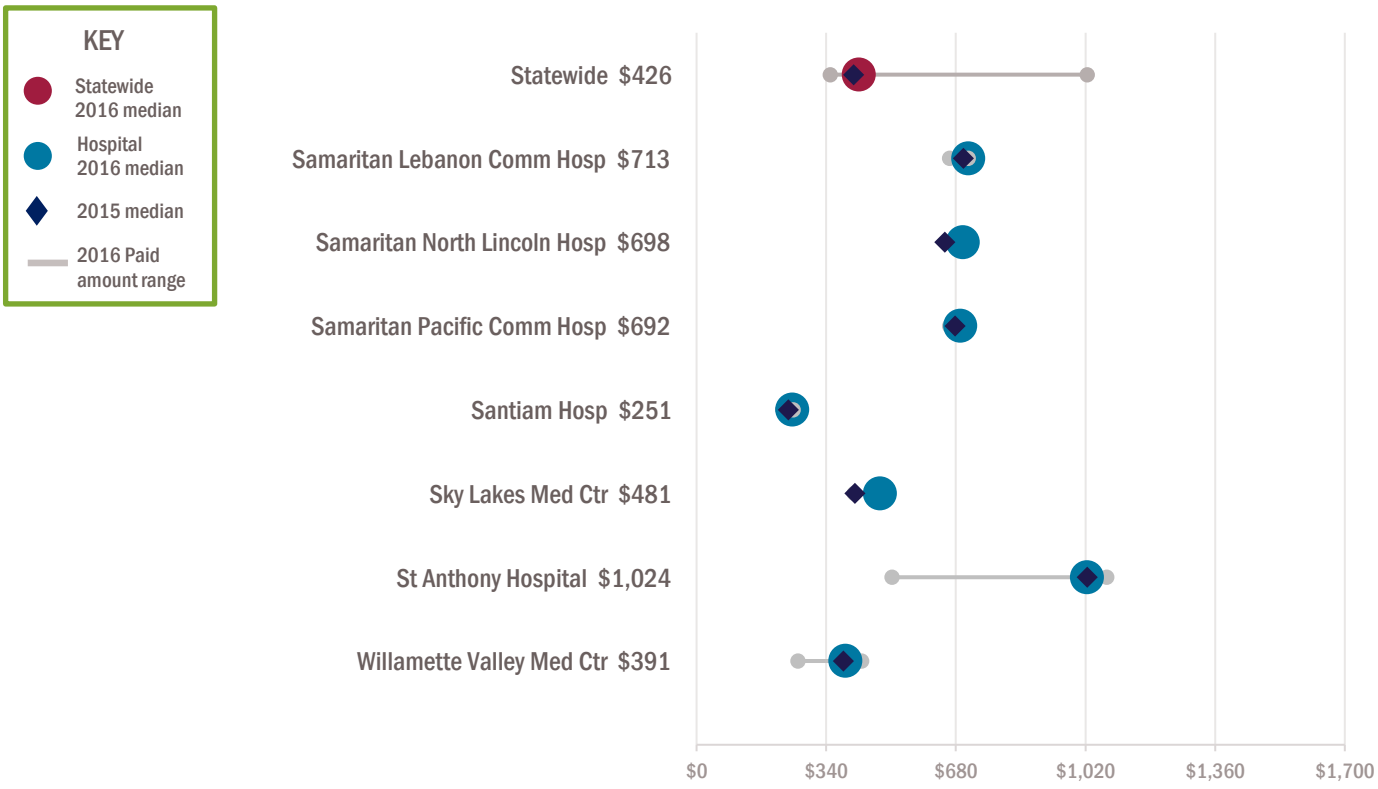

MRI with Contrast: Abdomen

A Magnetic Resonance Imaging (MRI) scan is a method of imaging the body using magnetic fields and radio waves. While CT scans rely on X-rays to create images, MRIs record the radio frequencies emitted from body tissue when surrounded by a strong magnetic field. The paid amounts are for MRI scans for the abdomen and pelvic area and mostly include examinations of the digestive system. These scans include injection of a contrast material.

MRI: Extremities

A Magnetic Resonance Imaging (MRI) scan is a method of imaging the body using magnetic fields and radio waves. While CT scans rely on X-rays to create images, MRIs record the radio frequencies emitted from body tissue when surrounded by a strong magnetic field. The paid amounts are for MRI scans of the arms and legs. These scans **do not** include a contrast material.

MRI: Extremities Cont.

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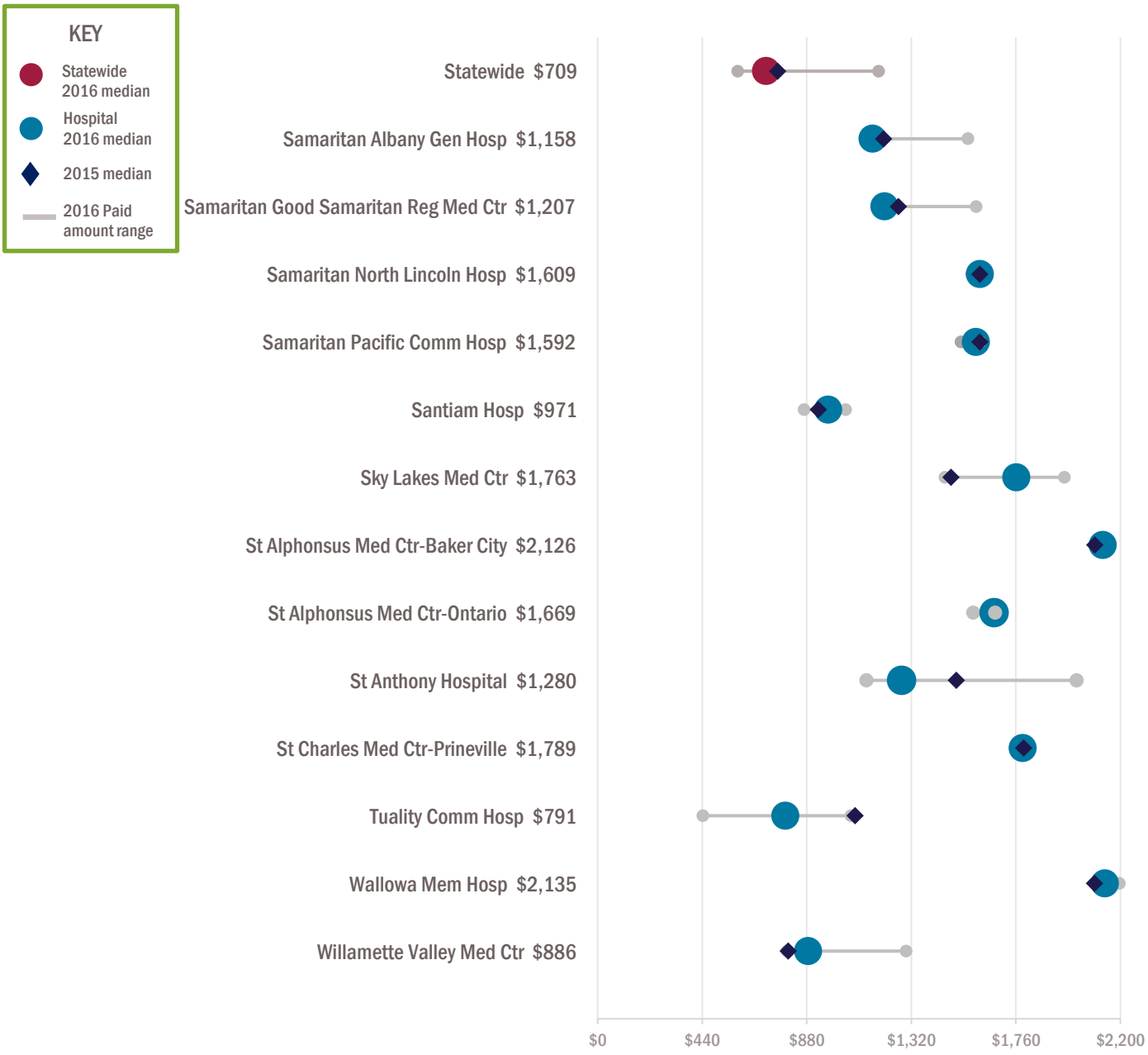

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MRI: Head and Neck

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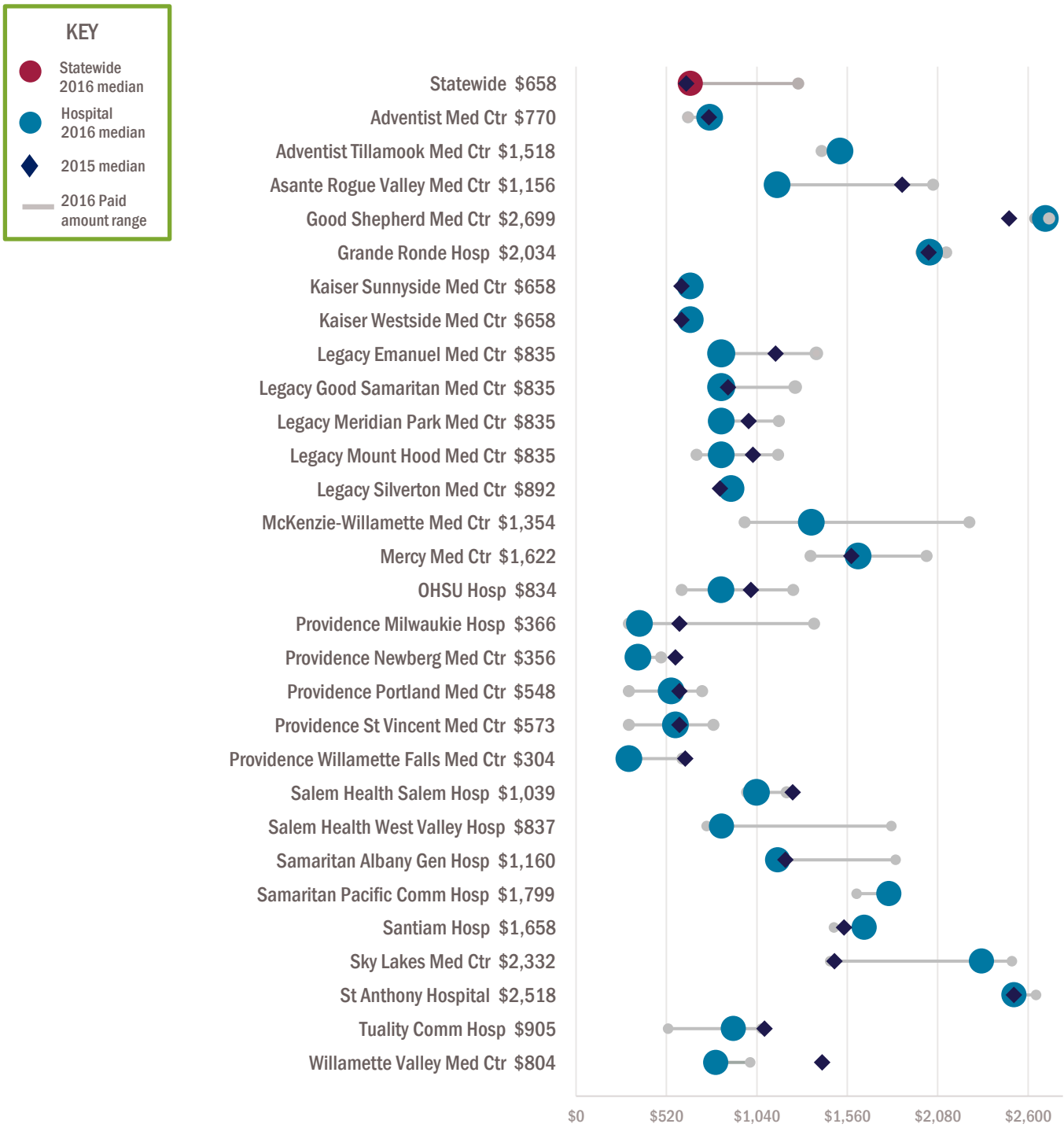

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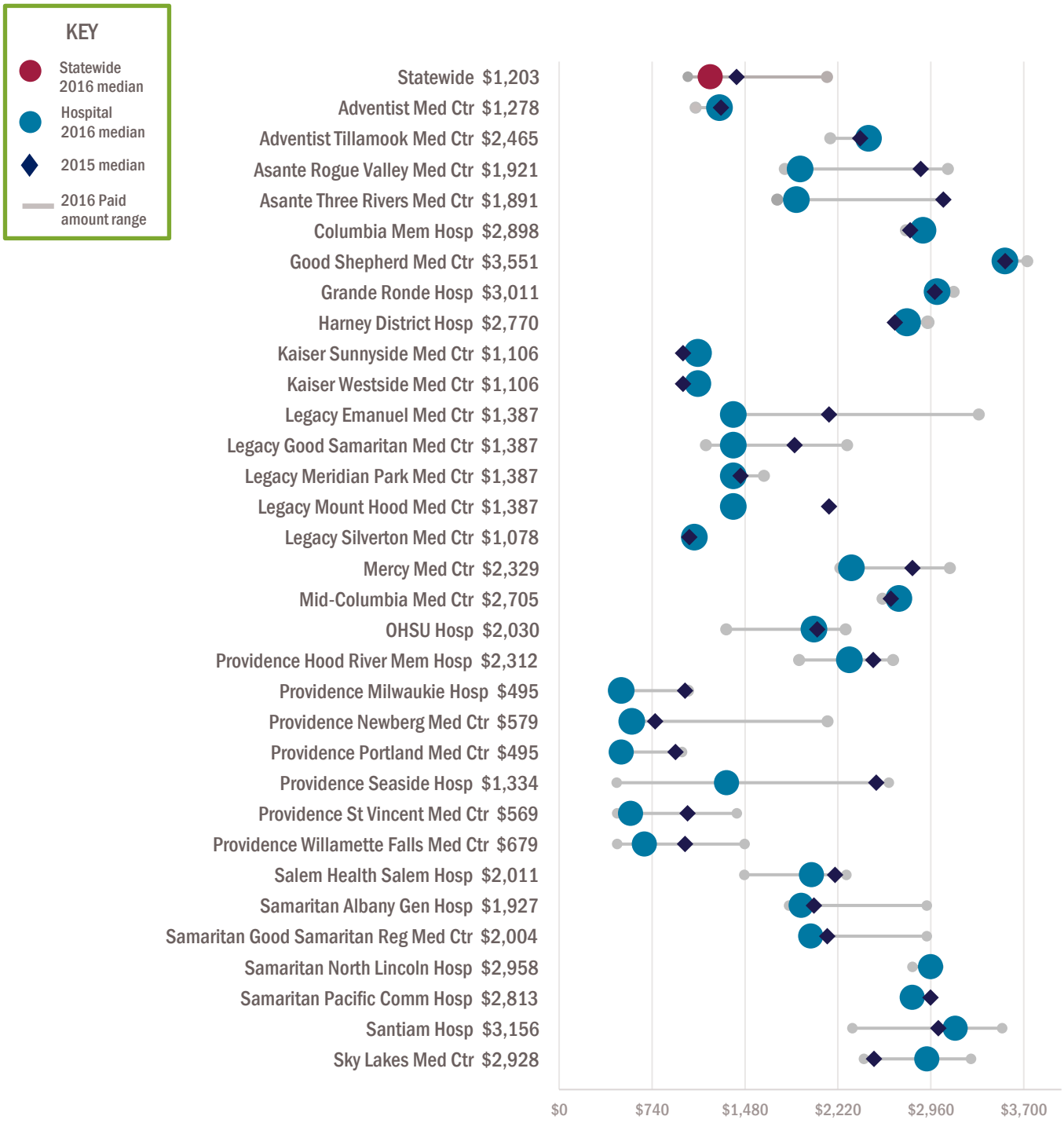
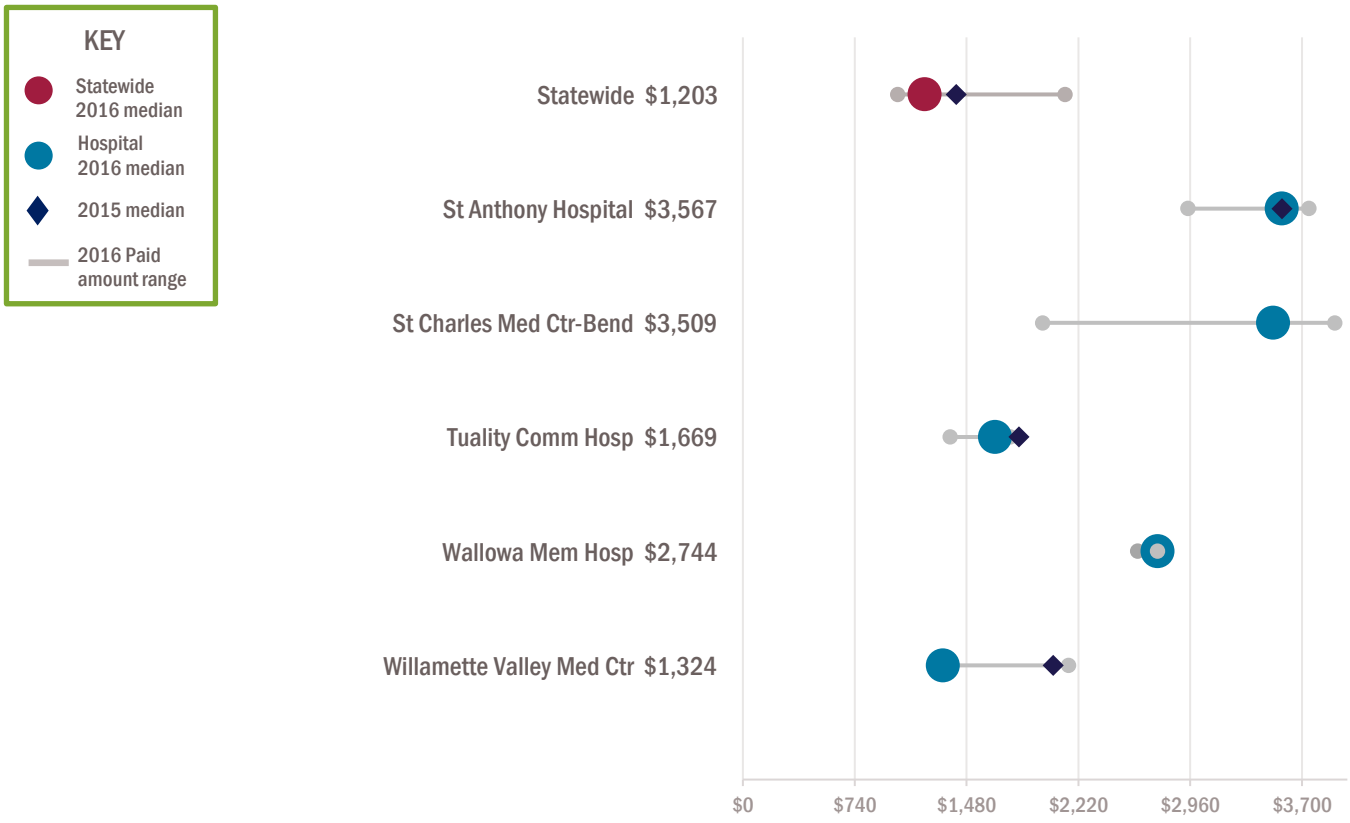


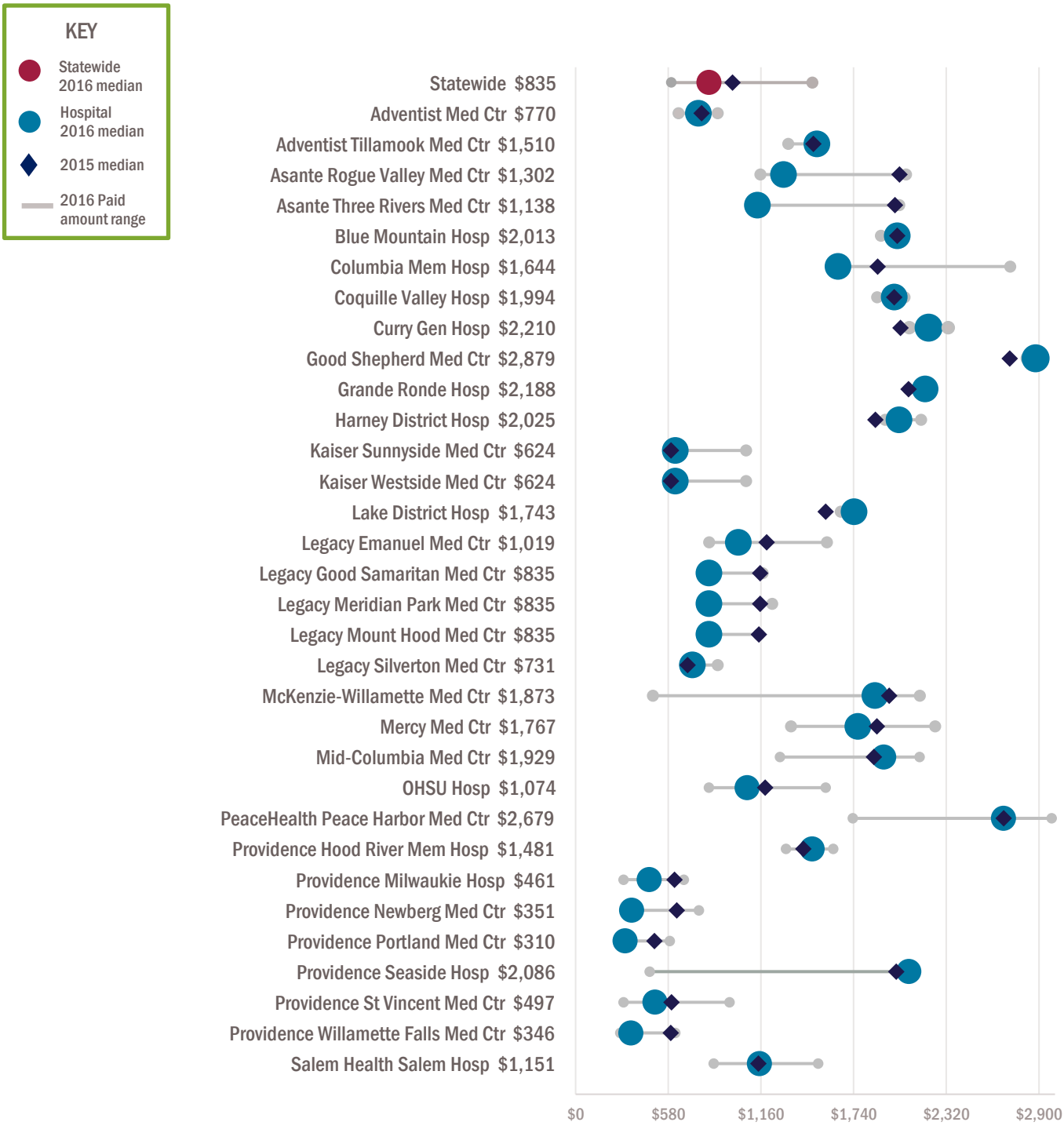
MRI with Contrast: Head and Neck Cont.

A Magnetic Resonance Imaging (MRI) scan is a method of imaging the body using magnetic fields and radio waves. While CT scans rely on X-rays to create images, MRIs record the radio frequencies emitted from body tissue when surrounded by a strong magnetic field. The paid amounts are for MRI scans of the head and neck. These scans include injection of a contrast material.



MRI: Spine

A Magnetic Resonance Imaging (MRI) scan is a method of imaging the body using magnetic fields and radio waves. While CT scans rely on X-rays to create images, MRIs record the radio frequencies emitted from body tissue when surrounded by a strong magnetic field. The paid amounts are for MRI scans of the spine. These scans **do not** include injection of a contrast material.



MRI: Spine Cont.

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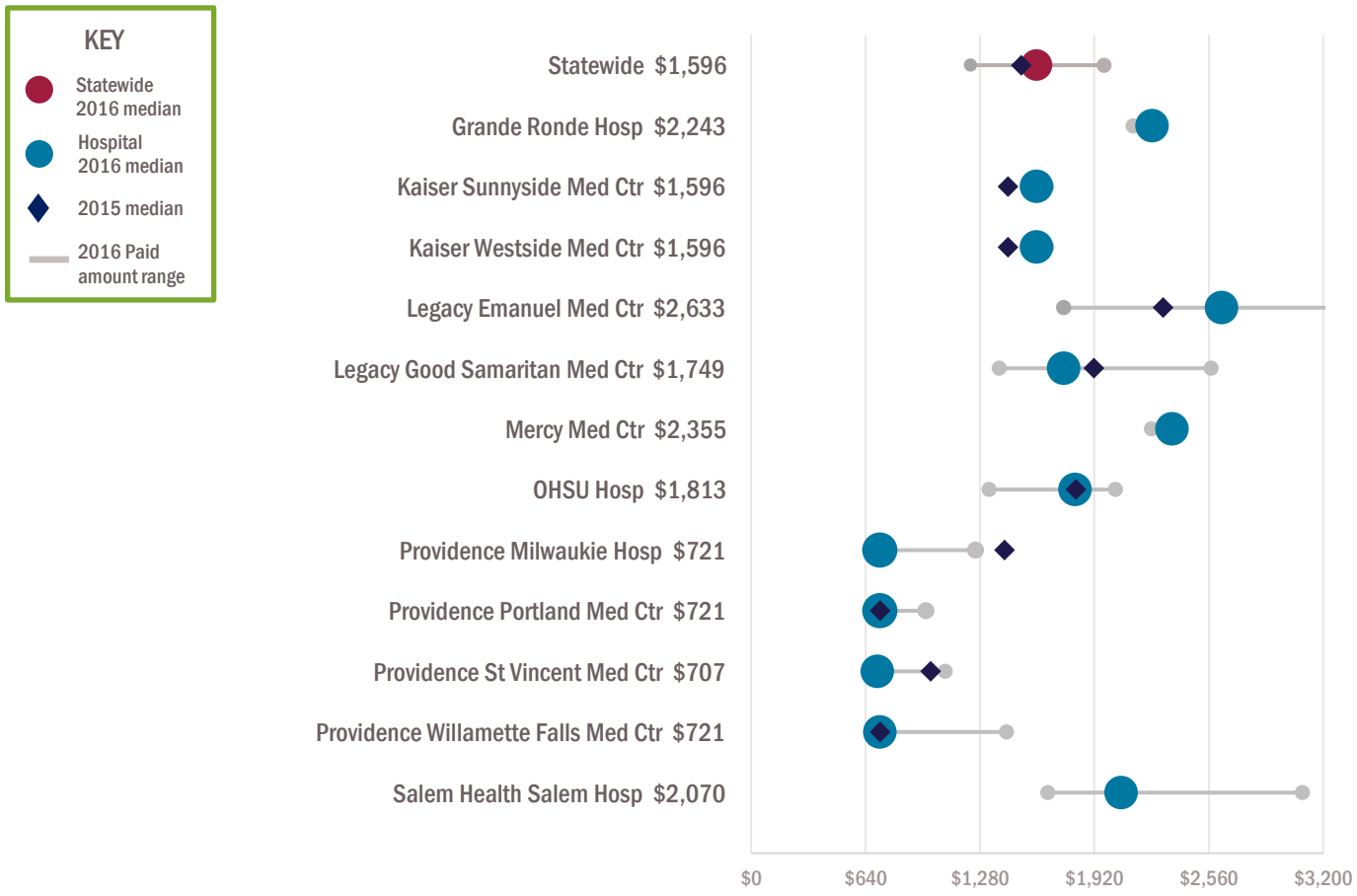
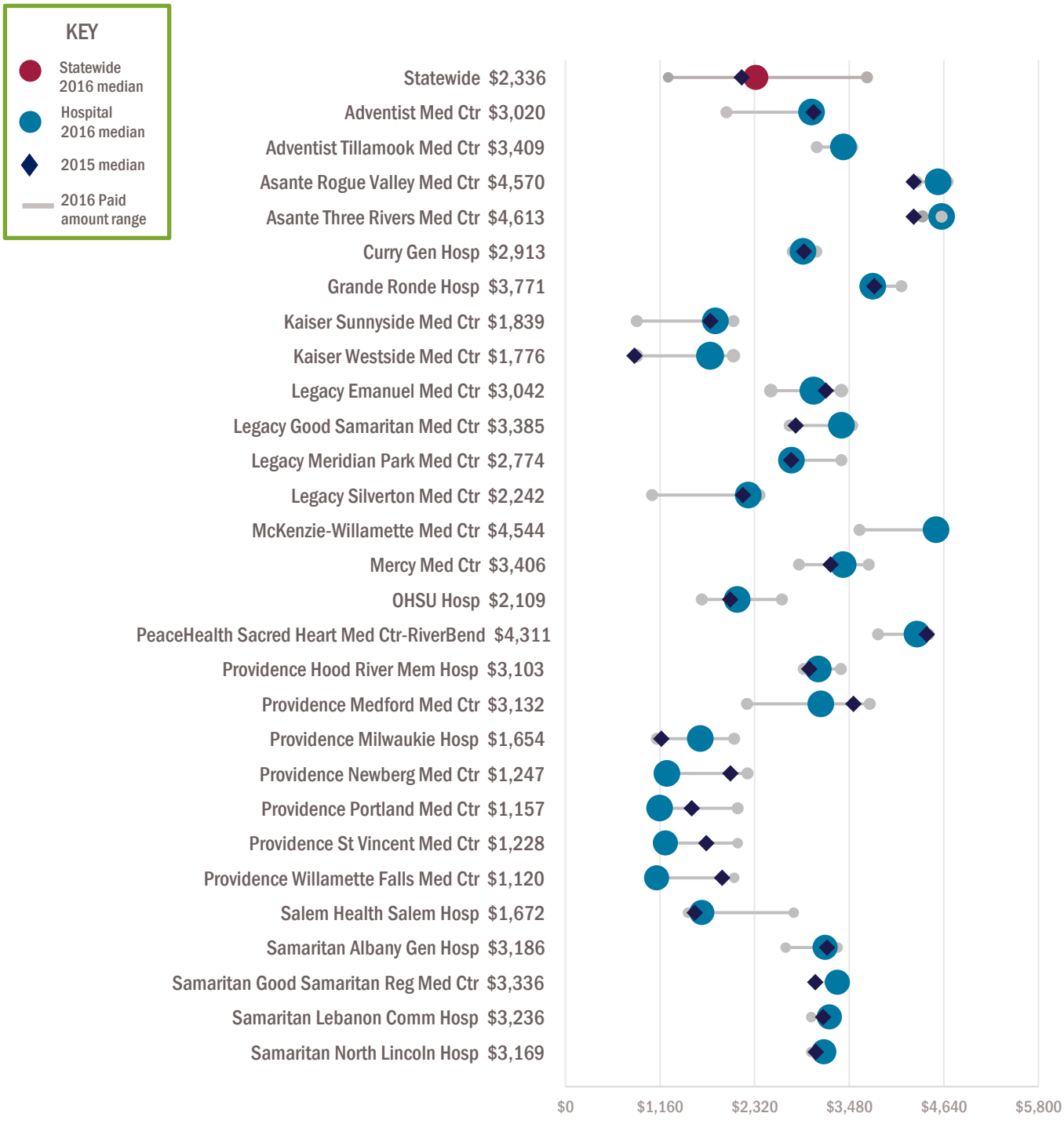


Nuclear Medicine: Cardiovascular

Nuclear Medicine is a method of imaging and diagnosing diseases by using radioactive substances. A very mildly radioactive substance is injected into the body part in question and special cameras track the progress of the substance through the body. The listed paid amounts are for nuclear medicine examinations of the cardiovascular system and heart. Nuclear medicine examination of the heart are used to diagnose coronary artery disease.



Nuclear Medicine: Cardiovascular Cont.

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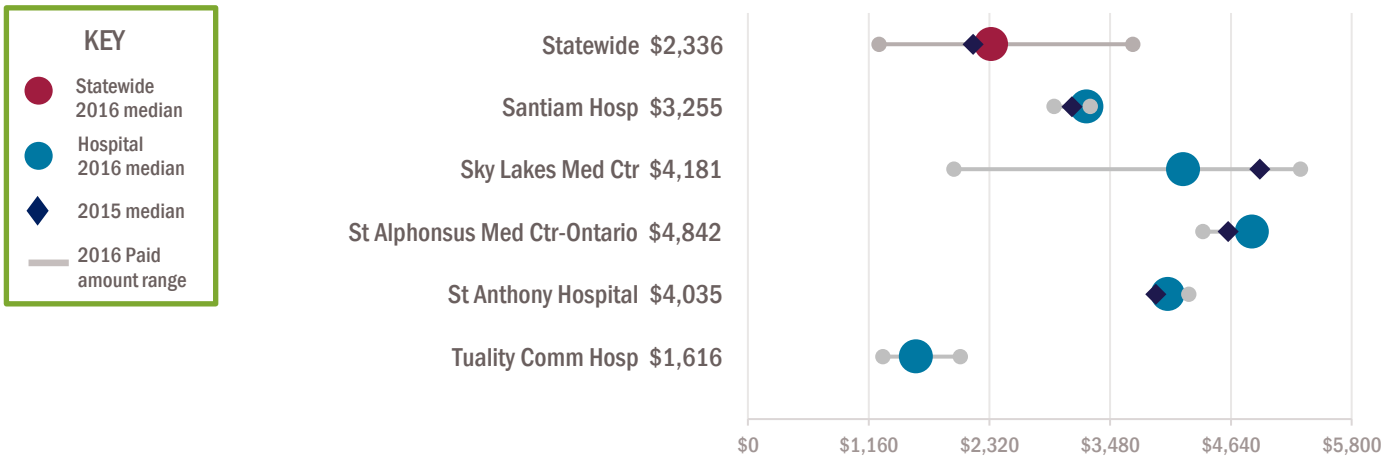


Nuclear Medicine: Endocrine System

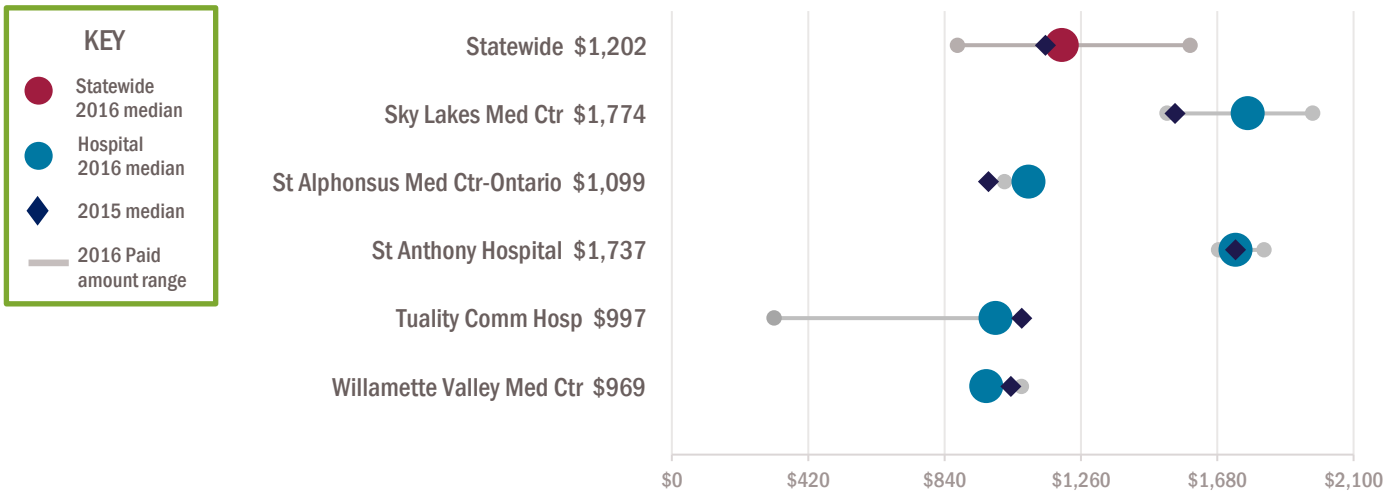
Nuclear Medicine is a method of imaging and diagnosing diseases by using radioactive substances. A very mildly radioactive substance is injected into the body part in question and special cameras track the progress of the substance through the body. The listed paid amounts are for nuclear medicine examinations of the endocrine system. Thyroid scans are the most common nuclear medicine examination of the endocrine system.

Nuclear Medicine: Digestive System

Nuclear Medicine is a method of imaging and diagnosing diseases by using radioactive substances. A very mildly radioactive substance is injected into the body part in question and special cameras track the progress of the substance through the body. The listed paid amounts are for nuclear medicine examinations of the digestive system. Liver scans and gallbladder scans are the most common digestive system nuclear medicine examinations.

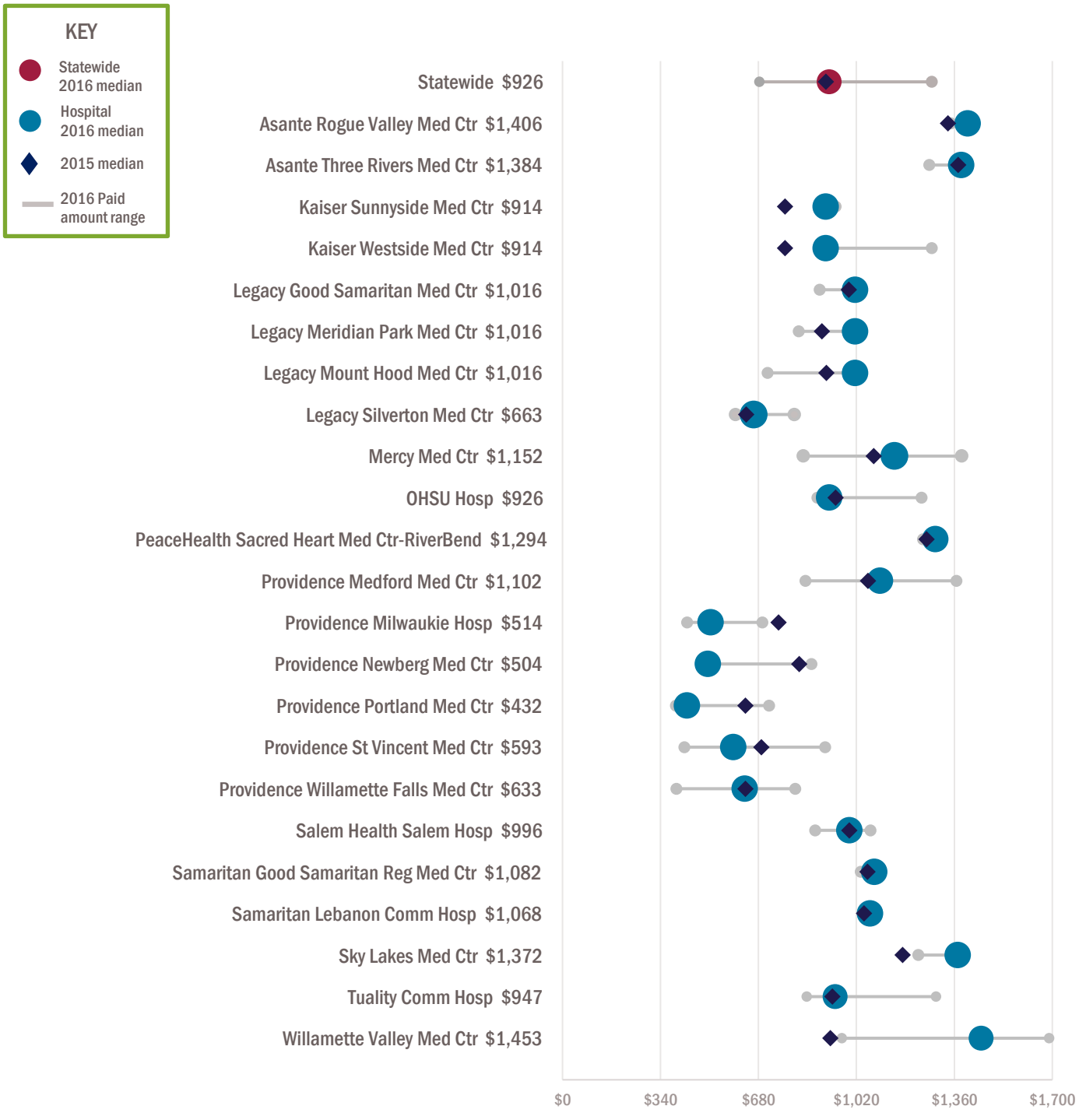
Nuclear Medicine: Digestive System Cont.

Nuclear Medicine is a method of imaging and diagnosing diseases by using radioactive substances. A very mildly radioactive substance is injected into the body part in question and special cameras track the progress of the substance through the body. The listed paid amounts are for nuclear medicine examinations of the digestive system. Liver scans and gallbladder scans are the most common digestive system nuclear medicine examinations.



Nuclear Medicine: Musculoskeletal

Nuclear Medicine is a method of imaging and diagnosing diseases by using radioactive substances. A very mildly radioactive substance is injected into the body part in question and special cameras track the progress of the substance through the body. The listed paid amounts are for nuclear medicine examinations of the musculoskeletal system. Bone scans, used to find very small fractures or tumors in the bones, are the most common nuclear medicine examination of the musculoskeletal system.



Ultrasound

An ultrasound, or sonography, is a method of creating images using sound waves. A device emits sound at an extremely high frequency and then records the sound waves as they reflect off structures in the body. A computer interprets those sound waves and creates an image. Ultrasounds listed here do not include fetus examinations as it relates to pregnancy, or specialized ultrasounds such as echocardiographs.

Ultrasound Cont.

An ultrasound, or sonography, is a method of creating images using sound waves. A device emits sound at an extremely high frequency and then records the sound waves as they reflect off structures in the body. A computer interprets those sound waves and creates an image. Ultrasounds listed here do not include fetus examinations as it relates to pregnancy, or specialized ultrasounds such as echocardiographs.

X-ray: Abdomen

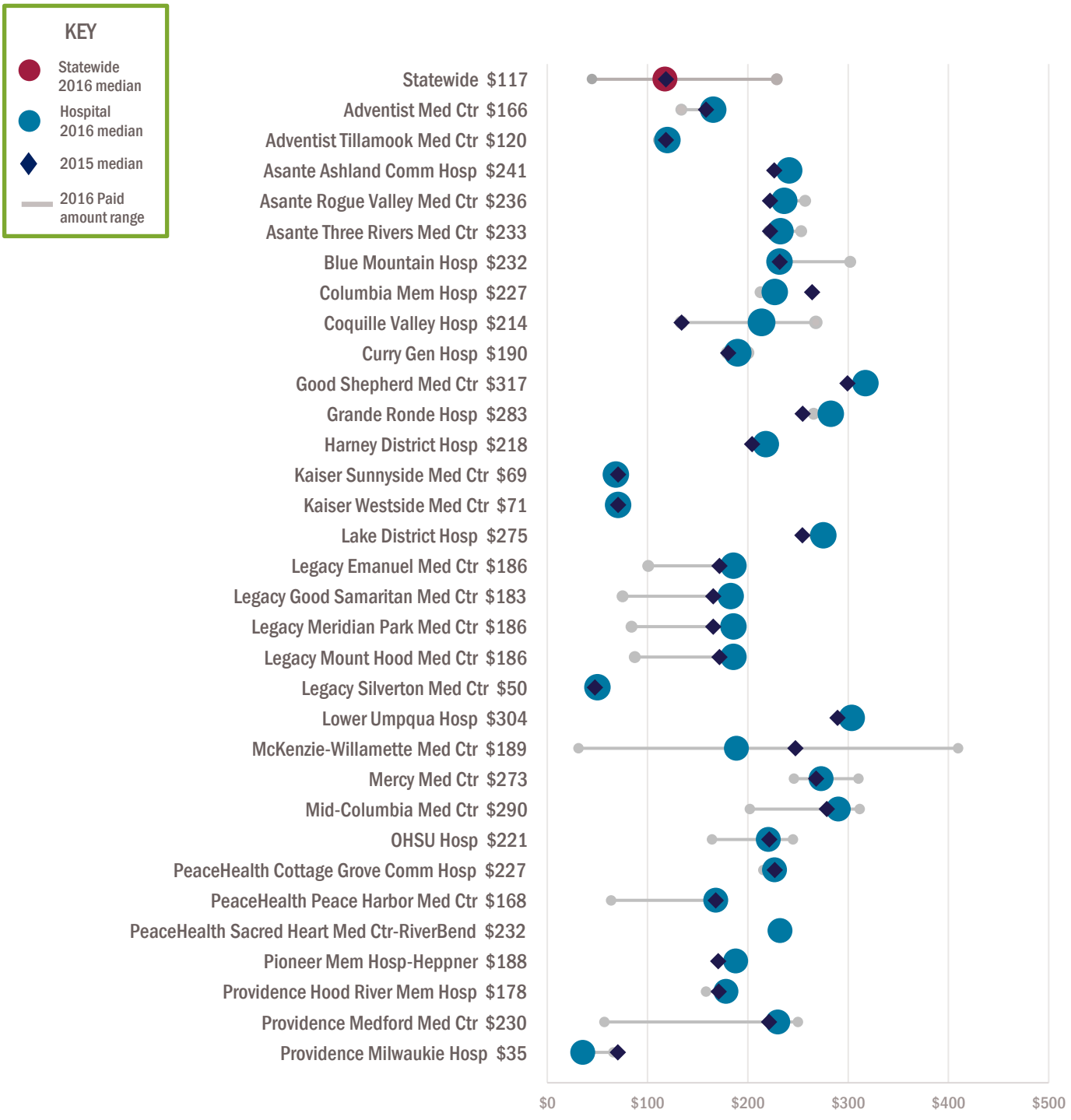
An X-ray is a method of imaging the body by exposing it to a small amount of electromagnetic radiation. Special undeveloped film is placed behind the body part that is to be imaged. The X-ray machine then emits radiation towards the body and film, causing the film to develop. More dense areas of the body – such as bones – absorb or block more of the radiation, causing those areas of the film to be more underdeveloped, thus creating a detailed image of the bones. The paid amounts listed are for X-rays of the abdominal and pelvic area.

X-ray: Abdomen Cont.

An X-ray is a method of imaging the body by exposing it to a small amount of electromagnetic radiation. Special undeveloped film is placed behind the body part that is to be imaged. The X-ray machine then emits radiation towards the body and film, causing the film to develop. More dense areas of the body – such as bones – absorb or block more of the radiation, causing those areas of the film to be more underdeveloped, thus creating a detailed image of the bones. The paid amounts listed are for X-rays of the abdominal and pelvic area.

X-ray: Chest

An X-ray is a method of imaging the body by exposing it to a small amount of electromagnetic radiation. Special undeveloped film is placed behind the body part that is to be imaged. The X-ray machine then emits radiation towards the body and film, causing the film to develop. More dense areas of the body – such as bones – absorb or block more of the radiation, causing those areas of the film to be more underdeveloped, thus creating a detailed image of the bones. The paid amounts listed are for X-rays of the chest.



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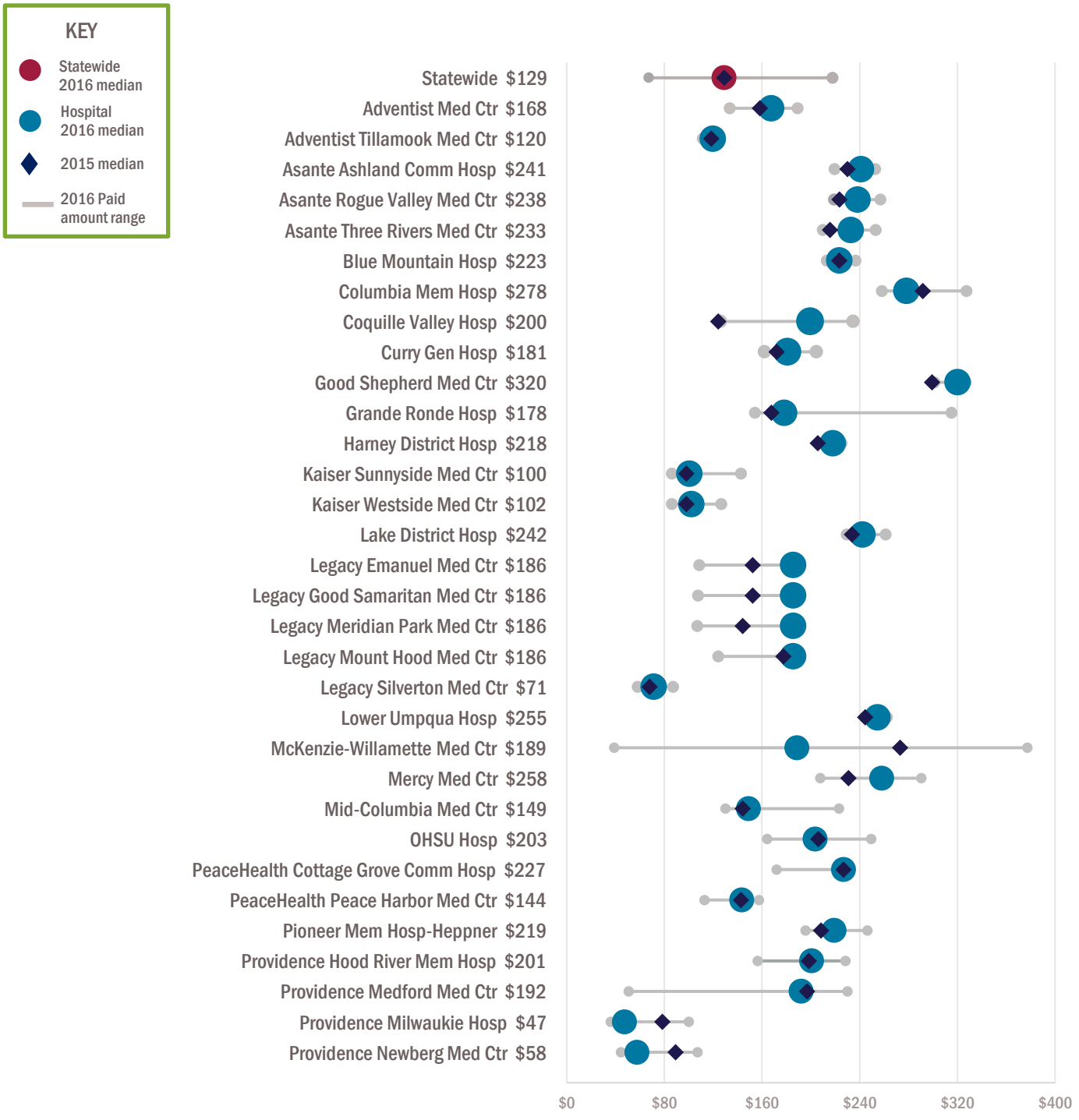
X-ray: Extremities

An X-ray is a method of imaging the body by exposing it to a small amount of electromagnetic radiation. Special undeveloped film is placed behind the body part that is to be imaged. The X-ray machine then emits radiation towards the body and film, causing the film to develop. More dense areas of the body – such as bones – absorb or block more of the radiation, causing those areas of the film to be more underdeveloped, thus creating a detailed image of the bones. The paid amounts listed are for X-rays of the arms and legs.



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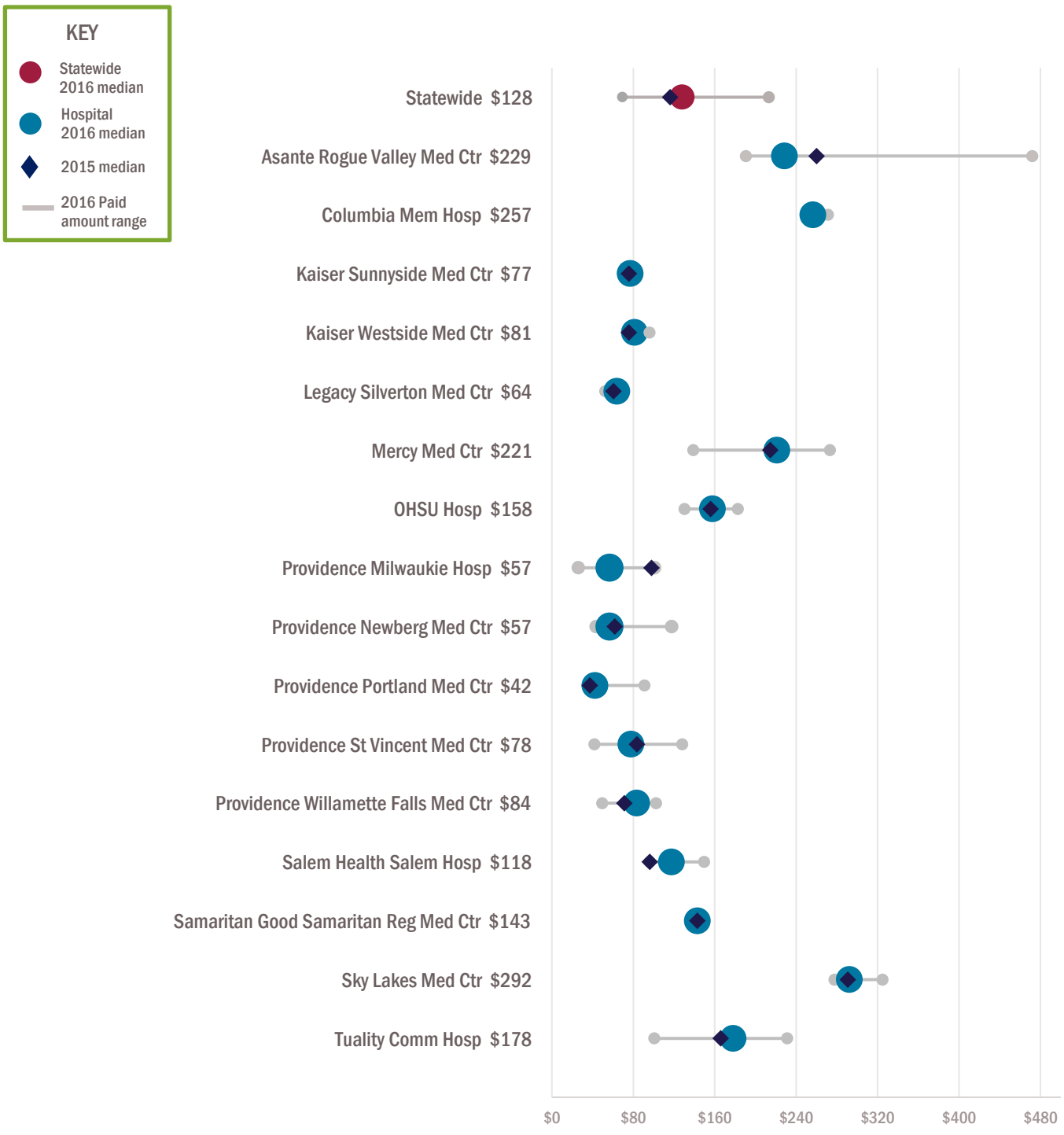
An X-ray is a method of imaging the body by exposing it to a small amount of electromagnetic radiation. Special undeveloped film is placed behind the body part that is to be imaged. The X-ray machine then emits radiation towards the body and film, causing the film to develop. More dense areas of the body – such as bones – absorb or block more of the radiation, causing those areas of the film to be more underdeveloped, thus creating a detailed image of the bones. The paid amounts listed are for X-rays of the arms and legs.

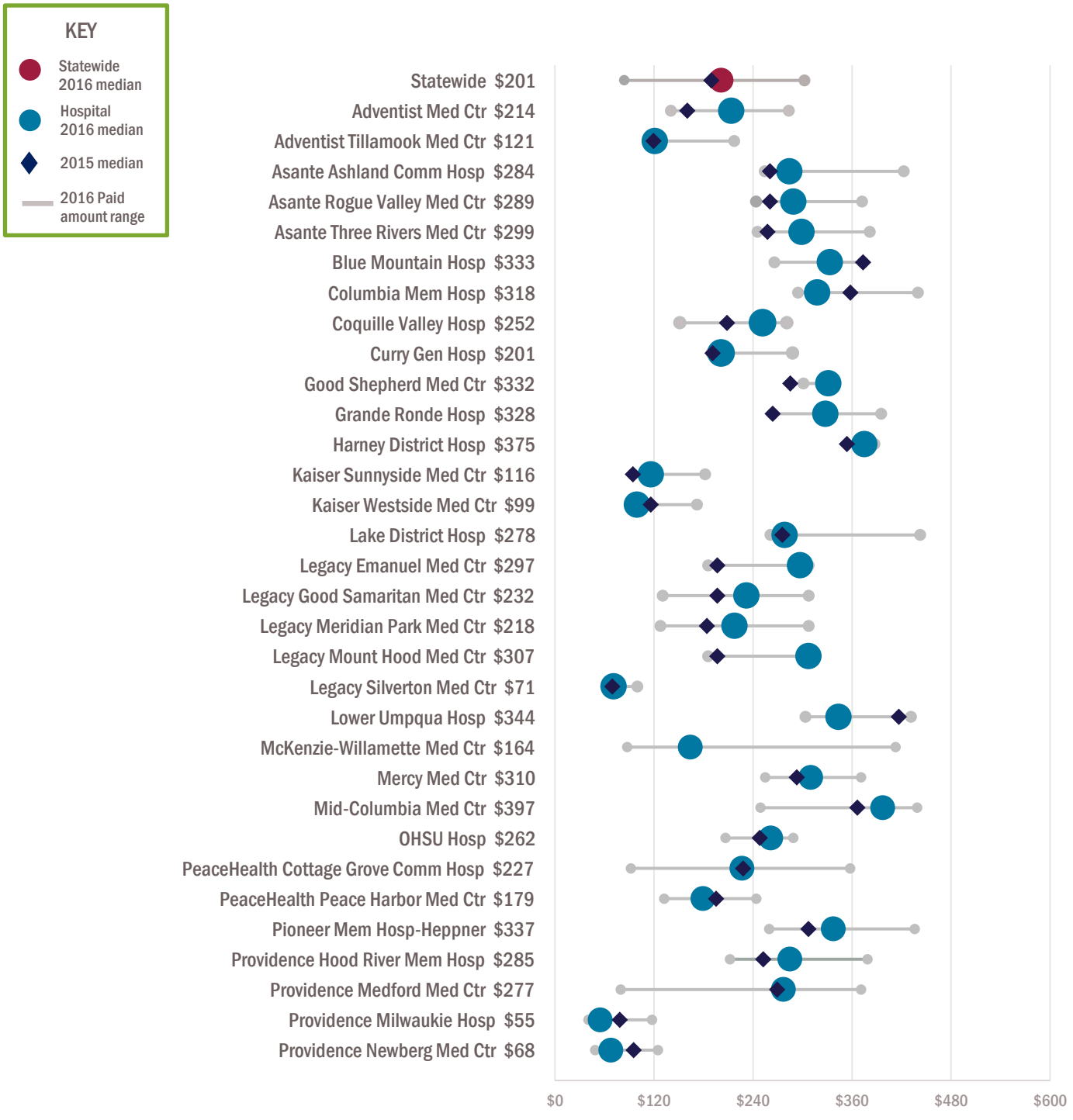
X-ray: Head and Neck

An X-ray is a method of imaging the body by exposing it to a small amount of electromagnetic radiation. Special undeveloped film is placed behind the body part that is to be imaged. The X-ray machine then emits radiation towards the body and film, causing the film to develop. More dense areas of the body – such as bones – absorb or block more of the radiation, causing those areas of the film to be more underdeveloped, thus creating a detailed image of the bones. The paid amounts listed are for X-rays of the head and neck.



X-ray: Spine

An X-ray is a method of imaging the body by exposing it to a small amount of electromagnetic radiation. Special undeveloped film is placed behind the body part that is to be imaged. The X-ray machine then emits radiation towards the body and film, causing the film to develop. More dense areas of the body – such as bones – absorb or block more of the radiation, causing those areas of the film to be more underdeveloped, thus creating a detailed image of the bones. The paid amounts listed are for X-rays of the spine.



X-ray: Spine Cont.

An X-ray is a method of imaging the body by exposing it to a small amount of electromagnetic radiation. Special undeveloped film is placed behind the body part that is to be imaged. The X-ray machine then emits radiation towards the body and film, causing the film to develop. More dense areas of the body - such as bones - absorb or block more of the radiation, causing those areas of the film to be more underdeveloped, thus creating a detailed image of the bones. The paid amounts listed are for X-rays of the spine.