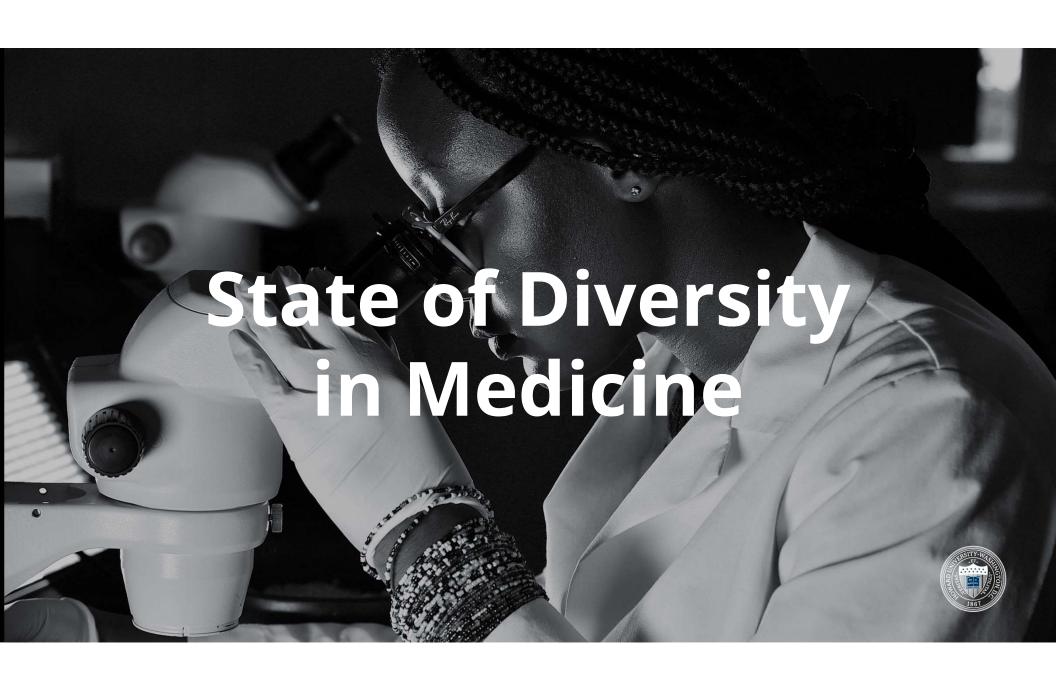
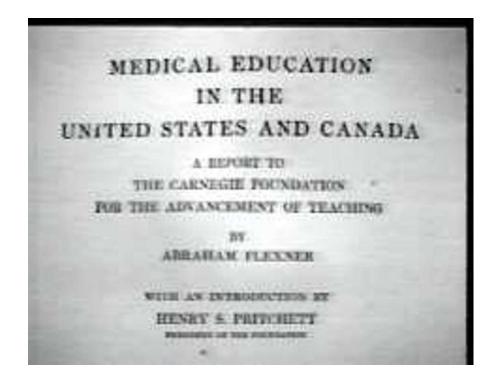


The Impact of the Pandemic on Diversity in Academic Medicine

Wayne A. I. Frederick, MD, MBA, FACS Charles R. Drew Professor of Surgery President



Flexner Report









Flexner Report Recommendations and Outcomes

- Entrance requirements and adherence to them
- The size and training of the faculty
- The sum and allocation of endowment and fees to support the institution
- The adequacy and quality of the laboratories as well as the training and qualifications of the laboratory instructors
- The relationships between the school and its associated hospitals.
- His intent was to reduce the physician supply
- He called for reducing the number of schools to 31
- Annual output of physicians from 4,442 to 2,000
- The number of medical schools decreased to 85
- The number of students from 28,142 to 13,798
- The percentage of schools requiring two years of college for admission rose from 3 to 92





Flexner Report Impact on Women and People of Color

- "It is clear that [women] show a decreasing inclination"
- "The seven medical schools for negroes" be reduced to two
- Blacks, being "a potential source of infection and contagion," needed their own physicians.
- "Hygiene rather than surgery" be "strongly accentuated" in these schools.
- By 1923, only two medical schools for blacks remained.
- Between 1920 and 1964, less than three percent of students entering American medical schools were black.





Flexner and Howard University

- Abraham Flexner was a member of Howard University's Board of Trustees from 1930-1936.
- He served as board chairman from 1932-1935.









First Faculty Members Howard University College of Medicine



(Front Row: L-R) A. T. Augusta, G. S. Palmer, R. Reyburn, C. B. Purvis, P. H. Strong (Back Row: L-R) S. L. Loomis, O. O. Howard, J. T. Johnson.





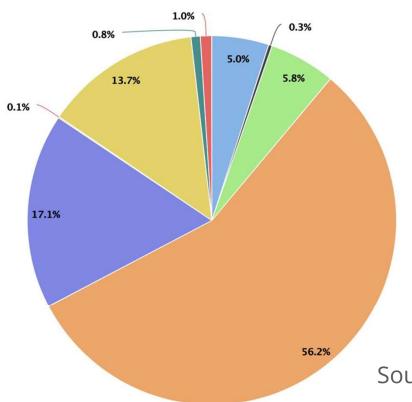
Applicants to U.S. Medical Schools by Race/Ethnicity (2018-2021)

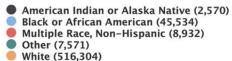
Applicants	2018-2019			2019-2020		2020-2021		2021-2022				
Selected Combinations of Race/Ethnicity	Men	Women	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total
American Indian or Alaska Native Only	58	51	109	40	49	89	31	41	72	46	59	105
American Indian or Alaska Native, Black or African American	13	36	49	13	31	44	15	35	50	21	49	70
American Indian or Alaska Native, White	119	123	242	116	132	248	108	135	243	121	162	283
Asian Only	5,345	5,871	11,216	5,234	5,793	11,027	5,140	6,088	11,228	5,836	7,584	13,420
Asian, Black or African American	43	48	91	47	51	98	46	52	98	67	82	149
Asian, White	450	529	979	505	593	1,098	497	605	1,102	543	782	1,325
Black or African American Only	1,558	2,872	4,430	1,554	2,864	4,418	1,457	2,906	4,363	1,895	4,272	6,167
Black or African American, White	85	118	203	84	117	201	106	134	240	115	183	298
Hispanic, Latino, or of Spanish Origin Only	1,595	1,701	3,296	1,570	1,779	3,349	1,561	1,770	3,331	1,718	2,319	4,037
Hispanic, Latino, or of Spanish Origin, Black or African American	80	129	209	88	142	230	80	139	219	114	254	368
Hispanic, Latino, or of Spanish Origin, White	762	799	1,561	816	923	1,739	781	921	1,702	925	1,248	2,173
Native Hawaiian or Other Pacific Islander Only	20	33	53	19	23	42	22	19	41	25	16	41
White Only	12,904	11,776	24,680	11,860	11,595	23,455	11,226	11,639	22,865	11,758	13,882	25,640
White, Other	355	255	610	319	302	621	332	305	637	392	403	795
Other	612	554	1,166	607	590	1,197	678	608	1,286	742	821	1,563
Multiple Race/Ethnicity Not Listed Above	408	500	908	427	538	965	460	558	1,018	484	733	1,217
Unknown Race/Ethnicity	544	464	1,008	1,326	1,305	2,631	1,258	1,369	2,627	1,146	1,281	2,427
Non-U.S. Citizen and Non-Permanent Resident	924	1,023	1,947	869	1,020	1,889	822	1,019	1,841	1,000	1,308	2,308
Total Applicants	25,875	26,882	52,757	25,494	27,847	53,341	24,620	28,343	52,963	26,948	35,438	62,386





Only 5% of Doctors Are Black (2018)





Asian (157,025)Hispanic (53,526)

Native Hawaiian or Other Pacific Islander (941)

Unknown (126,144)

U.S. Population by Race

Year	White*	Black	Hispanic	Asian	Multiple Races	Other**
2020	59.7%	12.5%	18.7%	5.8%	2.3%	0.9%

 $urce: \textit{U.S. Census Bureau. *Excludes Hispanics **Other includes American Indian/Alaska Native (0.7\%) and Native waiian/Pacific Islander (0.2\%). Both proportions remain unchanged in these projections.$





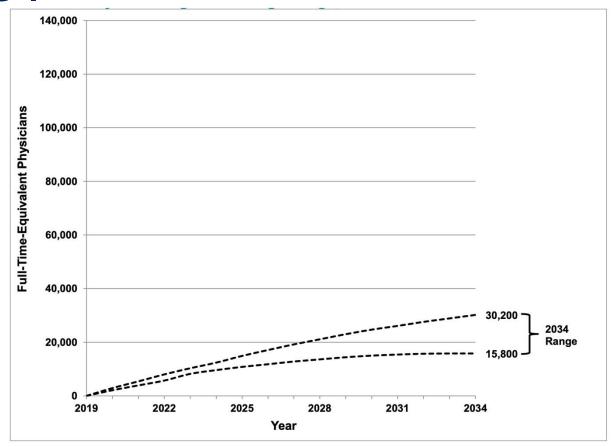
Number of Active MD Residents, by Race/Ethnicity (2019-2020)

- 50.8% white
- 21.8% Asian
- 7.5% Hispanic
- 5.5% Black or African American
- 0.6% American Indian or Alaska Native
- 0.2% Native Hawaiian or Other Pacific Islander
- 16.5% of active MD residents were non-U.S. citizens





Projected Surgeon Shortage Range, 2019-2034







Practice Specialty, Males by Race/Ethnicity, 2018

Specialty	Asian	Black or African American	American Indian or Alaska Na- tive	Hispanic (Alone or With Any Race)	Native Hawaiian or Other Pacif- ic Islander	Multiple Race Non- Hispanic	Other Race/Eth- nicity	White	Unknown
Allergy/ Im- munology	450	42	5	98	2	21	20	1,581	691
Anatomic/ Clinical Pathology	944	125	6	341	8	87	31	4,779	1,555
Anesthesiolo- gy	4,363	1,118	98	1,529	26	228	167	20,029	3,595
Cardiovascu- lar Disease	3,055	545	28	858	13	125	140	10,074	4,282
Critical Care Medicine	2,418	313	15	679	14	119	182	4,806	497
Dermatology	543	113	18	228	1	32	50	3,964	1,189
Emergency Medicine	2,783	1,047	128	1,572	26	305	205	22,024	3,406
Endocrinology /Diabetes	665	100	1	224	5	33	31	2,048	751
Family Medi- cine/ General Practice	7,206	2,604	347	4,286	74	391	463	40,520	13,132
Gastroenterol- ogy	2,561	366	12	633	4	114	98	6,347	2,221
General Surgery	2,320	925	63	1,156	16	143	169	11,701	3,419





Practice Specialty, Females by Race/Ethnicity, 2018

Specialty	Asian	Black or African American	American Indian or Alaska Na- tive	Hispanic (Alone or With Any Race)	Native Hawaiian or Other Pacif- ic Islander	Multiple Race Non- Hispanic	Other Race/Eth- nicity	White	Unknown
Allergy/ Im- munology	557	92	6	95	4	19	30	914	194
Anatomic/ Clinical Pathology	875	192	8	277	3	60	24	2,710	731
Anesthesiolo- gy	2,192	837	27	560	19	145	61	6,030	913
Cardiovascu- lar Disease	982	194	5	159	4	45	35	1,611	219
Critical Care Medicine	995	163	3	202	2	56	48	1,718	71
Dermatology	976	309	14	309	6	57	49	4,144	275
Emergency Medicine	1,494	928	43	737	10	209	87	8,287	457
Endocrinology /Diabetes	1,306	156	5	323	1	49	50	1,736	273
Family Medi- cine/ General Practice	8,117	3,977	286	3,361	79	573	404	26,378	4,117
Gastroenterol- ogy	991	197	3	214	5	30	25	1,180	128
General Surgery	894	433	31	326	9	87	52	3,353	211





Black Male Enrollment in Medical School

- In 1978, Black males represented 3.1% of the national medical student body
- In 2019, they accounted for 2.9% of the national medical student body
- Across medical schools nationwide in fall 2021:
- Total enrollment increased 1.5%
- Black first-year student enrollment increased by 21%
- Black male first-year student enrollment increased by 20.8%







Howard University: In the Beginning

- March 2, 1867: Charter approved by the 39th United States Congress, named for General Oliver O. Howard, a Civil War hero.
- Intent: The University was established on the principle that it would be open to all ethnicities, both sexes, and all social classes
- Charter: The following departments were specified: normal and preparatory, collegiate, theological, medicine, law, and agriculture





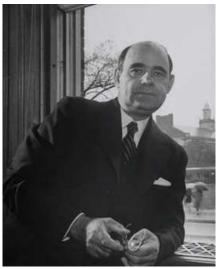
Howard University: Growth

Legacy of Dr. Mordecai Wyatt Johnson

Status of HU in 1926

- Eight schools and colleges, none were fully accredited
- Enrollment: 1700 and budget, \$700,000 Status of HU in 1950
- Ten schools and colleges, all were fully accredited
- Enrollment: 6,000 students; \$8M budget, 20 new buildings
- Initiation of the Graduate School in 1955 supported continued growth







Howard University: Today

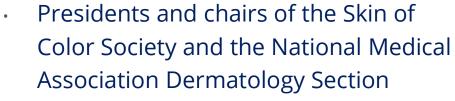
- 14 schools and colleges
- 10 schools within Academic Affairs
- 4 schools of the Health Sciences
- 6,000 employees, including 1,000 faculty
- 256-acre main campus
- \$92M in grant and contract awards in FY 2021 (new record)
- Howard University Hospital, a comprehensive health care facility and Level 1 Trauma Center
- Public television station (WHUT) and nonprofit commercial radio station (WHUR); WHUR is one of the top 5 radio stations in the DMV market
- Total Enrollment: 12,000+ total students enrolled in Fall
 2021 (highest in over a decade)
- Federal appropriation



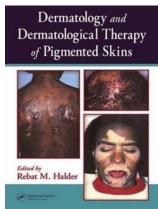


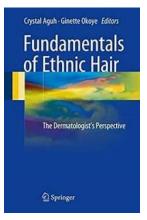
The Only Dermatology Department at an HBCU Dermatology and Crystal Aguith - Ginette Okoye Editors Only Dermatology and Crystal Aguith - Ginette Okoye Editors

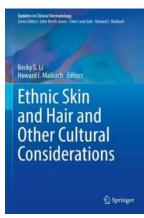
 Graduates of the Howard University Dermatology Residency program have been:



 Two Howard dermatology graduates are on the board of the directors of the American Academy of Dermatology





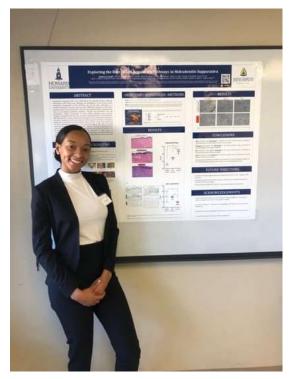


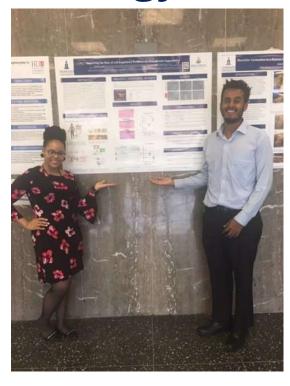
 Textbooks on skin of color dermatology authored by our faculty and residents





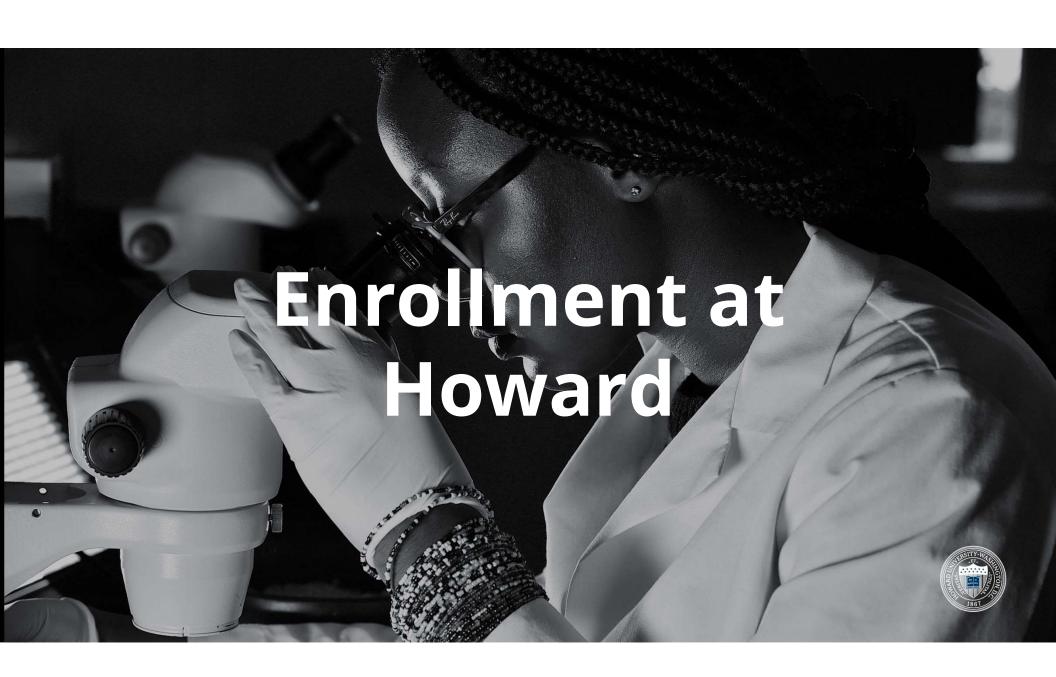
Howard Dermatology Today





- Left: Janyla Selzer, 4th year med student. Won 1st place in 2019 SMNA poster presentation
- Right: Nebiyat Zewdie, 4th year med student. MSSRP Poster presentation 2019





Diversity in Academia

- Ensuring diversity in research begins with ensuring diversity at all levels of education.
- Howard's mission is to provide opportunities to those individuals who would not receive opportunity anyplace else.
- In particular, we emphasize matriculating students interested in studying and pursuing careers in STEM.







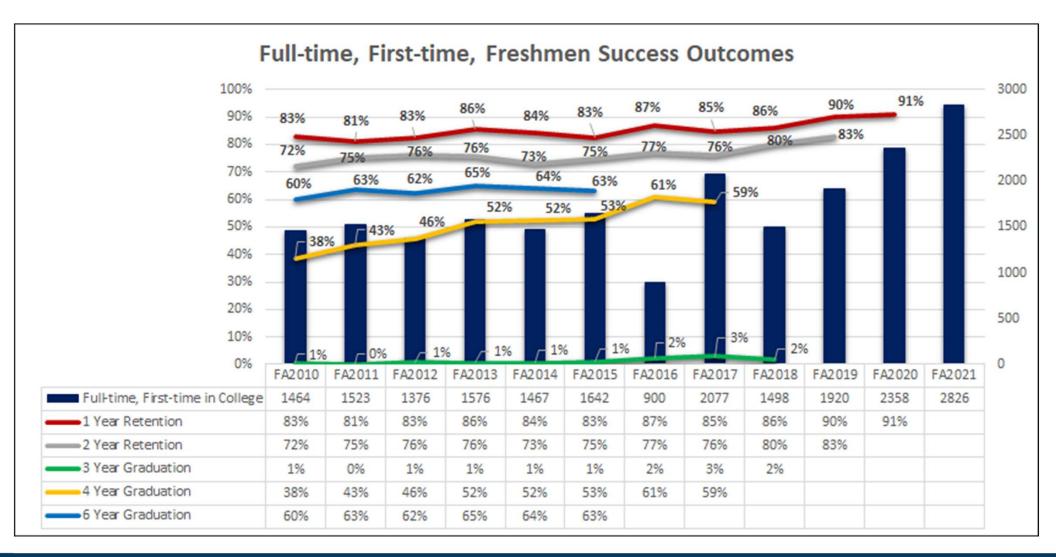
12,144

total students enrolled in Fall 2021 (highest in over a decade) 3,030 students in freshman class

29,396 applications from FTIC students for Fall 2021 (up from 24,325 the year before)

60% 4-year graduation rate (Howard Forward goal is 70% by 2024)

64% 6-year graduation rate (Howard Forward goal is 80% by 2024)





Fall 2021 FTIC Student Profile

As of Census Day, October 22, 2021



74% Female

26% Male

High School Academia Data



3.67

GPA Fall 2020 3.60

Top Five States

- Maryland
- New York

New Jersey

- Georgia
- Represented

49 States and Territories

Texas

Top five majors

Biology

Political Science

Psychology

Nursing

Media, Journalism & Film

24

ACT Score 2020 AVG - 25



SAT-T Score 2020 AVG - 1197

Top Five Countries

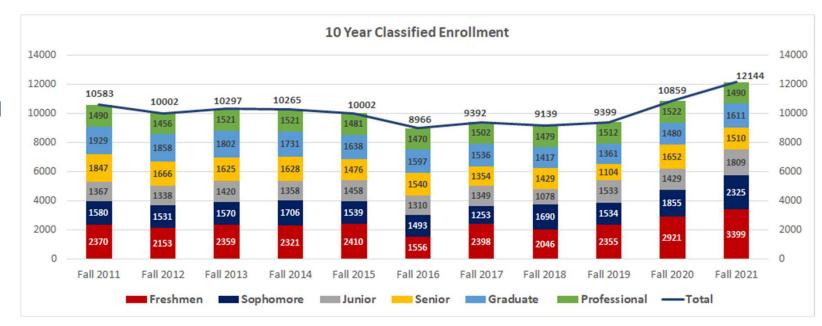
- Jamaica
- Nigeria
- Ghana
- Nepal
- Bahamas

25 Countries Represented



Keys to Successful Enrollment

- Strategic recruitment
- Increased financial aid
- Online course offerings
- Higher retention





#41

best value schools, U.S. News & World Report 89 spot improvement in best value school from the year before

44% of incoming Fall 2021 cohort is eligible for Pell Grants, federal program for student financial aid



HUCM Selectivity

Year	Total Applicati ons*	# Interview s	# Offer s	# New Matricula nts	Acceptance Rate (Matriculants/Applica nts)
2021*	8496	358	283	122	1.4%
2020	6138	350	255	118	1.9%
2019	6133	348	256	119	1.9%
2018	4152	328	229	121	2.9%

^{*}Total applicants with MCAT 494+



^{**} As of 5/25/21

HUCM Costs

- Tuition & Fees
- \$54,826
- Room/Board
- · \$27,578
- Personal
- \$9,056
- Total*
- · \$91,460

Above is based on M3 year



Medical School Applications and Enrollment

79

Howard medical students enrolled for Fall 2021 who were not accepted anywhere 7,502 Fall 2021 applications

39.05% increase in applications from Fall 2020

125 medical students enrolled for Fall 2021



HUCM Single Acceptance Students

Year	Class Size	# Accepted by HUCM Only	Percent of the Class
2020	118	90	76%
2019	119	87	73%
2018	120	93	78%
2017	116	87	75%
2016	112	89	80%

 Nationally: 58% of students accepted by 1 school only.





The COVID-19 Pandemic

The pandemic has spurred recognition of health disparities experienced by communities of color, both long term and specific to the pandemic.

- Black Americans were more than twice as likely to die from COVID-19.
- The lifespan of a Black man who lives in Ward 7 and 8 in Washington, D.C. is around 20 year less than a white woman who lives in Ward 3 only miles away.

The pandemic has also increased recognition that diversity and representation in academic medicine and the health care industry is critical to close the gap in health disparities.





Improving Diversity in Med School Enrollment

Across medical schools nationwide in fall 2021:

- Total enrollment increased 1.5%
- Black first-year student enrollment increased by 21%
- Black male first-year student enrollment increased by 20.8%





Improving Diversity in Med School Enrollment

Across medical schools nationwide in fall 2021:



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We Still Need to Eliminate Bias From Medical School Admissions

It's true that more Black students are going to medical school, but admissions processes still need to change, writes Wayne A. I. Frederick.

By Wayne A.I. Frederick // March 14, 2022





Bloomberg Philanthropies Gift to HUCM

- Bloomberg Philanthropies has made a \$31.7 million gift to support scholarships for current HUCM students with financial need.
- The gift is part of a total \$100 million awarded to the nation's four historically Black medical schools over the next four years to help increase the number of Black doctors in the U.S. by significantly reducing the debt burden of approximately 800 medical students.

Class	Eligible	Received	Total Awarded
2021	86	80	\$6,837,415.00
2022	80	75	\$2,871,090.00
2023	88	84	\$2,076,602.00
2024	88	78	\$1,819,282.00



The COVID-19 Pandemic

The pandemic has helped to accelerate the change Howard has been working for decades to realize in academic medicine and the health care workforce.







2021 Pre-Health Scholars

- Average GPA: 3.66
- Average MCAT practice score increase:+7 points
- Average DAT practice score increase:+2.4 points
- · 32 females, 6 males





Top 20 Doctorate-Granting Institutions Black/African-American Recipient 2014-

2018

Institution Name	Rank	#Black/African American Doctoral Recipient
Howard U.	1	317
Jackson State U.	2	166
U. Florida	3	157
U. North Carolina, Chapel Hill	4	141
Georgia State U.	5	138
U. Michigan, Ann Arbor	6	137
U. Georgia	7	132
Louisiana State U., Baton Rough	8	131
Michigan State U.	9	127
Texas A&M U.	10	125
U. Illinois, Urbana-Champaign	11	123
U. Memphis	12	119
U. South Carolina	13	116
Morgan State U.	14	115
Auburn U.	15	115
North Carolina Agricultural and Technical State	16	114
Texas Southern U.	17	113



Karsh STEM Scholars Program

Mission and Goal

- The Karsh STEM Scholars Program's mission is to increase the number of underrepresented minorities who earn a PhD or combined MD/PhD in a STEM discipline. Participants must be interested in pursuing a career in research and/or teaching, policy development or a leadership role in government or the corporate world.
- The goal is to encourage and help each student to maximize their social and academic growth and development to become some of the best prepared applicants for graduate and professional school applicants.







KSSP Program Outcomes

- Average High School GPA: 3.89
- Average Math SAT Score: 712
- Average Combined SAT Score: 1385
- Average Math ACT Score: 29
- Average Composite ACT Score: 30
 - Average Term GPA, Fall 2020: 3.74
- Average Cumulative GPA, Fall 2020: 3.82



Charis Haynes, Class of 2020 Cohort K-4



KSSP Program Outcomes

- Weill Cornell Gateway to the Laboratory
- AMGEN at UT-Southwestern
- Google STEP Internship
- NASA JPL
- Naval Research Laboratory
- Children's National Medical .
 Center
- Harvard Amgen Scholars
- MIT MSRP
- UC STARS
- NSF CREST

- Wash U Summer Engineering Fellowship
- Johns Hopkins Diversity
 Summer Program
 - Vanderbilt Pre-MSTP Program
- SURP , ICHAN School of Medicine at Mt. Sinai
 - MD Anderson Women and Minority Inclusion Program
- Rutgers RISE
- University of Minnesota LSSURP
- Institute of Molecular Pathology – Vienna
- NIAID

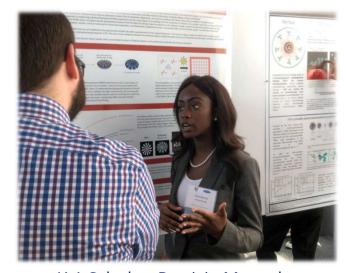


KSSP Scholars exhibiting one standard of excellence at the 2019 ABRCMS Conference in California



KSSP Program Outcomes

- Goldwater Scholar (2)
- NSF Graduate Research Fellowship
- American Institute of Chemical Engineering Student Award
- AMP# Scholar
- Phi Beta Kappa Dean's List Clinton Global Initiative University participant
- Outstanding Research Presentations at ABRCMS and SACNAS conferences
- Cell Press "Rising Black Scientist Award"
- Chemistry Department Award for Excellence in General Chemistry
- Upsilon Pi Epsilon Computer Science Honor Society
- Science Direct article (2-scholars)
- Materials Science & Engineering article
- Forbes Reflections on Michele Obama's Reaching Higher Summit
- Cell Press Winning Essay, Still We Rise



K-1 Scholar, Patricia Mensah, presenting her summer research



2021-2022 Goldwater Scholar

Howard University junior Jazmine Grant has been named a 2021-2022 Goldwater Scholar. The prestigious award recognizes college sophomores and juniors who intend to pursue research careers in the natural sciences, mathematics and engineering. Grant is the third student in Howard University history to receive the honor.

Grant is a junior biology major and chemistry minor from Baltimore, Maryland. She currently serves as a member of Dr. Kimberlei Richardson's lab at the Howard University School of Medicine, where she focuses on studying the role of the neuropeptide orexin in the co-occurrence of binge eating and drug addiction. She is also a member of the Karsh STEM Scholars Program at Howard University.



Jazmine Grant



NSF Graduate Research Fellowship

Cohort 2: K-2 member Kameron Walker has received the National Science Foundation Graduate Research Fellowship. The NSF GRFP "recognizes and supports outstanding graduate students in NSF-supported STEM disciplines who are pursuing research-based master's and doctoral degrees at accredited US institutions. The five-year fellowship includes three years of financial support including an annual stipend of \$34,000 and a cost of education allowance of \$12,000 to the institution". In another demonstration of her exemplary work, Kameron will also be graduating a year early. We congratulate Kameron and look forward to her incredible next steps.



Kameron Walker



K-1 Graduate School Offers

- Howard University
- Johns Hopkins University
- Stanford
- University of Pennsylvania
- Columbia University
- Carnegie Mellon
- University of California San Diego
- Yale University
- Northwestern University
- Purdue University
- NYU
- Georgia Tech

- Harvard
- University of Maryland-Baltimore County
- University of Wisconsin-Milwaukee
- University of Virginia
- Clemson
- Rice
- University of Texas-Austin
- University of North Carolina-Chapel Hill
- University College of London
- University of Chicago
- Emory
- University of Maryland-Baltimore



Inaugural Cohort started in the Fall of 2017 K-1 will be graduating May 2021





HUMS⁽²⁾

Howard University Middle School of Mathematics and Science

2020 HIGHLIGHTS

- 96% of students re-enroll for the next school year, leading to continued enrollment growth
- 15-year charter renewal for the school that has been operating successfully since 2005
- Achieved Middle States Accreditation
- 67% of students met or exceeded math proficiency
- 51% of students met or exceeded English/Language Arts proficiency
- 98% attendance on the first day of virtual school following the pandemic-caused shutdown – all students had take-home devices ready to use





Howard West: Powered by Amazon Studios



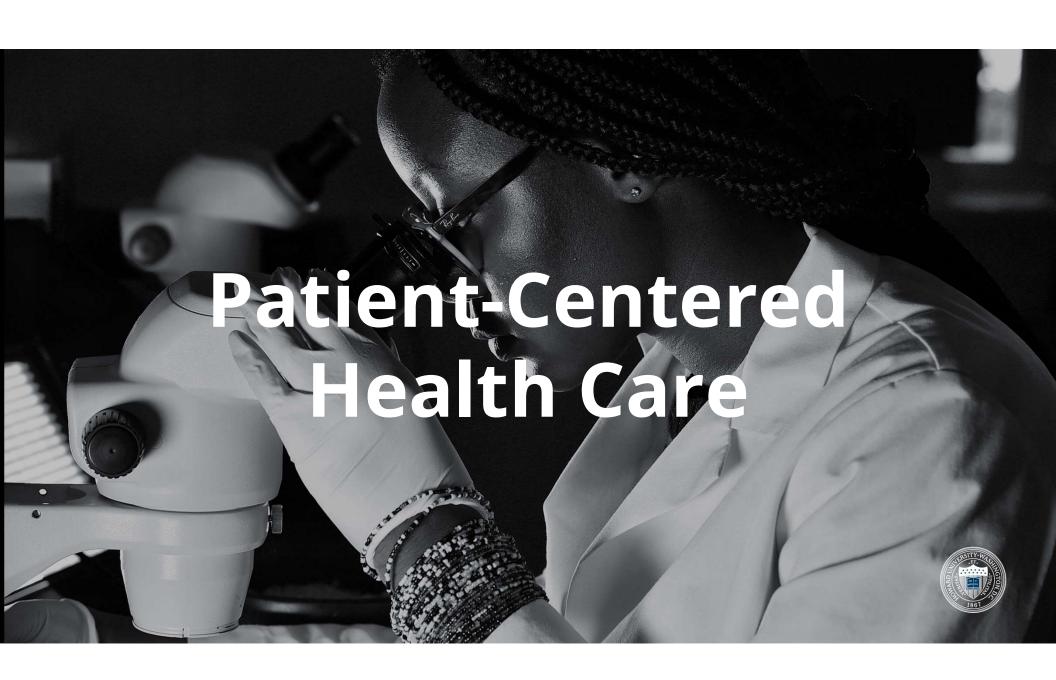


Howard University Named as Partner in \$90 Million Initiative to Create Diverse Pipeline to Alternative Finance Industry

"AltFinance: Investing in Black Futures™" will diversify the alternative investment industry by attracting, training and providing career opportunities for college students attending HBCUs.







"The patient must be the object of our affection" – Dr. LaSalle D. Leffall

- Chair of Howard University Department of Surgery
- First African-American to serve as national president of:
- The American Cancer Society
- The Society of Surgical Oncology
- The American College of Surgeons.





Community-Centered Care

- Deploy midlevel health care providers into communities to identify and assist those most at risk.
- Deploy a network of mobile health units to deliver primary care within communities.
- 3. Build a national telemedicine network so people can be consistently monitored by a physician, receive health advice, or be given a referral to an accessible location.

Taking Health Care to the People: 6 Proposals to Improve Health, Economic, and Educational Outcomes for Black Communities

WAYNE FREDERICK, PRESIDENT, HOWARD UNIVERSITY





Community-Centered Care

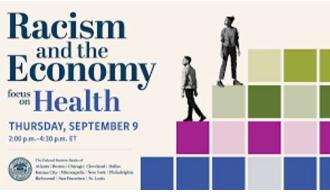
- 4. Deliver food to communities that have limited access to fresh and healthy options. Libraries and community centers can serve as ordering and pickup points, making this structure less expensive than trying to build food stores to scale.
- 5. Remove barriers to health care access by building a transportation network to bring people to places of care. Uber and Lyft models can be widely used to take patients to and from care sites.
- 6. Increase the minimum wage and scale it to match inflation and the local cost of living, including housing, food, and reasonable transportation.

 Structure employment contracts to guarantee employees can receive health care without compromising their employment status.



Taking Health Care to the People: 6 Proposals to Improve Health, Economic, and Educational Outcomes for Black Communities

WAYNE FREDERICK, PRESIDENT, HOWARD UNIVERSITY





Howard University Cancer Center







Howard Expands COVID-19 Testing and Vaccine Distribution

May 2020

 Howard University and Bank of America provide COVID-19 testing and health care to most vulnerable, underserved communities in D.C.

February 2021

 Howard University Hospital (HUH) opened a COVID-19 vaccine clinic.

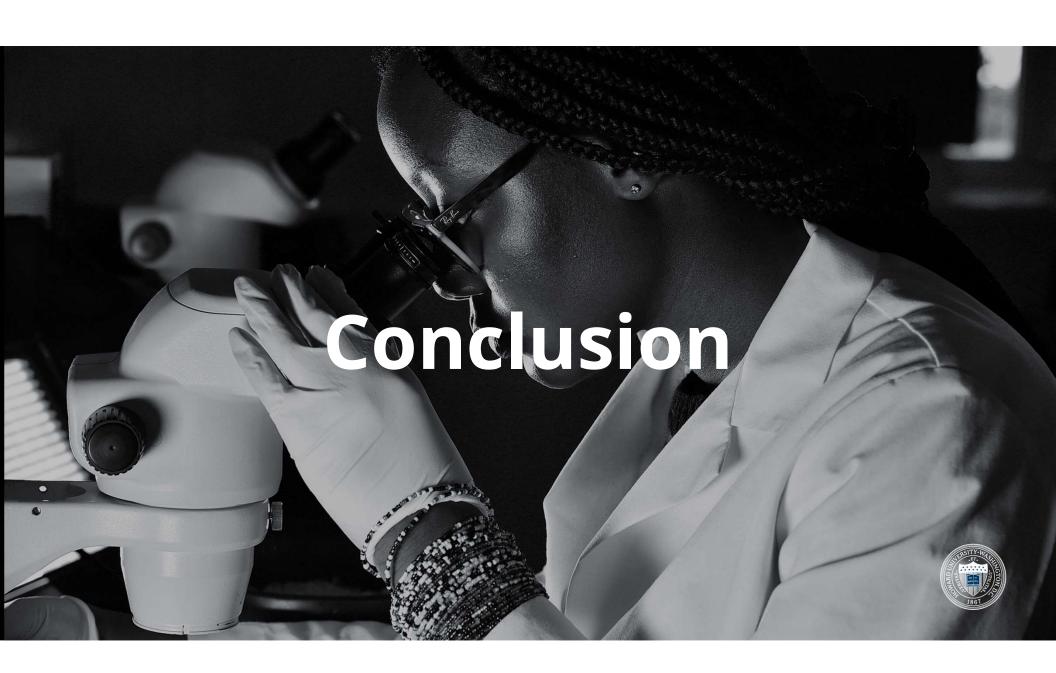




Vaccination Outreach

- Daily (Mon-Fri) Vaccine clinic in College of Medicine's Numa Adams Building administers an average of 500 doses daily.
- Saturday, March 13 City-wide mass vaccination clinic with D.C. Department of Health.
 Administered 1,000 doses of Moderna vaccine.
- Friday, March 19 Vaccine clinic in Ward 6 (Hill East) with Councilmember Charles Allen. Administered 180 doses of Johnson & Johnson vaccine.
- Saturday, April 3 Vaccine clinic in Ward 8 with Southeast Tennis and Learning Center,
 GW, Children's Hospital and Medstar with goal to support community and city efforts.





Howard University Deans



Rubin PattersonCollege of Arts and
Sciences



Anthony D. Wilbon School of Business



Gracie-Lawson
Borders
Cathy Hughes School
of Communications



Yolanda Pierce School of Divinity



Dawn WilliamsSchool of Education



John Anderson School of Engineering and Architecture



Dana Williams Graduate School



Danielle Holley- WalkerSchool of Law



Sandra Crewe School of Social Work



Hugh MightyCollege of Medicine



Gina BrownCollege of Nursing and
Allied Health Sciences



Toyin TofadeCollege of Pharmacy



Andrea JacksonCollege of Dentistry



Phylicia Rashad Chadwick A. Boseman College of Fine Arts



"Excellence of Performance Will Transcend Artificial Barriers Created by Man"









Equality



The assumption is that everyone benefits from the same supports. This is equal treatment.

Equity



Everyone gets the supports they need (this is the concept of "affirmative action"), thus producing equity.

Justice



All 3 can see the game without supports or accommodations because the cause(s) of the inequity was addressed. The systemic barrier has been removed.



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