



Penn Medicine
Lancaster General Health

KINBERCON 2024

Improving Patient Engagement in Health Care

Allen Cubell, Executive Director Innovation

JJ Havard, Director Pulmonary Services

Cynthia Frankfurt, Clinical Supervisor, Pulmonary Navigation & Rehabilitation

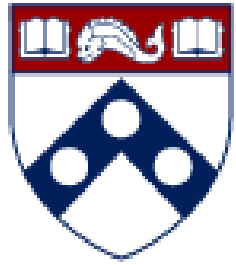
April 18, 2024

Agenda

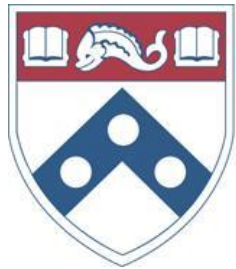
INTRODUCTION

INNOVATION AT PENN MEDICINE LANCASTER GENERAL HEALTH

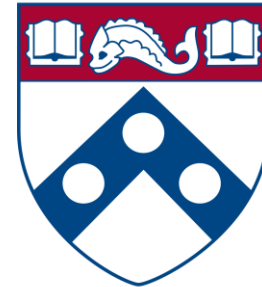
PROJECT EXAMPLE



Penn Medicine



UNIVERSITY OF
PENNSYLVANIA
HEALTH SYSTEM



Perelman
School of Medicine
UNIVERSITY of PENNSYLVANIA



Penn Medicine



UNIVERSITY OF
PENNSYLVANIA
HEALTH SYSTEM

3,406

Licensed Beds

6,800+

Research Faculty & Staff

6,052

Physicians

47,035

Total Employees

129,000+

Adult Admissions

5.7 Million

Outpatient Visits

6

Acute-Care Hospitals

\$982 Million

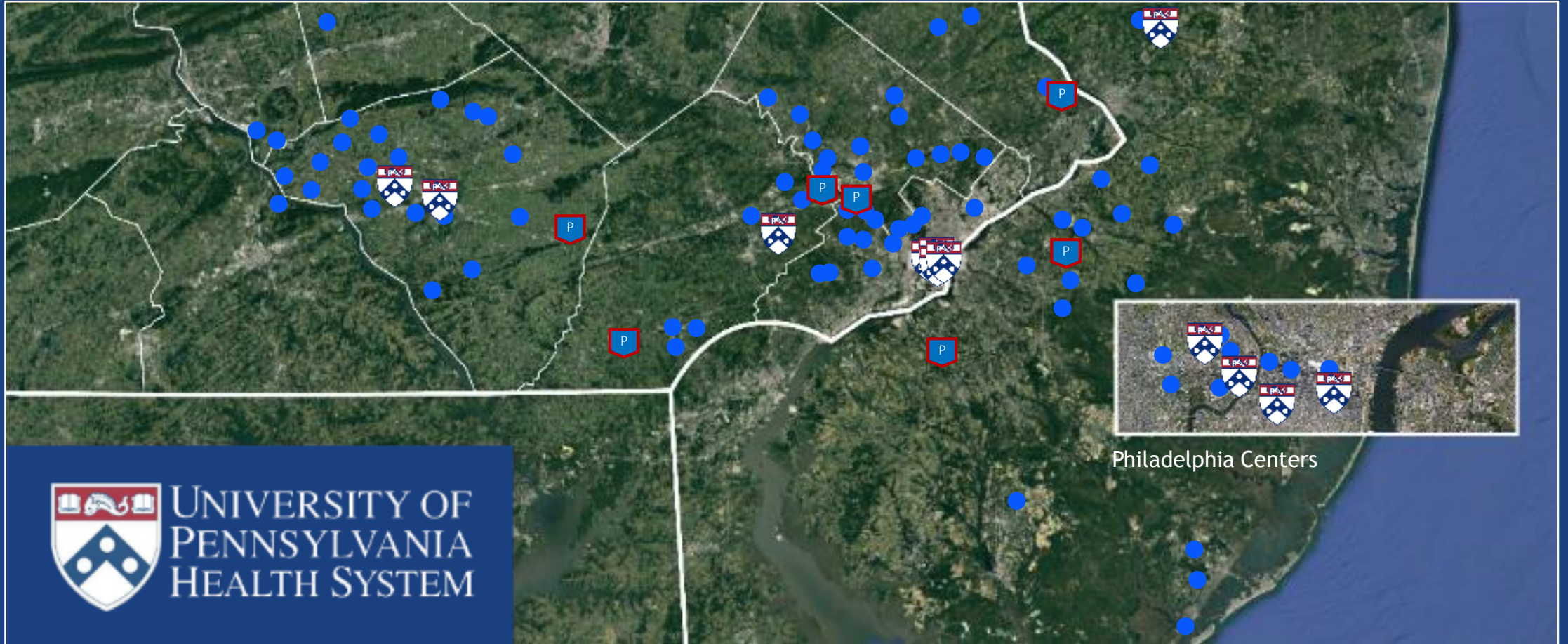
Total Sponsored Research

\$9.9 Billion

Operating Revenue



Penn Medicine





Penn Medicine
Lancaster General Health



4

Hospitals



34

Primary Care
Practices



35

Specialty/Surgical
Practices



22

Outpatient Locations



7

Urgent Care locations

805

Licensed Beds

980+

Medical Staff Members

9,700+

Employees

31,541

Inpatient Discharges

38,501

Surgeries

1.45 Million+

Outpatient Visits

\$1.64 Billion

Total System Revenues

**MAGNET
RECOGNIZED**



AMERICAN NURSES
CREDENTIALING CENTER



PM LGH AWARDS & RECOGNITIONS

U.S. News Best Hospitals

- LGH ranked 4th best hospital in PA
- Best Hospitals for Maternity Care – Women & Babies

Leapfrog

- LGH Hospital Safety Grade A

Healthgrades

- America's 50 Best Hospitals

American Hospital Association

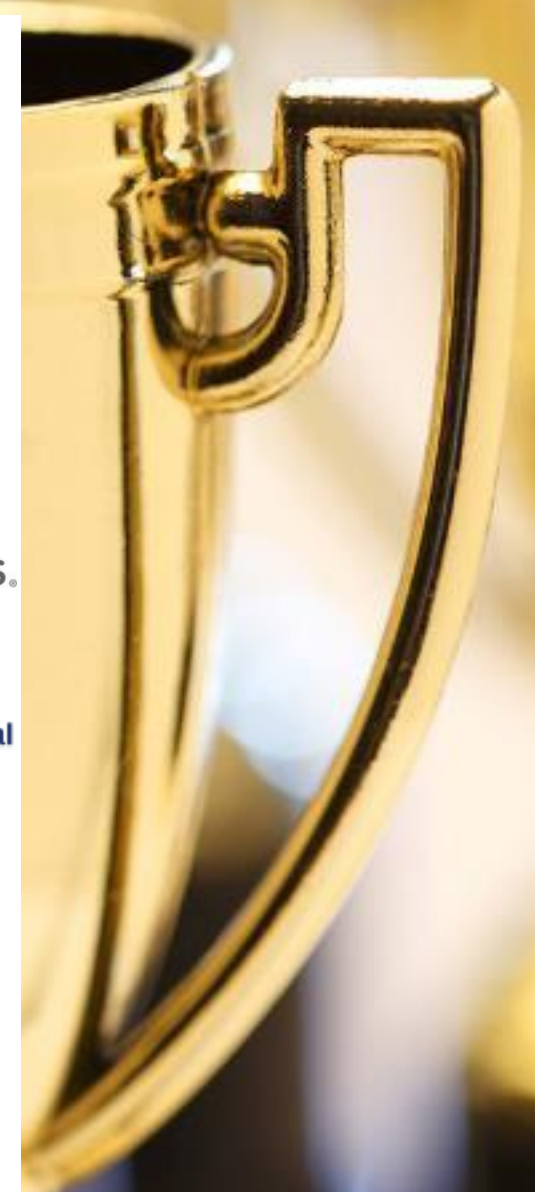
- 2018 Foster G. McGaw Prize Winner
- Recognizes hospitals that have distinguished themselves through efforts to improve the health and well-being of everyone in their communities



THE LEAPFROG GROUP



Advancing Health in America



Health Care is Big

US National Health Expenditure (NHE) grew 4.1% to **\$4.5 trillion** in 2022, or **\$13,493 per person**, and accounted for **17.3% of Gross Domestic Product (GDP)**

Innovation Focus Areas

Consumerism

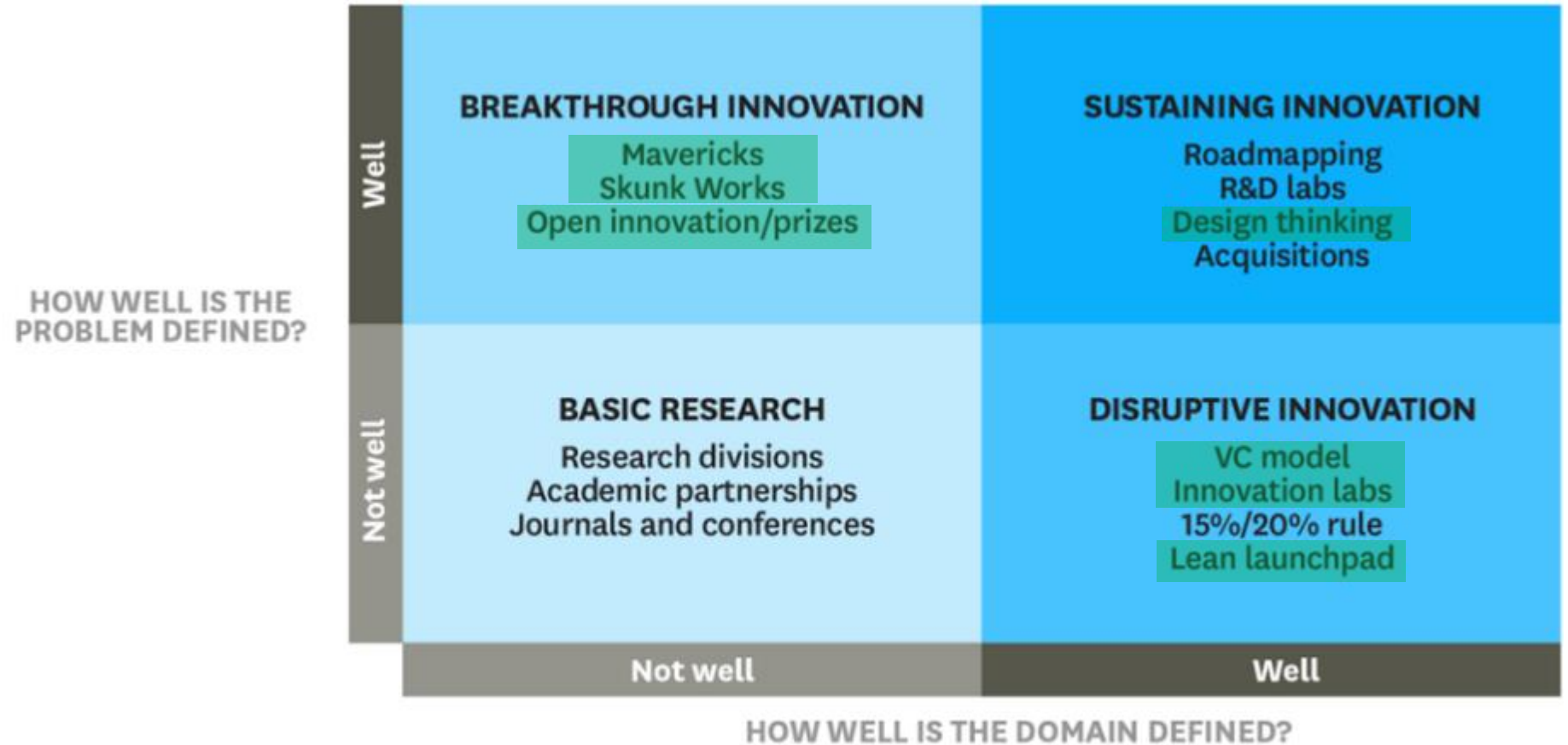
Value Based Care

Provider Well-Being

Innovation ≠ Technology



Innovation Techniques

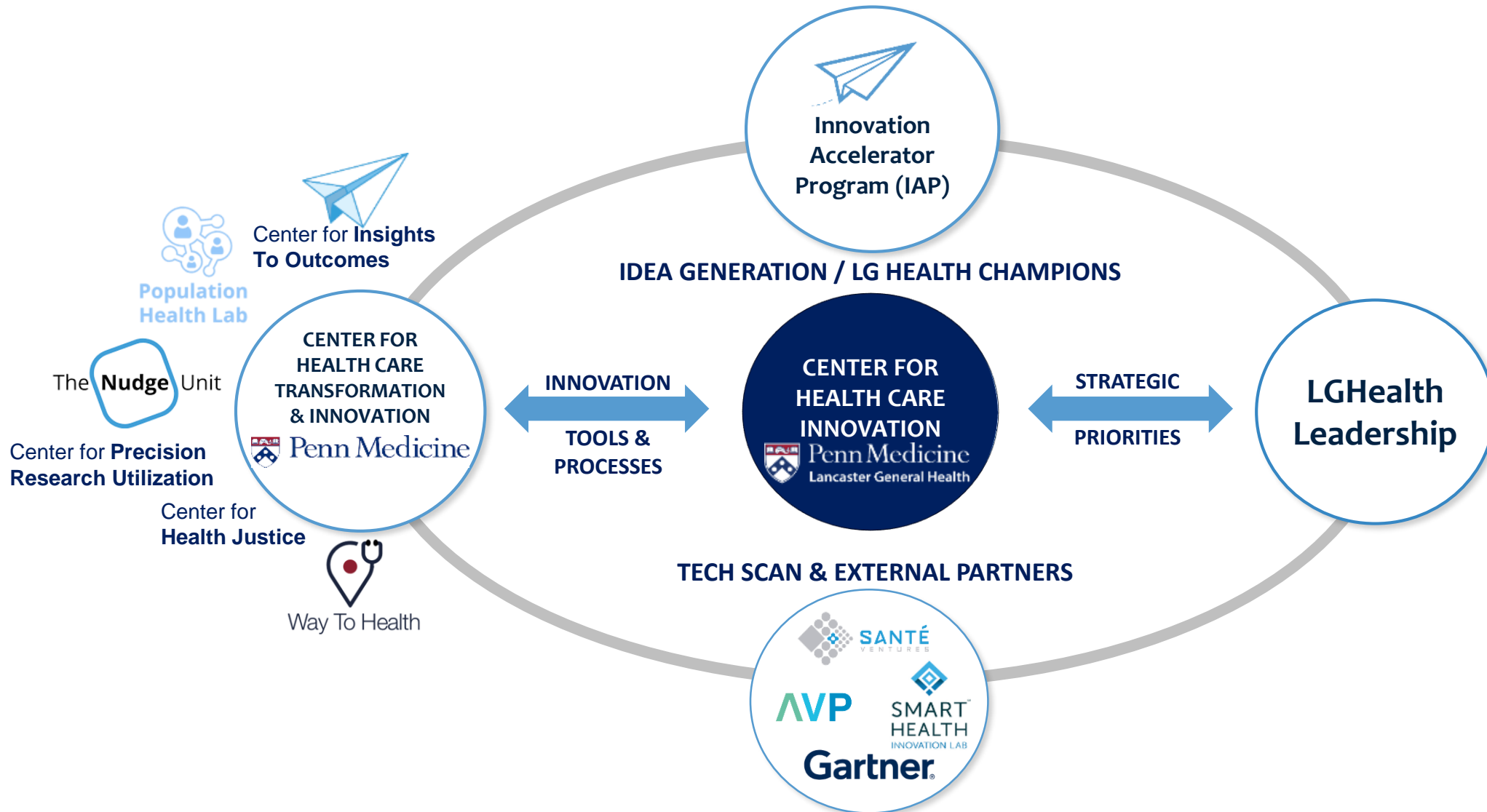


Source: Satell, Greg, *The 4 Types of Innovation and the Problems They Solve*, HBR, June 21, 2017.

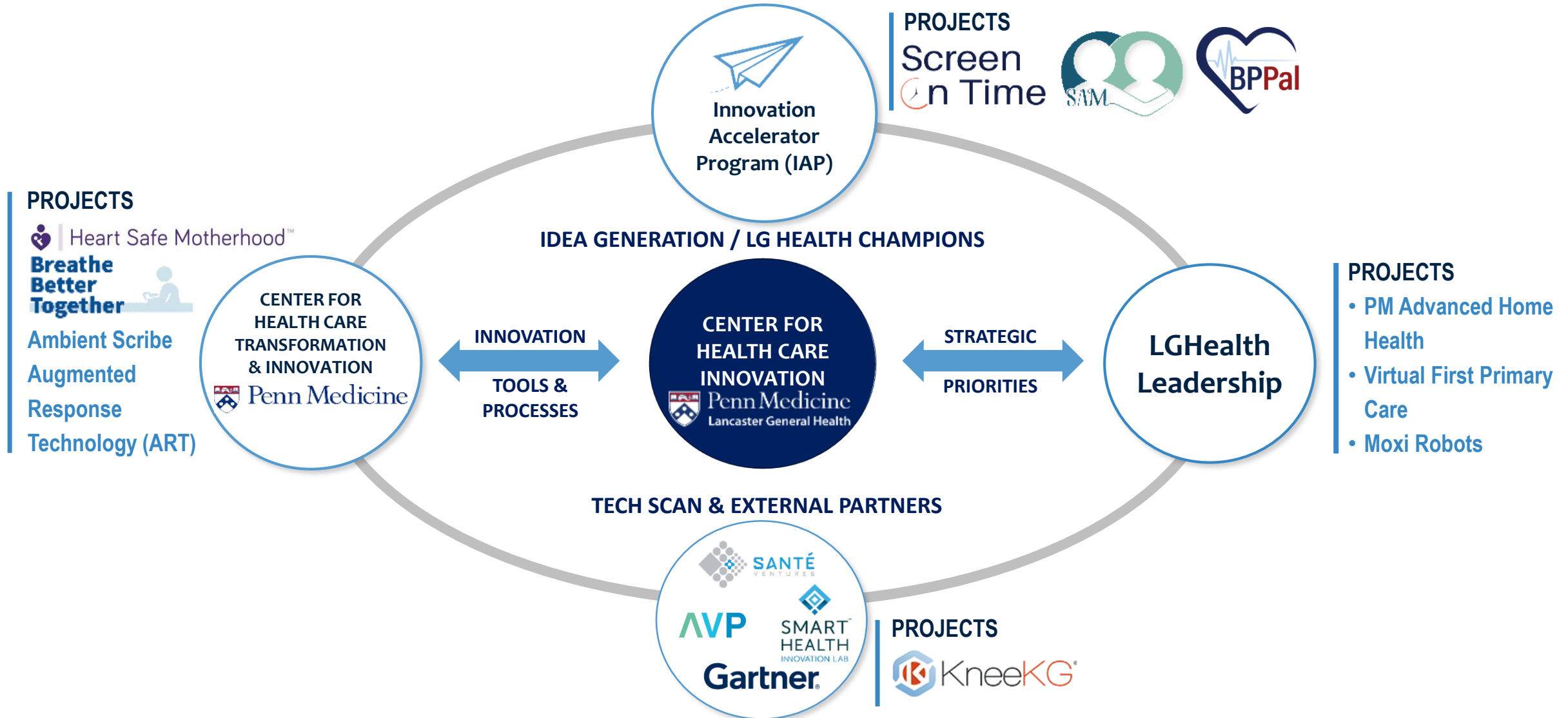
Our Focus

© HBR.ORG

Center FOR Healthcare Innovation



Select Projects





Penn Medicine
Lancaster General Health

DEPARTMENT OF PULMONARY SERVICES

Breathe Better Together (BBT)

JJ Havard, Director Pulmonary Services

Cynthia Frankfort – Clinical Supervisor, Pulmonary Navigation & Rehabilitation

April 12, 2024



Chronic Obstructive Pulmonary Disease (COPD)

3rd Leading cause of death in the United States

26% of patients hospitalized die within 1 year

20% of patients are readmitted within 30-days

2/3
of patients
readmitted
within 15
days

Highest
Among all
chronic
diagnoses

Breathe Better Together – Community Snapshot

- Age - Average ranges from 60 to 80 years old
- Technological Acumen – Broad range from minimal hands-on support to major assistance with technological devices
- Device Utilization – Mix of smartphone, flip phones, and no cell phone (landline)
- Other Health Complications - Patients typically have additional health conditions beyond COPD (i.e. diabetes, heart disease, kidney disease, etc.)
- Socioeconomic Status - Population varies from working to unemployed/retired, and may be at or below the financial level to provide adequate support for themselves
- Family/Extended Support Dynamics – Broad range of support from some being completely alone to others having strong family support

The COPD population within our community is a heavily diverse group that may share similar attributes, but also has distinct individual needs that require special attention and assessment by caregivers.

Breathe Better Together – Identifying the Issues

- **Diverse Population:** Patients with COPD have similar, but equally diverse needs that require individualized (non-standardized) approaches to providing them with effective care
- **Provider Availability:** Patients discharged had long wait times to see their primary care provider or a pulmonologist
- **Awareness of Deterioration:** Patients were not aware their symptoms were worsening, often delaying seeking medical attention until the very last moment (if able)
- **Point of Contact:** Patients did not have a lifeline to contact to get help or support when needed
- **Medical Advice Access:** Patients did not have access to expert medical advice to provide guidance in managing their disease
- **Routine Medical Support:** Patients did not have a source to help provide routine medical support and monitoring in case rapid intervention was needed to address any pulmonary issues

Breathe Better Together – Addressing the Need

The Breathe Better Together (BBT) program:

- Free to the public, voluntary transition-to-home program for patient's meeting criteria for enrollment
- Utilizes a pulmonary navigation team of Respiratory Therapists to engage with COPD patients
- Sends daily texts, in English or Spanish, or interactive phone calls to enrolled patients
- Prompts the patient to share their medical status with the pulmonary team
- Provides rapid response to the patient about their symptoms if worsening
- Escalates information to the ambulatory care team for additional support
- Quickly intervenes if an emergency need arises (does not replace 911)

Our overall goal is to keep patients safe, healthy and at home!

Breathe Better Together Model



IDENTIFY
Dashboard

- ✓ Identify patients
- ✓ Provide education
- ✓ Review action plans
- ✓ Offer additional Pulmonary Services (i.e. Lab testing, Sleep testing, Pulmonary Rehabilitation)
- ✓ Identify other areas of opportunity
- ✓ Offer Breathe Better Together option



CONNECT
Daily Texts/Calls

- ✓ Daily check-ins: texts/calls
- ✓ Evaluate pulmonary condition – breathing status
- ✓ Identify any clinical decline/issues



ASSESS
Phoneline

- ✓ Responding to “WORSE” text or call
- ✓ Evaluate symptoms
- ✓ Triage based on algorithm



INTERVENE
Pulmonary Navigator,

- ✓ Escalate care
- ✓ Goal: keep patients safe and at home if possible

BBT Patient Communication – Text Messaging

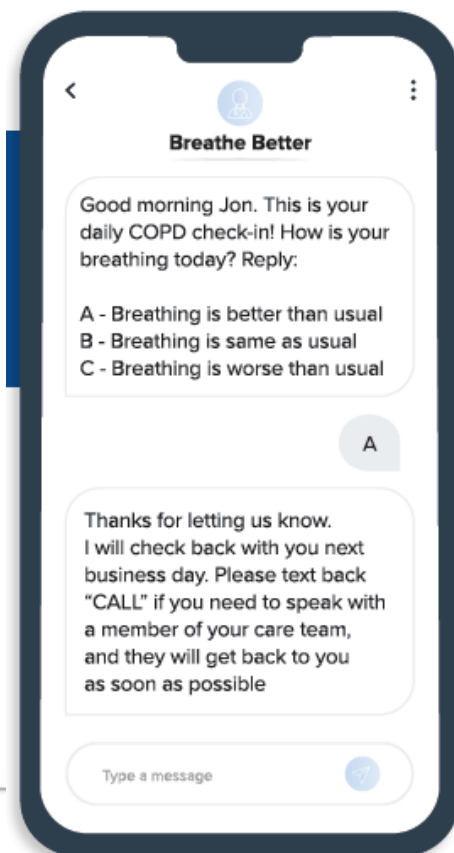
Breathe Better Together

Welcome to **Breathe Better Together!**

Breathe Better Together (BBT) is a transition-to-home program. It utilizes a respiratory therapist to help you manage your breathing when it gets worse.

Starting the first business day after you leave the hospital, you will be sent daily COPD check-in texts at 10am. You will respond with a text, which the respiratory therapist will see.

The program will last for 45 days. You will get check-ins Monday-Friday. You will **not** get them on weekends or holidays.



Each day, please respond to the daily check-in with **A, B, or C** (see sample image to the left):

- A = Breathing is *better*
- B = Breathing is *the same*
- C = Breathing is *worse*



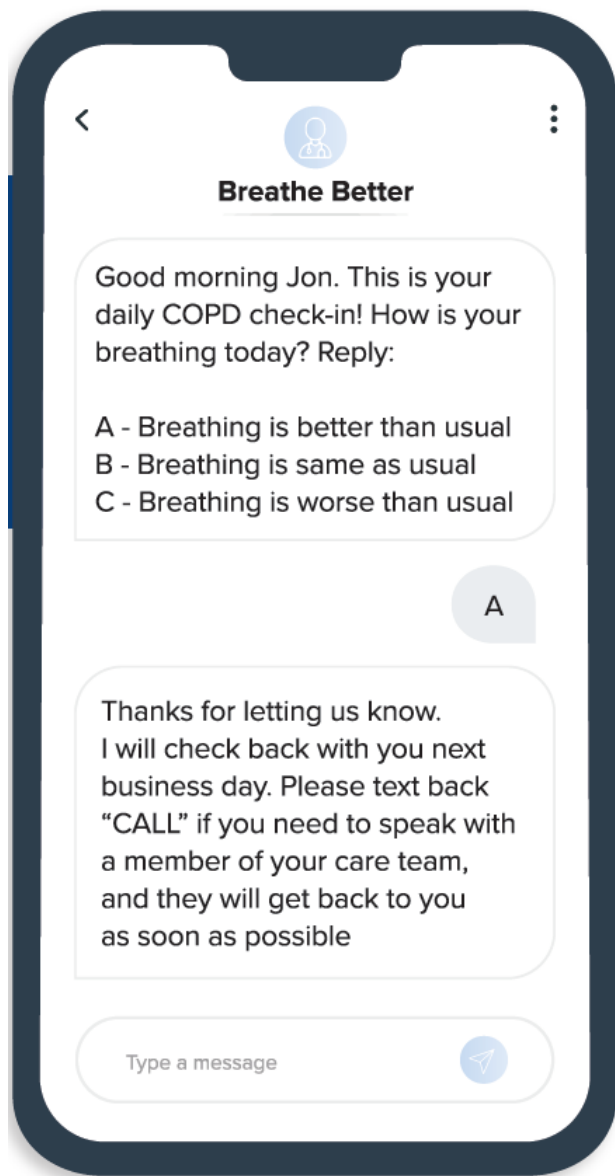
› **If your breathing is worse Monday-Friday, 8am-4pm:**

Text the keyword "C" or "CALL" and a respiratory therapist will call you.

› **If you have difficulty breathing Monday-Friday after 4pm, or on a weekend or holiday:**

- 1) Call your primary care provider
(or the answering service for your provider)
- 2) Give your name
- 3) Tell them you are enrolled in **Breathe Better Together**
- 4) Tell them you need to speak with your provider

BBT Patient Communication – Text Messaging



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BBT Patient Communication – Landline Phone

Breathe Better Together

Welcome to **Breathe Better Together!**

Breathe Better Together (BBT) is a program that helps you transition home. This program lasts for 45 days after you go home.

While in the program, you will have:

- **Daily check-in calls**
- **Access to a pulmonary navigator** for help when your breathing gets worse

Interactive Voice Response (IVR)

- A service provided to patients without a cell phone or declined to receive text messaging
- First hospital within Penn Medicine system to utilize this tool for patient interactions
- Service being updated to support Spanish-Speaking patients enrolled in BBT
- Potential for additional languages being added currently underway
- Provides peace to patients that are not technologically savvy or do not like to use cell phones to communicate



➤ Daily Check-in Calls

Starting the first business day after you leave the hospital, you will receive a daily automated phone call:

1. Answer the call
2. Select a number that best describes your breathing that day:
 - 1 - Breathing is better than usual
 - 2 - Breathing is same as usual
 - 3 - Breathing is worse than usual
3. Your **Breathe Better Together** care team will see your response and respond if your breathing is worse.

You will get calls Monday-Friday (no weekends or holidays).

➤ Access to a Pulmonary Navigator (Respiratory Therapist)

Monday-Friday, 8 am-4 pm, Pulmonary Navigators are here to help you if your breathing gets worse:

1. Call 717-929-8394
2. Select **option 2** to request a callback. A member of the **Breathe Better Together** care team will return your call within 30 minutes.

After 4 pm and on weekends & holidays:

1. Call your primary care provider (*or answering service for your provider*)
2. Give your name and tell them you are in **Breathe Better Together**
3. Tell them you need to speak with your provider

Breathe Better Together – Outcomes & Opportunities

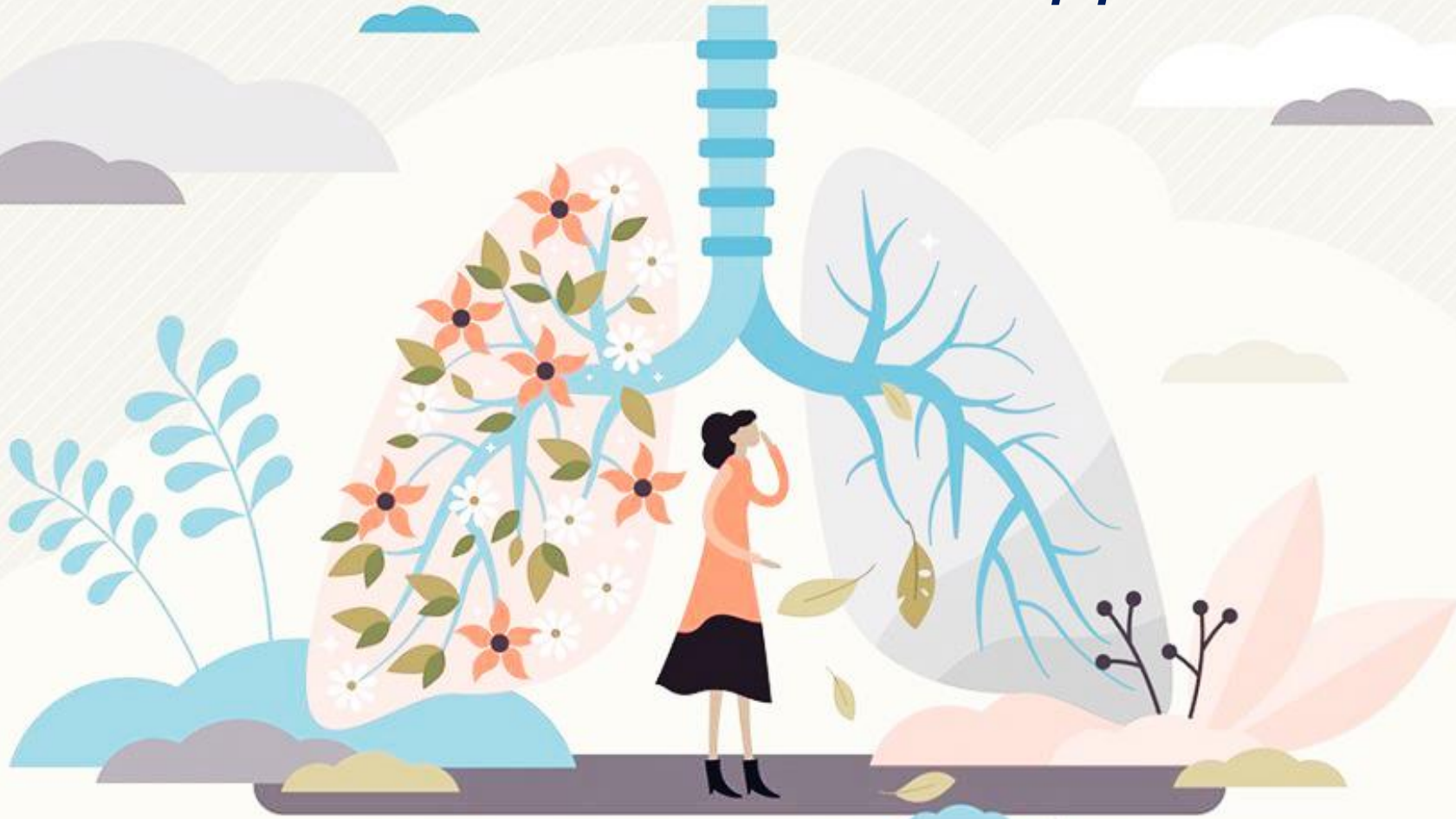
Since starting the BBT program in January 2021, we have:

- Successfully enrolled over 300 patients, including Spanish-speaking patients
- Integrated landline phone services for non-texting patients
- Responded to over 200 worse text or calls with immediate support if needed using paramedic and emergency services in severe life-threatening responses
- Using navigation and support, successfully reduced hospital readmissions and ER visits
- Increased the patient's knowledge about their medications, disease progression, and oxygen equipment

Future opportunities:

- Connecting patients with additional community services for more hands-on support
- Removing language barriers with the inclusion of additional languages
- Collaboration with medical practices in the community to expand enrollment to their patients

Thank You for Your Support!



We can ALL Breathe Better Together!



Penn Medicine

Lancaster General Health
Department of Pulmonary Medicine



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Lancaster General Health

