Left: In July, the Gehr Center joined forces with the USC Center for Health Systems Innovation (CHSI). Carol Peden, MD, MPH (pictured) is now the Gehr Center’s Director for Health Systems Innovation.

Middle: A group of Gehr students, led by Andrea Banuelos-Mota, published an article describing approaches for improving medication compliance among Latinos with diabetes. The study was featured on NPR and La Opinion, among other outlets.

Right: Paul Song, MD, speaks to Keck medical students about single-payer national health insurance as part of the Gehr health policy curriculum.
To Our Community

The 2019-20 year has been transformational for the Gehr Center. In July, we teamed up with the USC Center for Health Systems Innovation (CHSI). Since 2015, CHSI has been a key innovation partner for the Keck Medicine of USC health system. Our teams have always worked closely and this year we decided to merge. We welcome Carol Peden, MD, MPH – formerly the CHSI director – who now serves as the Gehr Center’s co-director and director for Health Systems Innovation, along with Veronica Pagán, MPH, our team’s statistician. In recognition of our joining of forces, we have adjusted our name to the USC Gehr Center for Health Systems Science & Innovation!

Another 2019-20 highlight has been the establishment of an Evidence-Based Practice Center, led by newly recruited Gehr faculty Susanne Hempel, PhD, and project manager Aneesa Motala. The Center is one of only nine such Centers funded by the Agency for Health Research and Quality (AHRQ). The new Center provides USC faculty and staff – as well as community collaborators – the opportunity to lead literature reviews of controversial healthcare topics.

Our team also continues to grow. We now have a total of 16 faculty and staff (10 full-time-equivalents), as well as an ever-growing number of affiliates and students. New faculty include Drs. Peden and Hempel, as well as Todd Schneberk, MD, an Emergency Medicine faculty who leads the Gehr Summer Student program and conducts work addressing the social determinants of health. We are also pleased to welcome six new staff, including Veronica and Aneesa, Alissa Maier, MPH (project manager), Jeniffer Kim, PhD (biostatistician), Drizelle Baluyot (administrative assistant) and Lourdes Montano (program administrator).

We are ever-grateful to our benefactor, Mr. Norbert Gehr, and the Gehr Family Foundation, directed by Mr. David Lifschitz, whose support makes our work possible. We also keep our founder, David A. Goldstein, MD, close in our thoughts and continue to be guided by his vision. This year, we also thank Keck Medicine of USC, which now funds a portion of our work.

In the pages ahead, we hope you enjoy learning about our work to improve healthcare delivery through science, advocacy and education. Cheers to another great year in 2020!

Michael Hochman, MD, MPH
Gehr Center Director

Carol Peden, MD, MPH
Director for Health Systems Innovation
Norbert Gehr

Norbert Gehr arrived in New York City from Brazil in July 1960 as a teenager, with the dream of success and a few hundred dollars. He travelled to Southern California, where he took up residency and attended Santa Ana College and UCLA. In 1965, at age 24, Mr. Gehr pursued his dream by using the modest proceeds from the sale of his car to start a small distribution business, selling industrial supplies nationwide to contractors over the phone. Through his drive, determination, hard work and perseverance, Mr. Gehr grew his business. In 1975, Mr. Gehr established his own manufacturing facility, producing extension cords and other wire and cable products. Several years later, Mr. Gehr founded Gehr International and Gehr Development, which has become a diversified multinational holding company headquartered in Los Angeles, California. In 2016, through the Gehr Family Foundation that he established, Mr. Gehr made a generous donation to Keck School of Medicine to establish the Gehr Family Center for Health Systems Science & Innovation.

David Goldstein, MD

David Goldstein, MD moved from his home state of New York in 1975 to begin a nephrology fellowship at LAC+USC Medical Center. This was the start of a lifelong career at the University of Southern California (USC) that ultimately spanned five decades. During his historic career at USC, Dr. Goldstein served as the founding Chief of the Division of General Internal Medicine; the Vice Chair for Clinical Affairs within the Department of Medicine; the Co-Director of the Pacific Center for Health Policy and Ethics; and most recently, as the Director of Primary Care for Keck Medicine of USC. Dr. Goldstein’s impact on the Keck School of Medicine, the Department of Medicine, and the USC community at large was far-reaching, and was surpassed only by the influence he had on the countless trainees and junior faculty members who were blessed to work with him during his tenure. Shortly before his retirement, and thanks to a generous donation from Mr. Norbert Gehr, Dr. Goldstein founded the Gehr Family Center for Health Systems Science and Innovation in 2016.
**Vision:**
We advance healthcare delivery by building collaborative relationships across our campus and the wider community. We promote high-quality, evidence-based and equitable care for all patients in our health system, the local community, nationally, and internationally.

**Mission**
We support multidisciplinary efforts to improve quality outcomes by accelerating the adoption of high-value and equitable healthcare through science, advocacy and education:

**Delivery Science:** We aim to facilitate implementation of evidence-based practices by bridging the gap between science and real-world healthcare delivery and evaluating these efforts in real-world settings.

**Evidence Based Advocacy:** We promote the translation of science into healthcare delivery and policy reform by disseminating strategies for improving patient care.

**Education:** We educate providers, policy makers and students in health systems science, and mentor future leaders. We also create a network of individuals who are interested in exchanging ideas about healthcare delivery.

**Learning Health System:** We support continuous quality improvement and system innovation at Keck Medicine of USC by providing thought leadership, scholarly guidance and technical support.

**Guiding Principles:**

- Our interventions are evidence-based and aimed at improving the health of all populations, particularly vulnerable individuals, families and communities.
- Our innovations are sustainable in real-world settings.
- Efforts decrease disparities in the quality, accessibility and efficiency of care.
- Studies aim to maximize generalizability.
- Projects engage the Los Angeles community.
- Gehr faculty, affiliates and trainees are scholarly partners in researching and solving complex medical cases and are policy advocates.
- Our work is additive to the global health databases; supporting knowledge, processes, and policies that will improve health globally.
Meet Our Team

Michael Hochman, MD, MPH  
Director

Sonali Saluja, MD, MPH

Barbara Turner, MD

Michael Cousineau, DrPH

Rusha Modi, MD, MPH

Albert Farias, PhD

Cameron Kaplan, PhD

Susanne Hempel, PhD

Todd Schneberk, MD

USC GEHR FAMILY CENTER FOR HEALTH SYSTEMS SCIENCE & INNOVATION

USC Gehr Family Center for Health Systems Science and Innovation
Keck Medicine of USC
Meet Our Team

Carol Peden, MD, MPH

Alissa Maier, MPH

Veronica Pagán, MA, MPH

Jeniffer Kim, PhD, MPH

Lourdes Montano
Program and Grants Administrator

Drizelle Baluyot
Administrative Assistant

Aneesa Motala
Program Administrator

USC Gehr Family Center for Health Systems Science and Innovation
Keck Medicine of USC
“It was a true pleasure to visit the Gehr Center, meet with its talented faculty, and deliver my talk before an inquisitive and engaged audience. The group is impressive and doing important work.”

- Brennan Spiegel, MD, MSHS

“I think the Gehr Center is a wonderful place for multidisciplinary thinking, research and action to improve our health system. It provides an opportunity for the campus community to enhance their experience and contribute to making an impact on critical issues.”

- Jay Bhatt, DO, MPH, MPA, FACP
Educational Programs

The Gehr Student Innovators Program

This summer, the Gehr team sponsored and ran the fourth annual program for health professional students. As part of the 6-week program, each student develops a health systems science project under the mentorship of a Gehr faculty member. Students also receive health systems science didactics, and learn about pathways for healthcare leadership. This year, 14 students participated (13 USC medical and graduate students, and one undergraduate from the SCS Noonan Scholars program for high-achieving students from disadvantaged backgrounds).

The Gehr-Schaeffer Health Policy Educational Series

In partnership with faculty from the USC Schaeffer Center, Gehr faculty developed a 20-hour health policy curriculum taught longitudinally to Keck Medical Students during their first three years of medical school. The curriculum aims to provide students with health policy essentials for a career in medicine. Gehr faculty member Sonali Saluja, MD, MPH, directs the series.

The Keck Health Policy Selective

Gehr faculty collectively teach a 6-session selective course in advanced health policy for second year Keck medical students with an interest in health policy.

“The Gehr-Schaeffer health policy curriculum gave me the language, knowledge, and tools I needed to be able to better understand my patients’ struggles with insurance, worries about paying for medications, and barriers to accessing care. Learning everything from how Medicaid functions to the inner-workings of the pharmaceutical industry was an essential foundation to one day becoming a physician who is also an advocate for the patients I will serve.”

Sneha Panganamamula, second year Keck medical student

“I thought a lot of the lectures were really interesting, particularly those by the Gehr faculty. They really expanded my knowledge on topics that we don’t learn in medical school but are important to the practice of medicine.”

Advaita Kanakamedala, second year Keck School of Medicine student and Gehr Student Innovator

“I really enjoyed our field trips out into the community in different neighborhoods and clinics. I don’t think we have enough opportunities as students to engage the community and learn more about its history.”

Emily Chan, second year Keck School of Medicine student and Gehr Student Innovator
With this year’s merger of the Center for Health Systems Innovation and the Gehr Center, our team has become increasingly involved with improving care delivery within the Keck Medicine of USC Health System — including Keck Medical Center, which is ranked the 16th best hospital in the nation by U.S. News and World Reports. The Gehr Center team serves as a scholarly partner for Keck Medicine in its efforts to innovate. Below are some key partnered projects involving Keck Medicine of USC, under the leadership of Carol Peden, MD, MPH, the Gehr Center’s director for Health Systems Innovation.

**USC Perioperative Brain Health Initiative**

This initiative aims to develop a multidisciplinary pathway for older surgical patients at risk for perioperative neurocognitive disorders, while also increasing patient, provider and community knowledge of this common complication. In the last year, the BHI has had great success presenting at many conferences. The group has submitted numerous grant proposals and has received funding for team-building purposes.

**KeckNeuroConnect**

KeckNeuroConnect is a web-based platform to build a community of providers who share knowledge and best practices, develop a network of primary and specialty providers that “share” in patient care and that allow for the soft transition of patients between Keck and community providers. In the last year, KNC implemented the model at four spoke sites and successfully increased access for patients in need. The success of the pilot has increased the interest in this model both within Keck and from outside payers.

**Enhanced Recovery After Surgery (ERAS)**

Enhanced Recovery After Surgery (ERAS) is an implementation project. ERAS care pathways are designed for each service line and procedure. We are responsible for ERAS Dashboard development and maintenance, as well as quality analytics consulting. Also senior level mentorships and support of implementation.
Colorectal Cancer Screening

This initiative aims to improve patient colorectal cancer screening rates by 5% over the next year. Since its inception, this project has identified numerous areas for improvement, developed a clinical algorithm, spurred the acquisition of new screening equipment, and will be piloting a new outreach program to employees.

Hypertension Program

USC Gehr Family Center has partnered with the Value Based Services Organization (VBSO) to develop a Hypertension Program for employees enrolled in the EPO and PPO USC health plans, free of charge. This newly created team-based, care model utilizes evidence-based treatment protocols to provide comprehensive care for patients. The Hypertension Program leverages experts in USC Premier Care - Ambulatory Care Management, Pharmacy and Occupational Therapy Lifestyle Redesign® through consultation and Telehealth follow up services. In the last year, the program has enrolled nearly 50 patients.

As the executive leader for our value based service organization, it was important for me to leverage the academic strength USC has to offer. The collaboration with the Gehr Center has allowed us the opportunity to develop key clinical programs around hypertension and diabetes. These programs have not only served our employee population but also the community we serve. We plan on strengthening our collaboration with Gehr Center as we continue to develop our Value Based Service Organization as a provider of choice for strategic accounts, such as self-funded employer groups and large commercial payers.

-Ernie Schwefler, Chief Contracting & Managed Care Officer
In July 2019, the Gehr Family center welcomed a new addition, the Southern California Evidence Review Center, led by Susanne Hempel, PhD. The Evidence Review Center has just been recognized by the US Agency for Healthcare Research and Quality (AHRQ) as one of 9 Evidence-based Practice Centers (EPCs) nationwide. EPCs synthesize evidence to shape clinical practice, inform policy, and drive future research.

The evidence review group collaborates with researchers at USC, RAND, UCLA, UCSF/Stanford, and an international network of systematic reviewers. The Southern California EPC has published over 100 evidence reviews for a range of federal agencies and non-profit organizations, thus providing a rich resource for evidence-based information. All projects are publicly available and accessible here: (https://sites.usc.edu/socalevidencereview/services/).

The center is dedicated to promoting evidence-based information. The prolific body of scientific publications is enhanced by exploring new and innovative ways to present evidence to reach multiple audiences (researchers, practitioners, patients, policy makers). The figure shows an example of an online portal to evidence; each bubble in the bubble plot links to publicly available information about the study. Our work has established these evidence maps in research organizations such as the Patient-Centered Outcomes Research Institute (PCORI) and healthcare delivery organization such as the VHA serving US veterans.

More information on the Southern California Evidence Review center can be found here:
RESEARCH AND POLICY WORK

**Left:** An analysis led by Cameron Kaplan that was published in June found that black-white disparities in hospital readmission rates have not been adversely impacted by the hospital readmission reduction program, as some had feared.

> “With thousands of people now waiting in Mexico for a chance to seek asylum in the United States, my colleagues and I face an increasing demand to carry out these forensic evaluations on the other side of the border.”

**Right:** In November, Todd Schneberk testified before the House Committee on Homeland Security regarding the human rights of asylum seekers on the U.S.-Mexico border.

**Left:** Michael Cousineau debated the Hoover Institute’s Lanhee Chen in March about the relative merits of a public vs. private sector approach to healthcare reform. Dr. Cousineau favored the public sector approach while Dr. Chen highlighted the value of the free market in bringing about reform.

**Right:** In a blog post for the Medical Care Blog in January, Sonali Saluja argues that resources would be better spent provider health insurance for U.S. children rather than paying for a border wall at the U.S.-Mexico border.

**Left:** A December research paper published by Albert Farias concluded that “racial/ethnic minorities reported poorer patient experiences with care preceding a diagnosis of breast cancer.”

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**Racial/ethnic differences in patient experiences with health care in association with earlier stage at breast cancer diagnosis: findings from the SEER-CAHPS data**

Albert J. Farias1,2,3,4,5 Carol Y. Ochoa1,2,6 Gabriela Toledo1,2 Soo-In Bang1,2 Ann S. Hamilton1,5 Xiangin L7
**RESEARCH AND POLICY WORK**

**Left:** In June, Carol Peden published a study in the *Lancet* showing that a large quality improvement initiative to improve care for patients undergoing emergency abdominal surgery did not reduce mortality rates. She concluded: “Future [quality improvement programs] should ensure that teams have both the time and resources needed to improve patient care.”

**Right:** An August Health Affairs blog by Michael Hochman argues that health information exchange in the U.S. has thus far failed to deliver on its promise and it is time to reconsider a national health information exchange system.

**Left:** In one of the numerous review articles she published this year, Susanne Hempel concludes in this July analysis that “despite the amount of research on obesity prevention interventions, very few studies have provided relevant information on energy intake and expenditure, two factors determining weight gain.”

**Right:** A December paper in *Annals of Internal Medicine* published by Barbara Turner describes the challenges and opportunities in screening for and treating Hepatitis C in safety-net settings.

**Left:** A blog in Medical Economics quoted Rusha Modi about the evolving opportunities for screening for an treating chronic hepatitis C infections.

“Now that we have effective treatments that can eradicate the virus, there is an opportunity for people to advance their health and prevent long-term complications.”
BY THE NUMBERS

- **Writing**:
  - Peer Reviewed Articles: 49
  - Perspectives and Blog Articles: 23

- **Committee Participation**:
  - On Campus: 17
  - Off Campus: 21

- **Lectures**:
  - On Campus: 36
  - Off Campus: 32

- **Mentees**: 49
- **Affiliates**: 23

The 2019-20 Gehr budget totaled $2.9 million, of which $1 million comes from the Gehr Family Foundation, approximately $700,000 comes from a contract with Keck Medicine of USC, and the remainder from grants and contracts to Gehr faculty.