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"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 Balser, M.D., Ph.D., President and CEO of Vanderbilt University Medical Center, Dean of Vanderbilt University School of Medicine

## Who We Are

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

### 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. These students are supervised by professionals in their 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 cost-free medical, social, and pharmaceutical support to over 4,000 patients. This past year, STC was the primary medical home to approximately 350 uninsured, underserved, and patients experiencing housing insecurity. We provided nearly 2,900 medical visits.

#### From the Student Directors

2019 – 2020 has been a year of reflection and growth for Shade Tree Clinic. In September, we learned of the tragic passing of one of our founders, Dr. Katie Cox Johnson. This gave us the opportunity to honor her and our other co-founder, Dr. Kristina Collins, at Shade Tree's annual Benefit Dinner on the clinic's 15th anniversary. Student volunteers spoke about how meaningful it has been to volunteer at Shade Tree, while patients' heartfelt testimonials showed the immeasurable impact that Shade Tree continues to have in the lives of uninsured Nashvillians.

Two short weeks later, Tennessee reported its first COVID-19 case. Shade Tree quickly reinvented itself using telehealth and safety protocols as a means to provide care. It required an all-hands-on-deck approach with countless hours of hard work and creativity from our executive board, volunteers, and institutional partners to ensure that patients had no interruptions in their care. Our dedicated volunteers continued to care for patients remotely by calling patients to offer social work support, providing non-contact medication and food drop-offs, and conducting regular mental health check-ins.

Now things have settled into a "new normal" - everybody wears masks, iPads have become indispensable, and clinic is quieter with the majority of visits being virtual. But the spirit of Shade Tree remains. The same passion that inspired Katie and Kristina to start a free clinic in a trailer in East Nashville still motivates students to call patients on Tuesday evenings and Saturday mornings. Despite the challenges of a global pandemic, Shade Tree found a way to continue caring for our patients at the time they needed us most. We are eternally grateful for the support Shade Tree has received from our student and attending volunteers, student leaders, medical directors, donors, and all of our institutional partners at VUSM, VUSN, VUMC, Melrose Midwives, UT College of Pharmacy, and Vanderbilt Law School.

Serving as Executive Directors has been the honor of a lifetime. Thank you for letting us be a small part of Shade Tree's ever-growing story. And thank you to Katie, Kristina, and the thousands of students who have volunteered at Shade Tree for making this legacy of service possible.

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Tita Gonzalez Pena and Thomas Day **Executive Directors, Shade Tree Clinic** 





#### From the Medical Directors

As clinicians in the changing healthcare environment, we are increasingly faced with obligations that take us away from the exam room and our patients. Shade Tree Clinic, for many of us, has come to represent an outpost of what clinical medicine ought to be. Students acting in interprofessional teams, physicians, and patients come together in a unique synergy that allows the provision of care to those who need it while providing a pure way for students to build patient relationships and learn the art of medicine.

This past year has been an exciting year for us. We continue to provide comprehensive primary care to more than 320 uninsured Nashville residents. Furthermore, we are able to offer regularly scheduled specialty care in gynecology, psychiatry, neurology, physical therapy, ophthalmology, dermatology, weight loss, prenatal care, and other fields. Through the hard work of many, we successfully transitioned all of these services to our new space in the Melrose neighborhood and

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are very grateful for our new home this year.

We have witnessed students integrate new technologies into clinic including point-of-care testing technologies, telemedicine diabetic eye screenings, and automating laboratory ordering in the electronic health record. Through these improvements we are providing care that is more convenient for our patients and cost-effective. This year we have expanded our partnerships to double the number of law students and nursing students regularly volunteering at our clinic. We have increased the number of depression screenings that are performed because we know of its impact the overall health of our patients.

While we have had our share of successes and challenges this year, the meaning of Shade Tree always becomes the most concrete in patient stories. For example, Michael was a patient well known to our hospital's inpatient teams due to multiple readmissions every year. After coming to Shade Tree, he never had any hospital admissions. Our model of care and our many volunteers enable us to care for the whole person, beyond simply treating their medical needs. Whether a patient needs medications, specialty care, health education, help with transportation or utilities or navigating the healthcare system, our team steps up to do what we can to serve them.

Our many successes are due to the support of our donors and volunteers. We could not do this without your constant support, and we thank you on behalf of both our patients and ourselves.

Robert Miller, M.D., Michael Fowler, M.D., and Eleanor Weaver, M.D.

## Telehealth\_ Feature

Shade Tree started in a trailer in East Nashville, providing free walk-in care to local residents. Over the past 14 years, we have grown to become a medical home that provides ongoing primary and specialty care to our panel of patients. Thanks to Shade Tree supporters, we outgrew our trailer. Then we outgrew our location at Neighborhood Health on Dickerson Pike and are now located in the Melrose Neighborhood on 8th Ave South. The Vanderbilt Nurse Midwives have welcomed us with open arms and Girl Scout cookies, and we could not be more grateful.

A shared space is just the start to our growing partnership with the School of Nursing. Under the supportive leadership of school administration as well as our nursing liaisons, Theresa Bainbridge and Genevieve Beninati, nursing students have been integrated into a number of positions this year. Students are serving as laboratory technologists, interpreters, specialty clinic directors, patient assistance program advocates, finance managers, and volunteer social workers. In addition to these staff positions, nursing students will now be able to serve a larger clinical role after ensuring that our volunteers have the appropriate permissions in the electronic health record. We are excited to strengthen and expand our collaboration in the coming year.

We are also strengthening our ties with the School of Nursing Clinic at Mercury Courts through shared patients, shared resources, and better strategic alignment of our clinics. We also hosted our first joint fundraiser. This year the proceeds from the Shade Tree Trot was shared between the two clinics.

## Leadership

#### Clinic Leadership

Executive Directors: Thomas Day and Tita Gonzalez Peña

Director of Finance: Kaustav Shah Director of Operations: Philip Wilson

Director of Patient Health Education: Eva Niklinska

Directors of Dispensary: Leon Cai and Bronson Wessinger

Director of Social Work: Michelle York

Director of Community Outreach: Annie Apple

Directors of Laboratory Services and Referrals: Marc Blatt

Directors of Nursing: Chandler Washburn, BriAndra Grantham, and

Akaninyene Ruffin

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

Eleanor Weaver, M.D.

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

#### Past Executive Directors

2018-2019: Lauren Barr and Rohini Chakravarthy

2017-2018: Joshua Latner and Gregory Fricker

2016-2017: Joey Starnes and Tom Klink

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



## **Patient Experiences**

## Mrs. Mayorga's Story

Mrs. Mayorga has been a patient for over 12 years. She stated that she and her husband primarily speak Spanish and coming to Shade Tree has afforded some of her best healthcare experiences to date because of the care and attention by the students and doctors. She is extremely grateful for the care she has received at Shade Tree thus far and mentioned how much she misses her in-person visits which have been limited because of COVID-19.

While under the care of Shade Tree, she has been treated for her medical conditions, namely hyperlipidemia, type 2 diabetes and hypothyroidism for which she was previously not refilling her medication prior to coming to the clinic. Like a majority of patients at Shade Tree, Mrs. Mayorga has many challenging medical difficulties that requires a variety of medications, regular blood work and checkups as well as adjustments periodically to ensure that her conditions are appropriately managed.

She concluded with how she was having difficulty managing her care prior to coming to the clinic, but through the last 12 years, the clinic's students and doctors have all been successful in managing her care to date. Mrs. Mayorga was disappointed that she would be transitioning her care soon now that she qualified for Medicare, but was beyond satisfied with the treatment and care she had experienced to date.

Mr. Francisco Sanchez at the Holiday drive with toys for his children and a turkey for Thanksgiving.





Volunteers Jaron Pruett and Amber Wesoloski with Ms. Amanda Cordiero.



Mr. Mayorga has been a Shade Tree patient for the last 10 years. He originally went to a different clinic before at the urging and recommendation of his wife, Mrs. Mayorga – featured above, switching to receive his care from the Shade Tree clinic.

While receiving care at Shade Tree, he has been treated for osteoarthritis in his knees, hyperlipidemia, and other ailments that have come up during his time as our patient. Shade Tree acts as his primary source of care and he relies on the treatment plan, medications, and referrals in the past ten years to help manage his care.

Despite the difficulties of the pandemic, Mr. Mayorga and the students at Shade Tree have been able to work together effectively with telemedicine visits to help manage his care as well as track his progress. He remarked on how effective the current telemedicine services have been, especially given that he and his wife are at higher risk for complications because of their medical conditions if they contracted COVID-19, but would like to be able to return to more regular in-person visits because he enjoyed interacting with the clinic directly.

## Clinic 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 American Association of Family Physicians (AAFP) and the Boulevard Bolt Foundation. The Boulevard Bolt grant supports our vaccine outreach program. The AAFP grant supported our pharmaceutical purchasing along with supplies needed for transition to telehealth. The finance department also led a project in the fall looking at dispensary expenditures and discovered a new purchasing program that could allow for large savings. The finance department also assisted in planning three major fundraisers: the annual Benefit Concert with the Blair School of Music, the annual Benefit Dinner and Silent Auction, and the Shade Tree Trot which together raised more than \$200.000 for the clinic.

Director of Finance: Kaustav Shah

#### Dispensary

The Shade Tree Clinic dispensary is a full-service dispensary featuring over 300 different medications, all provided to our patients free of charge. Over 40 incredible dispensary volunteers, including medical, nursing, and pharmacy students, process and document medication orders, and fill prescriptions for the entire Shade Tree panel of patients. And with guidance from licensed pharmacists, we also provide medication education and reconciliation to all of our patients, at every visit, for every drug. In addition to our daily functions, the dispensary also coordinates vaccine orders for clinics and outreach events and incorporates immunizations into clinic flow. We also create detailed reports and analytics to support more accurate documentation of medication utilization and expenses. Moreover, we house a Patient-Assistance Program (PAP) department which helps connect our patients to expensive new medications for free that we would otherwise be unable to provide. Finally, we have continued to take the lead on keeping Shade Tree compliant with the highest standards, having scored well on both Environment of Care surveys and on

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our monthly, dispensary-focused MEDS survey.

Recent years have included a number of changes for the Shade Tree Dispensary. For one, we have upgraded the equipment in our dispensary and are now proud to house a new state-of-the-art Pharmacy grade refrigerator, thanks to our generous donors. And further, after going live with a new electronic pharmacy dispensing system, PharmacyRx, a few years ago, and transitioning to a new electronic health records system, eStar, a few years after that, our entire workflow was now been reworked to now include the placing of medication orders by clinical students under the supervision of attending physicians and our senior dispensary volunteers. With both our health records system and our dispensary system now entirely electronic, we have already seen how these can help us take better and more efficient care of patients. For example, with the recent classification of gabapentin as a C5 scheduled drug, we were unable to continue carrying it in our dispensary. However, utilizing both of our electronic systems, we were able to quickly and efficiently identify all patients this would affect and were able to subsequently implement a Medication-Assistance Program to help those patients get their gabapentin. In addition, with the recent changes in healthcare around the world due to the COVID-19 pandemic, we were able to guickly leverage both our electronic health systems, our brilliant and dedicated volunteers, and new communications technologies to continue dispensing medications to our patients in a no-contact, safe, and efficient manner.

Directors of Dispensary: Leon Cai and Bronson Wessinger

#### **Operations**

The Operations Department supports the work of all of our other departments to keep our clinic running to meet the needs of our patients. We have a staff made up of eleven first-year medical and nursing students who serve as clinic coordinators, greeting patients when they arrive to clinic and starting the process of their visit. They communicate with the other teams in clinic, helping direct patients to the social work office or to have labs drawn, and are the first people that patients turn to with their questions. Our clinic coordinators keep track of all of our patients, making sure they leave with follow-up appointments, and calling those who were unable to make it to their appointments to reschedule their visits.

Outside of clinic hours, we coordinate with acute care coordinators and patient health educators to schedule patients, ensure that each Tuesday and Saturday is fully staffed with students and attendings, and serve as the point-of-contact for volunteers. In addition, we collect data on various aspects of clinic performance and produce monthly reports on metrics such as health outcomes, orders and referrals, and appointments. As the department with the greatest focus on the behind-the-scenes work of Shade Tree, we have been able to work on many improvements to clinic flow and our ability to respond to our patients' needs. Over the

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The routine work of our department made us critical in helping shape Shade Tree's response to the COVID-19 pandemic, first finding ways to continue to provide necessary in-clinic care while reducing risk to patients and volunteers, and then temporarily transitioning our clinic to an entirely telehealth model. Thanks to the collaboration with each of our incredible departments, we have been able to continually identify and respond to our patients' needs through a year marked by significant change.

Director of Operations: Philip Wilson

#### **Patient Health Education**

The Patient Health Education Program was established in 2012 to improve the continuity-of-care for Shade Tree Clinic's patients with chronic diseases, including diabetes, cardiovascular disease, and respiratory conditions. Under the leadership of the Patient Health Education Program Director, a team of first-year medical student patient health educators (PHEs) serve as case managers for 100+ patients who were previously enrolled in the program by the clinic's Medical Directors. Though these patients represent 30% of the total clinic patient population, they characterize the subgroup of patients with multiple chronic medical conditions often complicated by disadvantaged socioeconomic factors external to the clinical environment (e.g.,

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immigration status, ability to travel to clinic, and employment status). In the clinical setting, the PHEs assume an educational role. Both of Shade Tree's twice-weekly clinics are staffed by PHEs, and they are often joined by one of Vanderbilt's dietetic interns. These PHEs meet with each in-clinic patient currently enrolled in the program. PHE visits often focus on the discussion of specific, patient-centered diet and exercise goals as well as the promotion of medication adherence, health maintenance, and patient autonomy in medical decision-making. In addition to their 10-15 minute visits with program patients, the PHEs also see other Shade Tree patients with newly diagnosed conditions and/or newly prescribed medications that require additional education (e.g., insulin administration).

The significance of the PHE's role as case manager is most prominent in the out-of-clinic setting. Throughout the entire calendar year, PHEs serve as the direct line-of-communication between their 7-10 assigned patients and Shade Tree Clinic. In this role, the PHEs establish a personal relationship with each of their patients as they regularly communicate laboratory results, assist in scheduling appointments, and promote continued health progress (with respect to diet and exercise goals, medication education and compliance, and triaging of acute complaints) between scheduled clinic appointments in order to minimize the utilization of emergency departments and other lapses in patient care.

Director of Patient Health Education: Eva Niklinska

#### Social Work

The social work department at STC was established to address the social determinants that impact the health of our patients. A team of trained students works alongside a licensed social worker to identify social needs and work to mitigate their impacts by connecting patients with in-clinic and/or community resources. Our database includes resources for food insecurity, housing, utilities assistance, employment, mental health, transportation, substance use, as well as vision and dental needs. Patients can also receive assistance from a health insurance navigator and a licensed attorney. Each member of our social work department serves as the expert liaison for a given area of need, which helps to improve patient follow-up and closed-loop communication. In addition, volunteers attended training sessions on insurance, immigration, domestic violence, mental health, and motivational interviewing. We have also worked to strengthen community partnerships, with the help of our amazing Community Outreach Department!

This year, the social work department helped address a high volume of social needs for our patients. This includes obtaining glasses for 29 patients, providing bus passes to help patients get to appointments, referring over 20 patients to community dental clinics, and providing emergency food boxes and produce bags to help combat food insecurity. In addition, our

housing, utilities assistance, employment, mental health, transportation, substance use, as well as vision and dental needs. Patients can also receive assistance from a health insurance navigator and a licensed attorney. Each member of our social work department serves as the expert liaison for a given area of need, which helps to improve patient follow-up and closed-loop communication. In addition, volunteers attended training sessions on insurance, immigration, domestic violence, mental health, and motivational interviewing. We have also worked to strengthen community partnerships, with the help of our amazing Community Outreach Department!

This year, the social work department helped address a high volume of social needs for our patients. This includes obtaining glasses for 29 patients, providing bus passes to help patients get to appointments, referring over 20 patients to community dental clinics, and providing emergency food boxes and produce bags to help combat food insecurity. In addition, our team worked hard to contact and screen for vital needs on over 50 patients within 48-hours of the Nashville tornado. Further, during the COVID-19 pandemic, our department teamed up with Community Outreach staff members to screen our entire patient panel for social needs at multiple time points during the stay-at-home order. I am so proud of our team's efforts this year!

Director of Social Work: Michelle York

#### **Laboratory Services**

The Laboratory Services department consists of 10 medical / nursing students who are primarily responsible for collecting lab specimens from patients during clinic hours. These trained laboratory technicians draw blood, collect urine samples, and administer vaccines. They are also certified to run "point-of-care" testing (urine pregnancy test, hemoglobin A1c for diabetes, etc.) so that our patients can get immediate results during their clinic visit. The laboratory team is led by a senior medical student who trains and oversees the technicians, coordinates imaging studies and outside specialty referrals, monitors trends in lab test utilization, and promptly responds to any dangerous lab results.

This year, the department focused on several quality improvement initiatives. By tracking data on labs drawn each month, the clinic's administration was able to implement various safeguards to reduce unnecessary testing (e.g., duplicate labs). Another way the department encouraged positive, systems-level change was by educating our clinical student volunteers on the pros and cons of our various in-clinic, point-of-care tests (described above). Finally, the department worked closely with the three Shade Tree physician medical directors to cut down on wasteful ordering patterns in both imaging studies and outside specialty referrals in order to more responsibly utilize Vanderbilt University Medical Center resources.

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level change was by educating our clinical student volunteers on the pros and cons of our various in-clinic, point-of-care tests (described above). Finally, the department worked closely with the three Shade Tree physician medical directors to cut down on wasteful ordering patterns in both imaging studies and outside specialty referrals in order to more responsibly utilize Vanderbilt University Medical Center resources.

Director of Labs: Marc Blatt

#### **Community Outreach**

The Community Outreach Department aims to expand our reach to promote health for vulnerable populations and build partnerships within our larger Nashville community. The team includes a senior medical student who oversees the department, in addition to first year medical students and second year nurse practitioner students who assist with the planning and management of all community events. Our community programs during the 2019-2020 year include the growth of our annual vaccination program and the expansion of our food pantry program in partnership with local nonprofit organizations. New initiatives include the development of Narcan community trainings alongside the TN Department of Health and the inaugural class of the Dr. Howard Fuchs Swim School, We also started a Women's Health Drive to collect feminine hygiene products that were donated to domestic violence shelters and homeless outreach organizations throughout the city and planned a community health fair. As a result of these efforts, Shade Tree Clinic has collaborated to provide >850 flu vaccines and >100 hepatitis A vaccines, distribute 75 Narcan kits, enroll 10 children in swim lessons, donate >1000 pads and >2000 tampons, and provide approximately 10 emergency food boxes and 10 bags of fresh produce to patients every week.

Beyond our programming, a critical focus of the Community Outreach Department is strengthening relationships with organizations that share our mission to collaborate on shared goals. During the past year, our team has partnered with organizations including Siloam Health, The Clinic at Mercury Courts, The Nashville Food Project, Community Care Fellowship, Nashville International Center for Empowerment, Under the Bridge Ministry, VUMC Street Medicine, Meharry Salt Wagon Clinic, The Little Pantry That Could, Nashville Street Barbers, Room in the Inn, the YWCA and more. These partnerships have remained invaluable during the COVID-19 pandemic. We are so grateful for our community partners and look forward to continuing collaboration during this challenging time for our community.

Director of Community Outreach: Annie Apple

#### Nursing

The Nursing Department ensures seamless integration of nursing students into various clinical and staff roles at Shade Tree. The leadership team consists of three nurse practitioner students that work together to facilitate communication between Shade Tree and the Vanderbilt School of Nursing community. Their responsibility includes managing coordination of all nursing staff and volunteers, ensuring volunteers' compliance with Vanderbilt University Medical Center regulations, and providing nursing volunteers with access to the electronic health record.

Within the past year, the nursing department had a record number of nursing student involvement at Shade Tree with over 50 nursing students holding staff or clinical positions. Due to a successful update to eStar permissions, nursing students were granted opportunities to serve in larger clinical roles. This includes second-year nurse practitioner students volunteering as clinical students in both primary and specialty clinics. We look forward to the continued expansion of nursing student involvement and further collaboration with the Vanderbilt School of Nursing in the upcoming year.

## Shade Tree Specialty Clinics

#### Dermatology

Dermatology clinic offers medical and surgical care to underserved patients while also allowing medical students to learn under the direct supervision of Vanderbilt dermatologists. Patients are seen for both acute and chronic dermatologic conditions, including skin cancer, annual skin evaluations, cutaneous infections, exanthems, and more. We maintain an inventory of dermatologic supplies and can safely perform skin biopsies, skin excisions, cryotherapy, and other minor procedures on-site at the Shade Tree Clinic. Additional dermatologic care, including Mohs surgery and nail biopsies, is arranged through Vanderbilt Dermatology.

In the 2019-2020 year, we hosted 7 dermatology clinics, including our first ever virtual teledermatology clinic. We incorporated a teledermatology referral system, in which dermatology attendings can evaluate patients using photographs to aid in treatment and triage. We had 37 patient encounters, and with the help of Vanderbilt Dermatology & Plastic Surgery, performed over 20 total procedures

at Shade Tree Clinic, including 9 skin biopsies, 5 skin cancer excisions, electrodessication and curettage, keloid excision, and cryotherapy.

Directors: Alan Makhoul and Manasa Bhatta

#### Gynecology

The gynecology clinic is held on the first Tuesday of each month for uninsured and underinsured women who have gynecologic complaints, such as abnormal uterine bleeding, pelvic pain, sexually transmitted infections, vaginal infections, infertility, and incontinence. Women are seen and examined by a team of volunteer medical students, residents, and an attending physician from the Department of Obstetrics & Gynecology at Vanderbilt. The clinic additionally provides birth control counseling, with options offered by our clinic free-of-charge, including oral hormonal agents, hormonal injections, and long-acting reversible contraception (implantable devices). The clinic also supports the primary care clinic in keeping patients up-to-date on their cervical cancer screenings and mammograms. Further specialty care, such as pelvic ultrasounds, colposcopies, annual mammograms, and specialty clinic visits, are scheduled at the Vanderbilt University Medical Center as needed.

In the 2019-2020 year, we were able to hold 11 gynecology clinics, including 4 telehealth gynecology clinics to maintain continuity of care while maximizing patient safety during COVID-19.

Directors: Demetra Hufnagel and Karampreet Kaur

#### 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 to our monthly clinic with a variety of neurological complaints including seizures, headaches, strokes, neuropathy, and movement disorders. Once every three months, we hold a Botox clinic for our headache and cervical dystonia patients. 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. We are now piloting a sleep apnea initiative to continue our efforts to deliver comprehensive care.

Directors: Anne Coogan and Camille Wang

#### Ophthalmology

The ophthalmology clinic offers comprehensive eye care to all Shade Tree patients,

"I am always impressed with the impact Shade Tree Clinic has on our students. From students that volunteer, teach, or help raise money to support the clinic, to those who take on major leadership roles, nearly every student that graduates from Vanderbilt University School of Medicine has been involved with Shade Tree."

Amy Fleming, M.D., M.P.H.E., Associate Dean for Medical Student Affairs, Associate Professor of Pediatrics

from patients who need a new glasses prescription to patients with advanced eye disease. In partnership with the social work office, we provide free eye glasses for our patients through the New Eyes for the Needy program. We screen patients for diabetic retinopathy during primary care visits using telemedicine where we image the retina using a fundus camera, upload the images to the patient chart and an ophthalmologist will then examine the images. We also provide eye exams to screen for glaucoma and visually significant cataracts. Shade Tree ophthalmology clinic has developed a strong relationship with Vanderbilt Eye Institute physicians, who donate their time and resources to see our patients that need more specialized ophthalmic care.

Directors: Natalia Morales and Saif Hamdan

#### Orthopaedics and Physical Therapy

At the orthopaedics and physical therapy clinic, we see patients with a 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 during 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. The orthopaedics and physical therapy clinic also organizes an annual hand surgery day during which Vanderbilt Orthopedic Surgeons perform cost-free surgeries for patients.

Directors: Jacob Schultz and Daniel Pereira

#### **Psychiatry**

Shade Tree Psychiatry Night is a specialty clinic offered on the second Tuesday of every month. Staffed by attending 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 mental health concerns. The monthly clinic provides a dedicated time and space towards the integration of primary care and mental 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.

During the 2019-2020 year, we held 7 in person psychiatry clinics and 6 tele psychiatry clinics to continue managing patients safely during the COVID pandemic. Additionally, we piloted in person group therapy sessions led by Vanderbilt psychology post doctoral fellows and implemented a behavioral health outreach program to monitor and refer patients with acute mental health needs during the lockdown phase of the COVID

pandemic in Nashville, TN.

Directors: Thao Le and Sushmitha Divakar

#### Rheumatology

The Shade Tree Rheumatology Clinic recently progressed from an informal clinic to a formal clinic with official sub-specialty directorship, and has now been integrated to run symbiotically during primary care clinic. Rheumatology clinic serves the rheumatological needs of Shade Tree's patient panel, caring for patients with diseases such as rheumatoid arthritis and systemic lupus erythematosus. The sub-specialty clinic also assists in the diagnostic workup of referral patients with joint pain or concerns for possible rheumatological diseases, and assists in the follow-up and workup of patients who have a positive ANA, ESR, and/or CRP laboratory testing. In the past year, the clinic has managed approximately 20 patients, many of whom require recurrent visits, and has evaluated more than 15 referrals. Approximately 7 patients require long-term drug monitoring while on immunomodulating agents, such as methotrexate, azathioprine, and adalimumab.

Director: Cooper March

## 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. Acute Care Coordinators also triage patient complaints that arise outside of the clinic and direct the patient toward an appropriate plan.

Coordinators: Sneha Rajendran, Arrush Choudhary, Andrew Rees, Hannah Kay, Peter Bryant

#### Patient 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. In clinic, PAP student volunteers assist patients in applying for various medications, most commonly inhalers and insulins, which 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 medications described above, we are also able to provide many crucial therapies which would otherwise be prohibitively expensive for our patients, including Harvoni, Truvada, Botox, Stelara, and more. The PAP team has a tremendous impact on reducing the cost of the dispensary (we saved \$478,056.60 this year!) and providing access to much needed medications to the socioeconomically disadvantaged in Nashville.

Coordinator: Kalin Wilson and Danny Sack

#### **Research Department**

The research directors help set research priorities for STC and support students completing quality improvement and research projects. We are in the process of building a data repository for the clinic to act as a resource for future projects. Research at Shade Tree is presented both regionally and nationally by medical students.

Coordinators: Duncan Smart and Leon Cai

#### **Spanish Services**

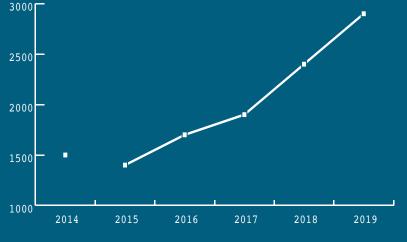
Spanish Services is responsible for recruiting, training, and scheduling Spanish interpreters to work at clinic for Tuesday, Saturday morning, and Saturday afternoon shifts. Our responsibilities during clinic consist of interpreting during clinic visits and during other required tasks such as social work and dispensary interactions. Outside of clinic, staffed VMS interpreters (first year medical students and nurse practitioner students) are responsible for calling patients a day before clinic to remind them of their appointment or reschedule as necessary. Other responsibilities include interpreting documents on an as needed basis and triaging patients. The body of interpreters consists of medical students, nurse practitioner students, other graduate students, undergraduates, and alumnae. Before interpreters volunteer for the first time, they are screened to ensure Spanish proficiency with a written and oral exam and then provided a full-day training and orientation. During the 2019-2020 academic year, we developed a novel training and orientation system designed to further improve the quality of our service. During the pandemic, we adapted our service to meet the needs of STC patients and volunteers, providing phone and teleconferencing interpreter services. Students who had returned to homes out of state, and some who returned home abroad, continued to provide this essential service from afar.

Coordinator: Hannah Cole McGrew

# By The Numbers our clinic





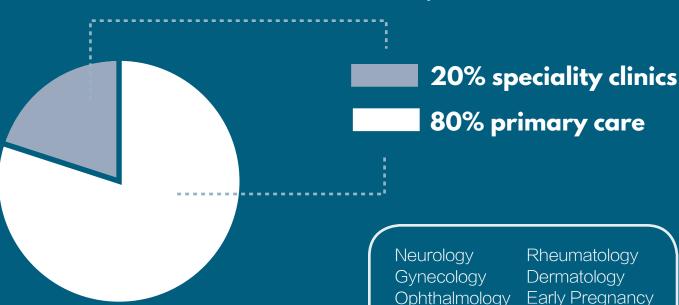


#### **Clinical Volunteers**

- 47 Attendings106 ClinicalStudents
- 69 **Pre-Clinical Students**

Program

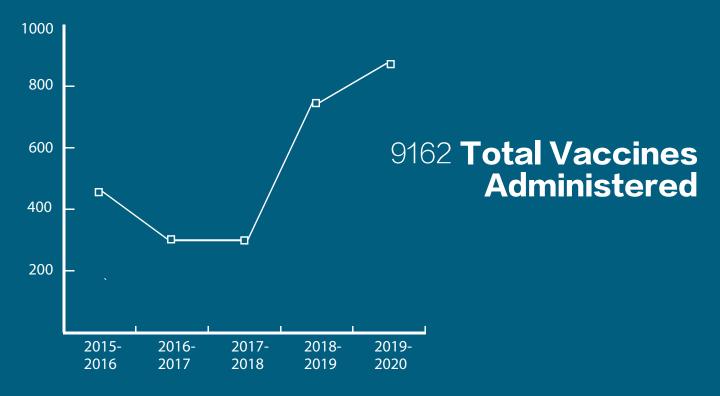
Weight Loss



Orthopedics

Psychiatry

#### **Vaccine Trends**



### **Our Patients**

Average age: 48

Diabetes: 36%

Hypertension: 45%





Albanian English
Arabic Hindi
Bengali Khmer
Chinese-Mandarin Japanese
Dinka Kurdish-Badini

Russian Spanish Urdu Vietnamese

## **Grant Support**

#### The Boulevard Bolt

This past year, our clinic was awarded \$10,000 by the Boulevard Bolt to continue our vaccine outreach program. Through this support, our clinic was able to organize ten vaccination events in the community, during which we provided 547 influenza immunizations to people experiencing homelessness in Nashville. To date, Shade Tree has administered 7,335 flu vaccines with the support of the Boulevard Bolt.

#### **Helping Hands**

Shade Tree Clinic was recently awarded a \$10,000 grant from the American Association of Family Physicians. With the support of this grant we worked to improve mental health amongst our patients through the following efforts:

- 1. Expanded upon a culturally sensitive mental health training program from prior years to increase the knowledge and comfort of clinical staff and volunteers to address mental health concerns with an increased focus on Tele-Health and COVID-related concerns.
- Expanded screening for depression and substance abuse both in-clinic and via Telehealth patient encounters.
- Tackled transportations barriers to accessing mental health care by expanding Lyft Concierge services to patients to give them rides to psychiatry and counseling appointments.

#### **Shade Tree Trot**

Over the past decade, the Shade Tree Trot has been a vital and longstanding event aimed to raise awareness and support for Shade Tree Clinic throughout the Nashville community. The Shade Tree Trot, working alongside the Shade Tree Benefit Dinner, serves as one of the clinic's two largest fundraisers that support the clinic's annual operating expenses. This past year was the second year that Shade Tree Trot also partnered with Clinic of Mercury Courts to broaden and support healthcare and medication needs to Nashville's underserved communities.

Amidst the rapidly evolving public health situation surrounding the COVID-19

pandemic, this past year's annual community event was reformatted to a virtual run instead of historically being held on Vanderbilt's campus. Thanks to presenting sponsor Messer Construction and long-standing partner Vanderbilt Medical Alumni Association, the first-ever virtual run allowed for the 12 year tradition to continue—all while practicing safe social distancing measures.

The 12th annual Shade Tree Trot was held on April 18th as a virtual event where participants completed their 5K all across the country, took photos after their social-distant run to share, and submitted their time online. A major emphasis of this event was community engagement, where participants could take part in various virtual race festivities and challenges, connect with other race participants on social media platforms, and launch their own fundraising pages. Each participant also received the trademark Shade Tree Trot T-shirt that was delivered to their address concluding the special event, thanks to the generosity of the Vanderbilt Medical Alumni Association.

This year's event featured a record-number of registered runners with more than 1,100 racers participating from across the country representing 38 different states. The virtual event was the most successful race in Shade Tree Trot history. In conjunction with peer to peer fundraising, the Trot raised over \$75,000 for Shade Tree Clinic and Clinic of Mercury Courts. The success of the virtual race allowed our community to continue the race's longstanding tradition of supporting Nashville's underserved communities with their healthcare needs, even amidst this challenging time. The Shade Tree community looks forward to Shade Tree Trot 2021!

Directors: Eva Niklinska and Chandler Washburn

#### Shade Tree Benefit Dinner and Auction

The Shade Tree Benefit Dinner and Silent Auction was founded in 2013 with two goals in mind: first, to enhance Shade Tree Clinic's visibility within the Vanderbilt community, especially among members not consistently reached by the Shade Tree Trot; and second, to serve as a sister fundraiser to the Shade Tree Trot. At the 2020 Benefit Dinner, our incredible donors helped us have our most successful event yet. With a fantastic team and a lot of support, we hosted around 350 guests. Highlight auction items this year included Pappy Van Winkle Bourbon, Phelps Vineyard Wine, multiple sets of Predators tickets, and incredible artwork.

With the generous support of our sponsors, individual donations, and guests,

this year's event raised over \$110,000. 100% of the proceeds from the event were donated directly to the clinic and patients in need.

Directors: Kianna Jackson and Michelle York

#### **Shade Tree Benefit Concert**

The Shade Tree Benefit Concert is hosted annually by the Blair School of Music to raise funds for the clinic's operating expenses. The concert took place on September 8, 2019 in Ingram Hall. This year featured performances by the Nashville Sinfonietta with Dean Whiteside as conductor featuring Dean of the Blair School Mark Wait on piano. Jeremy Wilson on trombone, Tyler Nelson as tenor and the Vanderbilt Chorale. Admission is free, and donations are collected at the door for Shade Tree Clinic. This year's event raised \$11,000.

#### **Publications**

Shade Tree Clinic's orthopedics student directors published this piece describing the most common orthopedic issues seen at the clinic.

Kuhn, A. W., Wollenman, C. C., Gibian, J. T., Daryoush, J. R., & Fiechtl, J. F. (2020). Orthopaedic Conditions Among the Uninsured: Data from an American Student-Run Free Clinic. Journal of Surgical Orthopaedic Advances, 29(2), 112-116.

Sack DE, Chakravarthy R, Gerhart CR, Fowler MJ, Miller RF, Weaver EO, Vasilevskis EE. Emergency Department Use Among Student-Run Free Clinic Patients: a Cross-sectional Study. J Gen Intern Med. 2020 Feb 27; doi: 10.1007/s11606-020-05743-z. [Epub ahead of print] PubMed PMID: 32107695

Knoll O, Chakravarthy R, Cockroft JD, et al. Addressing Patients' Mental Health Needs at a Student-Run Free Clinic [published online ahead of print, 2020 May 21]. Community Ment Health J. 2020;10.1007/s10597-020-00634-3. doi:10.1007/s10597-020-00634-3

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.

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.

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.

The Effect of a Student-Run Free Clinic on Hospital Utilization. Silas P. Trumbo, Kelly M. Schuering, Justiss A. Kallos, Nicolas Baddour, Shayan Rakhit, Li Wang, Michael Fowler, Eduard E. Vasilevskis, Robert F. Miller Journal of Health Care for the Poor and Underserved, Volume 29, Number 2, May 2018, pp. 701-710 (Article)

Reasoner K, Desair MJ, and Lee DH. A Helping Hand: The Case for Volunteerism. Journal of Hand Surgery, vol. 43, no. 10, pp. 941-944, Oct. 2018.

#### **Presentations**

Our students presented projects at several national conferences this year. Poster presentations are included below.

Apple A, Wessinger B, Cai L, Ahn S, Haas M, Si C, Miller, R.

Interprofessional community vaccination events through a studentrun clinic: implementation and sustainability. University of Miami Miller School of Medicine Community Health Leadership Conference, Miami, FL. December 2019.

Niklinska EB, Mahoney MR, & McLaughlin S. (2020, March). Shade Tree's Patient Health Education Program: A Model for Early Engagement in Clinical Learning. Poster presented at the Society of Student Run Free Clinics annual meeting, Orlando, FL.

Hamdan SA, Morales NG, Fossum K, Zheng Y, Miller RF. Addressing the Burden of Uncorrected Refractive Error Through a Student Run Free Clinic. Poster presentation at 3rd Annual Conference at Society of Student Run Free Clinics. 2020 Mar 7-8; Orlando, FL.

Treasure, G, Ferguson, S, Li, T, Zakria, D, Day, R, Triana, AJ, Shah, KP "Applying spend analysis principles from management consulting to the operation of a student-run free clinic". Society of Student Run Free Clinics Conference, March 7, 2020

Shah, KP, Triana, AJ "Using management consulting principles in a student-run free clinic". Community Health Leadership Conference, December 13, 2019

- This poster won first place, Best Poster, at the 2019 CHLC conference.

Triana, AJ, McLeod, M, Gusdorf, R, Huang, J, Staben, R, Kolyuk, N, Tadepalli, V, Shah, KP "Bringing telehealth to a student-run free clinic to improve access and quality of care". Community Health Leadership Conference, December 13, 2019

Chakravarthy R, Bradham T, Weaver E, Fowler M, & Miller R. A Student-Led Approach to Integrating Hands-On Experience into Improvement Science Education. Symposium on Implementation Research in the Learning Health System, Vanderbilt University Medical Center, Nashville, TN. May 2019. [Best Poster Award]

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## Clinic Volunteers

#### Physicians

Abby Parish Alexandra Shingina Allen Naftilan Beatrice Concepcion Beth Ann Yakes Billy Sullivan **Bradley Richmond** Cecelia Theobald Daniel Clark Daniel Cottrell David Slosky Eiman Jahangir Francis Balucan Gisella Carranza Leon Howard Fuchs James Powers Jennifer Green John Newman John McPherson Jon Kropski Jordan Wright Jule West **Justin Hewlett** Kathleene Wooldridge Kaylin Craig Kevin Liu Kevin Byram Kevin Hageman Krista Suojanen Kristine Tatosyan-Jones

Lauren Hartman

Lynn Punnoose

Mark Wigger
Matthew Mart
Michael Lowry
Michelle Griffith
Mona Mashayekhi
Neerav Desai
Roy Zent
Shailja Shah
Shannon Skinner
Shayne Taylor
Susan Kroop
Tiffany Hines
Tony Ross
Wade lams
Wes Ely

#### Finance Managers

Victor Borza
Natalie Meckel
Rae Staben
Jacob Jo
Graham Treasure
Monika Grabowska

#### Dispensary Staff

Anthony Sermarini
Anna Whitney
Ashlee Pippin
Austin Darling
Ayesha Muhammed
Bronson Wessinger
Bushra Rahman
Elaine Do

Holly Harper Jack Walker Jacob Schultz Jay Kang Kaitlin McLeod Kalin Wilson Katherine Kelly Kristen Kovach **Kylie Forster** LeAnn Lam Leon Cai Madison Green Mandi Mizner Maria Barbagall Mark Xu Mary Peyton Boyd Matt Gayoso Megan Cohen **Neil Postier** Nike Izmaylov Sneha Lingham **Tanner McArdle** 

#### Social Work Staff

Mason Alford
Emily Brenner
Naomi Chan
Elizabeth Cosby
Julie Lee
Ailish Lynch
Christine Nguyen
Sarah Storniolo

#### Clinic Coordinators

Ananya Sharma
Anna McCracken
Brooke Berger
Candace Grisham
Caroline Soane
Dan Whitfield
George Lin
Jenny Connell
Brett Sparks
Marshall Wallace
Morgan Shannon

## Patient Health Educators

Alex Lupi
Alexander Mina
Andres Frias
Annmarie Mede
Avery Bogart
James Jordano
Kelly von Beck
Kelsey Barter
Morgan Sexton
Rosie Mahoney
Sam Johnson
Sara Lin
Shauna McLaughlin
Sricharan Kadimi
Tyler Pfister

#### Laboratory Technicians

Allie Golden
Anna Larson
Eden Lyons
Katherine Kennedy
Kayvon Sharif
Shirley Chen
Sriram Cyr

Shirley Chen Sriram Cyr Maggie McBride Katie Lager Marc Blatt

## Community Outreach Volunteers

Alex Brito **Anne Walker** Catie Havemann Clifford Chin Danny Sack **Donald Okoye Grant Mackinnon** Jessica Zic Kelly von Beck Lauren Barr Matt Gavoso Matt Lan Michael Bezzerides Peety Kaur Pooja Santapuram Samuel Trump Thomas Li Amir Aqhaqoli Bethany Chantharath **Brandi Dansby** Courtney Baldridge Cyrus Yahyavi Demetria Peroulas Fatima Rizvi Ishani Lad Mary Catherine Burdge Megan Jackson Meredith Douglas Samuel Morton Umida Nasritdinova Yalda Saved Isabella Lipkin **Amanda Parnell** 

**Andrew Dudley** 

Anna Ruth Larson Anna McCracken Annalisa Barca-Hall Arlie Koziol **Austin Darling Brett Eaton** Brooke Hazen Brya Mickle Carina Anderson Chandler Washburn Christine Piana Danilo Parra **Darious Davis** Diana Cedillo Elaine Do Emma Metz Erin Bardonner **Erin Montgomery Erin Wood Eve Rodenmeyer** Francesca Mercurio Haley Newberry Hannah Crews Hannah Gardner Hannah Kurlick Hannah McGrew Helena Pham Holly Harris Isabel Carvallo Isabella Chiodini Jaela Mcdonald Janelle Chavarria Jennie Sullivan Jeri Rosenbloom Jill Harris Joseph Cassidy Julia Druker Kaitlin Finney Kate Nolan Katelyn Holmes

Katherine Woonton

Katie Mann

Katie Wayne Kayla Hayes Kendra Rickard Lauren Guengerich Lisa Stewart Lisandra Lorenzo Lydia Anderson Mandi Mizner Maria Barbagallo Mark Figueroa Marshall Fife Meredith Sanford Molly Corn Natalie Meckel Negest Alemu Nicole Wong Olivia Wreford Pascale Daou **Peyton Lester** Rebeccah Stansbery Rebeccah Tovar Samantha Strode Samara Day Sean Norton Shacora Harris Stephanie Marrow Stephanie Zhang Therese Ungriano **Thomas Arnold** Victoria Bechtold Virginia Hutton **Zsanett Peter Margaret Coffman** 

#### Patient Assistance Program Volunteers

Eileen Shiuan Eriny Hanna Ekiomoado Olumese Jay Huang Jeffanie Wu Jen Peek Lihua Shu Sai Chennupati Adebisi Bamidele Katerina Massengale

## Spanish Services Volunteers

**Thomas Perez** 

Ana Torres **Britt Hatcher Allison Thayer** Maria Loaiza Bonilla Lauren Lambert Tess Batchelder Jasmine S. Chaparro **Madeline Meloy** Privanka Kadari Hannah McGrew Daniel Carranza Leon Clara Wang Harry Choi Morgan Wiley Starina D'Souza Pranav Kodali Jessica Klein Susmita Chennareddy Mackenzie Phillips Melanie Hacklander Jaime Perez Seth Roberts Elizabeth Millar Katherine Cruz Carlos Ortega Kaleel Wainwright Katelyn Holmes Lisandra Lorenzo Janelle Chavarria

Ines Debbiche Meghana Rao Brynn Carlson Caroline Carlson **Taylor Griffith** Caroline Carlson Cokie Young Jennifer Quinde Samantha Chavez-Salinas Tatiana Baxter Netra Rastogi Laura Fandino Rocio Bermudez Nicholas Valle Walberto Tejada Mariam Faraq Mario Lorenzana De Witt Logan Prock Reagan Martin Jennifer Tat Dianna Rowe

## Shade Tree Trot Committee

**Grant MacKinnon** Michael Bezzerides Jack MacCarthy Leigh Ann Lockwood Kyle Langford Kristen Wu Kelly Vittletoe Maria Tuite Vaib Tadepalli Simone Herzberg Dan Whitfield Lydia McKeithan Colin White-Dzuro Pooja Santapuram Saif Hamdan Maxwell Roeske

"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." Kim Lomis, M.D., Associate Dean for Undergraduate Medical Education



#### Shade Tree Benefit Dinner and Auction Committee

Kianna Jackson Michelle York Sarah Brown Anne Walker Jessica Giles Joyce Huang Laura Wang Leah Chisholm Erin Vrana Holly Harper

#### **Nutrition Planners**

Natalie Brandenburg Sarah Bridges Eva Copeland Daniela Little Amanda Longest Anne Luongo Kristen Matthews Rebekah Miller Danielle Musgrave Stephanie Pladies Veronika Vafina Melaney Van Spankeren Kathryn A. Wallace Laura E. Wasson Lindsey Woller

## Law Student Volunteers

Kirby Ammons

#### Medical Student Clinical Volunteers

Carolyn Ahlers Alexandra Alving-Trinh Shaunak Amin Joshua Anderson Annie Apple Nicole Bakhoum Lauren Barr Scott Beeler Natalie Bennett Alexandra Brito Sarah Brown Peter Bryant Lin Cao Rohini Chakravarthy Rachel Chang **Arrush Choudhary** Valentine Chukwuma Elise Clemens Juan Colazo Anne Coogan Thomas Dav Sushmitha Divakar Chesley Ekelem Lex Erath Jessa Fogel Kate Frost Christian Gerhart Jessica Giles CeCe Cihang Gu Roman Gusdorf Mackenzie Haas Stephanie Hadley Saif Hamdan Nicholas Harris **Britt Hatcher** Simone Herzberg Merla Hubler Demetra Hufnagel

Sharon Kam Karampreet Kaur Hannah Kay **Ariel Kniss** Jonathan Knowlton Marie Kuzemchak Matt I an **Kyle Langford** Jaclyn Lee Xuanyi Li Alice Liao Mollie Limb Sneha Lingam Clarissa Liu **Emily Long** Alan Makhoul Jennifer Marvin Lauren Matevish Evonne McArthur Katlyn McKay Mallory McKeon Megan McLeod Varun Menon Allyson Metro Meredith Monsour **Chandler Montgomery Emily Moore** Natalia Morales Ayesha Muhammad Kevin Neuzil Christian Nguyen Eva Niklinska Jessica O'Shea Shan Parikh Pious Patel Sarah Rachal Sai Rajagopalan Sneha Rajendran Rahul Ramaswamy **Jake Ramsey** Gautam Rangavajla

Kaitlyn Reasoner Andrew Rees **Bradley Reinfeld** Beniamin Reisman Vince Riccelli Meredith Rogers Daniel Sack Sanjana Salwi Nathan Samora Alyssa Schlotman Jacob Schultz Casey Schwartz Kaustav Shah John Shelley Eileen Shiuan Jono Siktberg **Jarrod Smith David Suh** Anne Sun Joshua Thompson Petria Thompson **Doug Totten** Victoria Treboschi **Austin Triana** Samuel Trump Somto Ukwuani Matthew Villaume Anne Walker Michelle Weyhaupt Colin White-Dzuro **Daniel Whitehurst Christiaan Wijers** Philip Wilson Megan Wright Mark Xu **Nathaniel Yohannes** Michelle York Danny Zakria Raymond Zhou Jessica Zic Nicholas Zingas Catherine Zivanov

#### Nursing Student Pre-**Clinical Volunteers**

Mary-Scott Bugg Maria Tuite Laurie Nguyen **Rose Preston** Mackenzie Haas Rebeccah Tovar Jeri Rosenbloom Hadley Brown Melanie Vaughn Brya Mickle Kalab Carlile Hannah McGrew Holly Harris

Erin Wood Mackenzie Haas Hannah Holloran Margaret Coffman Casey Schwartz Melanie Hacklander

Alison Winograd

Lauren Guengerich

Molly Corn Emma Metz Natalie Meckel Laura McIntosh Taylor Moore Hannah Crews Maria Barbagallo Bri Grantham Rose Preston **Taylor Powers** Valentine Tarrete Mary Lynch

Hailee Hunt-Hawkins

Kaylee Conner

Chloe Rothstein

Valentine Tarrete

#### Medical Student Pre-Clinical Volunteers

Mason Alford Jackson Allen Jon Anderson Meridith Balbach Madeleine Ball Kelsey Barter Riley Bergman **Avery Bogart** Victor Borza Shirley Chen Clifford Chin George De Castro Hassan Fakhoury **Emilie Fisher Andres Frias** Helen Gambrah

Whitney George Carolina Gomez Grimaldi Candace Grisham Mackenzie Haas Noah Harrison Adam Hetzler Samuel Johnson James Jordano Sricharan Kadimi Brooke Kowalski

**Ansley Kunnath** 

Allison Lake

LeAnn Lam

Thomas Li

George Lin

Anita Louie

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Gavoso Matt Jack McCarthy

Shauna McLaughlin

Sara Lin

Annmarie Mede Matthew Nettles Jan Niec Carlos Ortega Tyler Pfister Seth Reasoner Sarah Reed **Kelsey Richard** AJ Sermarini Morgan Sexton Jack Shapiro Lihua Shu Rae Staben Sarah Storniolo Alan Tang

Megan Tigue

Kelly Von Beck

**Evan Watkins** 

**Anna Whitney** 

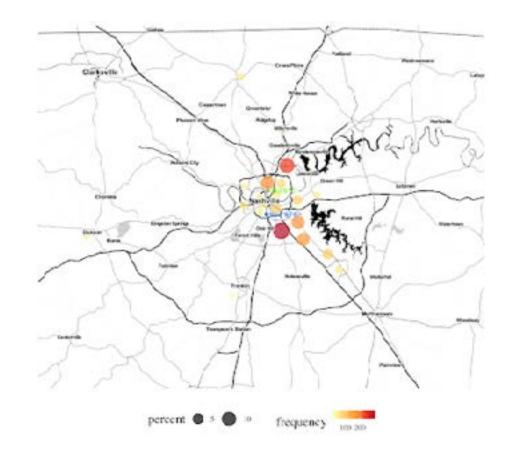
Jeffanie Wu

Dennis Zhou

Annie Zwaschka

Marshall Wallace

Shade Tree Patient Zip Codes (greater than 1% of all scheduled visits)



## Welcome to Our **New Location!**

Since September 2018, Shade Tree clinic has been housed within the Vanderbilt Nurse-Midwives Melrose location on 8th Ave South. Given its proximity to Nolensville Pike, the new location is more accessible to many of our patients. Over the past year, we have adjusted to the new location, which is larger with a more open floor plan and separate rooms dedicated as a work room, a social work room, and a screening room. We have reduced costs by sharing lab expenses with the Vanderbilt Nurse-Midwives, and we appreciate their continued hospitality.

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Kaitlin McLeod

