



Parkview Health

Building a Regional Innovation Program in Healthcare

Jolynn R. Suko, MPH, DSc Candidate
Chief Innovation Officer, Parkview Health

Serendipity, Failure, and Trial & Error



“Most discoveries even today are a combination of serendipity and of searching.”

Siddhartha Mukherjee



“Art and science have so much in common - the process of trial and error, finding something new and innovative, and to experiment and succeed in a breakthrough.”

Peter M. Brant

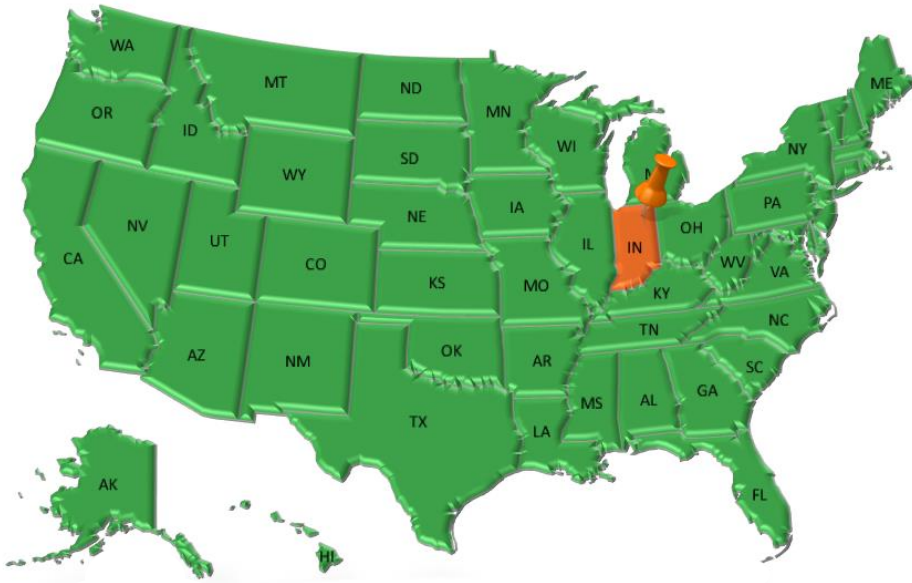


“There is no innovation and creativity without failure. Period.”

Brene Brown



What is Parkview Health?



Our Location

- 11 hospitals across NE Indiana and NW Ohio
- Small Health Plan
- 1,000-member, hospital employed provider group
- Largest Employer in the region with 15,000 co-workers



Parkview Regional Medical Center

- Only Safety Net Hospital in the region
- Serves both rural and urban populations



Parkview Mirro Center for Research and Innovation

- Opened in 2014

Mirro Center Resources



Innovation

Enabling and empowering innovators across the healthcare spectrum, accelerating the delivery of essential solutions.



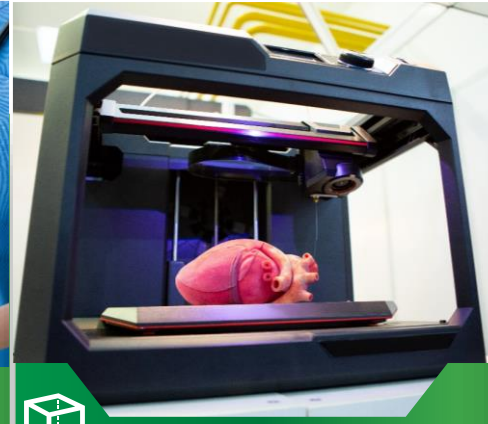
Informatics Research

Bringing concrete solutions to problems facing patients, providers, the community and the healthcare system.



Clinical Research

Enhancing healthcare for everyone with more than 800 clinical studies completed over the past 25 years.



3D Printing & Production

3D printing provides tool production, surgical planning, and patient education for medical trainees and professionals.



Simulation

Our state-of-the-art facility features some of the most advanced medical simulation technology available today.

National Leader in the Delivery of Healthcare Quality, Safety Service and Stewardship



Managed Markets Insight &
Technology
Specialty Pharmacy
2022 Patient Choice Award



Parkview Huntington Hospital



Parkview DeKalb, Huntington, Noble
and Whitley hospitals

Health Challenges of NE Indiana and NW Ohio

| <i>Comparator</i> | <i>Sweden</i> | <i>US</i> | <i>Indiana</i> |
|-----------------------------|------------------------------------|---------------------------------|--|
| Population | 10.4 Million | 335,347,500 Million | 6.8 Million |
| Health Spending as % of GDP | 10.9% (2019) | 16.8% (2019) | N/A |
| Infant Mortality Rate | 2 per 1,000 births | 5 per 1,000 births | 6.5 per 1,000 births |
| Life Expectancy at Birth | 83 Years (2021) | 78.2 (2022) | 75 Years (2022) |
| Maternal Mortality Rate | 4.3 per 100,000 live births (2017) | 23.5 per 100,000 live (2018-21) | 31.1 per 100,000 live births (2018-21) |
| Uninsured | 0% | 12.2% adults age 19-64 | 10.1% adults age 19-64 |
| Obesity Rate | 20% | 36% | 36% |
| Equity Ranking | 6/11 | 11/11 | N/A |

CDC Maternal Mortality By State: <https://www.cdc.gov/nchs/maternal-mortality/MMR-2018-2021-State-Data.pdf>

Life Expectancy at Birth and Infant Mortality rate for Indiana and the US: [Indiana \(cdc.gov\)](#)

Swedish Maternal Mortality Rate: [Maternal Mortality Maternity Care US Compared 10 Other Countries | Commonwealth Fund](#)

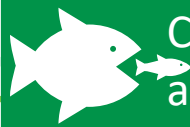
Swedish Life Expectancy: [Life expectancy at birth, total \(years\) - Sweden | Data \(worldbank.org\)](#)

Swedish Infant Mortality Rate: [Mortality rate, infant \(per 1,000 live births\) - Sweden | Data \(worldbank.org\)](#)

% Uninsured by State: [Health Insurance Coverage of Adults 19-64 | KFF](#)

[Obesity Rates by Country 2023 \(worldpopulationreview.com\)](#)

Commonwealth Fund



Competition built lots of goodwill and enthusiasm for innovation.



Met a lot of people who knew more than we did about innovation.



Developed some important muscle in policies we would need in later.



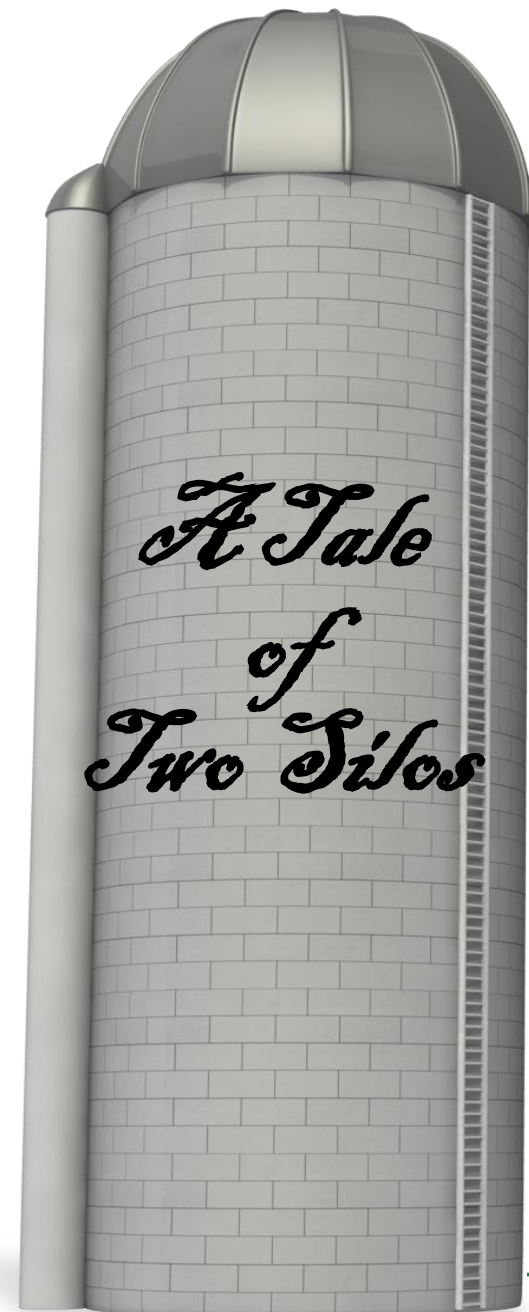
Board members got involved.



Didn't organize our efforts around problems we wanted to solve.

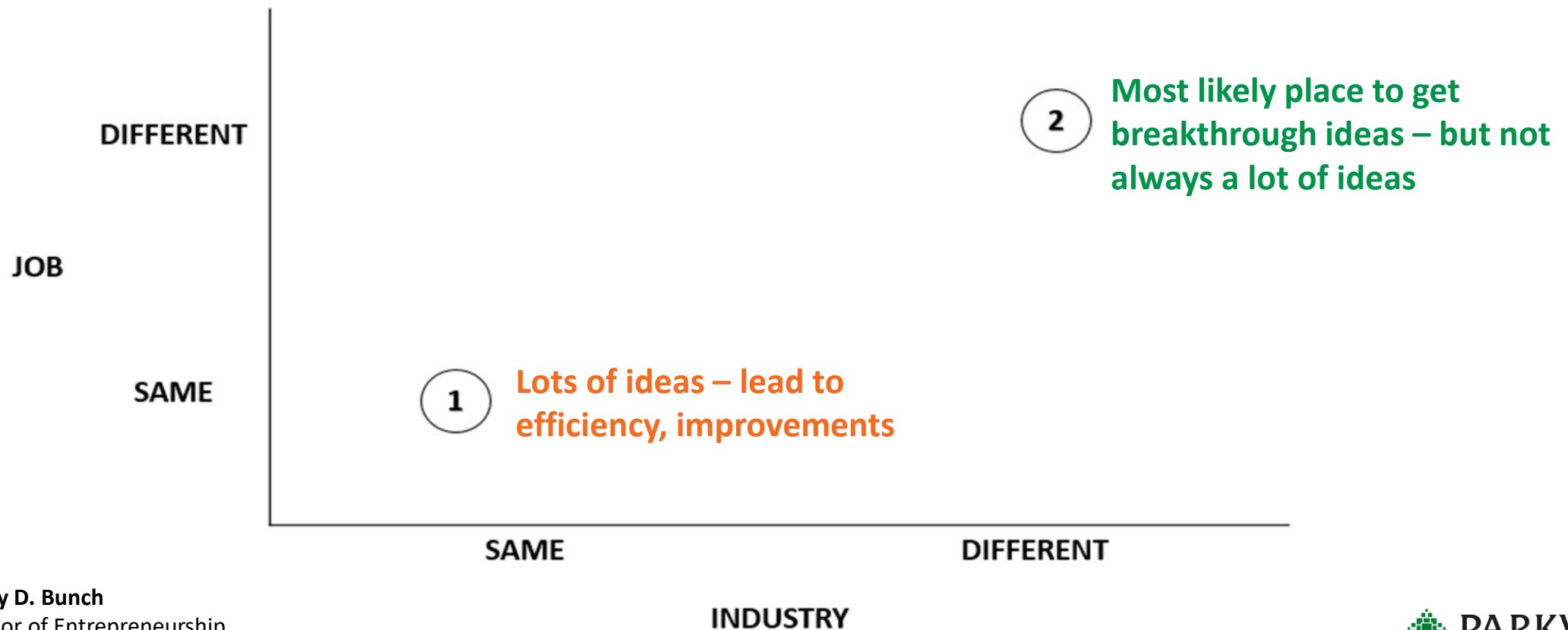


Overestimated # of clinicians who may want to commercialize new products & services.



How Does Innovation Happen?

Experts say...



Source: Gregory D. Bunch
Adjunct Professor of Entrepreneurship
University of Illinois

Defining Problems: Datapalooza and Making New Friends



Ethel Massing



data



Partner with Like Minded Organizations



MATTER

A global healthcare startup incubator, community nexus and corporate innovation accelerator headquartered in Chicago.

HEALTHY MOM & BABY

INNOVATION COMPETITION

Supporting
maternal health.

Solving for
infant mortality.



57 Entries

6 Different Countries

14 Different US States

And the Winners Are....



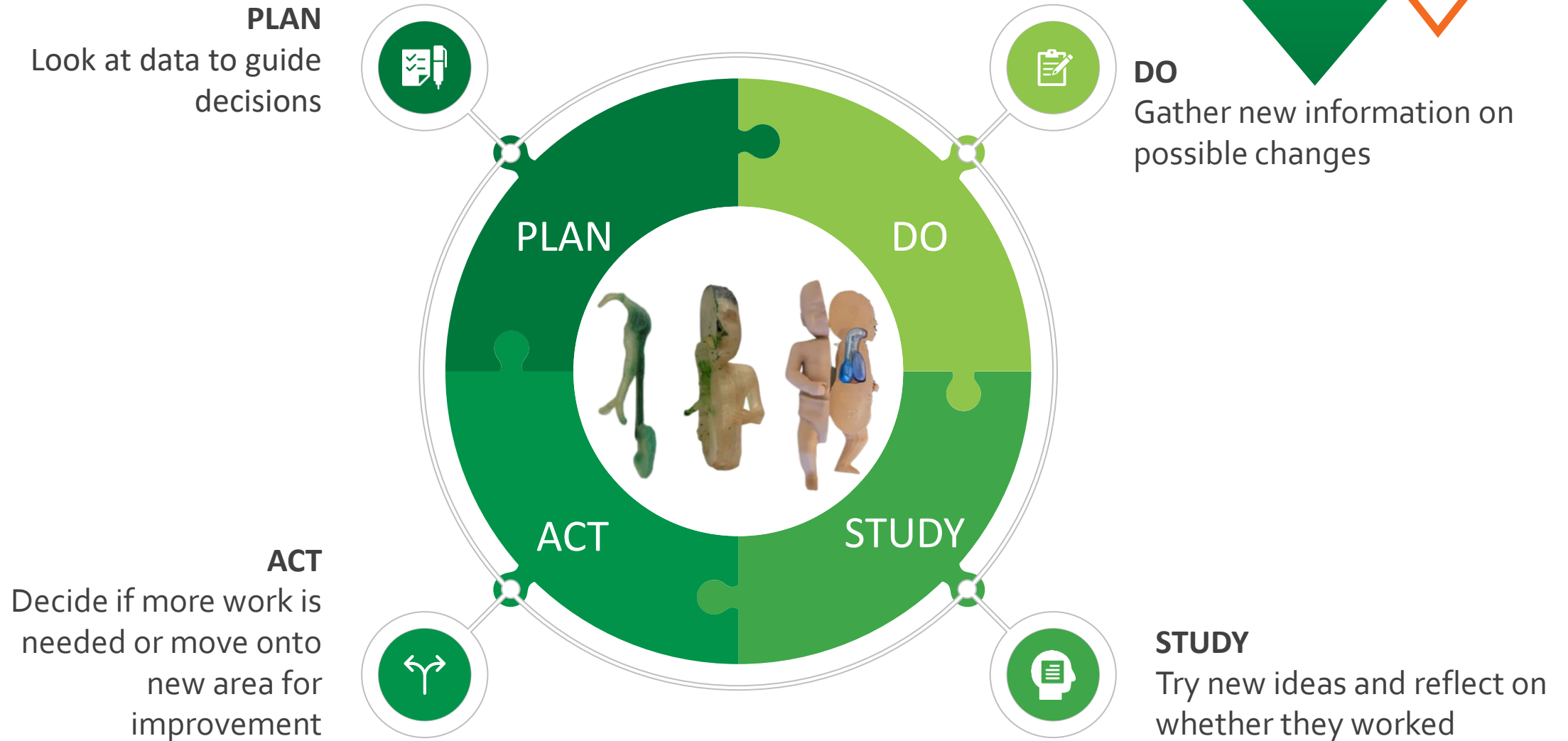
Parkview Advanced Medical Simulation Lab

Fort Wayne, IN

Safe sleep education using 3D printed infant tracheas, infant manikins, and monitor.



How Innovation Relates to Quality Improvement



From A Dream to Reality



Lisa Clemens, DMSc, MS, PA-C
Provider Educator



John Lozo
Simulation Specialist

Innovation Competition Series



Innovation Competition History



2020

Focus: reducing the rates of infant mortality.

2.0 Focus: reducing the rates of maternal mortality.

2021



2022

3.0 Focus: improving access to care for underrepresented mothers and children improving the lives of mothers and children through pre-teen.

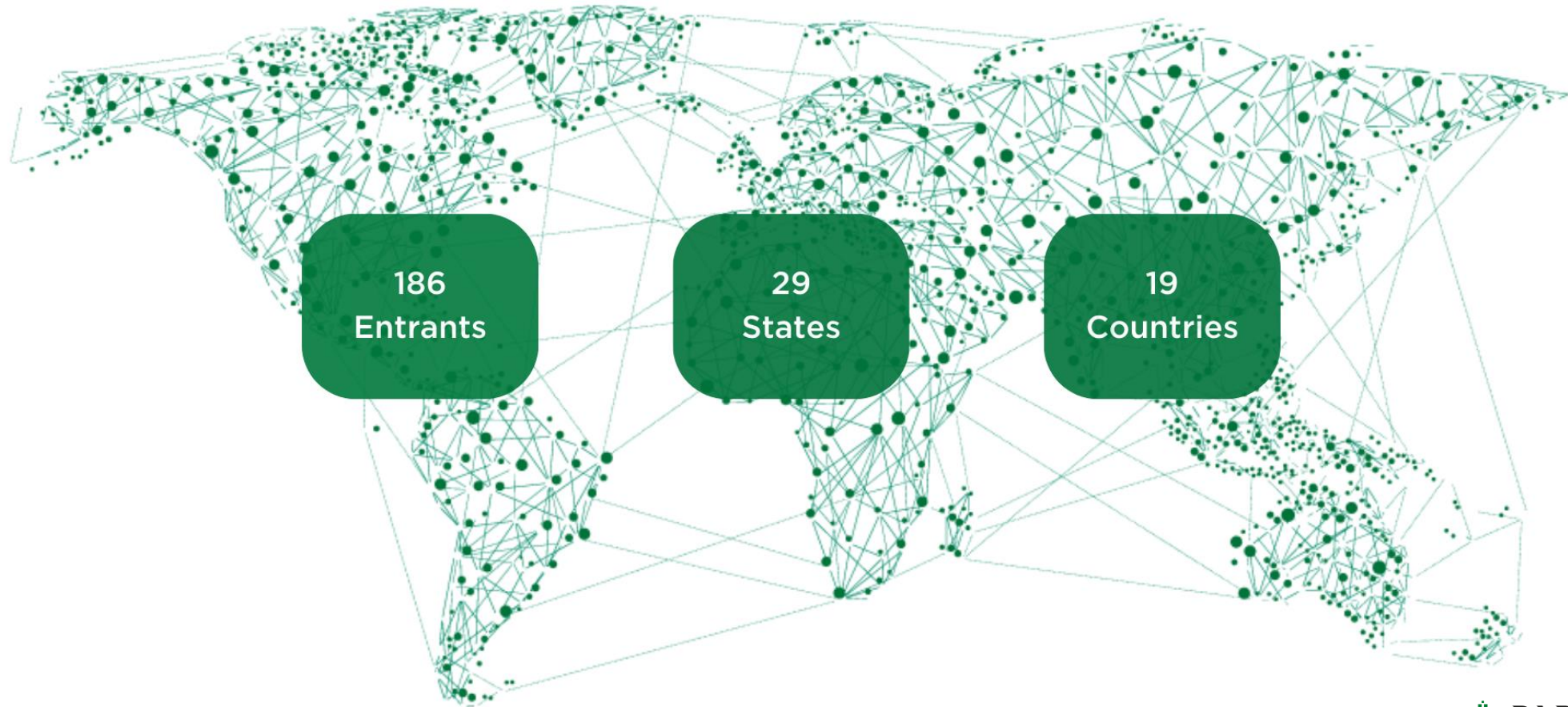
Challenged innovators to seek solutions to support children and teens managing chronic conditions.

2023



Global Challenge

Competition Submissions

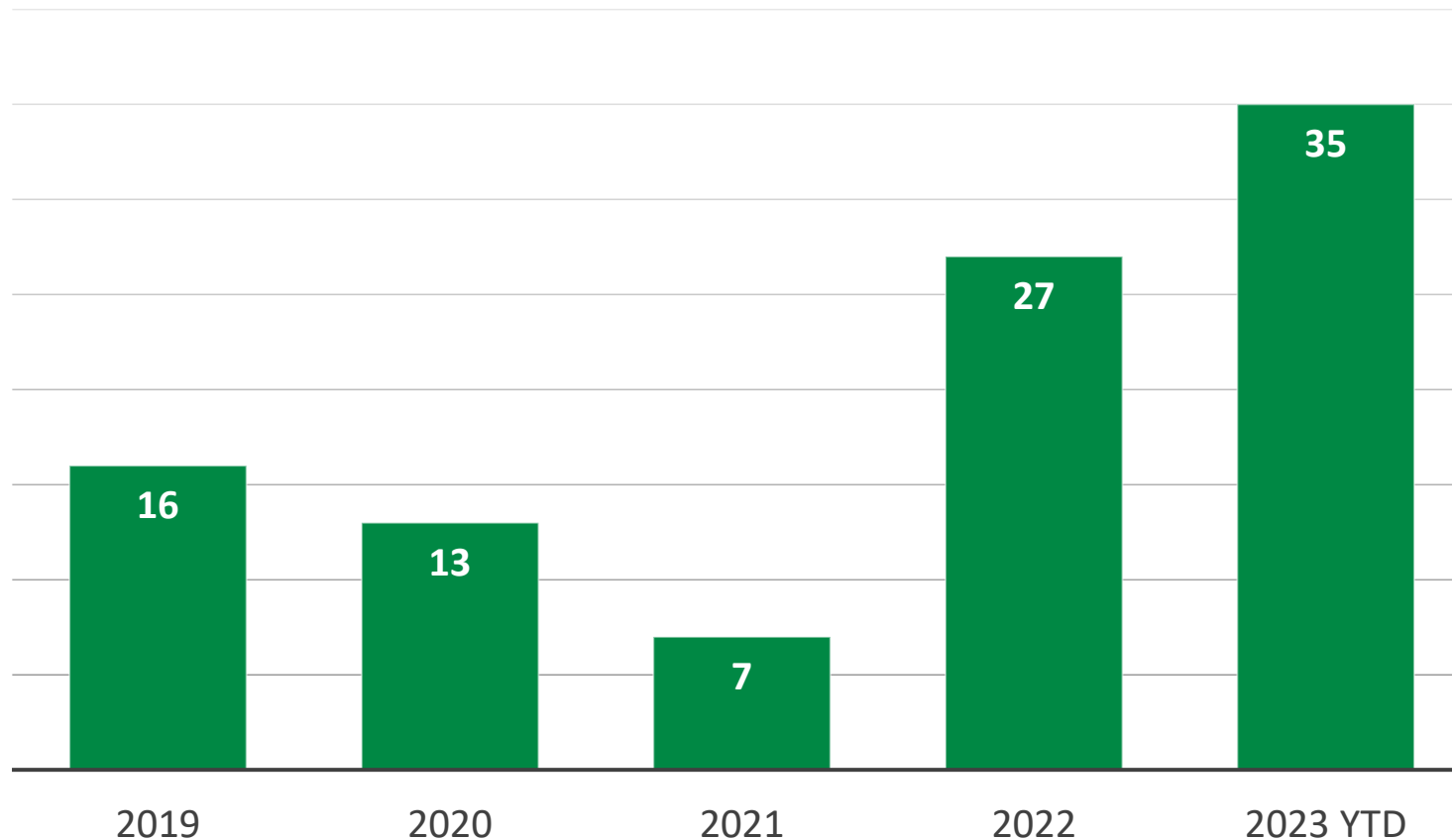


Highlights



Start-up Growth

2019 - 2023 Innovation Data



Types of Start-ups

- Hospital- Use Device
- Remote Patient Monitoring
- Surgical Tool
- Mental Health
- Wearable Solution
- Digital Health
- Operational Support
- Diagnostic Tool

Our Ideal Partners & Projects



Early-Stage Companies
Pre-seed or seed stage



Device Usability
UX design work & Testing



"Giant Leap" Technology
Solutions making significant improvements



Solutions for Underrepresented Groups
FemTech, SDOH solutions

Where do we focus our efforts?

We seek solutions to problems – those solutions that attack the root of the problem.

Our Work



Internal

Collaborating with clinicians and co-workers in incubating their ideas through to commercialization.



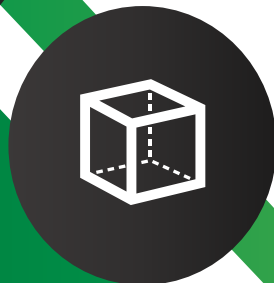
Start-up Services

Supporting startup companies with connections to clinicians and research.



Innovation Competition

Running a global health challenge to find solutions to major healthcare issues.



3D Printing and Production

Providing tool production, surgical planning, and patient education for medical trainees and professionals.

Forging a Path to Sustainability



Fee for Service

Develop a study plan with our research team to fit your budget.



Grants

SBIR, NIH, NSF, etc.
Innovation Voucher Program.



Equity

We complete research in exchange for equity in your company.

We offer multiple options to assist you in paying for your research projects.

Forging a Path to Sustainability



Investors and Limited
Partners in Flare Capital.



Sources Series A companies
that solve tough healthcare
problems.



Working with Flare companies to help
co-develop products that make our
operations more efficient and effective.



Mission aligned organization.



The Problem

Clinical Science Issues

The Impact of race and ethnicity



- **Clinical formulas**
35 formulas used in daily practice, such as pulmonary function tests (PFT), Glomerular filtration rate (GFR) and Vaginal birth after cesarean (VBAC), all use **race in algorithm**.
- **Asthma**
Non-White **<4% of clinical trials**. Albuterol shows lower response in diverse populations.
- **Heart Attack (ACS)**
Black patients have longer ER wait times, longer wait for angiography, less drug-eluting stents and **lower inclusion** in cardiac rehab.
- **Incentive Spirometer**
Race Corrections of - 10% for Black patients and - 5% for Asian patients
- **Pain Control**
Non-White Population significantly **under prescribed** pain medication by **2X** when compared to White population.

Diverse population have worse outcomes in healthcare, largely the result of social and clinical factors

TruLite Partnership



TRUITY™, THE FIRST COMPREHENSIVE HEALTH EQUITY PLATFORM

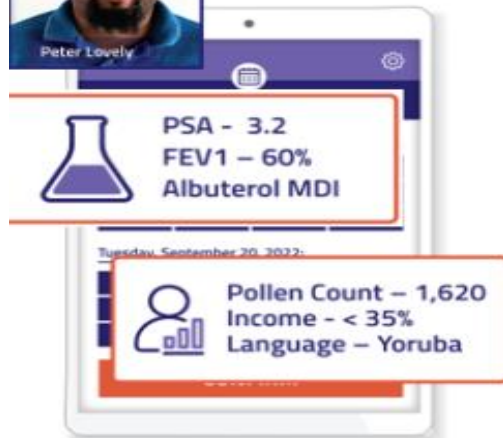
DATA



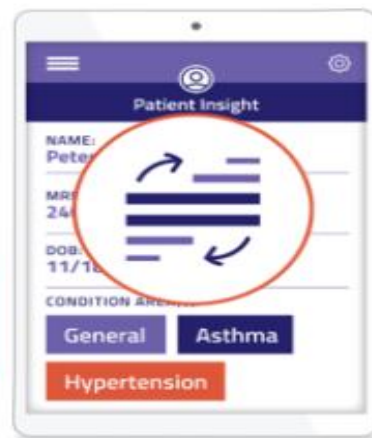
KNOWLEDGE



MULTI-LEVEL INTERVENTIONS



Visit Request



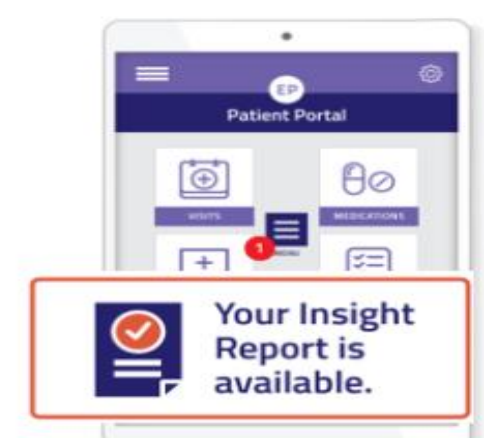
Truity™ XAI



Education



Empowerment



Engagement



MedTech
Accelerator



ZERO HEALTH
GAPS PLEDGE



Connect With Us



Facebook

@ParkviewMirro



LinkedIn

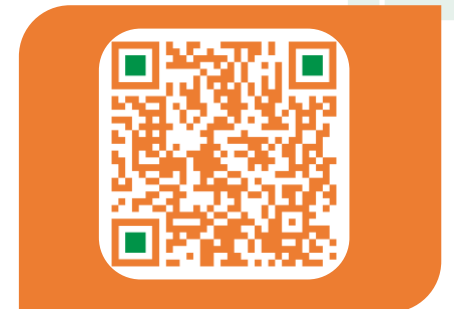
Parkview Mirro
Center for Research
and Innovation



X

@MirroParkview

parkviewinnovation.com





PARKVIEW

What We Have Learned



We don't do anything just for money – We are idealists that want to make the world better and solve meaningful problems in healthcare.



We don't hurt patients.



Innovation is a long-term investment, not a short-term revenue center. Some of the intangible benefits include inspiring the workforce of the future and developing the capacity of our existing workforce.

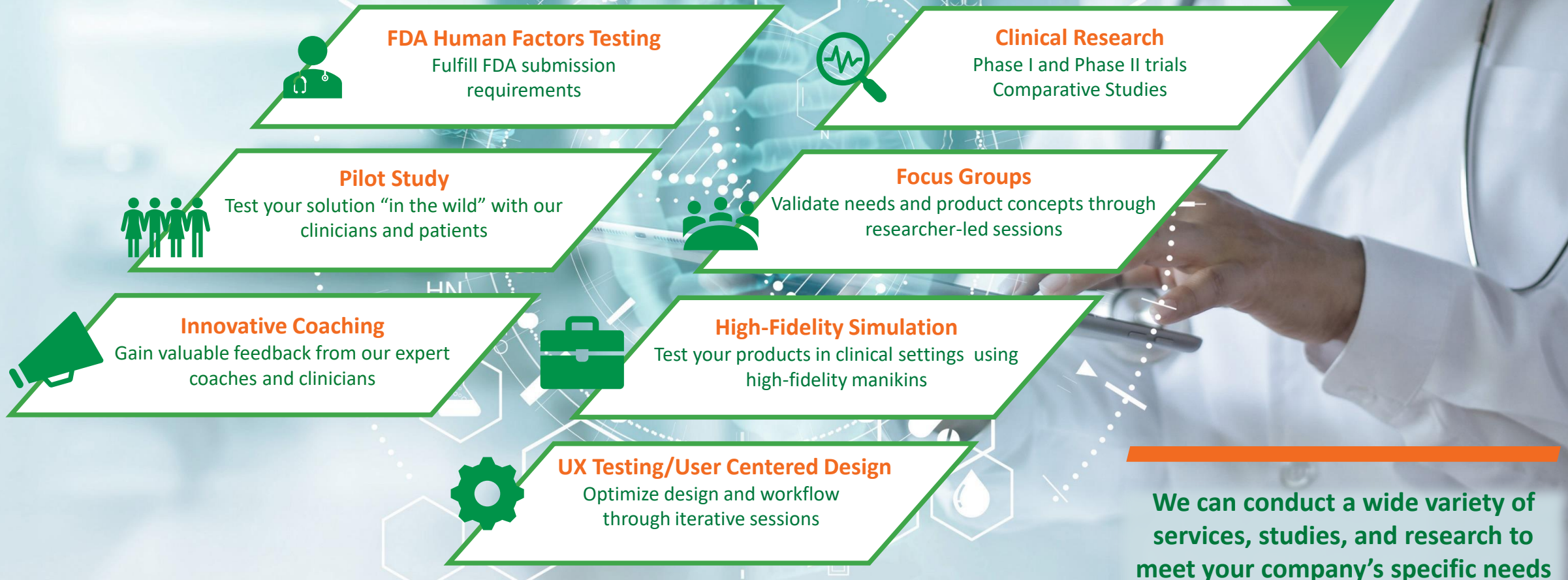


Diverse thoughts, people and ideas are essential to solving really challenging problems.



We don't ever give a hard NO, We connect entrepreneurs to others in the ecosystem that can help them with whatever stage they are at.

Our Services: Aligned with what we do best



How Does Innovation Happen?

The importance of solving problems....

“Part of the challenge of innovation is coming up with the problem to solve, not just its solution.”

Scott Berkun

“Innovation is hard because solving problems people didn't know they had & building something no one needs look identical at first.”

Aaron Levie

