EAB

Health Professions

Capitalizing on Creative Disruption

COE Forum

Industry Futures Series

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About EAB

EAB is a best practices firm that uses a combination of research, technology, and data-enabled services to improve the performance of more than 1,200 educational organizations. EAB forges and finds the best new ideas and proven practices from its network of thousands of leaders, then customizes and hardwires them into every level of member organizations, creating enduring value. For more information, visit eab.com.

About the COE Forum

The COE Forum is a member-based organization that provides best-practice research and market intelligence for continuing, online, and professional higher education leaders.

We offer our members expert advice and innovative strategies for tackling their most pressing issues, tested and proven to work by their peers at other institutions across the country. Our research terrains of expertise include best-in-class marketing and recruiting, employer-focused market research, and leading campus innovation.

Table of Contents

Top Lessons from the Study 6
Introducing Creative Disruption 7
Legislative Disruption in Health Care. 8
The Growth Portfolio: Health Informatics. 15
The Growth Portfolio: Mental Health Counseling 23
The Growth Portfolio: Therapy Professions. 30
The Health Professions Glossary 37

Supporting Members in Best Practice Implementation

Resources Available Within Your Membership

This publication is only the beginning of our work to assist members in creating and improving health professions programs. Recognizing that ideas seldom speak for themselves, our ambition is to work actively with members of the COE Forum to decide which practices are most relevant for your organization, accelerate consensus among key constituencies, and save implementation time.

We offer a variety of services to assist you with your mission. For additional information about any of the services detailed below, please contact your organization's relationship manager or visit our website at eab.com. To order additional copies of this publication, please search for it by title on eab.com.

Implementation Road Maps and Tools

Throughout the publication, this symbol will alert you to any corresponding tools and templates available in the Toolkit at the back of this book. These tools are also available on our website at eab.com.

Recorded and Private-Label Webconference Sessions

Our website includes recordings of two hour-long webconferences walking through the practices highlighted in this publication.

Forum experts are also available to conduct private webconferences with your team.

Unlimited Expert Troubleshooting

Members may contact the consultants who worked on any report to discuss the research, troubleshoot obstacles to implementation, or run deep on unique issues. Our staff conducts hundreds of telephone consultations every year.

Facilitated Onsite Presentations

Our experts regularly visit campuses to lead half-day to day-long sessions focused on highlighting key insights for senior leaders or helping internal project teams select the most relevant practices and determine next steps.

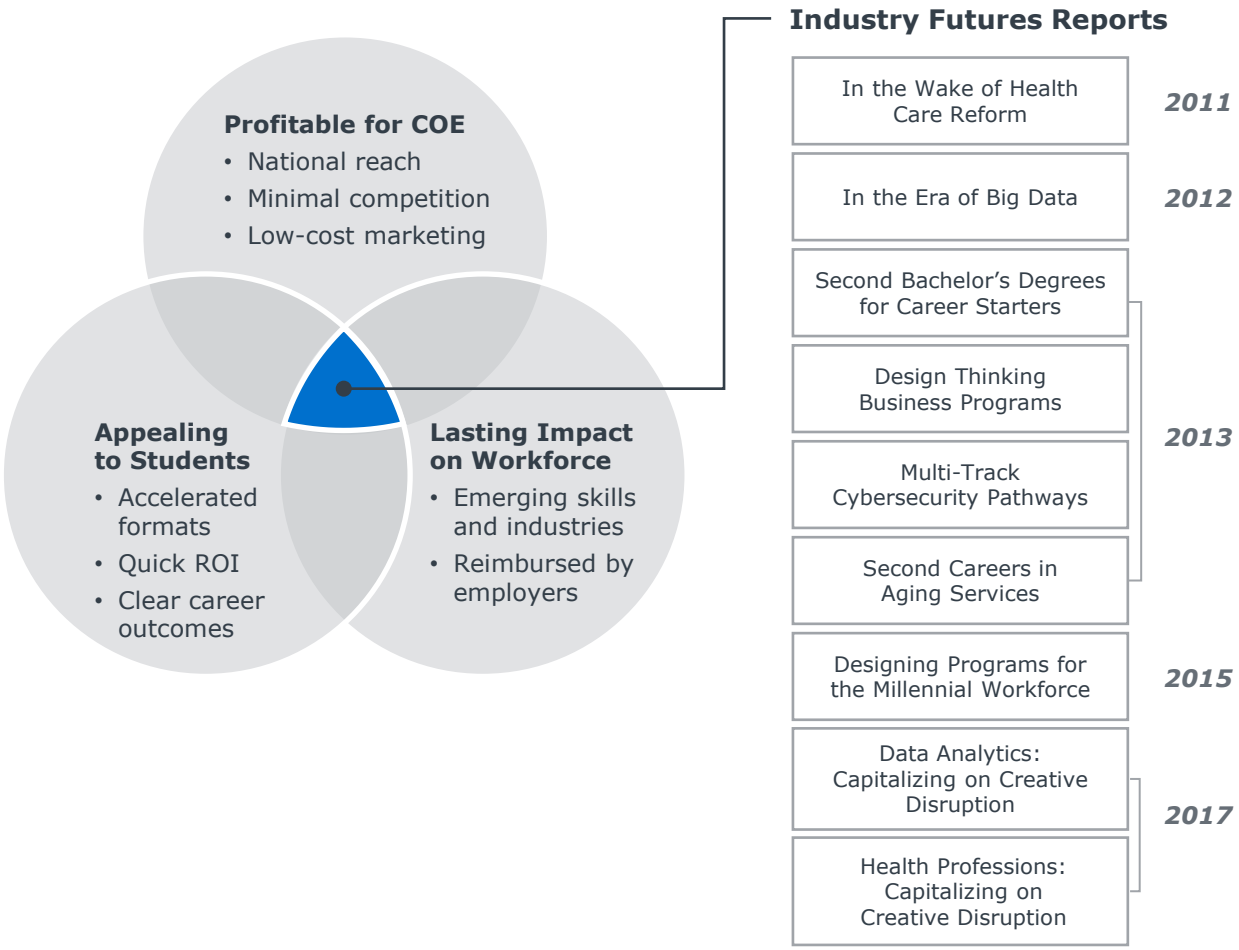
To access the full range of services available to you, please visit our website at eab.com/coe.

About the Industry Futures Series

Programs at the Intersection of Profit, Mission, and Employability

This study is the fifth installment of the Industry Futures series. Through analyses of real-time labor market data and interviews with industry thought leaders, COE deans, and program directors, the series examines the trends likely to have the greatest impact on occupation growth and upskilling needs over the next decade.

Based on member feedback, 2017's studies focus on changes in two fast-growing fields: Data Analytics and Health Professions. The studies assess the continued evolution in demand drivers, emerging employer hiring preferences, trends in the competitive environment, changes in student audiences and skill acquisition goals, and the latest developments in the credentials that can serve these two expansive fields.



Top Lessons from the Study

Health Professions: Capitalizing on Creative Disruption

Health Care Reform Legislation Increases Employer Demand for Health Professions

- The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA[1]) mandated new reimbursement mechanisms to replace fee-for-service and improve health care quality. To achieve these goals, MACRA awards bonuses to health care providers for reducing acute care consumption and imposes penalties for inefficient, low-quality care.
- Health professionals, also known as allied health professionals, provide the preventative and managed care that help health care providers deliver the patient outcomes that MACRA rewards. Health profession occupations range from health informaticists to lab technicians and home health aides to dietitians. Collectively, they are some of the fastest growing occupations in the United States and many are upcredentialing.

Pinpointing the Four Most Viable Health Professions programs for COE Units

- The COE Forum employed a portfolio assessment methodology to categorize more than 65 health professions into seven groups. Each group was then evaluated on its growth potential and fit with a COE portfolio to find the most promising categories and occupations.
- The methodology identified a portfolio of long-term COE program opportunities: Health Informatics, Mental Health Counseling, Physical Therapy, and Occupational Therapy.

The Health Professions Growth Portfolio

The growth portfolio consists of the following health profession programs:

- **Health informatics—a key part of a COE health care portfolio, but existing programs need to evolve given push for new accreditation standards and professional certifications.** Health care has ever-expanding data integration, system interoperability, and reporting needs that informaticists are well-positioned to serve. The proliferation of health informatics programs, the lack of common standards due to the absence of accreditation requirements, and employer confusion over graduates' skill sets has prompted standardization initiatives. CAHIIM, the accrediting body, is adopting new competency-based standards and the two professional associations have introduced new informatics professional certifications.
- **Mental Health Counseling—growing demand for mental health care creates a lasting market that can be served via two distinct programs.** Bipartisan health care legislation has increased access to mental health care. The resulting demand for mental health counselors may be served by two degree programs: the Master of Clinical Mental Health Counseling and the Master of Social Work. Both programs are viable options, but different curricula and accreditation requirements can make one program a better fit for a given institution.
- **Physical Therapy (PT) and Occupational Therapy (OT)—for those that can overcome the barriers to launching either program, high returns are likely.** There is a dramatic shortage of physical therapists and occupational therapists, with at least 15 job postings per new graduate. Programs are net revenue-generating, with high tuition and over a 100 required credits. However, the shortfall in PT and OT graduates persists due to exacting accreditation standards, especially for clinical placements and start-up costs ranging between $1 million and $4 million.

1) Brief descriptions for MACRA, and all of the health-specific terminology used in this study, can be found in the glossary on pages 37 and 38.

Introducing Creative Disruption

Creative disruption is about positioning your COE unit to take advantage of the opportunities and sidestep the challenges created by profound shifts in the marketplace. Attempts to improve the efficiency and effectiveness of the health care industry have led to waves of health care reform legislation. Reform modifies incentive structures for health care providers, creating access for more people and pushing providers toward outcomes-based business models.

While disruption creates threats, creative disruption is a way of thinking that emphasizes the growth opportunities unlocked for organizations that identify them early and act accordingly.

COE units are well positioned to take advantage of structural changes in health care as they possess the necessary innovative thinking and marketplace agility. As the quote from Michael Horn, co-founder of the Clayton Christensen Institute for Disruptive Innovation, indicates, taking advantage of disruptive innovation is intrinsic to the mind-set of COE units.

Disruption Generates Opportunities for COE

Creative Disruption

> "In **Creative Disruption,** the goal is to expose flaws in the current business model, highlight areas where improvement/changes are needed, and to help **inspire adaptation of the business model for future growth**."
>
> *Dr. Kenneth Thurber, "Do NOT Invent Buggy Whips: Create, Reinvent, Position, Disrupt"*

COE Units as the Solution

CHRISTENSEN INSTITUTE

"…Continuing education programs are less regulated, more responsive to industry and consumer needs…and are often infused with the 'startup mentality' critical for **responding to and pioneering disruptive innovations."**

Michael Horn, "Why Continuing Education Programs Are Poised to Become Hubs of Innovation"

Source: Horn M, "Why Continuing Education Programs Are Poised to Become Hubs of Innovation," *EdSurge*, https://www.edsurge.com/news/2016-08-30-why-continuing-education-programs-are-poised-to-become-hubs-of-innovation; Thurber K, *Do NOT Invent Buggy Whips*, 2012; EAB interviews and analysis.

Legislative Disruption in Health Care

The Patient Protection and Affordable Care Act, known as the ACA or Obamacare, launched the most comprehensive health care reform effort of the 21st century. The ACA was designed to achieve three primary goals:

1. Replace fee-for-service reimbursements
2. Improve care quality
3. Achieve universal, affordable coverage

The ACA largely succeeded in providing affordable universal coverage, insuring an additional 20 million Americans. However, as noted in the assessment at the right from Advisory Board, our sister company that focuses on health care, the ACA achieved mixed success in replacing fee-for-service and improving care quality.

Health care reform keeps evolving to meet those goals, most recently with the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) and the 21st Century Cures Act of 2016. Each law regulates the delivery of care and changes incentive structures for health care providers.

Health Care Reforms Pursue Three Goals

Reform Goal	Broad Definition
Replace Fee-for-Service Reimbursements	Institute alternative payment models to pay providers for outcomes instead of volume of services rendered.
Improve Care Quality	Mandate IT standards, increase transparency, and incentivize reduced readmission and hospital-acquired conditions rates.
Achieve Universal, Affordable Coverage	Improve overall population health and increase access to health care.

Advisory Board

ACA Report Card Through 2016

Replace Fee-for-Service Incentive Structures	C-
Improve Health Care Quality	B
Achieve Universal, Affordable Coverage	A-

Source: Advisory Board interviews and analysis; EAB interviews and analysis.

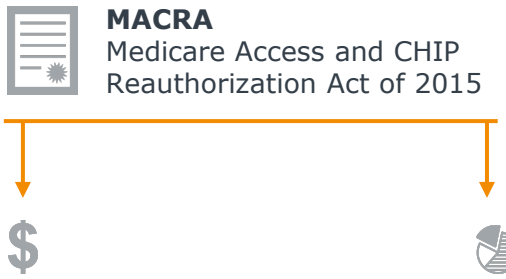
Medicare Reimbursement: A Critical Reform

The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) was designed to reinforce structural reforms: replacing fee-for-service and improving health care quality. It came into force in January 2017.

MACRA creates new reimbursement mechanisms that most providers have to adopt. Specifically, Medicare reimbursements will be:

1. Tied to patient outcomes as opposed to the delivery of services with providers (hospital systems and physician groups) incented to adopt alternative payment models (APMs).
2. Bound to a variety of performance metrics for service quality.

MACRA Boosts Two Key Reform Objectives



A Primer on MACRA and APMs

Physicians must now participate in one of two performance-based reimbursement options: the Merit-Based Incentive System (MIPS) or Alternative Payment Models (APMs). While APMs offer better potential rewards, they have stricter requirements so most physicians will start in MIPS and adopt APMs over time.

Option 1: MIPS

- Traditional fee-for-service with positive or negative payment adjustments based on quality metrics
- High, but flexible, reporting requirements
- Relatively lower reimbursements starting in 2026

Option 2: APMs

- Must participate in a qualifying, risk-bearing APM[1]
- Additional 5% bonus on final payments in addition to APM reward or penalty
- Relatively higher reimbursements starting in 2026

1) APMs necessarily have high reporting requirements.

Source: Advisory Board interviews and analysis; EAB interviews and analysis.

No Turning Back on Reform

The nature and pace of health care reform is subject to changes in administration, especially when the incumbent party is replaced. In May 2017, the Republican government's attempt to repeal and replace the ACA with the American Health Care Act (AHCA) survived the House of Representatives after contentious negotiations. As of this study's publication, the ACA's future remains uncertain. That said, MACRA—legislation stipulating Medicare providers will be paid based on the quality and effectiveness of care—remains untouched.

In 2015, MACRA was passed by both houses with significant bipartisan support. As mentioned previously, it went into effect in January 2017. There is no evidence that cross-party support for MACRA and its structural reforms has waned.

Despite Different Priorities, Legislative Goals Persist

MACRA Garnered Bipartisan Support

92-8 Senate vote on MACRA

392-37 House vote on MACRA

> "This historic law has been a collaborative effort from the start. We are encouraged by this final rule and the Centers for Medicare & Medicaid Services' commitment to ongoing collaboration with Congress and the health care community."
>
> *Democrat and Republican Leaders from the House Energy and Commerce Committee and Ways and Means Committee*

Source: Ways and Means Committee, "Bipartisan Ways and Means, Energy and Commerce Leaders Comment on Final MACRA Rule," https://waysandmeans.house.gov/bipartisan-ways-and-means-energy-and-commerce-leaders-comment-on-final-macra-rule/; Advisory Board interviews and analysis; EAB interviews and analysis.

MACRA: Providing Lower Cost and Better Care

The bipartisan approval of MACRA suggests that replacing fee-for-service and improving quality are shared imperatives that will endure.

To adhere to reimbursement rules, doctors and nurses have to manage patient outcomes holistically. Doing so requires the services of other health professionals.

These health professions (sometimes called allied health professions) play a key role in delivering patient outcomes. As the definition indicates, they ensure patient compliance with prescribed treatments, offer continual counseling and care, operate specialized equipment, model and analyze data, and provide rehabilitation services. Occupations within health professions range from behind-the-scenes workers, such as health informaticists and lab technicians, to patient-facing caregivers, such as home health aides and dietitians.

The diabetic example illustrates how MACRA promotes the use of health professions. The dietitian and health coach work with a patient to encourage healthier eating. These services incur costs. However, better nutrition prevents future trips to a doctor's office, earning rewards for the provider under MACRA.

Defining Health Professions

Health Professionals Deliver Services Involving:

The identification, evaluation, and prevention of diseases and disorders.

Nutrition, rehabilitation, and therapy.

Health systems management.

Support care directly for a patient at the request of a medical provider.

How MACRA Enhances the Role of Health Professions

Pre-MACRA: Diabetic Patient

1. Doctor is paid for every acute care episode.
2. No mechanism in place to encourage diabetic's adherence to treatment and diet.
3. Relapses are fully covered by Medicare.

MACRA: Diabetic Patient

1. Doctor is paid for a limited number of acute episodes.
2. After the limit, doctor is required to provide care at no cost.
3. The doctor is incentivized to provide care beyond the health facility.
4. Doctor enlists a dietitian and a health coach to encourage adherence to diet and treatment.
5. The patient follows the dietitian's plan and avoids future trips to the doctor, which would have not been reimbursed by Medicare.

Source: EAB interviews and analysis.

Going Up and "Growing Up"

Alternative payment models accelerate demand for health professionals. From 2012, when many of the ACA's provisions were starting to impact health care providers, to the end of 2016, the number of health profession job postings nearly doubled.

MACRA's implementation in 2017 forces providers to adapt to new payment regulations. Providers are hiring more health professionals and will continue to do so as rewards and penalties grow over time.

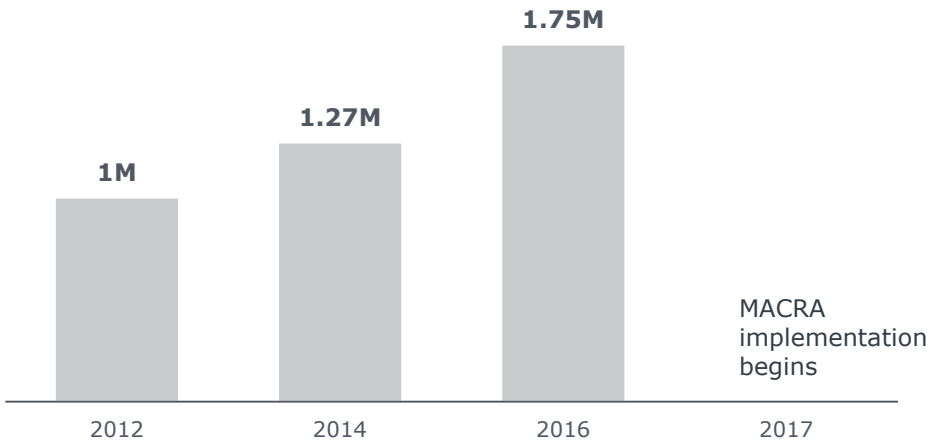
Reflecting the growing importance of health professions to health care, many associations wish to enhance their members' standing and capabilities by elevating the minimum credential needed to practice.

Unlike the mandate for Registered Nurses to earn a Bachelor of Science in Nursing, health professions grandfather in current practitioners, so they are not required to obtain the higher degree.

Health Professionals Grow in Number and Credentials

In 2016: Nearly Two Million Health Professions[1] Jobs

Health Professions Job Postings



Upcredentialing at All Levels

1) As defined on page 11.

Source: Guterl G, "A Seat at the Table," *Advance Healthcare Network for Speech and Hearing,* July 8, 2013; Burning Glass Labor/Insight™; EAB interviews and analysis.

Portfolio Assessment Methodology

EAB identified 65 distinct health professions through labor market demand analyses. To pinpoint the most viable opportunities for COE units, EAB created a methodology to assess each profession's growth potential and fit with a COE portfolio.

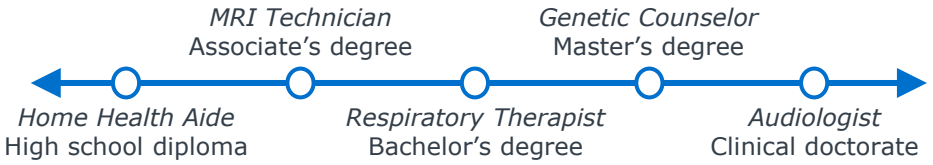
First, the EAB Assessment Methodology grouped the professions into seven categories based on common degrees, similar patient populations, and shared competencies.

Each category was then evaluated using the four filters outlined on the page: employer demand trends, credential fit with a COE portfolio, ease of accreditation, and revenue potential. This identified the three most promising categories.

Finally, each profession within these three categories was assessed using the four filters to develop a portfolio of long-term COE program opportunities.

Diversity of Health Roles Makes COE Filtering Critical

65 Health professions across degree levels



7 Categories of professions

- General Technicians
- Technicians
- Counselors
- Therapists
- Aides and Assistants
- Doctors' Assistants
- Population Health Team

4 Filters for COE category opportunity

Labor Market Demand	Credential Fit	Accreditation Accessibility	Financial Feasibility
• Supply-demand gap • BLS projections	• Certificates • Masters • Clinical doctorates	• Difficulty of accreditation	• Revenue potential

3 Most viable categories

- Therapists
- General Technicians
- Counselors

4 Filters for COE profession opportunity

Labor Market Demand	Credential Fit	Accreditation Accessibility	Financial Feasibility
• Supply-demand gap • BLS projections	• Certificates • Masters • Clinical doctorates	• Difficulty of accreditation	• Revenue potential

Source: BLS Occupational Outlook Handbook; EAB interviews and analysis.

The Growth Portfolio

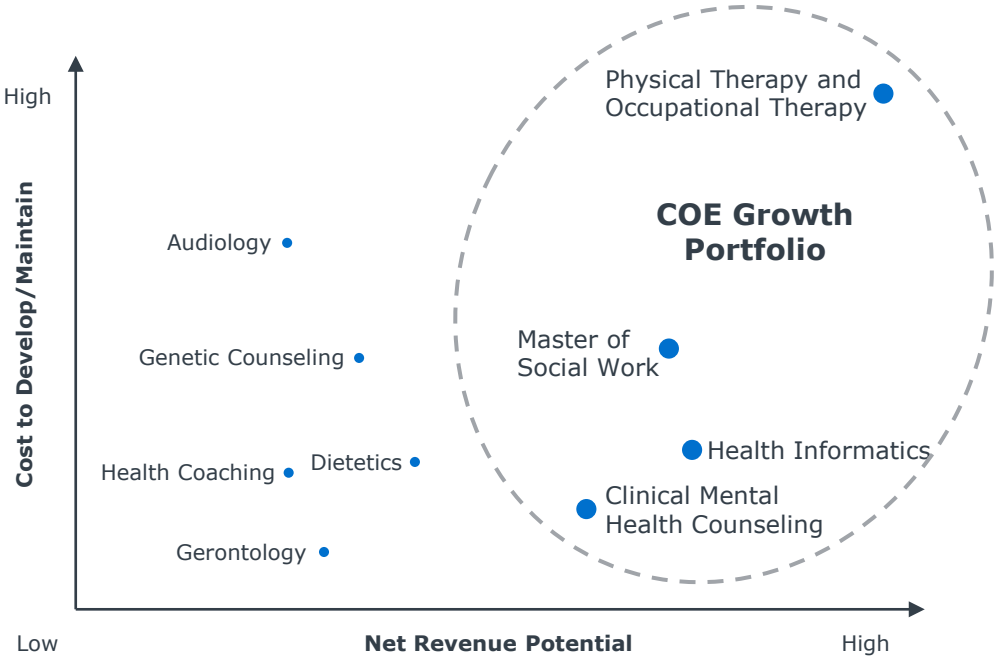
The EAB Assessment Methodology yielded a growth portfolio of the following health profession programs:

Health Informatics is ideal for online delivery to part-time students already working in health care. The program is typically a master's degree.

Mental Health Counseling can be served by two separate programs, a Master of Clinical Mental Health Counseling and a Master of Social Work. The programs attract equal numbers of recent graduates and career changers and advancers. Programs are typically face-to-face or hybrid, and can be delivered in full- and part-time formats.

Physical Therapy and **Occupational Therapy** have similar demand drivers and robust accreditation requirements. The two programs are "blue chips"—expensive to launch, but likely to deliver long-term returns. They are full-time, onsite programs with considerable clinical placements required.

Health Portfolio Assessment Results



Program Definitions

Health Informatics (as defined by the American Medical Informatics Association):
the interdisciplinary field that pursues the effective uses of biomedical data, information, and knowledge for scientific inquiry, problem solving and decision making, motivated by efforts to improve human health

American Medical Informatics Association

Mental Health Counseling:
the evaluation and treatment of psychological disorders.

Clinical Mental Health Counseling:
an approach to mental health counseling from a psychological and intra-personal perspective.

Social Work:
attempts to solve patient problems by understanding and adapting environmental problems and connecting to social solutions.

Physical Therapy:
treatment of injury or disease through rehabilitation and exercise with an emphasis on movement

Occupational Therapy:
treatment of injury or disease through rehabilitation and exercise with an emphasis on daily tasks

Source: American Medical Informatics Association, Bethesda, MD; Burning Glass Labor/Insight™; EAB interviews and analysis.

The Growth Portfolio: Health Informatics

The COE Forum previously spotlighted health informatics as a growth opportunity in the 2011 study "In the Wake of Health Care Reform." Since then, health informatics programs flooded into the market. While health informatics remains a critical function in adapting to health care reforms, expectations are changing for informaticists.

Health informatics is both an interdisciplinary skill set and a profession. As a skill set, it appeals to clinicians, IT staff, and administrators who lead colleagues in technology use. As a profession, it attracts health IT workers interested in careers centered on information strategy and implementation.

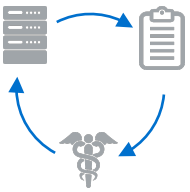
However, employers are demanding new skills from health informaticists: to design user interfaces, improve interoperability, and analyze data.

As expectations expand and more programs enter the market, new accreditation standards and professional certifications seek to establish a baseline curriculum for programs and standard competencies for practitioners.

Opportunity at a Glance

Health Informatics Definition:
the interdisciplinary field that pursues the effective uses of biomedical data, information, and knowledge for scientific inquiry, problem solving and decision making, motivated by efforts to improve human health

American Medical Informatics Association



Three Curricular Pillars:

- Health and health care delivery
- Information science and technology
- Social and behavioral science

Primary Student Audiences

Health care career advancers

- **Clinicians** seeking better data literacy for research or aiming for professional leadership in technology
- **IT staff** interested in health care technology strategy
- **Health care administrators** with responsibility for technology decision making

Secondary Student Audiences

- Career starters from pre-health and liberal arts backgrounds
- IT career changers from other industries

Key Attributes

Demand Gap in 2016:
- Three informaticist job posts per graduate
- Forty-two job posts stipulating health informatics skills per graduate

Demand Drivers:
- Health care reform
- Data-driven health records

Program Enrollments:
- <10 – 300+

Modalities:
- Online
- Hybrid
- Face-to-face

Required Degree:
- None stipulated

Typical Schools:
- Professional Studies
- Medicine
- Health Sciences

Source: American Medical Informatics Association, Bethesda, MD; Burning Glass Labor/Insight™; EAB interviews and analysis.

Health Care Reform Spurs Need for Informatics

Health care reform has emphasized the role of the Electronic Health Record (EHR) in improving health care and lowering costs. Each piece of major health care reform legislation since the HITECH Act of 2009 included funds for health providers to implement EHR systems.

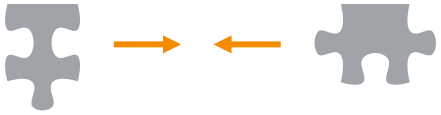
Informaticists are experts in information system design and implementation. They were perfectly suited to design, build, and launch EHR systems for health care providers.

Today, health care has even greater data integration, system interoperability, and reporting needs that informaticists are well-positioned to serve. In 2016, there were nearly twice as many job postings for health informatics skills as there were at the start of the HITECH Act's implementation in 2010.

Strong employer demand is reflected by the more than 100 Master of Health Informatics programs across the country, as of 2016. In EAB research interviews, program directors forecast more universities will launch programs as health care becomes ever more data driven.

The Health Care Job Market Responds to Mandates

Reform Complexities Align with Informatics Skills...



Reform Mandates

- Value-based care
- Population health
- Electronic Health Record use
- Data reporting

Informatics Skills

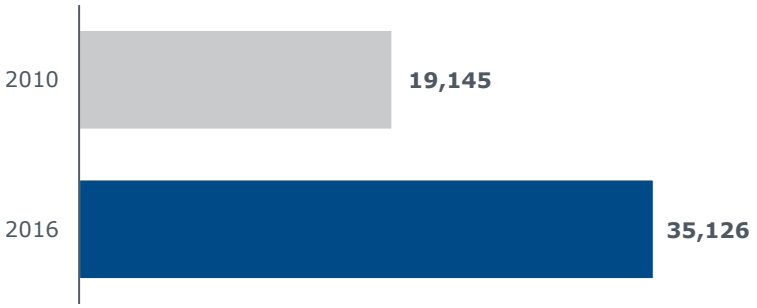
- Electronic Health Record analysis
- Database design and management
- Health information systems
- Data security
- Health modeling

What is an EHR?

An EHR is a rich collection of patient data in text, images, and other files that is often minable, transferable, and connected to patient interfaces.

...And Are Reflected in Market Demand

Health Care Job Posts Stipulating Informatics Skills



Source: Kulikowski CA, et al., "AMIA Board White Paper," *Journal of the American Medical Informatics Association,* 19, no. 6 (2012): 931-8; Burning Glass Labor/Insight™; EAB interviews and analysis.

MACRA Reimbursement Standards Elevate Informatics

To use Medicare's financial clout to push reimbursement reform, MACRA has bonuses and penalties to prompt providers to adopt risk-bearing alternative payment models (APMs). The APMs oblige providers to invest in preventative care and population health measures.

Providers are required to track and report on quality and cost indicators. Therefore, providers must develop robust systems to collect, synthesize, analyze, and report an array of data streams. This need for more systematic data tracking and reporting is spurring demand for informaticists given their role in data and information management.

Medicare Outcomes Critical for Health System Revenue

MACRA's Scale Demands Attention

"MACRA means millions of dollars of income—or losses—for every hospital in the country. We call it **'No outcome, no income.'**"

Dean, College of Population Health

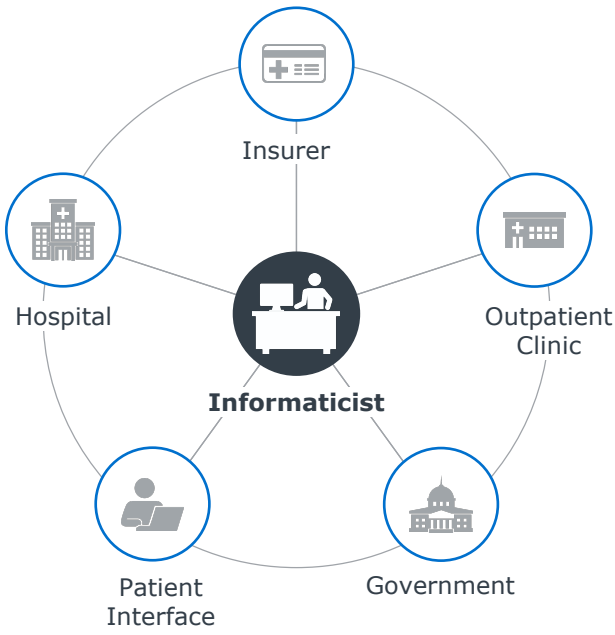
Informatics Pivotal in MACRA-Era Reimbursements

$619B

Total Medicare spending in 2014

+/- 9%

Medicare bonus/penalty based on one of MACRA's reimbursement programs



Need More Insight on MACRA?

The COE Health Care Publication Library has been updated with Advisory Board content.

Source: Centers for Medicare & Medicaid Services; Advisory Board analysis; EAB interviews and analysis.

From Content to Competency

The proliferation of health informatics degree programs, the lack of common standards due to absence of accreditation requirements, and employer confusion over skill sets has prompted standardization initiatives.

CAHIIM, the health informatics accrediting body, had only eight accredited programs (as of publication in April 2017). Increasing competition and employer unfamiliarity with program curricula have created interest in accreditation: CAHIIM projects an increase from eight to 18 accredited programs in 2017.

Furthermore, CAHIIM is working with the American Medical Informatics Association (AMIA) to move from content-based curricular standards to competency-based standards in 2017. Program directors are advised to compare their curricula to these upcoming standards.

Both health informatics professional associations, AMIA and the American Health Information Management Association (AHIMA), are launching new professional certifications. Both align with the competencies proposed in new accreditation standards; AMIA requires an accredited degree to apply for their certification. Programs should assess these certification standards and applicability to their graduates.

The Profession's Maturity Prompts Standardization

New Competency Standards in Accreditation

2010-2017:

> "The curriculum must build on health informatics competencies."
>
> *2010 CAHIIM Accreditation Standards*

2017:

Graduates must be able to:

"Design a solution to a biomedical or health information problem..."

"**Describe** the history, goals, methods, and current challenges of the major health science fields."

"Integrate and apply the theories, models, and tools from behavioral, business, social, and information sciences…"

"Apply disciplinary models to address social and behavioral problems…"

"Demonstrate consideration and respect for the role of users in the design and application of information systems…"

AMIA 2017 Core Competencies for Health Informatics Education at the Master's Degree Level

Associations Launch Dueling Certifications

Certified Professional in Health Informatics

Organization: American Medical Informatics Association

Accredited degree: Required

Launch date: 2017 (proj.)

Advanced Health Informatics Certificate

Organization: American Health Information Management Association

Accredited degree: Not required

Launch date: December 2016

Certification Competencies

View the Health Professions Toolkit to learn the skills that these certifications verify:
http://www.EAB.com/coe/healthprofdisruption/toolkit

Source: 2010 CAHIIM Accreditation Standards; AMIA, Health Informatics Core Competencies, Bethesda, MD, http://www.cahiim.org/documents/FINAL%20AMIA%20Health%20Informatics%20Core%20Competencies%20for%20CAHIIM.pdf; AHIMA, Chicago, IL; EAB interviews and analysis.

Data Analytics Coming to the Fore

A working knowledge of data analytics is becoming a required competency for all working professionals. While health care has lagged other industries in adopting data analytics, providers and policymakers alike see analytics as the route to better decision making and cost savings, as shown by the figures at the bottom of this page.

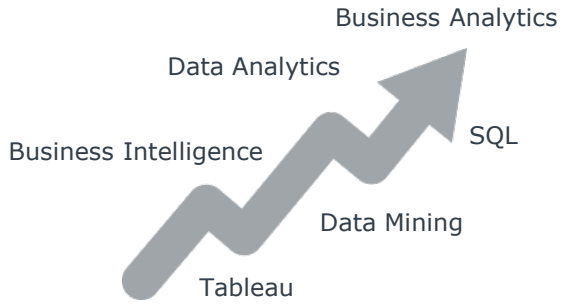
Health informaticists and health data analysts have distinct job responsibilities. However, informaticists' work with data has led more employers to expect some facility with data analytics. EAB labor market analyses and interviews with career specialists show rising employer interest in informatics graduates with analytics skills.

Notably, AMIA's and AHIMA's new certifications test for data analytics competency. The advent of analytics is a trend that the professional associations have recognized as a market opportunity, and one that program administrators need to heed.

Health Care's Analytics Imperative Reshapes Informatics

> There's a mounting interest in informatics graduates with analytics skills from health employers. It's a strong and growing change in demand.
>
> *Virginia Lankes, Career Development Specialist*
> *Oregon Health & Science University*

Health Care Employers Seeking Analytics in Informaticists



37%

Increase in informatics jobs stipulating data analytics skills, 2013-2016

$11B Projected growth in the health care analytics market 2015-2020

$61B Projected size of market for mobile health devices and services in 2020

4 in 5 Hospital systems cite value-based care as a key analytics driver

Source: Morris M, et al., "Health System Analytics," *Deloitte LLP*, 2015; BCC Research, "Healthcare Analytics," 2015; PwC UK, "My Health, Connected," http://www.pwcmegatrends.co.uk/mylifeconnected/health.html; Burning Glass Labor/Insight™; EAB interviews and analysis.

Advantage Now, Necessity Later

Programs that offer a data analytics component are at the forefront of an evolution in curricula. Embedding analytics conveys a market advantage now, but will become a must-have in the near future.

A program's approach to data analytics often depends on the positioning of the rest of the curriculum. The accompanying table illustrates the range of approaches to analytics.

More traditional programs tend to offer students little opportunity to gain analytical skills. Programs specializing in an application of informatics embed analytics into that content area. For example, George Washington University builds informatics around public health.

Medical-research focused programs, such as Oregon Health & Science University's M.S. in Biomedical Informatics, include advanced analytics akin to a data science qualification.

Depth of Analytics Courses Tied to Program Positioning

	Positioning	Data Courses Out of Total	Course Examples	Analytics Proficiency
Master of Health Informatics (on campus)	Traditional Informatics	1/17	Biostatistical Methods	Minimal
M.S. Management of Health Informatics and Analytics (online)	Public Health Informatics	3/12	Business Intelligence Population and Community Health Analytics	Basic
M.S. Health Informatics (online)	Analysis-Enabled Informatics	2/11	Healthcare Data Analytics Advanced Biostatistics and Health Analytics	Moderate
M.S. Biomedical Informatics (on campus)	Data Science Informatics	13/13	Algorithms Network Science and Biology Computational Genetics	Advanced

Source: "Health Informatics," University of Michigan, http://healthinformatics.umich.edu; "Online Master of Health Informatics," George Washington University, http://publichealthonline.gwu.edu/health-informatics/; "M.S. Health Informatics," The College of St. Scholastica, http://www.css.edu/graduate/masters-doctoral-and-professional-programs/areas-of-study/ms-health-informatics.html; "Clinical Informatics Programs," Oregon Health Science University, http://www.ohsu.edu/xd/education/schools/school-of-medicine/departments/clinical-departments/dmice/educational-programs/clinical-informatics.cfm; EAB interviews and analysis.

Launching a Health Informatics Program

Based on EAB analysis and research interviews, this page summarizes the advice on starting a health informatics program.

Keys to a Successful Health Informatics Program

Explore Accreditation

- This provides an opportunity to differentiate given growth in the number of programs

Assess Market Demand for Skills, Not Just Jobs

- Informatics programs attract three primary groups of health care professionals: clinicians, IT staff, and hospital administrators. Many students from these professional backgrounds want to add informatics to their skill sets, not specialize in it
- Therefore, evaluating potential demand for health informatics programs should use labor market analyses that include postings for both informaticists and roles incorporating some informatics abilities

Design the Program for Working Professionals

- Because many students are practicing clinicians and mid-career health information managers, evening and online programs fit best with their schedules

Build Data Analytics into the Program

- The importance of health care analytics means that informaticists with foundational analytics skills have a job market advantage

Leverage University Resources in the Creation of the Program

- Enlist existing faculty and coursework to teach informatics' interdisciplinary content areas, such as project management, public health, and user experience design
- Incorporate access to health information systems at the university or through university partners to provide students with real health data

Source: EAB interviews and analysis.

COE Recommendations and Toolkit Resources

Access our online toolkit (eab.com/coe/healthprofdisruption/toolkit) for all of the COE Forum's resources on health informatics. These resources provide information on the new curricula and professional standards identified in this study.

The content is designed to support deans and program directors in evolving or launching a health informatics program according to emerging professional standards.

Health Informatics

Recommendations

1. **Anticipate New Standards:** Assess your curriculum against CAHIIM's upcoming competency-based curricular standards and professional certification standards.

2. **Embrace Data Analytics:** Enhance the number and depth of analytics courses.

Resources

1. *Meeting Curricular Standards*

   An outline of the core competency areas defined by CAHIIM and AMIA.

2. *Aligning with Professional Certification Standards*

   An outline of the competency areas tested for AMIA's and AHIMA's certifications.

3. *Launching a Health Informatics Program*

   Advice from program directors and sample courses for new health informatics programs.

Source: EAB interviews and analysis.

The Growth Portfolio: Mental Health Counseling

Medical research has revealed the connection between mental and physical health, showing the need to provide more mental health care as part of health care improvement and cost reduction initiatives.

This relationship has been recognized by politicians from both parties, resulting in legislation and funding to improve access to mental health treatment. Reforms included Medicaid expansion, the Medicare Access and CHIP Reauthorization Act (MACRA), and the 21st Century Cures Act

As a result of legislative and other demand drivers, EAB research indicates demand for mental health counselors is at the beginning of a long-term growth curve.

A unique aspect of this field is that two master degree programs can produce mental health counselors: the Master in Clinical Mental Health Counseling (CMHC) and the Master of Social Work (MSW). Both programs are viable options to serve this growing field. The two credentials are detailed on the page.

Opportunity at a Glance

Mental Health Counseling Definition:
the evaluation and treatment of psychological disorders

Qualified Professionals:

Graduates of:

- Clinical Mental Health Counseling programs (CMHC)
- Master of Social Work programs (MSW)

Student Audiences:

	Clinical Mental Health Counseling	Social Work
Career Starters	• About 50% are career starters • About 80% female • Most have an academic background in psychology	• About 50% are career starters • About 80% female • Most from Bachelor of Social Work (BSW) backgrounds
Career Changers and Advancers	• About 50% are career changers and advancers • About 80% are female • Changers seek a more relationship-driven job • Advancers seek specialized counseling roles	• About 50% are career changers and advancers • Changers seek a job in human services • Advancers often have a BSW and seek a clinical or administrative role

Key Attributes

Demand Gap in 2016:
- Four job postings per graduate, with 30% growth since 2014

Demand Drivers:
- Medicaid expansions
- Essential Health Benefits
- Mental health awareness

Average Enrollments:
- CMHC: 40-50
- MSW: 60-80

Modalities:
- CMHC: Hybrid, face-to-face
- MSW: Online, hybrid, face-to-face

Required Degree:
- Master's

Typical Schools:
- Health and Human Services – CMHC & MSW
- Social Work – MSW
- Psychology – CMHC
- Education – CMHC

Source: American Psychological Association, "APA Applauds Senate Passage of Mental Health Provisions in 21st Century Cures Act," Dec 7, 2016, http://www.apa.org/news/press/releases/2016/12/cures-act.aspx; Burning Glass Labor/Insight™; EAB interviews and analysis.

Access Expands to Vulnerable Populations

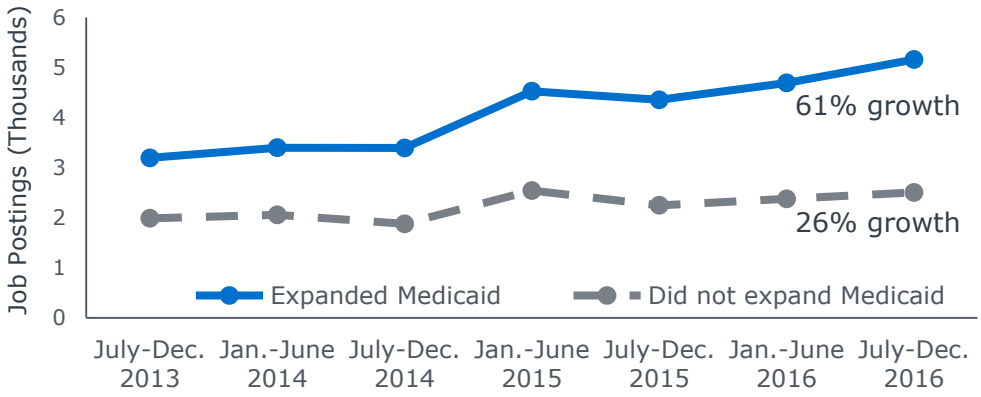
Improving access to mental health services has been a consistent facet of recent health care legislation. The ACA's Medicaid expansions boosted demand for mental health care, while MACRA's support for alternative payment models and outcomes incentivize a holistic approach to health, including mental health. In December 2016, the 21st Century Cures Act expanded funding for mental health treatment and research and reduced barriers to care for Medicaid enrollees.

The experience of the 31 states that expanded Medicaid demonstrate the pent up demand for mental health services—demand for mental health counselors grew 61%. Even in states not expanding Medicaid, demand grew 26%. Low-income Americans have a greater prevalence of mental health disorders, accounting for the demand disparity between the two groups of states.

While legislation creates access to care, need for mental heath support is growing nationwide, particularly among veterans, first responders, and college students.

Underserved Population Drives Demand

Medicaid Expansion Drives Counselor Demand



31 States expanding Medicaid

2-3x Greater prevalence of mental health disorders among low-income Americans

16.5M Americans gaining mental health coverage

Ongoing Need Across the Country

Veterans

20% of veterans returning from Iraq or Afghanistan diagnosed with PTSD or major depression

First Responders

First Responders are 3-4 times more likely to suffer PTSD

Essential Health Benefits

ACA's Essential Health Benefits mandates unlimited insurance coverage for mental health

Pre-EHBs 2014 – and on

New in 2017

The 21st Century Cures Act, passed in December 2016, authorizes new mental health funding, treatment and research efforts, especially for children.

Source: HHS, Health Insurance Coverage and the Affordable Care Act, https://aspe.hhs.gov/sites/default/files/pdf/139211/ib_uninsured_change.pdf ; Mauksch L, et al., "Mental Illness, Functional Impairment, and Patient Preferences for Collaborative Care in an Uninsured, Primary Care Population," *Journal of Family Practice*, 2001, 41; Stellman JM, et al. "Enduring Mental Health Morbidity and Social Function Impairment in World Trade Center Rescue, Recovery, and Cleanup Workers," *Environmental Health Perspectives,* 2008; Tanielian T, et al. "Invisible Wounds," RAND Corporation, 2008; Centers for Medicare & Medicaid Services; Norris L, "Obamacare's Essential Health Benefits," *healthinsurance.org*, https://www.healthinsurance.org/obamacare/essential-health-benefits/; Burning Glass Labor/Insight™; EAB interviews and analysis.

Two Master Programs Can Serve This Market

From licensure and employer perspectives, the Master in Clinical Mental Health Counseling (CMHC) and the Master of Social Work (MSW) degrees are fundamentally substitutes.

As the example from Pennsylvania shows, mental health counselors require one of two licensures: a Licensed Professional Counselor (LPC) or a Licensed Clinical Social Worker (LCSW)[1]. Graduates of both programs are trained in similar skills.

Employers hire based on skills, and EAB research interviews and labor market analysis show that they largely don't distinguish between CMHC and MSW graduates. In job postings specifically requesting one licensure or the other, 18 of the top 20 most requested skills overlap.

As a result, COE units considering serving the mental health market have two program options: Clinical Mental Health Counseling and the Master of Social Work.

CMHC and MSW Are Essentially Substitutes

Licensure Case in Point: Pennsylvania

Master of Clinical Mental Health Counseling

Master of Social Work

Licensed Professional Counselor

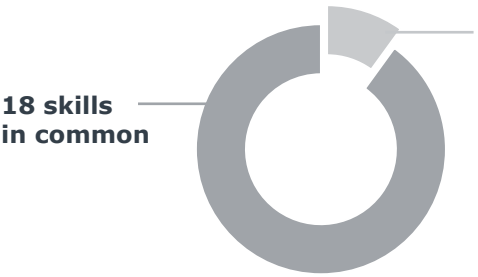
Licensed Clinical Social Worker

Required training in:

1. Assessment
2. Psychotherapy
3. Other therapeutic interventions
4. Consultation
5. Family Therapy
6. Group Therapy

Employers See Similar Skills

Top 20 LPC and LCSW Skills in 2016 Job Postings



Unique LCSW skills:

- Social Work
- Rehab

Unique LPC skills:

- Child Care
- Group Therapy

> "Despite different trainings, they all get homogenized because they have similar scope of practice. A patient needing mental health support could be placed with a social worker, mental health counselor, or even a behavioral dependency counselor."
>
> *Clinical Mental Health Counseling Program Director*

1) Exact names for these licensures vary by state, but all states have equivalents.

Source: "Professional and Vocational Standards," Commonwealth of Pennsylvania, Chapters 47, 49; Burning Glass Labor/Insight™; EAB interviews and analysis.

A Heads Up on Accreditation

The accreditations standards are broadly similar for both MSW and CMHC programs.

EAB's Counseling Program Accreditation Analysis highlights a couple of key differences to consider when comparing these programs. The programs have different minimum faculty mandates, leading to distinct breakeven points, and differing preferences for onsite delivery.

Both programs' faculty must evaluate students for capability *and* suitability for a counseling role. This "gatekeeping" role has particular relevance for online programs. From EAB research interviews, clinical mental health counseling faculty are generally skeptical of online evaluations, and thus of fully online programs. In contrast, social work faculty appear to be more comfortable with evaluating a student's suitability online; there are a number of online social work programs.

Accreditation Defines Program Size and Modality

Key Accreditation Differences

Clinical Mental Health Counseling

Fully online programs contentious

Master of Social Work

Fully online programs possible

⚠ Professional gatekeeping role lends itself to face-to-face programs; some debate over the ethics of online clinical mental health counseling programs.

Minimum three full-time faculty

Minimum six full-time faculty

⚠ MSW programs have a higher breakeven point because of a larger core faculty.

Excerpt from Counseling Program Accreditation Analysis[1]

	Clinical Mental Health Counseling	Master of Social Work
Faculty Requirements		
Number of faculty	3 full-time faculty	6 full-time faculty with principal assignment to the master's program
Student to Faculty Ratio	12:1	12:1
Faculty Training	"Core" must have doctorate, "non-core" must have master's and licensure	All faculty must have a MSW; 50% of faculty must have a doctorate

1) Complete analysis available at the end of the study.

Source: CACREP Accreditation Standards; CSWE Accreditation Standards; EAB interviews and analysis.

Counseling Programs in Brief

The Master of Clinical Mental Health Counseling (CMHC) program at Gonzaga University and the Master of Social Work's (MSW) program at University of Maryland – Baltimore are examples of the structure and size of mental health counseling programs.

Despite similar student career outcomes and accreditations, CMHC and MSW programs have different curricular foundations.

Clinical Mental Health Counseling is rooted in psychological analysis and intrapersonal development. Its coursework approaches mental health problems with a goal to counsel patients to internal solutions.

Social Work is based in social justice and the circumstances of a patient's environment. Social workers aim to solve problems by evaluating the patient's local context and connecting them to solutions in their environment.

	GONZAGA UNIVERSITY **M.A. Clinical Mental Health Counseling**	UNIVERSITY of MARYLAND THE FOUNDING CAMPUS **Master of Social Work**
Modality	Face-to-face	Mostly face-to-face, some online courses
Duration	Two to five years (Full- and part-time options)	One to four years (Accelerated and part-time options)
Credits	60	60
Tuition	~$50,000	• ~$27,000 in-state • ~$59,000 out-of-state
Cohort	~20 students	45-50 students
Example Courses	• Multicultural Counseling • Psychopathology and Psychopharmacology • Counseling Theories	• Social Work and Social Policy • Clinical Social Work with Children • Mindfulness, Stress Reduction and Self Care
Clinical Placements	• 100-hour practicum • 600-hour internship	• Year 1: ~380-hour internship • Year 2: ~570-hour internship

Source: HumanServicesEdu.org, "LCSW vs. LPC or LMHC," http://www.humanservicesedu.org/lcswvslpcorlmhc.html; "M.A. in Clinical Mental Health Counseling," Gonzaga University, https://www.gonzaga.edu/academics/colleges-and-schools/school-of-education/Majors-Programs/Counselor-Education/M.A.-CMHC/default.asp; "MSW Program," University of Maryland, http://www.ssw.umaryland.edu/academics/msw-program/; EAB interviews and analysis.

COE Recommendations and Resources

Access our online toolkit (eab.com/coe/healthprofdisruption/toolkit) to get all the COE Forum's resources on mental health counseling. The COE Forum's Counseling Program Opportunity Evaluation Guide incorporates the consolidated advice of deans and directors—gleaned from EAB interviews—for launching new counseling programs.

The featured Tools and Resources are posted online and provided as context for deciding which counseling program is most appropriate for your institution.

The Counseling Program Accreditation Analysis is provided on the following page to offer immediate access to a comparison of accreditation requirements for the two degrees.

Mental Health Counseling

Recommendations

1. **Apply the Counseling Program Opportunity Evaluation Guide** and accompanying resources to your institution to assess viability of launching either a Clinical Mental Health Counseling or Social Work degree.

Tools

1. *Counseling Program Opportunity Evaluation Guide*

   A self-scored evaluation guide to help determine which counseling program to launch.

2. *Counseling Program Accreditation Analysis*

   A comparative analysis of potential accreditation barriers for new programs.

Resources

1. *Clinical Mental Health Counseling Programs by State*

   A table showing the state-level distribution of Clinical Mental Health Counseling programs.

2. *Master of Social Work Programs by State*

   A table showing the state-level distribution of Master of Social Work programs.

Source: EAB interviews and analysis.

Counseling Program Accreditation Analysis

Highlights from Accreditation Standards Comparison

	Clinical Mental Health Counseling	Master of Social Work
Accreditation		
Accrediting Organization	CACREP – Council for Accreditation of Counseling & Related Educational Programs	CSWE – Council on Social Work Education
Timeline to Accreditation	1-2 years. Programs in some states can launch and graduate students before seeking accreditation. Students from those unaccredited programs can attain licensure.	1 year. Most states require graduation from a CSWE accredited program before gaining licensure.
Faculty Requirements		
Number of Faculty	3 full-time faculty	6 full-time faculty with principal assignment to the master's program
Student to Faculty Ratio	12:1	12:1
Faculty Training	"Core" must have doctorate, "non-core" must have masters and licensure	All faculty must have a MSW; 50% of faculty must have a doctorate
Director Experience	1 core faculty with a counselor education background	1 full-time faculty, master/doctorate, 50% of time dedicated to administration
Field Supervisor Experience	1 core or non-core faculty or administrator	1 full-time faculty, master/doctorate, 50% of time dedicated to administration
Curriculum Requirements		
Minimum Degree	Master's	Master's
Placement Hours	700, 280 of which must be direct patient interactions	900
Credits	60	Not specified, though 60+ is typical
Unique Core Curriculum Topics	• Human and career development • Counseling theory, techniques, and practice • Clinical patient assessment	• Human rights and social justice • Human and societal behavior • Client assessment and interventions

Source: CACREP Accreditation Standards; CSWE Accreditation Standards; EAB interviews and analysis.

The Growth Portfolio: Therapy Professions

Physical therapy (PT) and occupational therapy (OT) are the "blue chips"—programs that are expensive to start, but with a strong probability of high ROI. These two programs are distinct yet have similar demand drivers and exacting accreditation standards.

A confluence of demographic shifts and legislative initiatives are boosting demand for both PT and OT nationwide. At the same time, the accrediting organizations' strict standards and upcredentialing are restricting program growth, reducing supply of graduates, and boosting job opportunities for graduates. Consequently, existing programs enjoy very robust application rates and enrollments.

These programs require considerable upfront investment to launch. For accreditation, programs require specialized laboratory space, sizeable faculty recruitment, and plentiful clinical placements.

Opportunity at a Glance

Physical Therapy (PT) Definition:
treatment of injury or disease through rehabilitation and exercise with an emphasis on movement

Occupational Therapy (OT) Definition:
treatment of injury or disease through rehabilitation and exercise with an emphasis on daily tasks

Programs:
- Doctor of Physical Therapy
- Doctor of Occupational Therapy
- Master of Occupational Therapy

Student Audiences for PT and OT:
- 80% of students are female; most have health science backgrounds
- 80% are career starters
- 10% are former PT or OT Assistants
- 10% are career changers

Key Attributes

Demand Gap in 2015:
PT: 15 job postings per graduate
OT: 16 job postings per graduate

Demand Drivers:
- Alternative Payment Models
- Medicaid expansions
- Essential Health Benefits

Average Enrollments:
- PT: 110-130
- OT: 60-80

Modalities:
- Face-to-face
- Some hybrid coursework possible

Degrees:
- PT: Clinical doctorate
- OT: Clinical doctorate recommended, Master's permissible until 2025

Typical Schools:
- Health Sciences
- Medicine

Source: CAPTE, Alexandria, VA; ACOTE, Bethesda, MD; Burning Glass Labor/Insight™; EAB interviews and analysis.

Off-the-Charts Growth

PT and OT programs have seen substantial growth in the last few years. Enrollment trends reported by the accrediting organizations exhibit a consistent rise in annual applications per program, from about 90 applications per physical therapy program in 2002 to 516 in 2015.

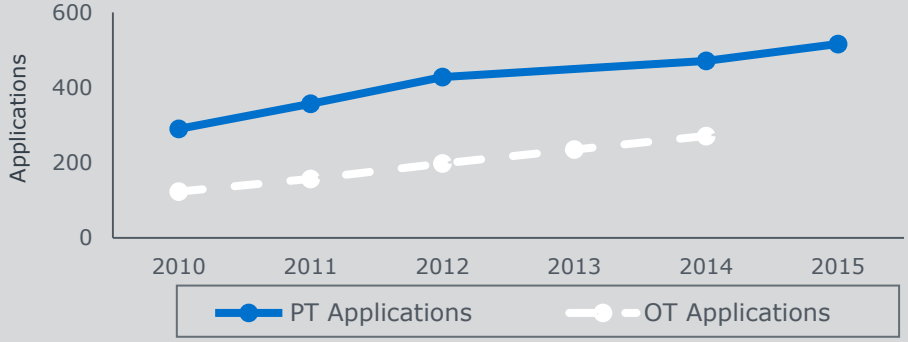
Occupational therapy programs have the same trajectory, with more than 200 applications per program in 2014[1].

Applicants for either degree are enticed by a job with salaries that average more than $80,000 per year.

The number of PT and OT job postings has grown while the number of graduates has stayed almost flat. Although there was a dip in demand at the end of 2016, there are far more job postings than there are graduates to fill them.

A Large Supply-Demand Gap Persists

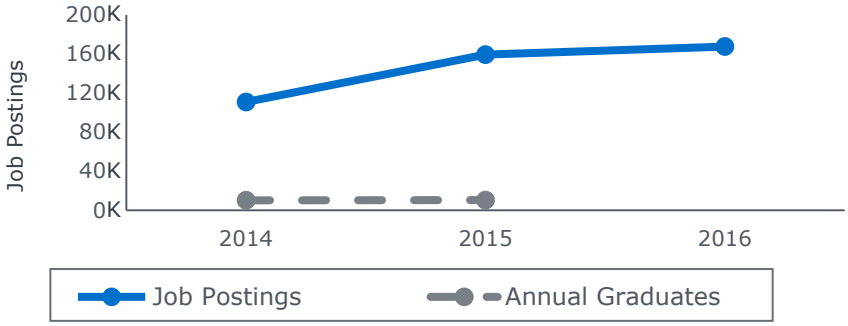
Average Applications Received per Program



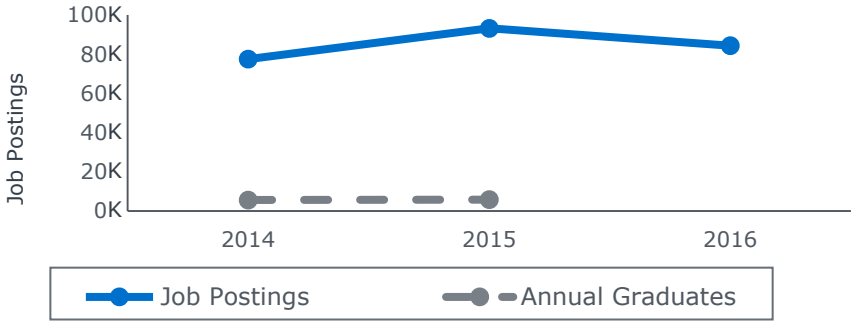
62% Growth in physical therapy applications

120% Growth in occupational therapy applications

PT Job Postings and Graduates



OT Job Postings and Graduates



15.3 Physical therapy job postings per graduate in 2015

16.0 Occupational therapy job postings per graduate in 2015

1) 2015 data was not available by the date of publishing.

Source: CAPTE Aggregate Data Reports, http://www.capteonline.org/AggregateProgramData/; AOTA Annual Data Reports, http://www.aota.org/Education-Careers/Educators.aspx; Burning Glass Labor/Insight™; BLS Occupational Outlook Handbook; U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics; EAB interviews and analysis.

Demand Reflects Legislative and Societal Changes

The demand for therapists is propelled by two distinct forces.

1. Structurally, health care reform incentivizes referrals to therapists to ensure complete injury and disease recovery. This is due to the alternative payment models promoted by the Medicare Access and CHIP Reauthorization Act. Hospitals are financially liable for readmissions, and patients who complete prescribed therapy are less likely to be readmitted and more likely to have better health outcomes. Medicaid expansion and rehabilitation therapy's status as an Essential Health Benefit have removed barriers to low-income populations accessing therapy services.
2. Demographic shifts on both ends of the age spectrum are also driving market demand for therapists. The elderly are more likely to require additional and longer rehabilitative care after injury. The incidence of autism also creates a large population needing specialized habilitative therapy care.

Greater Access and Need Drive Patients to Therapy

Health Care Reform

Value-Based Care

- Medicare's alternative payment models incentivize providers to ensure patient use of rehabilitative therapy
- Under alternative payment models, successful rehabilitation reduces readmissions and penalties

Expanded Access

- Health Care Marketplaces and Medicaid expansions provide millions of people new access to PT and OT
- Essential Health Benefits ensure coverage for doctor-approved rehabilitation therapy

Demographic Changes

Aging Population

- Elderly populations require more rehabilitative care after injuries and surgeries
- Increase of 10 million elderly Americans from 2014 to 2020

+10M

Projected increase in elderly American population from 2014 to 2020

Autism

- Children with severe autism need habilitative treatment to effectively interact with their environments
- Doubling of prevalence of autism from 2004 to 2014, to 1 in 68 children

1 in 68

Prevalence of autism in children in 2014, about twice the 2004 prevalence

Source: HHS, Health Insurance Coverage and the Affordable Care Act, https://aspe.hhs.gov/sites/default/files/pdf/139211/ib_uninsured_change.pdf ; Ortman J, et al. "An Aging Nation," May 2014, US Census Bureau, https://www.census.gov/prod/2014pubs/p25-1140.pdf; CDC, "CDC Estimates 1 in 68 School-Aged Children Have Autism," March 31, 2016, https://www.cdc.gov/media/releases/2016/p0331-children-autism.html; EAB interviews and analysis.

Therapy Programs in Brief

The PT program at the University of Southern California and the OT program at Boston University are top ranked programs per *U.S. News and World Report*.

The PT program at USC intentionally integrates classroom lectures, lab experience, and clinical placements to teach all aspects of the profession. Students are required to participate in a mentorship program and in service learning to gain further exposure to the field.

USC offers continuing education for practitioners licensed in California. It has a suite of online courses that are pre-approved for continuing education credits. Additionally, the program will create custom continuing education courses for partner employers' specific needs.

Boston University is among the first group of OT programs to transition from a master to a doctoral program. Clinical placements take place concurrently with classroom education, enabled by courses offered online. Doctoral students, with the support of faculty, must conduct an in-depth exploration of an area of their choice.

	USC University of Southern California **Doctor of Physical Therapy**	BOSTON UNIVERSITY **Doctor of Occupational Therapy**
Modality	Face-to-face	Face-to-face
Duration	Three years	Three years
Credits	115	92
Tuition	~$163,000	~$138,000
Cohort	95 students	30 students
Example Courses	• Neuropathology • Clinical Biomechanics	• Assistive Technology • Functional Movement Assessment
Clinical Placements	• Year 1: 9weeks • Year 2: 10 weeks • Year 3: 32 weeks	• Year 1: Semester-long internship • Year 2: Semester-long internship • Year 3: 24 weeks
Laboratory Spaces	• Exercise Physiology Lab • Neuromuscular Lab	• Kitchen Lab • Motor Development Lab

Source: *U.S. News and World Report*, "Best Grad Schools," 2016; "USC PT," University of Southern California, http://pt.usc.edu; "Department of Occupational Therapy," Boston University, http://www.bu.edu/sargent/academics/departments/programs-in-occupational-therapy/; EAB interviews and analysis.

A Word of Caution on Accreditation

There are substantial costs to getting a physical therapy or occupational therapy program accredited. In EAB interviews, program directors estimated investments of $1 million to $4 million for hiring a director, clinical placement coordinator, and faculty, acquiring equipment, and renovating lab spaces before the first full year of classes.

CAPTE and ACOTE (the PT and OT accreditors, respectively) have exacting standards. The programs have or are upcredentialing to a clinical doctorate.

Both accreditors have about a one-year waiting list to apply for candidacy. They each review 18 new programs per year, which includes physical therapy assistant and occupational therapy assistant programs.

Programs are required to secure enough clinical placements for the anticipated student body *before* the accreditor will approve the program. EAB research interviews with PT and OT directors indicate there is a critical shortage of placements.

These barriers and associated investments, plus the creation of a three-year course of study, require COE units to weigh the costs and benefits before launching either program.

Major PT and OT Accreditation Hurdles

High Start-Up Costs

- Labs and faculty must be in place before accreditation
- Program directors estimate a $1 million - $4 million investment before first students enroll

Competition for Candidacy

- 18 programs accredited per year
- One-year queue to apply

Shortage of Clinical Placements

- Placement agreements must be in place before accreditation
- Stiff competition and minimal provider incentive limits options

Both Fields Are Upcredentialing

- 2015 – PT requires a clinical doctorate
- 2025 – OT requires a clinical doctorate

Excerpt from COE Therapy Program Accreditation Analysis[1]

	Physical Therapy	Occupational Therapy
Accreditation		
Accrediting Organization	CAPTE – Commission on Accreditation in Physical Therapy Education	ACOTE – Accreditation Council for Occupational Therapy Education
Number of Applications Considered	18/year (PT and PT Assistant total)	18/year (OTD, OTM, and OT Assistant total)
Next Open Application Cycle	December 2017 (program launch in Summer 2018)	March 2018 (program launch in January 2019)

1) Complete analysis available at the end of this study.

Source: CAPTE Accreditation Standards; ACOTE Accreditation Standards; EAB interviews and analysis.

COE Recommendations and Resources

Go to our online toolkit (eab.com/coe/healthprofdisruption/toolkit) to access all of the COE Forum's resources on therapy programs. The COE Forum's Therapy Program Opportunity Evaluation Guide incorporates the consolidated advice of deans and directors—gleaned from EAB interviews—for assessing new therapy programs.

The online Tools and Resources help pinpoint states that offer limited competition for clinical placements and the greatest access to post-graduation opportunities.

The Therapy Program Accreditation Analysis is provided on the following page to offer immediate access to a comparison of accreditation requirements for the two degrees.

Physical Therapy and Occupational Therapy

Recommendations

1. **Apply the Therapy Program Opportunity Evaluation Guide** and accompanying resources to your institution to assess viability of launching either a physical therapy or occupational therapy clinical doctorate.

Tools

1. *Therapy Program Opportunity Evaluation Guide*

   A self-scored evaluation guide to help determine whether to launch a PT or OT program.

2. *Therapy Program Accreditation Analysis*

   A comparative analysis of potential accreditation barriers for new programs.

Resources

1. *Physical Therapy Program Map*

   A map showing physical therapy program locations.

2. *Occupational Therapy Program Map*

   A map showing occupational therapy program locations.

1) https://www.eab.com/research-and-insights/continuing-and-online-education-forum/toolkits/2017/health-professions-disruption-toolkit

Source: EAB interviews and analysis.

Therapy Program Accreditation Analysis

Highlights from Accreditation Standards Comparison

	Physical Therapy	Occupational Therapy
Accreditation		
Accrediting Organization	CAPTE – Commission on Accreditation in Physical Therapy Education	ACOTE – Accreditation Council for Occupational Therapy Education
Number of Applications Considered	18/year (PT and PT Assistant total)	18/year (DOT, MOT, and OT Assistant total)
Next Open Application Cycle	December 2017 (program launch Summer 2018)	March 2018 (program launch January 2019)
Ongoing Fees	$4,000/year/cohort	$3,700/year
Enrollment Limitations	1 cohort/year, unless additional approval. Cannot permanently increase enrollment by 10% without approval.	1 cohort/year, unless additional approval. Cannot permanently increase enrollment by 25% without approval.
Faculty and Facility Requirements		
Student to Faculty Ratio	16:1	"Sufficient"
Faculty Background	"Core" faculty must have a doctorate and a scholarly pursuit; 50% of all faculty must be core faculty	All full time faculty must have a doctorate degree
Program Director Experience	Doctorate degree, six years higher education experience, three years physical therapy education experience	Doctorate degree, eight years occupational therapy experience, three of which must be teaching experience
Field Experience Director Experience	Three years physical therapy practice experience, two years experience with field education	Doctorate degree and active practitioner
Facilities and Equipment	"Sufficient for contemporary practice" with access outside of class hours	Equipment and resources "must be sufficient to meet the program's educational objectives"
Curriculum Requirements		
Modalities	Laboratory education must be onsite; part-time possible except final clinical placement	Laboratory education must be onsite; part-time possible except final clinical placement
Minimum Credits	90	Unspecified, 60-90+ typical
Unique Core Curriculum Topics	Content and learning experience in the biological, physical, behavioral, and movement sciences.	Content must cover the structure and function of the human body and its interaction with its environments.
Success Rates	Graduation rate 80% or greater; licensure rate 85% or greater; employment rate 90% or greater	At least 80% of graduates must achieve licensure

Source: CAPTE Accreditation Standards; ACOTE Accreditation Standards; EAB interviews and analysis.

The Health Professions Glossary

Like education, medicine and health policy has its own industry-specific terminology. This glossary defines health care terms used in this study.

21st Century Cures Act of 2016: a bill funding nearly $5B of biomedical research, streamlining the FDA approvals process, reducing restrictions on access to mental health care, and providing funding for treating and researching mental health illness and substance abuse

ACA: see Patient Protection and Affordable Care Act of 2010

ACOTE: Accreditation Council for Occupational Therapy Education—the accrediting body for occupational therapy programs

Acute care: health services provided to address a specific health emergency

AHIMA: American Health Information Management Association

Alternative Payment Models: any number of health reimbursement programs that **do not** directly pay the provider per service provided; these could include lump payments for the treatment of an illness or a payment adjustment based on patient or population outcomes

AMIA: American Medical Informatics Association

CACREP (Council for Accreditation of Counseling & Related Educational Programs)**:** the accrediting body for counseling programs

CAHIIM (**Kay**-Him)**:** Commission on Accreditation for Health Informatics and Information Management Education

CAPTE (Commission on Accreditation in Physical Therapy Education)**:** the accrediting body for physical therapy programs

Certification: third-party verification of the skills or competencies possessed by a person

Clinical Mental Health Counseling: the academic discipline that focuses on the intrapersonal development of the self and on the treatment of mental disorders

Clinical Placement: apprenticeship-style training with practitioner for students pursuing careers in health professions, often required by accreditors or licensing bodies

CMHC: see Clinical Mental Health Counseling

CSWE (Council on Social Work Education)**:** the accrediting body for social work programs

EHBs: see Essential Health Benefits

EHR: see Electronic Health Record

Electronic Health Record: a digital patient record that stores many types of patient data, can be mined, and is transferable across systems

Essential Health Benefits: the set of ten health benefits that the ACA mandated be covered in insurance plans, such as mental health services, rehabilitative care, and maternity and newborn care

Fee-for-Service: a health care reimbursement model that pays providers for all services provided

The Health Professions Glossary (cont.)

Health Care Marketplace: the system for expanding private health care access established by the ACA

Health Informatics: the interdisciplinary field that pursues the effective uses of biomedical data, information, and knowledge for scientific inquiry, problem solving and decision making, motivated by efforts to improve human health

Health Professionals: workers who deliver services including the identification, evaluation, and prevention of diseases and disorders; nutrition, rehabilitation, and therapy; health systems management; and support care directly for a patient at the request of a medical provider

Informaticist: a professional whose focus is on information processing, systems integration, and human-computer interaction

Internship: see Clinical Placement

Licensed Clinical Social Worker: the licensure awarded by a US state to a social worker who provides counseling services; exact names vary by state

Licensed Professional Counselor: the licensure awarded by a US state to a mental health counselor; exact names in each state vary

Licensure: a government authorization for a person to practice a skill or trade

MACRA: see Medicare Access and CHIP Reauthorization Act of 2015

Medicaid: the US state entitlement programs offering insurance to Americans in poverty or near-poverty

Medicare: the US federal government entitlement program offering insurance for the elderly

Medicare Access and CHIP Reauthorization Act of 2015: a law passed to deepen the provisions of the Patient Protection and Affordable Care Act, with an emphasis on advanced payment models

Mental Health Counseling: the evaluation and treatment of psychological disorders

MSW: see Social Work

Occupational Therapy: the treatment of injury or disease through rehabilitation and exercise with an emphasis on daily tasks

Patient Protection and Affordable Care Act of 2010: the health care reform law with three primary goals: improving health care access, replacing fee-for-service payments, and improving health care quality

Physical Therapy: the treatment of injury or disease through rehabilitation and exercise with an emphasis on mobility

Population Health: an approach to health that aims to improve health outcomes for entire groups of people, taking into account social determinants of health

Practicum: see Clinical Placement

Social Work: the academic discipline with a foundation in social welfare and justice that connects people to solutions in their local communities

Value-Based Care: a care delivery model that aims to deliver care across the patient lifecycle, emphasizing treatment and preventative care to keep costs down

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