Health Sciences and Health Careers Pipeline
2015 Annual Report
IN THIS REPORT, YOU WILL FIND:

- Overview of the VCU Pipeline
- Program metrics and outcomes
- VCU Pipeline 2015 highlights
- VCU Pipeline alumni in the workforce
- Student perspectives on diversity
- How to connect with us online

SPECIAL THANKS

The many collaborators and supporters of this important work are too numerous to name, but no less resounding in impact. We are in a transformational time in education, healthcare, and community engagement. The hope is that each person who reads this report finds the resolve to remain committed to the work, inspired to engage even deeper and dedicated to the quest for lasting impact.

University Commitment to Diversity

One of the biggest challenges facing the health workforce of tomorrow is to care for a population that come from a wide variety of cultures. It has become apparent that no longer can a “one size fits all” approach to healthcare fit the future needs of the richly diverse population of our nation and the Commonwealth. At VCU we recognize that challenge, and strive to enroll a student population that more closely matches that of the population at large. This diverse student population in health professions schools will ensure a more diverse health workforce tomorrow and will more closely meet the health needs of our community. The VCU Pipeline is an essential component of our institution’s commitment to the education of future health professionals who contribute to the delivery of culturally competent healthcare. These programs are beginning to realize their potential to positively impact the healthcare workforce as students make the transition to professional practice. I am excited to share this year’s Annual Report with our University and community partners, and I look forward to another year of high impact Pipeline initiatives at VCU.

Marsha D. Rappley, M.D.
VCU Vice President for Health Sciences and
VCU Health System Chief Executive Officer
Dear Colleagues,

It is a pleasure to welcome you to the 2015 VCU Health Sciences and Health Careers Pipeline Annual Report. The VCU Pipeline is facilitated by the Division for Health Sciences Diversity, VCU Health, and University partners to create health science educational programming, accessible to diverse students throughout multiple points in their educational career. VCU Pipeline programs allow students to explore health science careers in secondary school, offers core curriculum preparation in undergraduate years, and application and professional preparedness in upper class and post-baccalaureate years. While students may enter the Pipeline at any point, the end of the journey is marked by confident and successful health professions school applicants, and ultimately, working healthcare professionals as diverse as the populations they serve. The 2015 Annual Report takes a look at the progress and impact the VCU Pipeline is making with its students, the surrounding community, and now the workforce.

The VCU Pipeline continues to reach a wide variety of individuals with over 300 new students entering the Pipeline in structured programs, and an additional 500 students introduced to the health sciences through outreach and awareness events in the 2015 programming year. The VCU Acceleration program excels in undergraduate retention and graduation rates, and along with the Summer Academic Enrichment Program, promotes student matriculation into health professions programs, fulfilling the primary goals of the VCU Pipeline as well as meeting University strategic goals.

VCU Pipeline impact is visible not only within the student community, but the greater Richmond community as well. The VCU Health Sciences Academy program received external funding to break down technological resource barriers and increase program opportunities for local city high school students. The Summer Academic Enrichment Program’s interprofessional students provided basic foot care to Richmond’s homeless population, in collaboration with an existing church operated outreach program. VCU Acceleration’s 10 year anniversary brought forth the program’s greatest number of Pipeline Alumni graduating and entering the healthcare workforce, bringing the impact of the Pipeline full circle with students serving patient populations both locally in Richmond and beyond.

I encourage you to read our Annual Report and to visit the Division for Health Sciences Diversity website at dhsd.vcu.edu. Here you will find descriptions of our programs, learn how to connect with the VCU Pipeline, and see more inspiring profiles of our students who have gone above and beyond their requirements. I hope you will join us in our efforts to cultivate the next generation of culturally competent health professionals.

Lisa Webb, Ed.D., CRC
Executive Director, Academic Affairs
VCU Office of the Vice President for Health Sciences
What is the VCU Pipeline?

The mission of the Division for Health Sciences Diversity is to serve as the central resource for the development and implementation of initiatives that advance diversity at VCU. The VCU Pipeline achieves this mission through an academic and career guidance structure designed to meet students where they are in their educational journey and propel them towards entry into a health professions program. The structure uses high impact and dynamic programming to introduce students to the wide variety of health careers, assist them in building and utilizing vital resources and networks, and boost their ability to meet and even exceed admissions requirements for the health professions school of their choice.

Who is the VCU Pipeline Team?

The VCU Pipeline Team is comprised of highly experienced, mission-driven professionals from all five health professions schools at Virginia Commonwealth University (Allied Health Professions, Dentistry, Medicine, Nursing, and Pharmacy). Integral partners include the VCU Division for Strategic Enrollment Management, various units of VCU Student Affairs, the VCU Division for Academic Success, the VCU Campus Learning Center, VCU Health’s Workforce Development, and numerous organizations throughout the Greater Richmond Community. The Division for Health Sciences Diversity, which is organized under the Vice President for Health Sciences, serves as the VCU Pipeline central administration office and is charged with providing key programmatic functions. These functions include recruitment of students from diverse backgrounds, application support and data management, program development and operations, and evaluation of VCU Pipeline programs. The VCU Pipeline Team is rich with partnerships and resources that benefit and enhance the student experience.

Who does the VCU Pipeline serve?

The VCU Pipeline embraces a holistic definition of diversity, and seeks to serve students that represent a wide range of backgrounds, including: underrepresented minority, first-generation college, low socioeconomic background, educationally underserved, and students interested in serving underserved communities. As part of VCU’s ongoing commitment to and focus on community engagement, the VCU Pipeline directs efforts to serve students in the surrounding Richmond community by providing programming specific to Richmond Public Schools students.
Selected VCU Pipeline Programs

**Healthcare Quest** brings local middle school students to VCU through field trips coordinated by their individual schools and afterschool programs. The field trips consist of several rotations that expose middle school students to different fields in the health professions. Health professions rotations are based on grade level, providing 6th, 7th, and 8th grade students the opportunity to participate each year without repeating content.

**Health Sciences Academy** offers a semester long course where local high school students explore careers in the health professions. The course includes classroom instruction at their high school coupled with visits to the VCU Health campus to participate in interactive “labs” with VCU schools and departments. The program also assists students with developing college success skills through a mentoring program with VCU undergraduate students.

**VCU Acceleration** is a comprehensive year-long program offered to incoming VCU freshmen. The program begins with a summer pre-matriculation session that includes an introduction to college level math and science courses and exposure to the health professions schools at VCU. The program continues through their first academic year with a living-learning community, where students reside on the same floor in a residence hall and are enrolled in specific first-year courses together.

**The Summer Academic Enrichment Program (SAEP)** is open to upper-level undergraduate, recently graduated, and post-baccalaureate students pursuing entry to one of the following programs: dentistry, medicine, pharmacy, or physical therapy. SAEP is a six-week interprofessional summer program designed to simulate the first year academic rigor of a health professions program at VCU. SAEP also provides individual coaching, learning skills and test-taking strategies, a volunteer opportunity, and an interprofessional case study.
VCU Pipeline Metrics and Outcomes

The VCU Pipeline directly aligns with the University strategic plan, VCU Quest for Distinction, its themes, and goals. VCU Acceleration and the Summer Academic Enrichment Program explicitly address Theme I.1: *Recruit and retain talented and diverse students who will graduate at a higher rate than our Quest peers and serve as leaders in a well-educated workforce.* Program evaluation and outcomes on the two programs show successful attainment of these goals while surpassing University measures.

### VCU Acceleration Retention and Graduation Rates

<table>
<thead>
<tr>
<th>Year</th>
<th>Senior Year Retention</th>
<th>Junior Year Retention</th>
<th>Sophomore Year Retention</th>
<th>6 year Graduation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>70%</td>
<td>80%</td>
<td>90%</td>
<td>50%</td>
</tr>
<tr>
<td>2007</td>
<td>60%</td>
<td>70%</td>
<td>80%</td>
<td>60%</td>
</tr>
<tr>
<td>2008</td>
<td>50%</td>
<td>60%</td>
<td>70%</td>
<td>70%</td>
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<tr>
<td>2009</td>
<td>40%</td>
<td>50%</td>
<td>60%</td>
<td>80%</td>
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<tr>
<td>2010</td>
<td>30%</td>
<td>40%</td>
<td>50%</td>
<td>90%</td>
</tr>
<tr>
<td>2011</td>
<td>20%</td>
<td>30%</td>
<td>40%</td>
<td>100%</td>
</tr>
<tr>
<td>2012</td>
<td>10%</td>
<td>20%</td>
<td>30%</td>
<td>110%</td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
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Year indicates fall semester when the cohort entered VCU

### VCU Acceleration Retention and Graduation:

The goals of the VCU Acceleration program include:

1. increase first-year retention of pre-health students,
2. increase graduation rate of pre-health students, and
3. increase the number of diverse students matriculating to health professions degree programs.

VCU Acceleration has demonstrated consistent progress toward and surpassed its three goals by matching or exceeding the University averages for retention to sophomore year (87%) and six-year graduation (60%).

This includes a six-year graduation rate for the 2009 cohort of 89%. The VCU Acceleration Retention and Graduation Rates chart provides a breakdown of this data by individual cohorts. These results show the importance of a solid foundation for undergraduate coursework, and the lasting impact of providing students with the tools they need to be successful as they enter their undergraduate careers.

Overall VCU retention and graduation rates are available from the VCU Office of Planning and Decision Support. Learn more at opds.vcu.edu.
Since 2009, more than 70 students have matriculated to health professions programs at other institutions.

A total of 23 students since 2007

A total of 32 students since 2009

A total of 23 students since 2009

A total of 14 students since 2008

A total of 22 students since 2009

Since 2009, more than 70 students have matriculated to health professions programs at other institutions.

VCU Acceleration and SAEP Student 2015 Matriculation to Health Professions Schools at Virginia Commonwealth University

<table>
<thead>
<tr>
<th>School</th>
<th>Number of Students</th>
<th>Total Matriculated since 2007/2009</th>
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</thead>
<tbody>
<tr>
<td>School of Allied Health Professions</td>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td>School of Dentistry</td>
<td>4</td>
<td>32</td>
</tr>
<tr>
<td>School of Medicine</td>
<td>7</td>
<td>23</td>
</tr>
<tr>
<td>School of Nursing</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>School of Pharmacy</td>
<td>5</td>
<td>22</td>
</tr>
</tbody>
</table>

Fall 2015 VCU matriculation included students entering an array of programs in each of the five health sciences schools at VCU: Allied Health Professions, Dentistry, Medicine, Nursing, and Pharmacy. This matriculation data demonstrates the effectiveness of the VCU Pipeline to reach students interested in a variety of health careers, and the ability to serve students with diverse pre-health interests.

VCU Matriculation to Health Professions Training Programs:

The Summer Academic Enrichment Program and the VCU Acceleration program contribute to the VCU Pipeline metric of increasing the number of diverse students that are entering the five health professions schools at VCU. These two Pipeline programs are designated for this metric as they provide in-depth training and academic preparation for students at the college level.

At the start of the Fall 2015 semester, the VCU Pipeline saw a total of 41 students enter health professions training programs, 23 of whom chose to attend VCU. This represents the most VCU Pipeline Alumni who have entered health professions programs in one year, and the most to enter VCU in a single year since the inception of the VCU Pipeline.

The VCU Acceleration and SAEP Matriculation chart provides a breakdown of this data by each health professions school at VCU.
SAEP students collaborated with St. Paul’s Episcopal Church, a provider of services for Richmond’s homeless population, to host four foot clinic sessions. The homeless often suffer from medical ailments of the feet and chronic diseases such as diabetes and circulatory problems; however, they normally do not see a physician, receive basic health information, nor foot care. The foot clinic was scheduled to coincide with St. Paul’s meal program to serve the highest number of clients in need. While the initial demand was unknown, each session reached enrollment capacity; the clients openly welcomed the clinic and the new services provided. The success of the clinic was highlighted in the Richmond Times Dispatch and the Washington Post. The clinic was arranged and directed by SAEP faculty from the School of Medicine and the Department of Physical Therapy in the School of Allied Health Professions.

The VCU Acceleration program welcomed its first cohort of 23 students in the summer of 2005. Since that time, the program has grown to 38 students annually and fills a complete floor in a VCU freshmen residence hall, strengthening the living-learning aspect of the program. In 2015, VCU Acceleration was accepted by VCU Residential Life & Housing as an official “Program-In-Residence,” which will provide the program with additional visibility and opportunity for growth beginning in the 2016-2017 academic year. The 10 year anniversary saw many additional important events, including the highest six-year graduation rate (89%) for the 2009 cohort, 12 students moving into health professions training programs - including seven staying at VCU - and students graduating from health professions programs and joining the workforce. The success of the program has been recognized by other University offices, with the program structure used to develop the successfully funded TRIO Student Support Services grant.
The Division for Health Sciences Diversity, formed in 2009, functions as the central office to support the VCU Pipeline and to cultivate diversity in the health professions. In the 2014-15 academic year, DHSD highlighted its five year anniversary with a blog series that introduced readers to prolific alumni and leaders, service projects, and publications that have transformed the Division over the years. In the last five years, the success of the DHSD has also been demonstrated by the growing number of Pipeline Alumni who engage in their communities, succeed in their academic and professional arenas, and become involved with the next generation of Pipeline students. The DHSD is proud to celebrate the milestone of five years serving these diverse and talented students on their journey to becoming the health professionals of tomorrow.

The VCU Pipeline is supported by funding from the Office of the Vice President for Health Sciences. The Division for Health Sciences Diversity continuously seeks external funding to enhance existing programs and to expand services to students to increase the impact of the VCU Pipeline at VCU and in the healthcare workforce. In 2015, DHSD was awarded a grant through the Jesse Ball duPont Foundation for the VCU Health Sciences Academy program. This funding opportunity will allow the program to reduce obstacles to optimal participation and increase engagement for students in Richmond Public Schools (RPS) through enhancing technology resources, increasing staff support in the school systems, and to fully develop the program model over the next three years. The funding will also allow for the development of new curriculum modules developed to promote engagement with decision making regarding college majors and/or careers for participating students.
Impacting the Workforce

Over the past two years, the VCU Pipeline has seen program alumni move beyond the role of “health professions students” and into the role of health professional. This distinction begins moving the impact of the VCU Pipeline from diversifying the health professions schools at VCU to impacting the community and the patients served by program alumni. These students have moved into a wide variety of positions.

Emma Eberwein, CNMT: Emma has quickly transitioned from a Clinical Radiation Sciences student in the spring of 2015, to a Certified Nuclear Medicine Technologist at Johnston-Willis Hospital.

“In my profession, we are looking at the physiology of the body and how it is working. We perform Whole Body Bone Scans, Parathyroid and Thyroid Imaging, Gastric Emptying Studies, Cardiac Stress Tests, Hepatobiliary Studies, Gastrointestinal Studies, PET/CT imaging and much more! [It is] a very rewarding position. I love working closely with patients each day and providing the best experience possible during their journey through our department.”

Timothy Pierce, PharmD: Tim has found his place as a healthcare professional employed by Walmart Pharmacy Neighborhood Market, and is quick to promote the role of the pharmacist in the healthcare team and patient health.

“During my day I’m verifying prescriptions that were written by physicians while monitoring for any drug interactions or therapeutic duplications that the patient might experience... It is the obligation of a pharmacist to first do no harm to the patient, and educating patients on different medication regimens will help to enforce that policy. Having the opportunity to practice pharmacy in a community environment and playing an integral role in the well-being of patients is extremely gratifying.”

Asia Owens, BSN: Asia has discovered her passion for psychiatric mental health while working as an RN on the Behavioral Health Unit at Sentara Norfolk General Hospital.

“Mental health patients can be so vulnerable at times due to their mental condition, physical comorbidities, and financial difficulties. We are helping them through their struggle. Mental health nurses practice the true integration of nursing because we care for our patients holistically - we care for the mind, body, and soul. I love building therapeutic relationships with my patients.”

To read more about the stories from VCU Pipeline students, visit the “Alumni” section of the Division for Health Sciences Diversity website at dhsd.vcu.edu/alumni.
# Student Reflections on the Importance of Diversity

In recognition of the five year anniversary of the Division for Health Sciences Diversity, we reached out to students engaged with the VCU Pipeline over that time span to learn about how they value diversity, what it means to them as students, and how diversity may impact them as future healthcare professionals. Their responses were insightful, forward-thinking, and inspiring.

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<thead>
<tr>
<th>Student Reflections on the Importance of Diversity</th>
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| **Kalyann Kauv**  
VCU Acceleration Alumna  
VCU School of Pharmacy  
PharmD Student |
| “I think that some people have had negative experiences with healthcare, or believe that it might be ‘solely run on lab values’ or ‘this test or this blood pressure number,’ but I’ve been fortunate to meet many healthcare professionals, including pharmacists and doctors, who strive to create a greater narrative with their patient, and emphasize to us as students the importance of creating this bond.” |

| **Lyubov Slashcheva**  
VCU Pipeline Summer Resident  
Assistant and Tutor  
VCU School of Dentistry  
DDS Student |
| “Healthcare is a great field to be involved in right now [because] it’s rapidly progressing and expanding in its use of technology and I think interprofessional collaboration is definitely the way forward...you need a wide variety of perspectives to be effective, no matter which field you’re in...My vision for the future of healthcare sciences is culturally competent care where all the patient’s needs are provided for with an interprofessional team working towards the goals of that patient.” |

| **Qasim Kazmi**  
VCU Acceleration Alumnus  
VCU School of Medicine  
MD Student |
| “Diversity is the key to innovation. It seeds innovation [by] recognizing our differences, but in such a way that we celebrate our differences...The further we progress down our professional health track we become so immersed in our environment in our profession, for me it’s medicine. But [VCU] Acceleration was so important because they open your perspective and model the lens in which we view healthcare from. That lens is all inclusive in realizing the potential that we have when we work together rather than apart to fight health disparities.” |

| **Alexis Savage**  
VCU Acceleration Alumna  
VCU School of Humanities and Sciences,  
Undergraduate Student |
| “[It’s] important to see yourself represented wherever you are. [For example] in healthcare, when you see a physician who looks like you or has a similar background to you, it’s easier to relate. Young kids growing up will look at the profession and say ‘I can do this one day,’ because they see someone like them. Diversity means inclusion of different backgrounds, races, majors, just everyone coming together as one. That’s what VCU is like to me and that’s why I chose to go here because you meet people from all different walks of life.” |

To read the full article, visit the VCU Health Sciences Diversity blog at:  
[wp.vcu.edu/dhsd/celebrating-5-years](http://wp.vcu.edu/dhsd/celebrating-5-years)
Explore the VCU Pipeline

We believe in providing beneficial and educational health sciences programming to a wide variety of students, and maintaining an informative online presence to reach them where they are.

Our social media sites are for the prospective and the dedicated, wherever you may be in your journey toward becoming a health professional. Visit us in your favorite social arenas and share content with your friends, family and colleagues. Identify with our Alumni, discover programs that will enhance your health sciences profile, and learn about upcoming opportunities within the VCU Pipeline.

The information you need today, to become the health professional of tomorrow.