

A message from Karen Murphy, PhD, RN, Executive Vice President, Chief Innovation Officer



Happy spring! I hope everyone is enjoying the sunshine and warmer weather. While we must remain vigilant on masking, social distancing and hand washing, there's been tremendous progress on administering COVID-19 vaccine in all our communities. We're in a much better place than we were a year ago. I'm so grateful for all the

incredible work you've done and continue to do during the pandemic. As we slowly transition back to a more normal state, it feels great to start thinking about our contribution to the enterprise effort to transform the experiences of our patients, members, communities and Geisinger family. We've demonstrated our capabilities. I'm so excited for our future, thanks to you.

A couple of thoughts to keep top of mind. As we continue our journey it's important to remember that for us to come out stronger from the pandemic we must learn from our experience.

This past year we've learned many lessons that will resonate after the pandemic is long gone. One of the most important was that we're all better when we work together to achieve a common purpose. Employee engagement is a priority for the Steele Institute. Your leaders will be conducting discussions on ways we can improve your work at Geisinger. Please take this opportunity to share your perspective. Let's all commit to doing our part to contribute to the common purpose of creating the best work experience possible. Thank you in advance for your participation in achieving this goal.

Karen Murphy, PhD, RN
EVP/Chief Innovation Officer



Staff updates and achievements

Congratulations to Daniel Rowe on his MBA

Daniel Rowe, MBA, from our Intelligent Automation team recently earned his graduate degree at Shippensburg University and was featured in the Student Spotlight Section of the John K. Grove College of Business's annual report.

Congratulations to our Certified Scrum Masters

Congratulations to Bhavanam Suchitra, Cody Bennett, Niraj Vishwakarma, Danielle Van Voorhis, Seth Greiner, Harvey Messinger, Jacob Kerstetter, Damian Rojas, Tyler Spurlin, Sahaya Xavious Paulraj, Tejaswini Singhidi, Sampath Kotnala, Jagmeet S. Mann, Ralph Loitfelder and Jeffrey Sokoloski.

These members of our Data Informatics staff became Certified Scrum Masters after attending a two-day workshop in December. What's a Scrum Master? Find out [here](#).

Taking pediatric vital sign monitoring to the next level

The KidsX accelerator is the first national program of its kind and partners 10 talented, early-stage digital health companies with clinician and administrative leaders at the top pediatric hospitals and payors. The accelerator lets hospitals and payors collaborate to source, evaluate, mentor and test promising, strategically aligned technology quickly and efficiently.

KidsX allowed our Digital Transformation team to partner with VITLS, the creator of a wearable medical device called Tego. The device tackles the downside

of current monitoring options to provide a better way of caring for pediatric patients. Tego is currently being piloted at Janet Weis Children's Hospital.

"Tego takes patient monitoring to a whole new level," says Rebecca Stametz, DEd, MPH Vice President, Digital Transformation. "It returns a full suite of vital signs on pediatric patients 2 years and older and it's wireless, waterproof and unobtrusive."



Vaccine study highlighted in *The Economist*

A survey of Geisinger employees conducted over two weeks in December by our Behavioral Insights Team found a steady increase in intent among healthcare workers to receive the COVID-19 vaccine. The findings suggested that the highly visible nature of the vaccine authorization process and other significant events may have had a positive effect on attitudes toward the vaccine.

On Dec. 4, 2020, an announcement about anticipated vaccine availability was emailed to all 23,784 Geisinger employees. Recipients were asked to indicate their intention to receive a vaccine when one was available to them and the reasons for any hesitation they might have. More than two-thirds of employees responded to the survey.

Of those who completed the survey before Dec. 10,

when an independent FDA advisory committee voted to recommend emergency use authorization (EUA) of the Pfizer-BioNTech COVID-19 vaccine, 53.2% said they would receive a COVID-19 vaccine. By contrast, 80.2% of those who completed the survey after that date said they planned to receive a vaccine.

Several additional significant vaccine-related events followed the Dec. 10 vote, including a vote recommending EUA for the Moderna vaccine, recommendations for both vaccines by the Centers for Disease Control and Prevention, and news coverage of prominent members of both political parties receiving the vaccine.

[Read the Economist article](#) Results of the study were also published in [JAMA Network Open](#).

Improving patient satisfaction

Eric S. Reich, MSHI, from our Informatics Department and collaborators at Penn State used historical health care data to study why patients leave a hospital feeling satisfied or dissatisfied.

Their aim was to provide key recommendations for hospital leadership to take corrective actions or impart necessary interventions. The team's work was published in the Institute of Electrical and Electronics Engineers' [Journal of Biomedical and Health Informatics](#).

The anonymous patient satisfaction dataset used in the study was collected between 2009 and 2016 and contained patient satisfaction survey data and electronic health record data, covering various perspectives of hospital services and clinical information.

Results showed that the two variables that impact patients' overall hospital experience the most are:

- Courtesy and respect of nurses and doctors
- Communication between health professionals and patients

The study found that promptness and helpfulness in addressing patients' concerns or complaints are the most important components in patient-

centered communication and are highly associated with improved patient satisfaction.

Questions related to pain management remained at the top of the satisfaction factor list and patients receiving proactive and effective care for their pain tend to be more satisfied in general.

For this study, the model provided an interpretation of the data to the researchers, enabling others to better understand the results they are given.



Encouraging patients to seek follow up care

Why do so many patients neglect to follow up when lung nodules are found in radiology studies? A team of data scientists from Innovations teamed up with clinical leaders from the Radiology, Pulmonary and Thoracic Surgery departments to find out. The team developed an innovative approach to the problem using natural language processing (NLP) to identify patients with a positive lung nodule who did not have documentation of follow-up.

NLP was used for text analysis of radiology reports and extraction of key words to detect the presence of nodules, classify characteristics such as size and number of nodules, and parse out follow up

recommendations. These data were then combined with Epic documentation to determine whether follow up recommendations were completed — a result that was achieved with 84 percent accuracy.

There were 1,864 patients with no documentation of follow-up. These patients were further categorized and prioritized for follow-up based on the size of the nodule.

The Care Gaps team initiated a 3-month pilot that included outreach to the prioritized patients to notify them of the findings, confirm status of follow-up and enroll them in the System to Track Abnormalities of Importance Reliably (STAIR)

program as appropriate.

The STAIR program establishes a set care plan for each patient and ensures recommended follow-up is completed. At the end of the pilot, 58 percent were being followed up by their PCP or specialist, 13 percent had completed the STAIR program, 11 percent were in the outreach process and 3.5 percent declined follow-up. In 3.5 percent of cases, no lung nodule was found upon chart review.

Overall, 89 percent of the care gaps were closed.

Discussions are underway to extend this approach to other clinical abnormalities.

Improving team dynamics with ACT

In response to a recent employee engagement survey, the Steele Institute implemented an approach to teamwork called ACT that is based on the philosophy that, to increase employee satisfaction and engagement, our shared role is to ACT. There are three phases to the plan:

ASK: During phase one, employees and managers reviewed the results of the employment engagement survey and asked the following questions:

- What questions does the team have about the results?
- What differences would the team like to see in the workplace?
- What would the team most like to see improved?

CONCENTRATE: Phase two is a time for the team to focus their efforts on the ONE THING within the team's control that would have the most impact and co-develop a plan to get it done.

TALK: Phase three is ongoing. The team regroups once a month to monitor and discuss progress — and recalibrate and refocus as necessary.



Reimagination, Risk and Reward: Geisinger’s successes in value-based care (bundled) payments

The Bundle Payment for Care Improvement Advanced (BPCIA) 2-sided risk program allows (Hospital or Physician Group Practice) participants to shift to an episode-focused incentive structure within an alternative payment model, creating new opportunities to work to improve quality and manage costs, all while earning new income in the form of shared savings.

The program targets specific clinical episodes defined by a selected set of MSDRGs from an inpatient stay or CPT codes from an outpatient procedure. Only Medicare beneficiaries with both Parts A and B as primary insurance are included with additional inclusion/exclusion parameters. All the costs paid by CMS under parts A and B over a 90-day episode are charged/paid as usual but later are tallied and compared to a CMS-set target. Participants repay CMS for the sum of costs (difference) over target. CMS pays participants the sum of costs (difference) under target.

Geisinger initially partnered with Medicare in the BPCI Classic model, a two-sided risk model, at two hospitals with a total shared savings of \$1.7 million. Administration has since joined the advanced BPCIA program at 5 hospitals. Unlike the Classic model, the new program requires achievement of certain quality metrics to be eligible for savings payments through reconciliation. This requirement, along with possessing an electronic health record allows the model to be eligible as MACRA

Advanced Alternative Payment Model (APMs).

To expand from 13 to 75 clinical episodes, Geisinger partnered with a Convener company Signify Health Partners who provide the data, analytics and some labor to manage the program across the post-acute (90-day) continuum.

Rewards are dependent upon aligned initiatives and incentives, improved clinical performance, strong leadership and governance, smart technology, analytics and reporting, longitudinal care management and post-acute care partnerships.

To date (October 2018 – June 2020), we have achieved a BPCIA gross shared savings of \$9.6M across the five hospitals. The program has demonstrated an overall shared savings rate of 12.4 percent and 13.1 percent in 2019 and first half of CY 2020 respectively. We are stretching our goal to yield a 20 percent savings in 2021.

By taking risk and reimagining our processes of care, partnerships, and analytics, we should be able to achieve that goal!

Congratulations to our award-winning Payment Transformation team

Fall 2020 BPCIS Premier award winner for top performance in positive savings greater than one million dollars in PP1 and PP2. Nice work, team!



Goals met or surpassed:

Skilled Nursing Facility utilization 19.9 percent	4.4 percent below benchmark goal
Days spent in SNFs averaged 27.1	5.2 days below benchmark goal
Readmission rate of 25.7 percent	0.3 percent below benchmark goal
Home health aide utilization 16.3 percent	2.9 percent above benchmark goal

Addressing the Social Determinants of Health

Keeping our communities healthy is an important step toward improving the health of the people who live in them. These 10 programs launched by the Steele Institute do just that:

1. Fresh Food Farmacy: This “food as medicine” program, which has been providing healthy meals free of charge to food-insecure people with diabetes and their families since 2016, recently delivered its 1 millionth meal.

Another milestone was reached this year when one of the first patients to participate in the program graduated from it, with a ceremony held to recognize her achievements.

We also took steps to make the program more accessible to more communities. We launched the Fresh Food Farmacy Digital Experience, created partnerships with local food pantries that marry clinical support from Geisinger to existing community-based resources that follow our playbook and opened 3 new clinic locations in Shamokin, Lewistown and Scranton – serving over 600 patients biweekly.

2. Emergency food boxes for COVID+ patients: Beginning March 2020, we made emergency food boxes – providing a 2-person household food for four days – available to any COVID+ Geisinger patient or member. To date, more than 660 boxes serving over 790 patients have been provided.

3. 4Ride Transportation: This program was launched in 2018 to address the clinical and social needs of Geisinger Health Plan members whose conditions are medically complex and who have trouble finding transportation.

We partnered with RabbiTransit, a mobility management service vendor, to provide coordinated rides to clinical and other appointments. Targeting both urban and rural locations, the program has completed nearly 24,000 one-way rides, totaling nearly 480,000 miles for 2,288 unique patients.

4. Post-Discharge Transportation: Another program that was launched in March in response to the COVID pandemic provides transportation upon discharge from 7 hospitals and medical centers as well as Marworth

Treatment Center. To date, 433 discharge transports have been provided and the number will continue to grow as long as private transport companies continue to offer reduced or suspended services.

5. Free2BMom: This innovative program was designed to help opioid-dependent women and those with substance abuse disorder during pregnancy and for 2 years following childbirth. To date, 171 moms and 91 babies in Luzerne, Montour, Northumberland and Columbia counties have been enrolled.

6. Action for Neighbors Housing: This pilot program, launched in January 2021, is a collaboration with NeighborWorks Northeastern PA to support positive

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health outcomes for older adults who are at high-risk for in-home safety concerns. The program focuses on Geisinger members in Lackawanna and Luzerne counties, tackling problems with housing quality and safety and helping to solve issues arising from lack of social connection.

7. Health Coaching and Health Liaisons: Our team of 7 health coaches and 6 health liaisons offer personalized telephonic or in-person sessions to help manage weight, glucose levels, blood pressure, cholesterol, tobacco use and stress. The team supports the My Health Rewards program at Geisinger as well as 300 external employer groups.

8. Addressing the effects of Social Isolation: Various programs that employ high-, medium- or low-level interventions are in the works to combat social isolation. Some use personal interaction while others, including one with a high-rise in Northumberland, use digital solutions.

Our Friendly Neighbors connection program is offered in partnership with 7 YMCAs in northeast and north central

Pennsylvania and NeighborWorks of NEPA.

9. Neighborly: Launched in March 2020, Neighborly is an easy-to-use social care platform that connects patients and members to free and reduced-cost programs and services in their communities.

Neighborly is available at NeighborlyGeisinger.com, or through Epic for staff to use while helping patients or members search for and be connected to social care resources. A public site is available at NeighborlyPA.com for patients/members or community partners to search for social care resources. To date, over 43,000 searches and over 15,000 sessions have been logged on the site

10. General Education Diploma (GED) program: In January 2020, the Steele Institute launched a program to offer financial support to Geisinger Health Plan members by covering the costs of training materials, practice testing, the actual GED test and even the retest if applicable. So far, 12 members have benefited from the program.



Spring 2021 marks our 3-year anniversary

The Steele Institute has grown tremendously over the past 3 years and the services and skill sets we provide to the organization have expanded, too. Could you name all our departments?

Health Innovations

- Wellness Health Management
- Health Equity
- Free2BMom
- Fresh Food Farmacy
- Community Engagement

Informatics

- Data Management
 - » Data Governance
- Medical Informatics
- Informatics Strategy
- Enterprise Analytics
 - » Business Intelligence
 - » Advance Analytics

Artificial Intelligence/Machine Learning

Digital Transformation Office

- Product Innovation
- Digital Strategy
- Software Development

Clinical Redesign

- ConnectedCare365

Payment Transformation

- Population Health Performance Improvement
- KACO (Keystone Accountable Care Organization)
- BPCIA (Bundled Payment for Care Improvement Advanced) Program

Behavioral Insights Team

Innovation Operations

- Intelligent Automation Hub
- Innovation Project Management
- Innovation Fellowship
- Industry Partnerships

Innovations pets of the quarter

Just for fun every quarter, we'll highlight our furry, feathery and scaly friends. Send your photos and pet information to steeleinnovation@geisinger.edu and maybe your friend will be featured.



Jason Gibson, Innovations Program Manager, Wellness

Basil



Morgan Siever, Associate Program Manager, Innovations

Peanut



Jennifer Wetzel, Director Intelligent Automation Hub

Rooney



Crosby and Hundley

Geisinger