



**Duke Center for
Healthcare Safety and Quality**

Annual Report
Fiscal Year 2020

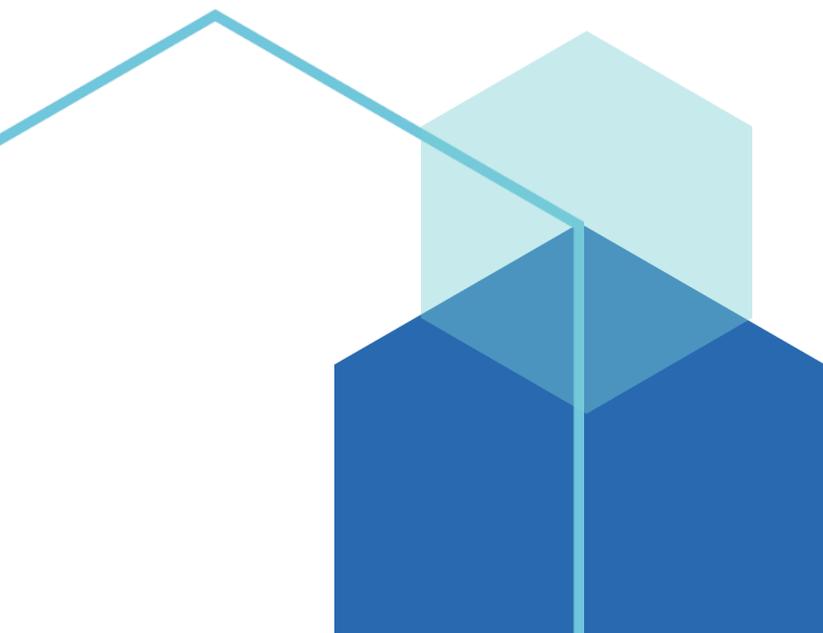




Table of Contents

Executive Summary	2
The Center’s Response to COVID-19	3
The Center and the Duke Quality System	4
Well-Being and Resilience	5
Teamwork Training	6
Patient and Family Engagement	7
Professional Accountability Program	8
Conferences	9
Marketing and Communications	10
Appendix A: FY20 Publications	11



Executive Summary

Fiscal Year 2020

Facilitating Education for the Duke Quality System

Several of the Center’s team members have been deeply involved in the planning, development, and distribution of educational materials for the Duke Quality System (DQS). As the needs of DQS and the Duke Health entities evolve, the Center continues to facilitate and add its expertise in learning strategy, healthcare quality and safety, and measurement of learning outcomes.

New Programming

The Professional Accountability Program (PACT), also known as the “Cup of Coffee Program”, has been a longstanding opportunity to support professional behavior in the workplace through peer relationships instead of immediate punitive action. In FY20, the Center began to support the development and growth of the program, which included developing a virtual format for continued learning during the COVID-19 pandemic.

New Initiatives Supporting the Patient and Employee Voice

Center team members served on or led Healthy Duke subcommittees and were key members of a workgroup focused on updating Duke’s family and medical leave policies. The Center advocated for the patient voice by embedding patient advisors on many health system project workgroups.

Developing Flexible + Digital Learning Opportunities

Healthcare workers are busy, and time is a precious commodity. The Center has recognized and accepted the challenge of delivering educational materials in flexible formats. Besides growing our national webinar series on well-being, the team has developed “bite-sized” video series, which describe key safety culture concepts in minutes. The Center has also started using specialized e-learning software, developed a podcast, recorded meditations, and much more.

Responding to the COVID-19 Pandemic

As the COVID-19 pandemic started to affect Duke Health operations, the Center quickly responded. The team convened behavioral health professionals, mental health specialists, and other key Duke stakeholders to create an organized approach to emotional support efforts. A webpage was stood up in days, on-site and digital support programs were added weekly, and communications about all of the ongoing efforts were sent out through various channels. The Center also stood up and maintained a food donation process for several months, delivering nearly 30,000 meals across the health system.

FY21: Becoming a Hub

As the Center continues to connect and expand upon the work of quality and safety champions across Duke Health and beyond, it is building a significant repository of resources. The Center will look to grow its role as a key educational waypoint for both new and experienced team members, leveraging both the successes of the past fiscal year and the unique opportunity that the COVID-19 pandemic has presented.

Fast Facts



Between mid-March and mid-May 2020, the Center website saw a 400% spike in new users compared to the previous period as people sought out support resources and ways to share their gratitude for healthcare workers during the spring COVID-19 surge.



To increase engagement and recognition of our course graduates and patient advisors, the Center held both a Well-Being Ambassador Forum and a reimaged Patient and Family Advisory Council Gala in FY20.



A key development from the Center’s COVID-19 work has been the creation of the Well-Being Pyramid, a DUHS-wide organizational structure that allows any team member to quickly and easily identify the emotional support resource they need.



Many of the Center’s activities have been made possible with assistance from our growing number of Duke partners, including:

Performance Services | Human Resources
Personal Assistance Services | Duke Health & Well-Being | DUHS Patient Safety Officers | Social Work | Center for Interprofessional Education and Care | Medical Center Library | Healthy Duke | & many more.



The Center's Response to COVID-19

Emotional Support

- The Center brought together a system-wide group of well-being experts in order to quickly stand up an intranet page dedicated to emotional support. The page, which details relevant hotlines, strategies, toolkits and more, was developed in partnership with representatives from all entities and mental/emotional support departments.
- In coordination with multiple communications contacts, the group shared resources in various weekly outlets (Know/Share/Do Leadership Updates, Inside COVID-19, Working@Duke, entity and departmental newsletters, social media and Center website, Durham and Community Affairs COVID-19 Community Resources page).

Food donations to Healthcare Workers

- Stood up and managed the logistics of food donations from the community to Duke. The Center ensured equitable scheduling and distribution of **nearly 30,000 meals** to healthcare workers and support personnel serving in various roles throughout the health system (screeners, testers, lab workers, emergency departments and unit workers, environmental services).
 - Over 75 local, state, and national companies and restaurants have supported and donated to Duke's COVID-19 food efforts.

Lessons Learned and Lasting Improvements

- 3 important organizational strategies emerged from the team's emotional support work:
 - **Well-being Library** – central repository of static resources from across Duke and beyond. Flyers, webinars, tip sheets and more.
 - **Well-Being Pyramid** – to organize all of the emotional support resources available to the Duke community, the team devised a simple tiered structure, tailored to each health system entity, by which staff/students/faculty could easily access different levels of support.
 - **Emotional Well-Being Huddle** – Each week, mental/emotional support department leaders come together in a Duke Quality System huddle to share knowledge, discuss new challenges or trends in care, and coordinate efforts to best support the staff, faculty, and students.
- **Virtual learning** has become and will continue to be an important way in which the Center teaches. Early success with the Team Training program and the Professionalism program have quickly given us experience delivering educational materials through a variety of digital formats.

Center Web Traffic (March 9, 2020 – May 9, 2020) | hsq.dukehealth.org

The Center's website can be used as a loose indicator of the interest in and uptake of the emotional support and food donation resources set up during the spring Stay at Home orders.

- Over 21,000 new users (378% increase compared to previous period 1/7-3/8)
 - Over 25,000 sessions (316% increase)
 - 22,000 views of our Health Worker Support page (donations and discounts)
 - Other new pages: Meditations (1,200+ views), COVID-19 Resource Guide for Parents & Families (500+ views)
 - Existing Resilience Tools page saw a 194% increase in views
-

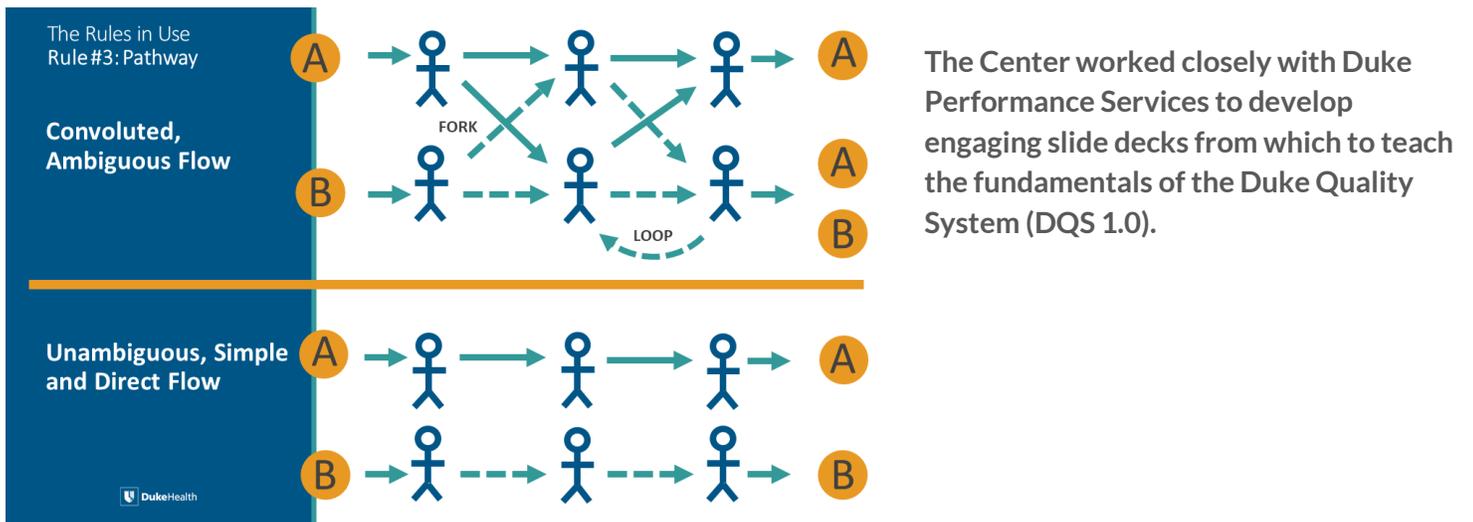
Duke Quality System (New for FY20)

Progress and Accomplishments

- DQS 1.0: Prior to Dr. Richard Shannon joining Duke Health as Chief Quality Officer mid-FY20, the Center partnered with Performance Services and the Clinical Education and Professional Development (CEPD) office to standardize education credit. In the span of 9 months, the Center **helped train over 1,000 Duke staff and faculty**.
 - The Center supported fundamentals training at Duke University Hospital, Duke Raleigh Hospital, Duke Regional Hospital, Duke HomeCare and Hospice, and the Private Diagnostic Clinic.
- DQS 2.0: With the development of model cells for in-depth, continuous improvements as well as personalized coaching from DQS experts, the Center has turned its focus to the support of a longitudinal plan for workforce development. Working with all partners from DQS 1.0 plus Human Resources and the health system’s Patient Safety and Clinical Quality Office, the Center is playing a key role in **the development of a rigorous and testable learning model for team members at all levels of the organization**.
 - How the Center is responding to the needs of DQS 2.0:
 - Welcoming Program Specialist Sierra Stubblefield to the team, who brings knowledge of program management, marketing, and virtual learning.
 - Developing a DQS Body of Knowledge in partnership with local content experts where training materials and resources can be accessed 24/7.
 - Utilizing a combination of didactic and experiential learning modules to deliver engaging and flexible learning opportunities.

Future Directions

- Continue to integrate Center’s extensive experience in safety culture programming (well-being, psychological safety, teamwork, professionalism, patient engagement) and leverage new partnerships developed over the past year to ensure that DQS training and education addresses a **holistic picture of harm elimination at Duke Health**.
- The Center will continue to play a key role in the DQS workforce development plan, implementation, and testing strategy.



Resilience and Well-Being

Goal: Expand both well-being course and webinar participation, internally and externally.

Status: **Exceeds.** Course attendance (inferring cumulative fiscal year attendance based on pre-COVID data) and webinar participation match or surpass records from fiscal year 2019.

Progress and Accomplishments

- Nearly half a million (462,384) text messages sent as part of our bite-sized well-being tools, which involve simple interventions that can be completed in just minutes per day.
- The team manages a data archive in partnership with Safe & Reliable Healthcare that contains well-being information on 270,000 healthcare workers- **the largest database of its kind in the world.**
- Over 10,000 hours of Continuing Education Credit hours awarded and 8 new peer-reviewed publications in FY20
- Successful expansion of the **resilience webinar series** to internal and external audiences. Content has grown from 12 to 24 hours, leading to increased numbers of Continuing Education Units awarded (FY19 = 1,099, FY20 = 2,642) and sustained, highly positive evaluations. (FY19 Area of Improvement)
 - The entire webinar series is offered free to Duke employees and students, available 24/7 via Warpwire.
 - 135% increase in number of webinar participants in calendar year (CY) 2019 vs CY 2018. Early CY 2020 numbers are 20% higher than CY 2019.
- Implemented a well-being newsletter that is sent to over 350 Duke Well-being Ambassadors (30% increase from FY19) and contains new tools, research findings, and highlights the incredible well-being work of our Ambassadors across the system.

By the Numbers: Well-Being

8	Students/fellows mentored (3-4 more starting in fall 2020)
16	Active projects/manuscripts currently underway
362	Duke Well-Being Ambassadors (cumulative)
22,000	Downloads of Center’s published articles
52,000	Citations of Center’s well-being research in the literature

Future Directions

- Accelerate transition of in-person courses to enjoyable web-based opportunities.
- Recruiting a large cohort for an upcoming randomized controlled trial on the efficacy of well-being tools during the CoVID-19 pandemic.
- In June 2020, the team submitted a proposal for a Patient-Centered Outcomes Research Institute (PCORI) grant to study additional healthcare worker well-being metrics during the pandemic. If awarded, the grant begins ~Q1 FY21.



The Bite-Size Resilience Series is a set of free videos on YouTube hosted by Director Dr. Bryan Sexton. In just minutes, viewers can learn about evidence-based tools of strategies for supporting well-being.



Teamwork Training

Goal: Expand team training curriculum to address a wider variety of learners, and integrate core concepts into the Duke Quality System.

Status: **Exceeds**. The team training group quickly adapted to support educational needs for the outpatient care setting, medical professional students, health system leadership and the Duke Quality System overall.

Progress and Accomplishments

- Developed and published a Teamwork Toolkit to support Duke’s managers in CulturePulse action planning, as well as a series of Bite-Size Team Training videos that have already been viewed more than **700 times** via our public-facing website.
- Conducted 3 TeamSTEPPS Master Training courses for the American Hospital Association’s (AHA) Team Training program, including the **nation’s only TeamSTEPPS for Outpatient Care course**.
- Selected by AHA Team Training Program to lead two of its monthly national webinars in 2020 (*Addressing Disruptive Behavior in Healthcare*, by Dr. Kyle Rehder in April 2020; *High-Performance Teamwork in Incident Management*, Erin Eckert in May 2020). Duke was also selected to lead the new “Next Steps” course and several breakout sessions at the National Team Training Conference in June (cancelled due to COVID-19).
- Rapidly developed and piloted a self-paced TeamSTEPPS Essentials course in May 2020 for Duke learners whose clinical rotations were disrupted due to COVID-19. This course may be integrated into the curriculum for all clinical phase Physician Assistant students.
- Expanded Team Training faculty through partnership with entity colleagues (co-teaching/leading courses with Private Diagnostic Clinic, Duke Regional Hospital) and targeted invitations to participate in training. (FY19 Area of Improvement)

Future Directions

- The Team Training group aims to become a **premier provider of virtual learning** and a source of expertise on the topic within the Duke community. Already in FY20, the group provided TeamSTEPPS content for a Duke AHEAD professional development pilot program, which will be offered again in the fall through the Duke Health Center for Interprofessional Education and Care.
- Core Team Training faculty will **continue to lead the development of training and education resources for the Duke Quality System**, many of which are based on topics covered in our TeamSTEPPS Master Training curriculum (e.g., change management, psychological safety, leadership). We will continue to incorporate team training tools, teamwork science, and best practices for creating a patient safety culture to support DQS implementation and workforce development in quality and safety.

In early 2020, the AHA Team Training Program reviewed participant feedback from all TeamSTEPPS Master Training courses conducted by Regional Training Centers in 2018 and 2019. Participants in Duke’s course offerings consistently rated their experiences highly, particularly with regard to:

Knowledge gained	Attendees’ confidence to implement an action plan
Percentage who would recommend the training to others	Quality of the presenters



Duke University Health System Patient and Family Engagement Program

Goal: Engage key stakeholders, embed patient advisors into workgroups, and focus patient advisors around specific projects that are later communicated to senior leadership.

Status: Exceeds. Initiated projects and embedment opportunities (inferring cumulative fiscal year tallies based on pre-COVID data) that surpassed internal goals, leading to increased recognition of patient involvement in Duke strategic initiatives.

Progress and Accomplishments

- For the first time, the Patient and Family Advisory Councils (PFACs) have a **clear and unified growth plan** aligned with health system goals. Introduced at the 2019 PFAC Retreat, the plan is reinforced through a **new quarterly report** of PFAC activity and successes, which is also designed to be a mechanism by which the councils can share the impact of the patient and family voice with staff and leadership.
- **New councils:** FY20 welcomed the Behavioral Health PFAC and the Adolescent/Young Adult Substance PFAC.
- Regular **embedment of PFAC members into work flows, committees and teams** such as Care Redesign, Research, Patient Education, DUH Communications, Opioid Working Group, Feagin Leadership Team and many others.
- A simplified and centralized volunteer onboarding process, now housed on a virtual platform, makes it easier for patient advisors to join the Duke community and maintain active volunteer status. (FY19 Area of Improvement)
- Universal PFAC welcome letter and screening tool created for recruiting new members. (FY19 Area of Improvement)
- Reexamination of membership to and revision of documents for the DUHS Executive and DUHS At-Large PFACs led to renewed interest as well as 3 new members. (FY19 Area of Improvement)

Future Directions

- Explore the prospect of enhancing PFAC participation and collaboration through use of an e-platform. Partnership with Duke Health Technology Services and Volunteer Services is necessary to realize this new opportunity.
- Strengthen service line and entity leadership relationships with PFACs to support the use and value of the patient voice.



During a 2019 campaign, employees across the health system shared their appreciation for Duke's patient volunteers by posing with a sign of gratitude.



PACT: Professional Accountability Program (New for FY20)

Program Background

In 2015, Duke University Health System introduced the PACT program to provide a framework for ensuring physicians consistently exhibit behavior that supports the health system values of “Caring for our patients, their loved ones, and each other.” Using the training program initially developed by Dr. Gerald Hickson at Vanderbilt¹, peer messengers deliver a “cup of coffee” to a colleague who was a source of a reported aberrant communication or behavior on the Duke Health Safety Reporting System (SRS). **90% of providers at Duke Health never have a cup of coffee requested and of the 10% who do, a second “espresso” conversation occurs in only 7% of that group.**

Center’s Involvement

Starting in FY20, the Center began facilitating the work of the PACT Steering Committee and Co-Directors by supporting logistics, marketing, and expansion of the program to a multidisciplinary Duke audience. In addition, the Center consults on new learning objectives as they call upon the group’s expertise in communication, well-being, and teamwork.

Progress and Accomplishments

- Dr. Diana McNeill became a PACT co-director alongside Cynthia Gordon and Dr. William Richardson.
- Besides expanding the program to include **multidisciplinary 1- and 2-hour training sessions** in both in-person and virtual formats, the PACT team delivered customized training courses to the Occupational/Physical Therapy program, trained Advanced Practice Providers as Peer Messengers, and delivered **Grand Rounds** to Pathology and Cardiothoracic Surgery.
- The PACT team has created an emotional support toolkit aimed at supporting clinicians facing litigation.

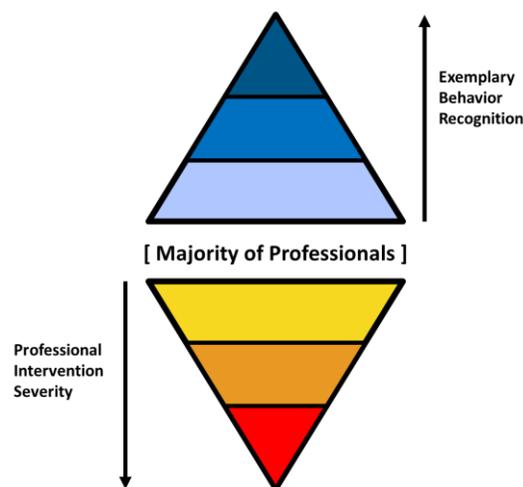
Since July 2019:

99 new Duke Peer Messengers trained across 7 courses
160+ PACT interventions across the health system

Future Directions

- Development of additional customized programming for the Duke School of Nursing, the Duke Physician Assistant program, and specific subgroups at Duke Regional and Duke Raleigh hospitals.
- Expand and iteratively improve virtual PACT training, which includes the use of e-learning software and advanced Zoom engagement features.

1. Hickson GB, Pichert JW, Webb LE, Gabbe SG. A complementary approach to promoting professionalism: identifying, measuring, and addressing unprofessional behaviors. *Academic Medicine*. 2007 Nov 1;82(11):1040-8.



The diamond of professionalism pictured above (adapted from Hickson et al.¹ and Dr. Stephen Bogdewic) represents the PACT program’s approach to intervening on poor behavior and recognizing exemplary behavior. In both directions, the largest piece of the pyramid involves colleague/local recognition and the smallest piece represents awareness at the senior leadership level.



Conferences

Both of our spring conferences – the Duke Evidence-based Practice Workshop and the Annual Duke Health Quality and Safety Conference – were cancelled or postponed due to the CoVID-19 pandemic. However, much of the planning and updates will be showcased in future events.

Duke Evidence-Based Practice Workshop (Duke EBP)

A thorough update of workshop graphics and branding, along with a refreshed financial structure and planned move to the JB Duke Hotel in the heart of Duke’s campus comes at a time when Duke EBP has become **the only evidence-based practice workshop of its kind in North America**. The Center plans to expand marketing ahead of the 2021 workshop, especially as COVID-19 has highlighted the importance of evidence-based decision making in medicine and public health.



Annual Duke Health Quality and Safety Conference (“Quality Conference”)

March 2020 would have marked the 15th year (keynote Dr. Brent James) of this annual celebration of the quality improvement and patient safety work taking place in all corners of Duke Health. The event has been postponed until December 2020, and the Center is currently working on creative ways to showcase the important quality and safety work that took place over the past 18 months should the event, which brings together over 600 staff, students, and faculty, need to switch to a hybrid or virtual format.



Marketing and Communications

Goal: Launch a toolkit of resources and lead a social media campaign related to Center’s overall mission.

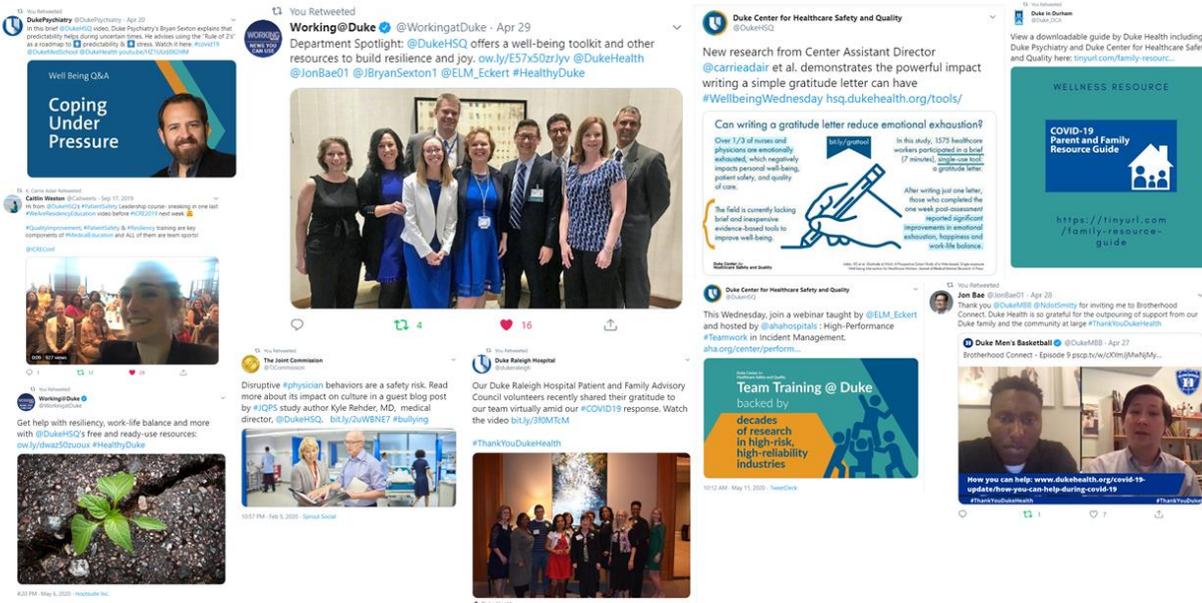
Status: **Exceeds.** Five toolkits (Teamwork Toolkit, COVID-19 Resource Toolkit for Parents and Families, Well-Being Webinar Marketing Toolkit, Duke Health Quality and Safety Conference Speaker Toolkit, Emotional Support for Litigation Toolkit) and one social media campaign (based around 2019 World Patient Safety Day) created and shared.

Progress and Accomplishments

- The Center’s website continues to be a digital hub for programming information across Duke as well as new, homegrown resources. FY20 (prior to COVID-19) saw **over 14,000 new users** to the site.*
- Our 3 publicly available toolkits (Well-Being, Teamwork, and Parent/Family Resources during CoVID-19) have together received **over 3300 views** on the Center’s website since launch.
- The **@DukeHSQ** Twitter account, launched in February 2018, ended FY19 with 279 followers. In FY20, our following **has increased by over 175%** and average number of impressions (tweet views) per month through April 30 has increased by over 25%.
- The Center has developed new outreach channels, including publicly available bite-sized digital training and podcasts, allowing us to engage even broader audiences. (FY19 Area of Improvement)
- The team’s branding and design experience has been recognized and utilized to refresh the aesthetics of the Duke Quality System trainings, the PACT program, the Evidence-Based Practice Workshop and more.
- Courses and resources from the Center are regularly featured in Duke Health entity and departmental communications, and we were even featured in a **Department Spotlight by Working@Duke!**

Future Direction

- Growth of digital marketing platform through expansion of podcast series, social media presence, and/or publicly available educational materials
- Build external partners list of organizations willing to share and promote Center materials and courses.



*The period beginning March 2020 represents a positive outlier in web traffic due to extraordinary interest in Center resources during the early onset of the COVID-19 pandemic. The 14,000 new users only counts users who visited between 7/1/19 and 3/8/20. For more information about the Center’s efforts during the initial stage of the pandemic, see the COVID-19 response section.



Appendix A | FY20 Publications

1. Adair, K. C., Kennedy, L. & Sexton, J. B. (in press). 3 Good Tools: Positively reflecting backwards and forwards is associated with robust improvements in well-being across 3 distinct interventions. *Journal of Positive Psychology*
2. Adair, K. C., Rodriguez-Homs, L., Masoud, S., Mosca, P. J., & Sexton, J. B. (2020). Gratitude at work: A prospective cohort study of a web-based, single-exposure well-being intervention for Healthcare Workers. *Journal of Medical Internet Research*, 22(5), 1-14.
3. Wolpaw, J., & Adair, K., C. (2020). Shoe covers but not burnout? Making burnout reduction a criteria for CMS funding would protect patients. *Journal of Patient Safety*. doi: 10.1097/PTS.0000000000000681
4. Rehder, K., Adair, K. C., Hadley, A., McKittrick, K., Frankel, A., Leonard, M., Frankel, T., & Sexton, J. B. (2020). Associations between a new disruptive behaviors scale and teamwork, patient safety, work-life balance, burnout, and depression. *The Joint Commission Journal for Patient Safety and Quality*, 46(1): 18-26. doi: 10.1016/j.jcjq.2019.09.004
5. Adair, K. C., Rehder, K., & Sexton, J. B. (2019). How healthcare worker well-being intersects with safety culture, workforce engagement, and operational outcomes. Accepted in A. Montgomery, Michael Leiter and Dr. Efharis Panagopoulou (Eds.), *The Triple Challenge: Connecting Health care worker well-being, patient safety and organisational change*. New York, NY: Springer.
6. Tawfik, D. S., Scheid, A., Profit, J., Shanafelt, T., Trockel, M., Adair, K. C., Sexton, J. B., & Ioannidis, J. (2019). Evidence relating healthcare provider burnout and quality of care: A systematic review and meta-analysis. *Annals of Internal Medicine*. 171(8): 555-567. doi:10.7326/M19-1152
7. Rice, E. L., Adair, K. C., Tepper, S. J., & Fredrickson, B. J. (2019). Social integration predicts repeated physical activity through positive emotions and spontaneous thoughts. *Emotion*, doi: 10.1037/emo0000616
8. Dhurjati, R. Twafik, D.S., Sexton, J.B. & Profit, J. (in press). Changing safety culture. *Pediatrics*.