Collecting, analyzing and reporting data to improve the quality, and restrain the cost, of healthcare in the state of Pennsylvania
Executive Director’s Message

For more than three decades, the Pennsylvania Health Care Cost Containment Council (PHC4) has been a shining example of how teamwork and cooperation can lead to positive results and measurable improvement. Whereas the concept of community is so important, PHC4 has long been a unique ensemble of community leaders with different interests who have come together towards a set of common goals - to provide comparative information about the most efficient and effective healthcare providers to individual consumers and group purchasers of health care services; and giving information to health care providers that can be used to identify opportunities to improve health care outcomes and contain the costs of the care delivered.

Pennsylvania, through this effort, has long been at the forefront of addressing healthcare quality and rapidly rising costs. To focus on these issues, the Pennsylvania General Assembly passed legislation in 1986 to create PHC4, an independent state agency, an effort driven primarily by a coalition of business and organized labor leaders working together to pass market-oriented health care reforms. Thirty-four years later, PHC4 remains committed to the mission and grateful for the support of its ongoing work to provide relevant data on healthcare cost and quality in Pennsylvania. Recently, the agency was reauthorized by the Pennsylvania state legislature, with significant championship from many individuals, for whom the Council expresses its deepest gratitude: board members; Sam Denisco, Todd Shamash, Frank Snyder, and Steve Wolfe, as well as Representative Scott Martin and recently elected House Speaker Bryan Cutler, and especially Governor Tom Wolf.

With this renewed reauthorization, the Council looks towards its future, continuing its work on important issues such as chronic conditions and opioid-related hospitalizations. Continued attention to these hospitalizations is particularly important during the COVID-19 pandemic. Delaying primary and preventive care during this time could increase the risk of hospitalization particularly for those suffering from chronic illnesses. PHC4’s county-specific rates of hospitalization for a variety of conditions in FY 2019 can serve as a baseline for continued study of healthcare outcomes during and after the COVID-19 crisis.
What our supporters say...

Sam Denisco, PHC4 Chairman (elected May 2020)
Vice President, Government Affairs, PA Chamber of Business & Industry

“I’m excited for this opportunity to lead the Council through this critical time in continuing its vital mission to help create a health-care delivery system in the Commonwealth that provides appropriate, affordable and accessible care.”

Frank Snyder, PHC4 Vice-Chairman
Secretary Treasurer, Pennsylvania AFL-CIO

“For over 30 years, the Pennsylvania Health Care Cost Containment Council (“PHC4”) has served as the go-to data collection agency when addressing health care access, delivery, quality, and cost containment. The comprehensive, issue specific reports, continue to meet the needs of today’s most relevant health concerns. For example, the disease of addiction has regularly found itself among the top news stories throughout all 67 counties. Reaching epidemic levels, PHC4’s wide-ranging analyses have been used in developing practical solutions to curb this modern-day epidemic.”

Todd Shamash, PHC4 Treasurer
President and Chief Executive Officer, Capital Blue Cross

“I am very proud to be associated with the dedicated staff and the proud history and mission of the Council. The work performed is vital, including the most recent work on opioid related overdoses and hospitalizations.”
What our supporters say...

David B. Nash, MD MBA  
PHC4 Chairman of the Technical Advisory Committee  
Founding Dean Emeritus  
Jefferson College of Population Health (JCPH)

“Our ailing healthcare system needs accurate and comprehensive outcomes data now more than ever and HC4 continues to deliver on its promise to do just that!”

Rick Bloomingdale President Pennsylvania AFL-CIO

“Our union health and welfare funds rely on PHC4 as a valuable resource in helping our members make choices that provide the best health care in the most cost-efficient manner. That in turn helps us improve quality and make health care affordable for all Pennsylvanians.”

Gene Barr, President, PA Chamber of Business & Industry

“The Pennsylvania Health Care Cost Containment Council is an invaluable resource for employers and employees. The Council’s comprehensive, unbiased medical data helps bring transparency to a complicated subject matter, helping to reduce costs and improve the quality of health care throughout the Commonwealth. The PA Chamber has been proud to support PHC4 since its inception.”
What our supporters say...

Karen Wolk Feinstein, PhD
President & CEO Jewish Healthcare Foundation

“In response to PHC4’s reports showing alarming rates of maternal hospital stays involving substance use and newborn stays with Neonatal Abstinence Syndrome (NAS), the Jewish Healthcare Foundation and WHAM global launched the Pennsylvania Perinatal Quality Collaborative with over 40 birth sites and 10 health plans to reduce maternal mortality and improve care for moms with opioid use disorder and babies with NAS. PHC4’s timely reports continue to help guide our healthcare policy agendas and performance improvement projects across the State.”

Andy Carter, President and CEO
The Hospital and Healthsystem Association of Pennsylvania

“When Pennsylvanians have to make decisions about their care, they look at a variety of factors – chief among them are quality and cost. For more than three decades, PHC4 has been providing Pennsylvania’s patients, families, policymakers, and members of the media with up-to-date reports about cost, quality, and health care’s most pressing issues. PHC4 also helps the hospital community measure its progress as it works toward its core mission of reducing the cost of care, improving the quality of care, and promoting access to care for all. The Hospital and Healthsystem Association of Pennsylvania and the state’s hospital community are proud to be longstanding partners with PHC4, supporting its critical mission of providing data and analysis that can help us examine health care trends and opportunities to improve, and we thank the council for its dedication to this mission.”
PHC4’s Council Members (FY2019-20)

Executive Officers
Frank Snyder, Chair – Labor
Robert Johnston, Vice Chair – Business
Todd Shamash, Esquire, Treasurer – Health Plans

Council Members
The Honorable Jessica Altman – Insurance Commissioner of Pennsylvania
Gene Barr – Business
Mary Beth Clark, RN, MPA, MSN, EdD – Quality Improvement
Samuel Denisco – Business
Randy DiPalo – Labor
Mark Dever – Business
Tom Duzak - Labor
Lisa Frank – Labor
Joe Huxta - Business
Edward Karlovich – Hospitals
Brad Klein, MD, MBA, FAAN, FAHS, FAANEM - Physicians
The Honorable Rachel Levine, MD – Pennsylvania Secretary of Health
Greg Martino – Health
Matthew D. McHugh, PhD, JD, MPH, RN, FAAN – Nurses
The Honorable Teresa Miller – Pennsylvania Secretary of Human Services
Ernest Sessa – Consumer Representative
Frank Sirianni – Labor
Adele Towers, MD, MPH, FACP – Physicians
Steven A. Wolfe – Hospitals
2019 Data Requests

During the calendar year 2019, many entities relied on PHC4 for accurate, reliable healthcare data. A full listing of CY2019 special reports and requests for data is available online at www.pabulletin.com

Agency for Healthcare Research & Quality
Allegheny County Health Department
Allied Services
Atlantic Health
Boston University School of Medicine
Capital Health
Community Health Systems
Crozer Keystone Health System
DLP Memorial Medical Center
Doylestown Hospital
Drexel University
Evangelical Community Hospital
Excela Health
Geisinger Clinic
Geisinger Health System
Good Shepherd Rehab Network
Health Economics Resource Center
Highmark Health
Hospital & Healthsystem Association of Pennsylvania
Indiana Regional Medical Center
Intalere
International Business Machines Corporation (IBM)
Jian Strategic Marketing
Kaufman, Hall & Associates
Lehigh Valley Health Network
LifePoint Health
Los Angeles Biomedical Institute
Main Line Health
Meritus Medical Center, Inc.
Monongahela Valley Hospital
Mount Nittany Health
Nemours/Alfred I. duPont Hospital for Children
New Solutions, Inc.
North Pointe Surgery Center
OSS Health
Penn Highlands Healthcare
Penn State College of Medicine
Penn State Hershey Health System
Penn State University
Pennsylvania Department of Health
Pennsylvania Department of Human Services
Pennsylvania Department of the Auditor General
Pennsylvania Office of Attorney General
Pennsylvania Patient Safety Authority
Philadelphia Department of Public Health
Philadelphia Inquirer
Prime Healthcare
Reading Hospital and Medical Center
Renzi Podiatry/Save Your Soles Campaign
RKSB Health Care Consulting
Safety-Net Association of Pennsylvania
SG-2, LLC
St Luke’s University Health Network
Summit Health
Supply Bank
Uniontown Hospital
University of Pennsylvania
University of Pennsylvania - School of Medicine
University of Pittsburgh
University of Pittsburgh Medical Center
Wayne Memorial Hospital
Weill Cornell Medicine
WellSpan Health
2019 Data User Series

Throughout the year, PHC4 highlights the utilization of PHC4’s data and the work done by special request data clients in the area of health research. Below are two examples.

- **US Hospitalized Adult Influenza Vaccine Effectiveness Network – Centers for Disease Control and Prevention**

As part of the Centers for Disease Control and Prevention’s *US Hospitalized Adult Influenza Vaccine Effectiveness Network (HAIVEN)* project, Professor Richard K. Zimmerman, MD, MPH at the University of Pittsburgh and the PittVax research team used hospitalization data from the Pennsylvania Health Care Cost Containment Council (PHC4) to study the burden of various respiratory viruses in Allegheny County that lead to hospitalizations. Results of the project will ultimately help CDC determine the burden of respiratory viruses, which vaccines are best, and where future research efforts need to be prioritized. In addressing the value of PHC4 data, Dr. Zimmerman noted that the market share and population-based data provided by PHC4 were very useful and valuable to the HAIVEN project and to studies of the burden of respiratory viral illness.

*Richard K. Zimmerman, MD, MPH, MA, MS*
Professor, Department of Family Medicine and Clinical Epidemiology, School of Medicine, Department of Behavioral and Community Health Services, Graduate School of Public Health, University of Pittsburgh
Dr. Said A. Ibrahim, Chief, Division of Healthcare Delivery Science and Innovation, Department of Healthcare Policy and Research, Weill Cornell Medicine, used inpatient discharge data from the Pennsylvania Health Care Cost Containment Council to study patients who had a total hip and/or knee replacement as part of a project entitled, Race and Rehabilitation Services After Joint Replacement. He and his research team used the dataset to examine how social determinants of health, such as race/ethnicity, gender and socioeconomic status, impact utilization and outcomes of elective joint replacement. Dr. Ibrahim’s long-term research objective is to mitigate racial disparity in access and use of joint replacement by identifying and intervening key factors in the clinical care pathway. Read the study here.

“The PHC4 dataset is truly a unique resource for improving healthcare not only for Pennsylvanians, but for the nation at large. The insight gained from the PHC4 dataset has the potential to inform national policy on healthcare.” – Dr. Said A. Ibrahim
Data on the Go – PHC4 Mobile Application

How often are county residents hospitalized? Find out here.

- Hospital Admissions - Overall
- Opioid Overdose
- Opioid Overdose and Opioid Use Disorder
- Maternal Hospital Stays involving Opioids
- Drug Withdrawal in Newborns
- Breast Cancer Surgery
- Heart Failure Episodes of Care
- Potentially Preventable Hospitalizations
- Diabetes
- Sepsis
- Super-Utilizers
- *C. difficile* Infections (CDI)

What's happening in your county?

- Mobile ready platform
- Local Inpatient Data
- Hospital Admissions
- Population Based
- Age & Payer Breakdowns

In 2019, PHC4 expanded this mobile application which utilizes PHC4’s County Profiles, providing county-specific information on hospitalization rates for a variety of conditions. The application is easily accessible with any mobile device. Consumers, legislators, healthcare providers, policymakers and anyone can search by county to discover localized, inpatient admission data through population-based reports.

www.phc4.org/m
New Publications/Projects in 2019

During 2019, PHC4 released six new research briefs and one brand new report along with several annual flagship reports.

Since January 2016, PHC4 has published ten research briefs illuminating the issue of hospitalizations for substance use, particularly opioids and the associated effects on Pennsylvania communities. Most of the briefs also display trends over time, age and payer breakdowns, population differences, and county rates.

Research Briefs

During 2019, PHC4 published *Hospitalizations for Newborns with Neonatal Abstinence Syndrome - 2018*. This research brief examines newborn birth admissions involving drug withdrawal, or neonatal abstinence syndrome (NAS). Newborns suffering from drug withdrawal are much more likely to have complications and tend to stay in the hospital longer. NAS refers to an array of medical problems developing shortly after birth in newborns that were exposed to addictive drugs, typically opioids, while in the mother’s womb. Withdrawal signs develop because these newborns are no longer exposed to the drug for which they have become physically dependent.

There were 1,833 NAS-related newborn stays in Pennsylvania in FFY 2018 for a rate of 14.4 per 1,000 newborn stays. The rate of NAS among newborns has remained relatively stable since FFY 2016 when it was 15.2 per 1,000 newborn stays.

NAS-related stays added an estimated $15.2 million in hospital payments in FFY 2018.
Hospitalizations for Opioid Overdose: Three-Year Review

As part of PHC4’s research brief series on opioids, PHC4 studied opioid overdose hospitalizations during 2016-2018 for Pennsylvania residents age 15 and older. It reports the number of hospital admissions for overdose of heroin and pain medication, in-hospital mortality rates and county rates.

Between 2016 and 2017, the number of hospitalizations for opioid overdose increased from 3,342 to 3,500—a 4.7% increase. In 2018, the number dropped to 2,667—a 23.8% decrease from 2017.

This research brief also reports that admissions for overdose of cocaine and amphetamines increased between 2016 and 2018.

Statewide, there were 25.1 hospitalizations for opioid overdose per 100,000 residents in 2018. Rates varied by income, education, race/ethnicity and gender.
Hospital Stays for Mental Disorders – 2018

In conjunction with Mental Illness Awareness Week, PHC4 released a research brief that examined hospitalizations for Pennsylvania residents who had a mental disorder as the principal reason for admission during 2018. Hospitalization rates varied by poverty, education, and race/ethnicity. County rates are included. Data showed that Pennsylvania residents spent over one million days in the hospital for treatment of mental disorders in 2018.

Cancer Hospitalizations for Pennsylvania Children

This research brief examines cancer hospitalizations for Pennsylvania children (under age 18) during the three-year period 2016, 2017 and 2018. On average, there were eight hospital admissions per day for children with a cancer diagnosis during this time period. Included are breakdowns by age and cancer type. Rates by county are also shown. There were 8,827 hospital admissions with a cancer diagnosis among Pennsylvania children during the three-year period 2016-2018.

There were 19,121 outpatient records (non-physician office) for children where cancer was the primary reason for the visit, accounting for 3.4% of all outpatient records for children. The most common outpatient services for these children were: Chemotherapy (54.1%), Blood transfusion (7.6%), and Diagnostic and biopsy procedures (6.3%).
New Public Reports in 2019

PHC4 has a long history of reporting hospital-specific treatment results by focusing specifically on procedures commonly performed in Pennsylvania’s general acute care hospitals. Building on this in 2019, PHC4 published the new, **Common Procedures Report**, which provides volume and outcome information for four common surgical procedures performed in the Pennsylvania general acute care hospitals that typically perform these procedures on adults. The Common Procedures Report can assist consumers and purchasers in making more informed health care decisions. The report can serve as an aid to providers in highlighting additional opportunities for quality improvement and cost containment.

Hospital-specific results are included for: knee replacement, hip replacement, spinal fusion, and coronary artery bypass graft (CABG) surgery. Outcomes include in-hospital mortality, complications, and extended postoperative length of stay. Statewide trends are also examined.

**Who can use this report?**

- Health Care Providers can use this report as an aid in identifying opportunities for quality improvement and cost containment.
- Policymakers/Public Officials can use this report to enhance their understanding of health care issues, to ask provocative questions, to raise public awareness of important issues, and to help constituents identify health care options.
- Everyone can use this information to raise important questions about why differences exist in the quality and efficiency of care.

PHC4 uses clinical laboratory data, patient characteristics such as age, gender, race/ethnicity, and socioeconomic status, and billing codes that describe the patient’s medical conditions such as the presence of arthritis, coronary artery disease, etc., to calculate risk for the patients in this report.
New Public Reports in 2019 - continued

During 2019, PHC4 released new data to help cancer patients and their families make decisions about cancer surgical care in Pennsylvania. The Cancer Surgery Volume report provides information about the number of cancer-related surgeries performed at Pennsylvania hospitals. Hospital surgical volume is reported for 11 types of cancers. While the volume of cases generally reflects the experience that a hospital has with performing each type of surgery, patients should use volume data in consultation with their physicians when making decisions about quality care since many factors may contribute to the overall outcome.

“Reporting volume for cancer surgeries is important because there is strong evidence in the scientific literature that links hospital surgical volume and patient outcomes.” – Joe Martin, Executive Director, PHC4

While the volume of cases generally reflects the experience that a hospital has with performing each type of surgery, patients should use volume data in consultation with their physicians when making decisions about quality care since many factors may contribute to the overall outcome.

<table>
<thead>
<tr>
<th>Number of Cancer Surgeries Performed in PA Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ Bladder</td>
</tr>
<tr>
<td>➢ Brain</td>
</tr>
<tr>
<td>➢ Breast</td>
</tr>
<tr>
<td>➢ Colon</td>
</tr>
<tr>
<td>➢ Esophageal</td>
</tr>
<tr>
<td>➢ Liver</td>
</tr>
<tr>
<td>➢ Lung</td>
</tr>
<tr>
<td>➢ Pancreatic</td>
</tr>
<tr>
<td>➢ Prostate</td>
</tr>
<tr>
<td>➢ Rectal</td>
</tr>
<tr>
<td>➢ Stomach</td>
</tr>
</tbody>
</table>

For cancers of the bladder, esophagus, liver and stomach, more than a third of the hospitals performed only one or two surgeries in FY 2018 as highlighted in the table to the right.

<table>
<thead>
<tr>
<th>Cancer</th>
<th>Total Number of Surgeries Performed in PA</th>
<th>Number of PA Hospitals that Performed the Surgery</th>
<th>Hospitals that Performed Only One or Two of these Surgeries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bladder</td>
<td>1,073</td>
<td>109</td>
<td>43</td>
</tr>
<tr>
<td>Brain</td>
<td>1,173</td>
<td>44</td>
<td>9</td>
</tr>
<tr>
<td>Breast</td>
<td>11,549</td>
<td>137</td>
<td>10</td>
</tr>
<tr>
<td>Colon</td>
<td>5,652</td>
<td>142</td>
<td>13</td>
</tr>
<tr>
<td>Esophagus</td>
<td>359</td>
<td>42</td>
<td>18</td>
</tr>
<tr>
<td>Liver</td>
<td>589</td>
<td>35</td>
<td>15</td>
</tr>
<tr>
<td>Lung</td>
<td>2,410</td>
<td>77</td>
<td>9</td>
</tr>
<tr>
<td>Pancreas</td>
<td>520</td>
<td>30</td>
<td>8</td>
</tr>
<tr>
<td>Prostate</td>
<td>3,281</td>
<td>91</td>
<td>26</td>
</tr>
<tr>
<td>Rectum</td>
<td>901</td>
<td>89</td>
<td>27</td>
</tr>
<tr>
<td>Stomach</td>
<td>319</td>
<td>57</td>
<td>25</td>
</tr>
</tbody>
</table>
Hospital Performance Report in 2019

The Pennsylvania Health Care Cost Containment Council's (PHC4) Hospital Performance Report (HPR) displays volume and outcome information about 17 different medical conditions and surgical procedures for Pennsylvania general acute care hospitals. The HPR can assist consumers and purchasers in making more informed health care decisions. The report can also serve as an aid to providers in highlighting additional opportunities for quality improvement and cost containment. It should not be used in emergency situations.

The measures reported include the total number of cases for each condition, risk-adjusted mortality, risk-adjusted 30-day readmission, and case-mix-adjusted average hospital charge for each condition. A complex formula ensures that hospitals receive "extra credit" for treating more seriously ill patients.

Comparison of Mortality Rates 2013-2018

Comparing the FFY 2018 results with data from FFY 2013, the report shows significant decreases in statewide in-hospital mortality rates for 11 of the 16 conditions for which mortality ratings are reported—findings that translate to an estimated 5,632 lives saved in FFY 2018. Readmission rates fell in 12 of the 17 conditions for which readmission rates are reported, suggesting an estimated 3,990 readmissions avoided in these 12 treatment areas.
Pediatric and Congenital Heart Surgery Report

Initially published in 2015, the updated *Pediatric and Congenital Heart Surgery* report provides volume and risk-adjusted operative mortality data on pediatric and congenital heart surgeries performed in six children’s hospitals—five in Pennsylvania and one in Delaware—that volunteered to have their data publicly reported. Included are results for ten widely performed surgeries meant to help families make important treatment decisions. The report also shows the total number of operations performed by each hospital and separately reports outcomes for infants less than 31 days old. Data reported is for 2014-2017.

The report represents one of a few efforts at statewide public reporting on pediatric cardiac surgery outcomes—making Pennsylvania a national leader when it comes to improving the health outcomes for children with heart disease. Affecting nearly one out of every 100 infants in the United States, congenital heart defects are the most common birth defect and the leading cause of deaths related to birth defects.

In addition to data on the individual ten procedures, the report shows the total number of operations performed by each hospital—information that can be helpful in understanding a hospital’s overall experience with pediatric and congenital heart surgery.

Prepared in cooperation with:

- Alfred I. duPont Hospital for Children, Wilmington, DE
- Children’s Hospital of Philadelphia, Philadelphia, PA
- Children’s Hospital of Pittsburgh of UPMC, Pittsburgh, PA
- Geisinger Medical Center Children’s Hospital, Danville, PA
- Penn State Children’s Hospital, Hershey, PA
- St. Christopher’s Hospital for Children, Philadelphia, PA

Data Reported

The data for this report was collected and aggregated by the Society of Thoracic Surgeons (STS).

The report includes combined outcomes for the 4-year period 2014-2017, the most recent years of data available to PHC4.

Reporting results over a four-year period gives a more complete picture of a hospital’s experience over a longer time period.

Results will be updated as additional years of data become available to PHC4.
Measuring Costs in 2019

NEW - PHC4 Financial Reporting Brief

During 2019, PHC4 published *Hospital Admissions for Influenza and Associated Costs* which examines influenza related hospitalizations for Pennsylvania residents during fiscal year 2018. The number of admissions for influenza increased 62% between FY17 and FY18. The brief displays utilization trends, county rates and Medicare fee-for-service payment.

For Medicare patients aged 65 and older, hospital payments amounted to an estimated $34 million.

PHC4 Report - Financial Analysis 2018

This annually published, *Financial Analysis Report* is a three-volume series of reports that includes statewide data and facility-specific information about the financial health of Pennsylvania’s hospitals.

Volume One focuses on general acute care (GAC) hospitals. Volume Two, concentrates on ambulatory surgery centers (ASCs). Finally, Volume Three focuses on non-GAC hospitals, which include rehabilitation hospitals, psychiatric hospitals, long-term acute care hospitals, and specialty hospitals.
Pennsylvania Health Care Cost Containment Council
Joe Martin, Executive Director
225 Market Street, Suite 400, Harrisburg, PA 17101
Phone: 717-232-6787 • Fax: 717-232-3821
www.phc4.org

This report and other PHC4 publications are available online at www.phc4.org. Additional financial, hospitalization and ambulatory procedure health care data is available for purchase. For more information, contact PHC4’s Data Requests Unit at specialrequests@phc4.org or 717-232-6787.