OHIO COLLEGES OF MEDICINE
GOVERNMENT RESOURCE CENTER

Evaluation of the MEDTAPP Healthcare Access Initiative

2016 FINAL REPORT

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Healthcare Access Initiative Evaluation Executive Summary

INTRODUCTION

Recognizing the growing need for creating a diverse workforce and enhancing interprofessional education, Ohio's Medicaid Technical Assistance and Policy Program (MEDTAPP) Healthcare Access Initiative (HCA) prepares current and future health professionals to serve Medicaid beneficiaries and to work in underserved communities.

The MEDTAPP HCA supports healthcare professional recruitment and retention through innovative teaching and training programs that focus on behavioral health, community health workers, interprofessional education, and community-based experiences to increase access to care for Medicaid and underserved populations.

The MEDTAPP HCA fosters partnerships between academic medical centers and health professions training programs in collaboration with State of Ohio health and human services agencies and specifically, The Ohio Department of Medicaid.

Since its inception in state fiscal year (SFY) 2012, MEDTAPP HCA has partnered with 10 universities across the state, including all of Ohio's seven colleges of academic medicine, to train and place providers in specialties such as behavioral health, primary care, geriatrics, and advanced practice nursing. The project is funded via Federal Financial Participation (FFP). The institutions receive the FFP and provide the non-federal match.

HCA OVERVIEW

HCA was created to foster innovation; therefore variation exists across institutions while each project strives to maintain the core objective of HCA which is to retain healthcare professionals to serve Ohio's Medicaid population. Courses were developed and institutionalized to bridge the divide between professions. Placement sites and community-based experiences allow the HCA students to experience team-based care in practice. Several institutions developed fellowships and post-master's certificate programs that target current students and in-career healthcare professionals in areas such as child and adolescent psychiatry, pediatric psychopharmacology, and remote community psychiatry. Other HCA institutions developed online certificate programs to target behavioral health students and current health professionals, psychiatric mental health nurse practitioners, and primary care providers in the community in order to increase their comfort level with behavioral health issues.

Other innovative program activities include interprofessional courses focusing on the social determinants of health, vulnerable populations, and how to operate as an interprofessional care team. Residents, fellows, medical students, other graduate students and undergraduates learn together. These opportunities have facilitated interaction among disciplines. As examples, one integrated clinic focuses on clinical service delivery interventions for faculty, residents, and fellows. At one institution, psychiatry residents work alongside family medicine physicians to facilitate improved care coordination. A National Committee for Quality Assurance Level 3 recognized Patient Centered Medical Home (PCMH) clinic offers comprehensive physical and mental health care as well as chronic disease self-management. The care team includes family nurse practitioners, psychiatric mental health nurse practitioners, pharmacists, dieticians, social workers, nurses, and other health science students. Health professional students rotate through these sites, learning how the chronic care team-based model works and gaining experience working with underserved populations. Other innovative project activities range from training healthcare providers in behavioral health and primary care integration, to CHWs working to improve chronic disease management. Several project activities aim to help reduce infant mortality by engaging women throughout their pregnancy and in the postnatal period. Furthermore, HCA financially supported the development of school-based health clinics which covered students and their families. These school-based health clinics provide well and sick visits, vaccinations, and general primary care. These sites serve as training sites for medical students, residents, and pediatric residents.

HCA EVALUATION METHODOLOGY

This evaluation focused on three priority areas: recruitment, training, and retention of health professionals to serve Ohio's Medicaid population. Information was supplemented by data the schools provided in August 2016. A survey was distributed to preceptors to better understand the preceptor's discipline and the type of community-based site. Internal and external project reviews were conducted by examining past project proposals and final reports since SFY 2012 to better understand the types of activities that were unique to each institution. Upon collecting and analyzing this information, a total of 20 site visits were conducted at each participating institution. The key informant interviews (n=349) occurred with lead administrators, deans, faculty, HCA learners at different stages of the program, and placement site advisors. The interviews focused on topics such as the individual's role in the program, types of activities the program site offers, and general perspectives on recruitment and retention as well as satisfaction with the program. Furthermore, two focus groups with Medicaid recipients were conducted in order to gauge satisfaction with community participants. In addition to the site visits, structured telephone interviews were conducted with lead administrators, principal investigators, and HCA learners. The interviews consisted of four domains: 1) Information about the HCA Site; 2) Overview of HCA Initiative Activities; 3) Perspectives on Recruiting and Retaining Learners; and 4) Knowledge of Other Medicaid-Focused Professional Development Initiatives. Quantitative metrics were extracted from each participating program's proposals and final quarterly reports. Program data was analyzed to determine the number of student learners involved in the program and to gather placement site information. The key informant interviews requested information on each institution's project activities. A survey was also distributed to preceptors (n=96) to better understand the preceptor's discipline and the type of community-based site.

SUMMARY OF FINDINGS

In total, all 10 institutions focus on interprofessional education and training in team-based models of care in community-based placement sites, 9 institutions engage in behavioral health activities, 8 institutions have projects that address chronic disease self-management, and 5 institutions have institutionalized curriculum approved by the Ohio Board of Nursing to train community health workers.

Recruitment

Programs noted a variety of strategies to recruit participants for the MEDTAPP HCA Initiative. These included word of mouth strategies, outreach strategies, and direct communication strategies. A majority of sites reported that a combination of all three strategies worked best in recruiting. More specifically, engaging future healthcare professionals much earlier in the pipeline and even in high school seemed to have more of an impact on students deciding to work or volunteer with vulnerable populations.

Training

A HCA learner is defined as a student taking a class or enrolled in a program, or an individual participating in an initiative supported by MEDTAPP HCA funds. The number of HCA learners has grown significantly from SFY 12 to SFY 15, increasing by 118 percent. Since SFY 2012, HCA faculty have trained 6,359 health professional students, 643 residents, and 259 fellows across several disciplines including physicians, nurses, social workers, dentists, CHWs, and behavioral health providers.

The community-based placement sites address the needs of the Medicaid population and help students understand the challenges faced by people living in poverty and people with disabilities. Across the HCA institutions, a total of 745 clinical and non-clinical placement sites serve as the experiential learning component for HCA learners to better function in team-based models of care and understand the social determinants of health. Several different types of clinical placement settings include school-based health clinics, federally qualified health centers (FQHCs), inpatient and outpatient settings, mental health agencies, internal medicine clinics and PCMHs. Non-clinical experiences include home-visiting programs for new mothers, free clinics for the homeless, a re-entry clinic for newly released inmates, and a mobile dental clinic that afford students the opportunity to engage patients in person-centered care. These placement

sites and targeted HCA activities educate students and address community needs by providing behavioral health services, utilizing community health workers, and creating initiatives to reduce infant mortality. HCA's innovation has created opportunities for those external to HCA such as learners training others.

The preceptor survey revealed several findings. A total of 96 preceptors responded to the survey (48% response rate) and represented 13 different counties with the majority in Cuyahoga, Hamilton, and Montgomery counties. Over 60% of the placement sites are in FQHCs and outpatient settings while 40% are located in community mental health agencies. While not an exhaustive list, the types of disciplines represented among the preceptors include dentists, nurses, pediatricians, physicians, psychologists, psychiatrists, and social workers. Preceptors reported that the HCA learners brought innovative practice ideas to the clinic and provided additional opportunities for them to train more fellows who have an interest in treating underserved patients. Furthermore, the HCA learners have enhanced the preceptors' learning environment by keeping them abreast of current evidenced-based practices, which led to improved integrated care for patients.

Retention

Each institution reported a variety of retention commitment types, including multi-year commitments for larger tuition/stipend awards and shorter commitments for smaller tuition/stipend awards. In SFY 16 alone, of the HCA learners that received training support, nearly half of the students (49 %) are employed in a high-volume Medicaid site. Twenty-four percent of the total number of students trained are currently seeking employment, awaiting certification and/or licensure, or have decided to pursue graduate education. Moving forward, it is recommended that HCA standardize the retention commitment for all sites and align it with existing federal and state programs such as Choose Ohio First Scholarships, Student to Service Program, National Health Service Corps Scholarship and Loan Repayment programs, Ohio Physician Loan Repayment Program, and the Ohio Dentist Loan Repayment Program.

As a result of the institutions not collecting information uniformly as well as varying definitions for HCA learner, preceptor, and student and the mechanism for data collection, the quantitative results may underrepresent the impact HCA had on patient outcomes, increasing access to care, and retention of healthcare professionals. With respect to retention, many learners have not yet graduated and are still in the pipeline.

CONCLUSION AND RECOMMENDATIONS

HCA strategies build on existing relationships with local communities. These long lasting relationships have had a positive impact on the community, which extend beyond the findings of this evaluation. The HCA initiative has many opportunities to collectively enhance the training for students and in-career healthcare professionals while also improving the care of underserved populations. The first recommendation is to standardize data collection processes and outcomes measurement. This is imperative in order to quantify return on investment. Engaging learners before they are at the end of their training will improve the Initiative's longer-term ability to retain future health professionals to serve the Medicaid population. A second recommendation involves building learning networks among the 10 institutions for improved alignment and coordination of activities. These learning networks would support enhanced regional cross collaboration between the 10 institutions and community-based sites to improve knowledge expansion and capacity building for patient centered medical homes, chronic disease management, and integration of behavioral health and physical health. Implementing regular face-to-face meetings and sharing materials and outcomes will provide much needed interaction. Professional development and training of preceptors at community-based sites in current evidence based practices in behavioral health and primary care integration, chronic disease management, and interprofessional teamwork will transform clinic sites to align with current training practices of health professional students. Furthermore, efforts should be made to standardize retention commitments across schools for improved tracking of health professionals after graduation. Additionally, engaging future healthcare professionals much earlier in the pipeline will have more of an impact on students deciding to work or volunteer with vulnerable populations. Lastly, the HCA initiative should continue to support health professionals at practice sites to deliver value-based primary care and behavioral health services to generate additional interprofessional placement sites for future HCA learners.

Final Report

I. OVERVIEW

This final project report presents the results of a comprehensive evaluation of the Medicaid Technical Assistance and Policy Program (MEDTAPP) Healthcare Access Initiative (HCA) across the state of Ohio. This report includes findings from data collection and analyses completed between May 2015 and June 2016.

The MEDTAPP HCA fosters innovative partnerships between academic medical centers and health professions training programs in collaboration with State of Ohio health and human services agencies and specifically, The Ohio Department of Medicaid. Recognizing the growing need for creating a diverse workforce and enhancing interprofessional education, Ohio's MEDTAPP HCA prepares current and future health professionals to serve Medicaid beneficiaries and to work in underserved communities. This evaluation included site visits to all ten of the participating academic medical centers and health sciences colleges and universities that had implemented HCA Initiative projects, in addition to quantitative analyses of program and state-level data. Findings are based on key informant interviews completed across the ten academic partner sites (n=349), quantitative analyses of program data, analysis of a survey of HCA preceptors (n=96), and analysis of data from the Ohio Health Professions Data Warehouse (HPDW).

II. INTRODUCTION AND PROJECT SUMMARY

A. Project Goals and Objectives

The evaluation took a responsive, phased, mixed-methods approach, finalized in consultation with the Ohio Department of Medicaid (ODM) and the Ohio Colleges of Medicine Government Resource Center (GRC) (ODM/GRC), to comprehensively assess the MEDTAPP HCA Initiative. As part of this process a framework for measuring the effectiveness of each HCA program's curriculum and training methods, focusing on the three priority areas: recruitment, training, and retention of health professionals to serve Ohio's Medicaid Population was developed.

B. Overview of MEDTAPP Healthcare Access Initiative

HCA is a statewide partnership between the Ohio Department of Medicaid and Ohio's academic medical centers and health science colleges and universities. The program provides funding to leverage existing resources and develop new activities to train and retain providers who will serve the Medicaid population. The MEDTAPP HCA Initiative includes projects that focus on behavioral health, community health workers, interprofessional education, and community-based experiences to increase access to care for Medicaid and underserved populations.

C. Evaluation Team

The MEDTAPP HCA Initiative Evaluation Project Work Team (MEDTAPP Team) was comprised of three faculty researchers supported by experienced research staff. Principal Investigator Dr. Ann McAlearney, Professor and Vice Chair of Research in the Department of Family Medicine (DFM), led all aspects of the project. She has extensive health services research expertise leading multi-disciplinary research teams and is nationally recognized for both her leadership development work in healthcare and the use of qualitative methods. Dr. Timothy Huerta, Associate Professor of Family Medicine and Biomedical Informatics, served as Evaluation Design Leader, developing and refining the evaluation framework and guiding all aspects of quantitative data collection and analysis. Dr. Cynthia Sieck, Assistant Professor of Family Medicine, worked with both Drs. McAlearney and Huerta on their respective components. DFM Research Associate, Ms. Lindsey Sova, provided support for all aspects of the project. Additional DFM research staff supporting the evaluation included Dr. Barbara Barash and Dr. Terri Menser, both post-doctoral researchers in DFM.

III. EVALUATION APPROACH AND METHODOLOGY

A. Mixed Methods Approach

Each partner institution took a different approach to implement the HCA Initiative, thus a single evaluation strategy would not capture this complexity. Therefore, a responsive, phased, mixed-methods approach to comprehensively assess the HCA Initiative, finalized in consultation with GRC, was conducted in order to understand the variation expected across partner institutions and programs. The HCA Initiative evaluation included identifying successful recruitment and retention strategies to meet HCA's core objective – to retain healthcare professionals to serve the Medicaid population. New questions emerged from the initial review process as more detail was gathered about site-specific activities. The Study Protocol was approved by the Institutional Review Board of OSU and is included as Appendix 1. First, internal and external project reviews were conducted to gain insight into the different project activities across each institution. This established an evaluation framework (i.e., HCA Project Activities Definitions— see Appendix 2) appropriate for the diversity of approaches used across HCA sites. This framework served as the basis for the evaluation activities. Next, site visits to all ten of the participating academic medical centers and health sciences colleges and universities were conducted. These qualitative interviews were supplemented by quantitative analyses of program and state-level data.

B. Case Study Data Collection

Case studies involved three steps: 1) document review; 2) structured telephone interviews; and 3) site visits to each of the academic program sites and selected placement sites to conduct in-person interviews. Each of these data collection steps is described further below.

1) Document Review involved a review of all MEDTAPP HCA applications, quarterly and final reports submitted by the institutions.

2) Structured Telephone Interviews were conducted with lead administrators at each program from each site. Interviewees received interview questions in advance of the call to facilitate collection of preliminary program data. Interviews were structured to understand the types of activities each site had designed, levels of participation across all activities, and training opportunities available. The Structured Interview Guide included four domains: 1) Information about your HCA Site; 2) Overview of HCA Initiative Activities at Your Location; 3) Perspectives on Recruiting and Retaining Learners; and 4) Knowledge of Other Medicaid-Focused Professional Development Initiatives. (See Appendix 3 for the Structured Interview Guide.)

3) Site Visits were made to each academic program site and selected program sites (a total of 20 site visits). Key informant interviews with lead administrators and deans for the academic partner program, faculty members participating in the program, learners at different stages of the program, and placement site advisors were conducted during the site visit. Additional key informant interviews were conducted at partner sites with program staff, learners, and preceptors. The interviews focused on topics such as the individual's role in the program, types of activities the program site offers, and general perspectives on recruitment and retention as well as satisfaction with the program. Community members impacted by HCA, including two focus groups with Medicaid recipients were conducted in order to understand the impact beyond the quantitative analyses. All interviews and focus groups were semi-structured, audio recorded, and transcribed for analysis. Each of the data collection instruments for the site visits is included in Appendix 3.

4) Follow-up Telephone Interviews were conducted with sites' informants when target personnel were absent during the site visit, or when additional information was needed for our analyses.

C. Qualitative Analysis

Analyses of key informant interviews, focus groups, and documents used the constant comparative method of qualitative data analysis, and standard techniques to code data. Using an iterative approach to analysis that involved reading interview transcripts, reviewing available literature, and discussing findings among investigators as the study progressed enabled the exploration of emergent themes and ensure saturation in data collection from program sites was reached. Atlas.ti qualitative analysis software was used to facilitate coding and data analyses, including the formal exploration of patterns and themes within the data.

D. Quantitative Methods

Quantitative metrics were extracted from proposals from each participating program including the initial applications and continuing and expansion funding requests. When possible, missing data was gathered directly from the academic program sites. In addition, after conducting site visits to all programs, two different quantitative studies were pursued: 1) Preceptor Survey; and 2) Analysis of data from the Health Professions Data Warehouse. Each of these quantitative methods is described further below.

1) Preceptor Survey. A survey was distributed to preceptors to better understand the preceptor's discipline and the type of community-based site. Preceptors were identified by academic program partners. The survey was deployed using Qualtrics, a commercial survey solution provided under contract to OSU. Survey data analyses were conducted using STATA. The Preceptor Survey is included in Appendix 3.

2) Analysis of Health Professions Data Warehouse. In addition to attempt track student retention, quantitative analyses were conducted using data from the Ohio Health Professions Data Warehouse when those data became available (May 2016). These analyses were conducted using STATA quantitative analysis software. These data were analyzed to provide information about definitions around high, medium, and low volume Medicaid populations based on numbers of providers (Appendix 4).

IV. PROJECT RESULTS

A. HCA Project Activities

After reviewing background documentation and completing structured phone interviews a preliminary logic model, finalized in consultation with the GRC was developed. The categories of project activities are listed in Table 1 below, with definitions of each element defined further in Appendix 2.

Table 1: HCA Project Activities

Categories	Sub-Categories
Financial	• Training Support • Stipends • Recruitment bonuses

Positions	• Effort support for existing faculty • Effort support for new faculty • Funding for faculty activities (not salary support) • Medical residencies and fellowships for identified candidates • New medical residencies and fellowships • Student positions • Internships • Clinical support • Non-clinical support
Mentoring	• Direct mentoring • Mentor training
Training	• Course/curriculum • Faculty development • Didactics • Interdisciplinary training • Integrated care • Interprofessional teams • Experiential learning • Training capacity development • Other activities (e.g., PCMH-related)
Awareness and Community	• Learning collaborative • Employment development
Education Activities	• Advisory council/board • Policy development and analysis

Utilizing program proposals, budget documents, and participation reports, the distribution of project activities at each academic site is presented in Table 2 below. Each of the 10 institutions was assigned a random number to preserve confidentiality as required by the Institutional Review Board of The Ohio State University.

Table 2: Project Activities, by Site

Institution	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10
Financial										
Training support	■	■	■				■	■	■	■
Stipends		■		■	■	■	■	■	■	■
Recruitment bonuses							■	■		
Staffing										
Effort support for faculty	■	■	■	■	■	■	■	■	■	■
Funding for faculty activities (not salary support)			■	■	■	■		■	■	■
Medical residencies and fellowships					■	■	■	■	■	■
Student positions	■	■	■	■	■	■	■	■	■	■
Clinical support	■			■	■			■	■	
Non-clinical support	■	■		■	■	■	■	■	■	■

Mentoring										
Direct mentoring										
Mentor training										
Training										
Course/curriculum										
Faculty development										
Didactics										
Interprofessional training										
Integrated care										
Experiential learning										
Training capacity development										
Awareness and Community Education Activities										
Learning collaborative										
Employment development										
Advisory council/board										

Site Visit Findings

Key Informants Interviewed

In an effort to interview a wide variety of key informants from each project, 20 site visits were conducted. Table 3 shows the types and numbers of key informants interviewed at each site.

Table 3: Key Informants Interviewed, Across Sites

Institution	PIs and Co-Is	MEDTAPP staff	Deans	Placement Sites	Learners	Community Members	Total
Site 1	2	2		3	12		19
Site 2	7	23		11	15	1	57
Site 3	2	3	1	2	3		11
Site 4	2	7	2		2	3	16
Site 5	8	51		3	25		87
Site 6	7	5	1	7	8		28
Site 7	5	9		4	7	2	27
Site 8	5	23			6		34
Site 9	7	18	3	4		23	55
Site 10	5	5			5		15
Total	**50**	**146**	**7**	**34**	**83**	**29**	**349**

The analyses revealed several major themes with respect to behavioral health and primary care integration, community health worker, patient-centered medical home, chronic disease management, recruitment, interprofessional education and training, and retention.

Behavioral Health/Primary Care Integration

Disciplines/Learners Involved: The curricular and experiential learning project activities related to behavioral health and primary care integration involved multiple disciplines and types of learners. Innovative projects at each site showcased the variety of faculty, students, and community leaders engaged in the activities. These different disciplines and learners included the following:

- Students (e.g., medical, nursing, social work)
- Primary Care Residents and Physicians (e.g., Family Medicine, Internal Medicine, Pediatrics)
- Psychiatry Residents and Psychiatrists
- Pharmacy Residents and Pharmacists
- Specialists (e.g., Developmental and Behavioral Pediatricians)
- Community Health Workers
- Nurse Practitioners

Program Examples: Examples of behavioral health/primary care integration across sites included treatment teams in a behavioral health medical center, care teams in schools, and a care team integrated into the judicial system. One interviewee noted the value of the school-based health clinic and having the ability to identify the child's actual health needs, determining if they've had a well child visit, immunizations, or presence of chronic disease. Conducting in-depth chart reviews and talking with the child and their parents, the interviewee stressed the importance of establishing trust and making relationships. Furthermore, follow-up phone calls to the families increased the number of visits and improvements to overall health.

With respect to integrated teams, another interviewee described how improvements in wait times and referrals increased access to critical psychiatry services. Warm hand offs to the psychologist, psychiatrist, or counselor, an approach in which the primary care provider does a face-to-face introduction of a patient to the behavioral health specialist, were implemented, thus eliminating the need for patients to schedule additional appointments. While the institutions that have behavioral health and primary care integration projects realize the benefits, some challenges remain. Recruiting physicians that have knowledge in evidenced-based behavioral health primary care integration remained a challenge even in light of monetary support. Furthermore, helping other providers realize the need for integrated care can also hinder the progress towards improved patient-centered care as some are resistant to change.

Benefits: A majority of interviewees were very positive about the benefits of integrating behavioral health and primary care. Among the benefits noted were support across disciplines (e.g., Family Medicine residents asking Psychiatry residents for help on a case), changing the culture of the way professionals interact, being able to deliver "whole person care" to Medicaid recipients, providing innovative training experiences through exposure to multiple disciplines, and being able to take into consideration the social determinants of health. In fact, due to expanded HCA program opportunities, health care providers from different disciplines were now able to share various interdisciplinary approaches with each other. One such example is the collaboration that occurred amongst psychologists, psychiatrists and primary care providers in a behavioral health setting. For instance, one interviewee described the benefit of support across disciplines as follows: "I think [MEDTAPP HCA Program] expanded opportunities to share with interdisciplinary, interprofessional healthcare providers regarding a different approach…to Medicaid populations about health behaviors, or the lack thereof. And so it allowed us to bring together psychologists and psychiatrists and family doctors to train them together." This also served as an integrated care placement site for the students. The integration not only improved the care for patients, but also effectively changed the culture, allowing the students to witness the value of integration first-hand. The interviewee also described how the family medicine residents and physicians saw the value of having a behavioral medicine provider on the care team. Staff even noticed the positive effect the integration had on children seen in the clinic through the implementation of innovative strategies to address mental and behavioral health. The care team became much more skilled at managing mental health issues in the primary care clinic due to behavioral

health providers staffed on location. Long waiting lists diminished because the behavioral health services became part of the primary care clinic, thus eliminating the need to make referrals. For instance, one interviewee noted, "MEDTAPP [Medicaid Technical Assistance and Policy Program] has really been helpful. It's really helped us develop a number of really innovative strategies to address the mental health and behavioral health needs of the children… …And the most impressive thing I think is as a result of all of these things is that we have dramatically increased the number of children who we see here on main campus for developmental and behavioral problems."

Challenges: Challenges of integrating behavioral health and primary care include merging electronic health records (EHR) systems, finding funding for positions and space availability also remain a challenge. To combat these challenges, one interviewee described how the clinic created a separate database to store the behavioral health information at the primary care site. Some sites discussed the problem of a community health worker not having access to the EHR system because of liability issues.

Community Health Worker Initiatives

CHW Program Features: CHW programs showed wide variety across sites. Participants included a range of learners such as those from the community, human trafficking survivors, health profession students, and AmeriCorps volunteers. Community health centers, primary care clinics, schools, hospitals, and public health agencies served as placement sites for students.

CHW Program Focus: The purpose of the MEDTAPP HCA Initiative CHW program is to develop additional Community Health Worker training and certification programs and increase the number of practicing Community Health Workers in the state of Ohio. Additional goals include cultivating placement site opportunities and promoting the use of CHWs in safety-net providers. Ohio Board of Nursing certified community health worker training consists of 100 hours of didactic instruction and 130 hours of clinical experience. MEDTAPP HCA Initiative projects' training program lengths vary, but CHWs are typically trained in one or two academic semesters. As a result of this opportunity, CHWs have been trained and deployed to serve the Ohio Medicaid population. The HCA initiative projects created new CHW curricula that train CHWs in areas such as maternal and child health, chronic disease, and geriatrics. The HCA program has 7 different CHW projects with a variety of focus areas. One site piloted a placement program to house CHWs in emergency departments to reduce readmission rates, appropriately refer and follow-up with patients, and help patients to obtain dental care while preventing costly returns to the emergency department. Another innovative CHW project works with human trafficking survivors who then return to their communities to improve the lives of women who have had similar experiences. In contrast, another site elected to focus on chronic disease management and expanded the CHW curriculum to include additional competencies related to chronic disease management, infant mortality, oral health, marginalized populations, and working in interprofessional teams. CHWs enrolled in this program understand why the person may experience barriers with taking their medication and going to appointments. This showcases the depth of the CHW training programs across the state in an effort to improve health outcomes for the Medicaid population.

> *"…[CHW] has become such an integral part of our team that it was important that the behaviorist know that this is gonna be someone available to you but, you know, you're gonna need to work with this person." – A placement site noting the benefit of a CHW*

Benefits to CHW Program Learners: The benefits to participants in the CHW programs were noted to be numerous, and included the opportunity for learners to obtain a college certificate as well as using CHW training as a stepping stone to further education. Learners also reported benefiting from job development support, mentoring, career training, and guidance for job placement upon program completion. Several CHW students appreciated the extra support in terms of expectations of an employer, resume writing, appropriate dress, and how to have a successful interview. Financial support was also a noted benefit, with learners noting educational stipends, and incentives to compensate for travel and

lost wages from participating in the program as part of their perceived benefits. Moreover, learners valued their clinical placement experiences, and described benefiting from interprofessional training with other health professions including a reverse benefit in which the training allowed other professionals to help develop their understanding of a CHW.

Box 1: CHW Benefit to the Community

A local librarian who also is in training to become a community health worker described her personal situation that led her to get involved: "I found myself in 2011 diagnosed with breast cancer and went through that whole ordeal, not knowing anything, having no support…. As a librarian, one of the things we do is we bring information to people. So I felt like [providing information] was a calling for me." This community health worker uses her position at the library to advance health literacy, promoting reading about health and self-care, and readily shares her story with others. As she explained, "I think people relate to you more when they know that you've kind of gone down that journey."

Benefits of CHW Programs in Healthcare Settings: CHW programs also benefited the communities in a number of ways. For instance, the CHW program was seen as helping to increase engagement with and access to community agencies/resources and residents of the community, as well as helping other providers operate to the top of their licenses and relieve some burden related to tracking patients and contacting insurance companies on the patient's behalf. One interviewee explained the role of the CHW as becoming a community resource and assisting in care coordination.

A major emphasis from interviewees about the benefit of the CHW program is that it involves "People from the community serving the community." The story in Box 1 provides an example of this benefit.

Another interviewee explained the particular value of CHWs conducting home visits and extending the reach of providers. The CHWs reportedly also benefited from their work as CHWs. One CHW learner found great fulfillment in helping women have healthy pregnancies and babies while simultaneously going through her own healthy pregnancy.

CHW Program Challenges: MEDTAPP HCA Initiative funded CHW projects are paving the way for CHWs to be deployed around Ohio. One challenge is recruitment. Many of the projects experience hardship in recruiting CHW trainees because of the cost of tuition, training, and transportation needs. Because CHWs are often recruited from the communities in which they will serve, trainees from disadvantaged backgrounds find it difficult to pay tuition and find reliable, affordable transportation to classroom experiences and placement sites. Another challenge is job and training site placement. As an emerging profession in Ohio, employers are often unsure how to use CHWs and sometimes reluctant to be part of learning experiences and placement site settings. This also creates uncertainty in recruitment efforts, as job placement cannot be estimated and guaranteed post-training. Additional challenges included granting access to electronic health records (EHRs) for CHWs, and issues with space allocation.

Patient-Centered Medical Home (PCMH)

Several sites noted how the HCA initiative was consistent with efforts to focus on patient-centered medical home (PCMH) development. For instance, one interviewee explained how HCA inspired students and providers to connect to primary care and create interprofessional curricula around the social determinants of health, community-based experiences and vulnerable populations. The combined experiential learning opportunities with the curricula provided learners with unique mentorship and clinical experiences that were replicated in patient settings. The faculty member highlighted the significant attitude change amongst learners about patient centered medical homes and the excitement it generated about working with the Medicaid population. Taking the learners out of the tertiary care settings and

putting them in the community instilled the value of providing care to vulnerable populations. An interviewee who had been a previous learner at another site explained how this focus enhanced and facilitated better integration of care.

> *"There's no way I could [work in the jail and provide] the chronic disease management…without MEDTAPP funds." – MEDTAPP staff person*

Chronic Disease Management

A number of institutions focused on teaching and training of chronic disease self-management in traditional and non-traditional settings. The site visits elicited the various project activities targeted on chronic disease management. Several interviewees stressed the impact chronic disease management can have in care settings such as improving health outcomes and reducing overall costs. One site developed a chronic disease project in the county jail. Many inmates have untreated chronic health conditions which places a huge burden on the health system. Realizing an untapped area to improve, the site created a chronic disease self-management group that was run by a provider and utilized as a placement site for medical students. The involvement with inmates was a rewarding experience for the medical students and the inmates received much needed care around diabetes, hypertension, chronic obstructive pulmonary disease, and heart disease. In fact, after the program was developed, patients saw an improvement in their A1C numbers and it reduced the number of emergency department (ED) visits, blood pressure, and cholesterol. Because of the MEDTAPP program, a Medical director told a MEDTAPP staff member that, "almost every week I don't get any calls for high blood sugars and they used to call me every night for somebody's high blood sugar." In light of this, they now have fewer patients admitted to the ED. Another HCA site focused on reducing childhood obesity in collaboration with a child psychology and psychiatry group. The obesity clinic worked within the pediatrics clinic to implement a wellness program that also employed mental health evaluations. Motivational interviewing was used to achieve weight loss goals and improve interaction between the patient and provider.

Programmatic Lessons and Best Practices Learned from Site Visits

Programmatic lessons and best practices were synthesized across sites from program reports and applications as well as information collected during the site visits. While use of the Health Professions Data Warehouse was expected to provide the opportunity to calculate program impact and investigate recruitment and retention quantitatively, however, with respect to retention, many learners have not yet graduated and thus, still in the pipeline. The analyses of low, medium, and high Medicaid providers were conducted to assess the provision of services available for the Medicaid population and to identify the deployment of future healthcare professionals from the HCA program to the areas with the highest need. The lessons and best practices are based on the available qualitative and quantitative data in four areas: 1) recruitment; 2) retention; 3) interprofessional training; and 4) opportunities created and diffusion of innovation.

a) Recruitment

Programs noted a variety of strategies to recruit participants for the MEDTAPP HCA Initiative. These included word of mouth strategies, outreach strategies, and direct communication strategies:

- Word of mouth strategies were those in which recruitment focused on previous learners sharing stories and positive experiences with potential learners.
- Outreach strategies were focused on learners earlier in the pipeline. This included recruitment in undergraduate courses or courses early in graduate degree programs as well as providing more experiences for health professional students to increase their awareness of working with the population.
- Direct communication strategies involved recruitment materials that were intended for specific targets. These included emails sent to a narrow listserv for degree, course enrollment or postcards sent directly to potential learners.

A majority of sites reported that a combination of all three strategies worked best in recruiting. More specifically, engaging future healthcare professionals much earlier in the pipeline and even in high school seemed to have more of an impact on students deciding to work or volunteer with vulnerable populations.

b) Retention

Retention Strategies: Retaining Healthcare Professionals to Serve Ohio's Medicaid Population: HCA strategies build on existing relationships with local and rural communities. These long lasting relationships have had a positive impact on the community, which extend beyond the quantitative findings of this evaluation. The number of HCA learners has grown significantly from SFY 12 to SFY 15, increasing by 118 percent. Since SFY 2012, HCA faculty have trained 6,359 health professional students, 643 residents, and 259 fellows across several disciplines including physicians, nurses, social workers, dentists, CHWs, and behavioral health providers. Given available data from the Health Professions Data Warehouse and program site applications, it was not possible to evaluate whether the initiative increased the number of additional healthcare providers committed to serving Ohio's Medicaid population. One factor was that many learners are still in the pipeline, making the determination about retention difficult at this time. However, informants across sites studied reported that the MEDTAPP HCA initiative enabled them to expand training for healthcare providers and noted that their learners had demonstrated improved understanding of and increased commitment to serving Ohio's Medicaid population.

In addition, several sites measured program impact through pre-post assessments. This included assessing the change in knowledge of competencies related to interprofessional teams and social determinants of health. Further, many programs focused on attitude and perception changes related to working with different health professions and underserved populations. Lastly, many sites conducted exit and/or follow-up interviews and surveys with learners to collect more information on the value of the program, courses, and clinical experiences involved in the HCA Initiative.

Types of Retention Commitments: Programs reported a variety of retention commitment types, including multi-year commitments for larger tuition/stipend awards and shorter commitments for smaller tuition/stipend awards, as explained further below:

- Multi-year commitments for larger tuition/stipend awards include retention requirement to be completed after graduation to serve Ohio's Medicaid population for 2-3 years.
- Shorter commitments for smaller tuition/stipend awards include retention requirement of a certain number of hours spent serving Ohio's Medicaid population – both during learners' degree/program and post-degree/program completion.

Frequency of Retention Commitments: There was variety in both the frequency of and rationale for the use of different retention commitment types, as described below:

- Smaller commitments were used most successfully with learners, specifically those if the programs offered the opportunity to complete the obligation during their training program.
- Longer commitments were most often required when the amount awarded to learners for residency and post-graduate degrees were larger, usually covering the majority or all of the tuition or salary.

Difficulties of Retention Requirements: Programs offered insight into some of the difficulties related to fulfilling retention obligations. For instance, several sites' interviewees noted that the residency match requirements for medical students could lead to conflicts with retention requirements. In addition, some programs were not allowed to require a written retention requirement so they implemented obligations involving intent to serve the Medicaid population upon degree completion. Certain programs did not require retention requirements based on previous program success with both keeping the learners in the area and also serving the Medicaid population, or because of the nature of the disciplines involved (e.g., social work).

Moving forward, it is recommended that HCA standardize the retention commitment for all sites and align it with existing federal and state programs such as Choose Ohio First Scholarships, Student to Service Program, National Health Service Corps Scholarship and Loan Repayment programs, Ohio Physician Loan Repayment Program, and the Ohio Dentist Loan Repayment Program.

c) Interprofessional Training

Approaches to Interprofessional Training: All HCA sites focus on interprofessional team based models of care within curriculums and placement sites. Depending on the site, there were a variety of disciplines involved, including but not limited to: primary care, psychiatry, pharmacy, specialists (e.g., developmental and behavioral pediatricians), CHWs, nurse practitioners, therapists, social workers, and dentists. One site has an integrated care clinic that focuses on clinical service delivery interventions for faculty, residents, and fellows while psychiatry residents work alongside family medicine physicians. Clinic sessions at Cleveland elementary and high schools provide well and sick visits, vaccinations, and general primary care and serves as a training site for medical students, residents, and pediatric residents. Furthermore, a National Committee for Quality Assurance Level 3 certified Patient Centered Medical Home clinic in Columbus, offers comprehensive physical and mental health care as well as chronic disease self-management. The care team includes family nurse practitioners, psychiatric mental health nurse practitioners, pharmacists, dieticians, social workers, nurses, and other health science students. Health professional students rotate through these sites, learning how the interdisciplinary chronic care team-based model works and gaining experience working with underserved populations.

Box 2: Interprofessional Collaboration and Learning

A MEDTAPP staff member at one site described an interprofessional project that focuses on impacting family poverty through "fostering and promoting interdisciplinary teamwork and teaching the students about each other's professions and how to collaborate most effectively as an interdisciplinary team." A specialized curriculum is built around a semester-long series of projects that breaks students into interprofessional 'families' that navigate real-world type issues (e.g., decision making, budgeting, etc.). This type of learning is meant to not only promote a team environment, but also to affect attitudes related to and attributions of poverty.

Several school based health clinics serve as residency locations and provide children and families with integrated primary care services such as well and sick visits, and vaccinations. These sites also serve as a training site for health professional students. Efforts are targeted at training interprofessional teams to serve Medicaid populations by providing behavioral health and primary care training for health care providers in primary care settings. The rich clinical experiences paired with the developed curriculum allow students to put theory into practice. To illustrate this, Box 2 provides a story of how interprofessional collaboration helps build skills around the needs of the underserved while fostering a collaborative environment.

One of the major challenges noted for interprofessional training was around recruitment and finding the right people to participate. A related challenge involved helping other providers understand the need for interprofessional care when this was perceived as different from the status quo. Finally, space issues were noted to be a challenge as more individuals became involved in interprofessional training opportunities. However, in spite of the challenges, interviewees were overwhelmingly positive about the benefits of interprofessional training. Noted benefits included those that were educational (e.g., subsidizing training costs for learners, improving training experiences through exposure to multiple disciplines, and providing participants with an advantage for job opportunities post-graduation. For example, one interviewee noted that local hospitals hired graduates as a result of HCA's interprofessional focus.

Box 3: Increasing Support Across Disciplines

One site that focuses on interprofessional teamwork requires weekly meetings for MEDTAPP learners, fellows, and faculty to discuss patient cases. Participants overwhelmingly seemed to find this type of collaboration to be a worthwhile endeavor. Speaking of the collaboration between disciplines, a MEDTAPP PI said, "I think most of us felt like the best part of our week was when we got together and didn't have to think about anything else but taking care of people and teaching." Another MEDTAPP staff member noted, "I look forward to being able to share the difficult decisions with other people and see what they would do. So I look at it as part of the highlight of the week." These meetings have created increased awareness of resources available to patients by interprofessional providers educating and learning from one another.

Another benefit resulted in expanding capacity to serve underserved patients. Interviewees noted that residents and fellows could see more patients than a single supervisor. In addition, several participants explained how they could work at the highest level of their license/certification. Sites also reported the HCA infrastructure within the institution allowed for patients to be seen across locations; this was particularly apparent in small and rural communities.

Additional benefits involved positive changes to organizational culture, including influencing the way professionals interact and perceptions of being supported in working with a challenging population. Box 3 showcases how interprofessional training was perceived to increase support across disciplines through weekly team meetings on patient cases

d) Opportunities Created and Diffusion of Innovation

A major finding across sites involved the creation of new opportunities and diffusion of innovation as a result of HCA. Some of the new opportunities included new curricula (e.g., courses on vulnerable populations, integrated care, interdisciplinary training, and interprofessional education for health professions students), especially for different learner populations such as undergraduate and graduate students, residents, and fellows. New approaches to training were also developed such as interprofessional case conferences and online module development for current healthcare professionals. For example, one school implemented an interprofessional mental health specialist post-masters certificate for advanced practice registered nurses while another site developed an online behavioral health primary care certificate that prepares health professional students and in the field professionals to better understand health disparities. Other types of innovative activities include development of simulation labs and school-based health clinics that served as community placement sites.

Across sites the increase in the number of trained participants was highlighted as having an important impact on Ohio's ability to serve the Medicaid population. Both increases within a single discipline and increases in the number of disciplines trained were noted. Further, the value of having protected time to focus on improving awareness about the Medicaid population (i.e., for program development, for expanded mentoring) was also noted as a benefit of HCA.

Finally, diffusion of innovation was evident throughout the HCA program. Highlights included the new connections fostered within departments, across departments and schools, with and between community agencies. Furthermore, courses were developed or enhanced and made available to students beyond the list of funded learners. Additionally, several learners reported the training of others on what they learned who, in turn, trained other healthcare professional students. Box 4 provides a story highlighting this training effect.

Quantitative Findings

As explained above, quantitative metrics were extracted from proposals from each participating program. Collection of missing data directly from the academic program sites was attempted. However, the findings presented below are most likely underestimates since many institutions did not report information for all sites and some locations favored general descriptions rather than specific names.

The quantitative findings depicted below highlight the following four areas: 1) Number of Placement Sites, by Program Site; 2) Number of Learners and Preceptors/ Mentors, by Year; 3) Number of Learners by Level; and 4) Monetary Support for Learners and Preceptors/Mentors. Additional metrics by site are provided for all sites in *Appendix 6*.

1. Number of Placement Sites, by Program Site

Across the HCA institutions, a total of 745 clinical and non-clinical placement sites serve as the experiential learning component for HCA learners to better function in team-based models of care and understand the social determinants of health. Several different types of clinical placement settings include school-based health clinics, federally qualified health centers (FQHCs), inpatient and outpatient settings, mental health agencies, internal medicine clinics and certified patient-centered medical homes. Non-clinical experiences such as a home-visiting program for new mothers, free clinics for the homeless, a re-entry clinic for newly released inmates, and a mobile dental clinic afford students the opportunity to engage patients in person-centered care. These placement sites and targeted HCA project activities not only serve the students but also fill gaps in the community with respect to mental and behavioral health services, community health worker outreach, and initiatives to reduce infant mortality.

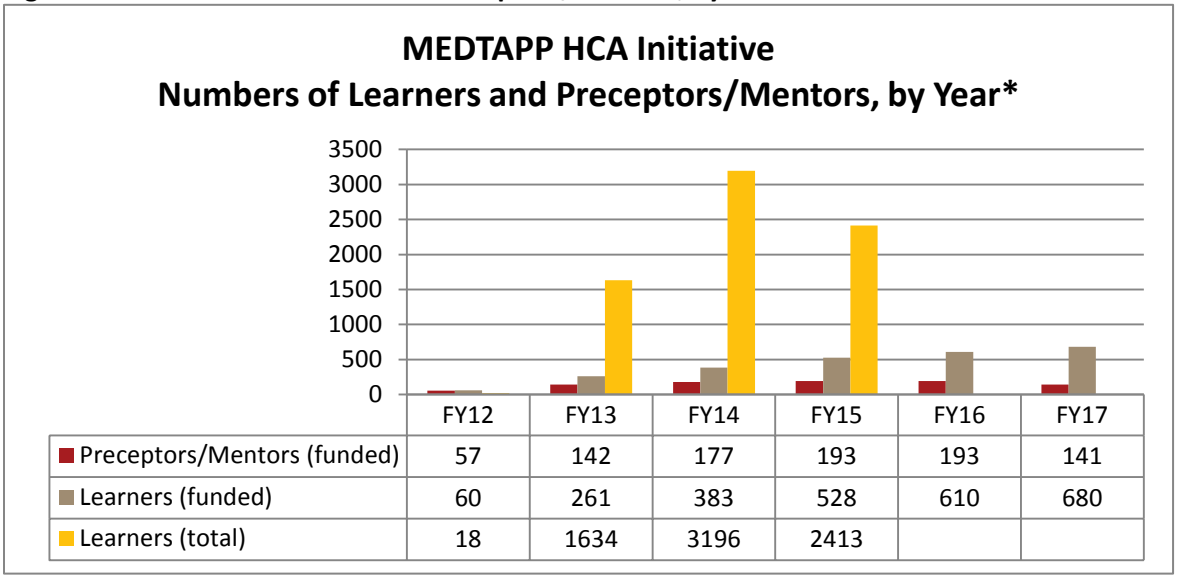
2. Number of Learners and Preceptors/Mentors, by Year

The amount of HCA learners has grown significantly from SFY 12 to SFY 15, increasing by 118 percent, as depicted in Figure 1. A HCA learner is defined as a student taking a class or enrolled in a program, or an individual participating in an initiative supported by MEDTAPP HCA funds. Since SFY 2012, HCA faculty have trained 6,359 health professional students, 643 residents, and 259 fellows across several disciplines including physicians, nurses, social workers, dentists, CHWs, and behavioral health providers.

Box 4: Learners Training New Learners

A former MEDTAPP learner described the impact his mentor had on him through exposure to a program targeted at improving the health and well-being of the homeless population during his residency program. Reflecting on his first day volunteering with the program that focused on improving the health of the homeless, the physician said, “I found that by the end of the night, I had more energy than any other time of the day and…found that it reminded me of why I chose to become a doctor in the first place, which is to feel like I was making an impact someone’s life…”The impact continued when he became an attending and was then able to introduce the opportunity to make a difference in the community to new residents and medical students. This is a true example of how MEDTAPP opportunities can come full circle as a MEDTAPP learner becomes a MEDTAPP preceptor, with insight about focusing on vulnerable populations that is then taught to and shared with others.

Figure 1: Numbers of Learners and Preceptors/Mentors, by Year



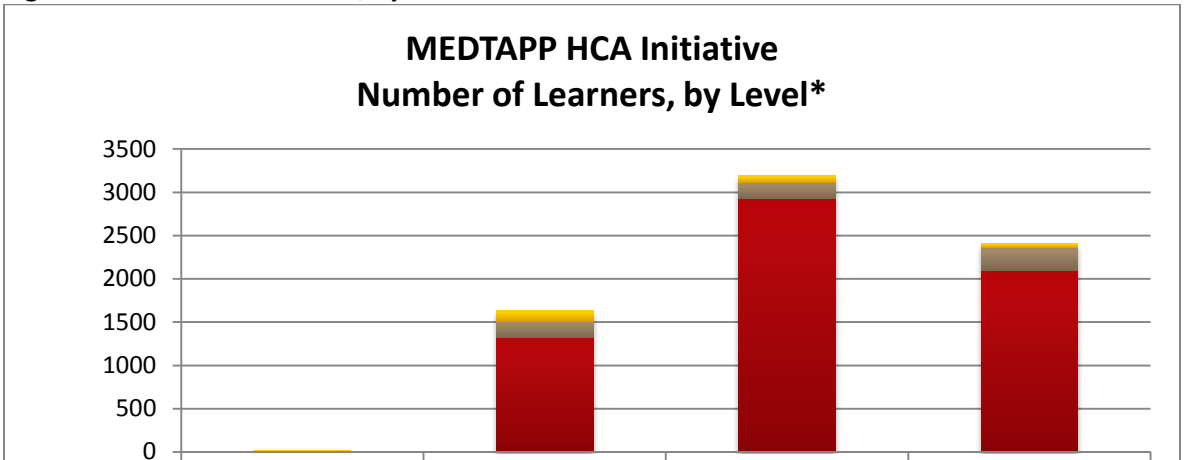
	FY12	FY13	FY14	FY15	FY16	FY17
Preceptors/Mentors (funded)	57	142	177	193	193	141
Learners (funded)	60	261	383	528	610	680
Learners (total)	18	1634	3196	2413		

**Note: Calculations were made defining Preceptors/Mentors and Learners as funded individuals who received direct funding from the sponsor; the total number of learners represents the number of overall learners included in report documentation, regardless of funding support.*

3. Number of Learners, by Level

Across all the institutions HCA has trained a total of 643 residents and 259 fellows.

Figure 2: Number of Learners, by Level



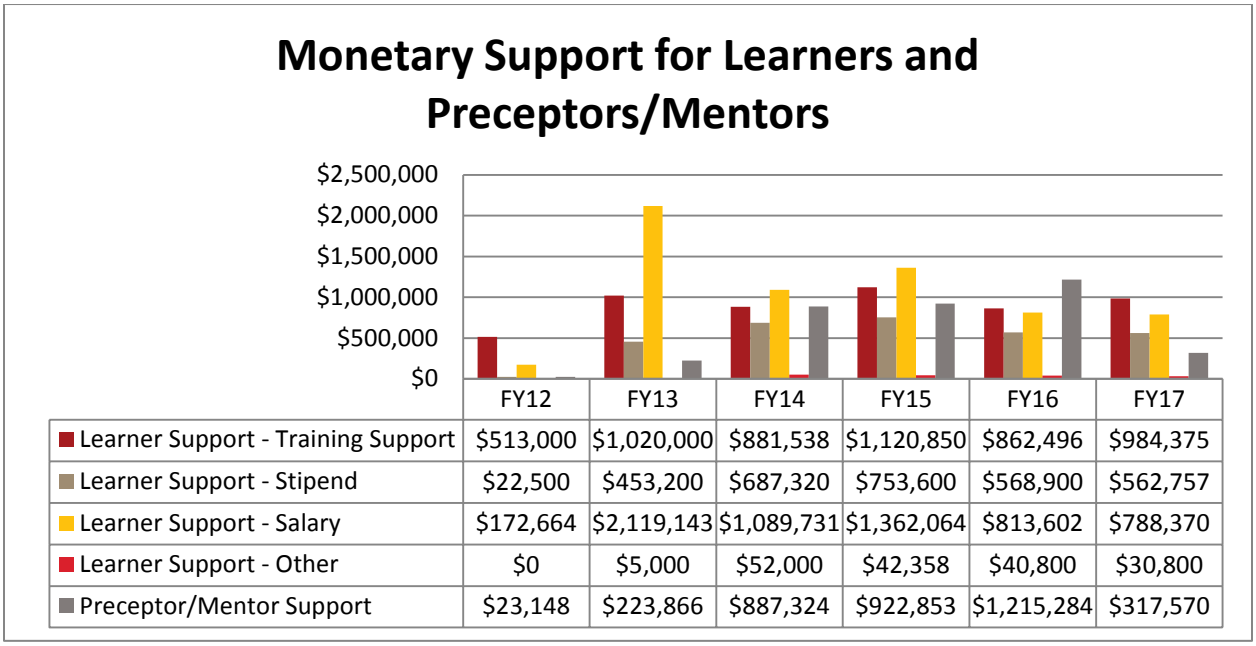
	FY12	FY13	FY14	FY15
Fellow	4	123	83	49
Resident	8	186	183	266
Student	6	1325	2930	2098

**Note: Counts of numbers of learners by level were extracted from the sites' report documents.*

4. Monetary Support for Learners and Preceptors/Mentors

These figures show monetary support across state fiscal years since HCA's inception.

Figure 3: Monetary Support for Learners and Preceptors/Mentors



	FY12	FY13	FY14	FY15	FY16	FY17
Learner Support - Training Support	$513,000	$1,020,000	$881,538	$1,120,850	$862,496	$984,375
Learner Support - Stipend	$22,500	$453,200	$687,320	$753,600	$568,900	$562,757
Learner Support - Salary	$172,664	$2,119,143	$1,089,731	$1,362,064	$813,602	$788,370
Learner Support - Other	$0	$5,000	$52,000	$42,358	$40,800	$30,800
Preceptor/Mentor Support	$23,148	$223,866	$887,324	$922,853	$1,215,284	$317,570

**Note: Monetary support for learners was divided into four categories: training support; stipend; salary; and other. Monetary support for preceptors/mentors was only included if we were able to separate out the percentage effort that was being funded directly for these activities. As a result, figures for preceptor/mentor support are underestimated.*

Preceptor Survey Findings

The MEDTAPP HCA Initiative Preceptor Survey (Appendix 3) was sent to at least 200 individuals who were preceptors for MEDTAPP learners at a minimum of six of the ten participating university programs. For each academic program site, a list of email addresses was requested from key contacts at each university so that the survey could be directly distributed. Several sites preferred to forward the survey to their preceptors; in these cases, the survey materials (i.e., the recruitment email and electronic link) were sent to the program contacts. Distribution to the remaining preceptors was via email from PI McAlearney directly. There were 96 preceptors who responded to the survey, 11 of whom also reported having previously been MEDTAPP learners. Below we summarize the survey's key findings, with additional results detail provided in Appendix 7.

Geographic Distribution: The majority (53 percent) of survey respondents represented the following counties: Cuyahoga, Hamilton, and Montgomery; other counties combined comprised 24 percent of the responses and included: Darke, Franklin, Greene, Lucas, Mahoning, Portage, Richland, Sandusky, Stark, and Summit counties, leaving 23 percent of respondents from unknown counties.

Preceptor Type and Tenure: Respondents represented a mixture of disciplines including: physicians, psychologists, counselors, social workers, registered nurses, and advanced practice registered nurses. Regarding respondents' tenure as preceptors, the average precepting time was more than 12 years (83 percent response rate).

Satisfaction with MEDTAPP HCA Initiative: When asked about their level of satisfaction with the MEDTAPP/HCA Initiative, over 60 percent of respondents were "extremely satisfied," with no respondents answering either "somewhat dissatisfied" or "extremely dissatisfied;" this indicates a very high level of program approval. Only two respondents indicated that they would be "unlikely" to continue their precepting responsibilities in comparison to 60 respondents who were either "extremely likely" or "likely" to continue as preceptors. The vast majority of respondents would likely recommend (25 percent) or absolutely recommend (66 percent) precepting MEDTAPP learners to their colleagues.

Three open-ended questions were asked to preceptors to enable them to comment further on the program. These questions and selected responses are presented below.

a) What potential changes would benefit the MEDTAPP/HCA Initiative?

Several potential changes that would benefit HCA based on responses from the preceptor survey include clearly differentiating MEDTAPP versus Non-MEDTAPP learners. Preceptors were unaware of how MEDTAPP student training differed from Non-MEDTAPP training. Secondly, one preceptor did not feel supported by MEDTAPP and it was unclear whether they should be engaging the MEDTAPP scholars in a different way. Improving communication within the clinic about HCA with respect to the goals and the work should occur moving forward. For example, a situation occurred where the medical director did not properly introduce the CHW to the care team and the value the CHW would add to the clinic and the effort failed within a few months. These systemic issues would improve the program overall and encourage greater alignment with the curricular activities being conducted within the institutions. Other suggestions noted by the preceptors included the opportunity for them to receive professional development and extended training as well as improving the accessibility of training programs and receiving information in real time. Another preceptor noted that often learners who come from the community live in crisis much like those they are trying to assist. These learners would benefit from training on professionalism and work expectations.

b) What impact did having MEDTAPP/HCA Initiative learners in preceptors' clinical settings have?

The HCA learners enabled the preceptors to provide more behavioral health services and reduce wait times to see a provider for critical mental health needs. This not only improved access for behavioral healthcare and case management, but also increased awareness of non-behavioral health staff of the issues and needs relative to the patient population. This led to enhanced client engagement and linkages to essential resources. The learning environment also improved with the expansion of training opportunities. The learners created an exciting learning environment which kept preceptors and other staff current on changes in a given practice area, thus allowing further knowledge sharing on topics such as integrated care and population health. Furthermore, HCA enabled preceptors to train more fellows who are interested in treating underserved patients.

c) What has having MEDTAPP/HCA Initiative learners allowed you to do that you could not otherwise do?

When asked the above question, several preceptors reiterated that HCA is educating and building a workforce with knowledge in integrated care at a faster pace compared to those enrolled in traditional health programs. Furthermore, HCA students enabled the preceptors to see an increased volume of patients who needed behavioral health services and improved patient outcomes because of enhanced interprofessional interaction. Proactive engagement of clients and more routine contact occurred because of the preceptors' involvement with HCA.

Recommendations

A. Proposed Project Evaluation Metrics

As stated in the executive summary, to effectively assess HCA, enhanced data collection should be implemented. The following six categories of metrics are recommended: 1) Financial Metrics; 2) Curriculum Development Metrics; 3) Mentorship Metrics; 4) Program Metrics; 5) Awareness and Community Activity Metrics; and 6) Training Metrics. In

deploying this approach to project evaluation, sites would be required to provide responses for all metric categories relevant to the program activities. The proposed list of metrics is presented as ***Appendix 9.***

B. Enhance Data Collection and Reporting Processes

The metrics developed for HCA are inclusive and robust; however, the institutions would benefit from a reporting process that more closely aligns with those metrics. Current reporting documents do not contain differentiated fields for personnel and students, resulting in inconsistent documentation of monies disbursed (e.g., students included in both the "personnel" and "other" categories). In many instances, inconsistencies exist between the budget and the budget narrative, making true calculations by categories difficult to compute. As a result, the recommendations below would greatly improve reporting of project activities.

1. **Tie Budget Narratives to Budget Years Chronologically:** One suggestion to improve this process would be to have budget narratives follow each line of the budget by year. For this to occur, the budget spreadsheet should have a separate tab for each year that aligns with a separate budget narrative. A pivotal change to increase accuracy in estimating dollar values relies on providing administrators with clear reporting requirements and standardized, user- friendly documents that stress the importance of having budget narratives that follow the budget chronologically (i.e., include a brief description for each line item by budget year).

2. **Include Activities of Interest Explicitly in Budget Narrative Document:** Since funds are divided into sponsor and matching costs, calculating a true estimate of funds spent on specific activities, such as mentoring, requires information not currently reported. For example, documentation does not exist that accounts for how much time an individual listed as "personnel" dedicates to mentoring, or the requisite detail to describe the funds MEDTAPP spends on mentoring and how much mentoring time is covered by matching funds.

3. **Require Reporting of Division of Labor by Percent (by Activity):** Additionally, since most of the budget narratives fail to break out the percent effort by activity, activities should be added to the budget narrative for improved estimation. This information can then be auto-populated in reporting documents so administrators can also input actual time spent. Capturing the division of labor by percent with respect to activities such as clinical care, precepting, mentoring, administration, and curriculum development will improve the ability to assess the amount of effort personnel spend on a given activity.

Example of Recommended Reporting of Division of Labor

Scenario: Jane's annual salary is $75,000; she works 20 hours a week (.5 FTE) on this project, 5 hours (25% of that time=.125 FTE) are spent on administrative tasks and 15 hours (75% of that time=.375 FTE) are spent mentoring. Jane receives half her funding from MEDTAPP and the other half from cost share. The budget chart below shows how Jane's salary is allocated.

PI:														
RFA:				Inflation	3.00%	budget anticipated to run July 1, 2015- June 30, 2016								
Title:		Enter Current Appt, Salary and Proposed FTE.												
				Year 1- sponsor costs					Year 1- cost share					
PERSONNEL	Appt	Current Salary	Monthly Current Salary	FTE	MM	Salary	Fringe	Total	FTE	MM	Salary	Fringe	Total	
Jane Doe	12	75,000	6,250	25%	3.00	19,313	5,794	25,107	25%	0.01	19,313	5,794	25,107	
	12	0	0	0%	0.00	0	0	0	0%	0.00	0	0	0	
	12	0	0	0%	0.00	0	0	0	0%	0.00	0	0	0	
	12	0	0	0%	0.00	0	0	0	0%	0.00	0	0	0	
	12	0	0	0%	0.00	0	0	0	0%	0.00	0	0	0	

Problem: There is no best way to assess the activities for which each funding source is paying.

Proposed Solution: Report division of labor by percentage and by activity and ensure budget narratives reflect this reporting requirement.

Benefit of Recommended Solution: Requesting this information in greater detail (i.e., breaking down time by activity type) may prompt more clear definitions and expectations for these positions, which may prove beneficial not only to program administrators, but also to MEDTAPP preceptors and learners.

Example of Recommended Solution:
Budget Narrative:
Jane Doe, PhD
.5 FTE (.25 Sponsor Cost, .25 Cost Share)
Dr. Doe will assist with administrative tasks for the project as well as mentor students. She will spend 5 hours (.125 FTE) on administrative tasks and 15 hours (.375) mentoring learners. Sponsor costs will be used to support all of her administrative effort (.125 FTE) as well as one third (.125 FTE) of her mentoring effort. Cost share will support the additional 10 hours (.25 FTE) of mentoring effort for SFY16.

Budget Detail:

		Percent of FTE by activity				
Name	**FTE**	**Administrative (Sponsor; Cost Share)**	**Mentoring (Sponsor; Cost Share)**	**Clinical Services (Sponsor; Cost Share)**	**Curriculum Development (Sponsor; Cost Share)**	**Other (Sponsor; Cost Share)**
Jane Doe	.5	25% (100%; 0%)	75% (33%; 67%)	0%	0%	0%

4. Require Listing of Students (Learners) by Name in Final Reports: In order to better track learner activities and impact, requiring programs to provide a complete list of students by name in the final reports could be accomplished by replacing the placeholders in the original budget with the names of all individuals who received funding. This requirement will also allow the programs and sponsor to better track learners in the future, especially those not receiving direct funding.

5. Create standard definitions of the categories of monies disbursed: Current documentation does not clearly define the monetary categories of interest (i.e., stipend, tuition, award, bonus, and salary), creating misaligned usage and terms being used interchangeably.

6. Request an Estimate of the Number of Patient Encounters by Learner, and Average Percent of Medicaid Patients Served at Site: Requesting an estimate of the number of patient encounters by student, and the average percent of Medicaid recipients served by the site, will permit an estimate to be calculated for the number of Medicaid patient encounters by individual. This information can be used to demonstrate the impact these learners are having on the Ohio Medicaid population.

7. Require More Detailed Tracking of Learners (e.g., placements & obligations): Sites should be required to track placements of individuals receiving support from MEDTAPP HCA funds including information related to the type of setting, PCMH certification status, and patient population by insurance status. To be readily able to track

disciplines, reporting forms should list inclusive categorical responses from which respondents can select or include an "other" option only if administrators are required to note the learners' disciplines. Note - there was a disproportionate number of respondents who selected "other" for discipline resulting in our inability to allocate those learners to appropriate disciplines to represent the range of health professional students participating in HCA.

8. Clearly Define Learner Categories: To accurately categorize learners into students, residents, and fellows, and to note receipt of monies by learner category, there needs to be clear definitions for each learner category. Many sites use the terms resident and fellow synonymously. We recommend including a data field for these categories so that site administrators can convey the learner category information simply. While it may not be possible to name learners who do not receive MEDTAPP funding directly, it is important for administrators to track the numbers of individuals and their disciplines to help the sponsor estimate the impact.

9. Clarify Curriculum Development Activities: To help understand how direct support from MEDTAPP was applied to develop new curricula, we recommend requesting a more detailed breakdown of activities and components of activities. This additional detail could be requested through the creation of program level information sheets or added to the year-end reports.

Examples of potential curriculum related items to request include:

1. Specify the number and name of new courses developed.
2. Specify the number and name of existing courses supplemented by the curriculum development.
3. Was the curriculum developed used (at least in part) in an online program?
4. Was the curriculum made available to persons outside a degree/certificate program?
5. How many non-MEDTAPP funded learners utilized this curriculum?
6. What non-personnel related expenses (e.g., supplies, website development) were spent on curriculum development? (dollar amount and brief explanation)
7. For each course, also specify the number of students who participated/completed it each year.

Note: While this level of detail is needed to appropriately track curriculum development activities and impact, an alternative approach might be to have the GRC include budget/personnel information in the report template that is sent quarterly (using information from the budgets), so that administrators can verify information accuracy rather than spend time reporting on activities that do not change from quarter to quarter.

C. Build HCA Learning Networks

The need to enhance knowledge transfer and exchange across the MEDTAPP HCA programs represents an opportunity to improve the impact of associated activities through the creation of learning networks. There remains a perceived disconnect among members of the community, whereby innovations are developed independently rather than through active sharing of knowledge and collaboration between investigators with complementary expertise. There are a number of projects that share common themes, especially in the area of curriculum development, where the quality of the programs might be improved by creating learning networks that support the exchange and alignment of lessons learned, expectations, standards and supporting material.

Conclusion

HCA strategies build on existing relationships with local communities. These long lasting relationships have had a positive impact on the community, which extend beyond the findings of this evaluation. The HCA initiative has many opportunities to collectively enhance the training for students and in-career healthcare professionals while also improving the care of underserved populations. The first recommendation is to standardize data collection processes and outcomes measurement. This is imperative in order to understand return on investment. Engaging learners before

they are at the end of their training will improve the Initiative's longer-term ability to retain future health professionals to serve the Medicaid population. A second recommendation involves building learning networks among the 10 institutions for improved alignment and coordination of activities. These learning networks would support enhanced regional cross collaboration between the 10 institutions and community-based sites to improve knowledge expansion and capacity building for patient centered medical homes, chronic disease management, and integration of behavioral health and physical health. Implementing regular face-to-face meetings and sharing materials and outcomes will provide much needed interaction. Professional development and training of preceptors at community-based sites in current evidence based practices in behavioral health and primary care integration, chronic disease management, and interprofessional teamwork will transform clinic sites to align with current training practices of health professional students. Furthermore, efforts should be made to standardize retention commitments across schools for improved tracking of health professionals after graduation. Additionally, engaging future healthcare professionals much earlier in the pipeline will have more of an impact on students deciding to work or volunteer with vulnerable populations. Lastly, the HCA initiative should continue to support health professionals at practice sites to deliver value-based primary care and behavioral health services to generate additional interprofessional placement sites for future HCA learners.