

**PHC4**

**Pennsylvania Health Care Cost Containment Council  
ANNUAL REPORT 2005**

*Promoting Transparency  
to Improve Health Care  
Quality, Restrain Costs*



## A Joint Message from the Pennsylvania Chamber of Business and Industry and the Pennsylvania AFL-CIO

The need for credible, independent health care information has never been greater. In fact, as we take on new challenges in providing and paying for our health care system, its importance will only increase. To make informed health care decisions, Pennsylvania employers and families must have accurate and useful data upon which to base their choices.

Pennsylvania's business and organized labor communities are fortunate to be able to turn to PHC4 for data and analysis that makes thoughtful decision-making possible. PHC4 is a trusted partner with whom we work to address the ongoing challenge of restraining health care costs while improving the quality of care for our members. It is also an agency that is on the cutting-edge of public reporting and, therefore, serves a broader national audience.

In 2005, PHC4 strengthened its position as a national leader by reporting on the cost and quality impact of hospital-acquired infections on our health care system – no other state had done this before. It has helped focus attention on the need for paying for performance in the health care marketplace. It also continued its efforts to collect actual payment data from insurers, which, in the future, will enable health care purchasers to make more meaningful comparisons between what they pay for care and the related treatment results.

In the coming year, we stand ready to work with PHC4 and other key stakeholders in the quest to restrain costs and improve the quality of health care. By working together, exchanging ideas and sharing data, we can meet our common goal of providing employers and families with access to effective and affordable health care.



A handwritten signature in cursive script that reads "William George".

William M. George  
President  
PA AFL-CIO



A handwritten signature in cursive script that reads "Floyd Warner".

Floyd Warner  
President  
PA Chamber of Business and Industry

## A Letter from the Council Chair and the Executive Director

Dear Friends of the Council:

A common theme united the work of PHC4 in 2005: the quest for greater transparency in health care. This pursuit makes sense as increased transparency and the public reporting of high-quality health care information are inextricably linked. Through several groundbreaking initiatives, PHC4 took bold new steps to provide stakeholders with timely, accurate data that empowers thoughtful decision-making in the health care arena.

Pennsylvania made national headlines this year, becoming the first state in the nation to collect and publicly report about hospital-acquired infections. PHC4's landmark research brief, *Hospital-acquired Infections in Pennsylvania*, shed a spotlight on the patient safety and cost consequences of these infections. Through a follow-up brief, Pennsylvania also became the first state to put hard numbers around the actual payments made to hospitals. PHC4 showed that patients who contract a hospital-acquired infection cost third-party insurers seven times as much as patients without an infection. As a result of these reports, PHC4 was the only state-level entity invited to testify before Congress as the House Subcommittee on Oversight and Investigations took up this issue in March of 2006.

In addition to this seminal work, PHC4 broke ground in other efforts to provide the public with objective, comparative data. As no other state in the nation has produced a physician-specific report on any treatment category other than heart care, PHC4 delivered another first by releasing a report that examines the outcomes of total hip and knee replacement surgeries by hospitals and orthopaedic surgeons. We also retooled our existing Medicare HMO guide so older Pennsylvanians can make meaningful comparisons among the maze of plan options available under the new "Part D" prescription drug benefit.

To boost price transparency, PHC4 continued its efforts to collect third-party insurance payment data. One benefit of collecting and reporting what insurers actually pay for health care services is that it will assist health care purchasers and consumers in comparison shopping. When used with outcomes data, the payment data will also enable them to judge if they are paying for quality performance. Another equally important benefit is that the data will help those who negotiate for health care services, including purchasers and third-party insurers.

Enhancing health care quality and creating cost efficiencies through greater transparency and better information is PHC4's ultimate goal. As such, PHC4 is proud to serve as a valuable resource for all health care stakeholders – purchasers, providers, payors, policymakers and consumers – as they strive to make more informed health care decisions, leading to higher quality and lower costs. Working together, we can find solutions to today's most important health care problems, take meaningful action and create a desired health care future for all Pennsylvanians.



  
Catherine A. Gallagher  
Council Chair



  
Marc P. Volavka  
Executive Director

# The PHC4 Council

**T**he Pennsylvania Health Care Cost Containment Council (PHC4) is an independent state agency that exists to help improve the quality and restrain the cost of health care in Pennsylvania. Formed in 1986 under Pennsylvania statute, PHC4 was the result of more than three years of efforts by a coalition of business and organized labor leaders working together to pass market-oriented reforms. PHC4 fosters competition in the health care market through the collection, analysis and dissemination of health care data regarding cost and quality.



## Current PHC4 Council and Directors

Front row (l to r): Cherie Elias\*, Clifton W. Shannon, Leonard A. Boreski, Randall N. DiPalo, Catherine A. Gallagher, Marc P. Volavka, Henry Fader, Flossie Wolf\*. Second row: Jack Steinberg, Joseph Martin\*, David Wilderman, Dr. Paul N. Casale, Dr. Julie A. Sochalski, M. Diane Koken, Timothy Reigel\*. Third row: Cynthia J. Mazer, Dr. David B. Campbell, Stuart H. Fine, Dr. Donald Liss, David B. Acker.

Missing from photo: David Barendfeld, Thomas F. Duzak, Dr. Calvin B. Johnson, Janet Kail, Mary Ellen McMillen, Bernard K. Murray, Estelle B. Richman, and Francis S. Soistman.

\* PHC4 Department Director

# Council Members

## Executive Committee

Catherine A. Gallagher, Chair  
Lehigh Valley Business Conference on Health Care  
(Business)

Thomas F. Duzak, Vice-Chair  
United Steelworkers of America Health & Welfare Fund  
(Labor)

Randall N. DiPalo, Treasurer  
Plumbers & Pipefitters Union (Labor)

Bernard K. Murray, Immediate Past Chair  
Pennsylvania Federation of Teachers, Retired (Labor)

Leonard A. Boreski, Chair, Mandated Benefits Committee  
Pennsylvania Chamber of Business & Industry (Business)

Henry Fader, Esq., Chair, Education Committee  
Pepper Hamilton, LLP (Business)

Clifton W. Shannon, Chair, Data Systems Committee  
SMC Business Councils (Business)

## Other Council Members

David B. Acker  
Charles Cole Memorial Hospital (Hospitals)

David Barenfeld  
Ellwood Group (Business)

David B. Campbell, M.D.  
Milton S. Hershey Medical Center (Physicians)

Paul N. Casale, M.D.  
The Heart Group (Physicians)

Marc D. Edelman – Resigned December 2005  
Crozer-Chester Medical Center (Hospitals)

Stuart H. Fine - Appointed February 2006  
Grand View Hospital (Hospitals)

Calvin B. Johnson, M.D., MPH  
Secretary, Pennsylvania Department of Health  
(State Government)

Janet Kail  
AFSCME, Council 13 (Labor)

M. Diane Koken  
Commissioner, Pennsylvania Department of Insurance  
(State Government)

Donald Liss, M.D.  
Aetna (Commercial Insurers)

Cynthia J. Mazer  
Rohm & Haas (Business)

Mary Ellen McMillen  
Independence Blue Cross (Blue Cross/Blue Shield Plans)

Estelle B. Richman  
Secretary, Pennsylvania Department of Public Welfare  
(State Government)

Susan J. Simmons, Ph.D., RN - Resigned March 2006  
Pennsylvania State Nurses Association (Nurses)

Julie A. Sochalski, Ph.D., RN - Appointed April 2006  
University of Pennsylvania School of Nursing (Nurses)

Francis S. Soistman, Jr.  
Coventry Health Care, Inc. (Health Maintenance  
Organizations)

Jack Steinberg  
Philadelphia Federation of Teachers (Labor)

David Wilderman  
Pennsylvania AFL-CIO, Retired (Labor)

## Executive Director

Marc P. Volavka

# Raising Awareness about Hospital-acquired Infections

The focus on hospital-acquired infections as a major patient safety issue took center stage in 2005. Thanks to PHC4's groundbreaking efforts, Pennsylvania became the first state in the nation to report on the incredible burden of hospital-acquired infections. Through its public reporting, PHC4 is raising awareness about both the extent of this problem and the effectiveness of solutions implemented.

## Important Quality, Financial Implications

In July 2005, PHC4 issued its first research brief on hospital-acquired infections – which, in addition to making national headlines, raised significant quality of care and cost concerns. According to the brief, Pennsylvania hospitals submitted and confirmed 11,668 hospital-acquired infections in 2004. The hospital admissions in which these infections occurred were associated with 1,793 deaths, 205,000 extra days of hospitalization and \$2 billion in additional hospital charges.

These figures reflect the first full year of data collected. Beginning January 1, 2004, hospitals were

required to submit data on the following infection categories:

1. **Surgical site infections** for orthopedic surgery, neurosurgery and surgery related to the circulatory system.
2. **All device-related infections** for:
  - Central line-associated bloodstream infections
  - Ventilator-associated pneumonia
  - Indwelling catheter-associated urinary tract infections

As of January 1, 2006, hospitals are required to submit data on all hospital-acquired infections to PHC4.

Hospital-infections analysis a first



Bill Garreth interviews Executive Director Marc P. Volavka about PHC4's groundbreaking report on hospital-acquired infections on CNBC's "On The Money."



Marc Volavka speaking to Anita Brikman of WPVI-TV ABC News about hospital-acquired infections.

## The Business Case

PHC4 followed up the first brief with a second report that looked at the business case for reducing hospital-acquired infections. It revealed the financial toll of these potentially preventable infections:

- Private-sector commercial insurers, where the health care bills are paid primarily by businesses and labor unions that provide health insurance, were billed for almost 23 percent (2,633) of the 11,668 hospitalizations in which the reported hospital-acquired infections occurred. Compared to hospitals stays without such infections, these hospitalizations were associated with an additional \$604 million in hospital charges.
- In 2004, the federal Medicare program and Pennsylvania’s Medicaid program were billed for 76 percent (8,898) of the hospitalizations in which the reported hospital-acquired infections occurred. The hospital admissions in which these infections occurred were associated with \$1 billion in additional hospital charges for Medicare patients and \$372 million in additional hospital charges for Medicaid patients.

Average Hospital Charges for Commercially Insured Patients	
With Infections.....	\$257,706
Without Infections.....	\$28,375

## Infection Reduction Initiatives

While the collection of data on hospital-acquired infections is a necessary first step, the ultimate goal is to provide those who work in infection control with the tools they need to identify areas of improvement. For this reason, PHC4 began working on two major collaborative initiatives that emphasize infection reduction in 2005.

PHC4 and the Jewish Healthcare Foundation issued grants to five Pennsylvania hospitals for demonstration

### Hospitals to receive grants to study infections



Emily McCracken, MPH, Director of Infection Control, Hamot Health System, and Dr. Thomas McGill, Vice President of Quality and Safety, Butler Health System, discuss the use of MedMined software to track and prevent hospital-acquired infections in their hospitals.

projects to quantify the costs, and to reduce the number, of hospital-acquired infections. The five grantees are Charles Cole Memorial Hospital, Hamot Medical Center, Holy Spirit Hospital, Lehigh Valley Hospital and Health Network, and Thomas Jefferson University Hospital. These hospitals were selected to duplicate the groundbreaking work pioneered by Dr. Rick Shannon and the staff at Allegheny General Hospital in an effort to reduce to near zero the number of infections in their critical care units.

PHC4 also is working on a pilot program to determine new methods for hospitals to more easily, and more accurately, collect and report hospital-acquired infections. PHC4 is partnering with Pennsylvania hospitals, the Highmark Foundation, and MedMined on this initiative, which will give hospitals the needed technologies to track and proactively prevent hospital-acquired infections. The new grant project will provide funding to hospitals interested in utilizing MedMined’s Data Mining Surveillance tool. This product is currently used at over 150 hospitals nationwide and has been shown to help significantly reduce hospital-acquired infections, improve patient safety, and lower health care costs.

# Engaging Stakeholders through Public Reporting

In 2005, PHC4 continued to spur greater transparency by providing the public with objective, comparative data about the health care delivery system in Pennsylvania. The following public reports were released during the year:

## Total Hip and Knee Replacements

Developed in response to the growing number of total hip and knee replacements over the past ten years, this new report examines the outcomes of these surgeries by Pennsylvania hospitals and orthopaedic surgeons. *Total Hip and Knee Replacements* is another first for PHC4 – as no other state in the nation has produced a physician-specific report on any treatment category other than heart care. The report noted that, between 1993 and 2002, the number of knee replacements increased by 70.1 percent, and the number of total hip replacements increased by 48.6 percent. It also found that readmissions due to complications following these surgeries continue to present major opportunities for quality improvement and cost containment.

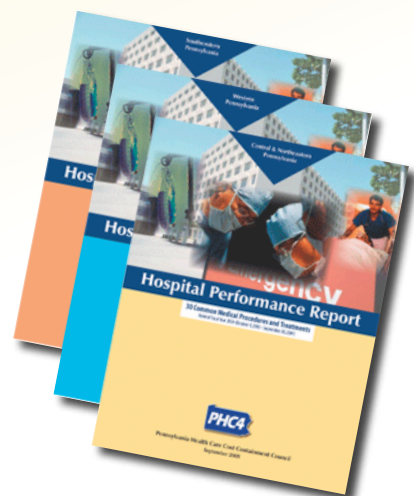
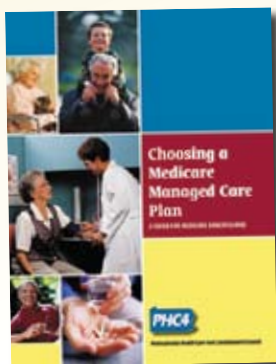
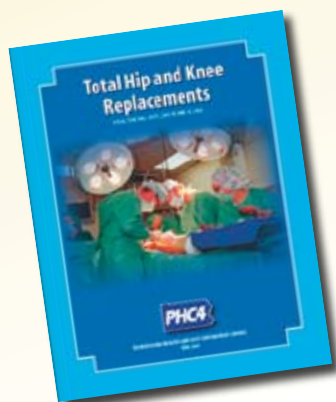
## Choosing a Medicare Managed Care Plan

For the fifth consecutive year, PHC4 produced this guide to help explain the Medicare Managed Care Plan options available to older Pennsylvanians. New to this year's report was information about the Medicare "Part

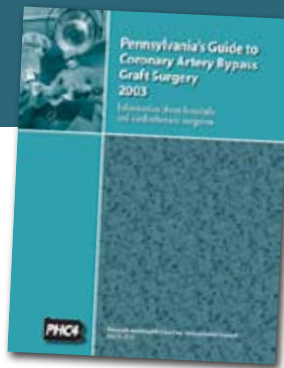
D" Prescription Drug Program and county-specific information about the drug plans being offered. PHC4 retooled the publication so older Pennsylvanians could make meaningful comparisons among the multitude of plan options available – and, in the process, turned the already popular guide into the most consumer-requested report in PHC4 history.

## Hospital Performance Report

As PHC4's flagship publication, this report assists consumers and purchasers in making more informed health care decisions and offers guidance to providers by highlighting opportunities for quality improvement. It details mortality rates, readmission rates, length of stay, and hospital charges for numerous medical procedures and treatments that are commonly performed at Pennsylvania hospitals. To provide the most up-to-date data possible, both an annual printed version and Web-based quarterly updates are published. This year's report showed that while patient mortality rates continue to decline, increasing readmissions rates due to complications and infections present ongoing challenges.







## Hospital Financial Analysis

Three of the reports PHC4 releases annually are part of the Hospital Financial Analysis series, which examines financial measures specific to all hospitals and surgery centers in Pennsylvania. *Volume One* provides a comprehensive profile of the financial health of Pennsylvania's general acute care (GAC) hospitals, and is preceded every year by a statewide preview summary. *Volume Two* looks at the financial status of non-GAC hospitals (rehabilitation, long-term acute, psychiatric and specialty), as well as ambulatory surgery centers.

## Pennsylvania's Guide to Coronary Artery Bypass Graft Surgery

This report examines the results of coronary artery bypass graft (CABG) surgeries performed in Pennsylvania by both hospitals and surgeons. It includes hospital charges and outcomes on mortality, readmissions and length of stay. According to this year's report, mortality rates continue at low levels for patients experiencing CABG surgery, but infections remain the top cause of readmissions. PHC4 staff is currently working to update future reports featuring CABG information to include other types of open-heart procedures.

Hospital	Total Cases	Mortality Rate			Readmission Rate			Average Charges
		30-Day	90-Day	180-Day	7-Day	30-Day	90-Day	
Allegheny Memorial	53	0.0	0.0	0.0	7.7	106,176		
Allegheny-Singer	133	0.0	0.0	0.0	6.9	118,891		
Allegheny General	411	0.0	0.0	0.0	7.2	116,527		
Allegheny	108	0.0	0.0	0.0	6.8	101,991		
Allegheny West Penn	14	0.0	0.0	0.0	5.9	101,171		
Allegheny	71	0.0	0.0	0.0	6.9	110,218		
Allegheny	215	0.0	0.0	0.0	5.7	104,461		
Allegheny	81	0.0	0.0	0.0	6.7	104,638		
Allegheny	58	0.0	0.0	0.0	5.9	104,410		
Allegheny	203	0.0	0.0	0.0	4.9	101,090		
Allegheny	16	0.0	0.0	0.0	5.9	105,008		
Allegheny	146	0.0	0.0	0.0	6.8	117,759		
Allegheny	104	0.0	0.0	0.0	4.4	101,891		
Allegheny	102	0.0	0.0	0.0	6.8	110,697		

## Diabetes Hospitalization Report

Despite advances in education, detection and disease management efforts, diabetes continues to be an enormous public health concern across the Commonwealth. This report highlights the hospital admission rates for this disease, compares rates by county, and details various complications. New to this year's version was a snapshot of multiple hospitalizations for diabetes, which are both common and costly.

## Measuring the Quality of Pennsylvania's Commercial HMOs

This annual series of reports examines the quality of care that HMOs in Pennsylvania provide. The most recent report includes data from calendar year 2003 and combines clinical results, preventive measures and member satisfaction information to give purchasers, policymakers and consumers a more complete picture of how well HMOs serve their members. It revealed that while Pennsylvania HMOs rate high on providing preventive services to their members, significant increases in HMO hospitalization rates for asthma, urinary tract infections, and ear, nose and throat infections represent areas for quality improvement. To complement the printed version of this report, PHC4 has also developed an interactive database that contains more detailed information and allows users to customize and trend PHC4's commercial HMO data for their own needs.



## Research Briefs

PHC4's Research Briefs are periodic Web-based publications that examine health care topics relevant to public policy and public interest. In addition to the two nationally acclaimed briefs on hospital-acquired infections, PHC4 released three others in 2005:

- *Hospitalizations for Depression in Pennsylvania*
- *Firearm-related Injuries in Pennsylvania*
- *Hospital Malpractice Expenses*

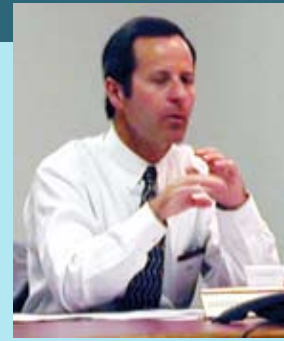
## PHC4 FYI

PHC4 *FYI* is a series of white papers about topics of interest to health care purchasers. More than 30 *FYIs* have been released since the publication's inception in 2001. Health savings accounts, how employers are encouraging healthy behaviors among their employees, and the consequences of the growing uninsured/underinsured population were among the topics covered in 2005.

## Our Web Site

More people are accessing PHC4's information through the Web site. In 2005, there were 3,917,549 Web hits, 322,796 downloaded documents, and 273,783 visitor sessions.

**Copies of all reports are free and are available on the PHC4 Web site at [www.phc4.org](http://www.phc4.org) or by calling PHC4 at 717-232-6787.**



Dr. David B. Nash chairs the Technical Advisory Group.

## The Technical Advisory Group

The Technical Advisory Group (TAG), comprised of physicians, researchers and biostatisticians, provides expert independent advice to PHC4 on technical issues, such as research design and report methodology.

David B. Nash, M.D., MBA, Chair  
Chairman, Department of Health Policy  
Thomas Jefferson University Hospital

Joseph G. Cacchione, M.D., FACC  
Saint Vincent Health Center  
Consultants in Cardiovascular Diseases, Inc.

Paul N. Casale, M.D., FACC  
The Heart Group

George R. Green, M.D.  
Physician-in-Chief, Division of Allergy & Immunology  
Department of Medicine, Abington Memorial Hospital

Judith R. Lave, Ph.D.  
Professor and Chair, Health Policy & Management  
Graduate School of Public Health, University of Pittsburgh

Lynn G. Leighton  
Vice President, Professional & Clinical Services  
Hospital & Healthsystem Association of Pennsylvania

Richard P. Shannon, M.D.  
Chairman, Department of Medicine  
Allegheny General Hospital

Russell F. Stahl, M.D., FACS  
Cardiothoracic Surgery, LLC

Eugene Sun, M.D., MBA  
Vice President, Medical Affairs  
Health America/Health Assurance

Craig B. Wisman, M.D., MMM  
Vice President for Medical Affairs, Pinnacle Health System

Timothy C. Zeddies, Ph.D.  
Senior Director, Research & Evaluation  
Independence Blue Cross

Many thanks for the service of TAG members who resigned during 2005:

John R. Combes, M.D.  
Hospital and Healthsystem Association of Pennsylvania

Donald Fetterolf, M.D., MBA  
Formerly of Highmark, Inc.,  
currently of Matria Healthcare, Inc.

# Meeting the Need for Actionable Data

**W**ith the move toward consumer-directed health plans, there is a growing need for unbiased health care data and information. In 2005, PHC4 staff participated in more than 60 public events and initiatives across the state and nation, bringing credible health care information to public officials, health care providers, insurers, researchers, benefits purchasers, and consumers.

## Purchasers

Health care quality and affordability are top concerns of the Pennsylvania purchaser community. As such, purchasers frequently request opportunities to get together with PHC4 for the purpose of sharing data and information about various health care topics.

One type of purchaser outreach is networking meetings. In 2005, the Lehigh Valley Business Conference on Health Care (LVBCHC), the Lehigh Valley Labor-Management Council, the Pennsylvania Chamber of Commerce, and the Pennsylvania AFL-CIO teamed with PHC4 to co-sponsor a health care meeting in the Lehigh Valley. The meeting's topic was "Pay for Performance." Joining speakers from PHC4 were presenters from General Electric Corporation, the Philadelphia Police Officers Health Benefits Trust Fund, and B. Braun, Inc.

PHC4 has expanded its network of purchaser contacts through another outreach effort begun in 2005. This initiative involves one-on-one contact with fund administrators who represent tens of thousands of members and, in at least one instance, millions of covered lives. It also entails outreach to business managers, health and welfare fund trustees and other human resources and human services personnel. These contacts emphasize the opportunity to utilize PHC4's powerful database in contract negotiations, and to distribute public reports to employees, members, consumers and benefit purchasers. Furthermore, purchasers are encouraged to link PHC4's Web site to their own sites.

PHC4 staff also interacted with local Chambers of Commerce, employer trade groups, and union retiree groups and exhibited at the Lehigh Valley Business Conference on Health Care's 25<sup>th</sup> Anniversary Meeting.



Above: AFL-CIO President Bill George and Council members Tom Duzak (USWA) and David Wilderman (AFL-CIO) listen to a presentation on Pay for Performance, the topic of a meeting for purchasers in the Lehigh Valley. Speakers included Tom Lamb, Law Enforcement Health Benefits (left) and Beth Hallgren, General Electric Transportation (right).



## Legislative Initiatives and Other Government Officials

PHC4 had the opportunity to present and exhibit information and to distribute its public reports at health care conferences sponsored by the Governor, other elected officials and government agencies.

Local and state agencies, including school districts and Area Agencies on Aging, learned about PHC4. PHC4 participated in education workshops for labor-management health care committees formed by the Federal Mediation and Conciliation Services. These committees address the challenges of health care quality and cost on a year-round basis, not just at the bargaining table. PHC4 will be an independent resource of health care information to the committees. PHC4 Research Briefs and PHC4 *FYI* papers were distributed to legislators and their staff, the Governor's Office and Executive Branch staff, and health care purchasers.



## Other Stakeholders

Presentations were also given to audiences of health care coalitions, senior citizen associations, labor-management councils and several non-profit organizations, including the new Pennsylvania eHealth Initiative. PHC4 even had international visitors from South Korea.

Medicare Part D was on the mind of many senior citizens and their families this year. PHC4 filled the information gap by publishing *Choosing a Medicare Managed Care Plan—A Guide for Medicare Beneficiaries*. Requests for the guide flooded the agency—more than 1,000 in the first few days alone—the largest consumer response to any PHC4 report. This guide, along with other PHC4 publications, was distributed at senior citizen expos and Area Agencies on Aging, where the PHC4 traveling exhibit was displayed.

## Mandated Benefits Reviews

As part of its enabling legislation, PHC4 is required to review and make recommendations about current law or proposed legislation that calls for mandating certain health insurance benefits. These analyses – known as Mandated Benefits Reviews – can be requested by the Secretary of Health or certain legislative leaders and provide the General Assembly with an independent assessment of the need for and costs associated with mandating an insurance benefit.

In 2005, PHC4 completed a review of House Bill 350 that would have required health insurance policies to provide coverage for hearing aids. Ultimately, PHC4 did not find sufficient evidence to support this legislation in its present form – based on information submitted by both proponents and opponents and a preliminary cost benefit analysis. A review of House Resolution 400, which calls for mandating coverage for the diagnosis and treatment of infertility, was also initiated this year; however, a final recommendation will not be made until 2006.

## PHC4 Executive Director Named to Chair National Data Organization

Marc P. Volavka, PHC4’s Executive Director, was elected Chairman of the Board at the 20<sup>th</sup> Annual Meeting of the National Association of Health Data Organizations (NAHDO) held in Washington, D.C. on December 5-6, 2005. His term is for one year. NAHDO is a national, not-for-profit membership organization dedicated to improving health care through the collection, analysis, dissemination, public availability, and use of health data.



PHC4 Executive Director Marc Volavka (right) was elected Chairman of the Board of the National Association of Health Data Organizations (NAHDO) in December of 2005. With him is NAHDO’s Executive Director Denise Love.

## 2005 Speaking Engagements by Marc P. Volavka, Executive Director

Date	Event	Title of Presentation
January 25	AFL-CIO Biennial Legislative Conference	Health Care Panel participant
February 16	Lehigh Valley Business Conference on Health Care (LVBCHC)	We’re Not in Kansas Anymore: Reducing Hospital-acquired Infections in the Land of Oz.
March 7	Harrisburg Rotary Club	PHC4: Yesterday, Today and Tomorrow
April 15	The National Conference of State Legislators (NCSL) - Health Committee	Patient Safety and Hospital-acquired Infections
June 16	PHC4 Purchaser Meeting	We’re Not in Kansas Anymore: Reducing Hospital-acquired Infections in the Land of Oz.
July 26	Pennsylvania eHealth Technology Summit	PHC4 Overview
August 8	The National Association of State Health Policy (NASHP)	Emerging Issues in Quality: Addressing Hospital-acquired Infections
October 20	The California Association of Health Plans (CAHP)	Being Part of the Solution: Transparency for Purchasers and Consumers – A Threat or an Opportunity?
December 5	The National Association of Health Data Organizations (NAHDO)	We’re Not in Kansas Anymore: Reducing Hospital-acquired Infections in the Land of Oz.

# Helping to Turn Data into Knowledge

**P**HC4 collects millions of inpatient and ambulatory/outpatient records each year from hospitals and freestanding ambulatory surgery centers in Pennsylvania. Businesses, organizations and individuals can purchase data from PHC4 through special data requests.

## Special Requests for Data and Customized Reports

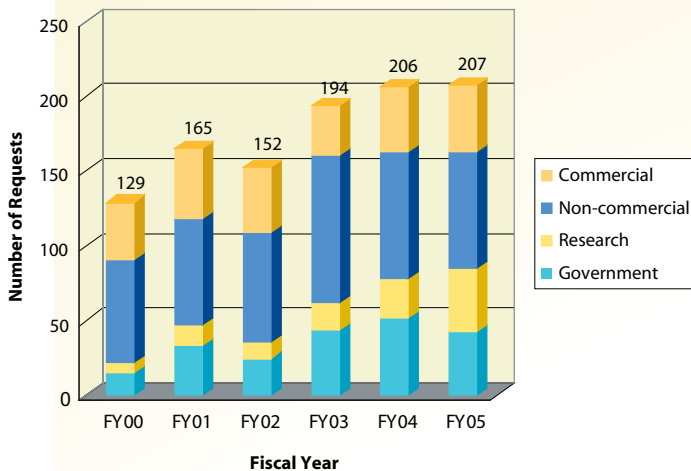
In fiscal year 2004/2005, PHC4 completed 207 requests for customized reports and datasets through its Special Requests Unit. This service generated total revenue of nearly \$720,000. Forty-three of these requests were filled for sister state agencies, for which there was no charge.

PHC4 special requests clients use this customized data to answer questions about the health care delivered in both Pennsylvania hospitals and ambulatory/outpatient facilities. This data is being used to assess the impact of public reporting on specific quality indicators; to identify ways to improve the delivery of health-related services; to study the impact of regulatory changes; and to examine the incidence of particular diseases/conditions. Clients include commercial, non-

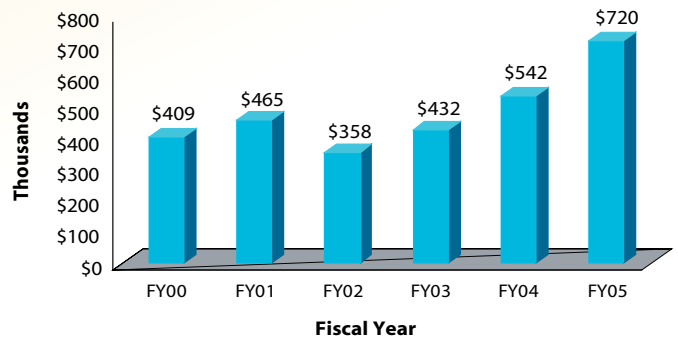
commercial, researcher, and government customers.

There has been a growing use of PHC4 data in national research projects. Several of these research projects focus on the relationship between nurse staffing and quality of care. For example, one nationally renowned study that employed Special Requests data was conducted by Dr. Linda H. Aiken of the University of Pennsylvania, who reported a correlation between nursing shortages and higher mortality and complication rates in hospitals. Similarly, Dr. Lynn Unruh, currently of the University of Central Florida, utilized PHC4 data to examine the relationship of licensed nursing staff with the incidence of patient adverse events in hospitals. Dr. Jack Needleman of the Harvard School of Public Health requested PHC4 data for another research project on nurse staffing as it relates to quality of care.

**Special Requests by Client Classification**



**Special Requests Revenue**



### A partial list of other research clients for whom PHC4 completed special data requests in 2005:

- ◆ Harvard University: for a research project to evaluate the manner in which new CABG surgery providers entered the market after 1996 and the subsequent effect on market outcomes.
- ◆ Penn State College of Medicine: to study the potential impact of Center of Excellence designation on bariatric surgery.
- ◆ RAND-University of Pittsburgh Health Institute: to develop a quality improvement intervention for reducing re-hospitalizations for depression in Allegheny County, without increasing length of hospital stay.
- ◆ The Wharton School of the University of Pennsylvania: for a trend analysis of payor mix across hospital systems in Philadelphia during the late 1990s.
- ◆ University of Pennsylvania: 1) a custom linkage of Pennsylvania cancer registry data to PHC4 data to construct risk-adjusted odds of death and failure to rescue for hospitalized cancer patients in Pennsylvania; 2) for a pilot research project to examine trends in the use of cardiovascular procedures in Pennsylvania.
- ◆ University of Pennsylvania School of Medicine: for a continuing research study on reducing medication errors among the elderly.
- ◆ University of Pittsburgh Department of Epidemiology: to study the forensic epidemiology of bariatric surgery in Pennsylvania.
- ◆ University of Pittsburgh School of Medicine: to model the relationship between daily air pollution levels and cardiopulmonary health outcomes in Allegheny County.

### What PHC4 Data Clients Are Saying

"Since 1998, the Lehigh Valley Business Conference on Health Care (LVBCHC) has relied on PHC4's custom reports to help us measure hospital quality and charges. LVBCHC also uses region-specific reports from PHC4 to facilitate discussions with providers on such issues as misadventures and hospital-acquired infections. In Pennsylvania, we are fortunate to have this rich data resource at our disposal."

*Bob Johnston, East Penn Manufacturing  
Lehigh Valley Business Conference on Health Care  
Quality Committee Chair*

"PHC4 is a vital resource for patient safety and quality research. The quality of the PHC4 database permits rigorous scientific inquiry on a wide array of health care concerns that can inform clinical and policy decision-making in Pennsylvania and nationally. The Special Requests Unit makes it possible to fully exploit the potential of PHC4 to answer important questions in health care safety, quality, and costs by providing researchers the opportunity to link discharge data with vital statistics and other data sources."

*Linda H. Aiken, Ph.D., FAAN, FRCN, RN, Director  
Center for Health Outcomes and Policy Research  
University of Pennsylvania*

"Lehigh Valley Hospital relies extensively on the data provided by PHC4. As a data source, it is incredibly rich and provides a tremendous opportunity to look at the health care market from a variety of perspectives. From a clinical point of view, we can use the data to analyze incidence rates for varying conditions and procedures to incorporate in our overall planning process. As an industry, we are extremely fortunate to have access to the resources provided by PHC4."

*David Zimmerman, MPH, Director  
Marketing Research and Analysis  
Lehigh Valley Hospital*

"Solucient has purchased data from PHC4 for many years. The data are invaluable in our helping clients improve both their clinical and financial performance while allocating their resources more effectively. Solucient is proud of its partnership with PHC4 as both organizations work to improve the delivery of healthcare throughout the state and the country."

*Carol E. Smith, Data Steward  
Solucient*



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