

DC HAPP 2017-2018 Report

The Need for Healthcare Pipeline Programs

In 2004, the Association of American Medical Colleges (AAMC) defined the term underrepresented in medicine (URM) as “racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population” (Association of American Medical Colleges [AAMC], 2004). In 2016, Blacks, Latinos, Native Americans, and Native Hawaiians comprised 33% of the United States population (United States Census Bureau, 2016). In contrast, 13.3% of United States medical school matriculants and 8.9% of active United States physicians identified as Black, Latino, Native American, or Native Hawaiian (AAMC, 2013; AAMC, 2015). The lower rate of URM medical students and physicians originates in the size of the pool of qualified and prepared candidates and their evaluation during the medical school admissions process, which is envisioned as a pipeline from elementary education through medical school graduation.

One barrier to increasing the number of URM physicians includes academic preparation during elementary and secondary education, with high school graduation rates used as a measurement of success. In 2015, 75% of Black, 76% of Latino, and 72% of American Indian/Alaska Native public school students graduated from high school (National Center for Education Statistics [NCES], 2017). This is an increase from 2011 when 67% of Black students and 71% of Latino students graduated from high school. In comparison, 90% of Asian students and 88% of White students graduated from high school in 2015 (NCES, 2017). The medical school pipeline continues to narrow as URM students graduate from high school (and matriculate into institutions of higher education) at a lower rate than their peers.

An additional squeeze point in the pipeline is the medical school application process. One method of understanding the reduction of the URM pool is the demographic breakdown of applicants. Only 14.2% of medical school applicants identify as URM—again, unrepresentative of the general United States population (AAMC, 2014). A study by the AAMC found that although college graduation rates have increased, Black males were less likely to apply to medical school than their peers (AAMC, 2015). For the 2017-2018 application cycle, 15.2% of medical school applicants identified as URM but were 13.8% of accepted students and matriculants (AAMC, 2017). The pipeline continues to constrict even during medical school: in 2017, 10.9% of recent medical school graduates identify as URM (AAMC, 2017).

The underrepresentation of Black, Latino, Native American, and Native Hawaiian populations in medicine also has a profound impact on the overall health of the general population. Patients of color are more likely to seek out health providers of color. The lack of URM health providers leads to compromised patient-physician communication, linguistic barriers, and patients of color reporting feeling less respected and heard when interacting with health providers than their white counterparts (Cooper & Roter, 2003).

Over the years, there has been a concerted effort to increase the number of underrepresented populations in medical professions. One approach has been pipeline programs. A pipeline program focuses on intensively supporting a small number of people, often from a particular identity group, to increase the overall numbers of people from that group that are prepared for the identified role or position. For many years, pipeline programs have been used to link grade school students to colleges and professional careers, particularly health careers (U.S. Department of Health and Human Services, 2009).

Measures of education success in Washington, D.C. mirror the disparities we see at the national level, highlighting the need for URM youth-focused programming. The 2017 district high school graduation rate was 72.4%, compared to the national average of 83% (Office of the State Superintendent of Education, 2017; NCES, 2017). Though this is an increase from the previous year, the district still struggles to graduate high school students in four years and has been embroiled in controversy over chronic absenteeism and false grade promotion.

Diversifying medicine by ensuring equal and fair access for those who have been historically marginalized and excluded from the profession begins in the community in which the George Washington University School of Medicine and Health Sciences (SMHS) is located. The GW SMHS Office of Diversity and Inclusion developed the DC Health and Academic Prep Program to expand the medical school pipeline for Black and Latino students in the Washington, D.C. area by focusing on high school graduation and college matriculation.

DC Health and Academic Prep Program Overview

Mission

The George Washington University School of Medicine and Health Sciences Office of Diversity and Inclusion coordinates DC Health and Academic Prep Program (DC HAPP) to reduce health disparities and increase workforce equity by inspiring and preparing students with backgrounds underrepresented in medicine (URM) to become health professionals. Each scholar is selected based on their passion for healthcare. Students attend a four-week summer experience and participate in clinical shadowing.

DC HAPP scholars gain exposure to potential healthcare professions, learn hands-on medical skills, develop public health projects, and prepare for college applications and college life. Medical and public health students, physicians, and other medical professionals serve as mentors, facilitators, and teachers.

Target Population

Target students are rising into their junior or senior year of high school in District of Columbia public schools or Prince George's County public schools. Students identify with a background underrepresented in medicine, including the following: Black/African-American, Latino, Pacific Islander, American Indian, low socioeconomic status, and first generation in the family to attend a four-year college in the United States. 16 scholars are selected.

Goals-Scholars

1. Motivate scholars to enter a health profession
2. Increase scholars' self-efficacy for higher education and a health career
3. Improve scholar preparation for college pre-health professions courses
4. Help scholars develop the academic and interpersonal skills needed to succeed in higher education
5. Prepare scholars for success in the college admission process
6. Create and reinforce scholar support networks
7. Develop an affinity between scholars and the George Washington University

Program

DC HAPP comprises two components: the Summer Experience and Clinical Shadowing. During the Summer Experience, students participate in various healthcare activities during the month of July.

Following DC HAPP-Summer Experience, scholars participate in clinical shadowing at the George Washington University Hospital through the coordination of the George Washington University Health Workforce Institute (GW HWI). During the following academic year, DC HAPP staff provides mentorship and support throughout the college application process, as well as provide resources and opportunities for professional and personal development.

Scholars engage in a variety of activities and projects during the Summer Experience on weekdays from 9 AM to 5 PM on the George Washington University Foggy Bottom campus. The activities focus on several areas of scholar development: health career exposure, healthcare skill development, academic enrichment, and college success preparation. Activities include hearing from healthcare practitioners in different areas of specialization, touring a variety of clinics, learning hands-on healthcare skills, developing a community health project, participating in workshops, and learning about various healthcare conditions. The curriculum as planned is available in Appendix A; the executed schedule is available in Appendix B.

After the Summer Experience, scholars may choose to participate in DC HAPP-Clinical Shadowing. Scholars who elect to participate shadow healthcare professionals once a week for 10 weeks during the academic year. Shadowing sessions are after school for 2-hour sessions. Scholars rotate between departments, including Emergency, Pharmacy, Rehabilitation, and Intensive Care.

Evolution of DC HAPP

DC HAPP was founded in 2009 and was conducted for two years as a pre-college matriculation program for students who had just graduated from high school. When the program was reinstated in 2015, the target population was adjusted to rising high school seniors. In 2017, the target population changed to include rising high school juniors. Each shift in the target demographic to younger students reflects the desire to better influence the higher education and career trajectory of each scholar through academic support and professional development opportunities.

- 2009: Inaugural cohort
- 2010: Second cohort
- 2011-2014: Hiatus
- 2015: Program is reinstated with third cohort; target population is adjusted to rising high school seniors
- 2016: Fourth cohort; partnership with GW HWI begins
- 2017: Fifth cohort; target population is adjusted to include both rising high school juniors and seniors; clinical shadowing component coordinated through GW HWI begins

Mentorship

A key component of the DC HAPP program is mentoring. Adding a mentoring component to programs serves to increase positive gains on program outcome measures (DuBois, Portillo, Rhodes, Silverthorn, & Valentine, 2011). In addition, DC HAPP serves as a professional development opportunity for medical and graduate students.

Goals-Mentors

1. Expose mentors to diverse communities in the Washington, DC region
2. Reinforce relevance and importance of the social determinants of health, especially education as a health and workforce determinant
3. Train mentors to become leaders and advocates for pipeline programs and workforce equity

4. Develop mentors' interpersonal and role modeling skills
5. Develop mentors' skills in instructional design and facilitation
6. Develop an affinity between mentors and the George Washington University

The relationships built between DC HAPP mentors and scholars support scholar goal six (creating and reinforcing scholar support networks) and scholar goal seven (develop an affinity between scholars and the George Washington University). The relationships also serve mentor goal one (expose mentors to diverse communities in the Washington, DC region) and mentor goal six (develop an affinity between mentors and the George Washington University). The mentors also serve as teachers and facilitators, fulfilling goals three, four, and five, including improving their skills as future health educators, reinforcing their academic learning, and improving their professional skills.

The 2017 cohort included three students from the MD program and one student from the MPH program. Small group time was built into the Summer Experience curriculum to allow for structured interaction between the scholars and their respective mentor. During the academic year, mentors continue to engage with scholars and serve as supportive and guiding voices in their lives.

2015-2017 Scholar Data

Ward	School	Scholars	Ward Total
1	Benjamin Banneker High School	4	14
	Cardozo Education Campus	2	
	Columbia Heights Education Campus (Bell Multicultural High School)	8	
2	Duke Ellington School of the Arts	1	6
	School Without Walls High School	5	
3	Woodrow Wilson High School	2	2
4	Calvin Coolidge Senior High School	1	14
	Capital City Public Charter School	1	
	E.L. Haynes Public Charter School	9	
	Roosevelt Senior High School	1	
	St. John's College High School	1	
	Washington Latin Public Charter School	1	
5	KIPP DC-College Preparatory Public Charter School	2	9
	McKinley Technology High School	3	
	Washington Mathematics Science Technology Public Charter High School	4	
7	Friendship Public Charter School-Collegiate Academy	1	2
	IDEA Public Charter School	1	
8	National Collegiate Preparatory Public Charter School	2	2
Maryland	St. Charles High School	1	2
	Suitland High School	1	

2017-2018 Program Evaluation

Summer Experience Curriculum

Strategically building upon work from previous DC HAPP coordinators, evidence-based goals were introduced and the health condition framework was updated. The curriculum was based on benchmarking of other pipeline programs, research about the impact of pipeline programs, and data on DC health disparities. The application of the framework to the DC HAPP summer schedule ensured a structured, consistent, and impactful experience for the scholars.

Health Conditions

The health conditions thematically organized the various elements of healthcare career exposure. Many of the scholars expressed a desire for the health condition sessions to explore the conditions more deeply. For example, in the written evaluation, scholars mentioned mental health frequently: those who loved it did so because of the uniqueness of the many conditions under mental health. Others who disliked mental health thought that the presentations were too surface level. Similarly, diabetes and asthma were disliked by five students who “already hear a lot” about the condition or felt that it “didn’t seem that important.”

The cardiovascular session was the only session with pathophysiology; it was disliked and loved by equal numbers of students due to its rigor. There is potential in challenging the students to study the science of each health conditions: it will give them a better sense of the rigors of the school for healthcare professionals and the purpose of their academic training at the undergraduate level.

On the pre- and post-assessment (see Appendix C for full results of the assessments), the scholars had the lowest amount of improvement to the prompt, “I am confident in my ability to earn good grades in college math and science courses.” The health conditions are the best place to increase opportunities for learning related to the academic sciences.

Suggestions

1. Include more pathophysiology and emphasize its purpose
2. Brainstorm ways to incentivize learning—what motivation do students have to learn if they are not receiving grades? (explore idea of team quizzes)
3. Provide methods for students to develop confidence in tackling difficult material, such as group work
4. Continue to think strategically about how to boost science and math skills to prepare students for undergraduate courses
 - a. Reach out to Dr. Tisha Hammond in the GW Biology Department (implemented March 2018)

Career Highlights

The reviews of career highlights were a reflection of each scholars’ individual interests. Scholars who are only beginning to explore healthcare careers or those with an open mind were less critical of the career highlights. Those who were already determined in a particular path found many highlights boring. Many scholars struggled with healthcare administration in particular as it is a more abstract career field.

Career highlights and similar sessions had a high impact on the scholars. The assessment prompt, “I understand what I need to do during college to pursue a healthcare profession,” increased from 3.5 out

of 5 to 4.4; a 0.9 change. The prompt, “I am familiar with a variety of healthcare professions,” increased from 3.8 to 4.6; a 0.8 increase.

Suggestions

1. Continue to emphasize the importance of keeping an open mind, that they will need to understand the entire healthcare system even if they do not intend to pursue the field
2. Encourage presenters to be hands-on and interactive—provide models, tools, etc.
3. The most-requested career highlight to add was surgery; next was biomedical engineering
4. Provide scholars with “rules of engagement” so that they know what type of questions are appropriate (no personal healthcare questions)
5. Consider a SMHS student panel so that the students can interact with students, not just faculty members who are further-removed in age and experience

Healthcare Skills and Education

The scholars enjoyed the hands-on skill opportunities. Their remarks focused on feeling that an activity was challenging, such as intubation or suturing. Students wrote that they “need more time” for intubation and that “it was difficult but I eventually got it.” Several students stated they were not comfortable with the birthing simulation or the Gross Lab.

Suggestions

1. Allow for more time for all hands-on skills (suturing needs two full hours)
2. Provide more variety of skills/tours
3. Emphasize that although some simulations may not be enjoyable, that will be a part of their education as a healthcare professional
4. If conducting a medical history session, arrange a standardized patient
5. Taking vital signs needs to be basic and engaging
6. Many students may already be CPR/AED certified, but this is an excellent skill and students enjoyed the hands-on time
7. For the final simulation, the second time running through the procedure should be modified to increase the challenge level
8. Request a tour of PT facilities
9. Request an NIH tour

Community Health Project

This component of the Summer Experience was primarily constructed by the MPH mentor. Each small group of scholars selected a target population and health problem and then created a program to address the problem. The scholars created a poster in a scientific poster format and presented their project to a panel of faculty judges.

The project creation and final presentations were a success, with students very excited about their completion of this significant task that culminated on the final day. Students overwhelmingly stated that

they learned about “health disparities in DC,” the importance and methods for working in a group, and life-long skills of empowerment such as “small steps we can take to help make a positive change.”

Suggestions

1. Include writing an abstract in the final report so that it can be posted through Himmelfarb Library’s website
2. Encourage students to conduct a site visit of a program similar to theirs
3. Outline more concrete deadlines to help students learn time-management skills
4. Provide more time to work on the project, possibly in shorter blocks

Professional and College Readiness Skills

The scholars also showed significant growth in this goal area. The scholars increased significantly on their preparation for the college financial aid process (3.1 to 4.1 out of 5) and developing a plan for their college application process (3.6 to 4.2). The positive, empowering, and authentic tone used by the mentors was integral to the impact of the message. The scholars referenced the personal statement, financial aid, presentation skill, and thank you card sessions as the most useful for their growth.

1. Consider a shorter growth-mindset session that is earlier and perhaps in small groups
2. Thank you notes need to be edited by mentors and then reviewed by scholars and mentors together so that scholars understand *why* the edits need to be made in order to truly improve their writing

Scholar Experience

Overall, scholars had a positive experience where they felt connected and cared for as young people. The assessment prompts, “I know somebody at GW who cares about me and my success” and “I have somebody to look up to at GW” had the most significant increases; both started at the pre-assessment at 3.1 and increased to 4.9 and 4.8, respectively. One scholar wrote, “Everyone was so nice, it felt like family.” Another student wrote of cherishing their time with mentors: “One-on-one time gave me a chance to know her on a personal level and allow me to be comfortable enough to email her if I need to.” Maintaining the relationships between the scholars and GW is important to the achievement of our goals and building on the solid foundation created during the Summer Experience.

Scholars are eager for more hands-on skills, to become and feel like a healthcare professional. Balancing that desire while incorporating important lecture time that teaches students the skills of studying and learning is vital to their future academic and professional success.

Mentor Experience

The mentor team was defined with a collaborative expectation for excellence, trust, and consistent communication and feedback. This was an important opportunity for professional and personal growth for all involved and can be capitalized upon in future years. The final mentor evaluation was conducted as a focus group and final wrap-up.

Suggestions

1. Conduct a pre- and post-test for the mentor training session series
2. Either extend the length of the focus group to three hours or include a written component that can be completed on their own

3. Have each mentor express and work on one explicit goal where feedback is offered frequently
4. Include an expectation of an opening one-on-one meeting and closing one-on-one meeting
5. Provide more preparation for events such as the White Coat Ceremony

Clinical Shadowing

The evaluation for DC HAPP-Clinical Shadowing is in development and will be included in this report when it is complete.

Bibliography

- Association of American Medical Colleges. (2004). *Underrepresented in medicine definition*. Retrieved from <https://www.aamc.org/initiatives/urm/>
- Association of American Medical Colleges. (2013). *AAMC diversity facts and figures*. Retrieved from Diversity in the Physician Workforce: <http://aamcdiversityfactsandfigures.org/section-ii-current-status-of-us-physician-workforce/>
- Association of American Medical Colleges. (2014). *Diversity data snapshots September 2014 edition*. Retrieved from <https://www.aamc.org/download/405334/data/september2014slidedeck.pdf>
- Association of American Medical Colleges. (2015). *AAMC diversity facts and figures*. Retrieved from Current Trends in Medical Education: <http://aamcdiversityfactsandfigures2016.org/report-section/section-3/>
- Association of American Medical Colleges. (2017). Retrieved from Total U.S. Medical School Graduates: <https://www.aamc.org/download/321536/data/factstableb4.pdf>
- Association of American Medical Colleges. (2017). Retrieved from Matriculants to U.S. Medical Schools by Race, Selected Combinations of Race/Ethnicity and Sex, 2014-2015 through 2017-2018: <https://www.aamc.org/download/321474/data/factstablea9.pdf>
- Association of American Medical Colleges. (2017). Retrieved from Applicants, First-Time Applicants, Acceptees, and Matriculants to U.S. Medical Schools by Race/Ethnicity, 2014-2015 through 2017-2018: <https://www.aamc.org/download/321480/data/factstablea12.pdf>
- Cooper, L., & Roter, D. (2003). Patient-provider communication: the effect of race and ethnicity on process and outcomes of healthcare. *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care.*, 552-593.
- DuBois, D., Portillo, N., Rhodes, J., Silverthorn, N., & Valentine, J. (2011, August 1). How effective are mentoring programs for youth? A systematic assessment of the evidence. *Psychological Science in the Public Interest*, 12(2), 57-91.
- National Center for Education Statistics [NCES]. (2017, April). *Public high school graduation rates*. Retrieved from The Condition of Education: https://nces.ed.gov/programs/coe/indicator_coi.asp
- Office of the State Superintendent of Education. (2017, November 7). *2016-17 adjusted cohort graduation rate*. Retrieved from <https://osse.dc.gov/publication/2016-17-adjusted-cohort-graduation-rate>

U.S. Department of Health and Human Services. (2009). *Pipeline programs to improve racial and ethnic diversity in the health professions: an inventory of federal programs, assessment of evaluation approaches, and critical review of the research literature.*

United States Census Bureau. (2016). Retrieved from Quick Facts: United States:
<https://www.census.gov/quickfacts/fact/table/US/PST045216>

Appendix A: 2017 Summer Experience Curriculum Plan

Medical Condition Topic Justification

DC HAPP 2017 seeks to expose scholars to a wide range of health issues that are relevant to the students' identity, stage of life, communities, and region. To identify health topics to use as a delivery method for the "Methods for Scholars," DC HAPP program staff collected data from the Health People 2020 Leading Health Indicators, US Department of Health and Human Services Office of Minority Health, the Georgetown University report, "The Health of the African American Community in the District of Columbia: Disparities and Recommendations," and Centers for Disease Control and Prevention youth data. Health indicators with the greatest impact on Black/African-Americans and Latinos populations, particularly in Washington, DC and among adolescents, were selected.

- Diabetes
- Heart disease & stroke
- Cancer
- Kidney disease
- HIV (sexual health)
- Asthma

	Healthy People 2020	HHS Office of Minority Health		Georgetown University	CDC Youth
	DC Black & Latino	Black	Latino	DC African-Americans	DC Black & Latino
Diabetes	✓	✓	✓	✓	
Heart disease	✓	✓	✓	✓	
Stroke	✓	✓	✓	✓	
Cancer	✓	✓	✓	✓	
Breast	✓			✓	
Colorectal	✓			✓	
Uterine cervical	✓			✓	
Kidney disease	✓				
Sexual Health					
HIV	✓	✓	✓	✓	
Gonorrhea	✓				
Syphilis	✓				
Asthma		✓	✓		✓
Suicide attempts	✓		✓		✓
Physical activity	✓				✓
Obesity			✓	✓	✓
Disordered eating	✓				
Influenza/pneumonia		✓		✓	
COPD			✓		
Liver disease			✓		

July Overview

Focus	Monday	Tuesday	Wednesday	Thursday	Friday
Introductions Expectation setting Group bonding Relationship dvlpt			5 Introductions GWorld cards	6 White Coat Ceremony SUMMIT	7 Asthma (A) <i>Taking vital signs</i>
Project: brainstorming					
Health condition Career exposure Skill development	10 Asthma (B) MD: Family Medicine <i>CLASS Center</i>	11 Diabetes (A) <i>Taking medical history</i>	12 Diabetes (B) Public health <i>Gross Lab</i>	13 Obesity (A) <i>CPR Certification</i>	14 Obesity (B) (MD: Pediatrics) <i>CNMC</i>
Project: topic selection, research					
Health condition Career exposure Skill development	17 Hypertension, heart disease & stroke (A) <i>Birth simulation</i>	18 Hypertension, heart disease & stroke (B) PT <i>Healing Clinic</i>	19 Kidney disease (A) <i>WISE-Suture</i>	20 Kidney disease (B) Nurse Practitioner OR PA ER	21 Cancer (A) (Pharmacy) VA
Project: writing, editing					
Health condition Career exposure Skill development Instilling hope & confidence	24 Cancer (B) MD: Anesthesiology <i>OR</i>	25 Mental Health <i>Talking with a friend in crisis</i>	26 Mental Health: Law MD: Forensic Psychiatry	27 Poster display Closing ceremony	
Project: creating, presentation					

Health Condition Cycle

Day A

1. Introduction to health condition
2. Health skill (Dean Haywood)
3. Community Project
4. Academic enrichment (tutoring)

Day B

1. Career highlight with health condition focus
2. Healthcare in Action
3. College success preparation
4. Academic enrichment (tutoring)

Appendix B: 2017 Summer Experience Executed Schedule

DC HAPP 2017: Week 1

	Monday, July 3	Tuesday, July 4	DAY 1 Wednesday, July 5	DAY 2 Thursday, July 6	DAY 3 Friday, July 7
			9 AM-3 PM Ross Hall 114, 115 3-5:30 PM Ross Hall 643	8 AM-1 PM Ross Hall 114, 115	8 AM-1 PM Ross Hall 114, 115
TIME					Asthma (A)
9:30 AM			9:30-9:40 AM Greet students in front lobby Mentors	9:30-9:40 AM Kick-Off	9:30-9:40 AM Kick-Off
10:00 AM			9:45-10:50 AM Welcome & Briefing Mentors & Jinny	White Coat Ceremony Dean Haywood Ross Hall 117 Guests: C.J. Trent-Gurbuz and Sarah	9:40-10:30 AM Career Highlight: Healthcare Administration Dean Walter Harris
11:00 AM			11:00 AM GWorld cards and lockers Mentors	10:30-11:00 AM White Coat Discussion Mentors	10:40 AM-12:00 PM Hands-on Skill: Taking vital signs & prepare for CLASS Center Mentors
Noon			Lunch	Lunch Change clothes	Lunch DC HAPP Staff Meeting
1:00 PM			1:10-2:00 PM Why Study Science & Medicine? Dr. Jeffrey Sich	Travel to Mount Vernon Campus	1-2:00 PM Community Health Project: Session 2 Himmelfarb B103
2:00 PM			2:10-3:00 PM Healthcare & Science: Health Disparities Mentors	1:30-3:30 PM SUMMIT Low Ropes Course	2:00-2:30 PM Metro from Foggy Bottom to Brookland Station 2:30-2:40 PM Shuttle from Brookland Metro Station to CNMC
3:00 PM			3:10-4:00 PM Community Health Project: Session 1 Himmelfarb B103	Return to Foggy Bottom Campus	3:00-4:00 PM Site visit to CNMC Health Condition Overview: Asthma Pediatrics Dr. Stephen Teach
4:00 PM			4:10-4:30 PM Closing: Reflection & Thank You Note Brainstorming	4:10-4:30 PM Closing: Reflection & Thank You Note Brainstorming	Homework -Feel your pulse in 2 diff places & to -Look up phlebotomy & be prepared

DC HAPP 2017: Week 2

	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8
	Monday, July 10	Tuesday, July 11	Wednesday, July 12	Thursday, July 13	Friday, July 14
	Ross Hall 114, 115	Ross Hall 114 8 AM-2:30 PM Ross Hall 115	8 AM-2:30 PM Ross Hall 114, 115	8AM-1:30 PM Ross Hall 114 8 AM-12:30 PM Ross Hall 115	Ross Hall 114, 115
TIME	Asthma (B)	Diabetes (A)	Diabetes (B)	Obesity (A)	Obesity (B)
9:30 AM	9:30-9:40 AM Kick-Off	9:30-9:40 AM Kick-Off	9:30-9:40 AM Kick-Off	9:30-9:40 AM Kick-Off-Why is healthcare so expensive	9:30-9:40 AM Kick-Off
10:00 AM	9:40-10:30 AM Career Highlight: Physician Assistant Tamara Ritsema	9:40-10:30 AM Health Condition Overview: Diabetes Dr. Chavon Onumah	9:40-10:30 AM Career Highlight: Anesthesiology Dr. Jeff Berger	9:40-10:30 AM Health Condition Overview: Obesity Dr. Kofi Essel	9:40-10:30 AM Career Highlight: Physical therapy Dr. Jill Boissonault
11:00 AM	Healthcare & Learning in Action: Blood pressure, intubation, & phlebotomy simulations @ CLASS Center Drs. Yolanda Haywood, Sonal Batra, and Katherine Chretien, & Mentors Guests: C.J. Trent-Gurbuz and Sarah	10:40 AM-12:00 PM Hands-on Skill: Taking medical history Dr. Andrea Flory	10:40-10:55 AM Gross Lab Prep 11:00 AM-11:45 AM Healthcare & Learning in Action: Gross Lab 11:45 AM-12:00 PM Gross Lab Debrief	10:30-11:00 AM Healthcare Systems Exercise 11:00 AM-12:00 PM Healthcare & Learning in Action: What It Takes to Apply to Medical School	10:40 AM-12:00 PM Healthcare & Learning in Action: Know Yourself as a Future Practitioner
Noon	12:00-12:50 PM Lunch	12:00-12:50 PM Lunch with Dean Akman	12:00-12:50 DC HAPP Staff Meeting	12:00-12:50 PM Lunch	12:00-12:50 PM Lunch
1:00 PM	1:00-2:20 PM College Success: Research Skills Hall of Government 103	1:00-2:20 PM Science & Healthcare: Healthcare Systems	1:00-2:20 PM College Success: Presentation Skills	1:00-1:10 PM Travel to classroom	1:00-2:20 PM Community Health Project: Session 4 Himmelfarb B103
2:00 PM				1:15-4:15 PM CPR/AED Certification Funger 220	
3:00 PM	2:30-4:00 PM Community Health Project: Session 3 Hall of Government 103	2:30-4:00 PM Healthcare & Science: Diabetes Diet and Daily Management (7 scholars) Himmelfarb B103	2:30-4 PM SAT Seminar (9 scholars)		2:30-4:00 PM Healthcare & Science: Calorie & Exercise Plan for Obesity Himmelfarb B103
4:00 PM	4:10-4:30 PM Closing: Reflection & Thank You Note Brainstorming	4:10-4:30 PM Closing: Reflection & Thank You Note Brainstorming	4:10-4:30 PM Closing: Reflection & Thank You Note Brainstorming	4:15-4:30 PM Closing: Reflection & Thank You Note Brainstorming	4:10-4:30 PM Closing: Reflection & Thank You Note Brainstorming-What do you want to be when you grow up
	Homework Prepare questions for Dean Akman	Homework Why is healthcare so expensive in t	Homework Prepare 2 questions for the incomir		

DC HAPP 2017: Week 3

	DAY 9	DAY 10	DAY 11	DAY 12	DAY 13
	Monday, July 17	Tuesday, July 18	Wednesday, July 19	Thursday, July 20	Friday, July 21
	Ross Hall 114, 115	Ross Hall 114 8 AM-2:30 PM Ross Hall 115	9 AM-3 PM Ross Hall 114 8 AM-2:30 PM Ross Hall 115 2:15-6:00 PM Ross Hall Lobby A	Ross Hall 114 8-10:00 AM; 12-2:30 PM Ross Hall 115	VA Medical Center
TIME	Cardiovascular Disease: Hypertension, heart disease, & stroke (A)	Cardiovascular Disease: Hypertension, heart disease, & stroke (B)	Mental health (A)	Mental health (B)	Cancer (A)
9:30 AM	9:30-9:40 AM Kick-Off	9:30-9:40 AM Kick-Off-moral imagination	9:30-9:40 AM Kick-Off	9:30-9:40 AM Kick-Off	9:30 AM Meet outside Brookland Metro Station or at VA 9:50 AM Shuttle from Brookland Metro Station to VA Medical Center
10:00 AM	9:40-10:30 AM Career Highlight: Nursing Dr. Dana Hines	9:40-10:30 AM Healthcare & Science: Social Determinants of Cardiovascular Disease Mentors	9:40-10:30 AM Health Condition Overview: Mental health Dr. Zeina Saliba	9:40-10:30 AM Career Highlight: Forensic psychiatry Dr. Kahlil Johnson Observer: Kristy Li Puma from E.L. Haynes	
11:00 AM	10:40 AM-12:00 PM Hands-on Skill: Birthing simulation @ CLASS Center Dr. Sheetal Sheth	10:40 AM-12:00 PM Healthcare & Learning in Action: OR Tour Dr. Hazel Darisse	10:40 AM-12:00 PM Hands-on Skill: Wellness Professor Howard Straker	10:40-11:00 AM Thank you notes 11:00 AM-12:00 PM Healthcare & Learning in Action: ER Tour-meet in Ross Hall lobby Dr. Yolanda Haywood	
Noon	12:00-12:50 PM Lunch 6 scholars-lunch with Dean Haywood at Tonic	12:00-12:50 PM Lunch	12:00-12:50 PM Lunch Mentors AP Meeting 5 scholars-lunch with Dean Haywood at Tonic	12:00-12:50 PM Lunch Posse Foundation Brittany Silver	
1:00 PM	1:00-2:20 PM Cardiovascular Disease: hypertension, heart disease, & stroke Mentors	1:00-2:20 PM College Success: Applications and Personal Statements Ms. Leigh Anne Butler	1:00-2:20 PM Community Health Project: Session 6 Himmelfarb 307A	1:00-2:20 PM College Success: Depression/Anxiety in High School and College	
2:00 PM		2:30-4:00 PM Healthcare & Science: Hypertension, Heart Disease, and Stroke Presentations (7 scholars) Himmelfarb B103	2:30-4:00 PM Healthcare & Science: Homelessness and Mental Health (7 scholars)	2:30-4:00 PM College Success: Financial Aid Overview Mr. Melvin Brock	
3:00 PM	2:30-4:00 PM Community Health Project: Session 5 Himmelfarb B103	2:30-4 PM SAT Seminar (9 scholars)	2:30-4 PM SAT Seminar (9 scholars)		
4:00 PM	4:10-4:30 PM Closing: Reflection & Thank You Note Brainstorming - Moral Imagination	4:10-4:30 PM Closing: Reflection & Thank You Note Brainstorming	4:10-4:30 PM Closing: Reflection & Thank You Note Brainstorming	4:10-4:30 PM Closing: Reflection & Thank You Note Brainstorming	
		Homework Look up moral imagination	Homework What is a forensic psychiatrist? Prep		Homework Reflection papers

DC HAPP 2017: Week 4

	DAY 14	DAY 15	DAY 16	DAY 17		
	Monday, July 24	Tuesday, July 25	Wednesday, July 26	Thursday, July 27	Friday, July 28	
	Ross Hall 114 8 AM-2:30 PM Ross Hall 115	Ross Hall 114 8 AM-12:30 PM Ross Hall 115	9 AM-3 PM Ross Hall 114, 115 2:15-6:00 PM Ross Hall 647	Ross Hall 114, 115	Ross Hall 115	
TIME	Cancer (B)	Kidney disease (A)	Kidney disease (B)	Closing		
9:30 AM	9:30-9:40 AM Kick-Off	9:30-9:40 AM Kick-Off	9:30-9:40 AM Kick-Off	9:30-11:00 AM Final Healthcare & Learning in Action: Simulation CLASS Center (PSL, HF1, LDR) Dr. Sonal Batra	Mentor Wrap Up	
10:00 AM	Career Highlight: The Careers Behind What You Buy: Food, Medicine, & Cosmetics Research	9:40-10:30 AM Health Condition Overview: Kidney disease Dr. Keith Melancon	9:40-10:30 AM Career Highlight: Medicine: Hospitalist Dr. Juan Reyes			
11:00 AM	10:40 AM-12:00 PM Hands-on Skill: Suture @WISER Lab Dr. Juliet Lee	10:40 AM-12:00 PM Dr. El-Bayoumi	10:40 AM-12:00 PM Ethics of Organ Donations Dr. Jill Catalanotti			11:00 AM-12:00 PM Presentation Prep
Noon	12:00-12:50 PM Lunch	12:00-12:50 PM Lunch	12:00-12:50 PM Lunch 5 scholars-lunch with Dean Haywood at Tonic	12:00-12:50 PM Lunch		
1:00 PM	1:00-2:20 PM College Success: Growth Mindset	1:00-2:20 PM Community Health Project: Session 7 Himmelfarb 307A	1:00-2:20 PM College Success: Application Timeline/College Matching Ms. Jennifer Uwanaka Kennedy Smith	1:00-2:30 PM Project Presentations confirmed panelists: Dr. Batra, Dr. Mullan, Professor Straker Tentative: Dr. Haywood		12:00-3:00 PM Poster Viewing Weingold
2:00 PM		2:30-4:00 PM Healthcare & Science: Dialysis and the Healthcare System (7 scholars) Himmelfarb B103 (2:30-3:30 PM)	2:30-4:00 PM Healthcare & Science: Ethics of Medicine and the Future of Science (7 scholars)	2:40-2:50 PM Group		
3:00 PM	2:30-4:00 PM Healthcare & Science: Cancer Presentations Himmelfarb B103	2:30-4 PM SAT Seminar (9 scholars)	2:30-4 PM SAT Seminar (9 scholars)	Break		
4:00 PM	4:10-4:30 PM Closing: Reflection & Thank You Note Brainstorming	4:10-4:30 PM Closing: Reflection & Thank You Note Brainstorming	4:10-4:30 PM Closing: Reflection & Thank You Note Brainstorming	3:30-5:00 PM Evaluation and Wrap-Up Thank you cards		
	Homework Dr. Catalanotti's readings Code switching	4:30-5:30 DC HAPP Staff Meeting				
5:00 PM		Homework Dr. Catalanotti's readings		5:00-5:30 PM Schedule Finalization		
6:00 PM				5:30-7:00 PM Closing Ceremony Weingold		

Appendix C: Summer Experience Pre- and Post- Assessment Results

	Pre	Post	Change
I know somebody at GW who cares about me and my success.	3.0625	4.9375	1.875
I have somebody to look up to at GW.	3.0625	4.8125	1.75
I am confident in my ability to navigate the college financial aid process.	3.125	4.125	1
I understand what I need to do during college (undergraduate) to pursue a healthcare profession.	3.5	4.4375	0.9375
I am familiar with a variety of healthcare professions.	3.75	4.625	0.875
I feel like I belong at GW.	3.5	4.3125	0.8125
I have a plan for my college admissions process.	3.375	4.1875	0.8125
I plan to pursue a healthcare profession.	4.3125	4.875	0.5625
I can identify resources for navigating the college application process.	3.625	4.1875	0.5625
I can imagine myself as a healthcare professional.	4.5625	4.9375	0.375
I can work well with others towards a common goal.	4.1875	4.5625	0.375
I am confident in my ability to earn good grades in college math and science courses.	4	4.375	0.375