Cambridge Health Alliance: 2019 Academic Overview

Preface

We dedicate this annual report to Patrick Wardell, our CEO who recently announced his retirement. Academics at CHA has thrived under Pat’s leadership over the past seven years. The teaching and training programs for students and residents have continued to innovate and we have been able to recruit excellent future health professionals and leaders. New programs have been launched and the research endeavor has matured. Our national reputation has never been stronger!

During this seven-year time period, CHA recruited to our medical staff over seventy-seven new primary care, psychiatry and psychology practitioners who graduated from our own training programs. Amber Frank was our first Harvard Medical School-Cambridge Integrated Clerkship graduate to return to CHA as faculty; she is now the co-director of our Adult Psychiatry Residency program. Nearly all graduates of the CHA-Gold Innovation Fellowship, under Maren Batalden’s direction (and inspiration), have assumed roles of greater administrative responsibility at CHA! This time period is also marked by the increased integration of the multiple health professions in teaching, career development and practice.

Of particular note, Pat has invested in the Center for Professional and Academic Development (CPAD) and its staffing and created the Chief Academic Officer position. Many new programs sprouted during this time. They include: the Center for Mindfulness and Compassion, the CHA-Gold Innovation (co-production) Fellowship, the Clinical Learning Environment Review Innovation Awards program (CEO-CLER), the Gold Foundation Research Institute (which, sadly, closed its doors after 6 ½ years), the Pharmacy Residency program, the Art Museum-based Health Professions Education Fellowship and most recently, a new Center for Health Equity Education and Advocacy (CHEEA). The Health Equity Research Lab and the Institute for Community Health have flourished with continued financial support for their administrative infrastructures.

CHA’s faculty has published over 600 peer-reviewed articles during Pat’s tenure, 225 in just the past two years - a remarkable achievement for an institution of our size. These papers cover the gamut of areas of interest to our community - health policy, medical education, quality improvement, population health, case studies and more. Through publication, we advocate for our patients and values, share our lessons and enhance CHA’s national reputation.

Pat Wardell leaves CHA in July with pride of accomplishment and a legacy that should endure for years to come.

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ACADEMIC OVERVIEW

CHA’s academic vision statement declares that “Academics is Fundamental to Cambridge Health Alliance”. Just over fifty years ago, Harvard University and the City of Cambridge affiliated in order to radically improve the poor quality of medical care at its public hospital. That decision spawned a new era. Academic programming attracted an excellent medical staff and fostered an increasingly empathetic, curious, socially committed and well-trained medical community. It served to improve the health of our local communities, but moreover, to shape medical practice, education and policy for the nation. Our reputation is increasingly well-known and well-earned in our communities, the Massachusetts State House, Washington D.C, and in academic centers around the nation. It would not be an overstatement to say that CHA would not exist today if it were not for its academic affiliations and pursuits.

We track academic progress in two ways: through this bi-annual narrative report and through a “scorecard”. This report details our efforts to advance academics and to demonstrate how these synergize with CHA’s strategic priorities. The scorecard highlights several easily tracked and important areas of emphasis and accomplishment.

These are some highlights of accomplishments of the past two years:

- 32 CHA graduates of our residency programs joined the medical staff (77 since 2013);
- 6 Harvard faculty members were promoted, including 2 to full Professor, and 2 Tufts faculty members to Associate Professor;
- CHA staff published 225 peer-reviewed articles in journals accessible through the National Library of Medicine’s Medline;
- 27 new research protocols were approved this past year. The Office of Sponsored Research is managing 30 active grants and contracts;
- All residency programs have received full accreditation including our fledgling Pharmacy Residency Program;
- Dozens of faculty members from many disciplines participated in continuing education fellowships;
- The graduating students rated CHA’s “clinical learning environment” extremely highly.

In this report, we contextualize CHA as a socially accountable health care system, describing the linkage between CHA’s academics and its strategic direction. We include our “Academic Scorecard”. Next, we describe the major recent activities designed to achieve our academic vision, noting the obstacles we face and future plans. Brief descriptions of major initiatives and programs selected by the Department Chiefs follow. The report concludes with an appendix that includes our recent publication citations, award recipients and other useful data.

This report is undoubtedly incomplete. First, the purview of the Academic Council and the Center for Professional and Academic Development is limited to the credentialed medical staff. Second, despite collecting data through multiple means and surveying the Department Chiefs and Academic Council members repeatedly, we anticipate that individuals, programs or plans may have been misstated or left out altogether. We regret any errors and hope our readers will give us feedback to improve the next report.
CHA: A Socially Accountable Health System

Cambridge Health Alliance is a socially accountable health system, dedicated to addressing the priority health needs of its communities through its service, education, research and advocacy. CHA’s mission statement – “to improve the health of our communities” – speaks of this social accountability. We aspire to reduce suffering caused by disease. Yet, in addition to treating illness, we seek to prevent disease and to improve health and well-being. We seek to attend to social determinants of health by engaging with community partners, not just with individuals. In proclaiming our motto, “we care for all,” we embrace patients and communities that are especially vulnerable – those who suffer from economic and social deprivation, mental illness and addiction, racism and traumatic experiences. Immigrants, including those seeking asylum, comprise nearly a majority of our patients.

As a highly integrated community-oriented health system, we meld primary care practice with public health. The organization’s CEO serves as the Commissioner of Health for the City of Cambridge. We work closely with governmental agencies and community organizations in a half-dozen cities north of Boston.

CHA serves as a portal to the best of health care in the world. We offer primary care at a dozen health centers spread throughout the region as well as in high schools, nursing homes, shelters and homes. Primary care clinicians with training in Family Medicine, Internal Medicine and Pediatrics work and teach side-by-side with behavioral health care is a “center of excellence” at CHA, extensively programmed in community settings, health centers and hospital units for children, adults and elders. We provide secondary hospital care at our Cambridge and Everett Hospital campuses and specialty care at many convenient settings. Finally, we engage our patients in tertiary and quaternary care at our affiliates – Beth Israel Deaconess Medical Center for adults and Massachusetts General Hospital for pediatric care.

CHA seeks to serve as an international model. We advocate for policies that support equitable care for all and test organizational structures that facilitate community care and collaborative person-centered caring. CHA embraces the WHO’s Global Strategy on Human Resources for Health, which aspires toward “universal health coverage with safe, effective, person-centered health services by 2030.”
A Brief History of CHA’s Academic Vision

- City Council Act 1911: “to authorize the City of Cambridge to incur indebtedness for the erection of a City Hospital ... to serve the medically indigent in the community.”


- 1966: Harvard affiliation. The architects of the 1966 affiliation agreement hypothesized that a clear and well-resourced academic vision would attract capable clinicians who would provide robust clinical care.
  - A new culture: At the dedication of The Cambridge Hospital’s new building in 1968, Mayor Walter Sullivan proclaimed, “This is a symbol of the unanimity of Cambridge, for here is a building that will house the sick, treat the injured ... without regard to color, religion, economic status or political persuasion.”
  - An activist faculty: Within two decades, in addition to establishing academic medicine departments, CHA faculty members co-founded Harvard Community Health Plan, Physicians for Human Rights, the Society for General Internal Medicine, the US Preventive Services Task Force, the Harvard Center for Health and the Environment, and Physicians for a National Health program.

- 1996: CHA re-chartered as a Massachusetts Public Authority, to enable expansion of clinical services and academics beyond the municipal boundaries of Cambridge. Somerville Hospital and its affiliated health centers were purchased. Whidden Hospital (Everett) was acquired in 2001 and new health centers were subsequently constructed in Somerville, Everett, Malden and Revere.

- 2001 to present:
  - Affiliation agreements renewed with Harvard Medical School, Tufts University School of Medicine, Harvard School of Dental Medicine and Harvard School of Public Health;
  - Academic Council established to ensure that CHA pursues its academics with the highest integrity and creativity and in concert with the institution’s strategic plan. The council includes representation from the major academic departments and administrative leaders, and it reports to CHA’s CEO and its Board of Trustees;
  - CHA Board of Trustees affirms the Academic Vision Statement;
  - Tufts Family Medicine Residency program acquired;
  - Cambridge Integrated Clerkship founded;
  - New academic centers inaugurated: the Institute for Community Health, the Center for Health Equity Research, the Center for Mindfulness and Compassion and the Center for Health Equity Education & Advocacy;

Over the past half century, CHA has attracted a talented faculty. In addition to its clinical excellence, the faculty has contributed to high-profile academic and service innovations. Today, CHA is perhaps best known for its public mission, its community-based and highly integrated primary care model, and its most celebrated educational innovation – the HMS-Cambridge Integrated Clerkship.
Academic Vision Statement

Academics is fundamental to Cambridge Health Alliance. Our scholarly environment sustains clinical excellence, fosters discovery and nurtures the next generation of clinicians and leaders to serve our communities.

CHA’s success in improving the health of our communities and modeling innovations for the nation depends on the robustness of our academics. CHA’s scholarly environment:

- Attracts and sustains excellent clinicians from the multiple health professions by fostering curiosity, continuous learning and professional growth;
- Promotes efforts to continuously improve health outcomes for our patients and their communities through the most equitable, efficient, safe, timely and patient-centered care;
- Fosters discovery of new knowledge about the treatment and prevention of illness, promotion of population health, design of innovative educational models, implementation of new systems of care and deployment of new health policies;
- Nurtures the education of health professionals to provide skilled compassionate care and innovative leadership for CHA’s communities.

Academic Scorecard

Academics is Fundamental to CHA. Our Scholarly Environment:

Attracts and Sustains Excellent Clinicians:

1. Recruit and train excellent residents who matriculate to join the CHA medical staff
   a. 2017-18: 32 CHA residency graduates joined the medical staff (7 Family Medicine, 14 Internal Medicine, 10 Psychiatry, 1 Podiatry);
   b. Since 2013, 77 graduates joined the medical staff;
   c. Of the 21 who joined in 2015-16, 15 remain at CHA.
2. Advance medical staff academic promotions
   a. HMS (July 2017- Oct 2018): 3 Assistant Professor promotions, 1 Associate Professor promotion, 2 Professorial promotions;
   b. Tufts: 2 Associate Professor promotions.
3. Recognize individuals’ and CHA’s excellence through Academic Awards
   a. CHA Academic Council awards: 7
   b. HMS and Tufts recognition: 12
   c. National/International awards: 6

Fosters Discovery of New Knowledge

1. Disseminate peer reviewed publications in concert with CHA’s mission - for example, in education, policy, clinical practice, professional development, etc.
   a. 225 peer reviewed publications in 2017-8
   b. 203 peer reviewed publications in 2015-6
   c. 139 peer reviewed publications in 2013-4
2. Increase the number of CHA faculty or staff submitting IRB applications and/or receiving grant funding as principal or co-principal investigators.
   a. 30 active grants/contracts;
   b. $4,012,000 in Total Expenditure (direct and indirect);
   c. 27 new research protocol applications from 20 unique PIs.

Nurtures the Education of Health Professionals

1. Engage medical staff in competitive fellowships or scholarships – for example, Harvard Macy Institute, HMS Academy, Mount Auburn Health Professions Education, CHA-Gold Innovation Fellowship, Rabkin or Diversity Fellowships.
   a. 10 Macy, 13 CEO-CLER;
   b. 13 CHA Innovation Fellowships;
   c. 1 Shore Fellowship.
Most CHA medical and advanced practice clinicians’ departments pursue educational and research programming. CHA’s Academic Council promotes these activities, seeks adequate resourcing and fruitful collaborations, and ensures adherence to accreditation standards and requirements. The Center for Professional and Academic Development (CPAD), under Elizabeth Gaufberg’s direction, leads institution-wide programming to augment these departmental efforts in alignment with CHA’s strategic direction. CPAD’s three principal leaders - Drs. Elizabeth Gaufberg, Maren Batalden and David Bor - foster collaboration and serve as mentors, intellectual and practical resources to our medical community. While the purview of the Academic Council and CPAD is limited to the credentialed medical staff, many activities extend to the wider CHA community. Ellen Hedstrom and Ellen Pridham provide superb administrative support for CPAD’s efforts.

In this section, we summarize the obstacles, current and future strategies to achieve that vision for each of the four aspects of CHA’s Academic Vision.

1. CHA’s Scholarly Environment: Attracts and sustains excellent clinicians from the multiple health professions by fostering curiosity, continuous learning and professional growth

Strategies:
- Attract applicants to the residency programs and faculty by expanding CHA’s national presence. We are known primarily for our mission-orientation, out-sized presence as innovators in medical education, policy research, improvement science and political advocacy. Continually nourish and expand these activities;
- Position the training programs to serve as escalators to our medical staff for well-trained, acculturated and loyal future faculty members;
- Increase formalized post-graduate training for allied health professions;
- Invest in creative means to increase the attractiveness of CHA faculty careers for under-represented minorities;
- Continue to innovate in primary care delivery, med-psych integration, population health etc. in order to improve not just patient care but also the staff’s experience in caring. Evaluate innovations carefully and publish successes and failures.

Obstacles:
- Existential threats to the medical professions: The increasingly transactional nature of today’s medical care (including pay for performance), coupled with an intense focus on externally generated clinical goals, many of which are not evidence-based, undermine many of the values that brought clinicians to the profession: altruism, clinical autonomy and the spirit of scientific inquiry;
- Time pressure: The plethora of administrative tasks attendant to clinical practice and intensifying productivity demands distract clinicians from academic pursuits not to mention from attending to their patients’ problems. Furthermore, these tasks crowd out opportunities to develop and sustain mastery of their professional roles;
- Burnout has afflicted health professionals across the country and CHA is no exception. Only a small minority of primary care clinicians are able to manage full-time employment, owing to the job stress and inefficiencies;
- CHA is an academic cultural outlier: The dominant academic reward system values the basic sciences and clinical specialization more highly than CHA’s faculty’s strengths: commitments to practice innovation, improvement science, social and policy research and clinical practice in primary care and interprofessional education;
Sustaining a diverse workforce: CHA attracts many under-represented minorities to our residency programs, however we have been less successful in retaining a diverse workforce or leadership. The high cost of living in metropolitan Boston coupled with its history of racism are major barriers. Nonetheless, we should do better.

Accomplishments:
- These past two years, we have recruited and retained a record number of graduates;
- The Department of Pharmacy Residency Program was founded last year and received full accreditation;
- A new Chair of Psychiatry was appointed. Philip Sung-En Wang, MD, DrPh, is an extraordinarily energetic leader and humanist, and an accomplished researcher in areas of particular relevance to CHA;
- Under the appellation, Reach for the Stars, Pat Wardell sponsored a competition to choose “a high-profile, paradigm-changing educational innovation that will bring joy and discovery to CHA’s clinical community and value to our communities and the nation.” The winning proposal was designed by Danny McCormick and Gaurab Basu - The CHA Center for Health Equity Education and Advocacy (CHEEA);
- David Hirsh was chosen as Director of HMS Academy and was awarded the “George E. Thibault Academy Professorship”, an HMS endowed chair;
- All but one of CHA-Gold Innovation Fellowship graduates found administrative positions with greater responsibility and influence at CHA.

Current Activities:
- Sponsor workshops on the academic promotion processes;
- Participate on the Provider Engagement Steering Committee;
- Offer quarterly RFP’s for members of the medical staff to apply for modest support (consultation, educational, funding) for professional development activities;
- Offer staff recognition competitions and programs: Academic Council Awards, Macy Fellowships, Innovation (Co-production) fellowship.

Future Activities:
- Reform the co-production fellowship to focus on developing mid-career clinician-administrators;
- Subsidize residents from low SES to promote diversity at CHA;
- Offer residency programs for advanced practice nurses and newly hired RN’s through the Department of Nursing;
- Establish formal affiliations with advanced practice nursing schools;
- Work with CHA’s press office to increase dissemination of academic pursuits in the lay press;
- Work with Department Chiefs and schools to guide academic advancement;
- Create a new endowed HMS teaching award for CHA faculty: The Sandra and Arnold Gold Award for Humanism in Education;
- CPAD to consider leadership in: Clinician Health Committee, Office for Diversity and Inclusion; Communication and Resolution program (apology and disclosure coaching, peer support, early resolution); an Academy at CHA;
- Evaluate the Center for Professional and Academic Development (CPAD) effectiveness.

2. CHA’s Scholarly Environment: Promotes efforts to continuously improve health outcomes

Strategies:
- Continue to work with administration to carefully evaluate and disseminate our lessons learned;
- Employ the front-line, uninsured, critical eyes and creative minds of our students and trainees to identify opportunities and propose methods to improve the quality of our practice, training and research environments.

Obstacles:
- The public sector: CHA is highly dependent upon public funding and, thus, the political system that allocates funds;
Our political lobbyists and financial managers understandably fear that public disclosure of unsuccessful innovations or critique of current policies could undermine our funding. This sensitivity is compounded when financial reimbursement is tied to accomplishing pre-specified outcome measures;

- Our advocacy community sometimes feels similarly restrained;
- Fiscal uncertainty discourages long term investments.

**Current Activities:**

- Sponsor a small grants program for trainee-faculty partnerships: CEO Clinical Learning Environment Review (CLER);
- Residency programs require quality improvement projects: TUSM FM Residency Community Health Projects;
- Internal Medicine Research-based Advocacy Curriculum and MGH Pediatrics Residents’ (at CHA) Community Resource Surveys;
- CHA-Gold Innovation Fellowship (for faculty) mentors QI projects that are chartered by the sponsoring administrator;
- Annual “Academic Poster Session” features educational innovations, quality improvement initiatives, policy investigations and case studies;
- Continued participation in the HMS Primary Care Division quality improvement initiative;
- Increase contracting to ICH to evaluate innovations that have the potential to improve the quality and manner of care. Recent examples include: the use of scribes in primary care; evaluation of our ACO; complex care initiative;
- Improve the “clinical learning environment” (culture of safety, SERS reporting, resident workload), integrate learners into QI teams, improve overall well-being;
- Celebrate and facilitate scholarly approaches to driving practice assessment and change, for example:
  - studies of immigrant experiences
  - med-psych integration
  - use of scribes
  - social justice coalition
  - health & law immigrant solidarity network

**Future Activities:**

- Shepherd the fledgling Center for Health Equity Education and Advocacy;
- Track the effectiveness of the various student, residency program curriculum and faculty projects (co-production Fellowship) focused on quality.

**3. CHA’s Scholarly Environment: Fosters discovery of new knowledge**

**Strategies:**

- Foster collaboration between established researchers and eager clinicians who have academic proclivities but neither time nor experience to pursue research independently;
- Offer web-based and in-person coaching, trainings and consultations for interested faculty;
- Encourage continued formal evaluation of several of our institutional priorities, for example, the ACO, med-psych integrative care, addiction care, patient centered medical home, etc.;
- Seek research or programmatic funding from local philanthropists including Kendall Square entrepreneurs, potentially in concert with HMS;
- Build CHA’s capacity to seek such research funding.

**Obstacles:**

- Limited funding: while most academics complain of scant grant funding, the research agenda our faculty pursues is not prioritized by external foundations or the federal government. Philanthropists resist donating to public sector institutions (“that’s why we pay taxes!”) and our grateful patients are rarely wealthy enough to contribute. Patient revenues do not generate an ample surplus that could be invested in research infrastructure, for example, a fully functioning grants management office;
● As above, the administrative time demands on most CHA practitioners crowds out time for academic pursuits;
● Many faculty members have important observations to test or share but lack the skills to study and publish.

Current Activities:
● Fund ICH to consult to CHA researchers in assisting with study design, statistical analysis and grant writing;
● Embed scholarship into CHA’s strategic activities, including the ACO, waiver agreements, community networking and quality improvements;
● Provide consultation on research methods/grant writing faculty development in teaching;
● Current investigations cluster under the following rubrics:
  ○ Innovations in medical education: Drs. David Hirsh, Barbara Ogur and Elizabeth Gaufberg in Internal Medicine; Dr. Allen Shaughnessy in Family Medicine; Drs. Marshall Forstein and Todd Griswold in Psychiatry, and others;
  ○ National and regional health policy, with special emphasis on disparities, inequities and the care: Drs. Danny McCormick, David Himmelstein, Steffie Woolhandler in Medicine and Dr. Benjamin Cook in Psychiatry and Leah Zallman in Medicine and ICH, and others;
  ○ Community/population health improvement with a special emphasis on community-based participatory research – Institute for Community Health;
  ○ Health services improvement and implementation science – Dr. Benjamin Cook and the Health Equity Research Lab and the Institute for Community Health are leaders in this realm. In addition, Dr. Brian Swann, Chief of Dentistry, and Dr. Greg Sawin, Family Medicine Residency Program Director, have collaborated to develop a new discipline, the Oral Health Professional. They are co-training a dually boarded MD-DMD for a future leadership role in that fledgling field;
  ○ Medical Humanism and the clinician-patient relationship - Drs. Elizabeth Gaufberg and Maren Batalden leaders in this area;
  ○ Mindfulness and Compassion Research, including ground-breaking work in Mindfulness-Based Interventions in Primary Care Settings (Zev Schuman Olivier and Center for Mindfulness and Compassion team);
  ○ Addictions studies: Drs. Howard Shaffer and Debi LaPlante lead CHA’s Division on Addiction which dedicates itself to ameliorating the medical, social and economic burdens of addiction through research, education, outreach and policy development. Dr. Zev Schuman Olivier including app-based peer coaching for addictions; Ellie Grossman and David Roll in Medicine and others;
  ○ Environmental and occupational health: Dr. Stefanos Kales in workers’ health, and Dr. Pieter Cohen for his investigations of the adverse consequences and inadequate regulation of dietary supplements.

Future Activities:
● Design, implement and promote the external and internal academic websites including links to academic resources and a directory of faculty interests, etc.;
● Seek additional evaluative/research roles at CHA for the Health Equity Research Lab, ICH and Division of Social Medicine, and encourage collaboration between the various research groups;
● Design evaluation methods for the new CHA programming: The Center for Health Equity Education and Advocacy, the Art Museum-based Health Professions Education Fellowship;
● Improve research support including outreach to the philanthropic community;
● Promote the scientific basis of our profession as an evidence-based means to eliminate overuse of Dx & Rx interventions (possibly in concert with the Lown Institute);
● Support new Chief of Psychiatry and CHA’s research centers to raise philanthropic funds.
4. CHA’s Scholarly Environment: Nurtures the education of health professionals

Strategies:
- Design additional curriculum at CHA that prepares learners at all levels to work at CHA, e.g., with emphasis on topics like population health, team-care, primary care, med-psych integration, improvement science, advocacy, the care of disadvantaged, disenfranchised populations including immigrants, and . . .with methods like relationship-centered and inter-professional education;
- Assist the department chiefs to manage academic promotions for their staff;
- Nurture affiliation relationships with targeted area health professional schools;
- Advocate for changes in/exceptions to some HMS appointment rules;
- Promote the concept that the “learning environment” and the “clinical environment” are one and the same, requiring the same nurturance.

Obstacles:
- HMS appointments: HMS requires 50 hour/year annual teaching for an academic appointment. While CHA’s faculty greatly values its academic appointments and our learners regard CHA faculty highly, not all faculty members can satisfy this requirement (and other detailed rules) annually. Our primary care-oriented faculty engages in teaching activities that are not rewarded by current HMS rules: inter-professional teaching, training learners from schools other than Harvard, and educating our communities.

Current Activities:
- Reach for the Stars proposal selected: the “Center for Equity Education and Advocacy”
- Leadership changes:
  - Yamini Saravanan and Tara Singh chosen as CIC Associate Directors;
  - David Hirsh chosen as Director of HMS Academy and was awarded the George E. Thibault Academy Professorship, established by the Josiah Macy Jr. Foundation;
- Consulting on CV preparation for those seeking promotion by longer service criteria;
- Addressing student criticism of the “learning environment”. The areas for improvement include “providing constructive feedback” and occasional “abusive behavior by attendings”. Of note, CHA is generally held in very high regard and these issues are relatively infrequent.
- Current Teaching Activities:
  - Medical students
    - Cambridge Integrated Clerkship
    - New courses: subinternship in Medicine;
    - Plethora of electives mentoring and precepting students and residents at affiliated schools and programs. Clinical Management of Addictions, Occupational-Environmental Health, Community Dentistry, Emergency Medicine – Care Continuity, Community Participatory Research Projects;
    - Family Medicine Intro to the Profession; Practice of Medicine and Electives;
    - Medicine intro to the Profession, Practice of Medicine, HMS-Cambridge Integrated Clerkship (CIC) and Electives;
    - Core Clerkship, Tufts Affiliated OB/GYN Residency;
    - Pediatrics CIC, Psychiatry CIC, Core Psychiatry Clerkship;
    - Surgery CIC and Electives;
    - Interprofessional education involving HMS CIC students and PA students.
  - Residents
    - Family Medicine;
    - Graduate Dentistry, Oral Health and General Dentistry Residency;
    - Emergency Medicine BIDMC Affiliated Emergency Medicine Residency; HSPH Occupational Medicine Residency Obstetrics & Gynecology;
- Primary Care Residency; Transitional Internship;
- MGH Affiliated Pediatrics Residency;
- Affiliated Surgery Residency; Podiatric Medicine Residency;
- Adult, Child and Adolescent, Geriatrics and Psychosomatic Psychiatry Residencies;
- Psychology Training Healthcare Advocacy Elective, Financing Public Sector Mental Health Services, GLBT Community Outreach, Linguistic Mental Health and Community Health Education;
- Accreditation of the pharmacy residency program. Plans underway for an advanced practice nursing residency program.

○ Fellowships
  - Tufts Family Medicine Residency; Master Teacher Fellowship; Reproductive Health and Advocacy;
  - HMS General Internal Medicine Fellowship;
  - Art Museum-based Health Professions Education Fellowship - in collaboration with the Harvard Macy Institute and the Museum of Fine Arts, Boston.

○ Continuing Education
  - Innovation/Co-production Fellowship
  - Psychiatry Department CME Program
  - Harvard Macy Scholarships

● Initiatives that were sunsetted:
  ○ Gold Foundation Research Institute - The Foundation’s Board changed its strategic direction;
  ○ Family Medicine grant at HMS - HMS administration decided not to invest in family medicine at this time.

Future Activities:
- Assist CHEEA to implement its strategic and sustainable plan;
- Develop advanced HMS electives in areas of interest;
- Develop and evaluate the new HMS Subinternship in Medicine;
- Foster mentoring programming;
- Consider CHA Academy;
- Facilitate Allied Health Professions’ training aspirations;
- Convene fourth Cohort of CHA-Gold Innovation Fellows.
Profiles: Selected Academic Programs

1) Center for Health Equity Education and Advocacy

Introduction: In 2018, CEO Pat Wardell offered to “invest in a high-profile, paradigm-changing educational innovation that would bring joy and discovery to CHA’s clinical community and value to our patients and the nation”. He regarded the Cambridge Integrated Clerkship as a model of such an innovation and sought CHA’s next game-changer? Chief Academic Officer David Bor assembled a steering committee and conducted listening tours across CHA. They identified two areas for focus - “health, beyond healthcare” and “team care” - that were ripe for innovation, aligned with CHA’s strategic direction and critically important for workforce development. They solicited letters of intent to address one or both of these themes and to satisfy a number of funding requirements and priorities (e.g., game changer, practicable, sustainable, etc.). Two review committees (selected to avoid conflicts of interest) - one external to CHA and one internal including board members - reviewed the proposals and selected “The Center for Health Equity Education and Advocacy” for three years funding to begin in July 2019.

The following is a brief description:

The Center for Health Equity Education & Advocacy (CHEEA) will be established in July 2019. CHEEA’s founding co-directors are Danny McCormick, MD, MPH and Gaurab Basu, MD, MPH.

Gaurab Basu, MD, MPH

The motivation for the center is to respond to the structural causes that result in healthcare inequities throughout the healthcare system. CHEEA will provide the curriculum and community needed to support and train an interprofessional audience of clinicians as they develop as agents of social change for health equity. CHEEA also spotlights the social accountability of institutions to invest in the development of trainees such that they can engage with and address the social factors that underlie health inequities. The objectives of CHEEA are: 1) to create curricula for multiple types of health professions at different career stages; 2) to improve the health of CHA’s communities; 3) to be a center of excellence on health equity education scholarship; and 4) to train the next generation of health equity educators.

CHEEA currently plans to develop the following programs: 1) a CHA wide interprofessional health equity curriculum; 2) a Boston-wide pre-internship health equity daylong workshop; 3) a health equity medical education fellowship; 4) a health professions scholars curriculum for faculty level educators; and 5) CME course.

CHEEA seeks to create a healthcare workforce that is better prepared to improve health equity in the US and develop innovative models of curriculum development that reimagines the role medical education can play in promoting health equity.

Selected Bibliography


2) Center for Mindfulness and Compassion

The Center for Mindfulness and Compassion (CMC) (chacmc.org) is a vibrant multidisciplinary center integrated into CHA’s Department of Psychiatry. CMC’s offices and research lab are located at 1035 Cambridge St, Cambridge, MA 02141, and CMC’s clinical and research mindfulness groups are held throughout CHA primary care and outpatient psychiatry sites.

CMC is dedicated to enhancing the health and well-being of CHA’s diverse community by integrating evidence-based mindfulness and compassion into
health care. CMC’s mission is realized across five main arms: patient care, employee well-being, scientific research, professional education and community service. CMC was founded in 2014 with broad support from the CHA executive team, faculty and staff. Funding for CMC came from an Arthur Vining Davis Foundation healthcare system transformation grant, the Gold Foundation, CHA Executive Leadership fund and the CHA Department of Psychiatry. CMC has been supported by a team of nine core faculty members, including accomplished mindfulness and compassion teachers, thought leaders, educators and clinical researchers with expertise in compassionate care and the integration of mind-body medicine into behavioral health and primary care. In the past five years, CMC has grown to support nine full-time and six part-time staff members, as well as 8-12 volunteers and interns per season. CMC also continues to welcome a number of fellows and faculty from universities around the world. CMC serves CHA staff, the local community and healthcare professionals by offering regular high-quality evidence-based mindfulness and compassion programming.

CMC investigates mechanisms of mindfulness and compassion-based interventions in clinical populations as well as methods for implementation of these evidence-based programs in the healthcare system. CMC is a core partner of the NIH Science of Behavior Change Project focusing on the mechanisms through which mindfulness influences self-regulation. CMC investigators have ongoing collaborative research with federally-funded investigators at institutions including Dartmouth College, Massachusetts General Hospital, Brigham and Women’s Hospital, University of Massachusetts Medical School, Brown University, Vanderbilt University, Georgetown University, University of South Florida, Université Laval in Quebec, University of Zaragoza, Universidade Federal de São Paulo, and the University of Southern California.

A core clinical research program of CMC’s is MINDFUL-PC: Integrating Mindfulness into the Patient Centered Medical Home. MINDFUL-PC is a clinical implementation program, which supports a research study that offers an eight-week mindfulness-based intervention (MBI), called Mindfulness Training for Primary Care (MTPC), to CHA primary care patients as an insurance-reimbursable, referral-based program, delivered by CHA mental health and primary care providers. Over 2000 primary care patients have been referred to MINDFUL-PC since October of 2015. Within the MINDFUL-PC implementation project is embedded a randomized comparative effectiveness trial that investigates the impact of the high-dose eight-week, trauma-informed, MTPC program on self-regulation and initiation of health behavior change as well as patient-driven outcomes of anxiety, depression and stress, as compared to a low-dose comparator group receiving a one-hour introduction to mindfulness and referral to community resources.

CMC’s research findings, recently published in the Journal of General Internal Medicine (JGIM) and the journal Mindfulness describe the process of integrating mindfulness training into primary care, and demonstrate that CMC’s eight-week MTPC helps primary care patients with chronic illness initiate health behavior change. CMC’s research team was also awarded first place for their poster “Impacts of mindfulness training in primary care on patient self-regulation and accessibility,” at Osher Center for Integrative Medicine Network Forum. CMC has offered two MTPC groups for Portuguese speakers and plans to offer Spanish groups in 2019-2020. CMC is collaborating with the Martinsos Center for Biomedical Imaging on an fMRI pilot study to investigate the neural mechanisms of self-regulation as a result of mindfulness training. Posters have been accepted demonstrating neural correlates associated with the effects of mindfulness on interoceptive attention. Additional research on the neural correlates associated with the impact of mindfulness training on self-appraisal and pain regulation mechanisms are ongoing. CMC has received additional funding from NCCIH and NIH Science of Behavior Change Initiative to support two more years for research understanding the mechanisms of action of mindfulness training in MINDFUL-PC.

In addition, through funding from the Osher Foundation, Harvard Mind/Brain/Behavior Initiative and the Mind and Life Institute, CMC and the MGH/Martinos Center have collaborated on the first fMRI neuroimaging study of a brief mindful self-compassion intervention for chronic pain. Several poster presentations and manuscripts have been submitted reporting findings from this pilot study, showing neural correlates associated with brief self-compassion interventions.

This past year, CMC received funding for several innovative projects:

1. The MINDFUL-OBOT study was funded by NCCIH and aims to explore the effects of mindfulness on opioid use and anxiety during primary care buprenorphine treatment. This study builds on prior research about group-based opioid treatment conducted in collaboration with the CHA office-based addiction treatment network across several
CHA primary care sites and outpatient addiction services.

2. CMC was funded to participate in an NCCIH center grant in collaboration with the MGH/Martinos Center for Biomedical Imaging. The study will examine top-down and bottom-up mechanisms for addressing chronic pain. This study will investigate the potential synergistic effects of transcutaneous vagal nerve stimulation and stress reduction for migraines, using MRI, autonomic testing, quantitative sensory testing, and PET to examine various mechanisms.

3. CMC is funded by grants from the CDC and NIDA with additional support from RIZEMA and Russell Berrie Foundation to conduct the MySafeRx project. MySafeRx is an integrated behavioral intervention based on a compassion-based medication adherence technology program, integrating daily empathic motivational coaching via video conference and electronic pill dispensers to prevent opioid overdose and relapse post-detox in Tampa, FL (www.mysaferx.org).

In collaboration with the CHA Outpatient Psychiatry Department, CMC started a Mindful Mental Health Clinic (MMHS) for CHA patients using the Mindfulness-Based Cognitive Therapy approach. This service aims to make mindfulness training and adaptations accessible to a wide range of patients seeking more holistically-oriented mental health care at CHA, including those who speak Spanish and Portuguese, those with trauma history, psychosis, and substance use disorder.

CMC also offers an extensive range of programs and professional trainings for CHA employees and the community. Programs range from one-hour free introductions to mindfulness, weekend workshops, CE/CME, professional trainings, an eight-week intensive training courses, group leader trainings, and a first of its kind Advanced Fellowship in Mindfulness and Psychotherapy offered at CHA in partnership with The Institute for Meditation and Psychotherapy (IMP), the CHA Department of Psychology, and CHA Primary Care Behavioral Health Integration. In September 2018, CMC partnered with Harvard University’s Center for Wellness and Health Promotion and IMP to bring together mindfulness thought leaders, innovators, ethicists, and exhibitors for a sold-out Symposium on Technology-Assisted Meditation at the Harvard University Science Center.

Since 2014, CMC has served hundreds of CHA staff through the Mindful Lunch, Community Speaker Series and Mindfulness at Work programs, staff retreats, eight-week programs with generous subsidies through CHA Human Resources’ Wellness Initiative, and professional group leader and mindfulness teacher trainings.

Selected Bibliography


3) CEO Clinical Learning Environment Review (CLER) Innovation Awards

Empowering our trainees to make meaningful change at CHA

Now in its fifth year, the annual Clinical Learning Environment Innovation Awards Program is a small grants initiative that provides financial awards of up to $2,000 to graduate-level trainees for projects intended to improve the clinical learning environment in which they work and learn and in which patients receive care. The Clinical Learning Environment Review is a framework developed by the ACGME and encourages special attention to healthcare quality and equity, patient safety, transitions of care, faculty supervision, professionalism and resident well-being. In the interest of inviting trainees to be co-creators of their own clinical learning environment, the program invites trainees to identify opportunities for improvement within the clinical learning environment and engage actively as change agents and problem solvers.

The program includes an annual request for proposals that is issued at the beginning of the academic year. Funding decisions are made by the CLER Faculty Program Committee, comprised of representatives from each of the core GME training programs and the Center for Professional and Academic Development. Successful proposals have a clearly described problem, a pragmatic and feasible change idea, identified support from appropriate institutional leaders, and a strategy for measuring impact. Grantees are encouraged to avail themselves of technical assistance in Performance Improvement and program development and evaluation from the Quality Department and the Institute for Community Health. They are expected to submit a poster to the annual CHA Academic Poster session.

Over the last four years, the Committee has made 41 awards to 44 different trainees, engaging 23% of trainees in our five core programs. Seventy percent of projects produced change that continued beyond the funded grant year; forty six percent produced academic publication or presentation.

Many have noted the challenge of creating bidirectionality in resident engagement in systems improvement – linking “bottom up” change projects prioritized and initiated by residents and “top down” institution-mandated agendas. The small grants program provides a pragmatic mechanism for accomplishing this bidirectionality. Though residents identify and shape proposals in their own areas of concern, the formal request for proposals permits us to name specific areas of strategic import to the institution. Feedback on first iterations of proposals encourages applicants to revise drafts in partnership with key institutional leaders and stakeholders. Selection criteria weigh alignment with institutional priorities heavily.

The program was supported for the first three years with an unrestricted educational grant from the Arnold P. Gold Foundation Research Institute. Since the end of the grant period, however, the institution’s senior leadership team has elected to continue program funding annually.

Selected Bibliography


4) CHA-Gold Innovation Fellowship

Problem

Healthcare systems are changing rapidly and clinicians struggle to keep pace with their changing roles – team-based care, population health, outcomes measurement, value-based purchasing, widespread digitization, increasing expectations for transparency and partnership with patients and families. These changes have created more and different work for physicians and have led to a crisis of physician burnout. The pace of change has created the need for a new generation of clinician-leader. Leaders with the skills to design, implement, evaluate and manage institutional change and transformation are in short supply.

Solution

The CHA-Gold Innovation Fellowship offers an institutional response that meets a need for clinician leader personal and professional development and an institutional need to accelerate successful institutional transformation.

Fellows are recruited through a competitive selection process with a change project aligned with key institutional priorities. Fellowship learning objectives include tools and frameworks from improvement...
science, organizational development, and leadership. The curriculum is organized into monthly half-day learning sessions in which fellows’ own change leadership work becomes a focus for inquiry. In preparation for sessions, fellows complete required reading, project-related assignments and other exercises intended to catalyze reflection on experience. Between sessions, each fellow is expected to engage in two meetings with other fellows – one in which he or she is a designated coach and another in which he or she is designated to receive coaching support.

Results

In year 1, 5 fellows were chosen from an initial pool of 12 applicants. In year 2, 6 fellows were chosen from a pool of 15 applicants. In year 3, 7 fellows were chosen from a pool of 17 applicants and are currently engaged in their fellowship experience. Of the 18 fellows across three cohorts, 13 (72%) are physicians, four are nurses, and one a clinical psychologist. Reflecting the service mix at the Cambridge Health Alliance, 9 (50%) of the 18 fellows are based in a primary care setting, four in mental health services, two in the emergency department, two in the acute care hospital setting, and one in medical specialties.

All eleven fellows who have completed the fellowship remain employed at the Cambridge Health Alliance. Of the eleven, ten have acquired new positions with expanded leadership scope within the institution. Five have presented their work external to the institution in the form of academic presentation or publication; three have received academic rank promotions. Fellow self assessment of their own knowledge, skills, and attitudes before and after the fellowship demonstrates improvement in most of the 30 domains linked to fellowship learning objectives. In a follow up survey of alumni, all fellows endorsed the durability of key fellowship learning related to core concepts in improvement science, change leadership, and patient engagement. All reported using fellowship learning in current work and subsequent projects. Qualitative data from mid-fellowship and end-of-fellowship interviews with fellows suggests that the fellowship facilitated a transformational experience which has forged meaningful connections between fellows and deepened fellow engagement with the institution.

All but one of the eleven fellowship projects in the first two cohorts was successful in accomplishing stated aims. Fellows brought about measurable reductions in ED visits and hospitalizations for patients with COPD and patients with dementia; reductions in hospital admission for low risk chest pain; improvements in blood pressure control; increases in the use of patient-centered care plans for patients with diabetes and patients with severe and persistent mental illness; increases in measured engagement among CHA providers; increases in the use of peer support in group-based primary care for patients with depression and substance use disorder; new care models for integrated behavioral health services in pediatrics and improved access for patients with opiate use disorder.

The insight that patients and families are co-producers of health outcomes is a central theme in the curriculum; each project explores in its own manner opportunities for greater partnership with patients and families.

Next Steps

With each cohort, the program has evolved and strengthened. The program has become more interdisciplinary; the curriculum has incorporated more tools related to human centered design and has developed a more explicit focus on leadership; senior leaders have been more engaged as faculty; fellows have cultivated deeper partnerships with our growing performance improvement team. Plans for cohort #4 are in development now. Recognizing the critical role of relationships and teamwork in institutional change making, we propose for 2020 to recruit dyadic partners -- a clinical provider and an operational manager -- who will learn as “co-fellows.”

Selected Bibliography


5) CHA - Pharmacy Residency Program

In July 2017, the Cambridge Health Alliance (CHA) Pharmacy Enterprise initiated a one-year PGY1 pharmacy residency program. In October 2018, the program received a full eight-year accreditation by the American Society of Health-System Pharmacists. Now in its 3rd academic year, the residency program attracts highly qualified candidates from all over the country.

With 17 pharmacist preceptors embedded in the inpatient and ambulatory settings who provide direct pharmaceutical patient care to a diverse population,
Residents gain clinical experience through a wide variety of rotation offerings during this intensive one-year program. They also gain leadership and management experience via block and unique longitudinal rotations with members of the Pharmacy Leadership Team. In addition to rotations in internal medicine, family medicine, infectious diseases, inpatient adult and geriatric psychiatry, ambulatory care and practice management, residents engage in an independent research project, formulary management and decision making, formally accredited continuing education lectures, medication safety seminars, and a number of additional teaching and service opportunities. At the end of their one-year experience, CHA’s pharmacy residents are well prepared to provide direct patient care in a broad range of clinical settings.

Residency research areas over the past two years:

Infectious Diseases:
- Impact of tiered interventions to decrease routine urine cultures in asymptomatic patients undergoing arthroplasty (published in Infection Control & Hospital Epidemiology 2019;40(1):109-110);
- Evaluation of time to organism identification and pharmacist impact on antibiotic prescribing through utilization of MALDI-TOF.

Medication Safety / Efficacy:
- Comparison of various basal insulin regimens and their associated incidence of hypoglycemia-related emergency department visits;
- Improving utilization of pharmacotherapy services for management of hypertension;
- De-prescribing medications in elderly homebound patients at increased risk for falls;
- Medication reconciliation and optimization by clinical pharmacists in the primary care setting;
- Impact of a pharmacist-led inhaler education on patients with COPD in a pulmonary rehabilitation clinic.

Institutional Cost Savings / Access Enhancement:
- Cost-savings of long-acting antipsychotic injections in a transitional clinic upon hospital discharge.

6) Division on Addiction

The mission of the Division on Addiction is to alleviate addiction-related social, medical, and economic burdens through research, education, outreach, and training. Founded at Harvard Medical School during 1992, the Division currently is part of the Department of Psychiatry at CHA. The Division derives its funding entirely from gifts, grants, and contracts; Division staff develop proposals for investors from the National Institutes of Health and private industry to the Commonwealth of Massachusetts and Harvard Catalyst. As of March 1, 2019, the Division is led by Debi LaPlante, PhD, Director and Assistant Professor of Psychiatry at HMS, Sarah Nelson, PhD, Associate Director of Research and Assistant Professor of Psychiatry at HMS, and Heather Gray, PhD, Associate Director of Academic Affairs and Instructor of Psychiatry at HMS.

The Division’s work is aligned closely with CHA’s mission to “improve the health of our communities.” It does this with (1) research that addresses health disparities and challenges stigma and misinformation; (2) education and training for medical students, public officials, professionals, faculty, and allied providers; and (3) outreach to the public with numerous initiatives, tools, and resources.

Research


The Division’s research represents worldwide collaborations, including research with colleagues across the United States and seven Native American nations, as well as colleagues from South Korea, Denmark, Switzerland, Hong Kong, Iceland, Canada, and Australia. The Division’s current primary areas of interest include psychiatric comorbidity of DUI offenders; epidemiology and determinants of
gambling- and gaming-related problems, substance use disorders, addiction treatment and treatment outcomes; and relapse and addiction among vulnerable populations, including tribal youth, people with criminal justice involvement, and people experiencing homelessness. The Division supports open science through its innovative Transparency Project data sharing repository (www.thetransparencyproject.org).

**Education & Training**

The Division uses its research to build innovative teaching and training programs for a diverse set of learners. It has provided education to professionals seeking continuing medical education, visiting scholars, undergraduate interns, residents and fellows, postdoctoral researchers, and graduate student trainees. During the past five years, it has offered many educational opportunities, including our Addiction Medicine live CME course; three online CME courses; CHA seminars (CHARGE, the Addiction Syndrome model, and a Research Methods for Healthcare Professionals); didactic research experiences with HMS residents; guest lecturing; invited conference presentations; and webinars and workshops for national and international audiences.

**Outreach & Clinical Services**

The Division has developed evidence-based public health screens and self-help guides (i.e., Brief Biosocial Gambling Screen; Your First Step to Change) for gambling, alcohol, marijuana, shopping, and smoking. For 23 years, the Division has published The BASIS (Brief Addiction Science Information Source; www.basisonline.org), a free weekly addiction science review that many thousands of people access each year. This year, the Division participated as a registered program in NIDA's National Drug and Alcohol Facts Week by disseminating BASIS bites, which are brief, impactful addiction science facts delivered via social media. The Division created and leads Gambling Disorder Screening Day, an international initiative designed to promote screening for Gambling Disorder. The Division recently completed a five-year project that created a freely available software system for mental health screening and assessment (CARS; www.carstrainingcenter.org) that includes a guided diagnostic interview and a report generator permitting lay interviewers to identify psychiatric disorders, complete an assessment report, and refer patients to treatment providers. Currently, the Division is adapting CARS for DSM-5 and developing a Spanish edition. Since the Division publicly launched this program during June 2017, more than 640 sites across 47 US states have registered to download CARS. Finally, the Division recently developed guidelines for evidence-based treatment of gambling-related problems for the Massachusetts Department of Public Health. (https://www.mass.gov/practice-guidelines-for-treating-gambling-related-problems).

**Selected Bibliography (past 5 years)**


7) Harvard Medical School-Cambridge Integrated Clerkship

In 2004, HMS and CHA sparked the most reaching and impactful transformation of clinical education since Flexner when they created the first academic longitudinal integrated clerkship (LIC). This program, the complete redesign of the core clinical year is the HMS-Cambridge Integrated Clerkship (HMS-CIC). In the HMS-CIC model, students follow their “own” cohorts of patients’ year-long in primary care and specialty clinics, with direct faculty supervision in all core disciplines simultaneously, in lieu of traditional block rotations. HMS-CIC students achieve all the goals of HMS’s core clinical year, to train outstanding
and distinguished physician-scientist-leaders for all specialties.

The LIC literature is robust and powerfully affirms the HMS-CIC programmatic success. CHA and UCSF also collaborated to create the first LIC book. Through scholarship, dissemination and widespread media attention, medical schools nationwide and worldwide have reproduced the HMS-CIC model:

- Multiple institutions (UCSF, Duke, Columbia) follow HMS’s example and created LICs in the HMS-CIC structure.
- More than 40 percent of U.S. medical schools are building, running and growing their LICs.
- Approximately half the medical schools in Canada and Australia and medical schools in the UK, Netherlands, Taiwan, Singapore and South Africa have developed LICs.
- Institutions around the nation and world contact and visit Cambridge Health Alliance to learn about the HMS-CIC. Leaders of the HMS-CIC are invited to speak nationwide and worldwide to help institutions start and grow their LICs.
- The educational science and principles animated and described by the HMS-CIC underpin the foundational 14-month restructuring of the HMS’s Pathways curriculum. The 2003 HMS-CIC educational pillars ground the Pathways structure: longitudinal design, curricular integration, meaningful roles for students, a core faculty model and fostering an active, supportive and effective learning environment.

The HMS-CIC also defined and disseminated a core educational principle, “Educational Continuity” (Hirsh et al. NEJM, 2007), that is guiding the leading publications (e.g., Carnegie Report: Educating Physicians and The Future of Medical Education in Canada) and is the leading discourse in medical education design nationally and internationally:

**Continuity of Care (The student matters to the patient and the patient matters to the student)**
- With their faculty preceptors, students build their “own” panel of patients whom they see regularly in each core specialty throughout the year.
- Students can follow their cohort of patients longitudinally across all venues of care (including home and out-of-hospital care) to engage in their patients’ care and their lives meaningfully.
- Students’ experiences are structured and tracked to ensure full breadth of experience.
- Students know their patients and deeply learn their patients’ experience of illness and their context of care.

**Continuity of Supervision (The student matters to the faculty and the faculty matter to the student)**
- Carefully selected attending physicians are the principal educators throughout the year. Students receive one-to-one precepting by experienced faculty in each core discipline who serve as educators and role models for the year-long course.
- Students have the opportunity to closely connect to faculty members who come to know the students well—to support, advise and mentor them, maximizing professional and personal development and residency opportunities.
- Team learning and team care are central tenets of the experience. Accordingly, role models and teachers come from in and out of medicine, nursing and others on the interprofessional team.

**Continuity of Curriculum (The student matters to the curriculum and the curriculum matters to the student)**
- The curriculum progresses developmentally, is student-focused, flexible and carefully constructed. The program supports individual interests and growth needs. The curriculum seeks that the students flourish.
- The patients are the loci of integration for the curriculum. Serving patients authentically is the currency of learning and professional growth. Activities to foster clinical reasoning rather than clinical “tasks” are the core.
- The curriculum seeks to foster human flourishing and is designed to support each student’s growth. Alongside experienced clinician-educators and scientists, patients and staff, social scientists and administrators, community groups and policy makers, clergy and the students’ own families may all serve as “core faculty” in this profound and transformative experience.

**Continuity of Idealism (Humanity matters to the student and the student matters to humanity)**
- The CIC manifests a return to the transcendent values and the educational method which trained generations of physicians until current delivery system models made it increasingly difficult (if not impossible) for students to care for their patients over substantial time.
- The program is designed to reassert the centrality of the student-patient and student-faculty relationships – the bases for the idealized
development of highly trained and highly fulfilled learners. Humanism and professionalism emanate from its core.

- The CIC seeks deliberately to foster students’ energy and inspiration by creating authentic, richly meaningful educational and care engagements with patients and faculty whom the students come to know well.

Selected Bibliography

**CIC Research**


**Other LIC Research**


**Other LIC Related**


**LIC Book Chapters**


Core CIC publications


Sample of Other Research Investigations


**Sample of Other CIC Publications**


Osman NY, Atalay A, Ghosh A, Saravanan Y, Shagrin B, Singh T, Hirsh DA. Designing medical education structure for workforce transformation: Continuity, Symbiosis,


Books

8) Health Equity Research Lab

**Overview**

The Health Equity Research Lab at CHA is an interdisciplinary group led by Dr. Benjamin Cook and comprised of health services researchers and clinicians. It is dedicated to conducting research on behavioral health and health service delivery issues relevant to multicultural, underserved and vulnerable populations. The four major center activities include: identifying the mechanisms and factors of resiliency underlying pathways towards health in the face of social and economic adversity; using data analytics to prevent negative social, health and mental health outcomes among racial/ethnic minority populations; intervening to reduce disparities in negative social, health, and mental health outcomes; and mentoring disparities researchers. All of these activities are informed by engagement with patients, families, providers and community stakeholders to generate research that is meaningful and resonates with the community.

**Current Projects**

1. PCORI Grant to Improve Methods of Incorporating Minority Patients’ Treatment Preferences into Clinical Care. Using community-based participatory research methods, we developed and implemented a nationally representative survey of patient preferences for treatment and experiences of discrimination in the healthcare system for individuals with depression and type 2 diabetes. We are working with community and provider partners to use our findings to improve patients’ encounters with the healthcare system.

2. National Cancer Institute grant on the Impact of State Policies on Smoking among Individuals with Substance Use Disorder. We assess the impact of expanded coverage of tobacco dependence treatment in Medicaid as well as tobacco excise taxes on the use of tobacco dependence treatment services, smoking intensity, and quit rates for smokers with substance use disorders; we further propose to assess the combined effect of Medicaid coverage of tobacco dependence treatment alongside excise taxes on these outcomes.

3. Predictive Analytics to Prevent Suicide and Adverse Health Outcomes: Using natural language processing and machine learning algorithms, we hope to use unstructured text in electronic health records (EHR) to predict negative outcomes, re-hospitalizations and adverse health events of patients. Two current projects that utilize this method are the Suicide Prediction in Adolescent Psychiatric Patients and Prediction of Negative Outcomes in Gender Minority Patients.

4. Assessing Disparities by Race/Ethnicity, Gender and Gender Identity Status in Medicare Accountable Care Organizations: We study differences in ACO participation by race/ethnicity, gender (minorities) and mental health status of beneficiaries; disparities within ACOs by Medicare/Medicaid dual eligibility status, race/ethnicity and gender/identity in access. utilization and quality of mental health services; and racial/ethnic and gender disparities in access, utilization and quality for beneficiaries treated within ACOs.

5. The Effect of Provider Payment Reform on Mental Health Care Disparities: The Affordable Care Act (ACA) temporarily increased the payments for PCPs caring for Full Subsidy dual-eligible Medicare beneficiaries. Meanwhile, the Medicare Improvements for Patients and Providers Act (MIPPA) gradually increased payments to mental health specialists for Full Subsidy beneficiaries and reduced beneficiary coinsurance for specialist visits for Partial beneficiaries. We assess the effects of these policies on racial/ethnic disparities in mental health care outcomes including: medical care...
and quality process measures (e.g., diagnosis and medication use); clinical events (e.g., emergency department visits and hospitalizations); and medical spending.

6. Juvenile and Adult Criminal Justice Reform for Individuals with Mental Illness: We evaluate two ongoing programs at the Cambridge Police Department (CPD) targeting the reduction of arrest and incarceration of individuals with mental illness. The Cambridge Safety Net Collaborative fosters positive youth development, promote mental health, support a safe community and schools, and limit youth involvement in the juvenile justice system through coordinated services for Cambridge youth and their families. For adults at risk of criminal justice system involvement, CPD has developed a coordinated coalition of officers and community stakeholders to treat individuals living with mental illness and substance use disorders. We identify predictors of improved outcomes for these populations and evaluate the success of CPD’s diversion and prevention activities.

7. Opioid Mortality: The current opioid epidemic is a public health emergency and requires immediate action. It is critical to expand research to include neighborhood-level determinants of opioid-related mortality and to better understand prescribing patterns and opioid use disorder treatment. We assess patterns of care and predictors of service use prior to opioid-related mortality that can help clinicians identify high-risk patients in need of multi-system treatment and inform the development of timely interventions. We use electronic health records, nationally representative surveys, and administrative claims data to understand opioid use/misuse and access to opioid-related treatment and to estimate and understand the impact of federal payment policy reforms on racial/ethnic disparities in opioid misuse, access, use, and completion of opioid-related treatment.

Selected Bibliography


Progovac A, Mullin B, McDowell A, Cook B. Identifying gender minority patients’ health and healthcare needs in

Completed Projects

1. Comparative Effectiveness Research and Racial/ Ethnic Health Care Equity: Using linked MAX and MEPS data, we examined whether specific information in FDA warnings influenced disparity trends in psychotropic drug use and mental health care and identified how provider characteristics and HMO enrollment act as mechanisms that underlie the differential diffusion of health risk warnings. We identified that the communication of these risks and benefits of medications are inequitably disseminated and discuss the ramifications of these inequities on disparities.

2. RISE for Boys and Men of Color Field Scan: We completed a systematic review of the literature at the intersection of mental health services, education and juvenile justice and consolidated findings into actionable recommendations for the RISE initiative.

3. Behavioral Health Home Evaluation at CHA: The Behavioral Health Home Program (BHHP) at CHA integrates primary care services within the outpatient specialty behavioral health clinic at the CHA Central Street Care Center. Using a mixed-methods approach, the Lab evaluated the implementation of the program on its goal of enhancing training and care coordination, increasing screening and monitoring of co-morbid medical conditions and expanding health promotion activities.
The Institute for Community Health (ICH) is a nonprofit research and consulting organization that provides participatory evaluation, applied research, assessment, planning, and data services to health systems, community-based organizations, and government agencies. ICH's goal is to use data-driven approaches to help communities develop create sustainable solutions to complex public health challenges. ICH was founded in 2000 by three healthcare systems: Cambridge Health Alliance (CHA), Mount Auburn Hospital, and Partners HealthCare. Currently, all three institutions have representatives on the ICH Board of Directors, and ICH's current benefactors are CHA and Beth Israel Deaconess Medical Center (BIDMC). Since its founding, ICH has had a close partnership with CHA and the two organizations continue to collaborate on many projects.

ICH is led by Lise E. Fried, DSc, MS, an epidemiologist and an executive with demonstrated success leading organizations and guiding them through all phases of development with skill and inspiration. ICH’s Associate Director, Emily Chiasson, MPH, MSW, has over 15 years of experience in program planning, implementation, and evaluation, as well as project and organizational management.

ICH has a talented and interdisciplinary staff with training in many fields including program evaluation, epidemiology, anthropology, public health, and medicine. ICH staff have methodological expertise in quantitative methods - including analysis of electronic medical records, claims, and public health surveillance data - as well as extensive experience with survey methods, qualitative interviews, focus groups, time-motion studies, mixed methods, and more.

ICH works on over 70 projects a year, including investigator-initiated research as well as client-driven work. Projects span a diverse array of content areas including behavioral health and substance use disorders, infectious diseases, healthy parenting and child development, sexual and reproductive health, immigrant health, advocacy and policy, health systems transformation, and many others. Our projects range in scale from providing technical assistance and consultation to small community organizations serving as the cross-site evaluator for large multi-year grant initiatives.

Across all projects, ICH has a strong and consistent commitment to sound methodological practices, tailored to client needs and program goals. ICH’s work is characterized by a strengths-based, collaborative approach that builds organizational capacity and emphasizes utilization of data for program improvement and sustainability. ICH works closely with its clients to gather and use data that can inform priorities and decisions, build stronger programs and services, demonstrate outcomes and impacts and ultimately improve community health. The results of this work have been disseminated in a wide range of formats and venues, including conference presentations, white papers and web publications, and peer-reviewed journal articles.

Below are examples of ICH’s recent work:

ICH recently conducted a research study that aimed to understand immigrants‘ and US-born individuals’ contributions to private health insurance compared to health care expenditures. This work built on ICH Director of Research Leah Zallman’s previous work studying immigrants’ Medicare contributions and expenditures. Using two nationally representative databases, we determined private health insurance expenditures and individual premiums and extracted information about employer contributions to private insurance premiums. We tabulated private health insurance contributions, insurers’ expenditures, and net contributions for immigrants and US-born individuals. Results showed that immigrants paid $88.7 billion in private insurance premiums but only used $63 billion in insurer-paid health care, resulting in a $24.7 billion surplus in 2014. This dispels the common myth that immigrants drive up health care costs.
costs. The study was published in *Health Affairs* in October 2018.

Since 2011, ICH has collaborated with CHA on a range of assessment and evaluation projects related to CHA’s delivery system transformations and transition to value-based payment models. This work has included:

- an annual survey of primary care providers and staff to assess workforce experience, practices, and perceptions, which led to a peer-reviewed publication
- patient interviews across a range of disease areas to inform medical management program design (peer-reviewed article published)
- evaluation of the primary care behavioral health integration program (academic publication currently under review)
- evaluation of the complex care management program (peer-reviewed article published).

Currently, ICH is conducting a quasi-experimental study to determine the impact of participation in the Tufts Health Together with CHA Accountable Care Organization (ACO) on health care utilization and costs. CHA ACO patients will be compared to a comparison group of non-CHA patients insured by a Medicaid Managed Care Organization (MCO) - Tufts Health Public Plan. The comparison group will be selected from Tufts MCO patients using a propensity score matching technique. Claims data will be analyzed to compare utilization outcomes (ED, inpatient, primary care and behavioral health visits) and medical costs for CHA’s ACO patients and the comparison group. As a secondary analysis, ICH will examine outcomes among specific subgroups of patients who are enrolled in specialty programs such as complex care management and long-term support services.

**Selected Bibliography:**


Leah Zallman, MD, MPH
## I. CHA Faculty

### A. Academic Appointments and Promotions

<table>
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<td>HMS 6</td>
<td>Associate Professor</td>
<td>HMS 2</td>
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<td><strong>Obstetrics &amp; Gynecology</strong></td>
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<td><strong>Pathology</strong></td>
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<td><strong>Pediatrics</strong></td>
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<td>Associate Professor</td>
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<td><strong>Radiology</strong></td>
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<td>Associate Professor</td>
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<tr>
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<td>Associate Professor</td>
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</table>

<table>
<thead>
<tr>
<th>Total Academic Appointments</th>
<th>Total Promotions</th>
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<tr>
<td>450</td>
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HMS Faculty at Cambridge Health Alliance

<table>
<thead>
<tr>
<th>CHA HMS Appointments as of 10/2018</th>
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<tr>
<td>Professors</td>
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<tr>
<td>Associate Professors</td>
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<tr>
<td>Assistant Professors</td>
</tr>
<tr>
<td>Instructors</td>
</tr>
<tr>
<td>Lecturers</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

HMS Overall Faculty

**Distribution of Full Time Faculty by Rank**
Active on 10/1/18

- **Total Full Time Faculty**: 9,489
  - Professor: 1,250 (13%)
  - Associate Professor: 1,460 (15%)
  - Assistant Professor: 2,711 (29%)
  - Instructor: 3,018 (31%)
  - Lecturer: 240 (3%)

2019 CHA Academic Report
### B. Faculty Recognition: Local (HMS, Tufts, CHA)

<table>
<thead>
<tr>
<th>Date</th>
<th>Name</th>
<th>Department</th>
<th>Award</th>
<th>Awarding Org</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>Pieter Cohen, MD</td>
<td>Medicine</td>
<td>A. Clifford Barger Excellence in Mentoring Award</td>
<td>HMS</td>
</tr>
<tr>
<td>2019</td>
<td>Rachel Stark, MD</td>
<td>Medicine</td>
<td>Young Mentor Award</td>
<td>HMS</td>
</tr>
<tr>
<td>2019</td>
<td>Silvia Halperin, MD</td>
<td>Psychiatry</td>
<td>Harold Amos Diversity Award</td>
<td>HMS</td>
</tr>
<tr>
<td>2019</td>
<td>Soledad Vera, MD</td>
<td>Psychiatry</td>
<td>Harold Amos Diversity Award</td>
<td>HMS</td>
</tr>
<tr>
<td>2018</td>
<td>Gaurab Basu, MD, MPH</td>
<td>Primary Care</td>
<td>Charles McCabe Faculty Prize for Excellence in Teaching</td>
<td>HMS</td>
</tr>
<tr>
<td>2018</td>
<td>Deborah Erlich, MD, MMedEd, FAAFP</td>
<td>Medicine</td>
<td>Innovations in Education Intramural Grant Award</td>
<td>Tufts</td>
</tr>
<tr>
<td>2018</td>
<td>Clinton Pong, MD</td>
<td>Medicine</td>
<td>Innovations in Education Intramural Grant Award</td>
<td>Tufts</td>
</tr>
<tr>
<td>2018</td>
<td>Allen Shaughnessy, PharmD, MMedEd</td>
<td>Medicine</td>
<td>Innovations in Education Intramural Grant Award</td>
<td>Tufts</td>
</tr>
<tr>
<td>2018</td>
<td>Nicholas Carson, MD</td>
<td>Psychiatry</td>
<td>Al Margulies Award for Excellence in Teaching</td>
<td>CHA</td>
</tr>
<tr>
<td>2018</td>
<td>Treniece Lewis Harris, PhD</td>
<td>Psychiatry</td>
<td>Leston Havens Award for Excellence in Teaching</td>
<td>CHA</td>
</tr>
<tr>
<td>2018</td>
<td>Benjamin Cook, PhD, MPH</td>
<td>Psychiatry/Research</td>
<td>Academic Council Award</td>
<td>CHA</td>
</tr>
<tr>
<td>2018</td>
<td>Abigail Love, MD, MPH</td>
<td>Medicine</td>
<td>Academic Council Award</td>
<td>CHA</td>
</tr>
<tr>
<td>2018</td>
<td>Randi Sokol, MD, MPH, MMedEd</td>
<td>Medicine</td>
<td>Academic Council Award</td>
<td>CHA</td>
</tr>
<tr>
<td>2018</td>
<td>Leah Zallman, MD, MPH</td>
<td>Medicine</td>
<td>Academic Council Award</td>
<td>CHA</td>
</tr>
<tr>
<td>2018</td>
<td>Marla Eby, PhD</td>
<td>Psychiatry</td>
<td>Excellence in Teaching Award</td>
<td>HMS</td>
</tr>
<tr>
<td>2018</td>
<td>Aaronson Chew, PhD</td>
<td>Psychiatry</td>
<td>Harold Amos Diversity Award</td>
<td>HMS</td>
</tr>
<tr>
<td>2018</td>
<td>David Hirsh, MD</td>
<td>Medicine</td>
<td>George E. Thibault Academy Professorship</td>
<td>HMS</td>
</tr>
<tr>
<td>2018</td>
<td>David Hirsh, MD</td>
<td>Medicine</td>
<td>A. Clifford Barger Excellence in Mentoring Award</td>
<td>HMS</td>
</tr>
<tr>
<td>2017</td>
<td>Benjamin Le Cook, PhD</td>
<td>Psychiatry</td>
<td>Young Mentor Award</td>
<td>HMS</td>
</tr>
<tr>
<td>2017</td>
<td>J. Wesley Boyd, MD, PhD</td>
<td>Psychiatry</td>
<td>Academic Council Award</td>
<td>CHA</td>
</tr>
<tr>
<td>2017</td>
<td>Priyank Jain, MD</td>
<td>Medicine</td>
<td>Academic Council Award</td>
<td>CHA</td>
</tr>
<tr>
<td>2017</td>
<td>Honor MacNaughton, MD</td>
<td>Family Medicine</td>
<td>Academic Council Award</td>
<td>CHA</td>
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</table>

### C. Faculty Recognition: Regional and National

<table>
<thead>
<tr>
<th>Year</th>
<th>Name</th>
<th>Title</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>Sandra DeJong, MD, MSc</td>
<td>Assistant Professor, Psychiatry</td>
<td>Faculty Innovation in Education Award from the American Board of Psychiatry and Neurology</td>
</tr>
<tr>
<td>2018</td>
<td>Elizabeth Gaufberg, MD, MPH</td>
<td>Associate Professor, Medicine and Psychiatry</td>
<td>Anne L. Brodie Medical Education Scholar Award (University of Virginia)</td>
</tr>
<tr>
<td>2018</td>
<td>Katherine Grimes, MD, MPH</td>
<td>Associate Professor, Psychiatry</td>
<td>Outstanding Mentor Award from the American Academy of Child and Adolescent Psychiatry</td>
</tr>
<tr>
<td>2018</td>
<td>Tyrone Williams, MD</td>
<td>Instructor, Psychiatry</td>
<td>Carl B. Cutchins Award for Children's Behavioral Health</td>
</tr>
<tr>
<td>2017</td>
<td>Jessica Knapp, DO</td>
<td>Teaching Associate, Psychiatry</td>
<td>Young Investigator Award from the American Medical Society of Sports Medicine</td>
</tr>
<tr>
<td>2017</td>
<td>Ana Nava, PhD</td>
<td>Assistant Professor, Psychiatry</td>
<td>MAPS Mary and Manual Rogers Lifetime Community Service Award</td>
</tr>
<tr>
<td>2017</td>
<td>Richard Pels, MD</td>
<td>Associate Professor, Medicine</td>
<td>Parker J. Palmer Courage to Teach Award from the Accreditation Council for Graduate Medical Education (ACGME)</td>
</tr>
<tr>
<td>2017</td>
<td>Nancy Rappaport, MD</td>
<td>Associate Professor, Psychiatry</td>
<td>American Medical Women's Association 2017 Exceptional Mentor Award</td>
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</tbody>
</table>
## D. Faculty Participation in Competitive Fellowships

<table>
<thead>
<tr>
<th>Year</th>
<th>Recipient</th>
<th>Fellowship</th>
<th>Discipline</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>2019</td>
<td>Aileen Lorenzo, MD</td>
<td>CEO CLER Innovation</td>
<td>Child Psychiatry</td>
<td>Understanding Trainee Preferences for Screening, Triaging, and Managing Wellbeing Concerns Using a Focus Group Model</td>
</tr>
<tr>
<td>2019</td>
<td>Benjamin Adler, MD &amp; Rachel Schoenburg, MD</td>
<td>CEO CLER Innovation</td>
<td>Family Medicine</td>
<td>Medical Assistant/Resident Pairing Project</td>
</tr>
<tr>
<td>2019</td>
<td>Britannie Dillon, DO, DMD</td>
<td>CEO CLER Innovation</td>
<td>Family Medicine</td>
<td>Fluoride Varnish in Primary Care</td>
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<tr>
<td>2019</td>
<td>Christina Lee, MD &amp; Clara Kim, MD</td>
<td>CEO CLER Innovation</td>
<td>Adult Psychiatry</td>
<td>Increasing Utilization of SERS in the Department of Psychiatry</td>
</tr>
<tr>
<td>2019</td>
<td>Janine Petito, MD</td>
<td>CEO CLER Innovation</td>
<td>Internal Medicine</td>
<td>Professional Development Coaching Program for Internal Medicine Residents</td>
</tr>
<tr>
<td>2019</td>
<td>Jennifer Ren-Si Cheung, MD</td>
<td>CEO CLER Innovation</td>
<td>Family Medicine</td>
<td>Building a Stronger Community for Underrepresented Minority Residents</td>
</tr>
<tr>
<td>2019</td>
<td>John Gaudet, MD</td>
<td>CEO CLER Innovation</td>
<td>Internal Medicine</td>
<td>Developing a Process to Improve Hypertension Diagnosis and Management Through the Use of Home Blood Pressure Monitors</td>
</tr>
<tr>
<td>2019</td>
<td>Kira Mengistu, MD</td>
<td>CEO CLER Innovation</td>
<td>Internal Medicine</td>
<td>Investigating Resident Perception and Utilization of EConsults at CHA</td>
</tr>
<tr>
<td>2019</td>
<td>Maria Roccisano, MD</td>
<td>CEO CLER Innovation</td>
<td>Child Psychiatry</td>
<td>Improving the Psychiatric Inpatient Adolescent and Child Unit Experience through the Use of Music</td>
</tr>
<tr>
<td>2019</td>
<td>Megan Rose Carr LaPorte, MD</td>
<td>CEO CLER Innovation</td>
<td>Internal Medicine</td>
<td>Low Cost Interventions to Improve Sleep Quality in the Inpatient Setting</td>
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<tr>
<td>2019</td>
<td>Nakul Singh, MD</td>
<td>CEO CLER Innovation</td>
<td>Transitional Year Internship</td>
<td>Using a Co-Production Model to Partner with Non-English Speaking Families to Improve the Care of Children with Neurodevelopmental Disorders</td>
</tr>
<tr>
<td>2019</td>
<td>Rami Al-Sumairi, MBCh</td>
<td>CEO CLER Innovation</td>
<td>Child Psychiatry</td>
<td>Identifying Models for Meeting Inpatient Dermatology Needs at Community Hospitals</td>
</tr>
<tr>
<td>2019</td>
<td>Steven Krueger, MD</td>
<td>CEO CLER Innovation</td>
<td>Transitional Year Internship</td>
<td>Program for Educators in Health Professions project: Physician Assistant Interdisciplinary Training Curriculum: Primary Care and Behavioral Health</td>
</tr>
<tr>
<td>2019</td>
<td>Aaronson Chew, PhD &amp; Brittany Pierce, PA-C</td>
<td>Harvard Macy</td>
<td>Integrative Psychiatry &amp; Family Medicine</td>
<td>Program for Educators in Health Professions project: Team-Based Care Medical Student Elective</td>
</tr>
<tr>
<td>2019</td>
<td>Lenna Finger, MD</td>
<td>Harvard Macy</td>
<td>Internal Medicine/Pediatrics</td>
<td>Training in Behavioral Health Intervention and Interdisciplinary Collaboration</td>
</tr>
<tr>
<td>2019</td>
<td>Liza Hoffman, MSW, LICSW</td>
<td>Harvard Macy</td>
<td>Primary Care - Behavioral Health Integration</td>
<td>Leading Innovations in Health Care &amp; Education project: Population Health in Psychiatry Co-funded with the Department of Psychiatry</td>
</tr>
<tr>
<td>2019</td>
<td>Miriam Tepper, MD</td>
<td>Harvard Macy</td>
<td>Psychiatry</td>
<td>Leading Innovations in Health Care &amp; Education project: Experience-Based Co-Design in Child Psychiatry Co-funded with the Department of Psychiatry</td>
</tr>
<tr>
<td>2019</td>
<td>Nicholas Carson, MD, FRCPC</td>
<td>Harvard Macy</td>
<td>Child Psychiatry</td>
<td>Leading Innovations in Health Care &amp; Education project: Development of a Nurse Practitioner Residency in Primary Care at CHA. Co-funded with Nursing and Primary Care</td>
</tr>
<tr>
<td>2019</td>
<td>Lynne Crawford, APRN</td>
<td>Harvard Macy</td>
<td>Medicine &amp; Nursing</td>
<td>Improving the Onboarding Process of Physician Assistants at a Primary Care Clinic through PA Mentorship</td>
</tr>
<tr>
<td>2018</td>
<td>Bree Dallinga, PA-C</td>
<td>Harvard Macy</td>
<td>Surgery</td>
<td>Leading Innovations in Health Care &amp; Education project: Social Determinants of Child &amp; Family Mental Health: Curricular and Experiential Learning for Child &amp; Adolescent Psychiatry Fellows at Cambridge Health Alliance</td>
</tr>
<tr>
<td>2018</td>
<td>Pauline Mathewson, PA-C</td>
<td>Harvard Macy</td>
<td>Primary Care</td>
<td>Medical Detective Rounds: Adopting case-based, collaborative learning in the clinical year for Cambridge Integrated Clerkship Students</td>
</tr>
<tr>
<td>2018</td>
<td>Lee Robinson, MD</td>
<td>Harvard Macy</td>
<td>Psychiatry</td>
<td>Clinical Reasoning in Graduate Medical Education</td>
</tr>
<tr>
<td>2018</td>
<td>Hugo Torres, MD</td>
<td>Harvard Macy</td>
<td>Internal Medicine</td>
<td>Cognitive Behavior Therapy for Chronic Pain in Primary Care</td>
</tr>
<tr>
<td>2017</td>
<td>Peter Brown, PhD</td>
<td>Harvard Macy</td>
<td>Psychiatry</td>
<td>Leading Innovations in Health Care &amp; Education project: MedProctor in the Inpatient Setting</td>
</tr>
<tr>
<td>2017</td>
<td>Rachel Hathaway, MD</td>
<td>Harvard Macy</td>
<td>Internal Medicine</td>
<td>Procalcitonin testing at CHA: Is our Algorithm Working?</td>
</tr>
<tr>
<td>2017</td>
<td>Lenna Finger, MD</td>
<td>Harvard Macy</td>
<td>Internal Medicine</td>
<td>Program for Educators in Health Professions project: Resident Training in Behavioral Health Intervention and Interdisciplinary Collaboration</td>
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</tbody>
</table>
### E. CHA-Gold Innovation Fellowship Program

<table>
<thead>
<tr>
<th>Year</th>
<th>Recipient</th>
<th>Project Title</th>
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<tbody>
<tr>
<td>2018</td>
<td>Margaret Buckley, RN, MSN</td>
<td>Bedside Change of Shift for ED Nurses</td>
</tr>
<tr>
<td>2018</td>
<td>Christina Phillips, MD</td>
<td>Avoiding Avoidable ED Visits</td>
</tr>
<tr>
<td>2018</td>
<td>Lee Robinson, MD</td>
<td>Integrated Care for Patients with Neurodevelopmental Disorders</td>
</tr>
<tr>
<td>2018</td>
<td>Amy Smith, MD, MPH</td>
<td>Primary Care Redesign: Empowering Teams, Liberating Access</td>
</tr>
<tr>
<td>2018</td>
<td>Randi Sokol, MD, MPH, MMedEd</td>
<td>Initiating Medication Assisted Treatment for Opiate Use Disorder in the Acute Setting</td>
</tr>
<tr>
<td>2018</td>
<td>Rebecca Sweeney, RN, MSN, MBA</td>
<td>Peer Recovery Coaches for Substance Use Disorders</td>
</tr>
<tr>
<td>2018</td>
<td>Cecilia Buckley, RN, MSN, MBA</td>
<td>Leader Rounding to Improve Patient Experience at Everett Hospital</td>
</tr>
<tr>
<td>2017</td>
<td>Nicholas Carson, MD</td>
<td>Co-Producing Health Decisions for Families at the Interface of Behavioral Health and Primary Care</td>
</tr>
<tr>
<td>2017</td>
<td>Serena Chao, MD</td>
<td>Improving Dementia Care in the CHA House Calls Program</td>
</tr>
<tr>
<td>2017</td>
<td>Ellie Grossman, MD</td>
<td>Improving Entry into Treatment for Opioid Use Disorder at CHA</td>
</tr>
<tr>
<td>2017</td>
<td>Fiona McCaughan, RN, MS</td>
<td>Developing a Patient-Care Team Co-management Model for Diabetes Management</td>
</tr>
<tr>
<td>2017</td>
<td>Miriam Tepper, MD</td>
<td>Planning Together - Use of the care plan the support the health goals of adults with serious mental illness</td>
</tr>
<tr>
<td>2017</td>
<td>Leah Zallman, MD, MPH</td>
<td>Co-producing provider engagement: a novel paradigm</td>
</tr>
<tr>
<td>2015</td>
<td>Richard Balaban, MD</td>
<td>Engaging Patients and PCPs to Ensure Timely and Appropriate Post-Discharge Care</td>
</tr>
<tr>
<td>2015</td>
<td>Chris Fischer, MD</td>
<td>Implementation of a Chest Pain Clinical Pathway in the Emergency Department</td>
</tr>
<tr>
<td>2015</td>
<td>Lorky Libaridian, MD</td>
<td>Heart Healthy Hypertension Program</td>
</tr>
<tr>
<td>2015</td>
<td>Rob Marlin, MD</td>
<td>The Firehouse Model: Creating Community Health Worker Teams to Engage Vulnerable Patients in the CHA Catchment Area</td>
</tr>
<tr>
<td>2015</td>
<td>Colleen O'Brien, PsyD</td>
<td>Co-producing Primary Care Behavioral Health Using Wellness Recovery Action Planning (WRAP)</td>
</tr>
</tbody>
</table>
II. CHA Educational Programs

In depth descriptions of CHA’s educational programs can be found on our external website www.challiance.org/academic/cha-academics. The following updates highlight recent innovations within these selected programs.

A. Adult Psychiatry Training Program - New Initiatives

The Adult Psychiatry Training Program has been working on curriculum initiatives in psychopharmacology, neuroscience, psychotherapy and quality improvement curricula. Each of these areas is a core area of clinical and didactic learning that is repeated and built upon in each training year for general psychiatry residents. For our psychopharmacology and quality improvement curricula, we have focused on matching didactic curricula to the specific learning needs of each training year and building progressive sophistication with each training year. As an example, psychopharmacology coursework progresses from practical, on-call oriented content at the end of the PGY1 year, through a detailed review of medications organized by medication family in the PGY2 year, and culminates with a “junior attending” model in the PGY4 year, in which residents attend a faculty seminar and serve as peer consultants (with faculty supervision) on complex psychopharmacology cases. In QI and patient safety, PGY1 residents receive a basic education in terms and applicability to the psychiatric context through a case-based curriculum. They then build upon their skills with progressive independence through case presentations that simulate an RCA experience and a group QI project in the PGY2-4 years.

For psychotherapy and neuroscience, our focus has been on integrating more national cutting-edge and best-practice approaches into our own residency’s curriculum. These initiatives have included increasing faculty development and engagement for our psychotherapy faculty supervisors and augmenting our existing Cognitive Behavioral Therapy (CBT) curricula by exploring increased faculty supervision and integration of CBT content into all training years. For our neuroscience curriculum, we have progressively increased our utilization of curricula from the National Neuroscience Curriculum Initiative (NNCI), with training directors participating in annual NNCI training opportunities. We are revising our PGY3 and PGY4 neuroscience didactic curricula to include more NNCI modules, grouped into a PGY3 course focusing on normal anatomy and physiology followed by a PGY4 course focusing on the neuroscience underlying psychiatric disorders and symptoms, including how to integrate neuroscience into patient care and education.

B. Family Medicine Residency Program - New Initiatives

A Focus on Leadership and Excellence

The Family Medicine Department at CHA is the home to the family medicine residency program. The residency, affiliated with Tufts University School of Medicine and now in its 27th year, is one of the premier family medicine programs in the U.S. Its nationally recognized faculty attracts graduates from top medical schools as well as students from Tufts and Harvard who seek mentoring and clinical experiences.

The residency program seeks to impact family medicine training and practice nationally with focus on primary care transformation and health equity. The program was one of just 14 (2.3%) family medicine residencies in the nation selected to participate in “Preparing the Personal Physician for Practice” national demonstration project exploring residency redesign to support concepts of patient centered medical home. The residency has been recognized as a program of excellence in an AAMC report highlighting characteristics of the highest functioning primary care residency clinics in the nation. The program has a focus on health equity and successfully recruits residents to match the diverse population we serve. 58% of its current residents are people of color. Uncharacteristic of most family medicine training programs, approximately one third of each year’s graduates seek further fellowship training. A significant proportion of CHA’s Family Medicine Residency Program graduates joined the faculty at medical schools such as Tufts, HMS, Boston University, Universities of California - San Francisco and Davis, and Pennsylvania State, Hershey.
Skill Development in Team-Based Care and Population Management

By practicing in our NCQA Level 3 Patient-Centered Medical Home practice in Malden, residents develop leadership skills in team-based care. Our longitudinal curricula in Leadership and Improvement Science and in Community Medicine and Equity provide a solid knowledge base to support learners’ development in these areas. We are creating practices where patients and their communities can support and grow with each other. We deliver the clinical and didactic training needed to provide excellent care across the spectrum of primary care, population health, mental health and substance abuse. Our clinic has group visits for prenatal care, weight loss and wellness and opioid addiction. Medical students observe residents in leadership roles in the practice, such as leading clinical teams, group visits and quality improvement activities. The milieu cultivates a passion both for continued learning and health equity.

Competency-Based Education

The residency has been a leader nationally in the competency-based education movement. Faculty members have been involved in the formation of ACGME’s “Next Accreditation System” for residency training and have developed competency definitions, curricula and assessment tools that have been published and used nationally. Residents also have the option of developing additional proficiency by selecting an area of concentration. Faculty have drawn the attention of a serial entrepreneur and are part of a start-up company designing next-generation assessment systems to capture high frequency/low stakes feedback to accelerate adult learning.

Evidence-Informed Decision Making

The residency is a national leader in teaching the basic science of evidence-based medicine, the applied science of information mastery and the application of cognitive science to improve decision making. Our curriculum, which has been evaluated and published, is used nationally by residency programs. Residents develop the knowledge and metacognitive skills necessary to monitor their decision making to improve patient care.

Education and Population Research

The faculty comprises several clinician-researchers who have published extensively. Education research focuses on the development of competency-based education, assessment techniques and curriculum innovations such as group visits and the role of reflective writing in resident self-development.

Quick Stats

- Eight-eight-eight (total = 24 residents) three-year categorical family medicine residency program;
- Eight core faculty physicians, with 30 additional part-time teaching faculty;
- 58% of our residents are people of color 31% are underrepresented minorities in medicine.
- Fellowships:
  - Master Teacher Fellowship (includes Masters of Medical Education);
  - Reproductive Health and Advocacy;
- Medical students trained each year from Tufts, HMS and other schools.
- Research areas: Education innovations, outpatient based opioid treatment and addictions care, value based care, primary care transformation, primary care-based Hepatitis C treatment, clinical practice guideline development, the role of conflicts of interest in medical research.
- Each resident conducts over 2,000 primary care patient visits over his/her three years.
- Second and third year residents have patient panels of ~400 patients each.

Selected Bibliography


C. Harvard Medical School Clinical Capstone Clerkship in Emergency Medicine at Cambridge Hospital

In 2019, CHA and the other Harvard Medical School-affiliated teaching sites implemented the Clinical Capstone program, a required clinical clerkship that supplements the HMS principal clinical experience (PCE). These HMS Clinical Capstone clerkships emphasize further preparing fourth year medical students for assumption of core duties and responsibilities in a few short months as junior clinicians beginning internship and residency. Unlike their previous rotations, the Clinical Capstone clerkship is purely formative. Students receive coaching and feedback from seasoned clinicians while they continue to develop their individual professional skills and care for patients in an active clinical setting. The CHA Emergency Medicine Clinical Capstone clerkship takes place in the Cambridge Hospital Emergency Department providing front-line exposure to our diverse community.

D. Internal Medicine Residency Program - New Initiatives

Social Medicine & Research-Based Health Advocacy Curriculum

The Social Medicine and Research-Based Health Advocacy curriculum was initially established in 2005 by Danny McCormick, MD, MPH, as an elective course. Recognizing the popularity of the course, and its importance in medical professionalism, the course was transformed into a required curriculum in 2012. All internal medicine residents now receive over 100 hours of curricular programming taught by Dr. McCormick and Gaurab Basu, MD, MPH. They learn about health disparities, social justice, U.S. healthcare reform, global health and human rights. They are introduced to quantitative and qualitative research methodology and participate in skills workshops on public narrative and community organizing/power mapping.

A central component of the course is the research-based health advocacy project, which enables experiential learning. Residents work as a group to identify a socioeconomic factor that has unjustly influenced their patients’ care and then develop a research study to investigate it. They then use their findings to bring awareness to the issue and to try to influence policy. Last year, the residents’ project on the impact of the Affordable Care Act on Americans with chronic disease was published in Annals of Internal Medicine (Torres et al.) and featured in popular media such as CNN, ABC News and Kaiser Health News. Residents also wrote an op-ed on the topic that was published by NPR/WBUR’s CommonHealth blog. Other recent project topics include: a survey of access to buprenorphine providers in Massachusetts and of curriculum for addiction treatment among U.S. internal medicine residency programs, and the effect
of healthcare reform on safety net hospitals: view from the CEO’s office.

In the last year, the course has developed increasing national attention. A descriptive paper was published in *Academic Medicine* (Basu et al.) in 2017, and it was highlighted in STAT News, the Harvard Macy Institute’s blog and the Harvard Medical School Academy’s Insights newsletter.

Recent qualitative studies have explored how the course has impacted knowledge and skill development, and the course’s role in increasing inspiration and sense of self-efficacy. The qualitative study suggests that the course helps many prepare for roles as health advocates and may support residents in finding purpose, aligning personal values with their professional roles and mitigating burnout during training and beyond.

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**Selected Bibliography**


Basu G, Dryden EM, Pels RJ, Stark RL, Jain P, Bor DH, Sullivan AM, McCormick D. Taking the spark...and teaching them how to light a fire. Lessons from A Social Medicine & Advocacy Curriculum *(submitted for publication).*

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**E. Oral Health at CHA**

In 1994, the Windsor Street Care Center of Cambridge Health Alliance (CHA) became part of the Harvard School of Dental Medicine’s affiliated dental services. A formal affiliation agreement was signed on May 7, 2003.

The original idea stemmed from a collaboration between Dr. Chester Douglass and Dr. David Bor. CHA has a unique place in the community it serves – it provides health care to Cambridge as it has both a public health facility and a local hospital. The Windsor Street Care Center has received recognition from the City of Cambridge for its important work.

Providing oral health services, an important aspect of general health, required attention. A dental service was implemented with Dr. Douglass as the head. As the needs became more apparent, a general practice dental residency, under the direction of Dr. John Zdanowicz, was started. Dr. Brian Swann then joined the service as both the chief of the oral health department and the clinical residency program. Based on current reviews, additional faculty may be added to assist with the many ongoing projects.

The existence of the general practice residency offers a unique opportunity to address the longstanding problem of the separation of medicine and dentistry. With the guidance of Dr. Donald Giddon, the concept of a medical-dental integration was established within the residency, having joint programs with other medical specialties, especially with primary care/family medicine. The program also utilizes the facilities at the dental school to enrich the experience of its residents. The “oral physician” rotation has developed innovative delivery systems like group visits, incorporating the medical interview into the scope of practice, cross training pharmacy students, and developing oral health interventions for diabetic patients. Several scholarly articles have also been published about the important work of the program. It is also notable that the program attracts high caliber applicants, most who are interested in caring for patients from a diverse socio-economic population.

In February of 2016, discussions began with the CHA Executive Committee regarding the potential of developing a dual degree program between the medical and dental school. These graduates would then complete a combined general dental and family medicine residency; there is currently one person in the family medicine portion of such a program. Drs. Donoff and Hundert have met with CHA senior staff who have approved this concept and further planning and development between HMS and HSDM are underway. This would be an innovative example of interprofessional education and practice. In addition, first and second year dental students are rotating through the dental clinic in order to observe primary care dentistry within a safety net organization on patients with complex medical histories, and to conduct medical interviews in the oral health setting. Our residents have become ambassadors thought out various primary care settings including special rotations in the hospital emergency departments. We also send residents to screen children and educate parents about oral disease prevention at two
Women’s, Infants and Children (WIC) nutritional programs. We screen and treat homeless patients from the Salvation Army’s homeless shelter monthly. We are assisting in the development of school based dental programs at Somerville and Everett High Schools. We have also integrated into the mass School of Pharmacy by bringing more power into their oral health lecture. We have our residents participate in the Harvard School of Medicine’s Oral Health Day workshop and lecture. Our presidents are giving lectures to second year dental students at Harvard about inter profession training, applicable pharmacology and multidisciplinary approaches to specialty dental care within the dental school. The oral physician concept is a work in progress and it is important to provide as many multifaceted opportunities to help the next generation of oral health providers better appreciate their capacity.
III. Publications

This listing is necessarily incomplete. It covers the 2017 and 2018 calendar years and includes peer reviewed articles only. We created this list by searching the National Library of Medicine database for articles where Cambridge Health Alliance was included among the author’s affiliation. In addition, we contacted all Department Chiefs and our major researchers to augment the list. Thus, this listing does not include our colleagues’ many book chapters, non-peer reviewed articles or op ed blogs, posts and other contributions found in the lay press. It only includes journals that are listed by Medline. We apologize if your work was not referenced.

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<td>When is a guideline not a guideline? The devil is in the details.</td>
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<td>Why Are We So Slow to Adopt Some Evidence-Based Practices?</td>
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* Colleagues have selected these publication to be of special interest.