

2017–2018

Blueprint for **QUALITY**
& **PATIENT SAFETY**



LEADERSHIP

INTRODUCTIONS



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CHIEF EXECUTIVE OFFICER



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Penn Medicine is pleased to present its 2017-2018 Quality and Patient Safety Report. This project showcases our tremendous efforts to deliver outstanding patient care and highlights many new and exciting initiatives that strengthen this work across our growing health system.



Our efforts have yielded fresh and instructive insights for patient safety initiatives at Penn Medicine, especially related to reducing readmissions. These efforts across Penn Medicine have been a key driver of the overall reduction of 30-day preventable readmissions by 7 percent. Additionally, our innovative partnership with Independence Blue Cross has led to an unprecedented 30 percent reduction in this population.

At the same time, our observed-to-expected mortality index fell by more than 20 percent. New programs identify and assist at-risk patients; provide real-time dashboards to help clinicians reduce and eliminate preventable complications, readmissions, and deaths; and ensure that our patients receive the right care in the right place at the right time.

Our dedication is reflected in patients' perception of their experiences at Penn Medicine. Over the past three fiscal years, patient satisfaction scores rose by 17 and 40 percentile points among inpatient and ambulatory care patients respectively. Physician and advanced practice care provider ratings averaged 4.8 out of 5 stars in 156,000 surveys.

These indicators come in tandem with ongoing national recognition, including continued Magnet designations for nursing excellence and the combined Hospital of the University of Pennsylvania-Penn Presbyterian Medical

Center (HUP-PPMC) ranking on the "Best Hospitals" Honor Roll in U.S. News and World Report. The magazine also named HUP-PPMC the #1 hospital in the Philadelphia region and the state. The four other Penn Medicine hospitals received regional and state honors as well. We were also ranked #6 among large employers in Forbes magazine's annual "Best Employers in America."

In addition to our work to improve health regionally, we're also paving a path for better health for individuals across the nation. For instance, we have been at the forefront of the effort to address the growing opioid epidemic crisis, providing clinical expertise and novel strategies at the regional and national levels. We're proud that a series of system-wide innovations, including education on alternative analgesics and electronic health record "nudges" for clinicians, cut doses for opioids by 18 percent this year.

Our commitment to delivering a superb patient experience ensures that our patients understand their treatment options and adhere to their plans of care. It also strengthens our reputation as an engaged community member. The stories and data highlighted in this report -- and many more we didn't have room to include -- represent the collective achievements of every staff member at Penn Medicine. We thank our staff for their commitment to providing the safest, highest-quality care to our patients.

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ALLIANCE

CHIEF MEDICAL OFFICERS & CHIEF NURSING OFFICERS

The Chief Medical Officers (CMOs) and Chief Nursing Officers (CNOs) from all five hospitals, homecare, hospice, rehabilitation, home infusion, and physician practices, participate in a working alliance called the CMO/CNO Alliance. The group meets monthly to integrate and drive system-wide efforts in support of the Blueprint for Quality and Patient Safety. The CMO/CNO Alliance members are listed below alphabetically.

PJ Brennan, MD (Chair)

Chief Medical Officer, Senior Vice President
University of Pennsylvania Health System

James Ballinghoff, MSN, MBA, RN, NEA-BC

Chief Nursing Officer
Associate Executive Director
Penn Presbyterian Medical Center

Franklin Caldera, DO

Chief Medical Officer
Penn Medicine at Rittenhouse, Penn Institute for Rehabilitation Medicine

Angela R. Coladonato, DNP, RN, NEA-BC

Chief Nursing Officer, Senior Vice President
Chester County Hospital

Regina Cunningham, PhD, RN, NEA-BC, FAAN

Chief Nurse Executive, University of Pennsylvania Health System
Chief Executive Officer, Hospital of the University of Pennsylvania

Richard Donze, DO, MPH

Chief Medical Officer
Senior Vice President for Medical Affairs
Chester County Hospital

Lee M. Duke, II, M.D.

Chief Physician Executive and Chief Medical Officer
Senior Vice President
Lancaster General Health

Daniel M. Feinberg, MD

Chief Medical Officer
Pennsylvania Hospital

Neil O. Fishman, MD

Chief Medical Officer
Hospital of the University of Pennsylvania

Kevin M. Fosnocht, MD

Chief Medical Officer, Associate Executive Director
Penn Presbyterian Medical Center

Michael A. Grippi, MD

Chief Medical Officer
Good Shepherd Penn Partners Specialty Hospital at Rittenhouse

C. William Hanson, III, MD

Chief Medical Information Officer
University of Pennsylvania Health System

Monica A. Heuer, MPP, MBA

Director, Change Management
Penn Medicine Academy

David A. Horowitz, MD

Chief Medical Officer
Clinical Practices of the University of Pennsylvania

Sandra G. Jost, MS, RN

Chief Nursing Officer, Associate Executive Director
Home Care and Hospice Services

Nina O'Connor, MD

Chief, Hospice and Palliative Care
Chief Medical Officer, Penn Wissahickon Hospice
University of Pennsylvania Health System

Charles F. Orellana, MD

Chief Medical Officer
Clinical Care Associates

Karen Pinsky, MD

Chief Quality and Medical Information Officer
Chester County Hospital

Michael A. Posencheg, MD

Associate Chief Medical Officer, Value Improvement
University of Pennsylvania Health System

Barbara Prior, MSN, NE-BC

Associate Executive Director, Clinical Operations
Clinical Practices of the University of Pennsylvania

Michael Restuccia, MBA

Senior Vice President, Chief Information Officer
University of Pennsylvania Health System

Lanyce Roldan, MSN, RN

Chief Nursing Executive, Senior Vice President
Lancaster General Health

Jean Romano, MSN, RN, NE-BC

Chief Nursing Officer
Penn Medicine at Rittenhouse, Good Shepherd Penn Partners

Patricia G. Sullivan, PhD

Chief Quality Officer
University of Pennsylvania Health System

Marissa Wilck, MD

Chief Medical Officer, Penn Home Infusion
University of Pennsylvania Health System

Austin Williams, MS

Chief Operating Officer
Office of the Chief Medical Officer
University of Pennsylvania Health System

BLUEPRINT FOR QUALITY & PATIENT SAFETY

Since 2007, the Blueprint for Quality and Patient Safety has served as the framework for Penn Medicine's efforts to improve quality, patient safety and patient experience.

The third and current version of the Blueprint sets system-wide goals to **IMPROVE HEALTH AND ASSURE SAFE CARE** for all patients receiving care across the Penn Medicine continuum of care.

Penn Medicine has established three imperatives to help our operating units and practices implement specific strategies to achieve the goals of improving health and assuring safe care. These imperatives are Engagement, Continuity and Value.

ENGAGEMENT

Achieving the ambitious goals of the Blueprint requires engaged staff, patients, and families. Engagement requires motivated and involved staff working in partnership with patients and families to activate health behaviors that support health improvement and safe care. Unit Based Clinical Leadership teams (UBCLs), clinical effectiveness teams, and similar frontline clinical leadership across the continuum are integral to achieving this imperative.

CONTINUITY

Transitions in care and coordination of care have been important components of the Blueprint since its inception. Keeping patients out of the hospital requires the delivery of seamlessly coordinated care across all settings and service lines.

VALUE

Patients and families, insurers, employers, and others are placing increasing emphasis on value-based care. For Penn Medicine, this means providing high-quality and safe care, free of preventable complications and readmissions at a lower cost. At its essence, value-based care entails providing the right care at the right time in the right place.





BLUEPRINT

FOR QUALITY & PATIENT SAFETY

ENGAGEMENT

INVOLVE FACULTY AND STAFF AS PARTNERS WITH PATIENTS AND FAMILIES TO ACHIEVE GOALS OF CARE.

- Spread and dissemination of best practices
- Support Disease Team alignment
- Strengthen culture of safety

CONTINUITY

DELIVER SEAMLESSLY COORDINATED CARE ACROSS ALL SETTINGS AND SERVICE LINES.

- Improve patient handoffs
- Reduce readmission rates
- Improve patient progression and access
- Enhance recovery after surgery

VALUE

PROVIDE HIGH-QUALITY, EFFICIENT CARE AND THE BEST OUTCOMES FOR ALL PATIENTS.

- Support Lower Cost of Care Initiative
- Drive length of stay Initiatives
- Improve intensive care unit (ICU) value
- Expand access to end-of-life care
- Reduce/eliminate hospital acquired conditions or infections penalties

FOUNDATIONAL ELEMENTS OF THE BLUEPRINT



DIVERSITY



SERVICE
EXCELLENCE



ACCOUNTABILITY



PATIENT & FAMILY
CENTEREDNESS

The intent of the Blueprint is to provide the entities with a strategic and customizable roadmap to achieve our overall quality and patient safety goals.

This approach gives the entities the flexibility to develop actions which are specific to their environment and specific patient population.

The organization made significant investments over the last 10 years and the alliance of the Chief Medical Officers and Chief Nursing Officers continue to focus on building on our four foundational elements.

FY18

PENN MEDICINE TEAM GOALS

“ We have established very consistent Penn Medicine Team Goals for Quality for more than a decade. That focus has enabled us to achieve and sustain great outcomes for our patients.” — PJ BRENNAN, MD, Chief Medical Officer, Senior Vice President

Setting shared team goals across Penn Medicine has been an important part of the Blue Print for Quality. The quality metrics selected every year by system and entity leadership help with establishing cascading goals which translate from department goals to the frontline staff. They are used to prioritize activities across the continuum and within the medical, clinical and support services teams.

KEEPING PATIENTS HOME

A number of substantive initiatives have decreased unplanned readmissions system-wide

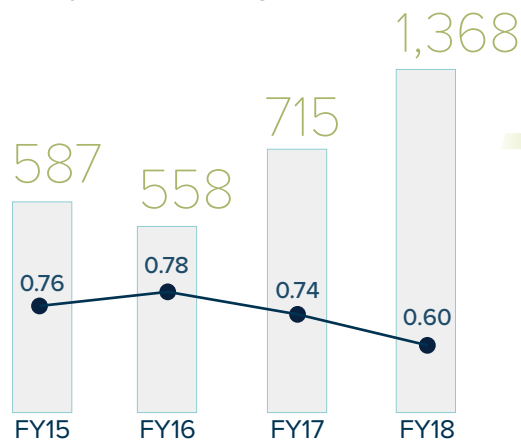
UNPLANNED READMISSIONS

7.0%

4.6%	6.1%
CCH	PAH
8.4%	16.4%
HUP	PPMC
1.8%	
LGH	

REDUCING MORTALITY & SAVING LIVES

3,228 lives saved over the most recent four years. These were patients who were not expected to live based on their acuity but were discharged alive.



THE RISK ADJUSTED MORTALITY RATIO OF OBSERVED TO EXPECTED DECREASED BY

21%





HOSPITAL ACQUIRED INFECTIONS

The Penn Medicine team has made good strides in reducing infections. A composite of Central Line, Urinary Catheter, Surgical Site, Clostridium difficile and Methicillin-resistant Staphylococcus aureus infections are closely monitored throughout the in-patient units. The past year brought some challenges with performance, however, the prior two years had significant decreases leading to an overall reduction of 14% over the last 3 fiscal years.

PATIENT SATISFACTION SCORES

'Likelihood to Recommend a Practice' and 'Rate this Hospital' have improved over the past 3 years

AMBULATORY SCORES



INPATIENT SCORES



“

“Patient Experience and Patient Safety are integrally linked: A positive patient experience drives better patient engagement and ultimately better outcomes.” — PATRICIA GARCIA SULLIVAN, PHD, Chief Quality Officer

Achieving the ambitious goals of the Blueprint requires engaged staff, patients, and families. Engagement requires motivated and involved staff working in partnership with patients and families to activate health behaviors that support health improvement and safe care.

A photograph of three healthcare professionals in a hallway. On the left, a woman in dark scrubs holds a clipboard. In the center, a woman in a white lab coat has her hand on the shoulder of a woman in a white lab coat on the right. The word 'ENGAGEMENT' is overlaid in large, bold, yellow capital letters across the center of the image.

ENGAGEMENT

CHARTING A PATH TOWARD

HEALTH EQUITY & INCLUSION

“We envision a health system where every diverse voice is heard, where every unique perspective is considered. Promoting an inclusive culture benefits not only those that work, train, and study within our health system, but also those who seek care here. When we value each other it enhances our ability to care for our patients” — **JAYA AYSOLA MD, DTMH, MPH**, Executive Director, The Penn Medicine Health Equity Initiative

Despite well-intentioned providers and advancement in medicine, health care and health disparities persist today. While disparities are often viewed through the lens of race and ethnicity, they can occur across many dimensions including socioeconomic status, age, geography (neighborhood), gender identify, sexual orientation, disability status, religious affiliation, primary language, and mental health status.

At Penn, we determined that solutions would involve dedicated resources and a centralized team to foster innovation to achieve our goal of health equity. This work began with the creation of the new position of Assistant Dean for Health Equity and Inclusion within the Office of Graduate Medical Education, which led to the formation of the Health Equity Taskforce and the Blueprint for Health Equity and Inclusion.

KEY STEPS TAKEN

Reaffirm Institutional Commitment

- Health Equity Taskforce
- Blueprint for Health Equity and Inclusion
- 1-2-3-American Hospital Association (AHA) Health Equity Pledge

Provide Education

- Health Equity Week
- Development of Online Training Module

Integrate Equity into Existing Efforts

- Examine performance indicators for disparities
- Engage key stakeholders to address identified disparities



“Weaving inclusive leadership into the core mission of modern health care organizations is an imperative that cannot be ignored.” — **EVE J. HIGGINBOTHAM, SM, MD**, Vice Dean, Office of Inclusion & Diversity



HEALTH EQUITY TASKFORCE

MISSION: The Penn Medicine Health Equity Taskforce aims to ensure high quality patient- and family-centered care for all populations, promote workforce diversity, and cultivate safe and inclusive learning and clinical environments through collaboration with internal stakeholders and community partners.

HEALTH EQUITY & INCLUSION'S BLUEPRINT

Penn Medicine will provide high-quality patient- and family-centered care to ALL patients.

VALUE



REDUCE UNNECESSARY VARIATIONS IN CARE BY PERSONAL CHARACTERISTICS

ENGAGEMENT



PROVIDE PATIENT AND FAMILY CENTERED, CULTURALLY EFFECTIVE CARE

INCLUSION



ENSURE A DIVERSE AND INCLUSIVE CLINICAL LEARNING ENVIRONMENT

4 SUBCOMMITTEES

- **Workforce**
To actualize Penn Medicine's core value of diversity in all sectors of the healthcare workforce.
- **Data and Evaluation**
To ensure equity in value of care provided to all patient irrespective of their personal characteristics.
- **Community Engagement**
To develop opportunities and a platform for community voice in Penn Medicine's effort to achieve health equity.
- **Education**
To promote high-quality care for all patient populations by ensuring trainees, staff, and faculty possess the knowledge and skills relevant to care for diverse populations in a patient-centered way.

EQUITY IN VALUE

BUILDING THE FOUNDATION

IMPROVING DATA COLLECTION

Collecting accurate data about patient characteristics is vital to tracking variations in quality of care outcomes, eliminating health care disparities, and improving patient experience. In 2016, new and updated patient demographic fields were added to PennChart, the electronic health record system, to reflect evidence-based recommendations guiding the collection of REAL and SOGI data.

REAL | RACE/ETHNICITY AND (ANCESTRY) LANGUAGE

Race/Ethnicity is now a combined category, followed by “Granular Ethnicity” or “Ancestry”, and assessment of both written and spoken language preference.

SO/GI | SEXUAL ORIENTATION GENDER IDENTIFICATION

Sexual Orientation and Gender Identification are now discrete fields and patients are asked their preferred name and pronoun.

IDENTIFYING AND ADDRESSING DISPARITIES

Analyzing data routinely collected to measure hospital performance by race/ethnicity and gender identified the following three areas of focus:

- Emergency Department wait times
- Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) nurse communication scores
- Unplanned readmissions

TRAINING EMPLOYEES TO ENSURE CULTURALLY RESPONSIVE CARE

Collecting these new data points from patients in a culturally appropriate, patient-centered manner required marketing and education for staff and patients.



WHEN

IN JULY OF 2017, PRIOR TO THE IMPLEMENTATION OF THE DATA CHANGES IN OUR ELECTRONIC HEALTH RECORD SYSTEM, WE LAUNCHED ONLINE MODULES



WHY

COLLECTING THIS DATA IS ABOUT MORE THAN JUST TECHNICAL SKILLS, TRAINING AROUND THE “SOFT SKILLS” RELATED TO ASKING THESE QUESTIONS IS CRITICAL



WHAT

THE MODULE FOCUSED ON HOW THE COLLECTION OF THIS DATA CONTRIBUTES TO PENN MEDICINE'S GOAL OF ACHIEVING HEALTH EQUITY AND PROVIDING PATIENT CENTERED CARE TO ALL PATIENTS



WHO

THIS MODULE WAS ASSIGNED TO ALL CURRENT STAFF WHO WOULD BE COLLECTING THE DATA AND WILL ALSO BE USED TO TRAIN NEW STAFF

“ Simply by asking someone what name they want to use and what pronouns they want to use at the beginning of your interaction greatly increases the chances of them opening up” — JACOB GLICKMAN, LGBTQIA Advocate, Standardized Patient Educator



ENGAGEMENT

Penn Medicine approaches the very important mission of engaging our students, employees, faculty, and house staff on topics related to providing culturally-responsive care with three governing principles.

3 GOVERNING PRINCIPLES

- **Ensure All Curricula Reflect Up-to Date and Evidence-Based Content**
- **Leverage Local and National Expertise to Present Live Programming to all Penn Employees, Faculty, Trainees, and Students**
- **Create Online Training to be Adopted System-Wide with Key Stakeholder Input**

RAISING AWARENESS

Health Equity Week is a Penn Medicine annual educational event aimed to raise awareness and promote learning around health equity, health disparities and innovative solutions to addressing these issues.

The week-long activities include educational sessions highlighting national experts and research at Penn:

- Grand Rounds
- Keynote Lectures
- Invited Guest Speakers
- Health Equity Research
- Quality Improvement or Innovations in Medical Education Abstract Oral and Poster sessions

INCLUSION

Measuring Inclusion within our Health System:

LAUNCHED SURVEY | CAMPAIGN FOR NARRATIVES | ANALYZE STORIES

Key to ensuring diversity in the health care workforce is fostering inclusion. An inclusive environment promotes retention and promotion of diverse minds and voices within the health care system.

Some of our efforts to measure and evaluate inclusion at Penn Medicine include:

- Diversity Engagement Survey
- 'Please Tell Us Your Story': A call for and analysis of stories of inclusion or lack thereof

They have led to the following initiatives to actively promote inclusion:

- Unconscious Bias Workshops
- Advocacy campaigns to encourage bystanders of discrimination to 'Speak Up'
- Incorporate into existing wellness and professionalism efforts
- Development of online training module



IT TAKES A VILLAGE

THE PENN MEDICINE EXPERIENCE

“No matter the role, all of our staff are caregivers who make an impression on every patient’s experience. Even on the busiest of days, our teams have found ways to connect with patients and their loved ones, fully embracing the human experience in a unique, personal, and in sometimes unexpected way.” — **ALYSON G. COLE, MPM**, Associate Executive Director System Administrator, Trauma & Rescue Services

People come to Penn Medicine for prevention, diagnosis, and cure. Better health is the ultimate outcome. Yet, our success depends on more than health outcomes. Patient experience reflects the interactions patients have during a visit or stay. These interactions affect their satisfaction and level of comfort with Penn Medicine.

As a system, we continuously explore new ways to improve the Penn Medicine patient experience. This effort is poised to have a profound impact on services across the system moving forward.

PATIENT INPUT COMBINED WITH LEADERSHIPS’ COMMITMENT MATTERS

As Penn Medicine sought to improve the patient experience, the Patient Experience Leadership Team (PELT), co-chaired by a physician and a nurse, worked with representatives from the entire health system to develop a set of guiding principles to steer these efforts.

The goals established by PELT are to:

- Coordinate and provide strategic insight into the patient experience across the system.
- Identify best practices locally that can be scaled to other entities.
- Offer a consistent, positive patient experience at all locations, no matter where the patient may visit.

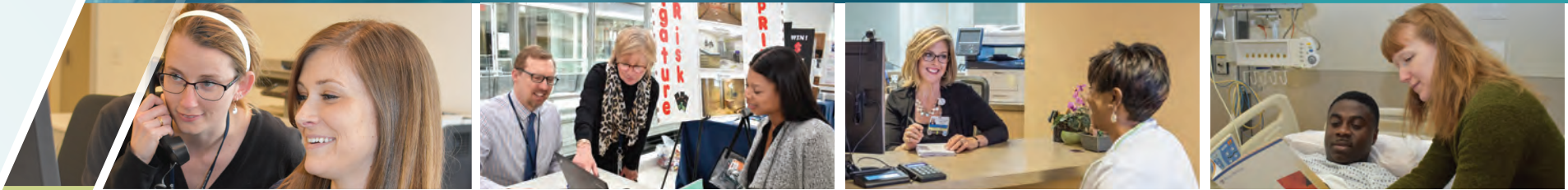
PELT now includes more than 30 members from across all hospitals, ambulatory practices, and corporate groups, including representatives of Patient and Family Advisory Councils.

Improving the patient experience is an ongoing effort. PELT continues to identify ways to ensure that Penn Medicine patients walk out the door feeling respected and that their wishes are considered in treatment planning.



“We are exceptional—committed to creating the best possible experience leading to enduring connections with our colleagues, patients, and families.”

— PENN MEDICINE EXPERIENCE DOCTRINE



ROLE OF SURVEYS

Anonymous surveys offer feedback from patients and their families, and assist in monitoring progress and trends across the system, and allow for benchmarking against other similar systems. The data is tracked internally by Penn Medicine leadership, and externally by federal government and payors. In recent years, incentive programs have also begun to utilize patient experience and satisfaction scores within their reimbursement models.

The surveys provide an overall picture of satisfaction and reveal areas in need of improvement. They help identify key system-wide metrics and better evaluate unit specific interventions. Penn uses Press Ganey to capture these responses for a number of the surveys used, including:

- Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) for in-patient locations
- Clinician/Group Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS) for ambulatory care
- Physician Quality Reporting System (PQRS) program for CMS
- Outpatient Surgery Consumer Assessment of Healthcare Providers and Systems (OS-CAHPS)
- Home Health Hospital Consumer Assessment of Healthcare Providers and Systems (HH-CAHPS)
- Hospice Consumer Assessment of Healthcare Providers and Systems (CAHPS)
- Psychiatry Consumer Assessment of Healthcare Providers and Systems (CAHPS)

GATHERING INPUT INTERNALLY AND EXTERNALLY

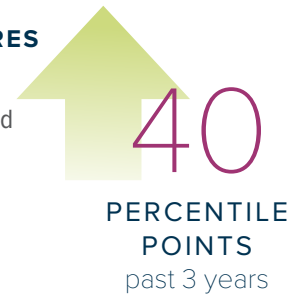
PELT held focus groups and talked with over 200 employees, providers, patients, and families throughout the system. The team identified key themes that could comprise a standard definition to drive behavior.

The resulting “Penn Medicine Experience” standards and patient experience definition were introduced in late 2017 and continue to be rolled out throughout the system.

AMBULATORY SCORES

Ambulatory scores in “Likelihood to Recommend the Practice” increased

RANKING 86TH PERCENTILE



INPATIENT SCORES

Over the past three years, inpatient scores on “Rate this Hospital” increased

RANKING 69TH PERCENTILE



“Patient satisfaction surveys are critical to improve performance and manage in new times.” — CRAIG J. LOUNDAS, Associate VP, Penn Medicine Experience

PENN MEDICINE EXPERIENCE & STANDARDS

The Penn Medicine Experience Standards reflect the characteristics that contribute to a stellar patient experience. Together, they form a unified pledge to Be Compassionate, Be Present, Be Empowered, Be Collaborative and Be Accountable. The pledge describes Penn Medicine’s commitment to ensure that our patients, families and our community feel cared for: We are exceptional, committed to creating the best possible experience, leading to enduring connections with our colleagues, patients, and families.

BE...

COMPASSIONATE

I serve with my head and my heart

PRESENT

I show up and remain engaged

EMPOWERED

I drive results with intention

COLLABORATIVE







I partner with unwavering support

ACCOUNTABLE

I commit to every single moment

ROADMAP FOR

IMPROVING AND SUSTAINING THE PENN MEDICINE PATIENT EXPERIENCE

	CHANGE STRATEGY	<ul style="list-style-type: none"> • Maintain a Penn Medicine and Local governance structure • Hold executive and manager rounds
	SPONSORSHIP & PARTNERSHIP	<ul style="list-style-type: none"> • Collaborate with Patient Guest Relations and the Patient/Family Advisory Council
	STAKEHOLDER ENGAGEMENT	<ul style="list-style-type: none"> • Offer classroom and simulation training, physician and provider workshops, and coaching
	COMMUNICATION	<ul style="list-style-type: none"> • Run employee engagement campaigns • Define service standards and role expectations
	CAPABILITY DEVELOPEMENT	<ul style="list-style-type: none"> • Perform observations and assist with action planning • Monitor data and results
	ORGANIZATION ALIGNMENT	<ul style="list-style-type: none"> • Incorporate expectations in performance reviews • Develop service and recovery standards

“

It’s all about the human experience and how our stories intersect with each other, creating great outcomes and lasting memories.” — **CINDY MORGAN, MSOD**, Vice President of Learning and Organizational Development



“

Doctors know that the three keys to a successful clinical practice are Availability, Affability and Ability. The public reporting of our patient scores helps confirm and illustrate that this is what our patients think too.”

— M. SEAN GRADY, MD, Department Chairman, Neurosurgery

PHYSICIAN AND ADVANCED PRACTICE PROVIDER REPORTING

In order to better serve the community, Penn Medicine now shares patient satisfaction scores for every provider on the providers’ individual websites. The health system was the first in the Philadelphia region to make this information easily accessible to the public in this way.

Questions addressed in survey:

- ✓ Likelihood of your recommending this care provider to others
- ✓ Concern the care provider gave you about your problem or condition
- ✓ Amount of time the care provider spent with you
- ✓ Friendliness/courtesy of the care provider



RED COAT CAMPAIGN

Navigation through the many buildings of Penn Medicine can be challenging. In order to help visitors get where they need to go more easily, all Penn hospitals have implemented a “Red Coat” campaign.

Ambassadors, who wear red coats to increase their visibility, are stationed at key locations across the health system. They greet, direct, provide information, and help coordinate transportation for patients being discharged.

PENN MEDICINE EXPERIENCE WEEK

All entities hold a week-long celebration focused on improving the patient experience. The week has a two-fold purpose:

- To raise awareness about the importance of service excellence.
- To recognize and reward employees for the important work that they do throughout the year to improve the patient experience.

Each entity has a dedicated Penn Medicine Experience team of volunteers that crafts a local program, consistent with the overall strategic direction of the week as set by Patient Experience Leadership Team (PELT).



BEGIN WITH THE END IN MIND

ENGAGED RECOVERY AT PENN

ERAP

“

“Transitions in care create significant challenges for patients undergoing surgery. ERAP empowers patients and helps them bridge a critical gap.” — ALLEN BAR, MD, Clinical Professor, Department of Surgery, Pennsylvania Hospital

EARLY RECOVERY AFTER SURGERY (ERAS)

Surgery triggers the body's stress response, which can have an impact on a patient's smooth recovery. This leaves the patient vulnerable to complications and infections. Penn Medicine is working to optimize the surgical experience so that patients recover safely and efficiently, without a readmission to the hospital.

The Pennsylvania Hospital team has been in the forefront of establishing a standard approach for surgical patient management called Enhanced Recovery After Surgery (ERAS). The lessons and best practices from this effort are being implemented across Penn Medicine.

ERAS protocols use multiple approaches to lower the body's stress response before, during, and after surgery. The protocols have been proven effective in many major surgeries including spinal and colorectal. Yet, they only work if patients and caregivers adopt the recommendations in preparing for their surgery and the subsequent recovery period.

In order to boost adherence with ERAS, Penn Medicine clinicians developed Engaged Recovery at Penn (ERAP). ERAP is a critical component of the Penn Medicine ERAS strategy. ERAP aims to improve preparation and outcomes during and after surgery by actively engaging patients and caregivers.

BEFORE SURGERY

PREPARE THE BODY FOR THE STRESS OF SURGERY

- Liquid carbohydrates (e.g. Gatorade™) 2 hours prior to surgery
- Skin preparation
- Smoking/alcohol cessation
- Pre-op nutrition and exercise
- Co-morbidity management (e.g., diabetes, blood pressure, anemia)

DURING SURGERY

MINIMIZE THE STRESS RESPONSE DURING SURGERY

- Use of laparoscopic surgery when possible
- Maintenance of blood volume (normovolemia)
- Use of short-acting anesthetics
- Epidurals and multimodal analgesics
- Minimize use of tubes/drains
- Maintain normothermia

AFTER SURGERY

RETURN THE BODY TO ITS NORMAL STATE AS QUICKLY AS POSSIBLE

- Use of opioid sparing medications
- Early oral nutrition
- Early mobilization
- Minimize use of nasogastric tubes
- Pre-emptive pain and nausea management
- Early catheter removal
- Stimulation of gut motility

PATIENT PREPARATION PRIOR TO SURGERY

The time before surgery is critical. Patients are provided specific steps to follow to prepare for their surgeries. Early intervention and adherence to evidence based guidelines will increase the chance of better outcomes post operatively.

The ERAP team worked with the Center for Innovation and the Department of Surgery to determine reasons why patients are not fully prepared for surgery. The teams also worked together to discuss specific logistics on how to generate an appropriate patient plan to improve outcomes. Their findings led to the development of the “**Game Plan Bag**.” The bag includes everything a patient needs to prepare for surgery along with clear step-by-step instructions.

The introduction of the bag increased patient adherence to 64 percent. The teams observed that those who did not comply were worried or distracted and forgot to follow the instructions. A second pilot added just-in-time text message reminders to accompany the bag. This resulted in 100 percent adherence during the study, and over 90 percent in ongoing use.

“

ERAS is an iterative process that takes evidence-based principles from the bench to the bedside, operating room and beyond with the goal of improving patient care and outcomes.” — ZARINA S. ALI, MD, Assistant Professor of Neurosurgery, Pennsylvania Hospital

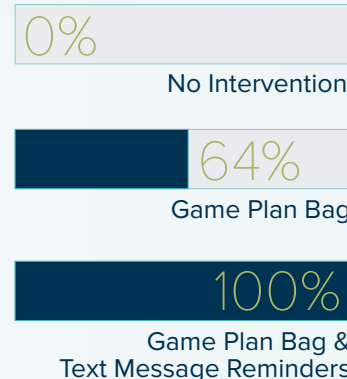


1,000 PATIENTS ENROLLED ACROSS 5 SERVICE LINES

NEXT STEP: EXPANSION

Early success led to new partnerships. The use of ERAP in Gynecology Oncology helped attain 98 percent adherence with pre-op behaviors. Seventy percent of patients cited the text reminder as the reason they remembered.

Together, ERAS and ERAP also show promise in reducing or eliminating hospital stays. Pilot use in gynecologic oncology and neurosurgery led to a 30 percent reduction in length of stay and 50 to 70 percent reduction in readmissions. To date, more than 1,000 patients from five service lines have been enrolled in ERAP.

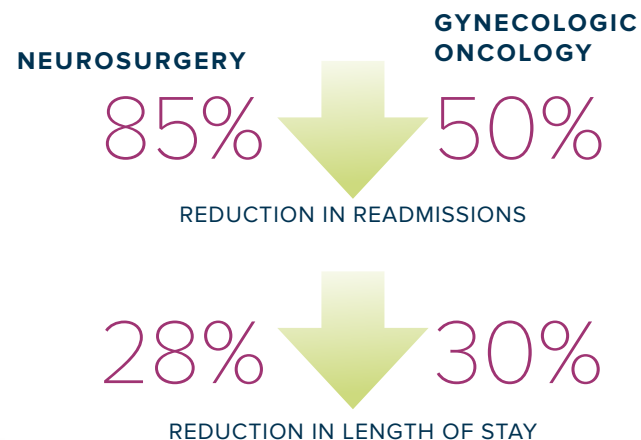



ERAS & ERAP PARTNERSHIP

ERAP helps ensure that patients go into surgery mentally and physical prepared. Patients receive:

- Reassurance that they are doing everything right
- Clear instructions, especially at the right time when they need it
- Visual/physical reminders
- Instructions delivered in a manner that promotes accountability to the clinical team
- Space to mentally prepare
- Support from family and support buddies
- Confidence in their care team

POSITIVE RESULTS





Transitions in care and coordination of care have been important components of the Blueprint since the beginning of the process. Keeping patients out of the hospital requires the delivery of seamlessly coordinated care across all settings and service lines.



CONTINUITY

ELECTRONIC HEALTH RECORD TRANSFORMATION

HELPING STAFF SUPPORT BETTER PATIENT OUTCOMES

THROUGH WORKFLOWS

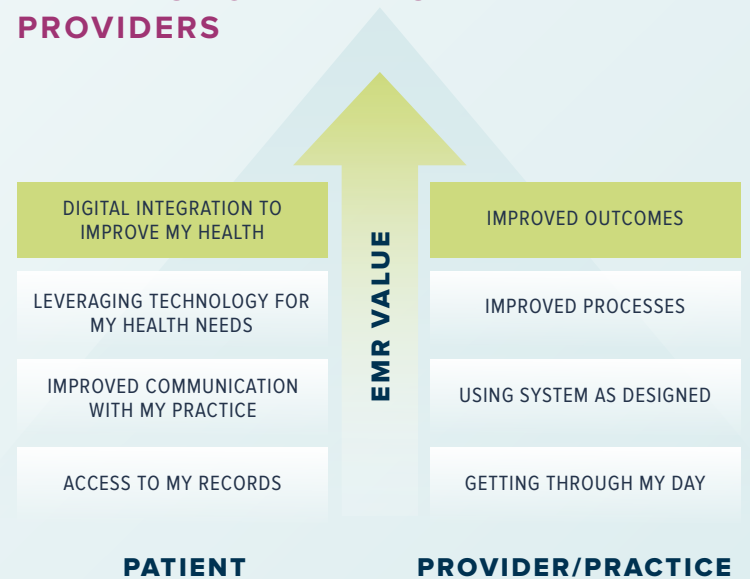
“Having a shared EMR across Penn Medicine’s various care settings has resulted in a powerful advantage for clinicians and patients. Our challenge now, is to leverage PenChart functionality, coupled with effective workflow design to support efficient, and high quality care for patients and providers.” — SCOTT SCHLEGEL, MBA, Vice President, Regional Physician Group

A single medical record system streamlines care and improves communication across inpatient, outpatient and post-acute care teams.

Penn Medicine strives to optimize use of the electronic health record (EHR) to create value and ensure that patients receive excellent care in a timely manner.

A dedicated EHR Transformation Team partners with clinicians and staff to create lasting benefits.

BENEFITS TO PATIENTS AND THEIR PROVIDERS



CRITICAL PARTNERSHIPS

PENN CHART INFORMATION SERVICES

What can we do?

- Leverage technical capabilities within systems
- Configure systems and promote best practices

CLINICAL TEAMS

What should we do?

- Establish clinical standards
- Process improvements
- Process outcome measures

EHR TRANSFORMATION TEAM

How do we use it best?

- Optimize workflows
- Advanced education
- Promote end-user adoption

1

2

3

KEY FOCUS AREAS

Penn Medicine's EHR Transformation Team takes a systematic, multi-phase approach to improving the EHR experience. Priorities include:

- Ongoing advanced education for all PennChart users,
- Collaboration with clinicians and operational leaders to optimize workflows,
- Use of technology to engage patients in their care,
- Support for patient registration and scheduling across the system.

4 MAJOR FOCUS AREAS THIS YEAR

1. **End User Optimization**
2. **Access**
3. **Communication**
4. **Enterprise Schegistration**

END USER OPTIMIZATION APPROACH

The team takes a customized and comprehensive approach to EHR optimization.

DISCOVERY
ORGANIZATION, EVALUATION & ANALYSIS

- Evaluated current state and held meetings with every department to better understand workflows
- Assessed data analytics and defined metrics to monitor

EXECUTION
EXECUTION & DEPLOYMENT OF TECHNICAL RESOURCES

- Resources assigned based on targeted priorities
- Initiated educational sessions: shoulder-to-shoulder, workshops, and rounding

SUSTAINMENT
ANALYSIS OF PROGRESS & NEXT STEPS

- Analyzed and monitored progress/outcomes
- Evaluated the need to readjust priorities and determine additional areas for optimization



IMPROVING THE USE OF THE EHR

MAKING IT EASIER TO DO THE RIGHT THING AT THE RIGHT TIME

END-USER OPTIMIZATION

The EHR Transformation Team seeks to improve use of the EHR and increase knowledge of its tools and potential among providers and clinicians. A system-wide clinical education effort across ambulatory and inpatient care settings has reached:

- 2,068 providers and clinical support staff in ambulatory care practices
- Approximately 1,000 providers and clinical support staff in inpatient units, (trained in shoulder-to-shoulder sessions and/or group workshops)

Those who went through training reported:



ACCESS

Improving patient access to Penn Medicine through the patient portal, myPennMedicine. Coming soon: electronic check-in, Fast Pass, and waitlist management tools for patients!

Related to Access:



“

“I highly recommend scheduling some time with the EMR transformation team. Even as an advanced PennChart user, I have learned new ways to optimize my inpatient and ambulatory workflows.”

— SRINATH ADUSUMALLI MD, MSC, Assistant Professor of Clinical Medicine



MOVING FORWARD

COMMUNICATION

Enhancing communication among patients, providers, and hospital partners through Care Everywhere and PhysicianLink’s referring provider portal.

ENTERPRISE SCHEDGISTRATION

Easy, optimal scheduling benefits everyone. The Schedgistration group is dedicated to improving scheduling and registration across the system. The group focuses on training and quality assurance, with an emphasis on monitoring, accuracy, and functionality. Participants demonstrate greater accuracy of scheduling and registration within PennChart.

ADVANCED TRAINING

Schedgistration Webinar Series

15
UNIQUE TOPICS

38
INDIVIDUAL SESSIONS

~1900
TOTAL PARTICIPANTS

SCHEDGISTRATION QA

Penn Medicine

78% → 93%
February 2018 July 2018

PHASE 1

Increase Competency

- Increased awareness and utilization of PennChart tools
- Provide ongoing provider & clinical staff education



PHASE 2

Care Team Design

- Partner with the Engage to Sustain Program, leveraging the clinical care teams(Ma’s, LPN’s, RNs) to help reduce data entry burden within PennChart



PHASE 3

Leveraging the Integrated Record

- Improve technology and workflows for transitions in care between Ambulatory, Inpatient, and Post-Acute phases
- Targeted approach to improve usability of PennChart through innovative technology and advanced education

PROVIDING A VIRTUAL HOME FOR PATIENTS

COMPREHENSIVE PRIMARY CARE

“Primary care providers and practices are at the center of our population health management efforts. New, alternative payment programs such as CPC+ allow us to leverage our medical homes to transform the way we deliver primary care.”

— RONALD BARG, MD, Medical Director, Penn Medicine Primary Care Service Line

A home is a base, one place that offers stability and consistency. These words also describe characteristics people seek in a doctor or medical provider – a person or group who knows their history and has a context to understand their concerns. A medical home offers just that. It provides coordinated, comprehensive health care. Care is easy to access and, most significantly, focused on the needs of the patient and their families and care providers.

For over 10 years, the medical community has embraced the concept of a medical home as a means of offering better health care at a lower cost. Penn Medicine adopted this approach early on and has been commended by the National Center for Quality Assurance for its high quality primary care practices. There are currently 33 practices that are classified as medical homes at Penn Medicine.

TO SUPPORT THE DELIVERY OF COMPREHENSIVE PRIMARY CARE, CPC+ INCLUDES THREE PAYMENT MODELS:

CARE MANAGEMENT FEE

A NON-VISIT-BASED FEE PAID PER-BENEFICIARY-PER MONTH. THE AMOUNT IS RISK-ADJUSTED TO ACCOUNT FOR THE INTENSITY OF SERVICES REQUIRED.

PERFORMANCE-BASED INCENTIVE

PAYMENTS PROSPECTIVELY PAID AND RETROSPECTIVELY RECONCILED BASED ON HOW WELL A PRACTICE PERFORMS.

MEDICARE PHYSICIAN FEE

EITHER FULL OR ADJUSTED FEE FOR SERVICE PAYMENTS MADE THROUGH THE MEDICARE PHYSICIAN FEE PROGRAM.



NATIONAL ATTENTION

The past year saw a national reinvestment in the primary care medical home. As part of the Affordable Care Act, the U.S. Center for Medicare and Medicaid Services (CMS) developed Comprehensive Primary Care Plus (CPC+). The five-year program supports hospitals and health systems in instituting and improving medical home efforts. More than 2,800 practices throughout the country participate. Twenty-nine Penn Medicine primary care practices were selected to participate based on their readiness to transform the existing care delivery model.

CPC+ CARE DELIVERY ELEMENTS

Functions incentivise by three foundational Drivers:

- Use of Enhanced, Accountable Payment
- Continuous Improvement Driven by Data
- Optimal Use of Health Information Technology

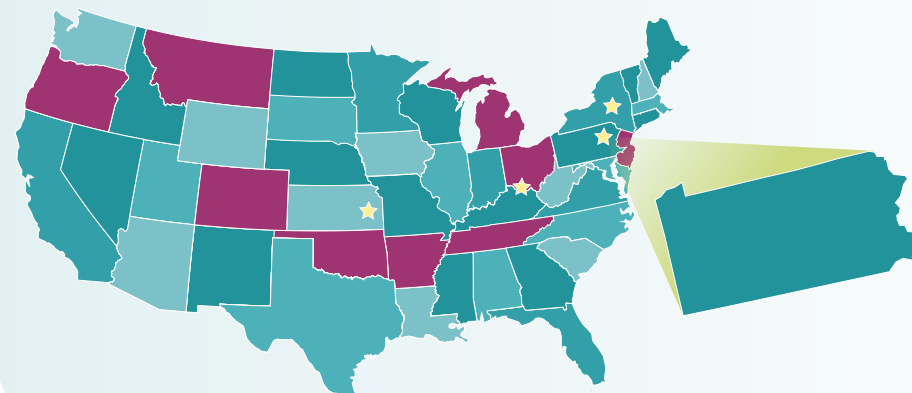
Care Delivery Transformation:

Build, integrate and deliver the necessary elements of a high functioning patient care model:

- Excellent Access
- Care Coordination
- Care Management
- Patient and Caregivers Engagement
- Planned Care
- Population Health

18 REGIONS ACROSS THE COUNTRY

PARTICIPATE IN THE COMPREHENSIVE PRIMARY CARE PLUS (CPC+) INITIATIVE



29

PENN MEDICINE PRACTICES, selected by CMS, to participate in this national effort

★ = Region comprises contiguous counties
■ = Region spans the entire state



“

“Our engagement in CPC+ has helped drive collaboration across our primary care practices leading to the development of programs that bolster the ‘toolkit’ of services available to providers to more effectively manage the care of their patients and improve health outcomes.”

— **MARCIE ORDOWICH, MPH, MBA**, Chief Administrative Officer, Primary Care Service Line

CPC+ THE FIRST YEAR

The program has gotten off to an impressive start. Preliminary accomplishments centered on improving data and communication systems. Webinars and newsletters help practice leadership stay informed. Highlights of the past year include:

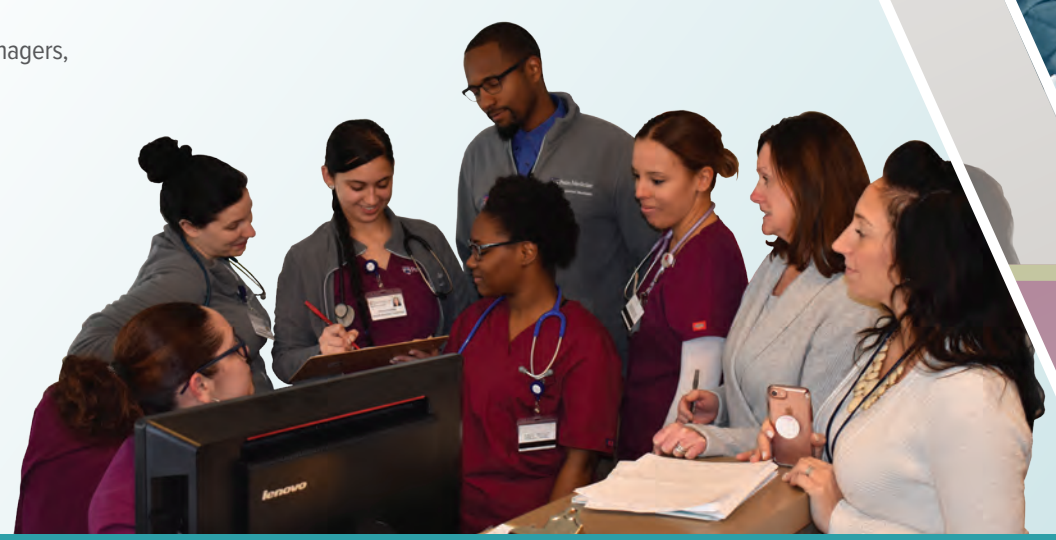
- Standardized risk scores assigned to each patient. The score reflects the patient’s assessment of chronic disease and use of health care resources. Penn was the first to allow doctors to adjust risk scores within the electronic medical record (PennChart) based on knowledge of the patient and their own clinical judgment.
- A new partnership with Healthshare Exchange of Southeastern Pennsylvania helps track patients’ use of local hospital and emergency rooms within and outside the Penn system. Primary care practices receive daily notification every time one of their patients is discharged from a hospital or emergency room.
- The practices partnered closely with Chester County Hospital to form a work group of case managers, hospitalists, and emergency room leadership to improve transitions of care.
- Behavioral health resources have been imbedded within each primary care practice. This well integrated model will help meet the many emotional and psychologic needs of patients.

99%

OF PRIMARY CARE PATIENTS
EMPANELED TO A CPC+ PROVIDER

2,500

PATIENTS CONNECTED TO NEW
BEHAVIORAL HEALTH SERVICES



PLANNED CARE

Use data and dashboards to drive improvement at practices



POPULATION HEALTH

Performance Improvement Initiatives to standardize and spread best practices



MOVING FORWARD

CPC+ gathers data related to selected screenings and outcomes. The program requires that Penn Medicine track 14 measures, nine of which are reported to Center for Medicare and Medicaid Services (CMS).

CLINICAL QUALITY METRICS

9 MEASURES SELECTED FOR REPORTING:

- High Blood Pressure Control
- Diabetes Poor Control
- Fall Risk Screening
- High-Risk Medication in the Elderly
- Diabetes Eye Exam
- Breast Cancer Screening
- Cervical Cancer Screening
- Colorectal Cancer Screening
- Tobacco Use Screening and Cessation



IMPROVE ACCESS

UTILIZE TELEHEALTH AND TELEPHONE CALLS TO SUPPLEMENT OFFICE VISITS AND HELP PATIENTS RECEIVE CARE IN AN EFFICIENT MANNER



COORDINATE CARE

DETERMINE NEW WAYS TO INCORPORATE SPECIALISTS WITHIN THE MEDICAL HOMES FOR MORE COMPREHENSIVE TREATMENT PLANS



TAILOR OUTREACH

IMPLEMENT RISK SCORES TO CUSTOMIZE OUTREACH BASED ON PATIENT NEEDS AND CARE PLANS



ENGAGE FAMILIES

EXPAND THE PATIENT AND FAMILY ADVISORY COUNCIL'S ROLES AND SOLICIT ADVICE ON THE NEXT PHASE OF THE PROGRAM

“

CPC+ improved patient access, better care coordination, and comprehensive care management are strategies that will help us reach our goals of reducing costs and improving quality and health outcomes for all our patients. It's hard work but it's also a really exciting time for primary care.” — **CHARLES ORELLANA, MD**, Chief Medical Officer, Clinical Care Associates

KEEPING PATIENTS SAFE AND OUT OF THE HOSPITAL

ONCOLOGY EVALUATION CENTER

“

“The OEC is a wonderful option for our patients. When urgent or new problems arise, our patients can be seen right away and evaluated by staff who are experts in cancer care and with its adjacency to our infusion center, we can start treatment right away.”

— LYNN SCHUCHTER, MD, Division Chief, Hematology/Oncology

Oncology care has become more complex in recent years, with more patients receiving their primary anti-cancer treatment in the ambulatory care setting. Oncology patients often develop complications as a result of their intense treatment which requires urgent clinical evaluation.

Most Oncology patients would rather have their symptoms managed in a more comfortable setting. Emergency room (ER) visits are often not the best option for these vulnerable patients. In addition, ER providers may lack specific expertise required for managing the adverse effects of newer anti-cancer therapies.

The purpose of the Oncology Evaluation Center (OEC) is to facilitate same-day and urgent appointments for cancer patients who develop new symptoms related to their cancer, their treatment, or other medical conditions.

Evaluating these patients in the OEC has been a major factor in reducing unplanned readmissions. Keeping patients out of the busy ER environment has improved satisfaction among patients and their families.

POTENTIAL CHALLENGES WITH USING THE ER

HIGH RISK

FOR IMMUNE-COMPROMISED PATIENTS

HIGH COST

HIGH CO-PAYS, DUPLICATE TESTING

LONG WAITS

PATIENT NOT KNOWN TO TEAM

The purpose of the EOC is to provide same-day, urgent evaluation for cancer patients known to Penn Medicine providers.

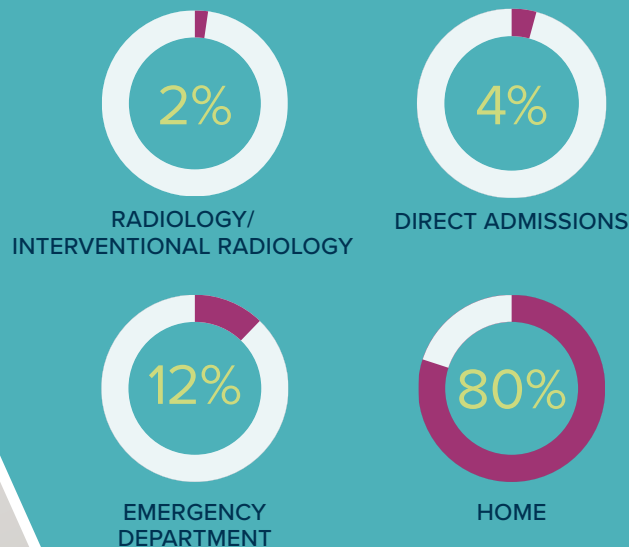
- Same day urgent evaluation
- Monday through Friday service
- Available during peek clinic times



ONCOLOGY EVALUATION CENTER

700+ PATIENTS SEEN WITHIN THE FIRST YEAR
 ↓
 13.6% CONTRIBUTED TO A REDUCTION IN READMISSIONS

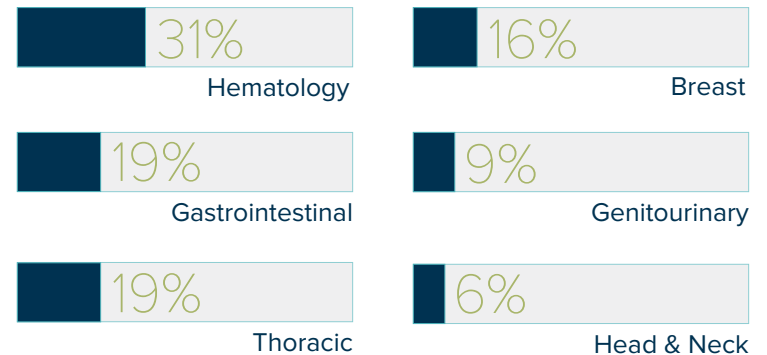
ENCOUNTER TYPES



TOP 5 REFERRAL REASONS AND TREATMENTS

CHIEF COMPLAINT	TREATMENT AT OEC
Dehydration	Hydration
Fever	Fever Work-Up
Pain	Pain Medication
Transfusion Needs	Blood Products
Nausea/Vomiting	Anti-Emetics

UTILIZATION BY VARIOUS DISEASE TEAMS



“

The creation of this innovative model for evaluating, managing, and treating cancer patients on a same day basis when a complication arises has improved the quality of care and helped avoid ER visits and prevent readmissions to the hospital.”

— LINDSEY ZINCK, RN, MSN, OCN, Associate Clinical Director, Infusion Services

THE EVOLUTION OF CANCER CARE

LIFE ALTERING CANCER CARE

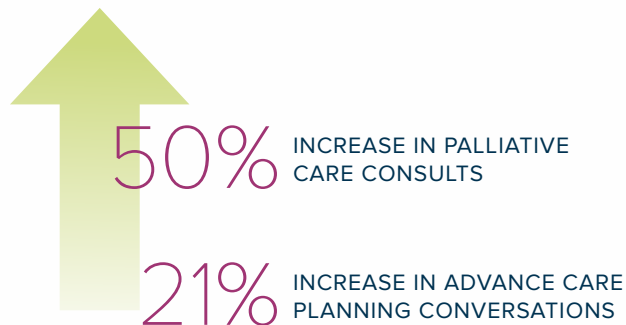
“Lancaster General’s participation as Penn Medicine’s representative in Medicare’s Oncology Care Model exemplifies our collaborative culture that is critical to gaining insight into improved strategies for delivering cancer care across all settings.”

— RANDALL A. OYER, MD, Medical Director Oncology, Lancaster General Health

A diagnosis of cancer can be overwhelming.

Choosing the right place to receive care shouldn’t be. The Ann B. Barshinger Cancer Institute at Lancaster General Hospital (LGH) brings together clinical experts, advanced technology, and a vast array of support services under one roof with an environment designed to support their patients and families.

Integrated into a single structure are medical, radiation and surgical oncology. They share a single support team comprised of nursing, social work, nutrition, chaplaincy, financial counseling, patient navigation, and behavioral medicine.



PATIENT ENGAGEMENT

The teams have worked hard to setup patient care models in ways that engage patients and families to have shared decision making. Nursing and physician teams educate patients on:

- Diagnosis and treatment options
- Self management of medications, side effects, and symptoms
- How to access our care system
- Shared decision making
- Advance care planning

VERTICAL GOAL ALIGNMENT

Three areas were focused on in order to better align the activities of the oncology teams.

CULTURE CHANGE

- Setting shared goals and priorities
- Facilitating use of Penn Pathways
- Normalizing early use of Palliative care
- Transparency around therapy cost

PERFORMANCE IMPROVEMENT

- Implementing daily huddles
- Performing Rapid Improvement cycles
- Providing dashboards with real-time data
- Updating management models

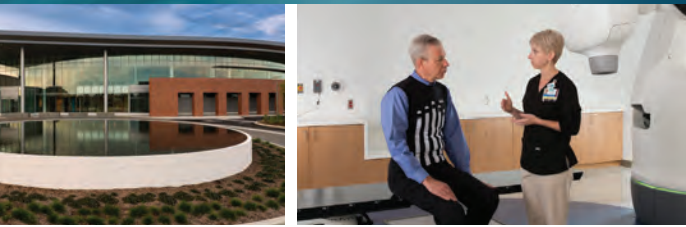
TEAMWORK

- Shared vision
- Teams and role definitions focus
- Communicating openly and effectively
- Extending oncology support services

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PARTNERSHIP WITH MEDICARE

LGH began a five-year project with Medicare called the Oncology Care Model (OCM), a comprehensive practice redesign to improve quality and enhance the patient experience, while reducing costs. LGH was one of the first hospitals to adopt a practice of financial transparency for cancer patients, by including individualized price estimates to help patients and families with decision-making.

The initiatives included:

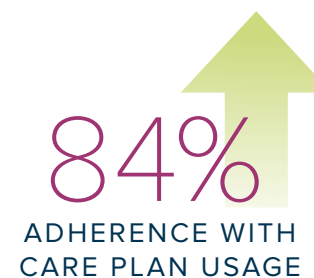
- Written plan of care for patient and referring physician
- Standardized clinic workflow
- Distress and depression screening
- Patient and Family Education
- Formalized shared decision making
- Financial estimates for therapy options
- Evidence-based chemotherapy guidelines
- Early symptom management at home

New Oncology Care Plans


- Clear diagnosis with staging
- Goals for treatment
- Prognosis
- Impact on lifestyle
- Supportive care recommendations
- Ways to contact care team

SUCCESSFUL OUTCOMES

Despite the large increase in patient volume, readmissions after a hospital stay decreased by 23% and post acute care decreased by 46%.



Recognized by Centers for Medicaid and Medicare (CMS) as
a best practice in Quality Reporting and Quality Improvement



Patients and families, insurers, employers, and others are placing increasing emphasis on value-based care. For Penn Medicine, this means providing high quality and safe care, free of preventable complications and readmissions, at a lower cost. At its essence, value-based care entails providing the right care at the right time in the right place.



VALUE

PAD

REDUCING PAIN, AGITATION, DELIRIUM IN THE ICU

VALUE FOR PATIENTS IS CRITICAL

“

“Clinical nurses are uniquely positioned to impact outcomes related to delirium through early recognition and application of non-pharmacological interventions, which they have the greatest potency for prevention and management.”

— JULIANE JABLONSKI, DNP, RN, CCRN, CCNS, *Critical Care Nursing Systems Strategist*

Each hospital unit tells a story. Critical care is no exception. The intensive care unit (ICU) houses people in medical distress who need continuous care and may require mechanical ventilation or other support. Ventilators fulfill a vital purpose but carry a risk of unintended consequences such as infection, pain, agitation, and delirium.

Patients are vulnerable to developing health problems that remain after critical illness. These problems can involve both the patient's body and mind.

Penn Medicine looks for ways to improve care by reducing unnecessary variation, shortening stays in the ICU, and effectively managing **pain, agitation and delirium (PAD)**. Research shows that PAD management leads to better health outcomes, and promotes value by supporting more efficient use of the ICU.

OUR APPROACH

In 2017, Penn Medicine introduced a system-wide strategy to strengthen critical care by focusing on PAD management. ICUs from all five hospitals participated.

A critical care workgroup, co-chaired by a physician, a nurse, and a pharmacist, led the efforts. The goal was to standardize protocols and care, in order to protect patients from the harmful effects of PAD. In doing so, the effort also ensures more prudent use of resources.

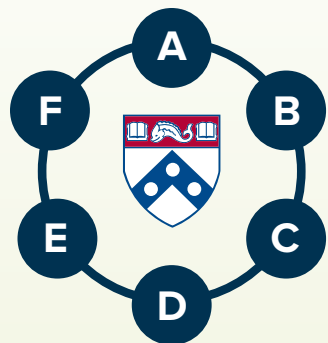




STANDARDIZING WORK

The I-LEAD bundle, an evidence-based approach to standardize and enhance critical care, was selected. This bundle has been shown to have a positive impact on physical recovery, cognitive function, and wakefulness. It also enhances value by lowering time spent on mechanical ventilation and reducing length of ICU stay.

Each patient's needs are assessed using a standard set of guidelines. Information is stored electronically, on a PAD dashboard. The approach incorporates both pharmacological and non-drug-based strategies to prevent and manage PAD.



I-LEAD

ICU LIBERATION

COMPONENTS OF THE ABCDEF BUNDLE

- A**WAKE
- S**PONTANEOUS **B**REATHING TRIALS
- C**ONSIDERATION OF ANALGESIA AND SEDATION
- D**ELIRIUM RECOGNITION AND MANAGEMENT
- E**ARLY EXERCISE
- F**AMILY ENGAGEMENT AND EMPOWERMENT

ACCOMPLISHMENTS

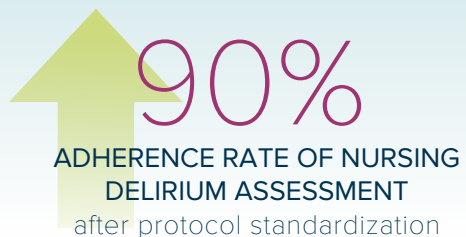
Building consensus on standardizing the protocols and educating the staff on a common language was challenging. There are approximately 170 physicians, 900 nurses and 300 staff who support the ICUs. The new standardized bundle resulted in significant improvement in adherence to the new systems.

Nurses are driving value by performing routine delirium assessments (increased to 90%), standardizing sedation assessment (80% compliance), applying non-pharmacological interventions, and coordinating care with the interdisciplinary team.

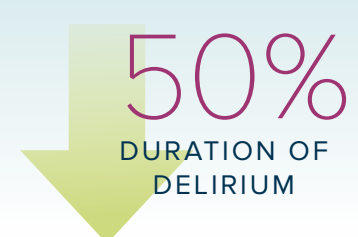
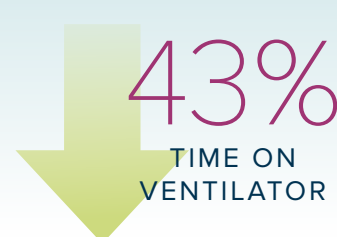
LOOKING FORWARD

Communication and information sharing are key to continued progress. Going forward, the team aims to implement a new ICU dashboard to display real-time data on ventilator use and sedation. Built-in alerts in the electronic health record will ensure that clinicians have the information they need to make decisions promptly. This will facilitate more rapid liberation from ventilation equipment and better overall patient management.

ADHERENCE TO STANDARD CARE



HALF-DAY REDUCTIONS IN THE ICUS



HELPING PATIENTS FIGHT BACK

THE OPIOID EPIDEMIC

“

“We’ve put together Penn Medicine’s Opioid Task Force in order to systematically address the national crisis. We are guiding a consistent approach to support our patients and our care providers, which includes right-sizing prescribing and referral resources. Our work will drive better overall quality and coordination of care, minimize unnecessary variation, and serve to engage the issue constructively.” — **DAVID A. HOROWITZ, MD**, *Associate Chief Medical Officer Penn Medicine*

13%

OF THOSE WHO USED
PRESCRIPTION OPIOIDS EITHER
MISUSED OR ABUSED THEM



2 OUT OF EVERY 5

U.S. ADULTS USED A
PRESCRIPTION OPIOID IN 2015

Crisis. Epidemic. These words are used to describe the widespread use and abuse of opioids. Public efforts target the problem broadly and with urgency. Pain management is a significant factor in recovery. Balancing the management of a patient’s pain while minimizing their risk of addiction can be a major challenge.

In 2017, Penn Medicine doctors participated in the Philadelphia’s Opioid Task Force convened by Mayor Jim Kenney. The task force was charged with developing a coordinated plan to address the opioid crisis. The final report, released in May 2017, highlighted 18 recommendations focused on education, prevention, treatment, and the role of the criminal justice system. These recommendations inform and guide Penn Medicine’s work to identify ways to mitigate opioid-related morbidity and mortality in the region.



PENN MEDICINE'S COMMITMENT

Penn Medicine's Opioid Taskforce is committed to identifying and implementing strategies to prevent and reduce the overuse of opioids and stem opioid-related fatalities. The task force aims to address the problem in an efficient and coordinated way, in the context of the growing availability of opioids and increased regulation.

New pathways and protocols extending across multiple disciplines in Penn Medicine address:

PRESCRIBING GUIDELINES

IMPLEMENT PRESCRIBING AND TREATMENT PROCESSES, BASED ON PENNSYLVANIA AND CDC GUIDELINES

EDUCATION

PROVIDE TARGETED PROVIDER, PATIENTS, AND FAMILY EDUCATION ON THE APPROPRIATE USE OF OPIOIDS

ROBUST I.T. SOLUTIONS

USE ELECTRONIC HEALTH RECORD SYSTEMS TO SUPPORT CLINICAL PROGRAMS

A COMPREHENSIVE APPROACH

Penn Medicine's task force takes a comprehensive approach. Six subcommittees steer its work. Together, their strategies span departments and channel resources where they can be most effective. Activities leverage technology, ensure compliance with laws, pilot new protocols, and coordinate intervention planning with community programs. A focus on screening and education helps prevent more people from becoming addicted.

6 SUBCOMMITTEES

RESOURCES

- Identify resources required to execute task force recommendations
- Estimate the operating impact of deploying identified resources

REGULATION

- Identify requirements for compliance with state and federal law
- Support Penn Medicine entities with achieving and maintaining compliance

INFORMATION TECHNOLOGY

- Select key metrics for monitoring opioid prescribing and order set usage
- Design patient selection criteria in addition to the Opioid registry

EDUCATION

- Provide education to all nurses, pharmacists, house-staff and prescribing providers regarding safe opioid prescribing practices

PATHWAYS & PROTOCOLS

- Establish system-wide clinical pathways and protocols to guide opioid prescribing for acute and chronic non-cancer pain

CLINICAL SERVICES

- Identify a standard approach to screening for substance use disorder
- Determine available clinical and community resources; identify future needs

“

We know the risk of death is far higher than heart disease or stroke and that's why we need to focus our resources on this problem.”

— JEANMARIE PERRONE, MD, FACMT, Professor of Emergency Medicine and Medical Toxicology

SUPPORTING PATIENTS

THROUGH THE CONTINUUM OF CARE

“

“Our task force is involving each of our hospital’s clinical leaders to outline goals and desired outcomes in an effort to support Opioid Stewardship. Our local efforts have been successful in decreasing opioid usage approximately 16% over the past year which benefits our patients and surrounding communities.”

— JOHN A. SESTITO, MS, RRT, Associate Executive Director, The Clinical Practices of the University of Pennsylvania



Proper management of acute pain could prevent the development of chronic opioid use and opioid use disorder. Penn Medicine physicians and providers are implementing care pathways for patients identified as high risk for overuse of opioids.

ACUTE PAIN

Long-term opioid use often begins with the treatment of acute pain. Clinicians can help prevent long-term use by prescribing the lowest effective dose of immediate-release opioids and the minimum number of pills needed to treat severe pain. Three days of treatment or less is often sufficient; more than seven days is rarely needed.

Penn Medicine has developed new pathways for specific medical procedures to guide pain management with the minimal use of opioids. In general, a five-day supply is the maximum recommended prescription following outpatient and most inpatient surgeries. In certain cases where prolonged pain is anticipated, a supply for up to 10 days may be appropriate.

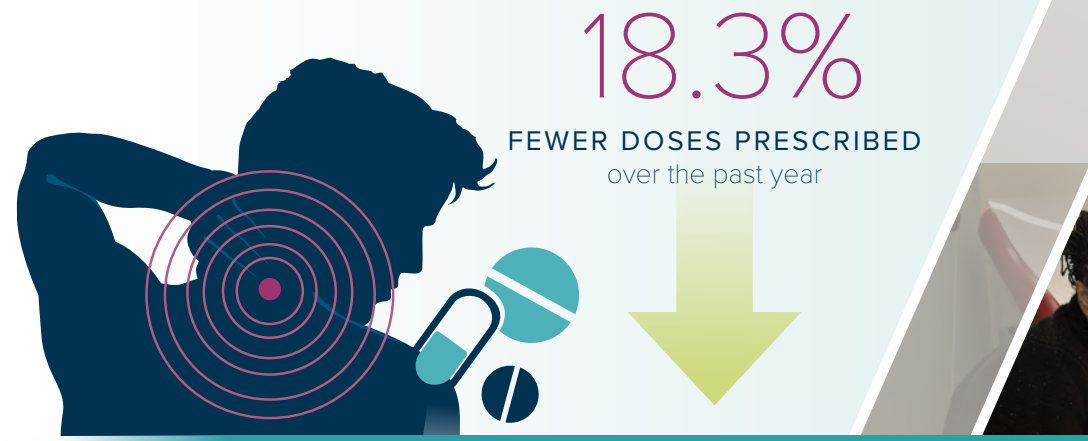
CHRONIC PAIN

Some patients may require long-term use of opioid medications. In these situations, a Chronic Medication Agreement is used to clarify the patient-prescriber partnership in the treatment of the pain condition and outline a specific management plan.

For all patients, opioids are part of a multimodal pain regimen. The regimen also may include non-steroidal anti-inflammatory drugs, acetaminophen, gabapentin, and non-drug therapies. Concurrent prescriptions of benzodiazepines with opioids should be avoided, especially for older adults. Lower doses of opioids after surgery may be recommended for older adults.

MEDICATION-ASSISTED TREATMENT

New data show that 1 in 10 patients who receive naloxone for nonfatal overdose will have a fatal overdose within one year. In response to this, Penn Medicine’s “warm handoff” program initiates addiction counseling and treatment with medication-assisted therapy (MAT) in the Emergency room. Our clinicians routinely offer buprenorphine to treat opioid withdrawal symptoms to patients being admitted to the hospital. This drug helps provide a bridge to longer-term treatment for those in need of support.



RIGHT SIZING OPIOID USE

CHANGED POLICIES THAT ENCOURAGE OVERPRESCRIBING

- Modified electronic health record prescription defaults
- Screen for pain on every visit

FACILITATE ADDICTION TREATMENT

- Introduce warm-handoff policies among providers in various settings.
- Offer Medication Assisted Treatment (MAT) in the emergency room and inpatient units

EDUCATE PROVIDERS, PATIENTS AND FAMILIES

- Updated pain and addiction education to conform with new state requirements
- Offer three new 20-minute educational modules to all clinicians
- Use newly developed Intranet site to house pain and addiction resources for clinicians

MONITOR PRESCRIPTION DRUG USE

Pennsylvania's Prescription Drug Monitoring Program (PA PDMP) collects information on all filled prescriptions for controlled substances to help prevent prescription drug abuse and protect the health and safety of the community. This information helps health care providers safely prescribe controlled substances and helps patients get the treatment they need. PA PDMP information is now displayed directly within Penn Medicine's electronic health record.



PATIENTS WHO RECEIVE OPIOIDS FOR CHRONIC PAIN MANAGEMENT HAVE:

HIGHER

- 30-day unplanned readmission rates
 - Emergency room visits
 - Medical Cost

PENN MEDICINE'S ROLE TO COMBAT THE EPIDEMIC



STRICTER POLICIES
FOR PRESCRIBING



ONGOING EDUCATION
PROVIDERS, FAMILIES, PATIENTS, CAREGIVERS



MONITOR PRESCRIBING
AT ALL PENN FACILITIES



ALTERNATIVES TO OPIOIDS
MULTIMODAL ANALGESIA



“

“The Opioid Task Force is working hard to improve patient outcomes by encouraging proper opioid stewardship, giving providers better tools to make doing the right thing easier, and advocating for improved access to addiction treatment services.” — MICHAEL ASHBURN, MD, MPH, *Director, Penn Pain Medicine Center*

CLOSING THE EVIDENCE TO PRACTICE GAP

PENNPATHWAYS

“The creation of almost 100 pathways, across a broad array of clinical services, represents robust use of the program. To achieve our full potential, we work to integrate the pathways into clinician workflows, and measure resulting outcomes. By providing the data to back up decisions, we make it easy for providers to do the right thing.”

— CRAIG UMSCHIED, MD, MSCE, *Director, Center for Evidence-Based Practice Officer, Value Improvement*

THE APPROACH

Evidence-based practice improves the quality and safety of care by ensuring that the health system’s practice is consistent with the best scientific thinking on a topic at a given time. Medical decisions are considered within the context of what is best for a patient and would yield results. Clinical pathways offer one means of integrating evidence-based guidelines into local practices. A systematic approach to pathway development and implementation promotes evidence-based, high-value care.

Penn Medicine’s Center for Evidence Based Practice (CEP) has developed a 10-step evidence-based framework for pathway development and dissemination:

- Identify an engaged clinical owner
- Recruit a representative stakeholder group
- Review existing guidelines and pathways
- Develop a prototype pathway
- Review the pathway prototype and evidence with stakeholders at an in-person meeting
- Conduct additional evidence reviews as needed
- Update the pathway based on feedback
- Perform quality assurance and review metadata
- Disseminate and message
- Monitor use, impact, and update as needed

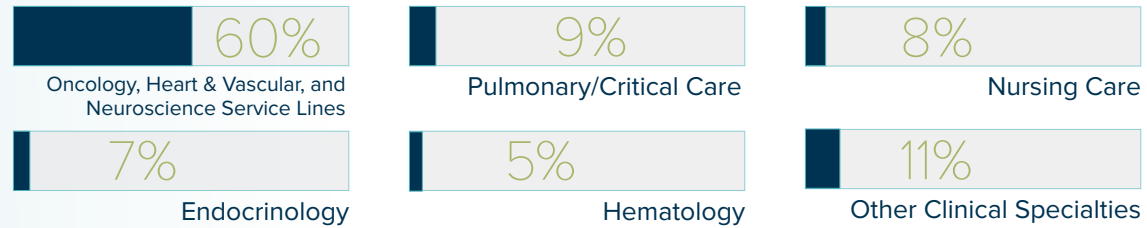
A web-based platform facilitates development, dissemination, and monitoring of pathway content across the health system.



Last year the team introduced 91 clinical pathways across diverse clinical practices.

The Oncology, Heart and Vascular, and Neurosciences service lines account for 60% of the clinical pathways. Pathway development in other clinical areas has been robust as well.

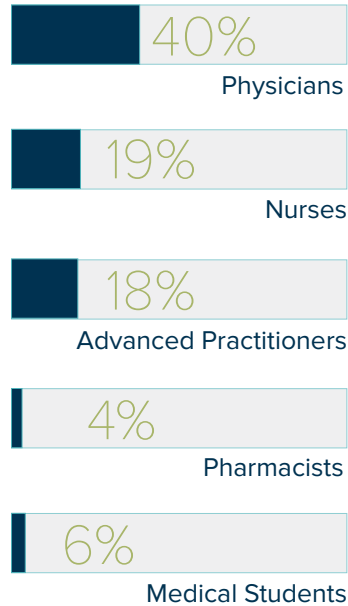
91 CLINICAL PATHWAYS DISSEMINATED



COLLABORATION WITH SERVICE LINES

1,384
VIEWS PER MONTH

917
REGISTERED USERS



IMPLEMENTING PATHWAYS AT PENN MEDICINE

CEP works closely with service lines to develop pathways. For example, the partnership between the Oncology Service Line and CEP resulted in 54 new oncology pathways last year. The pathways help facilitate evidence-based oncologic care across all of Penn Medicine's practice sites, including new care settings such as Lancaster General Hospital.

10-STEP FRAMEWORK FOR DEVELOPING AND DISSEMINATING



REDUCING VARIATION AND SPREADING VALUE

PVI

“

“We are proud to have helped each entity at Penn Medicine to achieve measureable improvements in the care of their patients by supporting their process improvement and fostering a collaborative atmosphere to do this work.”

— MICHAEL A. POSENCHEG, MD, Associate Chief Medical Officer, Penn Value Improvement

THE PRIORITY

The Mission of the Penn Value Improvement (PVI) team is to foster a multidisciplinary, collaborative approach in tackling Penn Medicine’s largest clinical quality problems by effectively spreading and enhancing solutions in relevant locations. The PVI Team spearheads targeted efforts designed to disseminate proven interventions to address these problems.

ORGANIZATION AND STRUCTURE

The team includes a director, project manager, two master improvement advisors, a human factors scientist, a data scientist, and a member of the finance team. The efforts are overseen by executive leadership of Penn Medicine and the Penn Value Steering committee. This was the first time a collaborative model at this scale was used to spread evidence-based practice across all hospitals.



EXECUTIVE LEADERSHIP



PVI TEAM



ENGAGED LOCAL TEAMS



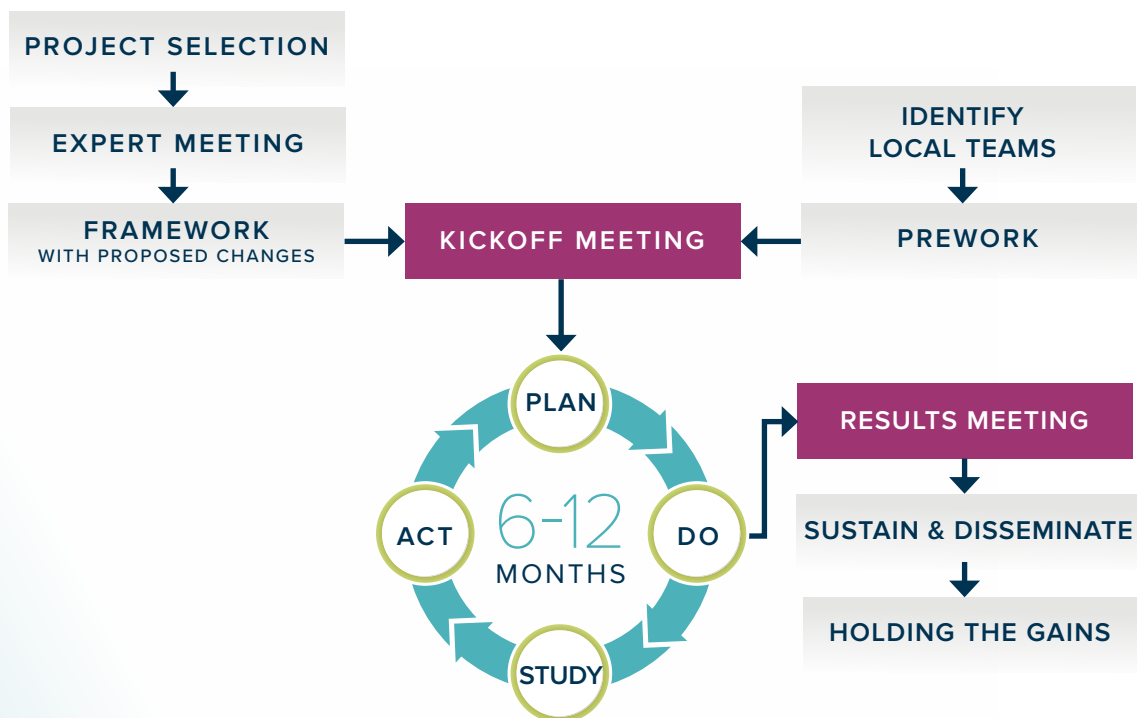
SUCCESS THROUGHOUT PENN MEDICINE

“

PREVENTION IS THE KEY

AN EFFECTIVE COLLABORATIVE MODEL FOR REDUCING ASPIRATION PNEUMONIA

PENN MEDICINE COLLABORATIVE MODEL



Aspiration pneumonia is a leading hospital complication resulting in increased morbidity and mortality. It occurs when patients accidentally inhale foreign matter — such as liquid, vomit, or food — into their lungs and subsequently develop an infection. The impact on the patient’s health is serious, and can be fatal. It is also associated with increased length of stay in the hospital and higher costs.

PREVALENCE AND RANKINGS

Penn Medicine’s downtown hospitals reported 468 cases of aspiration pneumonia in 2015. This translated into rates of 7 to 10 cases per 1000 discharges. These rates are in the 75th percentile when compared to similar hospitals, according to Vizient, a national healthcare network. Nationally, rates at the 50th percentile are reported to be between 4.2 and 6.7 per 1000 discharges.

NEW MODEL – NEW APPROACH

Various performance improvement tools are in use at Penn Medicine; however, this was the first time a collaborative model (adopted from the IHI Breakthrough Series Model) was used to spread evidence-based practice across the system.

OVERALL AIM

The goal was to reduce the incidence of Aspiration Pneumonia in participating entities to below their respective benchmark (Vizient) 50th percentile by December 2017. For most entities, that translated into an approximately 33% reduction from the baseline.

“We collaborated to reduce a devastating and costly complication. While understanding that the overall outcomes are important, the real success of the initiative was the emphasis placed on the entire process and the fostering of system-wide engagement.”

— KELLY PATTON, MHA-HMIS, *Improvement Advisor, Penn Presbyterian Medical Center*

LEARNING FROM THE PAST

Past efforts to reduce aspiration pneumonia had limited success due to the complexity of the problem and lack of a coordinated sustained effort. It was critical that the new plan implement evidence-based practices in the most effective way. The approach leveraged expertise from across the health system.

The Center for Evidence-Based Practice provided research support, and helped the team in selecting strategies with a proven record of success. The effort also drew on best practices in quality improvement by adapting a collaborative model developed by the Institute for Healthcare Improvement.

Further analysis of the aspiration pneumonia data from the three hospitals estimated that one case results in an increase in the length of hospital stay by 11.4 days. This generates approximately \$10,800 in additional direct costs. Success in lowering the rate of aspiration pneumonia saves lives and adds value. For these reasons, it was a priority this past year.

The Penn Value Improvement (PVI) team engaged 11 local teams from all five Penn Medicine hospitals. This included over 75 physicians, nurses, therapists, and other providers. Each team was responsible for implementing the strategies locally and evaluating their impact.

IMPROVEMENT DRIVERS:

- Dysphagia Screening
- Oral Care
- Head of Bed Elevation
- Patient Mobility
- Improved Documentation
- Change Management

ALL FIVE

HOSPITALS SAW A REDUCTION IN THE MEDIAN NUMBER OF CASES PER MONTH OF ASPIRATION PNEUMONIA.

ACROSS THE SYSTEM, THIS RESULTED IN A RATE DECREASE FROM

6.9 → 4.3
CASES PER

1,000
DISCHARGES





MEASURABLE RESULTS

“

“I was amazed to see how our local efforts to reduce aspiration pneumonia were transformed by the PVI team into a health system initiative. They brought together experts and a multidisciplinary team at each entity to develop a formal systematic and sustainable approach that successfully reduced rates of this dangerous complication.”

— VIVEK N. AHYA, MD, MBA, *Vice Chief, Pulmonary, Allergy & Critical Care*



38%

DECREASE TRANSLATED TO

\$2.8 MILLION

SAVED IN HOSPITAL COSTS



The financial impact of this effort was substantial. The estimated annual savings was over \$2.8 million.

Ultimately, three factors drove the success:

- Strong, consistent support of senior and clinical leadership
- A collaborative approach that fostered teamwork across entities, service lines, and specialties
- Integration with data systems to help monitor activities

LOOKING FORWARD

Each team has developed a plan to sustain the initiative beyond the project period. Sustainability requires the right tools. Teams invested time developing new data collection and reporting tools.

Going forward, it will be easier to monitor and track cases, treatment, and interventions to reduce cases as we developed reports to come directly from PennChart (Electronic Health Record). A new tool kit was developed and will be made available to other departments within the system that would like to work on this problem in the future.

INNOVATION ACCELERATOR PROGRAM

RAPID CYCLE IMPROVEMENT IN ACTION

“

“We’ve moved from innovation front-end best practices that allow us to learn fast at low cost to more deep collaborations enabling novel interventions to scale for impact. It’s also energizing to see work that started here spread beyond Penn to help populations of patients around the country.” — **ROY M. ROSIN**, *Chief Innovation Officer Penn Medicine*

The Innovation Accelerator Program is designed to support faculty and staff from across Penn Medicine in their efforts to develop, test, and implement new approaches to improve health care delivery and patient outcomes. Working closely with mentors from the Center, teams move through three phases of work with the ultimate goal of bringing successful innovations to scale.

Since the inception of the program, 30 projects tackling some of health care’s toughest challenges have been funded. All Penn Medicine and University employees are welcome to submit an idea.

The program takes a three phase approach. The first two phases are structured over an eight-month timeline. Phase three varies in length depending on the needs of the project.

The 2017 Innovation Accelerator class was co-sponsored by United Healthcare, supporting their priority of enabling high-value care delivery models.



THREE PHASE APPROACH

IT MIGHT WORK

- Teams work to better understand the problem, rapidly test potential solutions, and define how to measure success.
- Present to leadership for approval and funding.
- Take their ideas to scale.

IT DOES WORK

- Move to larger scale testing.
- Demonstrate sustained impact and secure stakeholder support to move their solution towards implementation.

HOW IT WORKS

- Teams work with stakeholders to secure the permanent infrastructure necessary.
- Teams “graduate” when achieve sustainable implementation at full scale solution.



Four teams were chosen to participate in the Innovation Accelerator Program this past year:

SUPPORTING OLDER ADULTS AT RISK (SOAR)

Traditionally, older hospitalized adults are discharged when medically stable and once post-discharge care is organized. This approach causes patients to stay in the hospital beyond what is medically necessary, waiting for services to be arranged. This delay compromises patient safety and overall health status and leads to increased hospital cost. The SOAR project aims to test a transitional care model with strong prior evidence of improved outcomes that “flips” assessment of post-discharge needs to the home setting, moving patients to home sooner with care and support that keeps them safe upon earlier discharge.

Team lead: **Rebecca Trotta, PhD, RN**
 Director of Nursing Research and Science, Hospital of the University of Pennsylvania

PENN MEDICINE VIRTUAL CARE

Studies have shown that telemedicine video visits can increase provider capacity, improve patient satisfaction and reduce costs. However, the state of Pennsylvania does not have telemedicine parity reimbursement law. The Penn Medicine Virtual Care project aims to test a self-pay concierge service model for telemedicine video visits in partnership with Independence Blue Cross. The goal is to prove that evaluation and management services can be completed through video visits for the right clinical use cases while enhancing access and establishing a solid business model.

Team lead: **Janice Hillman, MD, FACP, CCA**
 Adolescent and Young Adult Medicine, Penn Medicine at Radnor,
 Clinical Care Associates

HEART CARE CONTINUUM

Heart failure (HF) is projected to affect more than 8 million people from 2012 to 2030. The costs associated with HF are approximately \$30.7 billion annually, a large proportion of which is accumulated as patients approach the end of life. The care of HF patients during end of life is suboptimal in comparison to other populations, and there are high rates of hospitalization. Inadequate and lack of timely symptom management results in emergency department visits and readmissions. The Heart Care Continuum team is developing a heart failure program to improve symptom management for advanced heart failure patients, facilitate teamwork among palliative care and cardiology providers, and increase more timely referrals to hospice.

Team leads: **Nina O’Connor, MD**
 Chief, Hospice and Palliative Care, Chief Medical Officer, Penn Wissahickon Hospice
Esther Pak, MD
 Fellow in Cardiovascular Medicine

BREATHE BETTER TOGETHER

Chronic Obstructive Pulmonary Disease (COPD) is the 3rd leading cause of death in the U.S. and hospitalizations for COPD exacerbations are associated with high morbidity and significant short-term mortality. Nationally, inpatient treatment for COPD exacerbations accounts for approximately \$13 billion dollars in direct costs. Approximately 20% of patients admitted to the hospital with COPD are readmitted within 30 days, and it’s estimated that 10-50% of readmissions may be preventable. The Breathe Better Together team is working to develop a multidisciplinary cost-effective transitional care program for COPD patients. The program will include evidence-based interventions targeting high-risk hospitalized patients who are discharged to home.

Team lead: **Vivek Ahya, MD**
 Vice Chief, Clinical Affairs, Pulmonary, Allergy & Critical Care Division;
 Associate Professor of Medicine





AWARDS & ACHIEVEMENT

- QUALITY AND PATIENT SAFETY AWARDS
- HOSPITAL ACQUIRED INFECTION DAYS FREE AWARD
- INNOVATION ACCELERATOR PROGRAM
- PATIENT SAFETY ADVOCATE AWARDS
- 100+ NATIONAL AWARDS

EXTERNAL AWARDS

100+ NATIONAL

ACCREDITATION FOR CARDIOVASCULAR EXCELLENCE (ACE)

Chester County Hospital
Cath/PCI Accreditation

AMERICAN COLLEGE OF CARDIOLOGY (ACC) ACCREDITATION SERVICES

Chester County Hospital
Chest Pain Center Accreditation with Primary PCI & Resuscitation

AMERICAN HEART ASSOCIATION/ AMERICAN STROKE ASSOCIATION

The award recognizes these Penn Medicine hospitals' commitment and success in implementing a higher standard of stroke care by ensuring that stroke patients receive treatment according to nationally accepted standards and recommendations. The American Heart Association has provided the following achievement awards to Penn Medicine:

Chester County Hospital

Get With The Guidelines® – Stroke Silver Plus, Target: Stroke Honor Roll
Mission Lifeline – Silver Award

Hospital of the University of Pennsylvania

Get With The Guidelines® – Stroke Gold Plus Target: Stroke Honor Roll Elite Plus

Get With The Guidelines® – Heart Failure Gold Plus Target:
Heart Failure Honor Roll

Lancaster General Health

Get With The Guidelines® – Stroke Gold Plus Target: Stroke Honor Roll Elite Plus

Pennsylvania Hospital

Get With The Guidelines® – Stroke Gold Plus Target:
Stroke Honor Roll Elite Plus

Get With The Guidelines® – Heart Failure Silver Plus

Penn Presbyterian Medical Center

Get With The Guidelines® – Stroke Gold Plus Target:
Stroke Honor Roll Elite Plus

Get With The Guidelines® – Heart Failure Bronze
Target: Heart Failure Honor Roll



AWARDS

BEACON AWARD FOR EXCELLENCE

The American Association of Critical-Care Nurses awards the Beacon Award for Excellence to critical-care units nationally.

Hospital of the University of Pennsylvania

Critical Care Unit: Silver Award

Critical Intermediate Care Unit: Silver Award

Founders 12: Silver Award

Heart and Vascular ICU: Silver Award

Intensive Care Nursery: Silver Award

Medical Intensive Care Unit: Silver Award

Post-Anesthesia Care Unit: Silver Award

Rhoades 7: Silver Award

Rhoades 1: Gold Award

Rhoades 5 SICU: Silver Award

Pennsylvania Hospital

Critical Care Unit: Silver Award

Intensive Care Nursery: Silver Award

Penn Presbyterian Medical Center

Medical Intensive Care Unit: Silver

BECKER'S HOSPITAL REVIEW

Becker's Hospital Review provides hospital and health system news, best practices and legal guidance specifically for healthcare leaders. According to the review, each of these winners puts patients' needs first, driven a variety of innovations and set the bar for high-quality care higher.

Hospital of the University of Pennsylvania

Penn Presbyterian

100 Great Hospitals in America

Lancaster General Hospital

100 Great Hospitals and Health Systems with great Orthopedic, Neurosurgery & Spine programs

Penn Medicine

100 Great Hospitals and Health Systems with Innovation Programs



U.S. NEWS & WORLD REPORT RANKINGS

Penn Medicine hospitals are ranked among the top hospitals in the country by U.S. News & World Report. The Hospitals of the University of Pennsylvania-Penn Presbyterian (HUP/PPMC) were ranked among the nation's top hospitals in 2017. **HUP/PPMC is ranked #10** in the nation, in the publication's prestigious annual "Honor Roll" recognition for excellence in multiple specialties.

Penn Medicine's hospitals are all recognized as among the best regionally. In the Philadelphia metro area, **HUP/PPMC is ranked #1**, **Pennsylvania Hospital (PAH) is ranked #7** and **Chester County Hospital (CCH) is ranked #5**.

Across the state of Pennsylvania, **HUP/PPMC is ranked #1** with **Lancaster General Hospital (LGH) at #6**, **PAH at #14**, and **CCH at #9**.

RANKINGS BY SPECIALTY:

Cardiology & Heart Surgery

HUP/PPMC: #8 in the nation, Highest in the Philadelphia region

Diabetes & Endocrinology

HUP/PPMC: #8 in the nation, Highest in the Philadelphia region

Ear, Nose & Throat

HUP/PPMC: #13 in the nation

Gastroenterology & Gastrointestinal Surgery

HUP/PPMC: #12 in the nation, Highest in the Philadelphia region

LGH: High performing in the nation

Geriatrics

HUP/PPMC: #13 in the nation, Highest in the Philadelphia region

LGH: High performing in the nation

PAH: High performing in the Philadelphia region

Nephrology

HUP/PPMC: #7 in the nation, Highest in the Philadelphia region

Neurology & Neurosurgery

HUP/PPMC: #12 in the nation, Highest in the Philadelphia region

Orthopaedics

HUP/PPMC: #16 in the nation

LGH: High performing in the nation

PAH: High performing in the nation

Pulmonology

HUP/PPMC: #9 in the nation, Highest in the Philadelphia region

LGH: High performing in the nation

Urology

HUP/PPMC: #36 in the nation

RANKINGS BY COMMON CARE CONDITIONS:

Abdominal Aortic Aneurysm Repair

HUP/PPMC | LGH | PAH

Aortic Valve Surgery

HUP/PPMC | LGH

Chronic Obstructive Pulmonary Disease (COPD)

CCH | HUP/PPMC | LGH | PAH

Colon Cancer Surgery

CCH | HUP/PPMC | LGH | PAH

Heart Failure

CCH | HUP/PPMC | LGH | PAH

Hip and Knee Replacement

CCH

Lung Cancer Surgery

HUP/PPMC | LGH

100+ NATIONAL AWARDS

BLUE DISTINCTION CENTERS®

INDEPENDENCE BLUE CROSS

Facilities designated as Blue Distinction Centers® offer “comprehensive care programs for adults, delivered by multidisciplinary teams with subspecialty training, and distinguished clinical expertise in treating these conditions.” Penn Medicine has received designation as a Blue Distinction Center® for the following services:

Chester County Hospital

Cardiac Care +
Maternity Care +
Knee and Hip Replacement +

Lancaster General Health

Cardiac Care
Maternity Care
Knee and Hip Replacement +
Bariatric Surgery

Pennsylvania Hospital

Bariatric Surgery
Maternity Care
Spine Surgery +

Hospital of the

University of Pennsylvania

Bariatric Surgery
Complex and Rare Cancers
Maternity Care
Transplant
Spine Surgery +

Penn Presbyterian

Medical Center

Bariatric Surgery
Knee and Hip Replacement +

CMS

The Centers for Medicare & Medicaid Services, (CMS), is part of the Department of Health and Human Services. CMS created the Five-Star Quality Rating System to help consumers, their families, and caregivers compare hospitals.

CCH: 5 Star | **HUP:** 4 Star | **LGH:** 5 Star | **PAH:** 2 Star | **PPMC:** 5 Star

ENA LANTERN AWARD EMERGENCY DEPARTMENT

The Lantern Award is a recognition award given to emergency departments that exemplify exceptional practice and innovative performance in the core areas of leadership, practice, education, advocacy and research. The award is a visible symbol of an emergency department's commitment to quality, presence of a healthy work environment, and accomplishment in incorporating evidence-based practice and innovation into emergency care.

Pennsylvania Hospital

FORBES AMERICA'S BEST EMPLOYERS

Each year *Forbes* works with research firm Statista to measure leading employers around the globe to find out which companies stand above the competition.

Penn Medicine | Ranked #6 in America

HAP AWARD

The Hospital and Healthsystem Association of Pennsylvania (HAP) recognizes these innovative efforts through its respected Achievement Awards programs.

GIFT OF LIFE DONOR PROGRAM | HEALTH SYSTEM DESIGNATIONS

Platinum

Penn Medicine

GIFT OF LIFE DONOR PROGRAM | HOSPITAL DESIGNATIONS

Titanium

**Hospital of the
University of Pennsylvania**

Platinum

**Lancaster General Health
Pennsylvania Hospital
Penn Presbyterian Medical Center**

HEALTHGRADES

Healthgrades provides comprehensive online information about physicians and hospitals.

Healthgrades awards:

Chester County Hospital

20 Healthgrades 5-star Ratings
6 Healthgrades Quality Awards
America's 100 Best Hospital Award
Distinguished Hospital award for Clinical Excellence

Lancaster General Health

23 Healthgrades 5-star Ratings
11 Healthgrades Quality Awards
America's 50 Best Hospital Award
Distinguished Hospital Award for Clinical Excellence

Hospital of the

University of Pennsylvania

2 Healthgrades 5-star Ratings
2 Healthgrades Quality Awards
Outstanding Patient Experience Award

Pennsylvania Hospital

7 Healthgrades 5-star Ratings
1 Healthgrades Quality Awards

Penn Presbyterian Medical Center

12 Healthgrades 5-star Ratings
4 Healthgrades Quality Awards

IBM WATSON HEALTH

100 TOP HOSPITALS FOR 2017

The annual Watson Health 100 Top Hospitals study, formerly the Truven Health Analytics, incorporates independent public data, risk-adjusted and peer-reviewed methodologies, and key performance metrics to arrive at an objective analysis of the best hospitals in the nation. The report divides the group of 100 top hospitals into five subcategories based on size and type.

Chester County Hospital

Listed in the Top 20 for midsize community hospitals

Lancaster General Health

This is the 11th time LGH has appeared on the list since 1997, an achievement shared by only a handful of hospitals across the nation.

INFORMATION WEEK'S ELITE 100

Penn Medicine Information Services Ranks Fourth

For the second year in a row, Penn Medicine has been ranked in the top 5 in InformationWeek Elite 100, an annual list of U.S. businesses from all industries that use innovative and leading information technologies to run their business. Penn Medicine is being recognized for the implementation of Penn Signals, a real-time, big data platform used to generate multiple predictive applications delivered to clinical teams.

THE INTERNATIONAL GERIATRIC FRACTURE SOCIETY (IGFS)

Lancaster General Health

Earned Premier Level Certification in 2017, 11th in the United States to secure the highest level of certification for Geriatric Fracture Care Programs as recognized by the IGFS CORE Certification Program; 13th globally to exceed outcome benchmarks in the management of geriatric fractures.

THE JOINT COMMISSION'S GOLD SEAL OF APPROVAL

The Joint Commission, an independent, not-for-profit organization, accredits more than 20,000 health care organizations and programs in the United States. Penn Medicine has received advanced certification in:

Chester County Hospital

Advanced Primary Stroke Center

Hospital of the

University of Pennsylvania

Advanced Comprehensive Stroke Center

Advanced Ventricular Assist Device

Advanced Heart Failure

Lancaster General Hospital

Advanced Ventricular Assist Device

Advanced Primary Stroke Center

Hip Fracture

Joint Replacement - Hip

Joint Replacement - Knee

Pennsylvania Hospital

Primary Stroke Center

Perinatal Care Certification

Penn Presbyterian Medical Center

Advanced Primary Stroke Center

Advanced Ventricular Assist Device

Joint Replacement - Hip

Joint Replacement - Knee

Good Shepherd Penn Partners Specialty Hospital at Rittenhouse

Clinical Practices of the University of Pennsylvania

Penn Home Infusion Therapy

100+ NATIONAL AWARDS

JOSIE KING

Inaugural Award to Intensive Care Nursery for Breast Milk Feeding Safety

Pennsylvania Hospital

Second Annual Award to Cardiac Cath Lab Team for Reduction in Risk Adjusted Bleeding Events and Kidney Injury Following Cardiac Catheterizations and Interventions

Pennsylvania Hospital

LEAPFROG

The Leapfrog Group works with its employer members to promote easy access to health care information as well as rewards for hospitals that have a proven record of high-quality care. Its Hospital Safety Score® assigns A, B, C, D, and F grades to more than 2,500 U.S. hospitals based on their ability to prevent errors, accidents, injuries, and infections. The Hospital Safety Score is calculated by top patient safety experts, is peer-reviewed, and free to the public.

Chester County Hospital

Fall 2017, A | Spring 2018, A

Hospital of the University of Pennsylvania

Fall 2017, A | Spring 2018, A

Lancaster General Health

Fall 2017, A | Spring 2018, A

Pennsylvania Hospital

Fall 2017, C | Spring 2018, C

Penn Presbyterian Medical Center

Fall 2017, A | Spring 2018, A

“MOST WIRED”

Penn Medicine has been recognized by Hospitals and Health Networks with Most Wired Award. The “Most Wired” survey measures the level of information technology adoption in U.S. hospitals and health systems.

NATIONAL COMMITTEE FOR QUALITY ASSURANCE

National Committee for Quality Assurance (NCQA) recognizes practices as a patient-centered medical home. Making primary care more accessible, comprehensive, and coordinated; to improve patient outcomes; and to lower overall healthcare costs. There are 3 levels of NCQA recognition, ranging from Level 1 to Level 3, the highest.

Clinical Care Associates

Level 3 PCMH Recognition

26 Primary Care Practices

2 Adolescent and Young Adult Medicine Practices

2 PennCare for Kids Practices

Clinical Practices of the University of Pennsylvania

Department of General Internal Medicine Practices

Penn Internal Medicine University City

Edward S. Cooper Internal Medicine

Penn Center for Primary Care

Penn Medicine at Radnor - General Internal Medicine

Family Medicine Practice

Penn Family Care (Department of Family Medicine and Community Health)

Lancaster General Health

Level 3 PCMH Recognition

25 Family Medicine Practices

2 Internal Medicine Practices

2 Pediatric Practices

MAGNET® AWARD FOR NURSING

All Penn Medicine Acute Care Facilities

The Chester County Hospital, Hospital of the University of Pennsylvania, Lancaster General Hospital, Penn Presbyterian Medical Center, and Pennsylvania Hospital have all achieved Magnet® status from the American Nurses Credentialing Center, the highest institutional honor awarded for nursing excellence—from the American Nurses Credentialing Center (ANCC).

MBSAQIP METABOLIC AND BARIATRIC SURGERY QUALITY IMPROVEMENT PROGRAM

Accreditation for Center of Excellence

National accreditation for Bariatric Surgery from MBSAQIP

Lancaster General Health

Pennsylvania Hospital

Penn Presbyterian Medical Center

PENNSYLVANIA PATIENT SAFETY SUMMIT AWARD

Pennsylvania Patient Safety Authority’s first annual Pennsylvania Patient Safety Summit in State College Recognized Chester County Hospital as one of 10 facilities as a winner of the “I Am Patient Safety” contest.

Chester County Hospital

Infant Safety Bundle Project

TOP DOCTORS PHILADELPHIA MAGAZINE

Each year, Philadelphia Magazine compiles its “Top Doctors” list of the region’s best physicians. In 2017, 198 Penn physicians were included in the rankings.



TRUVEN HEALTH *100 TOP HOSPITALS FOR 2017*

Truven Health Analytics, now part of IBM Watson Health, is one of the industry's most comprehensive sources of healthcare information. This is the 11th time Lancaster General Hospital has appeared on the list since 1997, an achievement shared by only a handful of hospitals across the nation.

Lancaster General Health

UGO AWARD

Community Wellness Venture for contributions to the People's Emergency Center in West Philadelphia.

Penn Presbyterian Medical Center

UNICEF/WHO BABY FRIENDLY DESIGNATION

Hospital of the University of Pennsylvania

Lancaster General Health

Pennsylvania Hospital

VPP STAR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) WITH VOLUNTARY PROTECTION PROGRAMS (VPP) STAR STATUS

VPP Star recognizes organizations and employees who have implemented effective safety and health management systems and maintain injury and illness rates below national averages. This prestigious honor includes Lancaster General Health and facilities and services associated with its license including BURLE, Women & Babies Hospital and 14 outpatient centers. VPP recognizes organizations and employees who have implemented effective safety and health management systems and maintain injury and illness rates below national averages.

Lancaster General Health

COC OUTSTANDING ACHIEVEMENT AWARD

The American College of Surgeons Commission on Cancer (CoC) has granted a three-year accreditation and its highest honor, the Outstanding Achievement Award, to the Abramson Cancer Center at Penn Presbyterian Medical Center (PPMC). The Abramson Cancer Center at the Hospital of the University of Pennsylvania and Pennsylvania Hospital also received their three year accreditation with commendation at their last survey. Other Penn Medicine Hospitals' cancer programs (Lancaster General Hospital and Chester County Hospital) are also Commission on Cancer Accredited and will have their reaccreditation surveys in the future.

2017 QUALITY

INTERNAL AWARDS

The Quality and Patient Safety Award has been a long-standing opportunity for teams to formally document their achievements in quality and patient safety over 12 months. The Award has been designed to acknowledge Penn Medicine teams who have exhibited leadership and innovation in activities that ensure high-quality clinical outcomes, patient satisfaction, patient safety and cost efficiency.



& PATIENT SAFETY AWARDS

Penn Medicine

Quality and Patient Safety Winner

More Rapid Liberation from Mechanical Ventilation, the Intensive Care Unit and Hospital by Using a Novel ICU Dashboard and Alert Program

Operational

Platelet Transfer- Project-Reducing Expiration and Cost

Honorable Mention

Decreasing the Incidence of Aspiration Pneumonia across the Penn Medicine Health System: A Report from the RAsPI (Reducing Aspiration Pneumonia Initiative) Collaborative

Honorable Mention

Alaris® Guardrails® Infusion Pump Library - Health System Standardization

Special Recognition Award was also given to the **PennChart team** for Implementation of PennChart (Penn Medicine's electronic health record)

Chester County Hospital

Quality and Patient Safety Winner

Show Me the Way: Helping Patients and Employees Navigate During Construction

Operational

Decreasing Observation Length of Stay: A Multidisciplinary Approach to the Clinical Decision Unit

Honorable Mention

Partnering with Families Through the Implementation of an Infant Safety Bundle

Clinical Care Associates

Quality and Patient Safety Winner

Implementation of a Standard Office Workflow that Improves Clinical Quality Metrics

Operational

Bala Cynwyd Internal Call Center Project

Honorable Mention

Making Connections: Improving the Referral/Collaboration Process of Co-Located Behavioral Health Service in the Primary Care Setting

Clinical Practices of the University of Pennsylvania

Quality and Patient Safety Winner

Interventional Radiology Virtual Chemo Port Incision Checks

Operational

Nurse-Driven Symptom Management Process for Common RT Side Effects

Honorable Mention

The Oncology Evaluation Center, an APP-run Clinic, Provides Same-Day Evaluation of Oncology Patients in the Ambulatory Setting

Hospital of the University of Pennsylvania

Quality and Patient Safety Winner

Improving Time to Defibrillation in Inpatient Cardiopulmonary Arrest (CPA)

Operational

Virtual Calorimeter: Technology to Improve Enteral Nutrition Delivery in the Critically Ill

Honorable Mention

Creation & Development of the Department of Emergency Medicine's Resuscitation & Critical Care Unit (ResCCU)

Honorable Mention

Disease specific therapy services intervention to reduce length of stay for stroke

Lancaster General Health

Quality and Patient Safety Winner

Universal Screening for Substance Abuse to Drive Evidence Based Protocols for Medical Treatment and Addiction Intervention

Operational

Lancaster General Microbiology Technology Innovations

Honorable Mention

Walter L Aument Family Health Center Mediset Safety Initiative

Penn Home Care and Hospice Services

Quality and Patient Safety Winner

Penn Home Infusion Therapy: Culture of Safety

Operational

PCAH: Reducing 30-Day Unplanned Rehospitalizations through Interdisciplinary Case Conferences and the Activation of a Rehospitalization Toolkit

Honorable Mention

Careway: Improving Patient Satisfaction Scores Through Our Partnership with CipherHealth

Penn Institute for Rehabilitation Medicine

Quality and Patient Safety Winner

Multifaceted Interdisciplinary Approach to Reducing Falls

Specialty Hospital at Rittenhouse Operational

Admission Time Out

Penn Presbyterian Medical Center

Quality and Patient Safety Winner

Development and implementation of an Electronic Health Record-Based Sepsis Alert System

Operational

Bringing Meaning and Life Back to the Critically Ill at Penn Presbyterian Through Sedation Minimization

Honorable Mention

Implementation of Clinical Emergency Debriefing Program

Pennsylvania Hospital

Quality and Patient Safety Winner

Enhanced Recovery After Cardiac Surgery: Initiating an "On Table Extubation" (OTE) program in Patients undergoing isolated Coronary Artery Bypass Grafting, reducing 24 hour postoperative requirements

Operational

Caring for a New Patient Population: Elevating the Practice of Medical Surgical Nurses

Honorable Mention

Enhanced Recovery after Neurosurgery

Honorable Mention

An Inter-Professional Approach to Improving the Patient Experience

HOSPITAL ACQUIRED INFECTION DAYS FREE AWARD

The Penn Medicine “Hospital Acquired Infection (HAI) Days Free Award” was created to recognize units that keep patients free from hospital-acquired infections (CLABSIs, CAUTIs, VAPs). Penn Medicine established four levels of achievement: Bronze (500 days free), Silver (750 days free), Gold (1,000 days free) and Platinum (over 1,500 days free). The Health System has found the awards to be a tremendous source of pride for the units and a great motivator for continued high performance.



PLATINUM
OVER 1,500 DAYS FREE

GOLD
1,000 DAYS FREE

SILVER
750 DAYS FREE

BRONZE
500 DAYS FREE

CENTRAL LINE BLOOD STREAM INFECTIONS (CLABSI)

Chester County Hospital
Progressive Care Unit

Hospital of the University of Pennsylvania
Rhoads 1

Lancaster General Health
6 East

Penn Presbyterian Medical Center
ACE Acute Care for Elders Unit

Chester County Hospital
4 Lasko

Hospital of the University of Pennsylvania
Ravdin 9

Lancaster General Health
3 East – Pediatrics

Pennsylvania Hospital
4 Cathcart

Penn Presbyterian Medical Center
Cupp 5 East

Chester County Hospital
West Wing 1
3 Lasko
Neonatal Intensive Care

Lancaster General Health
5 East, 7 North

Pennsylvania Hospital
7 Cathcart/7Preston
3 Widener A

Penn Presbyterian Medical Center
Cupp 4 East

Chester County Hospital
West Wing Ground 4 North
Critical Care Unit

Hospital of the University of Pennsylvania
Silverstein 12 Founders 10
Ravdin 6 CICU

Lancaster General Health
5 Lime 7 Lime
5 North

Penn Presbyterian Medical Center
NeuroIntensive Care Unit

CATHETER ASSOCIATED URINARY TRACT INFECTIONS (CAUTI)

Hospital of the University of Pennsylvania
Silverstein 8
CICU

Penn Presbyterian Medical Center
Cupp 3 East

Chester County Hospital
Progressive Care Unit

Lancaster General Health
4 North

Chester County Hospital
4 Lasko Tower
West Wing 2

Hospital of the University of Pennsylvania
Founders 12
Silverstein 9

Lancaster General Health
5 North

Penn Presbyterian Medical Center
Cupp 5 East

Chester County Hospital
West Wing 1 3 Lasko 3 North

Hospital of the University of Pennsylvania
Rhoads 7 Ravdin 6 Silverstein 7
Labor and Delivery

Lancaster General Health
5 West 7 Lime 3 North
4 West 8 Lime
6 North – Intermediate Intensive Care Unit

Pennsylvania Hospital
5 Cathcart

Penn Presbyterian Medical Center
ACE Acute care for Elders Unit

VENTILATOR ASSOCIATED PNEUMONIA (VAP)

Chester County Hospital
Neonatal Intensive Care
Post Critical Care Unit

Hospital of the University of Pennsylvania
Silverstein 9 NICU

Pennsylvania Hospital
3 Widener A

Hospital of the University of Pennsylvania
CCU

Lancaster General Health
6 North – Intermediate Intensive Care Unit

Pennsylvania Hospital
3 Widener B

Pennsylvania Hospital
3 Shiedt

2017 – 2018 PENN MEDICINE ENTITY-BASED PATIENT SAFETY AWARDS

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Penn Medicine recognizes employees for their contributions to patient safety through our entity-based Patient Safety and Quality Awards. These awards acknowledge staff who go above and beyond to ensure patient safety. Staff refer colleagues who speak out on behalf of patients or take the extra step to prevent harm. A committee of multidisciplinary leaders reviews and votes on winners.



AWARDS

- Good Catch Awards
- Patient Safety Advocate
- Patient Safety Innovator awards
- Patient Advocacy Recognition awards
- Annual Patient Safety Fair winners

PRESENTED TO STAFF AT

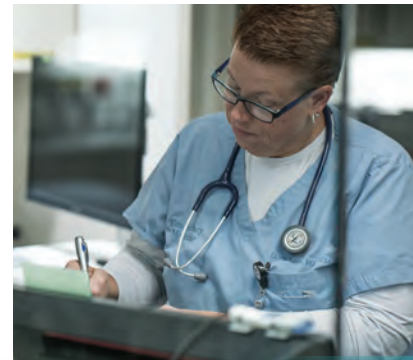
- Clinical Practices of the University of Pennsylvania
- Clinical Care Associates
- Chester County Hospital
- Hospital of the University of Pennsylvania
- Lancaster General Health
- Pennsylvania Hospital
- Penn Presbyterian Medical Center
- Good Shepherd Penn Partners
- Specialty Hospital at Rittenhouse
- Penn Home Care and Hospice Services

Benjamin and Mary Siddons Measey
Learning Commons



THANK YOU

to the many staff and administrators who contributed to this report. Your dedication to promoting patient safety and quality supports the culture of excellence that defines Penn Medicine today





PENN MEDICINE WELCOMES PRINCETON HEALTH

“

“The joining together of Princeton Health and Penn Medicine represents an exciting new chapter in Penn Medicine’s growth. Princeton Health has an impressive reputation for providing high-quality care to patients close to home, and innovating in many types of community-based health and wellness initiatives.”

— RALPH W. MULLER, CEO of the University of Pennsylvania Health System

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Penn Medicine