

# Historical Inequities in Medical Education – Commitment to Opportunity, Diversity, and Equity at the University of Hawai'i School of Medicine

Kathleen Kihmm Connolly PhD; Winona Lee MD; Vanessa Freitas BA;  
Lee Ellen Buenconsejo-Lum MD

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## Abstract

Medical education in the US has contributed to institutionalized racism through historically exclusionary practices, which has led to health disparities and inequities in health care today. The 1910 Flexner report, which favored schools with greater resources, led to the closure of nearly half of medical schools in the US, which were mostly small schools located in rural communities that served economically disadvantaged, ethnic minority, and female populations. Closing these schools ultimately limited the availability of physicians willing to serve disadvantaged and minority populations in impoverished and underserved communities. In order to transform medical education to be more equitable, medical schools must be proactive in opportunity, diversity, and equity efforts. This not only includes efforts in admissions and faculty hiring, but also curricula related to social and health disparities, interracial interactions between students and faculty, and service learning activities that engage and work with marginalized communities.

The University of Hawai'i John A. Burns School of Medicine has a longstanding commitment to diversity, which is integral to the school's mission. Providing opportunities to underserved populations has been a priority since establishment of the school. As one of the most diverse universities in the US, the school of medicine continues to focus on opportunity, diversity, and equity priorities in both its strategic planning and overall mission.

## Keywords

Medical education, DEI (diversity, equity, inclusion), equity in health care, institutionalized racism

## Abbreviations

AAMC = Association of American Medical Colleges  
COVID-19 = coronavirus disease 2019  
C-CODE = Coordinating Committee on Opportunity, Diversity and Equity  
DEI = diversity, equity, and inclusion  
DICE = diversity, inclusion, culture and equity  
JABSOM = John A. Burns School of Medicine  
LCME = Liaison Committee on Medical Education  
ODE = opportunity, diversity, and equity  
RQ = representative quotient

## Introduction

Institutionalized racism in the US has contributed to health disparities and inequities in the health care system that exists

today.<sup>1,2</sup> Stemming from the early 1600s, enslaved people, particularly Black women, were subject to involuntary and coerced medical exploitation that included sterilization, experimentation, and dissection. Despite the resulting advances in medical knowledge and technology (eg, areas of immunology, oncology, and gynecology), these instances of exploitation and racial injustices have caused unfathomable damage and continue in the form of racial bias and inequities in health access, opportunities, and outcomes.<sup>3</sup> Medical education, in part, has contributed to this racism as evidenced by the history of exclusionary and discriminatory practices and policies within the US medical school system. These policies and practices, which have discriminated against people of color, women, and those with few economic resources, have directly contributed to the lack of diversity in the physician workforce. This in turn has impacted quality and access to care for communities of color as well as those from marginalized and underserved populations.<sup>1,2,4</sup>

Sparked by the recent social justice movements (Black Lives Matter, #MeToo, LGBTQ+) there has been an increased emphasis on initiatives by medical education organizations such as the Association of American Medical Colleges (AAMC) and Accreditation Council for Graduate Medical Education (ie, transformative admissions committees, diversity [pathway] programs, or curricular changes to be more inclusive) aimed at achieving diversity in US medical schools. In order to transform the system to be more equitable, medical schools must embrace these movements and increase efforts in opportunity, diversity, and equity (ODE). This includes curricula related to social and health disparities, interracial/intercultural interactions between students and faculty members, and service learning activities that engage and work with marginalized communities. A medical school education that includes curricula on health equity and exposure to interracial interactions, both with fellow students and faculty members, has been shown to positively impact decisions to practice in underserved and minority communities.<sup>5</sup> Evidence has also shown that geographical and patient practice preferences of medical school graduates are influenced by the types of educational experiences received during their medical school training.<sup>4,5</sup>

ODE efforts will in turn contribute to a more diverse physician workforce, which has the potential to reduce health disparities by creating a workforce that better reflects patient diversity. Additional potential benefits of a diverse physician workforce include an increase in the number of medical school faculty members that can serve as role models and mentors to better attract diverse students; better patient-provider interaction that is culturally sensitive; and support of further efforts to eliminate health disparities in minority and underserved populations.<sup>1,4</sup>

However, despite recent upward trends to address the lack of diverse representation among students and faculty within US medical schools, rectifying past exclusionary practices remains a challenge. Barriers include the lack of leadership commitment, prioritizing academic scores over other criteria, and social, political, and alumni pressures that influence medical school admissions. In order to end racial inequalities in medical education, coordinated strategies, both internal and external, are needed at multiple levels within the educational system.<sup>6</sup> As an example of a medical school that has integrated ODE efforts from inception, the University of Hawai'i John A. Burns School of Medicine (JABSOM) has a history of promoting inclusion through its mission and institutional initiatives, which are further described in this article. See **Figure 1** for a historical timeline of events related to ODE, medical education and JABSOM.

### Past Inequities in Medical Education

Structural racism in the US has been an influence on the types of students that medical schools admit and subsequently graduate into the physician workforce. These social, economic, and political structural factors result in systems (both health care

and educational) that are racially and culturally biased, which ultimately leads to health inequities related to access, quality, and outcomes for those groups that are disadvantaged. As a monumental influence, published in 1910, the Flexner Report studied, assessed, and rated 155 medical schools in the US and Canada based on 5 principles: admissions, faculty, endowments and tuition, quality of laboratories, and availability of clinical educators. Assessment criteria favored schools with laboratory, hospital, and research resources versus schools that focused on the physician as a practitioner and the delivery of health care.<sup>7</sup> This report contributed to a higher standard in medical education, however it came at the expense of closures of medical schools with limited financial and faculty resources, which ultimately limited the availability of physicians willing to serve in impoverished and underserved communities.<sup>1,8</sup>

Ten years after the Flexner Report was published, approximately half of US medical schools, mostly small schools located in rural communities that served disadvantaged, female, and minority populations, closed (from 160 in 1910 to 85 in 1920).<sup>8,9</sup> Additionally as a direct influence of the report, 5 out of 7 Black medical schools in operation at that time were closed.<sup>8,10</sup> The 2 remaining historically Black medical schools, Howard University School of Medicine and Meharry Medical College, were subsequently responsible for graduating approximately 75% of all Black physicians in the US through the 1960s. Furthermore, the number of medical colleges for women decreased from 7 in 1900, to only 1 remaining by 1930 (Women's Medical College of Pennsylvania).<sup>10</sup> As a result, the number of female physicians decreased from 5.6% in 1900 to 2.9% in 1915.<sup>10</sup> The Flexner report has been criticized as promoting professional elitism as it also raised standards and requirements for admission, which

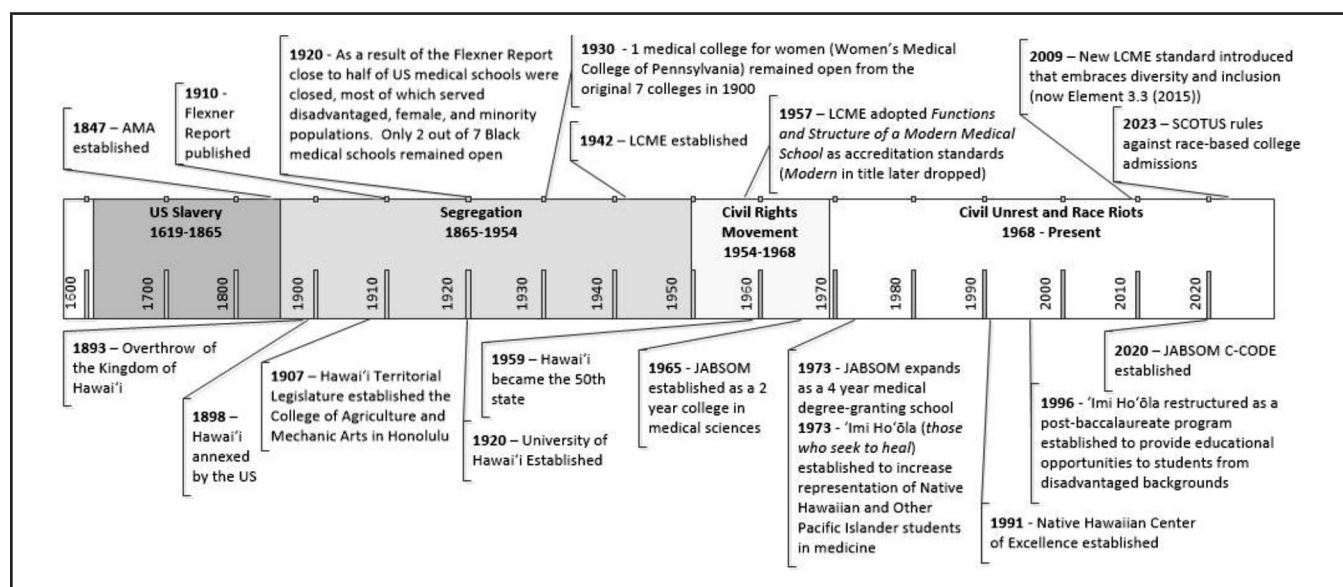


Figure 1. Historical Timeline of Events Related to ODE, Medical Education and JABSOM

Abbreviations: ODE, opportunity diversity equity; JABSOM, John A. Burns School of Medicine; AMA, American Medical Association, LCME, Liaison Committee on Medical Education; SCOTUS, Supreme Court of the United States; C-Code, Coordinating Committee on Opportunity, Diversity and Equity

made it difficult and nearly impossible for economically disadvantaged populations, racial/ethnic minorities, and women to attend medical school.<sup>1,7,9</sup>

## Standards for Change

Despite the negative consequences of the 1910 Flexner Report, currently the benefits of standardization are contributing to the goal of achieving diversity as a sign of excellence within medical education. Accreditation of medical schools in the US and Canada today are regulated by the Liaison Committee on Medical Education (LCME), which was established in 1942 largely from concerns on shortened curricula and increased enrollments due to World War II.<sup>11</sup> Accreditation by the LCME is a process of quality assurance for medical education programs and a requirement for most state boards as a condition for licensure.<sup>11</sup> The standards established by the LCME are created to ensure that medical education is complying to a level of education such that graduates gain professional competency and are prepared for the next stages of training. The LCME standards are continuously reviewed and adjusted according to societal and educational needs. Most recently, there has been a greater acknowledgment and increased public awareness for the need to rectify the impacts of systematic racism, as seen by the health disparities made apparent by the COVID-19 pandemic.

Although accreditation does not guarantee that medical schools include diversity in both its students and faculty, it does provide an expectation, structure, and standard for diversity efforts to be assessed during accreditation. As part of LCME standards (Element 3.3 - Diversity Programs and Partnerships), assessment includes programs targeting diverse groups; policies and practices focused on the recruitment, admission, retention, support for diverse student groups; and the recruitment, retention, and support of faculty to support a diverse student body. Assessments in these areas are flexible and should be appropriate for the population and regions for which the medical school serves.<sup>12</sup> Although Element 3.3 directly assesses ODE efforts, schools that stand out in addressing ODE examine opportunities across all the LCME standards. Having a holistic approach in ODE efforts within multiple levels and areas across medical education facilitates a process of change as an organization and also facilitates the ability to identify new areas where ODE efforts can be expanded with broader collaborative efforts to achieve goals.<sup>6,13</sup>

## Present Inequities in Medical Education

As medical schools strive to overcome past inequities, recent national data shows substantial strides in gender disparities. Female enrollment in US medical schools has gained momentum, surpassing male enrollment in last 4 years at 54% in academic year (AY) 2022-2023.<sup>14</sup> However, there has been little growth in racial diversity among medical school student enrollment within the last 40 years.<sup>15</sup> Large gaps continue to

exist, particularly with Latinx (Hispanic), and Black groups, which make up the largest minority groups in the US. While Latinx individuals make up approximately 18.9% and Black account for 13.6% of the US population (2022),<sup>16</sup> Latinx students comprise 6.8% and Black students comprise 8.3% of the medical school enrollment in AY 2022-2023.<sup>14</sup> In a recent study by Taparra and Deville, medical student matriculant data between January 1, 2000 and December 31, 2020 reported by the AAMC was examined. Representative quotients (RQs) were used to determine the proportion of a subgroup compared with the US population: an RQ of 1 denoted equal representation; greater than 1, overrepresentation; and less than 1, underrepresentation. Medical students identifying as Native Hawaiian and Other Pacific Islander alone vs alone or in combination, had substantial underrepresentation with an RQ less than 0.5.<sup>17</sup>

Nationwide, medical school faculty continue to be dominated by White (61.8%) and male (56.1%) faculty members, with substantial underrepresentation of Black (3.8%) and Hispanic or Latinx (3.5%) full-time faculty members (2022).<sup>18</sup>

## Medical Education in Hawai'i

The state of Hawai'i is ranked the most diverse state in the US (2020 US Census Bureau Diversity Index calculation) and has the highest percentage of racial diversity when compared to all other states.<sup>19</sup> The largest racial/ethnic group in the state of Hawai'i (2020) was Asian (37.2%), followed by White (22.9%).<sup>19</sup> The state also has the highest Native Hawaiian and Other Pacific Islander population (10.8%) in the US.<sup>19</sup> However, despite the diversity of the population, health disparities and inequities continue to exist, which are often hidden in aggregated population statistics. For example, health disparities were made apparent during the coronavirus disease 2019 (COVID-19) pandemic where subgroups of aggregated population data (eg, Filipino, Vietnamese, Marshallese, and other Micronesian) revealed disproportionately higher cases and deaths related to COVID-19.<sup>20</sup>

As the only LCME accredited medical school in Hawai'i, JABSOM has continuously strived to reflect the demographics of the state.<sup>21</sup> The school has the highest percentage of Asian (59.4%) and highest Native Hawaiian or Other Pacific Islander (1.9%) student enrollment compared to all other US medical schools (2022-2023 AY).<sup>14</sup> JABSOM also has higher percentages of Asian (53.1%) and Native Hawaiian or Other Pacific Islander (7.3%) faculty members (2018-2019 AY), compared to overall faculty rates in US medical schools (19.2% and .1% respectively).<sup>18</sup> Despite the higher numbers of Native Hawaiian or Other Pacific Islander faculty members and students at JABSOM, this group continues to be underrepresented compared to the overall Hawai'i population of this group (10.1%).<sup>19</sup>

Overall, JABSOM is making strides to truly reflect the state's diversity in student enrollment and faculty. However, the school continues to show underrepresentation in particular groups that

are hidden in aggregated numbers. In particular, the Filipino population (alone or in combination) in Hawai‘i makes up approximately 25% of the state’s population,<sup>22</sup> while comprising only 5% of JABSOM faculty members and 16% of the medical school entering class in AY 2021-2022.<sup>21</sup> JABSOM continues to strive for equity and diversity to rectify racist practices and policies that were often caused and influenced by the structural racism in the continental US, which have impacted Hawai‘i and the US Pacific.

### **Past and Present Commitment to Diversity at JABSOM**

A commitment to diversity has always been central to JABSOM’s mission. Opened initially as a 2-year college in medical sciences in 1965, the school later evolved into a 4-year medical degree granting school in 1973. From the school’s inception, providing opportunities to underserved populations has been a priority. Under the first Dean of JABSOM, Dr. Windsor Cutting, a 2-year preclinical medical program was established that offered tutoring to disadvantaged students with the goal to advance them into the medical degree program. This program eventually evolved into the ‘Imi Ho‘ōla Program (a Hawaiian phrase meaning for “those who seek to heal”), whose mission is to improve health care in Hawai‘i and the Pacific by providing educational opportunities to students from disadvantaged backgrounds.<sup>23</sup> Currently, the program has been operating for 50 years and accepts 12 students annually who, upon successful completion, will matriculate into JABSOM as first-year medical students.<sup>23,24</sup>

The ‘Imi Ho‘ōla Program is just one example of the school’s initiatives to increase diversity. The Native Hawaiian Center of Excellence, established in 1991, continues to work closely with Native Hawaiian pre-medical and medical students to increase the representation of Native Hawaiian students in medicine.<sup>23</sup> Within the medical school curriculum there are several opportunities for students to engage and work with rural and underserved communities. For example, the Hawai‘i Rural Health Program, which started in 2011, provides opportunities for first year medical students to spend 12 weeks learning and serving in rural communities on neighboring islands to O‘ahu, which is the urban hub of the state. Thus far, 21% of students who have participated in this program and graduated have returned to practice medicine in rural communities in Hawai‘i.<sup>26</sup> Another recent example of JABSOM’s commitment to diversity is the creation of the ‘Apu Kaulike Task Force, which was created in July 2020. The goals of this task force include the following priorities: (1) to increase Native Hawaiian student representation within JABSOM that consistently reflects the demographics of Native Hawaiians within the state of Hawai‘i; (2) to establish JABSOM as a premier Indigenous place of learning by developing and sustaining culturally safe and inclusive policies, procedures, and programs that ensure Native Hawaiian student

success; and (3) to engage a network of community stakeholders with shared goals of diversity, equity, and inclusion.

### **Coordinating Committee on Opportunity, Diversity, and Equity**

As a continued commitment to diversity, in 2020 JABSOM leadership established the school-wide Coordinating Committee on Opportunity, Diversity and Equity (C-CODE). This committee was created and tasked to review institutional strategic priorities relevant to ODE and provide enhanced coordination and communication for initiatives and activities related to diversity and inclusion within JABSOM’s programs and educational settings. Four priority areas for C-CODE were established: (1) community engagement and improving patient care to diverse populations; (2) curricular innovations for ODE non-clinical and clinical learners; (3) professional development and training in ODE for faculty and staff; and (4) recruitment and retention of diverse students.

Since the committee’s inception, work has been conducted in several areas. For example, a new diversity website was created to serve as a central hub for the JABSOM community.<sup>27</sup> The website serves as an information portal for ODE news, and features events and learning opportunities, resources and articles, and data and reports. The committee has also contributed to new graduation objectives related to diversity, equity, and inclusion that were developed and proposed by the Office of Medical Education. These objectives aim for students to demonstrate a commitment and respect for ODE and include the following themes: (1) demonstrate that one values and understands how aspects of an individual’s overlapping identities create unique lived experiences that may influence health and health care outcomes; (2) advocate for social, economic, educational, and policy changes that help achieve optimal learning, health, and well-being within the healthcare team and system; (3) mitigate implicit and explicit attitudes or stereotypes; (4) recognize and seek solutions for population-level differences in health outcomes, disease burden, and the distribution or allocation of resources; (5) practice anti-racism and critical consciousness in health care by advocating for policies, institutional practices, and cultural representations; (6) foster practices to create safe spaces to share voices without a fear of retribution; (7) collaborate to promote culturally inclusive and collaborative written and spoken communication; and (8) advocate for inclusive services and systems.

The C-CODE committee also participated in and helped administer the AAMC Council of Deans initiative on advancing, diversity, equity and inclusion (DEI), Diversity, Inclusion, Culture and Equity (DICE) Inventory.<sup>28</sup> The DICE Inventory was a coordinated effort to gain feedback from students, faculty, staff, and the community to document and gain an understanding of where JABSOM stands in regards to ODE. The inventory

data is a collection of existing resources that can be used to measure progress, identify current ODE initiatives, identify potential strengths and challenge areas, and prioritize efforts in achieving ODE goals and objectives for the medical school. In order to complete the inventory, meetings were scheduled with each department to provide data, and 3 working groups were established to provide additional input and review the data collected on: (1) institutional data, policies, and faculty and staff recruitment and retention; (2) communications and community engagement; and (3) student pathway programs, curriculum, and admissions. On completion of the inventory, an overall report was generated based on the results of all participating medical schools.<sup>29</sup> Out of 101 schools, JABSOM ranked over 10% higher in overall average score and achieved overall higher scores in all but 1 category (governance and leadership structures) as compared to other schools.

The establishment of the C-CODE demonstrates an active commitment to ODE at JABSOM. C-CODE is a strategic approach that provides oversight to ODE issues across the school. Members are represented by all areas of the school (faculty, staff, students, leadership) with the goal of achieving input from different points of view within the JABSOM community. A review of LCME accreditation consultation among 17 medical schools revealed that a shared or systematic commitment and responsibility that includes collaborative efforts from various offices, programs, and departments that engage faculty, staff and students is key to successful ODE efforts.<sup>28</sup> JABSOM continues to strive for an equitable and diverse environment for both students and employees with C-CODE serving as a concerted and collaborative effort to reach this goal.

## Conclusion

Despite challenges in rectifying past discriminatory policies and procedures in US medical schools, evidence shows that progress is being made. As demonstrated by the DICE inventory report, 100% of the medical schools that participated reported admission policies that encourage diversity in student enrollment. Other areas of strength included commitment of senior leaders towards DEI, equitable employee benefits, and prioritizing DEI in the school's mission, vision or value statements. Areas identified as needing improvement include recruitment plans for diversity in faculty members, DEI promotion and tenure policies, and readily available diversity data to support DEI planning.<sup>29</sup>

At the John A. Burns School of Medicine (JABSOM), diversity has long been an integral component of the school, as demonstrated by the medical school's vision statement: *Maika'i Loa: Attain Lasting Optimal Health for All (ALOHA)* and the shared core value, which includes "Diversity and Inclusion: Respect for the entire spectrum of human experience." Recently in 2020, as an overarching theme for all JABSOM strategic goals, the following theme was added to the strategic plan: "[to] enhance diversity and opportunities within each goal in order to achieve

equity in our JABSOM 'ohana [family] and communities we serve." This overarching theme incorporates diversity, equity, and inclusion as key values across all of JABSOM's strategic missions and goals. Moving forward, the C-CODE, as well as the many diversity programs, activities, and efforts across JABSOM, will continue to strive to reduce inequities within the medical school and its community, with the ultimate goal to eradicate health disparities in Hawai'i and the US.

## Conflict of Interest

None of the authors identify a conflict of interest.

### Authors' Affiliation:

John A. Burns School of Medicine, University of Hawai'i at Mānoa, Honolulu, HI

### Corresponding Author:

Kathleen Kihmm Connolly PhD; Email: kihmm@hawaii.edu

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