

# shade tree

CLINIC



**2016 - 2017 Annual Report**



## Who We Are

The Shade Tree Clinic (STC) is a free health clinic run by Vanderbilt University School of Medicine students.

## Our Mission

We strive to be the primary care home for underserved individuals in Davidson County by providing comprehensive care for chronic illnesses, social services, and health education. To meet this mission, STC forms interdisciplinary teams of medical, nursing, pharmacy, and law students who are supervised by professionals in these fields to provide healthcare and social services free-of-charge to this community. The clinic welcomes all patients, regardless of their race, residency, gender, socioeconomic status, or religious affiliation.

## Impact

Since opening, Shade Tree has provided medical, social, and pharmaceutical support to over 4,000 patients, free-of-charge. This past year, STC was the primary medical home to approximately 400 uninsured, underserved, and homeless patients. We provided nearly 2,000 medical visits.



“ For more than a decade, the Shade Tree Clinic has afforded our students a unique learning environment where their clinical skills flourish as they provide valuable assistance to our community’s medically underserved. Participating in the Shade Tree experience offers students the unique opportunity to be responsible for a continuum of patients’ needs while they learn fundamentals of health care delivery. The experience is incredibly rewarding for everyone involved and represents the very best of Vanderbilt University School of Medicine’s mission to train future leaders in health care. ”

– **Jeff Balsler, M.D., Ph.D.**

President and CEO of Vanderbilt University Medical Center,  
Dean of Vanderbilt University School of Medicine

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## From the Student Directors

Dear Friends and Fellow Advocates,

Shade Tree Clinic has been providing valuable medical care to Middle Tennessee residents for 12 years since its founding in 2005. We have grown tremendously over this period, going from a walk-in clinic in a double-wide trailer to a comprehensive medical home for more than 400 patients.

This last year has been an eventful one for us. Over the past 12 months, over 400 volunteers—including more than 40 faculty members—have volunteered more than 6,000 hours to provide services to our patients. We have treated six patients for Hepatitis C with the lifesaving drug, Harvoni, which normally costs \$95,000 for a 12-week course. All six now have no detectable virus in their blood. We implemented a new pharmacy system to keep our patients safer, vaccinated almost all our senior patients against pneumonia, and used our success at Shade Tree to continue to push forward socially-driven initiatives at Vanderbilt.

While we are obligated to talk of our successes in this document, we would be remiss not to say that our experiences this year have been truly life changing.

We learn something from our patients every single day, and they have truly made us better physicians and better people. While we are certainly proud of the care we are able to provide to our patients, they give everything back to us hundredfold.

We are sad that this will be the last year of Dr. Jule West's tenure as a Medical Director. We are sorry to see her go, but we are thrilled to welcome Dr. Eleanor Weaver to this role. We are excited for all that she will bring to the clinic and our patients.

As the healthcare environment changes, we know that Shade Tree will continue to be an outpost of what clinical medicine ought to be. Students, physicians, and patients coming together in a unique synergy that allows the provision of care to those who need it most while providing a pure way for students to build patient relationships and learn the art of medicine.

We thank you for your support and hope you will continue in this journey with us.

*Tom Klink and Joey Starnes  
Executive Directors, Shade Tree Clinic*

## From the Medical Directors

At 7 a.m. every Friday, our favorite hour of the week begins. Twenty-five medical students, most of them in their first and second years, come together with laptops open and presentations rehearsed to discuss patients who would otherwise have no access to care. Many of these students are Patient Health Educators (PHEs), who closely follow our patients with chronic conditions such as diabetes mellitus, hypertension, congestive heart failure or chronic lung disease. Other students will discuss our non-English speaking patients, our pre-natal patients or our general medical patients.

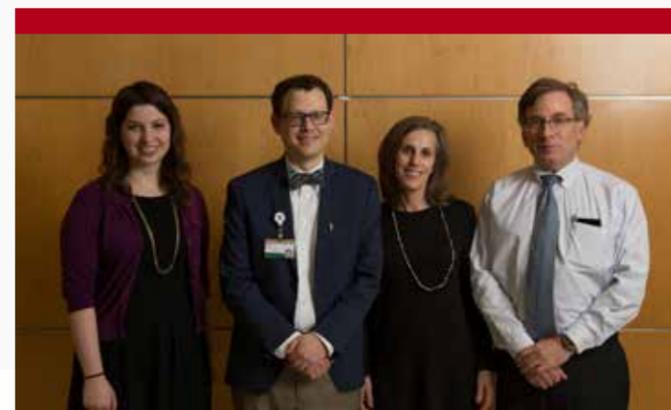
These Friday morning meetings ensure that we are doing everything possible to provide the best care for Shade Tree's panel of 400 patients. During a typical meeting, students will introduce their patients, review the most recent clinic visits and laboratory tests and when appropriate, present updated plans of care. The two of us will help our newer students with data interpretation and management plans, but they rapidly gain confidence and skill, and eventually require little intervention. Following the meeting, the students communicate the results of the tests with their patients and document everything in the electronic medical record.

The 7 a.m. meetings were originally focused on laboratory tests, to ensure that nothing "fell through the cracks." Over time, students realized that all patient events, including specialty appointments, emergency room visits and hospitalizations, benefited from review. They realized that patient care extends far beyond clinic visits and came to appreciate the social challenges patients face and the importance of coordinating care. This greatly enhances and augments the formal medical school curriculum.

The Friday meetings allow us to guide our students as they provide comprehensive patient care early in their training. Many of our patients believe that the care provided at Shade Tree is the best they have ever received, and these meetings allow us to deliver on that promise. As the directors, we are inspired by the enthusiasm, compassion, dedication and intellect of our students.

Thank you for your interest in Shade Tree and what we believe is a project that will lead to improved patient care.

*Robert Miller, M.D., Michael Fowler, M.D.,  
and Jule West, M.D.  
Medical Directors, Shade Tree Clinic*





## Making It Happen: The Leadership

### Clinic Leadership

**Executive Directors:** Joseph Starnes and Thomas Klink

**Director of Finance:** Lauren Slesur

**Director of Operations:** Saad Rehman

**Director of Patient Health Education:** Karina Mendoza

**Directors of Dispensary:** Lauren Holroyd and Julian Jenkins

**Director of Social Work:** Rohini Chakravarthy

**Medical Directors:** Michael Fowler, M.D., Robert Miller, M.D., and Jule West, M.D.

**Social Worker:** Shannon Jordan, L.M.S.W.

### Past Executive Directors

**2015-2016:** Emily Buttigieg, Whitney Muhlestein

**2014-2015:** Mary DeAgostino-Kelly, Justiss Kallos, Mary Van Meter, Cristin Quinn, Rafael Tamargo

**2013-2014:** Nick Harris, Taylor Triana

**2012-2013:** Bharat Kilaru, Matthew Stier

**2011-2012:** Allison Ferreira, Paula Marincola

**2010-2011:** Ben Deschner, Ravi Patel

**2009-2010:** Jonathan Steer, Adam Wegner

**2008-2009:** Meredith Albin, Alon Peltz

**2007-2008:** Eve Henry, Caitlin Toomey

**2006-2007:** Sarah Dunn, Caroline Kim

**2005-2006:** Dana Guyer, Sara Horvitz

**2004-2005:** Kristina Collins, Katie Cox

### Board of Advisors

Andre Churchwell, M.D.

Neerav Desai, M.D.

Robert Dittus, M.D., M.P.H.

Josh Fessel, Ph.D., M.D.

Michael Fowler, M.D.

Shannon Jordan, L.M.S.W.

Lewis Lefkowitz, M.D.

Kim Lomis, M.D.

Morgan McDonald, M.D.

Bonnie Miller, M.D.

Robert Miller, M.D.

Robertson Nash, Ph.D., R.N.

Al Powers, M.D.

Mavis Schorn, Ph.D., C.N.M., F.A.C.N.M.

Jeff Stovall, M.D.

Lynn Webb, Ph.D.

Jule West, M.D.

Consuelo Wilkins, M.D., M.S.C.I.

Beth Ann Yakes, M.D.

### Board of Directors

Emily Buttigieg

Maggie Gray

Nick Harris

Justiss Kallos

Joshua Latner

Whitney Muhlestein

Matt Stier

Rafael Tamargo

Margaret Tebbs

Taylor Triana

Pierce Trumbo

Mary Van Meter



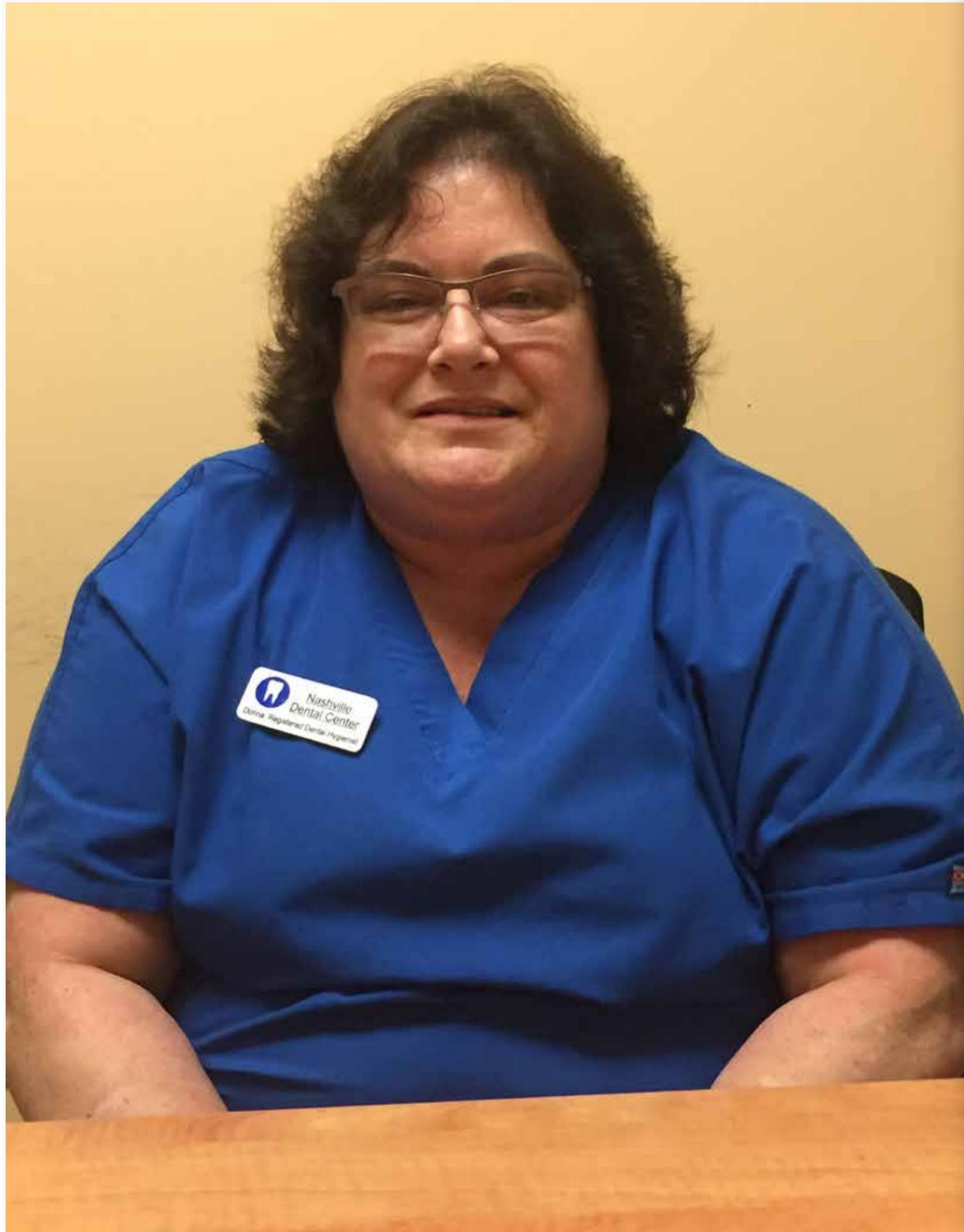
## Patient Story 1

### *Mr. Al-Jashami's Story*

Mr. Al-Jashami moved to Nashville from Iraq in 1996 but didn't know much about Shade Tree Clinic until his wife recommended it to him in 2010. In 2009, after suffering an on-the-job injury, he had two surgeries on his right shoulder to repair a torn rotator cuff. Although they went well, he still experienced significant pain after the procedures. His employer subsequently let him go, and he fell on tough times exacerbated by limited access to healthcare. His wife suggested that he go to STC because of her great experiences there. Mr. Al-Jashami was very impressed with the level of care he received at STC and commends both the students and physicians for their passion for patient care and desire to help the underserved community. He now comes to STC about once a month for physical therapy and medication to alleviate his shoulder pain. He reports that he has had nothing but positive experiences here and

could not imagine going anywhere else.

The care he has received at STC immensely impacted his ability to return to the activities he loves. In addition to medical care, Mr. Al-Jashami praises the staff at STC for their inclination to go above and beyond for their patients. After his wife took a trip to her native country of Mexico, she had significant trouble getting permission to return to the United States. He was very distraught and found it difficult to navigate the system on his own. Dr. Miller, along with other staff members at STC, organized the paperwork for him, established proof of residency, and covered all of the fees necessary for his wife to return safely. He is very grateful that his family discovered STC and highly recommends the clinic to anybody looking for effective and affordable medical care.



## Patient Story 2

### Ms. Donna Pearson's Story

Shade Tree Clinic's work with patients suffering from hepatitis C has helped our community members get back on their feet to accomplish their goals.

Ms. Donna Pearson has been a Shade Tree patient over the past year, having been introduced to the free clinic by a mentor following her release from prison. She had been diagnosed with hepatitis C, a viral illness that causes liver damage and can eventually progress to the point of requiring a liver transplant. She had previously tried other treatments for the disease, which unfortunately did not cure her disease.

However, when Shade Tree attending physician Dr. Miller discussed with her a new drug that offered a cure for hepatitis C, Ms. Pearson was willing to try again. Harvoni is a medication that has demonstrated the ability to effectively eradicate the virus. Treatment involves taking the drug for 12 weeks along with careful follow-up and measurements of the virus in patients' blood. The medication costs close to \$90,000 for a treatment course. Ms. Pearson said, "Once again, [Shade Tree] went to bat for me and was able to hook me up through this program with... whoever the pharmaceutical company is behind

Harvoni. They took me in and provided all the medication and the labwork, and so I went through 12 weeks [of treatment]." After her treatment course, Ms. Pearson's lab results indicated that she had been successfully cured of the virus.

Shade Tree Clinic's mission is to provide medical care to the underserved while simultaneously educating students about medical practice and socioeconomic factors that influence health. Ms. Pearson mentioned her amusement at one of her visits when Shade Tree attending physician Dr. Fowler brought in several medical students to listen and learn from her lungs when she had a respiratory infection. However, she discussed how she had previously trained as a dental hygienist and felt happy for the medical students who received hands-on training that she considered incredibly valuable in medical care.

Now, Ms. Pearson works full time in a dental clinic and is also a student at Lipscomb University. She is currently studying for a degree in business management and plans to graduate in 2018. Looking back at her experience at Shade Tree, she said "I'm just so grateful to God and the clinic for my treatment."

## Shade Treet Departments

### Finance

The Shade Tree finance department primarily oversees clinic spending and pursues sources of funding. These include grants, donations, and fundraisers. Without this income, many of the amazing programs we have at Shade Tree would not exist. As part of the grant reporting process, the finance department is responsible for managing data on patient health outcomes. Through gathering and analyzing these data, we have the unique opportunity to measure the impact that Shade Tree has on our patients' health. We are able to identify strengths and areas for improvement in order to provide equitable, evidence-based care to our patients.

This fiscal year, the finance department has successfully obtained grants from The Healing Trust and the Community Foundation of Middle Tennessee (CFMT). Our Healing Trust grant has enabled

us to provide in-person social work assessments for all of our patients, coordinate a program for patients with hepatitis C, and improve upon the care we offer to patients with chronic health conditions. Our grant from the CFMT has given us the resources to orchestrate a vaccination program for senior patients. Over 80% of our senior patients are now protected from pneumonia and tetanus.

*Director of Finance: Lauren Slesur*

### Dispensary

The Shade Tree Clinic dispensary is a full service dispensary featuring over 300 different medications, all provided to our patients free of charge. The dispensary also coordinates vaccine orders and incorporates immunizations into clinic flow. Dispensary volunteers provide medication education to all of our patients. Medication reconciliations are performed by pharmacy students and

upper level medical students trained in these skills. The dispensary department also creates detailed reports and analysis to support more accurate documentation of medication utilization and expenses.

This year has been a whirlwind of change for the Shade Tree Dispensary. We started with a department in turmoil as STC transitioned to become a Vanderbilt University Medical Center clinic. In order to address new compliance requirements, the dispensary changed documentation and medication monitoring procedures. This has culminated in two Environment of Care (EOC) surveys, which we passed with flying colors! The dispensary has also consistently received perfect scores on monthly MEDS surveys, which focus on dispensary-specific compliance. Our fantastic volunteers have been instrumental in this process—without their careful attention to detail and resilience we would not have achieved these goals.

Second, as part of this transition, we also went live on a new pharmacy system, McKesson Pharmacy Rx. This was a huge enhancement to our dispensary in terms of minimizing errors, standardizing workflows, and ensuring medication ordering could be proactive, not reactive. We have instituted discrete roles and clear delineation of tasks which has also increased our efficiency. We are currently working toward ordering medications once weekly (rather than before each clinic) and utilizing new system technology appropriately to make this a reality.

*Directors of Dispensary: Julian Jenkins and Lauren Holroyd*

### Operations

Operations is responsible for all appointment and volunteer logistics. When patients arrive at clinic, our clinic coordinators serve as their first point-

of-contact and facilitate the check-in process. Clinic coordinators also create patient charts and distribute appropriate documentation following patient visits. Virtually every form either originates from or passes through clinic operations. Additionally, all patient appointments are scheduled by members of the operations team. This amounts to over 200 scheduled appointments per month! Finally, the department is also charged with coordinating volunteer logistics.

This year, clinic operations has focused on streamlining processes to improve flow and reduce inefficiencies. All forms have been updated to reflect changing needs and reduce paperwork. As a result, our patient charts have been “slimmed” while still presenting all relevant information in a concise format. Additionally, several new applications have been developed to automate routine tasks, such as label printing and medication list generation, resulting in a reduction in wait times as well as errors.

*Director of Operations: Saad Rehman*

## Patient Health Education

The Patient Health Education (PHE) program pairs patients with chronic medical conditions with first-year medical students. The patients in this program are those with obesity, diabetes mellitus, hypertension, hyperlipidemia, and COPD or asthma. The medical students keep close contact with their panels of 6-12 patients throughout the year. They provide counseling on healthy lifestyle modification including diet, exercise, and smoking and alcohol cessation both over the phone and in clinic through motivational interviewing and integration of patient handouts. Patient health educators also provide counseling on management of diabetes including medication compliance and glucometer use. Patients receive updates on their lab results and medication changes through their health educator. Outside of education regarding chronic medical conditions and healthy living, close follow up of patients through the development of a close patient-educator

relationship helps minimize emergency room utilization and lapses in care.

*Director of Patient Health Education:  
Karina Mendoza*

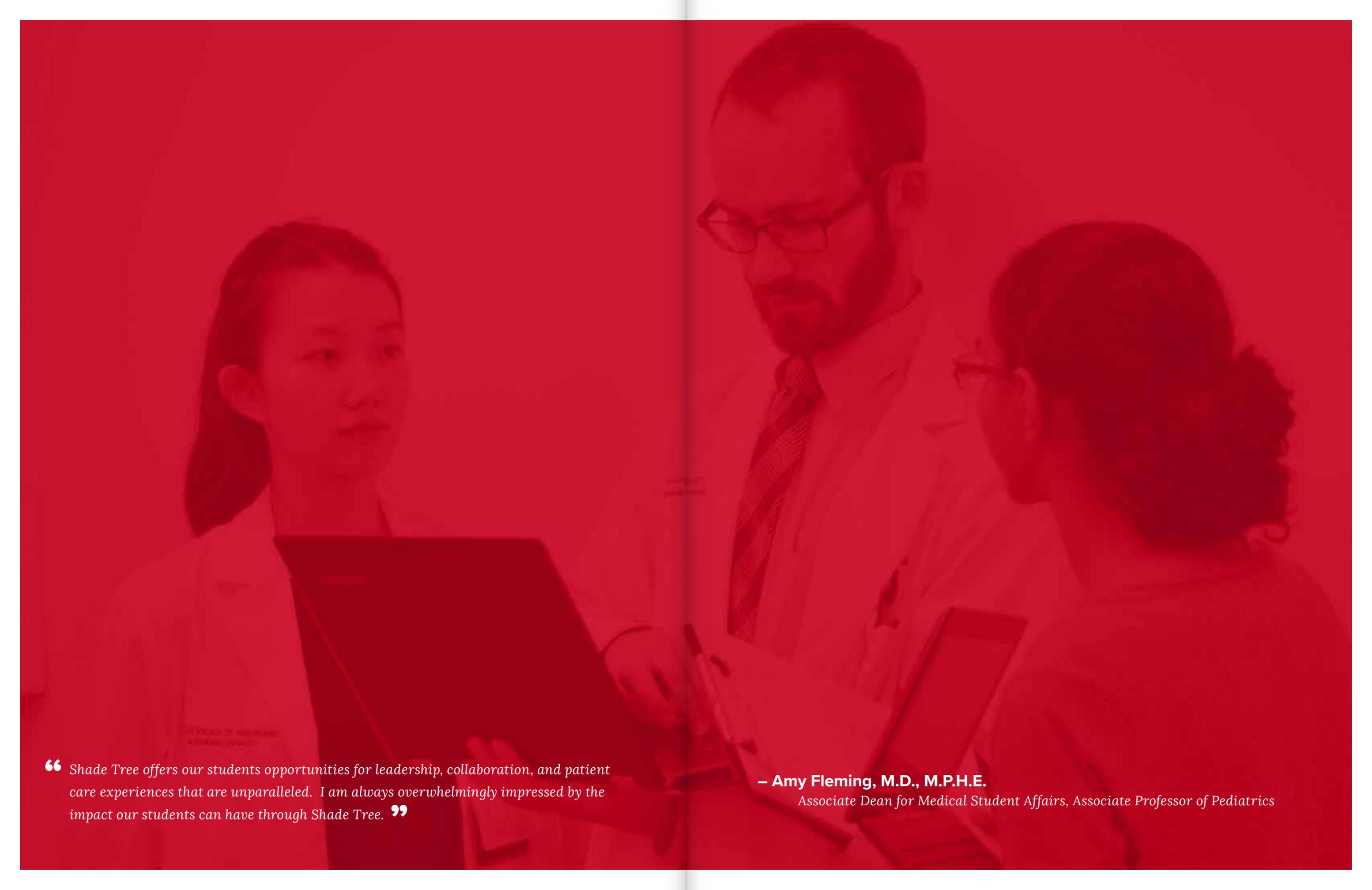
## Social Work

The social work department at STC was established to address the social determinants that impact the health of our patients. Student volunteers work alongside a licensed social worker to connect patients with community resources. Our database includes resources for housing, utilities assistance, employment, mental health, food, LGBTQ services, transportation, and substance use. Members of our social work department regularly follow up with a panel of patients to provide additional support throughout application processes, resource referrals, and other processes that are difficult to navigate.

This year, the social work department screened over 350 patients for social needs. These include housing, utilities

assistance, employment, mental health, food, LGBTQ services, transportation, and substance use. Our volunteers contributed over 1,200 in-clinic hours plus countless more following up with patients after their appointments to provide additional support throughout application processes, resource referrals, and other processes that are difficult to navigate. The department collected over \$1,000 dollars in donations for the Holiday Drive. In addition, volunteers organized trainings on domestic violence, suicide prevention, housing, insurance, disability, and resources for the undocumented. In the meantime, we are working to better establish relationships with local dental clinics and employment agencies who can provide these resources to our patients. Patients can also receive assistance from a health insurance navigator and a licensed attorney.

*Director of Social Work: Rohini  
Chakravarthy*



**“** *Shade Tree offers our students opportunities for leadership, collaboration, and patient care experiences that are unparalleled. I am always overwhelmingly impressed by the impact our students can have through Shade Tree.* **”**

**– Amy Fleming, M.D., M.P.H.E.**

*Associate Dean for Medical Student Affairs, Associate Professor of Pediatrics*

## Shade Tree Specialty Clinics

### Dental

Shade Tree Clinic recognizes the importance of dental care and is able to provide dental services through the Shade Tree social work office. Social work volunteers distribute information on local affordable dental care clinics whose mission is to provide dental care for poor working families and the elderly who do not have access to dental services. One such clinic is Interfaith Dental Clinic, which also accepts emergency referrals of patients experiencing acute dental pain. Shade Tree Clinic is also equipped to handle acute dental pain on its own. Currently, we are fortunate to have a dentist on staff who is able to evaluate and refer patients to a Vanderbilt dental clinic for basic dental procedures such as extractions. The dental department at Shade Tree is currently working to expand dental options for patients and hopes to be able to provide even more services in the future.

Director: Whitney Wiley

### Gynecology

The dermatology clinic brings dermatologists from Vanderbilt and the

greater Nashville area to care for Shade Tree patients with cutaneous concerns. The clinic manages both acute and chronic conditions as well as annual skin cancer screenings for our patients. We have supplies available to biopsy lesions, obtain skin scrapings for microscopic evaluation, and perform cryotherapy on site. Any additional care, including Mohs surgery and nail biopsies, is arranged through Vanderbilt.

Directors: Jocelyn Durlacher, Kelsie Riemenschneider

### Neurology

The neurology clinic provides quality neurological services to patients who could not otherwise readily afford the cost of care and serves a valuable role in medical student education. Patients present with a variety of neurological complaints including seizures, headaches, strokes, neuropathy, and movement disorders. We are even able to offer Botox to our patients in need. In addition to medical consultation by board-certified physicians from the Vanderbilt Departments of Neurology and Neurological Surgery, patients are referred for imaging studies and

consultation at Vanderbilt University Medical Center free-of-charge.

Directors: Jillian Berkman, Dagoberto Estevez, Lindsay Klofas

### Ophthalmology

The ophthalmology clinic provides numerous services for patients. We are able to test visual acuity and provide refraction in order to give patients a prescription for eyeglasses. Through the social work office, this can be used to obtain free glasses through the New Eyes for the Needy program. We also screen many patients with diabetes for retinopathy, as well as check intraocular pressure to determine those who may need a referral to Vanderbilt Eye Institute for glaucoma evaluation. Some new additions this year include an autorefractor, which makes it easier for us to provide patients with a glasses prescription, and a retinal camera, which is being used to document diabetic retinal changes over time, with pictures being uploaded to our electronic medical record.

Directors: Melissa Day, Jessica Kaczmarek

### Orthopedics and Physical Therapy

At the orthopedics and physical therapy clinic, we see patients with a wide variety of musculoskeletal complaints. Many of our Shade Tree patients struggle with joint pain that can affect their ability to exercise, which in turn affects their overall health. Even the ability to perform simple activities like walking up the stairs or cooking meals can be difficult with injuries. Our student teams are able to evaluate both acute and chronic injuries through a clinic visit. X-rays, CT scans, and MRIs can be obtained if appropriate. We manage our patients' problems with the help of licensed physical therapists, medication, counseling, joint injections, and even surgery—all free-of-charge to the patient.

Directors: David O'Neill, Deborah Xie

### Psychiatry

Shade Tree Psychiatry Night is a new specialty clinic offered on the second Tuesday of every month. Staffed by attending or resident psychiatrists, the psychiatry clinic helps provide either chronic follow up for individuals

with behavioral health care needs or first time evaluation for patients with newly identified or referred behavioral health concerns. The monthly clinic provides a dedicated time and space towards the integration of primary care and behavioral health services for the patients served by Shade Tree, including expert consultation on the diagnosis of mental illness, optimization of psychoactive medication management, and identification of therapeutic needs requiring referral to other community psychiatric resources.

*Directors: Joshua Cockroft, Jason Gandelman*

## STEPP

The Shade Tree Early Pregnancy Program (STEPP), holds a free prenatal clinic the first Saturday of each month for uninsured and underinsured women needing prenatal care. Staffed by volunteer medical students, nursing students, and an attending Vanderbilt nurse-midwife, patients receive a primary prenatal care visit and are then scheduled for an ultrasound and follow up appointment at a clinic in the Nashville area that provides full well-woman and prenatal services. Additionally, patients at STEPP receive assistance applying for insurance coverage for the rest of their pregnancy. The mission of STEPP is two-fold. First, STEPP strives to connect pregnant women from underserved populations with early prenatal care, community resources, prenatal education, and social resources. Second, STEPP

trains future generations of medical and midwifery students to provide holistic prenatal care for underserved populations by addressing not only their physical and psychological medical needs but also their social needs.

**2016–2017 Nurse-Midwifery Co-Directors:**  
*Chelsea Biegler, Mariela Rich*

**2016–2017 Medical Co-Directors:** *Gabriella Cozzi, Alexandra Foxx*

**2017–2018 Nurse-Midwifery Co-Directors:**  
*Roxanne Crittenden, Mary Flannigan*

**2017–2018 Medical Co-Directors:** *Alexandra Arambula, Shilpa Mokshagundam*

**2017–2018 Outreach & Programs Coordinator:**  
*Piper Hays*

## Weight Loss

The weight loss clinic works with many patients struggling to maintain a healthy lifestyle. Our teams work with patients to address the medical, social, and psychological barriers that are preventing their weight loss and keep close follow-up with patients to monitor their progress. With the help of physicians, students, and dietetic interns, the patients are able to plan healthier dietary choices. They follow-up with the clinic by bringing a log of their food that is discussed with the team. Exercise and sleep health are also addressed at every clinic visit. Our weight loss team also manages our patients' comorbid conditions and ideally lessens the severity of them through their weight loss and lifestyle changes.

*Directors: Aubri Charnigo, Katherine Des Prez, Sydney Rooney*



## Other Services

### Acute Care Coordinators

Acute Care Coordinators fill the patient health education role for patients that are not formally assigned to a PHE. They help schedule appointments, follow up lab results, and provide encouragement for patients between clinic visits as appropriate.

*Coordinators: Samantha Cummins, Eric Mace, Elizabeth Sherrill, Margaret Tebbs*

### Laboratory Services

Laboratory Services is a newly formed department within Shade Tree this year that manages lab collection and immunization for patients during clinic. The department also oversees quality improvement regarding lab draws and orders at Shade Tree. The team is led by the Lab Coordinator, whose responsibilities include training and overseeing technicians, tracking inventory and labs collected at Shade Tree, and communicating with the rest of

the Shade Tree administration regarding the state of the lab. Technicians are present at every clinic and facilitate lab collection by drawing and collecting any labs requested by the clinic team (including phlebotomy and point-of-care testing) and performing vaccinations and immunizations.

This year, the department has begun aggregating data on labs drawn each month, allowing the clinic's administration to gain insight into what type of labs are collected at Shade Tree, and identifying ways to reduce waste and unnecessary tests. We have cooperated with the vaccination initiative to help provide dozens of pneumonia and Tdap vaccines to senior patients. We have also partnered with students both within and outside of the School of Medicine to develop quality improvement initiatives which include: creating resources and handouts regarding vaccine administration, developing resources on labs that need to be collected to monitor patients who are on high-risk medications, developing resources to

guide students on which labs to collect at what times for common outpatient conditions like diabetes and coronary artery disease, and improving education initiatives by helping underclassmen gain experience with phlebotomy.

*Lab Coordinator: Johnny Wei*

### Pharmacy Assistance Program

The STC Patient Assistance Program (PAP) team works with patients and collaborates with other STC teams to provide certain free medications to eligible patients who cannot afford them, which includes a majority of uninsured patients seen at STC. Our efforts are vital to the sustainability of the clinic and to the access and quality of health care we provide to our patient population. Pfizer, Johnson & Johnson, Merck, GlaxoSmithKline, AstraZeneca, Gilead, and Sanofi are among the many pharmaceutical companies that offer PAP programs that benefit our patients. In clinic, PAP student volunteers assist patients in applying for various

medications, most commonly Ventolin, Advair, and different types of insulins, that are relatively expensive i.e. \$200-300 for a 1-month supply. Behind the scenes, the Vanderbilt Pharmacy PAP team helps us to keep track of application statuses and refills. In addition to the commonly used medications mentioned above, we are able to give some patients infected with chronic Hepatitis C free treatment with Harvoni, a groundbreaking retroviral therapy with over 90% cure rate but with a notoriously high cost (up to \$90,000 for a full 12-week course). Currently, over 100 patients at STC are enrolled in one or multiple PAP programs, and since we launched the Harvoni initiative a year ago, 8 patients have been approved and 5 of 5 patients who have completed treatment have undetectable viral loads. The PAP team has a tremendous impact on reducing the cost of the dispensary and providing access to much needed medications to the socioeconomically disadvantaged in Nashville.

*Coordinator: Eileen Shiuan*

### Research Department

The research department sets research priorities for STC and oversees students completing quality improvement projects at clinic.

*Coordinators: Camillo Bermudez, Alex Sundermann*

### Spanish Services

Spanish Services is responsible for recruiting, training, and scheduling Spanish interpreters to work at clinic for Tuesday, Saturday morning, and Saturday afternoon shifts. Our responsibilities during clinic consist of interpreting during clinic visits and during other required tasks such as social work and dispensary interactions. Outside of clinic, first-year VMS interpreters are responsible for calling patients a day before clinic to remind them of their appointment or reschedule as necessary.

The body of interpreters consists of medical students, graduate students, and undergraduates. Medical students are

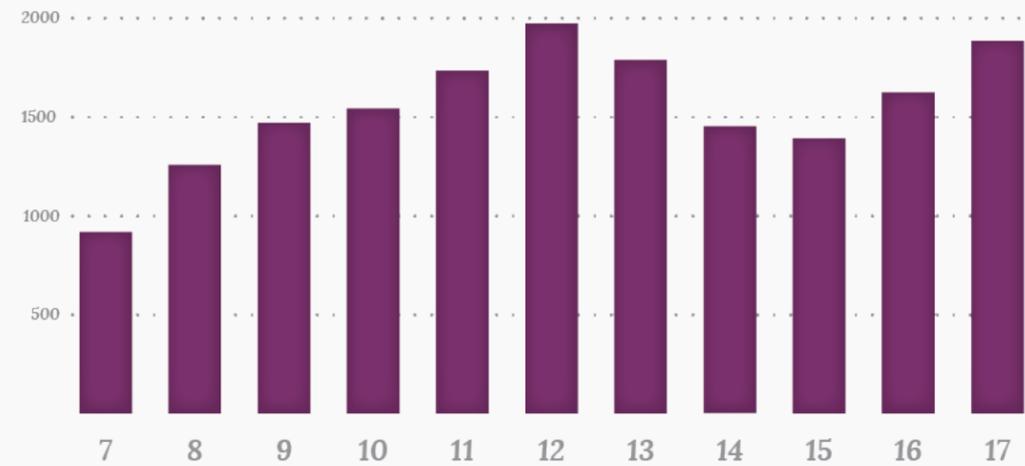
recruited at the beginning of every year. Graduate students come in on an ad hoc basis. Most undergraduates come from a class taught by Lori Catanzaro named "Spanish in the Medical Profession." In this class, undergraduates are required to volunteer 4 hours a week during the academic period. All other interpreters are required to interpret at least 3 times every 2 months. Interpreters sign up on their own and are able to exchange shifts as needed. Before interpreters volunteer for the first time, they are screened to ensure Spanish proficiency.

In terms of new projects, Spanish Services is working to create common illness scripts that are frequently seen at Shade Tree in order to review common complaints and vocabulary encountered by interpreters. The goal is to have complaint-specific workshops for interpreters and interested medical students.

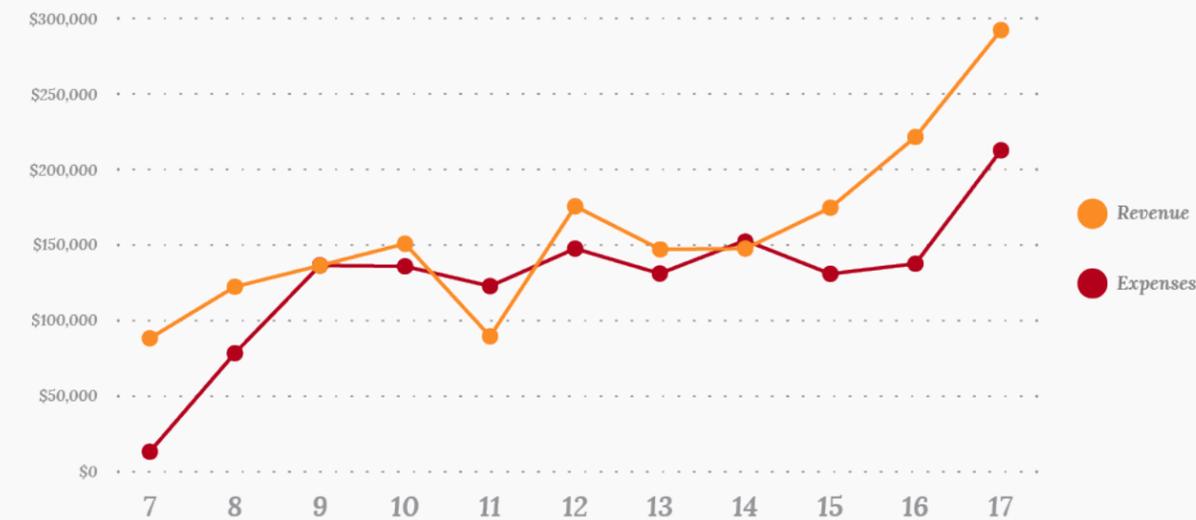
*Coordinator: Camillo Bermudez*

## By The Numbers

### Patient Visits



### Financial Trends



## Grant Support

### The Healing Trust

STC was awarded \$45,000 by The Healing Trust this past year to enhance our management of chronic diseases, hepatitis C, and social needs. With the support of this grant, our clinic has been able to more closely monitor health outcomes of our patients with diabetes and high cholesterol. Additionally, we have been able to develop a hepatitis C treatment program and have successfully cured five patients of this life-threatening disease. Finally, we have established a protocol for performing annual in-person social work interviews for all of our patients. This has enabled us to identify and ameliorate the barriers our patients face in caring for their health.

### The Boulevard Bolt

This past year, our clinic was awarded \$25,100 by the Boulevard Bolt to continue our vaccine outreach program. Through this support, our clinic was able to organize five vaccination events in the

community, during which we provided 297 influenza immunizations to people experiencing homelessness in Nashville. To date, Shade Tree has administered 6,788 flu vaccines with the support of the Boulevard Bolt.

### The Community Foundation of Middle Tennessee

Shade Tree was awarded \$12,338 by the Community Foundation of Middle Tennessee for the purposes of vaccinating our senior patients against tetanus, diphtheria, pertussis, and pneumococcus. Among this age group, significant causes of mortality include meningitis, bacteremia, and pneumonia, which are most commonly caused by pneumococcus. The support from this grant has enabled us to establish a vaccination program that will protect our senior patients from these potentially fatal diseases. To date, 71.4% of our senior patients are up to date on Tdap, 63.4% are up to date on Pneumovax 23, and 69.8% are up to date on Prevnar 13.



## Shade Tree Trot

The Shade Tree Trot 5k was held on April 22nd, 2017. This annual event serves to increase awareness of the Shade Tree Clinic throughout the community and to raise funds that support the Clinic's operating expenses. The Trot continues to grow each year and is quickly becoming one of the premier 5k events in Nashville. The event provides a unique experience that caters to students and families alike. Each participant receives a race T-shirt, official race timing, and access to the festivities taking place before and after the race: food trucks, live music, free food, a bounce house, and several other activities.

The 2017 Shade Tree Trot was organized by a committee of 17 medical students. These students formed several sub-committees to handle different aspects of the event, such as Race Day Logistics and PR/Advertising. Sponsorship support was provided by local and national businesses, such as BlueCross, Nashville Running Company, and Nothing Bundt Cakes. The event raised over \$13,000 for the clinic and attracted nearly 600 registrants. All proceeds from the event were donated directly to the Shade Tree Clinic.

*Directors: Emilie Amaro, Joey Elsagr*



## Shade Tree Benefit Dinner and Auction

The Shade Tree Benefit Dinner and Silent Auction was founded in 2013 with the primary goal of enhancing Shade Tree Clinic's visibility within the Vanderbilt community and specifically among members who are not consistently reached by the Shade Tree Trot. Its secondary (and equally as important) purpose was to serve as a sister fundraiser to the Shade Tree Trot. During its five years of existence, the benefit has been successful in reaching both goals while it continues to grow in terms of its size, scope, and fundraising efforts.

The 2017 dinner and auction was the largest and most successful to date, with

over 350 guests in attendance. The event celebrates Shade Tree Clinic and features live music, fantastic auction items, and wonderful speakers. In addition, at this year's event, Dr. Sheryl Fleisch, who serves as Medical Director of the Vanderbilt Street Psychiatry program, was honored for her unique commitment to the underserved population. With the generous support of our sponsors, individual donations, and guests, this year's event raised \$53,090. 100% of the proceeds from the event were donated directly to the clinic and patients in need.

*Director: Jennifer Huang*

## Publications

Shade Tree Clinic is one of the few student-run clinics in the country to feature a fully functioning dispensary that is able to provide the vast majority of medications to our patients at their clinic visit free-of-charge. The innovative system that allows this to happen was published in the journal *Informatics for Health and Social Care*.

*Rosenbaum BP, Patel SG, Guyer DL, Dunn SR, Herceg ME, Knox CK, Miller RF. The pharmaceutical management system at Shade Tree Family Clinic: a medical student-run free clinic's experience. Informatics for health & social care. 2008 Sep;33(3). 151-7.*

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Shade Tree's innovative model of providing access to prenatal care to underinsured and uninsured patients was published in the *Journal of Midwifery and Women's Health*.

*Danhausen K, Joshi D, Quirk S, Miller R, Fowler M, Schorn MN. Facilitating access to prenatal care through an interprofessional student-run free clinic. Journal of midwifery & women's health. 60(3). 267-73.*

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Our Patient Health Educator model was shown to improve clinical outcomes for patients with diabetes as measured by improved hemoglobin A1c. This was published in *Academic Medicine*, the premier medical education journal.

*Gorrindo P, Peltz A, Ladner TR, Reddy I, Miller BM, Miller RF, Fowler MJ. Medical students as health educators at a student-run free clinic: improving the clinical outcomes of diabetic patients. Academic medicine : Journal of the Association of American Medical Colleges. 2014 Apr;89(4). 625-31.*

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## Presentations

Members of the Shade Tree Clinic executive board had the opportunity to present at the 7th Annual Conference for the Society for Student-Run Free Clinics. Poster presentations are included below.

*"Model for Longitudinal Hepatitis C Care at a Student-Run Clinic." Caitlin Bell, Laura Armstrong, Eileen Shiuan, Joseph Starnes, Thomas Klink.*

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*"Predicting No-shows at a Student-Run Comprehensive Primary Care Clinic." Joseph Starnes, Neil Holby, Saad Rehman, Lauren Slesur, Robert Miller.*

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*"Model for Comprehensive Ophthalmologic Care at a Student-Run Clinic." Rohini Chakravarthy, Joseph Starnes, Cherie Fathy, Melissa Day, Jessica Kaczmarek, Rochelle Wong, Sarah Tanaka, Kari Fossum, Robert Miller.*

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# Volunteers

“ For the past eleven years, Shade Tree Clinic has been a critically important part of the Vanderbilt medical school experience. At Shade Tree, students provide high quality care to a group of patients who have no other place to go. At the same time, they learn from experience how clinical systems work, how social circumstances impact health, and how policy affects our ability to keep the fundamental promise of providing the best care to every patient every time. ”

**-Dean Bonnie Miller**

Sharon Albers	Wes Ely	Matt Miller	Roy Zent	Kristen Reiman
Vanessa Antoine	Jim Fiechtl	Robert Miller	John Zic	Riley Thornton
Francesca Bagnato	Reid Finlayson	Allen Naftilan	Eli Zimmerman	Haley Turner
Michael Baker	Meghan Flemmons	Robertson Nash	<b>Nurse Practitioners</b>	Meredith Williams
Brian Bales	Gayle Foster	John Newman	Tara Nielsen	Katherine Wolfe
John Bond	Michael Fowler	Morgan Patrylo	Morgan Patrylo	<b>Finance Staff</b>
Christopher Bowman	Howard Fuchs	Nathan Podoll	Nathan Podoll	Sean Berkowitz
Eric Brown	Leslie Gewin	Bradley Richmond	<b>Nurse Midwives</b>	Jonathan Dallas
Gisella Carranza	Mark Glazer	Michelle Roach	Liz Munoz	Joshua Daryoush
Leon	Jennifer Green	Tony Ross	Julia Phillippi	Russell Day
James Casey	Celeste Hemingway	Kristen Scarpato	Bethany Sanders	Elizabeth Moore
Deepa	David Isaacs	John Sergent	Mavis Schorn	Gautam Rangavjla
Chandrasekaran	Howard Kirshner	Christopher Sizemore	Kate Virostko	Danny Zakria
Edward Cherney	Sarah Krantz	David Slosky	<b>Nutritionists</b>	Michael Zhang
John Cleek	Susan Kroop	Paula Smith	Brooke Butterworth	<b>Dispensary Staff</b>
Beatrice Concepcion	Patrick Lavin	Hasan Somnezturk	Tiffany Ha	Jennifer Huang
Ronald Cowan	Janice Law	Cecelia Theobald	Rachel Helfferich	David Liu

<b>Physicians</b>	Kaylin Craig	Jun Li	Eleanor Weaver	Kate Hudson
Margarita Abi	Robert Cronin	Pierre Massion	Jule West	Higgins Jordan
Zeid Daou	Thomas Davis	Jessica Mather	Lee Whelless	Amy Kranick
Bassel Abou-Khalil	Neerav Desai	Kayla McNiece	Nicola White	Rachel Kranjc
			Mark Wigger	Abigayle Lindsey
			Jo Ellen Wilson	Sarah McCallum
			Beth Ann Yakes	Emily McGovern
			Zach Yoneda	Katie Murphy

“ Medical schools across the country are trying to incorporate more content about health systems science. The Shade Tree Clinic offers our students a unique site to consider, and improve, the design of healthcare systems as they provide essential care for patients in need. I admire our students for their steadfast investment in our community. ”

**-Dean Lomis**

Krystian Kozek	Catherine Zivanov	Emilie Fauchet	Courtney Edwards	<b>Shade Tree Trot Committee</b>
MariaSanta	Danny Sack	Danny Sack	Joeun Kang	<b>Spanish Services Volunteers</b>
Mangione	Lauren Matevish	Lauren Matevish	Kate Frost	Emilie Amaro
Adam Stark	Kate Frost	Kate Frost	Kaitlyn Reasoner	Katy Anthony
Sara Fletcher	Kaitlyn Reasoner	Kaitlyn Reasoner	Thao Le	Ben Campbell
Gabrielle Riffe	Thao Le	Thao Le	Whittney Wiley	Emily Chan
Dylan Knox	Whittney Wiley	Whittney Wiley	Samantha Beik	Melissa Day
Jillyan Harlan	Samantha Beik	Samantha Beik	Meredith Monsour	Joey Elsagr
Janet Hanna	Meredith Monsour	Meredith Monsour	Elise Clemens	Parker Evans
Alec Sain	Elise Clemens	Elise Clemens	Kari Fossum	Stephanie Hadley
Kenneth Sykes	Kari Fossum	Kari Fossum	Christian Gerhart	Daniel Hong
	Christian Gerhart	Christian Gerhart	Juan Gnecco	Ben Li
	Elishama Kanu	Elishama Kanu	Tim Halbesma	

Deborah Xie	Ekta Patel	Marie Kuzemchak	<b>Technicians</b>	Saif Hamdan
Jack Walker	Dhara Mahida	Emily Long	Jenna Murray	Jeremy Hatcher
Jacob Fleming	Haley Cole	Sarah Rachal	Krishnan Ramanujan	Albert Holler
Matt Yin	Yanyao Yi	Sai Rajagopalan	Lea Spencer	Jarissa Irons
Alex Tinianow	Heir Jordan	David Suh	Ashley Wu	Elizabeth Lohr
Eriny Hanna	<b>Operations Staff</b>	Victoria Treboschi	<b>Pharmacy Assistance Program Volunteers</b>	Urvashi Mathur
James Law	Shaunak Amin	Christiaan Wijers	Laura Armstrong	Tejal Patel
Joseph Gibian	Eric Donahue	Daniel Wolfson	Jennifer Huang	Sydney Payne
Kalin Wilson	Arial Kniss-James	Colby Wollenman	Justine Kim	Christopher Puchi
Kendrick Campbell	Danielle Kubicki	Yuxi Zheng	Eriny Hanna	Emilio Rivera
Kevin Neuzil	Emily Moore	<b>Social Work Staff</b>	Maxwell Roeske	Sofia Shirley
Rebekka DePew	Olivia Roman	Chay	Kalin Wilson	Anne Sizemore
Sabina Dang	Duncan Smart	Sengkounmany, J.D.	Rebekka DePew	Clark Stalings
Ayesha Muhammad	Douglas Totten	Allison Jones, J.D.		Allison Thomas
Courtney Edwards	Jess Wen			Alexandra Verzella
Joeun Jay Kang				Nate Yohannes
Maxwell Roeske				

Eric Mace	<b>Class of 2017</b>	Mary Van Meter	Cassandra Loren	Nicolas Baddour
Jeannette Mathieu	<b>Volunteers</b>	Ray Wang	Eric Mace	Joshua Corriveau
Dillon O'Neil	Courtney Baker	Kelly Wu	Daniel Markwalter	Adam Daily

“ Shade Tree has been the most meaningful experience of my medical school career. Through Shade Tree I have developed leadership, educational, and administrative skills that will serve me well in residency and beyond. Shade Tree provides students with a unique opportunity to gain clinical experience and develop clinical teaching skills, while learning about the Nashville community and social determinants of health. Most importantly, Shade Tree has allowed me to develop long-term relationships with patients. These relationships have enriched my medical school experience. ”

**-Aubri Charnigo, VMS 4**

Doug Pet	Caitlin Bell	<b>Class of 2018</b>	Tanya Marvi	Laura Dellalana
Saad Rehman	Adipong	<b>Volunteers</b>	Karina Mendoza	Parker Evans
Maxwell Roeske	Brickshawana	Efi Akam	Shilpa	Gregory Fricker
Mary Van Meter	Emily Buttigieg	Emilie Amaro	Mokshagundam	Timothy Hopper
Deborah Xie	Kate Callaghan	Alexandra Arambula	Andre Morales	Joshua Latner
	Aubri Charnigo	Jillian Berkman	Tom Mou	Joshua Latner
	Omar Elsayed-Ali	Ritwik Bhatia	Maggie Pan	Shayan Rakhit
	Roger Fan	Rohini Chakravarthy	Julia Pitkin	Rochelle Wong
	Craig Flath	Nikhil Chavali	Tony Qiu	Veronica Young

**Shade Tree Benefit Dinner and Auction Committee**

Jennifer Huang	Alexandra Foxx	Joshua Cockroft	Saad Rehman
Hannah Phelps	Nate Friedman	Katherine DesPrez	Elizabeth Sherrill
Catherine Xie	Jennifer Grasch	Dago Estevez	Rafael Tamargo
Eriny Hanna	Maggie Gray	Jacob Fleming	Meg Tebbs
	Kelly Harms	Jason Gandelman	Petria Thompson

**Annual Report**

Corbin Hooker	Ashley Hoffman	Julian Genkins	Kaitlyn Weeber
	Michelle Izmaylov	Eric Hall	Johnny Wei
	Laura Murphy	Mitch Hayes	Kareem William
	Vivek Patel	Emily Holmes	Matt Yin

**Technology Committee**

Evonne McArthur	Marc Prablek	David Li	<b>Class of 2019</b>	Kendrick Campbell
Ashley Wu	Han Shi	JIA LIU	<b>Volunteers</b>	Leah Chisholm
	Pierce Trumbo	Paul Loeser	Katy Anthony	Valentine

Chukwuma	Varun Menon	Colby Wollenman	Daniel Sack	Rachael Grenfell-
Elise Clemens	Megan Mitchell	Michael Zhang	Duncan Smart	Dexter
Jonathan Dallas	Meredith Monsour	Yuxi Zheng	Pedro Teixeira	Piper Hays
Sabina Dang	Emily Moore	Nicholas Zingas	Christiaan Wijers	Drew Herbert
Josh Daryoush	Kevin Neuzil	Catherine Zivanov	Patrick Wu	Agnes Jo
Russell Day	Nkechi Nwabueze			Hana Kahn

**Medical Scientist Training Program Volunteers**

**Nursing Students**

Rebekka DePew	Didi Odinkemelu	Mark Bailey	Amanda Kalb
Molly Eckman	Rand Pope	Alice Boos	Lina Keene
Sarah Fitzlaff	Christopher Puchi	Kaitlyn Breiten	Chris Kil
Allie Foshage	Sarah Rachal	Anna Caldwell	Elissa Ku
Kari Fossum	Sai Rajagopalan	Morgan Champion	Spencer Lea
Kate Frost	Gautam Rangavajla	LaMotta Cara	Megan Lewis
Christian Gerhart	Kaitlyn Reasoner	Frances Carter	Lucy Martin
Eriny Hanna	Vince Riccelli	Katharine Cella	Anjali Munjal
Jennifer Haydek	Alexander Sherry	Brooke Collins	Jenna Murray
Demetra Hufnagel	Clark Stallings		Shona Paul

“ Getting to work at Shade Tree Clinic is an amazing opportunity and one of the best learning experiences at Vanderbilt. As students, we are often only able to help in small ways, but at Shade Tree we get to directly care for our patients while learning from all the excellent providers who volunteer their time. We even get to practice our own teaching skills and share what we’ve learned with our colleagues earlier on in their training. It’s a wonderful environment to care for others and improve ourselves. ”

**-Pedro Teixeira, VMS 3**

Kianna Jackson	David Suh	Courtney Edwards	Kyla Collins	Carina Platner
Elishama Kanu	Alex Tinianow	Merla Hubler	Roxanne Crittenden	Richelle Power
Suraj Kapoor	Victoria Treboschi	Jooeun Kang	Denerica Curry	Alison Ryan
Ariel Kniss-James	Samuel Trump	Thao Le	Isabella De Castro	Michelle Ryan
Danielle Kubicki	Matthew Villaume	Matthew Madden	Lauren Deats	Una Sammon
Andrew Kuhn	Laura Wang	Evonne McArthur	Herbert Drew	Susannah Spero
Marie Kuzemchak	Jessica Wen	Elizabeth Moore	Mary Ann Enriquez	Todd Styles
James Law	Whittney Wiley	Ayesha Muhammad	Mary Flanigan	Emily Thermos
Emily Long	Kalin Wilson	India Reddy	Courtney Foulk	Nichola Usher
Lauren Matevish	Daniel Wolfson	Bradley Reinfeld	Lillian Funkhouser	Yuting Wang
		Benjamin Reisman	Emilie Gelpi	Jerald Westendorf



**shade tree**  
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