

ANNUAL REPORT 2024



HARVARD T.H. CHAN SCHOOL OF PUBLIC HEALTH



CONTENTS

GREETINGS FROM THE CENTER DIRECTOR	1
NURTURING EMERGING POSITIVE HEALTH SCHOLARS	2
INVESTING IN THE FUTURE OF HAPPINESS RESEARCH	6
FOSTERING WELL-BEING THROUGH ESSENTIAL PARTNERSHIPS	9
TRANSLATING AND AMPLIFYING RESEARCH INSIGHTS	13
NOTABLE RESEARCH: 2023–2024	16
THE ROAD AHEAD FOR HEALTH AND HAPPINESS: THE CENTER'S CONTINUED GROWTH	19

GREETINGS FROM THE CENTER DIRECTOR

I would like to begin this report by extending my sincere thanks to the Lee Kum Kee family for their unwavering support of the Lee Kum Sheung Center for Health and Happiness through eight years of learning and growth. I encourage you to view our latest <u>Center video</u>, where I express gratitude to the family and discuss the Center's mission and vision.

This academic year, we are exploring the theme of social determinants of health through our Loneliness and Well-being Seminar Series. In the wake of the COVID-19 pandemic, loneliness has risen to the forefront of public discourse as a significant global issue, with severe negative impacts on both mental and physical health. Our fall 2023 seminar series commenced with a talk by Julianne Holt-Lunstad, lead scientific editor of "Our Epidemic of Loneliness and Isolation: The U.S. Surgeon General's Advisory on the Healing Effects of Social Connection and Community." We also hosted Louise Hawkley, principal research scientist at the National Opinion Research Center, and Koichiro Shiba, assistant professor of epidemiology at Boston University. All three scholars emphasized the power of social connection to counteract the negative effects of loneliness.

In addition to edifying the public, educating and inspiring the next generation of positive health and happiness scholars is one of the Center's highest priorities. Over the summer, we hosted ten exceptional students from across the United States through our annual summer internship program, placing them with scientists affiliated with the Center and giving them the opportunity to contribute to significant research. I invite you to learn more about the program from the interns themselves. In an effort to engage students at Harvard T.H. Chan School of Public Health more actively with the Center, we also established a Student Interest Group, led by a steering committee of five students that runs hands-on workshops to promote health and happiness amongst the student body.

As always, we are employing research assistants (RAs), talented Harvard students who aid us in our work while learning how to conduct research on positive well-being.

One of these RAs, Elaine Jeon, is collaborating with the East Boston Social Centers (EBSCs), a nonprofit that endeavors to promote joy in the East Boston community. Jeon is conducting focus groups on loneliness and belonging and exchanging information on both the hands-on and scholarly aspects of health and happiness. This collaboration is part of our growing emphasis on community well-being and urban public health.

Additionally, Center RA Zichao Li is assisting me in the collection of literature pertinent to community well-being. This comprehensive literature review is poised to significantly enrich our understanding of the factors that cultivate happiness and joy within community settings. Our collaborative efforts are expected to yield valuable insights that will contribute meaningfully to the broader discourse on enhancing communal mental and social health and, by extension, inform practices and policies aimed at fostering more harmonious and resilient communities.

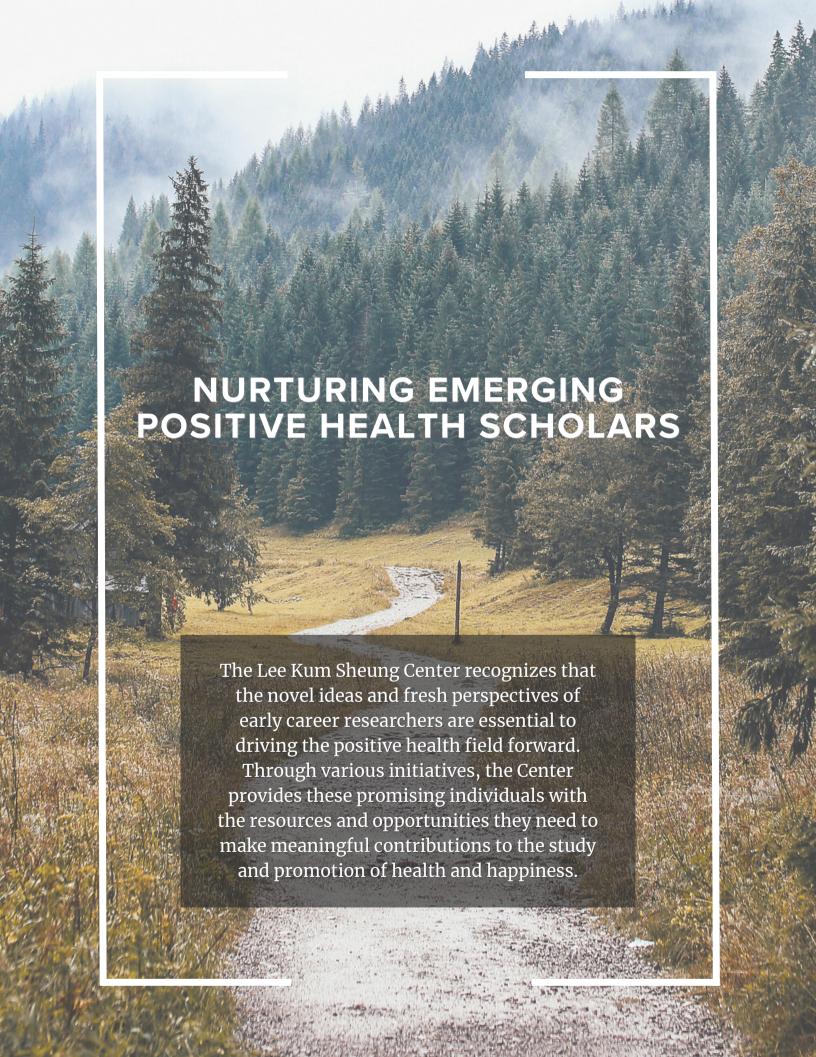
Over the past year, the Center has been strengthened by the addition of new partners as well as new staff members: Assistant Director Anubha Tyagi and Communications Coordinator Ayla Fudala. Through their work planning programs and events and translating research, they have allowed the Center to expand its operations and reach.

None of the Center's work would have been possible without the contributions of the Lee Kum Kee family. Once again, I would like to thank you for your generosity, which has enabled us to conduct cuttingedge research into timely issues, host informative events, form fruitful partnerships, educate the next generation of scholars, and share vital knowledge about what makes us healthy and happy with the world.



Casanath

Kasisomayajula "Vish" Viswanath, PhD Director of the Lee Kum Sheung Center for Health and Happiness; Lee Kum Kee Professor of Health Communication



SUMMER 2023 INTERNSHIP HIGHLIGHTS

As part of our commitment to cultivating the positive health scholars of tomorrow, the Lee Kum Sheung Center for Health and Happiness offers an annual summer internship program. This initiative brings together promising young scholars from across the country for an immersive 10-week experience, delving into research topics encompassing positive health, happiness, and well-being.

The program witnessed unprecedented attention in 2023, with an overwhelming 420 applications received. The task of selecting the most outstanding individuals from this pool proved challenging, resulting in the careful selection of 10 interns. These talented individuals were matched with affiliate scholars of the Center, contributing to research projects aligned with the Center's overarching mission.

Research topics spanned diverse areas, including "positive psychological interventions for health behavior adherence," "mind-body exercise interventions to promote cardiovascular health," and "the relationships between problematic smartphone use, social media comparison, self-esteem, and well-being." The interns not only enriched their own academic experiences but also fostered enduring connections with their hosts, with four interns continuing their work beyond the internship period.

We crafted a <u>video to showcase the stories and experiences of these remarkable young scholars</u>. Please feel free to watch it to hear directly from the interns about their transformative experiences.



SUMMER 2023 INTERNS



"Throughout this entire internship, I have experienced tremendous professional growth and have gained many valuable research skills. I have come to not only view research as a larger component of my future career, but I also have a much greater appreciation for well-being as a multidimensional state of physical and psychosocial health and happiness."

Ethan Epstein, BA candidate in health and human biology and visual arts, Brown University; Host site: Beth Israel Deaconess Medical Center with Gloria Yeh, associate professor of medicine



"This experience has expanded my knowledge and horizon in bridging science between physical and mental health. I never considered the connection between the two, but after working on my project and hearing from Dr. Viswanath, I feel they are inseparable and can strengthen each other's impact if we can know both."

Fairuziana Humam Hamid, PhD candidate in community well-being, University of Miami School of Education and Human Development; Host site: Department of Epidemiology, Harvard Chan School, with Bizu Gelaye, associate professor



"This experience enlarged my understanding of the science of positive health and well-being. I was able to gain incredible experiences and learn practices that I can apply to my own personal growth."

Emily Song, MPH candidate in health services management & policy, Tufts University School of Medicine; Host site: EMPOWER Project, Mental Health for All Lab, Harvard Medical School, with Vikram Patel, Paul Farmer Professor



"There are many ways to promote positive health and well-being that are each uniquely beneficial. However, we should be shifting our focus from looking at what we lack, a deficit-based approach, to recognizing and building upon our existing strengths, an asset-based approach. I believe that is where the future of this research lies as well as challenging and improving how we translate the findings to benefit the public."

Isabella Van Wittenberghe, MPH candidate in mindfulness, Brown University School of Public Health; Host site: The Lazar Lab for Meditation Research, Massachusetts General Hospital, with Sarah Lazar, associate researcher in psychiatry

STUDENT INTEREST GROUP

In the spring 2023 semester, the Center inaugurated the Student Interest Group, led by a Student Steering Committee (SSC) of five Harvard Chan master of public health students. This committee plays a pivotal role in shaping decisions related to student programming and actively organizes well-being-focused events for Harvard students, supporting the Center's mission to share evidence-informed, interdisciplinary well-being research through engaging activities.

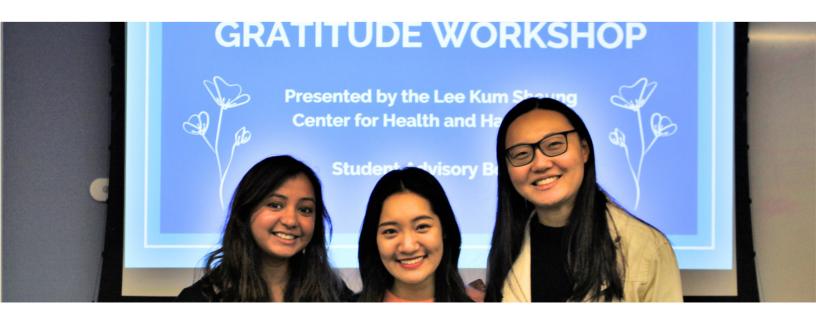
Up to this point, the SSC has organized three well-being workshops, with two held in the spring semester and one in the fall semester. The initial workshop, "Gratitude journaling," was spearheaded by SCC member Ally Zhang. Participants were provided with a gratitude journal designed by Zhang, encouraging them to express gratitude using the journal's prompts. The session also featured a presentation on the science of gratitude by Center Research Associate Laura Marciano and a guided gratitude meditation led by former SSC member Chavi Bansal.



"Being part of the Center for Health and Happiness Student Steering Committee has been a fulfilling experience that empowered me to lead workshops in my area of interest and grow. Working with the Center's faculty and staff taught me the importance of surrounding oneself with positive, like-minded individuals for personal and professional growth."

Ally Zhang, SSC member and MPH candidate in nutrition, Harvard Chan School

The second event, "Positive reflections," was conducted by former SCC member Jennifer Kwon, MPH '23. Participants engaged in discussions on the meaning of happiness and shared their happiest memories of the year, followed by a presentation about the science behind joyful recollections. The third workshop, conducted in the fall by SCC member Soumya Mohanty, titled "From positive minds to positive lives," guided students through a visualization exercise envisioning their lives in five years. This session similarly featured a presentation on the scientific underpinnings of positive thinking, concluding with a session of eye yoga.





DISSERTATION RESEARCH AWARDS

The Center's dissertation research awards assist full-time doctoral students at Harvard University who are conducting dissertation research related to the Center's focus of positive health, happiness, and well-being.

2023 DISSERTATION RESEARCH AWARD



Doctoral candidate in epidemiology Naiyu Chen received the Center's 2023 dissertation research award for her project titled "Prostate cancer survivorship: Physical activity, social support, and the built environment."

This research investigates whether the quality of life of prostate cancer survivors was affected by their levels of physical activity, social support, and the walkability or amount of green space in their neighborhood. The subjects of the research were 1,692 men (ages 61–95 years) diagnosed with nonmetastatic prostate cancer between 2008 and 2016, who were participants in the Health Professionals Follow-up Study. Chen found that individuals who were socially integrated (as compared to socially isolated) reported better memory function and overall well-being.



SEED GRANT AWARDS

The Center's seed grant awards support pioneering research in the early stages of development that focus on science or translation and communication related to positive health.

INNOVATIONS IN POSITIVE HEALTH



Shekhar Saxena, professor of the practice of global mental health at Havard Chan School, and Vikram Patel, Paul Farmer Professor and chair of the Department of Global Health and Social Medicine at Harvard Medical School, received a Center seed grant award in 2020 to support the development of the Countdown Global Mental Health 2030 initiative. This initiative developed and implemented an ambitious global monitoring and accountability framework for mental health, in keeping with the United Nations' Sustainable Development Goals (SDGs).



The Countdown monitors and provides mental health status comparisons across geography and time at regular intervals. Countdown reports inform all stakeholders about the progress that is being made on realizing the commitments made for mental health within the SDGs. The reports highlight national and regional differences and specific areas where more intensive efforts are needed. Global decision makers can use the Countdown to track progress towards goals and inform future policy and financial decisions. The seed grant supported the addition of well-being measures to the existing set of Countdown indicators. In addition, the grant enabled Harvard's Global Mental Health initiative to assist in the creation of a Countdown progress report.

EMOTION REGULATION INTERVENTION FOR HEAD START TEACHERS



Jennifer Lerner, Thornton F. Bradshaw Professor of Public Policy, Decision Science, and Management at Harvard Kennedy School, received a Center seed grant in 2022 to spearhead a project titled "Using reappraisal to increase well-being in Head Start teachers at scale." This initiative aimed to create and assess an evidence-based, online, brief, low-cost, and scalable intervention to boost the emotional resilience of teachers, especially during the pandemic.

In the preliminary phase, Lerner interviewed 35 Head Start teachers and found that they preferred evidence-backed online interventions lasting an hour or less. Next, she conducted a survey at the National Head Start Conference, receiving responses from 1,967 teachers. This survey revealed that employing cognitive reappraisal, a method of reinterpreting stimulus to regulate emotions, correlated significantly with enhanced emotional well-being, mental health, job performance, and physical health among participants. Finally, utilizing these insights, Lerner developed a brief online cognitive reappraisal intervention, and tested it in a longitudinal field experiment involving approximately 2,000 Head Start teachers. The results showcased substantial positive effects, including reduced anxiety and stress, improved physical health, better problem-solving skills, increased sense of control, job satisfaction, performance, perceived workplace support, and stronger intentions to remain employed.

FOSTERING WELL-BEING THROUGH ESSENTIAL PARTNERSHIPS

The Lee Kum Sheung Center collaborates with partners across the world to conduct research into health and happiness. By engaging with these local and global organizations, the Center facilitates an exchange of knowledge between science and practice.

PARTNERSHIPS

EAST BOSTON SOCIAL CENTERS

As part of Center Director Viswanath's initiative to promote community health equity through the translation of well-being knowledge to local communities, the Lee Kum Sheung Center has begun working with the <u>East Boston Social</u>
Centers (EBSCs). The EBSCs were founded



more than a hundred years ago to welcome and support immigrant families through early education programming and public health and social services. They serve the community of East Boston, a diverse urban neighborhood which is home to more than 43,000 individuals, many of whom are immigrants from Central and South America. Members of this community face numerous challenges, ranging from housing shortages and environmental pollution, to lack of access to food and educational programs; but also have access to important assets, such as the EBSCs.



"We need to better understand from both a qualitative and quantitative perspective what is happening in the community, and so that research partnership makes an important difference. The question of how we significantly increase joy at a community level is something we don't have all the answers to, and that's why we're really grateful to have partners at the Lee Kum Sheung Center for Health and Happiness. I think this can be a real model of how academia and communities can work together to solve problems on the ground."

Justin Pasquariello, executive director, East Boston Social Centers



PARTNERSHIPS

SALAAM BOMBAY FOUNDATION (SBF)

The Lee Kum Sheung Center has partnered with the <u>Salaam Bombay</u>. <u>Foundation</u> (SBF) since 2019 to conduct a longitudinal study with young people from low socioeconomic status households in Mumbai, India. The goal of SBF is to empower these adolescents to remain in school and make positive decisions about their futures. SBF programs facilitate extracurricular activities that foster life skills, educate about tobacco risks, and promote healthy behaviors.

The purpose of the longitudinal study is twofold: 1) to collect data on health communication behaviors, asset availability, and resilience among Indian youths, examining their associations with health, wellbeing, and happiness and 2) to assess the direct impact of SBF



programs on outcomes for students who attended schools with SBF programs in comparison to those who did not. The first wave of the longitudinal study began in 2020 but was ended prematurely when the COVID-19 pandemic dispersed the students' families back to their native homes in India. This year, the longitudinal study was restarted with a new cohort of 3,055 seventh-grade students from public schools in Mumbai.

Center researchers will be following these adolescents throughout their remaining school years and beyond to determine how exposure to SBF programs and other life events impact their health and well-being. They are also analyzing the trends in the 2023 wave of participants alongside the 2020 wave of participants. This analysis may provide insights into the impact of the pandemic on adolescents from lower socioeconomic status households—a population that is more vulnerable to poor health outcomes.



PARTNERSHIPS

THICH NHAT HANH CENTER FOR MINDFULNESS IN PUBLIC HEALTH

Since its inception in the spring of 2023, the Thich Nhat Hanh Center for Mindfulness in Public Health has collaborated with the Lee Kum Sheung Center. This past fall, Center Director Viswanath served as a keynote speaker at a week-long retreat led by the TNH Center, titled "The Buddha the scientist," and held at Deer Park Monastery in San Diego County, California. The retreat brought together monastics and scholars to "delve into the intersection of wisdom and scientific inquiry, revealing profound insights and a pathway to a more embodied understanding of our minds."



Viswanath's keynote address focused on the positive and negative impacts of digital technologies in contemporary life and how mindful use of digital technologies may contribute to health and happiness. We look forward to future collaborations with the TNH Center in the years to come, as both of our centers evolve and grow side by side.





LONELINESS AND WELL-BEING SEMINAR SERIES

For the last eight years, the Center's seminar series has aimed to spotlight pertinent public health issues by inviting experts to share their discoveries and insights, fostering both awareness and action. These seminars are hosted in person and live streamed online, with recordings available on our website under "Past Events," ensuring accessibility as a public resource.

The theme for our fall 2023 seminar series, "Loneliness and well-being," was selected to align with the Center's heightened emphasis on social health, and in response to the escalating public concern regarding loneliness. Both the World Health Organization and the U.S. Surgeon General have expressed concern about the mounting evidence of a global increase in loneliness and its various negative impacts on mental and physical health.



The inaugural seminar, "From Ioneliness to social connection: Lessons from research and a global pandemic," was led by Julianne Holt-Lunstad, professor of psychology and neuroscience, and director of the Social Connection and Health Lab at Brigham Young University. Drawing on her work as lead scientific editor of "Our Epidemic of Loneliness and Isolation: The U.S. Surgeon General's Advisory on the Healing Effects of Social Connection and Community," Holt-Lunstad highlighted the importance of social connection, presented evidence of its impact on health, and discussed the challenges and opportunities for translating scientific research into practical solutions and policy.



Louise Hawkley, principal research scientist at the National Opinion Research Center, led the second seminar in the series, titled "Loneliness and the need for belonging and trust." In this talk, Hawkley reviewed the definition and dimensions of the experience of loneliness and discussed individual and societal factors that trigger and exacerbate loneliness. She highlighted the role of trust in fostering a sense of belonging and provided examples of individual-level interventions and public health approaches to prevent loneliness and reduce its severity and duration.



The third seminar in the Loneliness and Well-being Seminar Series, "Promoting social connectedness for health equity: An application of a new analytical framework," was led by Koichiro Shiba, assistant professor of epidemiology at Boston University. Shiba explained that people from socially marginalized groups are more likely to experience social isolation and are more likely to experience negative mental and physical health as a result. He argued for the inclusion of health equity considerations in the development of policies and interventions to promote social connection.

TRANSLATING AND AMPLIFYING RESEARCH INSIGHTS

CENTER RESEARCH ASSOCIATE RECEIVES INFLUX OF FUNDING



The Center is pleased to announce that Research Associate Laura Marciano has received a \$375,000 two-year research grant from the National Institutes of Health, with the title "HappyB2.0." Marciano was awarded the grant as principal investigator, with Center Director Viswanath and University of Saskatchewan Professor of Computer Science Nathaniel Osgood serving as co-investigators. The research aims to measure the impact of face-to-face interactions and social media use on adolescents' mental health in the short- and long-term, investigating how these factors influence loneliness and well-being. Subjects will be 14-to-16-year-old high school students in the Boston area, and data will be collected through a smartphone app. Additionally, the study plans to explore the potential link between digital activity, loneliness, and stress levels, which will be measured through hair cortisol concentrations.

COMMUNICATION EFFORTS

In 2023, the Center concentrated on translating positive health and happiness research findings for the public. As part of these efforts, the Center actively interacted with external audiences and partners through various means such as social media posts showcasing recent research by Center scholars and affiliate scientists, articles summarizing seminars, videos about the Center's mission and our summer internship program, newsletters featuring events and announcements, media coverage, and other channels. As a result, the Center's online presence is expanding, and our audience continues to grow and diversify.

SOCIAL MEDIA ENGAGEMENT*





4,712 followers

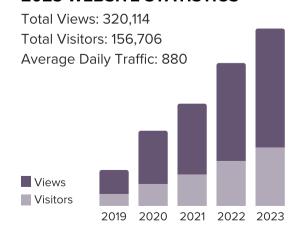
3,237 subscribers

1,834 followers

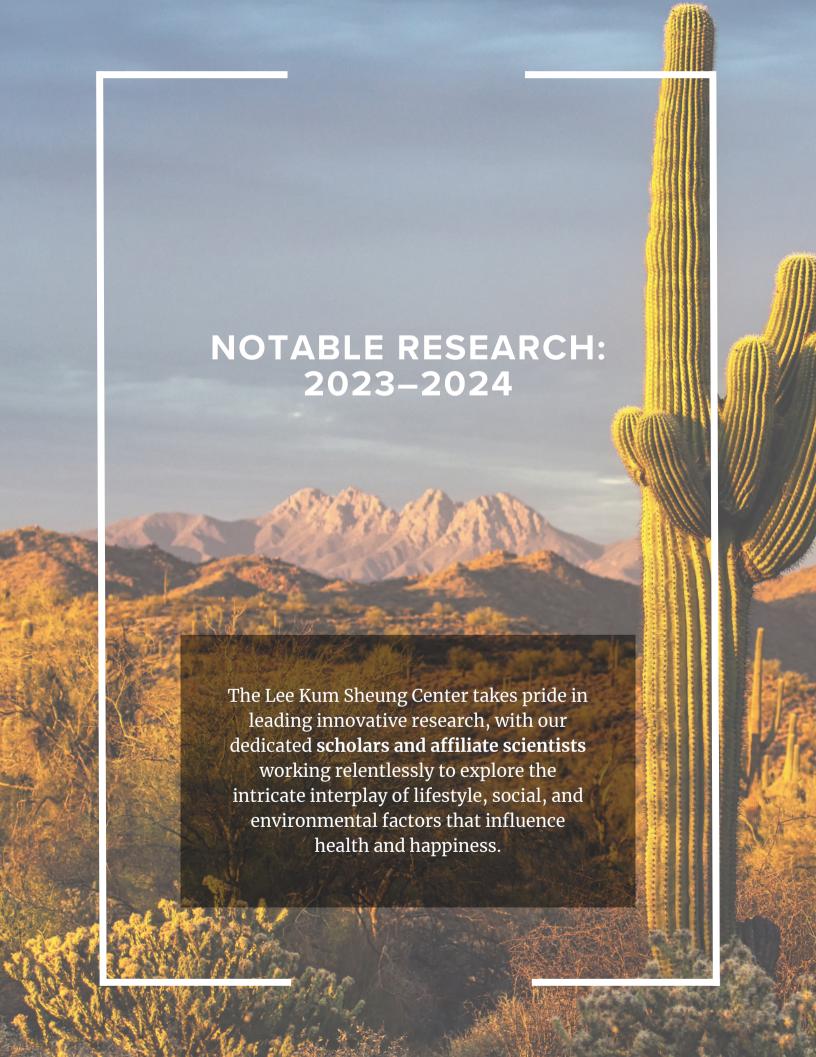
See the Center's social media engagement in action:

- View our website and sign up for our mailing list.
- Follow us on <u>Twitter</u>, <u>LinkedIn</u>, <u>Facebook</u>, <u>Instagram</u>, and <u>YouTube</u>.

2023 WEBSITE STATISTICS



*as of 3/11/24



NOTABLE RESEARCH 2023-2024

Center Director Viswanath, Research Associate Laura Marciano, former Research Scientist Mesfin Bekalu, and others conducted an umbrella review of mobile phone assessments used to monitor young adult mental health. They concluded that these assessments were promising tools which had many possible benefits, including the potential to provide affordable and accessible mental health care to young adults in low- and middle-income countries.

Learn more: doi:10.2196/45540

Center affiliate Eric Kim and others examined the connection between mortality and "informal helping," or unpaid, voluntary work done independently to assist individuals outside one's own household. They found that participants who reported more than 100 hours a year of informal helping had a lower mortality risk, and that informal helping—mortality associations were stronger among women and the wealthiest.

Learn more: doi: 10.1093/abm/kaad042

Center affiliate Ichiro Kawachi and others conducted a study in Taiwan on relative deprivation, the perception that one has less of a desired resource (e.g., money, social status) than others. They found that as relative deprivation increased, the six human flourishing outcomes of health, happiness, life satisfaction, meaning in life, social relationships, and subjective well-being all decreased. Kawachi concluded that policies to reduce relative deprivation by lowering income inequality could contribute to higher levels of human flourishing.

Learn more: doi: 10.1136/jech-2023-220582

Center affiliates Lisa Berkman, Ying Chen, Eric Kim, and others reviewed data from the Health and Retirement Survey to determine whether loneliness and social isolation are equal threats to health and well-being. They found that social isolation was more predictive of mortality risk, while loneliness was a stronger predictor of psychological outcomes, and concluded that the two should be considered separately when designing public health interventions.

Learn more: doi: 10.1016/j.ssmph.2023.101459

Center affiliates Christopher Celano and Jeffrey Huffman, among others, reviewed data collected from 156 patients, 100 days after receiving hematopoietic stem cell transplants, and found that the majority reported high levels of positive psychological well-being, including feelings of gratitude and optimism. <u>Learn more: doi: 10.1016/j.jtct.2023.07.010</u>

NOTABLE RESEARCH 2023-2024

A study by Center affiliate Eric Kim and others found that older adults with greater senses of purpose in life show a slower rate of epigenetic aging, as measured by changes in DNA methylation, small chemical tags on their DNA that influence gene activity and have been linked to healthier cellular aging. These results suggest new opportunities to reduce biological age acceleration by enhancing sense of purpose in late adulthood.

Learn more: doi: 10.1093/gerona/glad092

A study by Center affiliates Claudia Trudel-Fitzgerald, Peter James, and Francine Grodstein; special advisor Laura Kubzansky; and others examined whether higher social integration was associated with lower mortality in African Americans. The study found that compared with moderate isolation, moderate integration was associated with an 11 percent lower mortality rate, and high integration was associated with a 25 percent lower mortality rate; while high isolation was related to a 34 percent higher mortality rate. Learn more: doi: 10.1007/s00127-023-02485-1

Center Director Viswanath and Research Associate Laura Marciano conducted a study on flourishing and social media use in adolescents and found that when digital media use is too high, that might be at the expense of other offline activities; but if it is too low, it can deprive adolescents of gaining important information and connecting with peers. They suggested that interventions to foster adolescents' flourishing should include lessons designed to promote the beneficial use of social media through positive online social relationships and inspirational content.

Learn more: doi: 10.3389/fpsyg.2023.1092109

A study by Center affiliates Ying Chen and Rosalba Hernandez and special advisor Laura Kubzansky found that optimism was associated with better cardiovascular health over time, and associations seemed stronger for women than for men.

Learn more: doi: 10.1097/PSY.000000000000855

THE ROAD AHEAD FOR HEALTH AND HAPPINESS: THE CENTER'S CONTINUED GROWTH

THE ROAD AHEAD

This year, the Center widened its focus beyond the correlation between happiness and well-being with mental and physical health to encompass a crucial third aspect: social health. Often overlooked in research, social health plays an essential role in individual health and happiness as well as the functioning of society as a whole.

So far, the Center's exploration of social health has included:

- A seminar series themed around social isolation, connection, and equity.
- Partnerships with both local and international organizations supporting social health in urban settings.
- A series of communications pieces translating research on social health to the public.

In the years to come, we plan to expand upon these efforts, intensifying our research into social determinants of health and happiness, both locally and globally; providing a platform upon which experts in the field can share their insights; funding and supporting research by new and established scholars; and sharing our findings with the world.

