

Office of Education

Annual Report

2024

Abraham M. Nussbaum, MD
Chief Education Officer, Denver Health
Professor of Psychiatry & Asst. Dean, CUSOM



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DENVER HEALTH

ACADEMIC AFFAIRS

OFFICE OF EDUCATION

❑ Improves care today

- Our learners are active participants in clinical care, research, and quality improvement throughout the institution

❑ Advances diversity, equity, inclusion, and belonging

- The Office of Education exceeded its target, matching more than a third of our residents and fellows from underrepresented groups in medicine
- Advances the well-being of our community by providing equitable entry into healthcare workforce

❑ Makes care possible tomorrow

- Over a third of the medical staff trained at Denver Health, so education is the key pathway to our future



Vision:

- Denver Health will transform health professions education to advance health equity in our community.

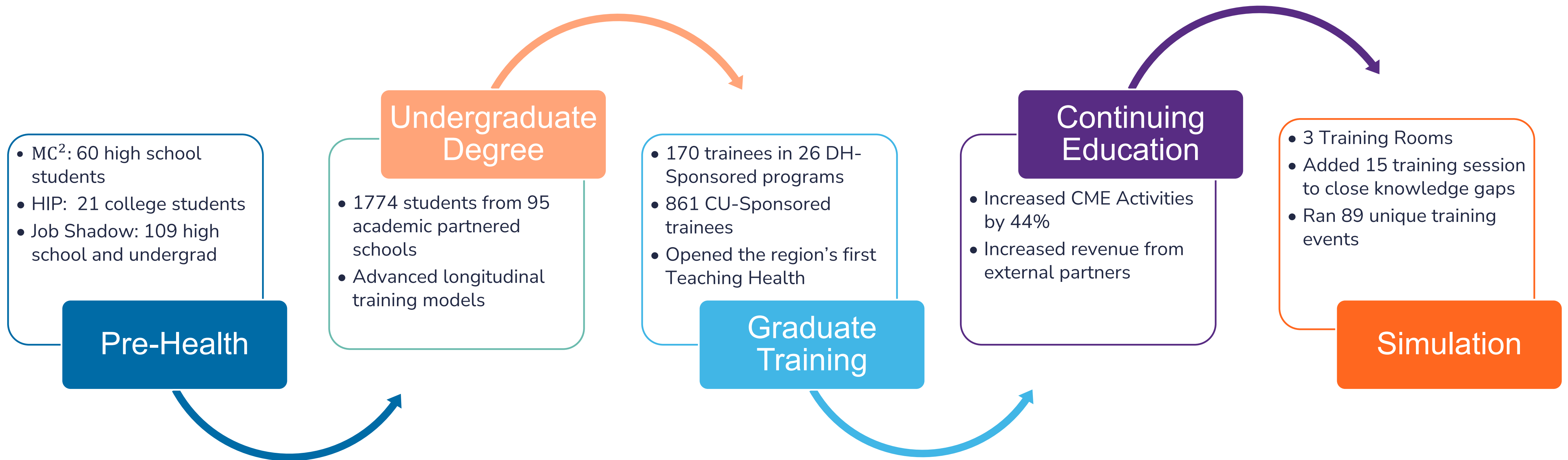
Values:

- Through interdisciplinary and inter-professional collaboration, Denver Health educates and empowers a diverse, inclusive workforce and creates pathways for growth opportunities in the community and at all organizational levels.



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Office of Education pathway programs: Medical Career Collaborative (MC²) & Healthcare Interest Program (HIP)

MC² and HIP advance Denver Health's mission by investing in our community's next generation of healthcare clinicians. MC² and HIP educate and train more than 80 students annually, focusing on students who could not otherwise enter health professions.



MC² and HIP provide:

- 1:1 mentorship with healthcare providers
- Hands-on learning & interactive workshops
- Didactic seminars on health equity & emerging healthcare challenges
- Professional development & networking

✓ Workforce Solutions

MC² and HIP support Denver Health's workforce development and DEIB initiatives by creating pathways into healthcare careers and building a healthcare workforce that reflects the community it serves.



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Medical Career Collaborative (MC²)



Program Overview

The program provides opportunities for youth from underrepresented backgrounds to gain experience and exposure to the world of healthcare while accessing individualized support in their pursuit of healthcare professions.

MC² begins working with youth at the high school level and continues to provide opportunities and support to program alumni throughout the entirety of their academic and career journeys.

The program aims to build a more representative healthcare workforce and create a pathway into careers at Denver Health

Program Highlights:

- Paid internships
- Mentorship
- Weekly seminars
- Monthly workshops
- Post secondary preparation
- Healthcare related certifications
- Career coaching and assistance



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60 high school students
served in 2023-2024
program year at DH

130 across all sites



98% students of
color
75% bilingual
80% come from low-
income backgrounds
62% first gen college
bound



23 high schools
represented in 2023-
2024



MC² juniors spent over
2000+ hours interning
at DH in 2024



90% of 2024
graduates are
attending 2- or 4-
year college or
university



89% of 2024
grads attending
college have
declared health
related majors



19 alumni
completed
healthcare related
certifications
through in 2024



5 grads hired at
DH in 2024

46 hired over the
past decade



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- MC² celebrated its 25th Anniversary (10th at Denver Health), hosting a celebration event with over 125 alumni, mentors and hospital and community supporters in attendance
- The program received a record number of applications for the 2024-2025 program year, with over 530 students submitting applications to be considered for one of the five MC² program sites (Denver Health, Children's Hospital Colorado's Anschutz, North, South and Colorado Springs campuses)
- All program sites piloted the use of a revised rubric leading to a more holistic review which improved the selection process
- The program developed 7 new internal and external partnerships, increasing opportunities for student learning
- With the addition of new team members, the program was able to bolster its alumni programming, assisting over 125 alumni with varied academic and career related support needs, developing a new alumni support tracking system and securing a contract to build out a new alumni engagement platform, scheduled to launch in Q1 of 2025.

Healthcare Interest Program (HIP)

Mission & Vision

HIP is a Denver Health pathway program increasing the success of undergraduate students interested in healthcare careers

HIP is a rigorous, year-long mentorship program bridging basic science coursework with real world application while advancing students' awareness of the regional healthcare needs addressed by the Denver Health system

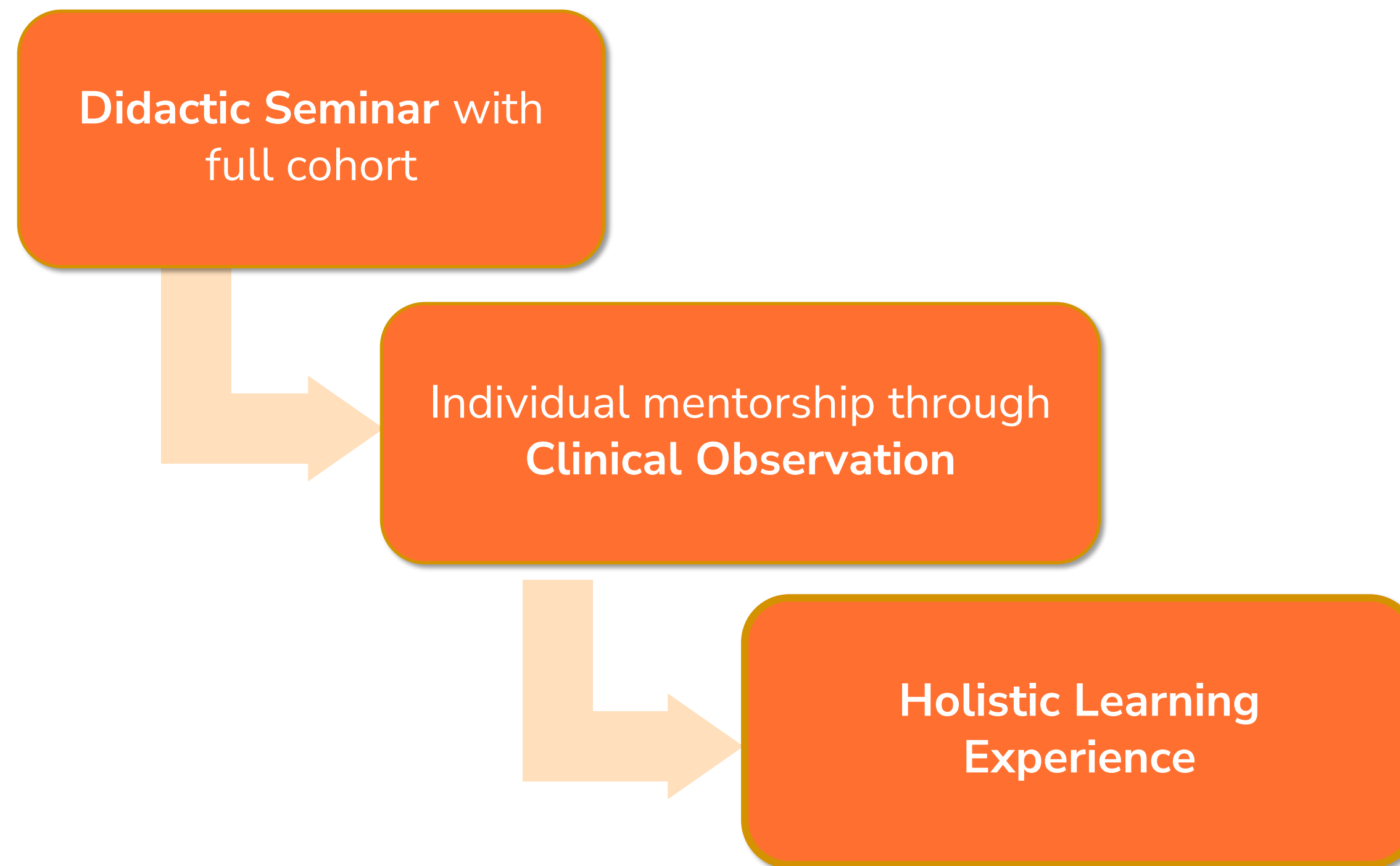


2024-2025 HIP Cohort



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Program Framework



Healthcare Interest Program (HIP)

HIP addresses the academic and professional development needs of students

The program is therefore structured by two main components: *clinical observation and didactic seminar*

Clinical Observation: Students are matched 1:1 with a mentor in their field of interest and shadow more than 55 hours in DH facilities

Didactic Seminar: Students attend bi-monthly seminars as a cohort, learning from DH providers who organize lectures, workshops, and immersive trainings



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Healthcare Interest Program (HIP)

Updates & Recent Data



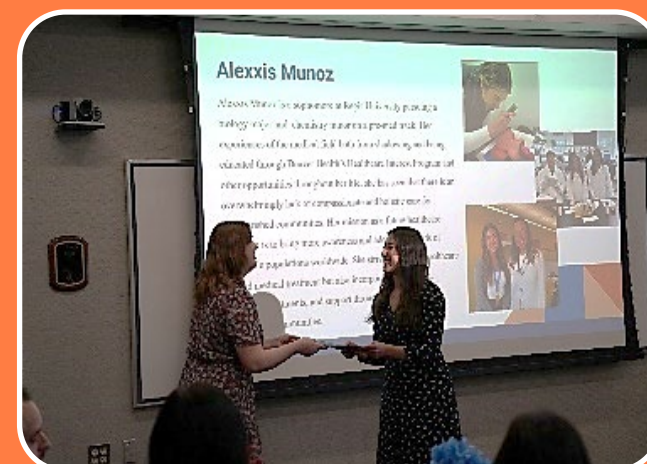
30+
providers
mentoring 21
undergrad
students



81%
identify as
first-
generation
college
students



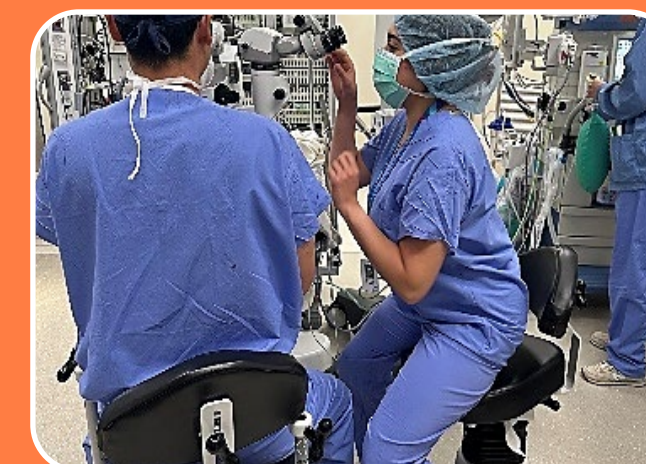
76%
considered
under-
represented in
medicine



67%
speak English
as non-
primary
language



650
shadowing
hours
completed fall
2024



3
regional
partnerships:
CU Denver, MSU
Denver, & Regis
University



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Education Observer (nee Job Shadow)

Purpose

Observing a health care clinician at Denver Health is an educational method that introduces youth to a variety of high-growth professions, allows them to experience the day-to-day life of a professional, provides a deeper understanding of critical skills needed to be successful in the workplace, and connects academics to the community.

Total number of observing students in 2024: 109



Transformative Developments for 2025:

- Changing name to Education Observer Program
- Reflects expansion of eligibility criteria:
 - Increased minimum age of eligibility to 16
 - Certain areas of the hospital have additional age requirements
 - Applicants in a 1-2 gap year from undergrad completion now qualify for observation
 - Additions to Behavioral Health departments, excluding substance abuse clinics
- Why?
 - Creates a sustainable program which betters the learner experience while supporting a pathway for the next generation of healthcare professionals

Comments from our 2024 shadowing students about their experience at DH

“Thank you for this opportunity! I have had one of the most important experiences so far in my life due to the opportunity given to me by this program. Thank you again for this opportunity. ”

*“My recent shadowing experience was amazing.
The staff were incredibly friendly, and Dr. Nithin was fantastic in managing everything.”*

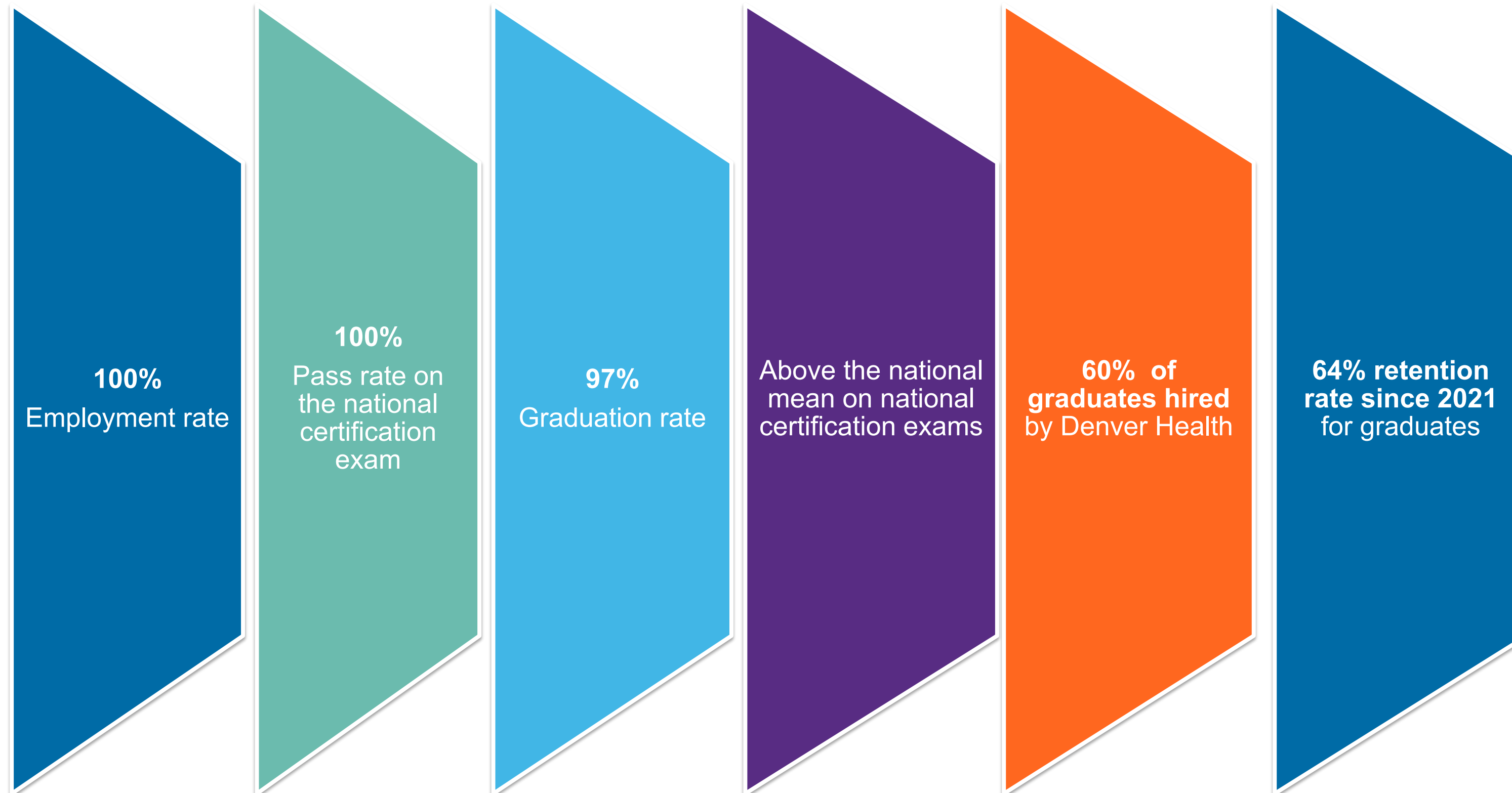
“My shadow experience was exceptional. The charge nurse whom I shadowed was very accommodating and ensured I was able to explore multiple departments of the hospital. She was eager to explain anything from medical practices to teamwork dynamics within the department and was sure to introduce me to many different health care providers to allow me to ask specific questions about their role and experience at Denver Health. At the conclusion of my experience, I felt more confident in my decision to enter the health care field and even pursuing future career at Denver Health.”



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Medical Lab Science (MLS)



The Denver Health School of Medical Laboratory Science is an 11-month post baccalaureate hospital-based education program offering a certificate of completion.

The School, established in 2015, is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) and was awarded the maximum 10-year reaccreditation term in 2021.





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Phlebotomy

The Phlebotomy School began in the summer of 2017 to build a pipeline for employment at Denver Health for interested Healthcare Interest Program (HIP) students.

In 2018, the Phlebotomy School expanded to 8 students and began enrolling Denver Health (DH) employees or family members of staff, and MC2 students (Medical Career Collaborative).

96%
Graduation rate

33% of graduates
have been hired at
Denver Health

53% retention rate
for graduates hired
by Denver Health

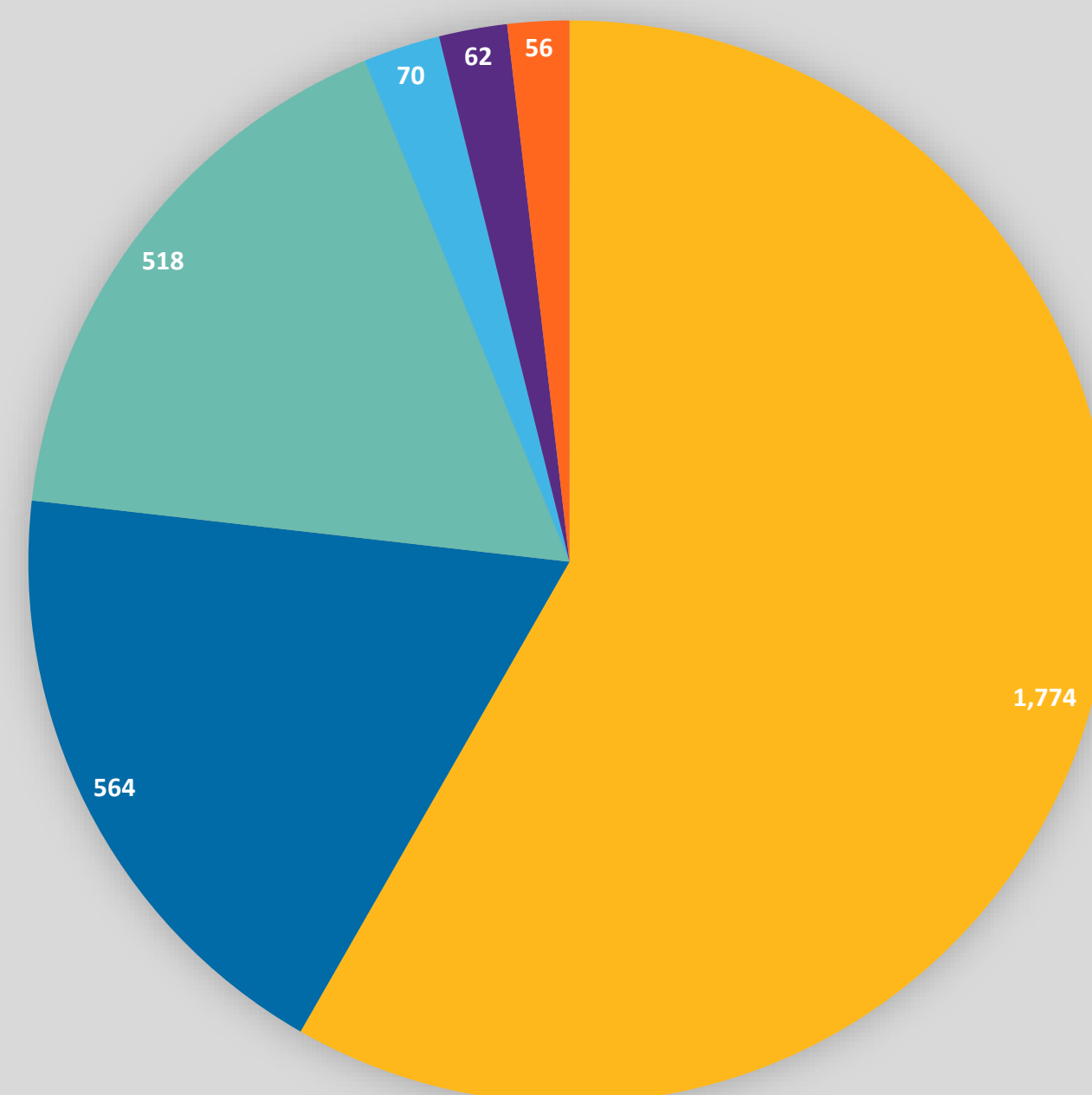
59% of students
have been **HIP**
or **MC2**
graduates

35% have been
DH employees
or family of DH
staff





Number of Student Learners



■ Total of Rotations ■ Nursing Students ■ Medical Students ■ Dental Students ■ PA Students ■ Radiology Technicians

Total Student
Learners:
1,774

Nursing
Students:
564

Medical
Students:
518

Dental
Students: 70

PA Students:
62

Radiology
Technicians:
56



Undergraduate Education

- Denver Health has ninety-five Academic Partners.
 - 63 Student rotations undertaken by Denver Health employees
 - 39 student rotations were medical student research electives
- Process improvements include:
 - Partnered with our student onboarding database myClinicalExchange (mCE) to add new state background check and fingerprinting requirements in mCE for students rotating in Behavioral Health.
 - Trained seven Denver Health Employees on the student onboarding process.
- Represented Denver Health during LCME preparation at the School of Medicine



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Medical Students

	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul				
Year 1 Pre-Clerkship (Plains)	First Course	Foundational Principles	Traverse 1 Hematologic & Lymphatic Systems	Gastrointestinal System	Traverse 2	Pulmonary & Cardiovascular System		Renal & Urinary Systems	Traverse 3	Nervous System	Musculoskeletal & Integumentary Systems		Mind & Behavior	Traverse 4	Endocrine & Metabolic Systems	Reproductive System & Life Cycle	Traverse 5
Year 2 Clerkship (Foothills)	Discovery/ Summer Break		Foothills Basecamp	Longitudinal Integrated Clerkships (LICs)				7 LIC Specialties: Internal Medicine, Pediatrics, Obstetrics/Gynecology, Emergency Medicine, Psychiatry, Surgery, Family Medicine									
Year 3 Post-Clerkship (Alpine*)	LICs	3 Advanced Science Courses (ASC): Advanced Neurosciences, Advanced Immunology, Cardiology Connections				USMLE Step 1 Prep & Test		Alpine Base-camp	Trail Immersions	Trail Distributed Work	Acting Internship	Critical Care	Integrated Science Selective	Alpine Coursework			
Year 4 Post-Clerkship (Alpine/Summit)	Alpine Acting Internships, Aways, Research, Electives, Longitudinal Courses						Additional Alpine Coursework			Match Day	Summit Transition to Residency Basecamp, Advanced Electives		Graduation				



University of Colorado
Anschutz Medical Campus

- Many Denver Health doctors are active throughout the curriculum
 - 38 DH physicians have paid roles
 - CUSOM contracted for \$1,918,993.28 of DH physician time
 - Multiple teaching awards across the curriculum
 - Routinely rated top box for clinical learning experiences



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Medical Students

As of September 2022, all CU SOM students participate in an LIC, matriculating to one of 16 clinical sites. Our DH-LIC, which was piloted in 2014, served as the model for expansion to this all LIC curriculum. MS2s (Foothills Year) spend their second year in LICs throughout the state after a matching process during MS1.

Our team-based learning (TBL) model for didactics was expanded to a majority Team-Based learning curriculum for the entire school, led by Drs. Anne Frank and Vishnu Kulasekaran who led case development and faculty training in TBL.

Vision:

Our graduates will be physician leaders capable of transforming the health of diverse communities.

Mission:

Through a longitudinally integrated curriculum, we aim to educate physician leaders who are curious, life-long learners with a commitment to serve the profession, our patients and society.

Values/Pillars:

Leadership, Curiosity, Commitment



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Medical Students

- As of September 2022, all CU SOM students participate in a longitudinal integrated clerkship (LIC), matriculating to one of 16 clinical sites.
- The DH-LIC, which began in 2014, served as the model for expansion to the CUSOM's all-LIC curriculum.
 - MS2s (Foothills Year) spend their second year in LICs throughout the state after a matching process during MS1.
 - The DH team-based learning (TBL) model for didactics was expanded to a majority Team-Based learning curriculum for the entire school, led by Drs. Anne Frank and Vishnu Kulasekaran who led case development and faculty training in TBL.
- The LIC model has also been a model for education programs, like nursing, at DH.

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DH-LIC

Class of 2024- CU SOM Hybrid Curriculum (Cohort 9) graduated!

Folake Adegboye Med/Peds, Harvard/MGH
Shrey Aravindan Orthopedic Surgery, Johns Hopkins
Lauren Arguinchona Ophthalmology, University of Colorado
Cole Bortz Internal Medicine, NYU
Reed Campbell Psychiatry, University of Colorado
Nikita Deng Internal Medicine, Emory University
Jacob Fang Radiology, University of Chicago
Ahana Ghosh Emergency Medicine, University of Miami
Madison Kim Internal Medicine, University of Washington
Chris Le Ophthalmology, UCLA
Gabrielle Montalbano Med/Peds, Brown
Nayun Mary Lee Plastic Surgery, UCSD
Thy Nguyen OBGYN University of Colorado
Lorena Ramirez Renteria Internal Medicine, Yale
Carly Setterberg Family Medicine, University of Utah
Jeffrey Wong Psychiatry, Family Health Centers of San Diego





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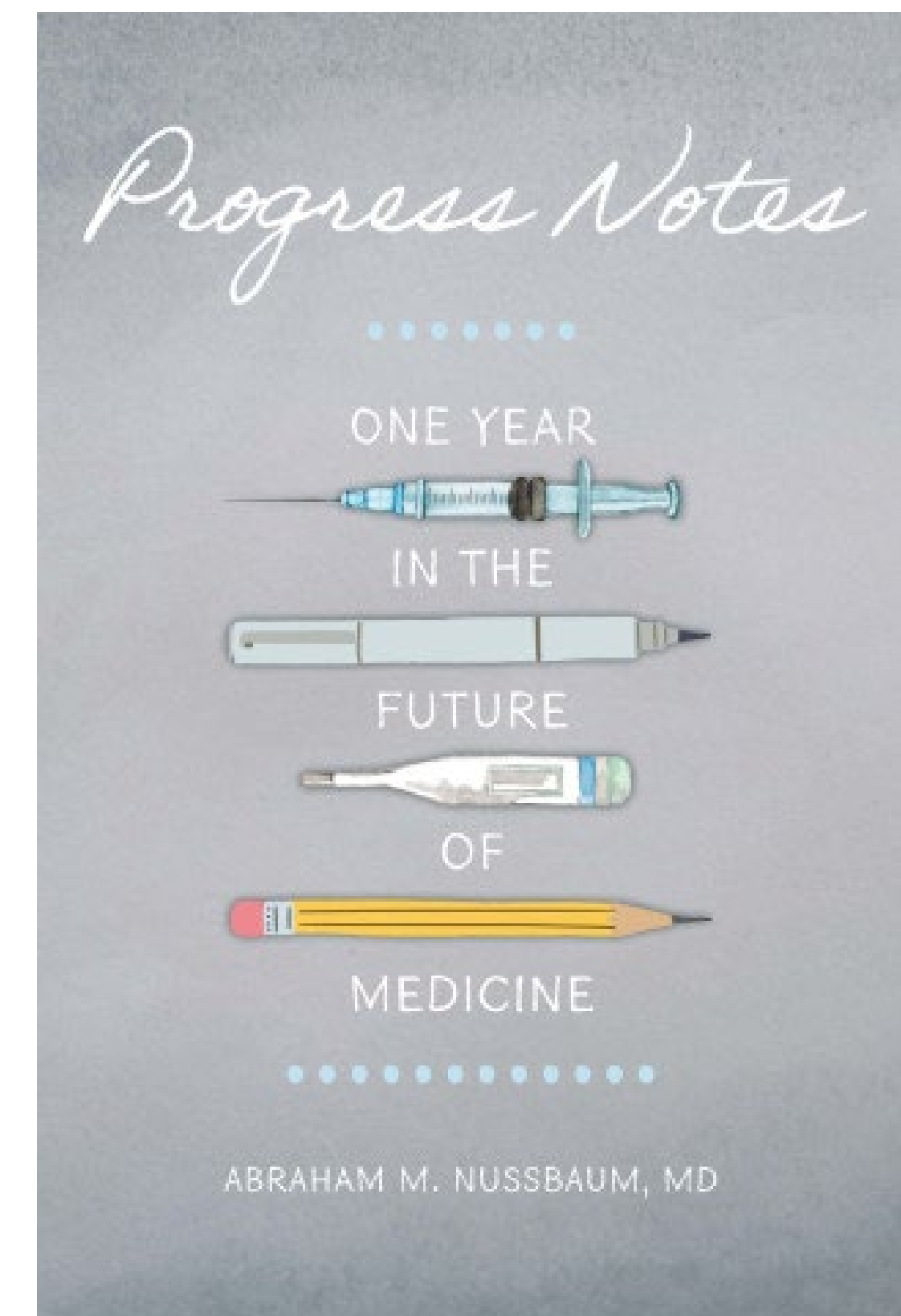
DH-LIC



Cohort 11 (33 students in 3 tracks; Advocacy, Equity and Public and Population Health) finished their DH LIC in August 2024. This group completed clinical rotations (EM, FM, OBGYN, IM, Peds, Psych, Surgery) in a longitudinal manner at DH.

LIC Signal Successes

- 200+ DH faculty educated a LIC student in weekly didactics or clinical service
- LIC students testified at the state capitol on numerous bills
- Cohort 4 alumni returned to DH as faculty:
 - Dr. Catherine Ard (IM)
 - Dr. Bijan Ghaffari (Psych/FM)
 - Dr. Sharon White (Urology)
- 5 total previous students have now returned to be DH faculty... and are precepting the next generation
- A book about the DH-LIC was published by Johns Hopkins University Press



Graduate Education


 <p>26</p> <p>Denver Health and Denver Community Health Services Sponsored Internships, Residencies, Fellowships</p>	 <p>2</p> <p>New Fellowships in Development for 2025</p>	 <p>1/3</p> <p>Current Denver Health Medical Staff Who Trained at Denver Health</p>	 <p>170</p> <p>Denver Health and Denver Community Health Services Sponsored Trainees</p>
 <p>1</p> <p>Teaching Health Center Award of \$1.28M to Address Primary Care Shortage (Family Medicine Residency)</p>	 <p>6</p> <p>Accreditation Site Visits Conducted at Denver Health and Denver Community Health Services</p>	 <p>33</p> <p>Graduate Education Program Directors Based at Denver Health</p>	 <p>861</p> <p>CU and Other Affiliate Sponsored Physician Trainees Rotating at Denver Health and Denver Community Health Services</p>



Graduate Education

Denver Health and Denver Community Health Services Internships, Residencies, Fellowships:

Behavioral Health APP Fellowship	Medicine Specialty APP (ASPIRe) Residency*
Breast Imaging Fellowship*	Neurotrauma Fellowship*
Emergency Medicine Residency	Oral and Maxillofacial Surgery Internship*
Emergency Medicine Research Fellowship	Oral and Maxillofacial Surgery Residency
Emergency Medical Services Fellowship	Orthopedic Research Fellowship
Emergency Medicine Ultrasound (Adult) Fellowship	Orthopedic Trauma Fellowship
Emergency Medicine Ultrasound (Pediatric) Fellowship	Pediatric Dental Internship*
Emergency Psychiatry Fellowship*	Pediatric Dental Residency*
Family Medicine Residency*	Pharmacy Residency**
Family Medicine Junior Faculty Fellowship*	Podiatry Residency*
General Practice Dental Residency	Primary Care APP Residency*
Integrated Behavioral Health Post-Doctoral Fellowship	Psychology Post-Doctoral Fellowship**
Medical Toxicology Fellowship	Psychology Residency**

 = programs started* or expanded** in last 5 years



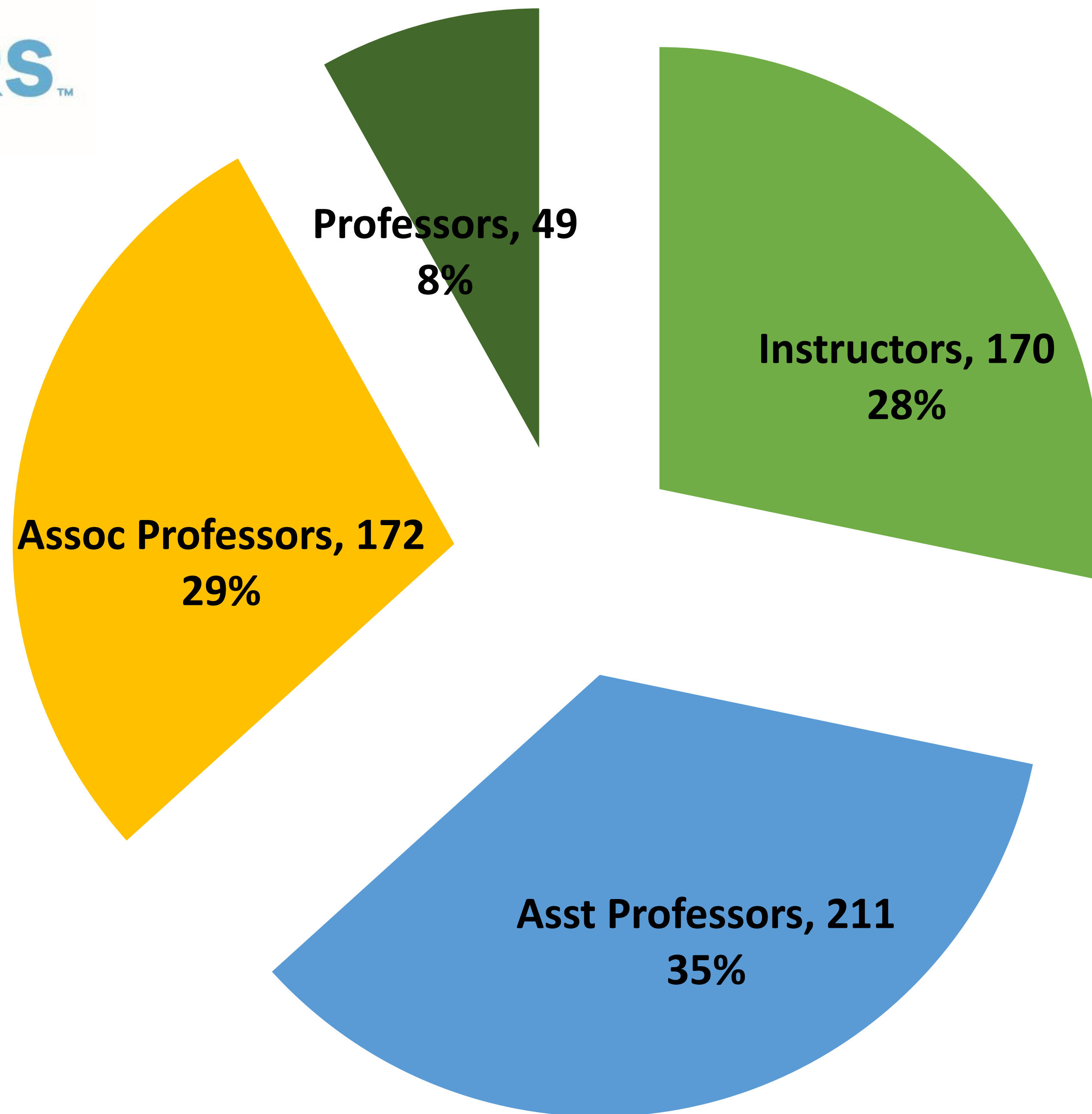
Graduate Education

Impacts of Graduate Education at Denver Health in 2024:

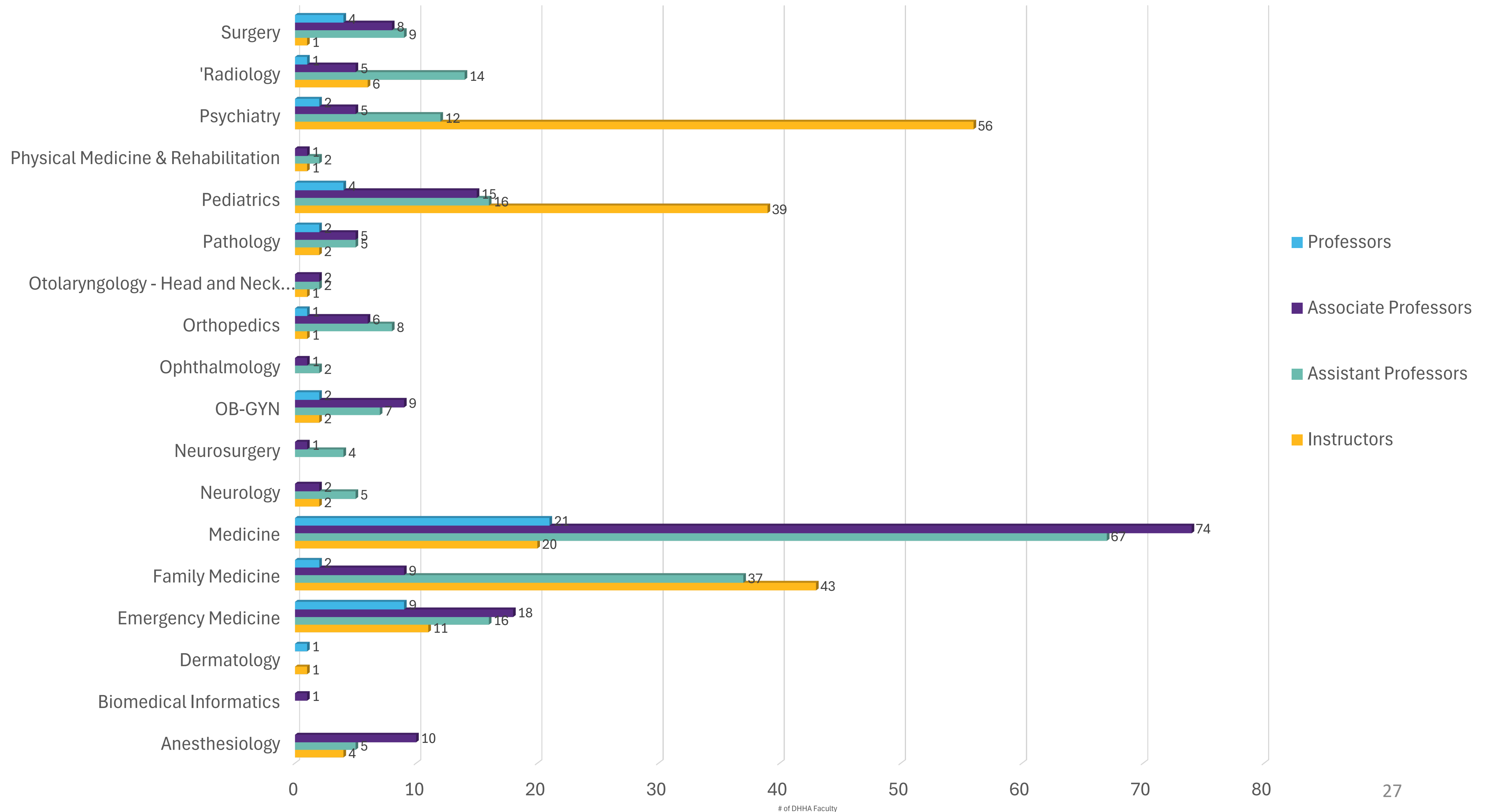
- GME federal funding from CMS provided **\$30,591,182 to Denver Health for the most recent fiscal year**, reflecting reimbursement for many of the resident and fellow FTEs at Denver Health
- Our 6+ years of working in collaboration with internal and external stakeholders to establish **Denver Health as a HRSA Teaching Health Center (THC) was rewarded in late October with a \$1.28M THCGME grant** for starting a new Family Medicine Residency based out of the Denver Community Health Services' Montbello Clinic
- Physician residents sponsored by or rotating at Denver Health, including our Emergency Medicine and Family Medicine residents, submitted **992 patient safety occurrence reports over 10 months in 2024**, contributing significantly to improving care and enacting change in our healthcare system
- Program directors for our Psychology Residency and Podiatry Residency authored important **papers on bilingual neuropsychology training and addiction medicine as part of residency rotations** at Denver Health, respectively
- Accreditation decisions received in 2024 for three of our Commission on Dental Accreditation programs all boasted **Accreditation Without Reporting Requirements**, allowing us to continue excellent clinical training in our General Practice Dental Residency, Pediatric Dental Residency, and Oral and Maxillofacial Surgery Residency
- Joined leadership of several national GME institutions.



DH CUSOM Faculty by Rank



DHHA-paid faculty, by rank and department





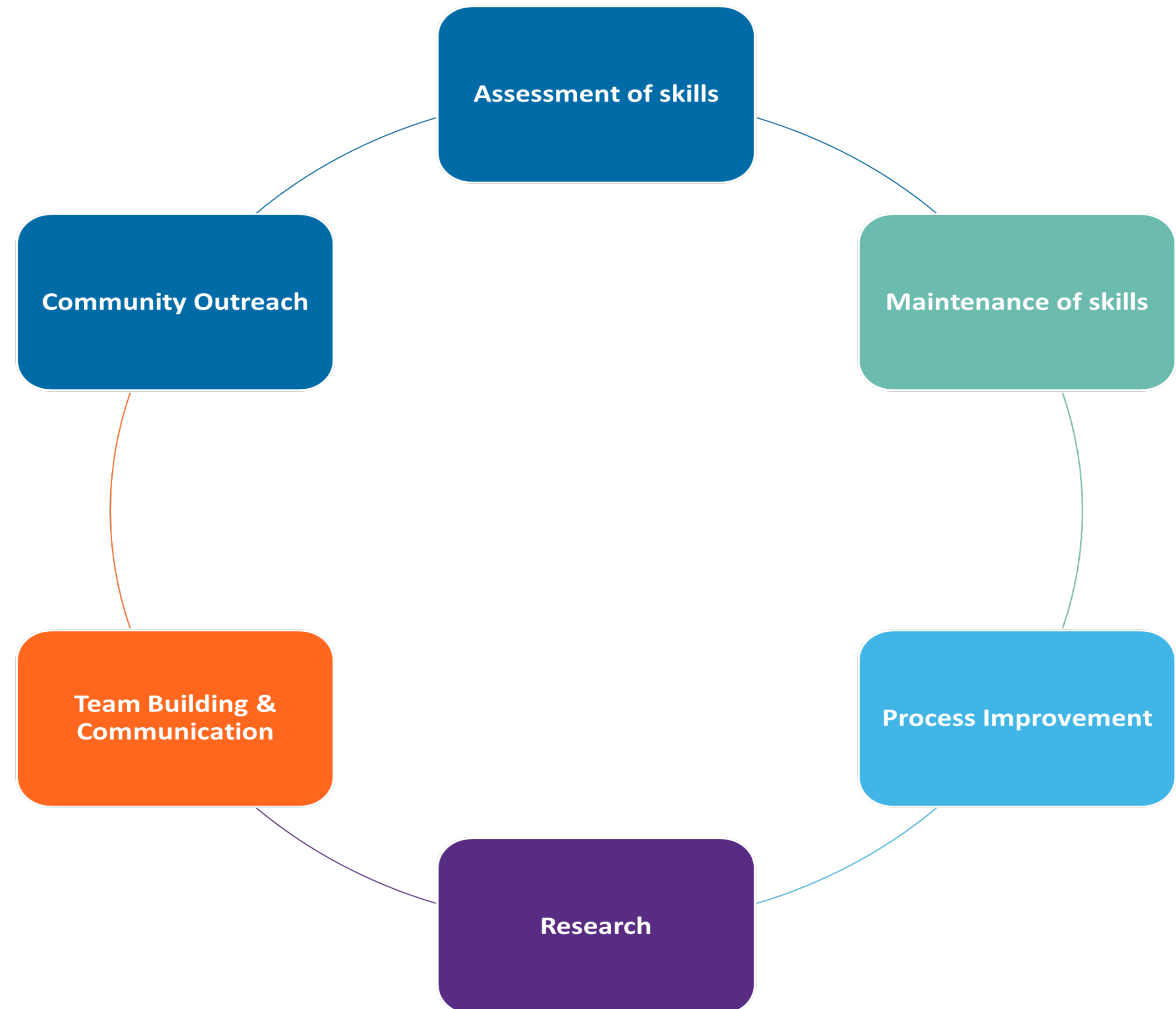
Continuing & Simulation Education

MISSION

To provide interprofessional, interdisciplinary education with a focus on detail that improves teamwork, communication, wellness, and overall patient

VISION

Advance medicine through education and innovation



Simulation

2024 Collaborations

Departments/Professions Utilizing Center	13
Different Learner Types	9
Total Unique Simulation Activities	25
Total Sessions	89

Ideal *Future State*

- Increase Interprofessional Interdisciplinary Education
- Centralize (Main center for simulation)
- Secure grant support
- Generate revenue
- Establish Simulation Fellowship



Critical Care Simulation Room



Patient Care Simulation Room (Flex Space)



Task Trainer Room (Share with AHA simulator)



MISSION

The CE program at DH is committed to maintain, develop, or increase knowledge, competence, and performance of health care professionals by delivering interprofessional evidence-based educational activities to foster a culture of continuous quality improvement.

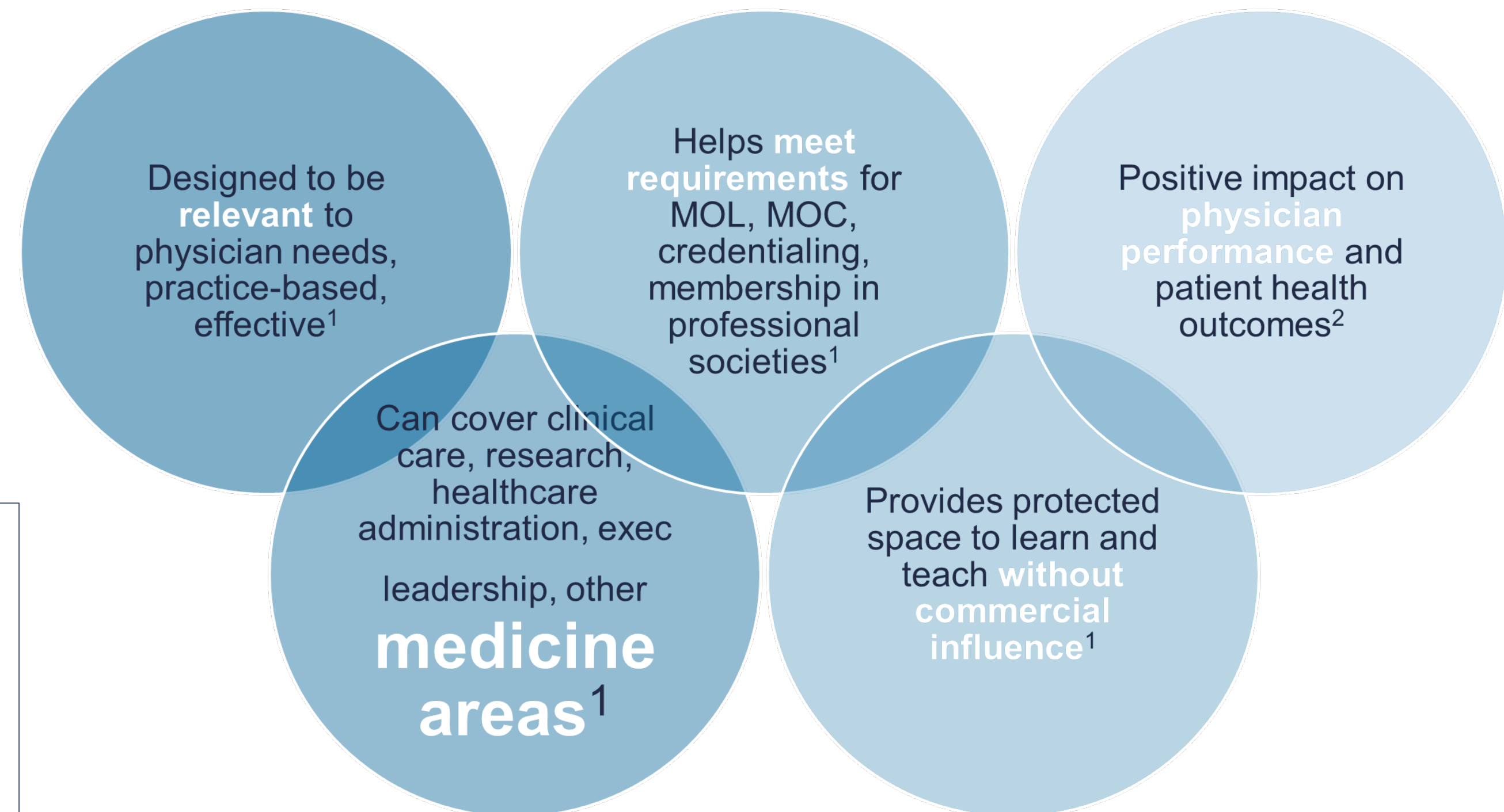
Continuing Medical Education Requirement for Physicians licensed in Colorado



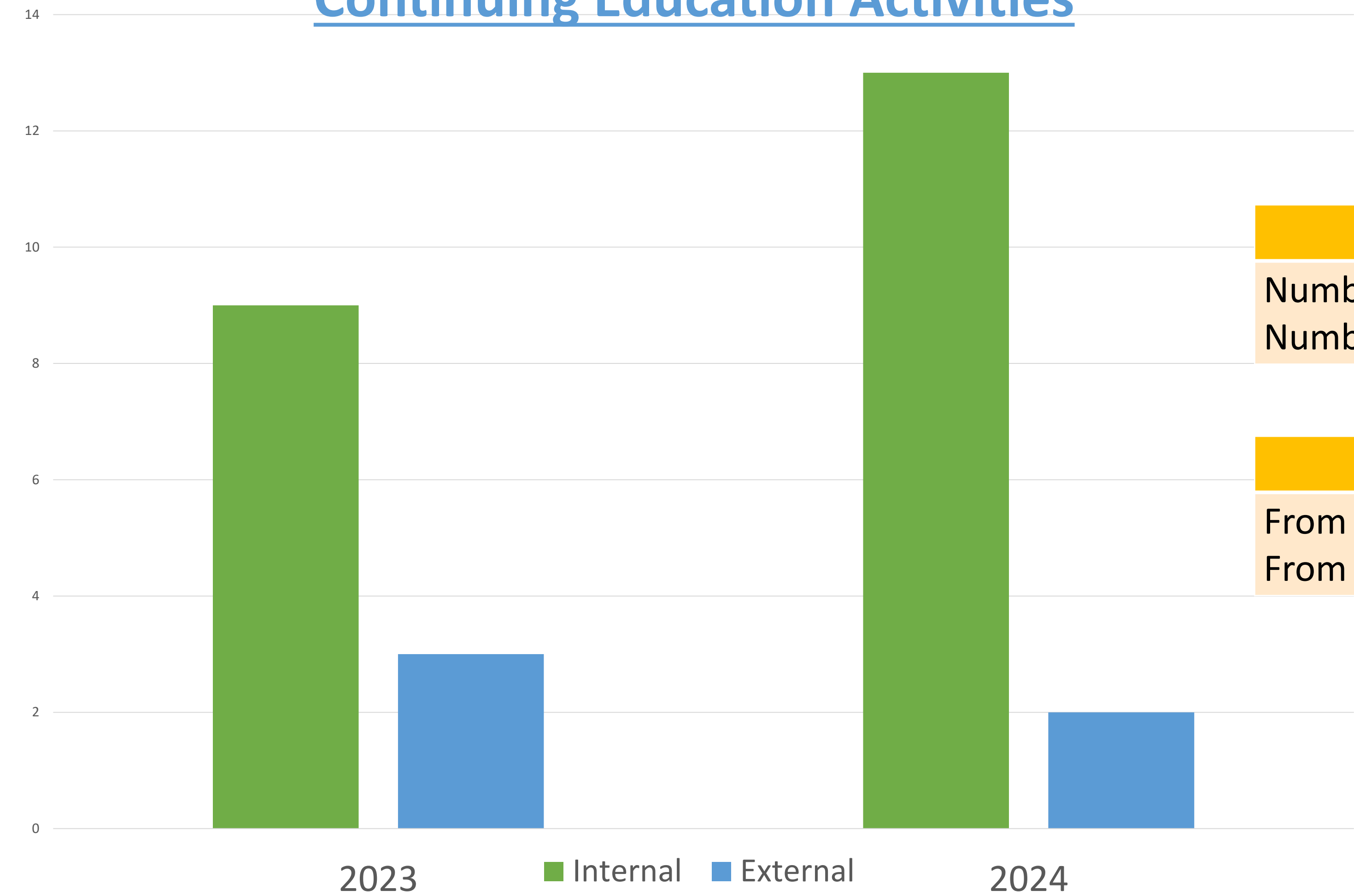
30 CME CREDIT HOURS

24 months preceding renewal, reinstatement, or reactivation of medical license

Driving increased internal demand for CME



Continuing Education Activities



ACTIVITIES 2024	
Number of External Activities	2
Number of Internal Activities	13 (44.4% increase)

REVENUE 2024	
From External Activities	\$2,987.50
From Internal Activities	\$23,637.50

Colorado Works for International Physicians (CO-WIP)

In collaboration with the Spring Institute, Denver Health initiated a program to support international medical graduates in reclaiming their medical careers, thereby contributing to the increase of primary care physicians in Colorado.



COWIP provided its participants with the opportunity to be supervised by approximately 30 Denver Health physicians across outpatient and inpatient settings. The program included clinical experience in various departments, such as Obstetrics, Inpatient Psychiatry, Adult Urgent Care, Peña Clinic, and Lowry Clinic, as well as simulation labs, didactic lectures, and dedicated time with an advisor. The first cohort is currently interviewing for residency programs.



COWIP 2025 Cohort

Muhanned Soud, has served in various capacities at Denver Health over the past 12 years, including roles in trauma services, mobile health projects, and clinical review, while also contributing as a PNTC instructor and a soccer coach.

Yonas Woldekiristos, is a medical graduate from Orotta School of Medicine in Eritrea. He has lived in Colorado, for the past 5 years and enjoys hiking, and watching soccer games.

Rebeka Sultana is a graduate from Chittagong Medical College. She is a mother of two, who enjoys traveling, photography, cooking, gardening, and reading.

Naw Wai Htoo is a medical graduate from Myanmar (Burma). She is currently a medical assistant.



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Office of Education Strategic Plan for 2024-2026

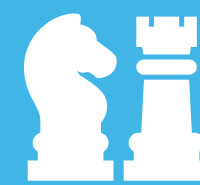
GOAL: Foster a culture of lifelong learning

Simulation and continuing education advances clinical excellence, implements evidence, improves patient safety and quality, and accelerates clinical training.



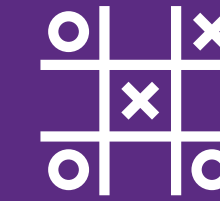
OBJECTIVE

- Develop a comprehensive lifelong learning center promoting staff development and clinical excellence



STRATEGIES

- Build partnerships to increase resources and educational opportunities
- Create plan for a sustainable simulation program
- Develop opportunities for advancements in education, innovation, and training



KEY TACTICS

- Explore high-impact external collaborations (e.g. Combat Center, Rocky Vista)
- Engage offices of academic affairs, medical staff, and patient safety/quality to deliver simulation
- Develop plan for funding which enables growth
- Develop system-wide calendar of learning events
- Increase interprofessional offerings
- Target simulation to clinical gaps and competency needs



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Thank you for your supporting the training of the next generation of health professionals at Denver Health