

## Transition of a Primary Care Fellowship to A Virtual Format: Lessons Learned

Jeffrey Schlaudecker<sup>1</sup>, MD, Med;  Daniel Hargraves<sup>1\*</sup>, MSW;  Shanna D. Stryker<sup>1</sup>, MD, MPH; Patrick Cafferty<sup>2</sup>, MPAS, PA-C, DFAAPA; Melissa Gottschlich<sup>2</sup>, PA-C, MPAS; Megan Rich<sup>1,3</sup>, MD

<sup>1</sup>Department of Family and Community Medicine, College of Medicine, University of Cincinnati, Cincinnati, Ohio, USA

<sup>2</sup>Department of Physician Assistant Studies, Mount St. Joseph University, Cincinnati, OH, USA

<sup>3</sup>Family Medicine Residency Division, The Christ Hospital/University of Cincinnati, Cincinnati, Ohio, USA

### ABSTRACT

The Community Primary Care Champions (CPCC) Fellowship program trains physicians and physician assistants to expand community underserved partnerships and healthcare transformation. The COVID-19 pandemic required a rapid transition to virtual platforms (e.g. Zoom) to facilitate the safe delivery of medical care and education. This report describes the resulting lessons learned in transitioning to a virtual fellowship.

The fellowship involves self-directed learning, didactics, and small-group discussions. The first CPCC fellowship cohort included in-person instruction. A second cohort transitioned to a virtual-only format in March 2020 due to COVID-19. A third virtual-only cohort began in September 2020. Focus group data was analyzed for themes in the transition to a virtual format.

Key lessons learned were derived during this transition including: 1) Realignment of focus of didactic and discussions for continued fellow engagement; 2) Leveraging virtual tools to optimize impact of activities; and 3) Geographic expansion of fellowship recruitment resulting in a more diverse cohort.

A virtual fellowship has also allowed for refocused approaches to learning, building rapport, and an expanded reach in geography. This has enriched the experience of the fellowship by producing primary care champions in leadership and advocacy across practice environments. This supports retention of a virtual CPCC fellowship.

**Keywords:** Fellowships and scholarships, Physicians, Physician assistants, Primary health care, Leadership

*\*Corresponding author:*

Daniel Hargraves, MSW;  
Department of Family and  
Community Medicine, College  
of Medicine, University of  
Cincinnati, Cincinnati, Ohio,  
USA

**Tel:** +1 513 5586222

**Email:** daniel.hargraves@  
uc.edu

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### Introduction

The global COVID-19 pandemic has dramatically altered the fabric of health care both for patients and providers, including medical training and continued professional development (1). While both patient care and medical education have experienced increased use of technology in practice, the

pandemic has compelled a rapid transition to virtual platforms (e.g. Zoom) to facilitate the safe delivery of medical care and education (1-3). The Community Primary Care Champions (CPCC) Fellowship program began in September 2018 to train primary care providers (PCPs) to expand community underserved partnerships, facilitate healthcare

transformation, and to address the evolving needs of their patients and communities. The fellows consist of physicians and physician assistants, in response to a call by the American Academy of Family Physicians for increased interprofessional training (4). Six core content areas of the CPCC Fellowship include: 1) quality improvement; 2) social determinants of health; 3) substance use disorders; 4) collaborative mental health care; 5) medical education; and 6) provider well-being. Given the resulting amplification of health inequities due to COVID-19, the fellowship's six content areas are timelier and more important than ever (5, 6) The CPCC fellowship curriculum consists of self-directed learning, didactics, and monthly in-depth discussions with community experts on how PCPs can engage as advocates and change agents. Within the small-group sessions, ideas on healthcare delivery and policy are exchanged, inequities are examined, and modalities for resolution are emphasized. Fellows from the first cohort highlighted that in-person activities provide a magnified impact of the fellowship's objectives. However, the second cohort experienced a necessary shift to a remote experience, roughly halfway through the one-year fellowship.

The objective of this report is to describe lessons learned from transitioning to an all-virtual fellowship format by examining fellow focus group responses.

## Methods

The fellowship is the result of a five-year Human Resources and Services Administration grant for primary care training enhancement that began in September 2018. Each fellow cohort is one year beginning in September and ending in August. The two grantee institutions are located within the city of Cincinnati and recruits are located within the greater metropolitan area. The fellowship project team consists of the principal investigator who is also the program director of a physician assistant program and the dean of health sciences on an urban campus. The partner institution is an

academic health center with team members including the fellowship program director who is also the director of a family medicine residency, a professor of family medicine as the co-investigator, another professor of family medicine who is dually-boarded in psychiatry and leads the fellowship's mental health curriculum, and a clinical trial director and fellowship graduate physician assistant who serves as the associate program director. The professional effort for the grant ranges from 10-20% for each faculty member. The project manager, who leads data collection and analysis and most administrative day-to-day activities for the fellowship, is a senior research assistant in family medicine who is funded for 80% professional effort.

## *Fellow Recruitment/Planning*

Prospective fellowship candidates are identified through local and statewide professional organizations of primary care physicians and physician assistants, including schools of medicine, and also via peer inquiry of both faculty and prior fellow graduates. The characteristics of the fellows in different cohorts are provided in Appendix 1. The candidates ideally serve in regional primary care networks that care for underserved populations or federally qualified health centers. They will then interview with the fellowship program director to determine availability and professional development goal alignment.

## *Implementation*

A fellowship website serves as remote infrastructure and learning management system (<https://www.primarycarechampions.com>). See Figure 1 for the recurring monthly program of fellowship activities. Table 1 also describes the objectives for the fellowship's six content areas. The self-directed learning curriculum is mostly delivered via asynchronous platforms. This includes the Institute for Healthcare Improvement Basic Certificate in Patient Safety, Improvement Capability, Leadership, Person- and Family-centered Care, and Triple Aim for Populations

SUN	MON	TUES	WED	THURS	FRI	SAT
<b>WEEK 1: SELF-STUDY (2-6 HOURS)</b>						
	* Module Viewing * Readings		* Work on practice quality improvement project * Other assignments			
<b>WEEK 2: GROUP LEARNING (2-4 HOURS)</b>						
	* Lectures * Facilitated Discussion					
<b>WEEK 3: MENTORING (1-4 HOURS)</b>						
	* Meetings * Self-study					
<b>WEEK 4: GROUP LEARNING (3 HOURS)</b>						
	* Community expert guest speakers * Facilitated discussion					
<b>APPROXIMATELY 16 HOURS PER MONTH</b>						

Figure 1: Recurring monthly fellowship activities

Table 1: Content area objectives

<b>Quality Improvement Curriculum</b>
Identify quality problems that are ideal targets for improvement activities, including consideration of key stakeholder priorities, and limitations and resources of the practice and surrounding community
Describe basic quality improvement (QI) tools and skills, including: audit, process tools such as process maps, healthcare matrix, fishbone diagrams, root cause analyses, and rapid cycle change methodology.
Implement a targeted and balanced QI project including needs assessment/data collection, intervention, and evaluation of outcomes.
Utilize effective team-based care strategies (shared goals, clear roles and responsibilities, mutual trust, and effective communication)
<b>Social Determinants of Health Curriculum</b>
Review national and state level public policy targeting substance use disorder, incarceration, and access to care
Research local, state and/or national policies related to your project (need, intervention or measures)
List methods of provider agency for optimizing individual patient health and provider activism for policy change, and perform one not previously tried
Examine the relationship between the social determinants of health (race, poverty, incarceration), substance use disorder and your practice population
Explore potential links between an identified need in your practice and the health of the surrounding community, including the social determinants of health (race, food security, housing stability, access to care), known disparities, and community resources
Develop a relationship with one community agency relevant to the need (gap) targeted by your project
<b>Substance Use Disorder Curriculum</b>
Support fellows to provide Medication Assisted Treatment (MAT) in their practices for patients with substance use disorders through both obtaining DATA 2000 waiver and addictionologist provided coaching support
Promote adoption of best practices when diagnosing and treating substance use disorders in the primary care setting (e.g. Narcan prescribing as harm reduction measure)
Facilitate family and care giver perspectives into substance use disorder treatment programs through patient and family voice content to enhance provider attitudes and mitigate systemic stigma
<b>Mental Health Curriculum</b>
Equip fellows to adopt the Collaborative Care Model (CCM) of care for patients with chronic mental illness
Utilize best practices when fellows conduct and document suicide safety assessments
Increase use of technology for mental health encounters
Promote self-efficacy in using pharmacogenomic testing in the primary care environment to inform mental health treatment decisions for underserved patients
<b>Medical Educator Curriculum</b>
Explain the key assumptions of andragogy and how they relate to learners, patients and team members in your practice
Using instructional design theory, create a presentation for key stakeholders describing your project goals and/or the results of the project
Explain how attitudes influence learning, specifically citing examples from your own experience with the rules of reciprocity, commitment and consistency, and social proof
Formulate an individualized learning plan for the fellowship including periodic self-monitoring of progress and adjusting strategies for goal achievement as needed
Reflect on ways the physical, social, emotional, and intellectual environment of your practice enhances and hinders learning of team members (including students, staff, providers and patients)
Experiment with clinical teaching strategies with learners at your practice site and reflect on the benefits and costs of each
<b>Provider Wellness and Burnout Prevention Curriculum</b>
Self-assess personal wellness using standardized inventories for burnout, job satisfaction, and perceived stress and use results to develop an individualized plan to address or prevent burnout
Examine current and ideal work and home boundaries and utilize strategies to achieve desired level of integration
Identify sources of burnout, and personal and/or professional resources to improve personal or organizational wellness

modules and substance use disorder modules developed and created by UC DFCM faculty.

Didactics and monthly discussions are led by two fellowship faculty: the program director who is also an associate professor and residency program director in the University of Cincinnati Department of Family and Community Medicine (UC DFCM); and a dually-boarded family medicine physician and psychiatrist who is also an assistant professor in the UC DFCM Research Division. Fellows meet once every month for the in-depth community expert discussions (twelve sessions) and selected months for didactics (seven sessions). While initially both the didactics and expert discussion sessions were delivered in-person, they were both transitioned to Zoom video conferencing in March 2020.

### *Evaluation*

Fellows are evaluated across the six content areas via pre- and post-module knowledge and confidence surveys, bimonthly quality improvement project stepped discussion board posts, various in-lecture workshop case assignments and clinical teaching activities. To evaluate the program, fellows complete post-session evaluations for each didactic and monthly discussion event that provide feedback on quality of the instructors and speakers, value of materials and content to practice, and suggestions for improvement. There are also six-month and exit focus groups for each cohort that are administered by a faculty evaluator and a project manager. These two evaluators neither developed nor delivered curriculum content to avoid any bias. Focus group questions were developed through an internal fellow-faculty validation process. Questions included projected utility of materials and content in clinical practice and education for each topic area, in addition to the advantages and challenges of a virtual fellowship model. Transcripts were then analyzed for prevailing themes in curriculum delivery, faculty support, and overall fellowship experience. The project has been determined to be Not Human Subjects

Research (NHSR) by the University of Cincinnati Institutional Review Board.

## **Results and Discussion**

After a first in-person fellow cohort (n=3), a second cohort (n=6) began in September 2019, but transitioned to a virtual-only format in March 2020 due to COVID-19. A third, all-virtual cohort of five providers began in September 2020.

All nine fellows from the first two cohorts participated in both the six-month and exit focus groups. The following are key lessons learned in transition to a virtual fellowship derived from focus group evaluation. Supporting quotes are included below.

**1. Keeping fellows engaged on a virtual format required a realignment of focus for didactic sessions and community expert discussions.** Without the previous in-person engagement, live sessions moved to a fellow-centric methodology. Shared personal experiences of the fellows within topic areas were sought, with expert panels facilitating professional development through feedback. Highlighting the fellows' shared personal and professional challenges allowed for deeper relationship building and peer support.

“Being able to interact more among each other then critique each other, like as if we're teaching for learners to get feedback versus hearing from an expert, I think that would be beneficial.”

“When we had discussion where we were taught some of the issues in our practices, it made me feel more engaged and made it more personal.”

**2. Leveraging technology to engage fellows during the online sessions was important to optimize learning.** By implementing best-practice virtual teaching, the fellowship has retained relationship building attributes and effective teaching. Online learning has been shown to be as effective as didactic formats with greater flexibility in self-directed learning (7). The fellowship utilizes virtual breakout rooms for smaller group discussions, encouraging active learning through sharing, moving

assessments online to facilitate feedback, providing participant ground rules and utilizing appropriate software for community expert and lecture discussions (7, 8). Fellows report positive and enriching virtual experiences.

“Break-out rooms were very helpful to be able to get feedback from multiple perspectives.”

“Getting to see each other and share experiences of difficult patient encounters, that was actually really good for my wellness.”

“Getting some support from PAs and other physicians was awesome.”

**3. A virtual fellowship allowed for expansion of recruitment beyond the immediate region, contributing to the geographic diversity of fellows.** Because physician assistants are under-represented in primary care practices in the Greater Cincinnati region, recruitment of physician assistant fellows proved challenging due to a small pool of eligible and interested applicants even pre-COVID-19. Converting to a virtual experience broadened fellowship participation to those in rural care and hospital systems outside of the region. Fellows agreed that this diversity added value to their professional development.

“I think the true sense of the work fellowship is sharing, not necessarily all learning. This is enriched by bringing people from different cities and hospital systems, it’s just as good if not better virtually.”

The transition from in-person activities to a virtual platform was guided by a strong desire to sustain the free exchange of ideas and discussion of in-person activities the fellows highly valued. However, across topic areas, the rapport, open discussion, and inquiry during the live lecture and monthly in-depth community expert discussion events proved difficult to emulate using remote video conferencing. Though proactive efforts were made for parity in participation among the fellows, such as having each prepare questions for the community speakers, anecdotally it was challenging to track the level of engagement individually due to

both technology (e.g. internet connectivity, audio/video functions) and environmental dispersion (e.g. distractions at home, fellows and speakers not present in the same room, etc.). There were also unanticipated cost savings associated with the transition to a virtual format. Event space rental, dinner, and parking costs were eliminated, resulting in savings of approximately \$7000 per year. New costs of the virtual fellowship included only a subscription to the web-based platform Zoom.

While challenges in developing relationships within a virtual fellowship remain, the change in format has also presented opportunities. As reported by fellows, a more geographically diverse cohort has strengthened the fellows’ experiential learning by introducing a deeper exchange of approaches to care and ideas for advocacy. A virtual fellowship has also allowed for an expanded reach to practice environments outside of the faculty’s two urban campuses and hospital systems: virtual participants now come from rural Appalachia, a smaller city, and provide more diverse cultural and patient population practice encounters. This enriches the mission and experience of the fellowship by producing primary care champions in leadership and advocacy across previous geographic barriers, which is critical given a shortage of an estimated 250 primary care providers in the Cincinnati region alone (9). For these reasons, we anticipate retaining a virtual fellowship for future CPCC cohorts.

### **Authors’ Contributions**

Drs. Rich, Schlaudecker, and Stryker designed the study, devised the fellowship content and delivery, participated in coordination of the study, and critically revised the manuscript. Mr. Hargraves ran the study intervention, collected data and performed analysis, participated in the coordination of the study, drafted the manuscript along with Dr. Schlaudecker, and critically revised the manuscript. Mr. Cafferty and Ms. Gottschlich revised the manuscript and contributed to the design and analysis of the study data.

## Conflict of Interest

The authors declare no conflict of interest.

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## References

- 1 Sharma D, Bhaskar S. Addressing the Covid-19 Burden on Medical Education and Training: The Role of Telemedicine and Tele-Education During and Beyond the Pandemic. *Front Public Health*. 2020;8:589669. doi:10.3389/fpubh.2020.589669. PMID:33330333 PMCID:PMC7728659
- 2 Vollbrecht PJ, Porter-Stransky K, Lackey-Cornelison W. Lessons learned while creating an effective emergency remote learning environment for students during the COVID-19 pandemic. *Adv Physiol Educ*. 2020;44(4):722-725. doi:10.1152/advan.00140.2020. PMID:33141599 PMCID:PMC7686878
- 3 Schweiberger K, Hoberman A, Iagnemma J, Schoemer P, Squire J, Taormina J, Wolfson D, Ray KN. Practice-level variation in telemedicine use in a pediatric primary care network during the COVID-19 pandemic: retrospective analysis and survey study. *Journal of medical internet research*. 2020;22(12):e24345. doi:10.2196/24345. PMID:33290244 PMCID:PMC7752181
- 4 Kruse J. Overcoming barriers to interprofessional education: The example of the joint position statement of the PA education association and the society of teachers of family medicine. *Fam Med*. 2021;44(8):586-587. PMID: 22930127
- 5 Schulz AJ, Mehdipanah R, Chatters LM, Reyes AG, Neblett EW, Israel BA. Moving Health Education and Behavior Upstream: Lessons From COVID-19 for Addressing Structural Drivers of Health Inequities. *Health Educ Behav*. 2020;47(4):519-524. doi:10.1177/1090198120929985. PMID:32408770
- 6 McNeely CL, Schintler LA, Stabile B. Social Determinants and COVID-19 Disparities: Differential Pandemic Effects and Dynamics. *World Med Health Policy*. 2020;12(3):206-217. doi:10.1002/wmh3.370
- 7 Saiyad S, Virk A, Mahajan R, Singh T. Online teaching in medical training: establishing good online teaching practices from cumulative experience. *Int J App Basic Med Res*. 2020;10:149-55. doi:10.4103/ijabmr.IJABMR\_358\_20. PMID: 33088735 PMCID: PMC7534709
- 8 Gottlieb M, Egan DJ, Krzyzaniak SM, Wagner J, Weizberg M, Chan T. Rethinking the approach to continuing professional development conferences in the era of COVID-19. *J Contin Educ Health*. 2020;40:187-191. doi:10.1097/CEH.0000000000000310. PMID:32658014
- 9 Greater Cincinnati Primary Care Physician Shortage Approaches 200. *Healthcollab.org*. <http://healthcollab.org/greater-cincinnati-primary-care-physician-shortage-approaches-200/>. Published August 7, 2013. Accessed February 3, 2021.