

LEE KUM SHEUNG CENTER FOR HEALTH AND HAPPINESS

HARVARD T.H. CHAN SCHOOL OF PUBLIC HEALTH

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# Annual Report Spring 2017

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"Si Li Ji Ren' (considering others' interests) is Lee Kum Kee's core value, so we are very proud to support scientific advancement for the good of people around the globe. This new Center is dedicated to the science of health and happiness, which is a fitting tribute to my great-grandfather Lee Kum Sheung. Through the Center's efforts in the field of health and happiness, we hope more people can increase their awareness, take more preventive measures, and eventually, become healthier and happier."

*—Sammy Lee*, Chairman & Managing Director of LKK Health Products Group



On May 10 and 11, the opening of the Lee Kum Sheung Center for Health and Happiness at the Harvard T.H. Chan School of Public Health was celebrated with a ribbon-cutting ceremony, luncheon, tour of the new Center, and a reception and dinner on the Harvard University campus.

### **Greetings from the Center Directors**

We are delighted to share the first annual report on the activities and accomplishments of the Lee Kum Sheung Center for Health and Happiness at the Harvard T.H. Chan School of Public Health.

We are grateful to the Lee Kum Kee family for the generosity they provided to establish the Center, which will foster important insights and new discoveries regarding the relationship between physical health and emotional well-being. It is a privilege to have the opportunity to build such a Center, one that can enact the vision of the Lee family and the founder of the Lee Kum Kee company, Lee Kum Sheung. We believe our shared vision of an integrated approach to the science of health and happiness will improve population health.

The Center is truly unique across the country and perhaps across the world. While a number of programs and activities focus on studying happiness and well-being, the Lee Kum Sheung Center focuses on developing a rigorous science to understand how positive psychological and social factors may influence physical health and also on developing effective ways to translate the science to influence practice and policy.

The Center will be a platform for collaboration across multiple disciplines—from health communications to psychology, from nutrition and exercise physiology to basic biology, and from medicine to epidemiology and population science—and has great potential to make major contributions to science while translating research results into real-world impact. Harvard University is a rich environment for this Center, and provides a unique collection of scholars who can come together on a topic that reaches across many disciplines and perspectives.

The Center is global in its scope. While it serves as a convening platform within Harvard University, it also will bring together scientists all over the world to pursue a range of activities to advance the understanding of how health and positive psychological well-being are linked, and how one may use the science to develop programs, policies, and organizational change. This work will redirect our conversations on social and economic policies and how we can improve the public's health.

We are pleased to share our accomplishments in this first year since the Center's establishment, and we look forward to continuing to make exciting scientific discoveries and developing strong collaborations that will contribute to improving lives for millions of people around the world.

**Dr. Laura Kubzansky**, Co-director Lee Kum Kee Professor of Social and Behavioral Sciences

**Dr. Kasisomayajula "Vish" Viswanath**, Co-director Lee Kum Kee Professor of Health Communication

# Building a Science of Positive Health and Resilience

In late April of 2016, Acting Dean David Hunter and Center co-directors Laura Kubzansky and Vish Viswanath traveled to Hong Kong to officially launch the Lee Kum Sheung Center for Health and Happiness and celebrate the beginning of an important and strong relationship with the Lee Kum Kee family. The official launch of the Center featured media interviews, including a session with the *South China Morning Post*, a celebratory luncheon, and a signing ceremony. The following day, in front of an audience of more than a thousand people, the Center's launch was a focal point of the annual Lee Kum Kee Founders Day celebration. On May 10 and 11, the opening of the Lee Kum Sheung Center for Health and Happiness at the Harvard T.H. Chan School of Public Health was celebrated with a ribbon-cutting ceremony and other activities on the Harvard University campus. A private reception was held for the Lee family delegation; special guests included Harvard University Provost Alan Garber, Harvard Vice Provost of International Affairs Mark Elliott, Acting Dean David Hunter, and co-directors Laura Kubzansky and Vish Viswanath.

Now, after a year since its official launch, the Center has made great progress in advancing the interdisciplinary science of happiness and health and training new generations of scholars through educational programs, interfaculty collaborations, and research in three key areas: basic science research, intervention research, and translational and communication research.



Sammy Lee and then-Acting Dean David Hunter, Vincent L. Gregory Professor in Cancer Prevention, at the opening of the new Center. Behind them from left: Jason Lee; Wendy Lee; David Lee; Ichiro Kawachi, John L. Loeb and Frances Lehman Loeb Professor of Social Epidemiology and chair, Department of Social and Behavioral Sciences; and co-directors of the Lee Kum Sheung Center Laura Kubzansky and Vish Viswanath.



*Left:* Daniel Gilbert, Edgar Pierce Professor of Psychology, speaks about the current state of science for understanding the relationship between positive mental and physical health. *Right:* Laura Kubzansky, co-director of the Lee Kum Sheung Center kicks off the day-long symposium to present the current state of research in the fields of positive psychology and the link between health and happiness.

### The Science of Health and Happiness Symposium

On December 2, 2016, the Center hosted a symposium on the science of health and happiness at the Joseph B. Martin Conference Center in Boston. The day-long symposium served as an academic launch, introducing attendees to the Center's research and initiatives. The agenda featured keynote addresses from distinguished scholars in the field, Professors Ed Diener and Andrew Steptoe, as well as lively panel discussions by Harvardbased scholars. These discussions focused first on the current state of science for understanding the relationship between positive mental and physical health, and then on best practices and issues in translating research to influence practice and policy. Panel speakers included Daniel Gilbert, Edgar Pierce Professor of Psychology at Harvard University; Lisa Berkman, director of the Harvard Center for Population and Development Studies; Steve Gortmaker, professor of the practice of health sociology at the Harvard Chan School; Sara Bleich,

professor of public health policy at the Harvard Chan School; Michael Norton, Harold M. Brierley Professor of Business Administration at Harvard Business School; and Jeff Huffman, assistant professor of psychiatry at Harvard Medical School.

The symposium brought together over 150 faculty, research scientists, postdoctoral fellows, and students from the Harvard community and beyond, and garnered even greater interest in the current work and future activities of the Center within the Harvard community. Scientists from outside Harvard joined with those across the University, including affiliates with the Harvard Business School, Harvard Kennedy School, Harvard Chan School, Harvard Medical School, and the Faculty of Arts and Sciences to discuss current knowledge in the field and important new directions.

### Symposium Keynote Speakers



**Ed Diener** is a professor of psychology at the University of Virginia, the University of Utah, senior scientist for the Gallup Organization, and one of the most eminent research psychologists in the world, with over 130,000 citations of his work in scientific literature. Diener is the Joseph Smiley Distinguished Professor of Psychology Emeritus at the University of Illinois. He was the president of three scientific societies, the editor of three scientific journals, and has won each of the major awards in psychology, including the Distinguished Scientific Achievement Award from the American Psychological Association, as well as honorary doctorates. Diener has over 340 scientific publications, and most focus on human well-being. He is a member of the American Academy of Arts and Sciences.

Diener explores the individual factors that influence people's life satisfaction and happiness, such as income, upbringing, meaning and purpose, temperament, and social relationships. Diener has shown that income is strongly related to life satisfaction up to a point, but after that no longer makes a difference. For enjoyment of life, social relationships are much more important than income. He also explores the societal factors related to happiness, such as economic development, clean air, low corruption and crime, social capital, and income safety-net programs. Diener has studied well-being in 165 nations of the world, and discovered both universal and culture-specific causes of happiness.



Andrew Steptoe is director of the Institute of Epidemiology and Health Care and British Heart Foundation Professor of Psychology at the University College London (UCL). He graduated from Cambridge University in 1972, and completed his doctorate at Oxford University in 1975. He moved to St. George's Hospital Medical School in 1977, becoming professor and chair of the department in 1988, where he remained until his appointment in 2000 to UCL. He became deputy head of the department of epidemiology and public health at UCL in 2005 and subsequently head of the department before being appointed director of the Institute in 2011. He is a past president of the International Society of Behavioral Medicine and is a fellow of the Academy of Medical Sciences, the British Psychological Society, Academia Europaea, and the Academy of Social Sciences. He is founding editor of the British Journal of Health Psychology; an associate editor of Psychophysiology, Annals of Behavioral Medicine, British Journal of Clinical Psychology, International Journal of Rehabilitation and Health, and Journal of Psychosomatic Research; and is on the editorial boards of seven other journals. Steptoe directs the Psychobiology Group and the English Longitudinal Study of Ageing research group at UCL. He has published more than 400 peer-reviewed articles and is author or editor of 18 books, most recently the Handbook of Behavioral Medicine (2010) and Stress and Cardiovascular Disease (2012).

### **Seminar Series**

The Center has developed a seminar series to bring Harvard and non-Harvard faculty and researchers to the Center to talk about relevant topics related to its mission. The series launched with its first seminar on February 17, 2017, and is planned to continue on a bi-monthly basis to enhance collaboration and partnerships among the Harvard and research communities.

The series commenced with a lecture by Sara Lazar, associate researcher in the psychiatry department at Massachusetts General Hospital and assistant professor of psychology at Harvard Medical School. Her talk, entitled "Meditation and the Brain," explored the impact of mindfulness meditation on well-being, psychiatric, and stress-related symptoms. She also shared her research on mindfulness practice and increases in gray matter density in the brain. The event was attended by over 35 students, research fellows, and Center staff.

This September 2017, the Center will be offering Continuing Medical Education credits for seminar participants through the Office of Executive and Continuing Professional Education at the Harvard Chan School. Future seminar speakers include both Harvard and non-Harvard investigators:

- Myriam Hunink, professor of health policy, Harvard Chan School
- Rohini Pande, Mohammed Kamal Professor of Public Policy, Harvard Kennedy School
- Nico Pronk, adjunct professor of social and behavioral sciences, Harvard Chan School
- Tyler VanderWeele, professor of epidemiology, Harvard Chan School

### **Dissertation Research Award Program**

The Center seeks to involve students in its work to build a rigorous science of positive health and well-being, and to translate the science into practice and policy. In its efforts to foster more research in this field, the Center has established the Dissertation Research Award Program to assist full-time doctoral students at the Harvard Chan School who are conducting dissertation research in the field of positive health science or another closely related field. Financial awards of up to \$2,500 provide support for research costs associated with completing their dissertations.

In the first round of the program, proposal topics from applicants ranged from the protective role of social support to psychosocial predictors of risk and resilience to positive body image ideals and well-being. The first grants are planned to be awarded in May of 2017. As part of the program, recipients will submit progress reports during the grant period.

### Website www.hsph.harvard.edu/health-happiness

A temporary website was developed for the initial launch of the Center, but now the Center has a permanent online website with the capacity to provide more information to a diverse audience. The new website was officially launched on December 1, 2016. The goals of the Center's online presence are to establish it as a hub of innovative and multidisciplinary research, foster interdisciplinary research among faculty and researchers across Harvard and other colleges and universities, and provide evidence-based information about well-being to researchers, practitioners, and policymakers.

# Advancing Rigorous and Interdisciplinary Science of Health and Happiness

The relationship between health and happiness goes both ways. Working at a meaningful job, spending time with friends and family, approaching life with optimism, getting regular exercise: all these may contribute to psychological and physical well-being. At the same time, being healthy provides the foundation for a happy life. But what is missing is the rigorous scientific evidence for why this is so and for how the physical and the emotional work together to promote good health.

This type of evidence is what researchers at the Lee Kum Sheung Center for Health and Happiness are working to uncover. The results will contribute to improving lives for millions of people around the world, as we learn more about the relationships between physical and psychological health and what policy-makers and leaders around the globe can do to create the conditions for happiness and health.

Independent, but mutually reinforcing, research projects are running concurrently over the Center's first three years: *Positive Health, Interventions to Improve Well-being,* and *Health Communications.* Integrating three key areas of focus—basic science research, intervention research, and translational and communication research—the Center will ultimately provide significant scientific leadership in this critical but neglected area of public health.

### **Health and Happiness Facts**

Conditions that may directly or indirectly be affected by emotional well-being include some of the world's biggest killers: heart disease, obesity, hypertension, tobacco-related diseases such as cancer, suicide, and conditions related to alcohol dependency and binge drinking. Following are a few statistics on happiness, and throughout this section are some of the diseases and conditions upon which happiness may have an impact.

#### HAPPINESS AROUND THE GLOBE

Research involving representative samples of 95 percent of the world's population suggests that "**emotions matter to health everywhere**." The emotion-health connection is not unique to certain countries, regions, or levels of economic development.

According to the United Nations 2016 World Happiness Report, which ranked 157 countries by the happiness of their populations: **Denmark ranked number one; the U.S. ranked 13th.** 

SOURCES: Is the Emotion-Health Connection a "First-World Problem?"; World Happiness Report 2016; Socio-economic development and emotion-health connection revisited: a multilevel modeling analysis using data from 162 counties in China

## **Positive Health**

## Positive Psychological Well-being and Cardiovascular Health

Professor Kubzansky is leading research to examine the relationship between psychological well-being and cardiovascular health. Together with her research team, Kubzansky has begun using existing data to identify which elements of well-being and happiness might serve as health assets and contribute to maintaining health, with a focus on the outcome of favorable cardiovascular health.

This research project seeks to measure the extent to which enhanced psychological well-being in adolescence is associated with favorable cardiovascular health in early adulthood, independent of known confounders, and will also assess potential behavioral mediators of these effects. To investigate this question, the team began by reviewing in detail 28 large, longitudinal studies of health currently being conducted in several countries worldwide. The review included assessment of data collected by each study with regard to whether datasets included measures of behaviors (e.g., physical activity), biomarkers (e.g., inflammation, lipids), and measures of psychological well-being. When such measures were available, the review also evaluated the quality of these measures, with attention to which facets of psychological well-being were assessed (e.g., multidimensional measures, optimism, self-esteem, social support).

The team identified two longitudinal studies containing the best possible data to investigate their questions: (1) the National Longitudinal Study of Adolescent to Adult Health (ADD Health), and (2) the Avon Longitudinal Study of Parents and Children (ALSPAC). ADD Health has followed 15,701 people in the United States for 14 years, and it includes a wide array of data on psychological functioning and cardiovascular health. Study participants enrolled during their teenage years, and, during the most recent wave of data collection, they were between 24 and 32 years old.

Similarly, ALSPAC follows about 14,500 children who were born in the early 1990s in Avon, England. Like ADD Health, ALSPAC contains several biomarker data points to complement a spectrum of measures on psychological functioning. Thus, both ADD Health and ALSPAC provide excellent opportunities to examine the relationship between psychological well-being and cardiovascular health. After successfully securing Institutional Review Board authorization for the studies, full access to the ALSPAC data has been approved, and the application to ADD Health is under review. Analyses of both datasets are planned to begin in April 2017.



## HEALTH AROUND THE GLOBE

## Globally

Cardiovascular diseases (CVDs) are the **number 1 cause of death** globally: Around the world, an estimated **17 million people** die of cardiovascular diseases, particularly heart attacks and strokes, every year.



About half of U.S. adults (47 percent) have at least one of the following major risk factors for heart disease or stroke: uncontrolled high blood pressure, uncontrolled high LDL cholesterol, or are current smokers.

The total costs of heart disease and stroke in 2010 were estimated to be **\$315.4 billion**.

SOURCES: Centre for Health Protection: Heart diseases; Department of Health: Coronary heart diseases; U.S. Centers for Disease Control and Prevention: Deaths and Mortality; U.S. Centers for Disease Control and Prevention: Burden of mental illness; World Health Organization Western Pacific Region Report; World Health Organization, Cardiovascular Disease Fact Sheet This work also includes an experimental component, whereby aspects of psychological well-being will be manipulated in a laboratory setting and effects on short-term health-related behaviors (e.g., food choice, willingness to exercise, and faster stress recovery) will be examined. Previous studies have shown that there is a relationship between psychological well-being and health behavior; however, the directionality of this relationship remains unknown. This experimental study is aimed to determine the causality between psychological well-being and healthier behavior. Findings from this study will allow us to test our hypothesis that higher levels of psychological well-being motivate healthy behaviors (such as engaging in more physical activity or eating a healthier diet), which could result in improved physical health. To date, an initial pilot study designed to assess a potential manipulation for optimism has been completed, and a second pilot study seeking to refine the manipulation that will be used in the lab study is underway. For each of these studies, Institutional Review Board approval has been obtained, and data for the first pilot have been analyzed. Findings suggested refinements to the manipulation were needed, thus leading to the initiation of a second pilot study.

In addition, Kubzansky led a prospective cohort study evaluating the association between optimism and cause-specific mortality in women. The study used prospective data from over 70,000 female participants of the Nurses' Health Study and found significant associations between increasing levels of optimism and decreasing risks of death from cancer, heart disease, stroke, respiratory disease, and infections.

The study, first-authored by Dr. Eric Kim, was published in the *American Journal of Epidemiology* in December 2016, (Kim, E. S., Hagan, K. A., Grodstein, F., DeMeo, D. L., De Vivo, I., & Kubzansky, L. D. (2017). *Optimism and Cause-Specific Mortality: A Prospective Cohort Study. American Journal of Epidemiology*, 185(1), 21-29) and received national media coverage from media outlets such as the New York Times, BBC News UK, and NPR, among others.

### HEALTH AROUND THE GLOBE Mental health conditions, including suicide and alcohol dependency

### D Globally

According to the World Health Organization, **unipolar depression** was the third most important cause of disease burden worldwide in 2004. Depression was in "**eighth place in low-income countries, but in first place in middle- and high-income countries**."

Anxiety disorders, which include panic disorder, generalized anxiety disorder, post-traumatic stress disorder, phobias, and separation anxiety disorder, are the **most common class** of mental disorders present in the general population.

### 틀 U.S.

Drinking too much alcohol is responsible for 88,000 deaths each year, more than half of which are due to binge drinking.

The economic costs of drinking too much alcohol were estimated to be **\$223.5 billion**.

**Suicide** accounted for more than **41,000 deaths** in 2013.

SOURCES: U.S. Centers for Disease Control and Prevention: Deaths and Mortality; U.S. Centers for Disease Control and Prevention: Burden of mental illness; Mind Map: Suicide in Hong Kong; South China Morning Post: More Hong Kong children commit suicide than die in accidents; Four in ten young Hongkongers have suicidal thoughts; Mind Map: Falling through the cracks; Brookings: Happiness and health in China; World Health Organization: Alcohol and alcohol related harm in China

### Measuring Positive Psychological Well-being

In their effort to provide research and evaluation tools to measure psychological well-being in a systematic and scientific way, Center investigators have evaluated a spectrum of positive psychological well-being measures that are available, and have established a repository of these measures. The repository, now available on the Center website, describes the positive psychological well-being dimensions measured by each scale, explains the scoring method, and presents relevant scientific references. This landscaping project involved identifying the spectrum of measures available for research on positive psychological well-being, determining which measures are commonly investigated in relation to physical health, and assessing which measures have the strongest predictive associations. Given the many existing measures identified, Center investigators are now evaluating if new measures of positive psychological well-being are needed and if so, for what types of research questions. If it is determined that new measures are required, then the Center will support the development and validation of a comprehensive, positive psychological well-being index that can be used in studies to evaluate the role of positive psychological well-being on physical health (for example, development of diseases and mortality) and also to evaluate if positive psychological well-being can help to explain social disparities in health.

## **Interventions to Improve Well-being**

### **Mindfulness and Physical Activity**

Professor Kirsten Davison is examining the effect of exercise and mindfulness-based practices on health and wellness of children and adolescents with behavioral health disabilities. The results of an exercise intervention in a therapeutic day school led by Davison were recently published in *Pediatrics* and showcased on a CBS news special: http://newyork.cbslocal.com/2017/01/27/cyber-cycling/.

Due to the widespread interest Davison has received from school districts across the country, she is currently planning next steps in the dissemination of this intervention. To this end, she has interviewed 20 parents of children who participated in the intervention to learn about the effect of the intervention on children's behaviors at home and extensions of the program that would interest families, such as the inclusion of a mindfulness component. In addition, she recently met with school leaders in Worcester (the second largest school district in Massachusetts) to discuss the possibility of their serving as a pilot dissemination site. She is drafting a protocol to test possible translation and dissemination strategies in two school districts and applications for supplemental funding for this work.



## HEALTH AROUND THE GLOBE

### Globally

**Tobacco kills around 6 million people each year.** More than 5 million of those deaths are the result of direct tobacco use, while more than 600,000 are the result of nonsmokers being exposed to secondhand smoke.

There are **more than a billion smokers worldwide**, and more than 80% live in low- or middle-income countries.

The World Health Organization estimates that, globally, smoking **causes over US\$500 billion** in economic damage each year.



More than **42 million adults**—close to 1 of every 5—said they smoked cigarettes in 2012. Cigarette smoking accounts for more than **480,000 deaths** each year.

For the years 2009–2012, economic cost due to smoking is estimated to be more than **\$289 billion** a year.

SOURCES: Tobacco Use Insights: The economic impact of smoking and reducing smoking prevalence; WHO Tobacco Fact Sheet; U.S. Centers for Disease Control and Prevention: Deaths and Mortality; U.S. Centers for Disease Control and Prevention: Burden of mental illness; Centre for Health Protection: Cigarette smoking statistics; Lancet: Contrasting male and female trends in tobacco attributed mortality in China

## **Health Communications**

### **Communication and Translation of Science to Promote Happiness and Well-Being**

Professor Viswanath is examining the role of health communications on physical and psychosocial well-being, resilience, and happiness to inform effective communication interventions. In the first phase of this project, Viswanath and his research team have begun reviewing the literature on the relationship between communication and emotions, and how emotions have been used in health communications to promote health. The review focused on 75 of the most relevant articles published in the last five years.

The team reviewed academic and public article databases, including PubMed, the Pew Research Center publications, and Google Scholar using the search terms "emotion," "mass media," and "communication science." In terms of topics, research has focused on smoking cessation, crisis management, political sentiment, and the negative emotional impact of media use. Emotions most commonly studied were anxiety, anger, fear, jealousy, stress, and negative/positive sentiment, emotion, or mood. The journals that most commonly published articles on emotional sentiment and media included *Cyberpsychology, Behavior, and Social Networking, PlosOne*, and the *Journal of Health Communication*. The media

### HEALTH AROUND THE GLOBE Obesity, diabetes, and lifestyles that contribute to them

### 💮 Globally

Worldwide, the rate of **obesity has nearly doubled** since 1980, with just over 200 million adult men and just under 300 million adult women who are obese.

Obesity rates have been steadily rising in children, too: In 2010, **43 million preschool children were overweight** or obese, a 60 percent increase since 1990.

In 2014, an estimated **9 percent of adults** around the world had diabetes, and in 2012, an estimated **1.5 million deaths** were linked to the disease; more than 80 percent of these deaths occur in low- or middle-income countries.

By 2030, the World Health Organization estimates that diabetes will be the **seventh-leading cause of death** around the world.

## 를 U.S.

Medical costs linked to obesity were estimated to be **\$147 billion** in 2008.

The total estimated cost of diagnosed diabetes in 2012 was **\$245 billion**, including \$176 billion in direct medical costs and \$69 billion in decreased productivity.

In 2011, more than half (52 percent) of adults aged 18 years or older **did not meet recommendations for aerobic exercise** or physical activity.

In 2011, more than one-third (36 percent) of adolescents and 38 percent of adults said they **ate fruit less than once a day**, while 38 percent of adolescents and 23 percent of adults said they ate vegetables less than once a day.

SOURCES: WHO Fact Sheet on Diabetes; Harvard T.H. Chan School of Public Health Obesity Prevention Source; U.S. Centers for Disease Control and Prevention: Deaths and Mortality; International Diabetes Federation; Centre for Health Protection: Statistics on behavioral risk factors; Centre for Health Protection: Physical activity levels; Centre for Health Protection: fruit and vegetable consumption; International Diabetes Federation China Report; The Lancet Diabetes in China focus of most of the articles were sources like Facebook, films, television, Twitter, and other social networking sites. Authors were frequently interested in the impact of social media use on relationships, life satisfaction, and self-perception. Additionally, numerous books on the impact of mass communication on cognition, social problems, and affect, which were originally printed in the 1970s and 1980s, have been reprinted in the past five years, suggesting a renewed interest in these topics. This review suggests that the communication science field focuses most of its research on negative emotions with a skewed focus on a few of the most popular social media sites.

Drawing on initial landscaping work, Viswanath and his team are preparing to conduct a survey of diverse population groups to examine the relationship among communication, well-being, and health outcomes. The data for this study will come from a survey of Massachusetts residents, and will involve two samples that will complement each other.

The general residents' survey will be conducted in collaboration with GfK, a public opinion and market research firm that specializes in survey research. GfK maintains the KnowledgePanel, a cohort of respondents that has been built based on two types of sampling: address-based and random-digit dialing. As a result, this panel also includes people with exclusive use of cell phones, making it relatively more representative of the general population. Surveys are administered over the internet, and respondents with no internet connection are provided with hard copies. Viswanath's team will administer surveys from 500 Massachusetts residents and GfK will survey an additional 500 Massachusetts residents with an oversample of rural residents, which will allow the team to cover urban and rural areas in sufficient numbers.

In addition, Viswanath will work with community partners to recruit members from different population subgroups from the communities of Boston (>50% minority) and Lawrence (80% Hispanic). The population subgroups of interest are (a) the homeless population, (b) African-Americans, (c) Hispanics, (d) people in lower socioeconomic position groups, especially those below the federal poverty level, and (e) blue-collar workers. These groups are generally underrepresented in general population surveys.

The team is close to finalizing a questionnaire to determine psychological well-being (happiness) health communication information exposure, information engagement, internet behaviors and barriers, mobile health use, patient innovation, and dimensions of socioeconomic position. A subsample of the participants will use smartphones to collect additional data using censors to track emotions and information exposure in real time by adapting an ecological momentary assessment approach. This will allow the team to track smartphone use and browsing behavior, and the data will be analyzed using sentiment analysis and natural language processing methods.

"Would you rather live a long, happy, and healthy life, or a life that is merely without disease? Medical and psychological practice and research have traditionally focused on the diseases and deficits that cause poor health. But there is real value in focusing on the positive side as well—the assets that keep us healthy or help us recover more quickly from disease and injury. More rigorous research is urgently needed to understand these positive assets and how to promote them for millions of people around the world."

—**Professor Laura Kubzansky,** the Lee Kum Kee Professor of Social and Behavioral Health at the Harvard Chan School and co-director of the new Center

# **Building Interfaculty Initiatives at Harvard University**

The Center is convening faculty, researchers, postdoctoral fellows, and graduate students from across Harvard University through collaborations, roundtables, working groups, seminars, and workshops to leverage their expertise in various disciplines and help identify and prioritize key areas of research for the Center. The activities will position the Center as the University's multidisciplinary hub for the science of health and happiness.

### **Establishing Collaboration with Centers across Harvard**

The Osher Center for Integrative Medicine is a collaboration between Harvard Medical School and Brigham and Women's Hospital that focuses on enhancing human health, resilience, and quality of life through research and education. The Osher Center served as an official cosponsor of the first lecture of the Center's seminar series that took place in February, and is committed to cosponsoring and promoting future events that align with their mission of promoting integrative medicine. Professor Kubzansky and Dr. Peter Wayne, research director of the Osher Center, have discussed potential collaborative efforts of both centers, and will continue to explore future opportunities for partnership in research and programming.

The Harvard Center for Population and Development Studies—a University-wide initiative whose goal is to produce population-based evidence that will better inform policies needed to create resilient and vital societies—cosponsored the Center's interdisciplinary workshop on workplace well-being that took place on June 14, 2016, and has continued collaborative efforts with Center investigators for research in this area. In addition, Kubzansky and Professor Lisa Berkman, director of the Harvard Center for Population and Development Studies, have applied for research funding (submitted January 2017), and have discussed potential additional collaborative efforts of both centers. They will continue to explore future opportunities for partnership in research and programming, which may include cosponsoring seminars, workshops, and research.

### **Harvard Faculty Roundtable**

The Center sponsored two roundtable discussions on the interdisciplinary science of positive health and well-being and its influence on practice and policy. The first meeting, which took place on July 18, 2016, brought together individuals from across the Harvard community (*see list opposite*) to discuss relevant research already in progress within Harvard, share ideas, and explore possibilities for collaboration and synergy within this network of investigators. A follow-up meeting on November 8, 2016, focused on the formation of working groups to explore areas of shared interest, such as measurement, resilience, and mindfulness.

Name	Research Expertise
<b>Tyler VanderWeele, PhD</b> Professor of Epidemiology, Harvard Chan School	Perinatal, psychiatric, and genic epidemiology; social sciences; and the study of religion and health
Michael Norton, PhD Professor of Business Administration, Harvard Business School	Effects of social norms on attitudes and behavior and the role of social factors in shaping individual preferences
<b>Leslie John, PhD</b> Assistant Professor of Business Administration, Harvard Business School	Marketing and public policy; how firms' behavior and policy initiatives interact to affect consumer well-being; consumer privacy and health
<b>Justin Chen, MD, MPH</b> Massachusetts General Hospital Department of Psychiatry Instructor in Psychiatry, Harvard Medical School	Cross-cultural psychiatry, stigma, mental health services disparities, collaborative care, psychodynamic psychotherapy and placebo responses
<b>David Vago, PhD</b> Associate Psychologist in the Functional Imaging Laboratory, Brigham and Women's Hospital Instructor, Harvard Medical School	Utilizing translational models to identify and characterize neurobiological substrates mediating psychopathology; mindfulness-based interventions in clinical settings; mind- brain-body interactions
Sara Lazar, PhD Neuroscientist at Massachusetts General Hospital and Harvard Medical School	Use of neuroimaging techniques to study the neurological, cognitive, and emotional changes associated with the practice of meditation and yoga
<b>Jeff Huffman, MD</b> Director, Cardiac Research Program, Massachusetts General Hospital Assistant Professor of Psychiatry, Harvard Medical School	Connection between psychology, health behavior, and cardiovascular disease; the role of positive thoughts and emotions in cardiovascular health
<b>Amy Cuddy, PhD</b> Associate Professor of Business Administration, Harvard Business School Visiting Faculty, Harvard T.H. Chan School of Public Health	Experimental methods to investigate how people judge each other and themselves, how people embody and express competence and warmth; linking body language to feelings, physiology, and behavior
<b>David R. Williams, PhD</b> Professor of Public Health, Harvard Chan School	Social influences of health, race, racism, socioeconomic status, stress, health behaviors, and religious involvement and their effects on physical and mental health
Claudia Trudel-Fitzgerald, PhD Research Fellow, Harvard Chan School	Health psychology and social epidemiology; psychological adjustment to chronic illness, cancer, cardiovascular diseases, anxiety, depression
Eric Kim, PhD Research Fellow, Harvard Chan School	Resilience and psychological well-being; cardiovascular health; positive emotions; optimism; purpose in life
<b>Peter Wayne, PhD</b> Assistant Professor of Medicine, Harvard Medical School Research Director, Osher Center for Integrative Medicine, Brigham and Women's Hospital	Evaluating how mind-body and related complementary and alternative medicine practices clinically impact chronic health conditions; understanding the physiological and psychological mechanisms underlying observed therapeutic health effects

Name	Research Expertise
<b>Joel Salinas, MD, MBA, MSc</b> Clinical and Research Fellow, Neurology at Massachusetts General Hospital	The science and application of preventative neurology and cognitive medicine, identifying modifiable risk factors for developing depression after stroke
<b>Julia Africa, MdesS</b> Program Leader, Nature, Health, and the Built Environment Program, Harvard Chan School	Evaluating the ways in which nature and natural design cues in urban settings support psychological and physiological health and resilience
<b>Jennifer Lerner, PhD</b> Professor of Public Policy and Management, Harvard Kennedy School of Government Co-Founder, Harvard Decision Science Laboratory	Human judgement and decision making, drawing insights from psychology, economics, and neuroscience
<b>Ramon Sanchez Pina, ScD</b> Director, Sustainable Technologies and Health Program, Harvard Chan School	Corporate sustainability, sustainable manufacturing and product design, urban climate change preparedness
James L. Ritchie-Dunham, PhD President, Institute for Strategic Clarity	Foundations of strategy, large-scale social change and ecosynomics
Shoba Ramanadhan, ScD, MPH Senior Scientist, Center for Community-Based Research at Dana-Farber Cancer Institute Research Scientist, Harvard Chan School	Supporting the use of evidence-based programs in community-based organizations, capacity building programs and social network development to promote the use of research evidence in community settings
Nancy Etcoff, PhD Assistant Clinical Professor in Psychology, Harvard Medical School and Massachusetts General Hospital	Neuroscience of emotion, perception of beauty, face perception and subjective well-being
<b>Kirsten Davison, PhD</b> Associate Professor of Nutrition, Harvard Chan School	Family- and community-level factors that influence children's lifestyle behaviors and risk of obesity; mindfulness and exercise on health and wellness of children and adolescents with behavioral health disabilities
<b>Greg Wagner, MD</b> Director of the National Institute for Occupational Safety and Health, US Centers for Disease Control and Prevention Adjunct Professor of Environmental Health, Harvard Chan School	Science behind occupational and environmental policies and regulations, limits of regulatory health protective strategies
John Spengler, PhD Professor of Environmental Health and Human Habitation, Harvard Chan School	Population exposures to contaminants in homes, offices, schools, and the outdoor environment and their effects on health
<b>Gloria Yeh, MD, MPH</b> Associate Professor of Medicine, Harvard Medical School, Director of Mind-Body Research, Beth Israel Deaconess Medical Center	Complementary and integrative medicine, mind-body therapies, complex chronic disease
Linda Powers Tomasso, MSFS Project Associate, Health and Places Initiative, Harvard Chan School	Environmental policy research and sustainable land use in urban expansion; standards for incorporating healthy materials into rapidly growing and built environments

## **Center Working Groups**

The Center is providing support and assistance for working groups on topics of interest that came out of the November faculty roundtable meeting. In this first year, the Center has committed to supporting up to three or four working groups composed of a small set of diverse faculty across the University. The goal of these working groups is to meet and deliberate over the course of a year, and engage in activities to advance the science of health and happiness on identified topics, with the potential to produce white papers, review articles, and grant proposals.

An eight-member working group, led by Professor Tyler VanderWeele and research fellow Claudia Trudel-Fitzgerald, has been formed to explore the challenges related to well-being measurement and research. Specifically, working group members will investigate the differences between various dimensions of psychological well-being, the differences in the ways various dimensions of psychological well-being are related to physical health, risk of chronic disease and mortality, and how to interpret the various measures that exist in the field.

### **Affiliate Scientists**

Harvard faculty will soon be invited to serve as Center affiliate scientists. Professors Kubzansky and Viswanath have developed guidelines and qualifications for members, and plan to send formal invitations and membership applications to potential affiliate scientists by April 2017.

### **Interdisciplinary Workshops and Projects**

In June 2016, Professor Kubzansky, along with the Harvard Center for Population and Development Studies and MIT Sloan School of Management's Institute for Work and Employment Research, convened a workshop entitled "Workplace Redesign and Worker Well-being: An Innovative Focus on Workplace Policies and Practices."

The small, exploratory workshop brought together an interdisciplinary group of scholars and professionals who were interested in exploring (a) different frameworks for improving employee well-being by changing workplace organization, policies, and practices; (b) a perspective that incorporated a broader definition of well-being rather than focusing largely on employee health-related behaviors or mental health problems; (c) key theoretical and empirical questions coming out of the discussion that would be useful to research; and (d) what data are or are not available to answer these questions. The meeting was unusual in the breadth of expertise around the table, which opened the door for a highly creative discussion. A secondary objective was to discuss opportunities for future meetings and workshops, identifying funding opportunities, and disseminating this framework in a larger national or international context.

In a related vein, a grant proposal to conduct research into how business leaders support the well-being of their employees and the surrounding communities by developing policies and strategies that create a culture of health was developed and recently approved for funding by the Robert Wood Johnson Foundation. This research will be facilitated through a University-wide initiative entitled Making the Culture of Health a Business Imperative, and will be led by Dr. Howard Koh, one of the Center's scientific advisory board members. Professor Viswanath will serve as principal investigator of a project within this initiative to study the qualities of senior corporate leaders to promote a culture of health. The goal of the project is to examine how business leaders in the 21st century manage and lead change to promote a culture of health and well-being within their organizations and the communities in which they operate, and what attributes they bring to this process. While there is considerable scholarly and popular literature on the attributes of a good leader, there is very limited literature on leadership qualities necessary to promote a culture of health in

times of rapid social changes. This project proposes to examine qualities of successful leaders and leadership that have promoted a culture of health and well-being.

The Lee Kum Sheung Center and the Harvard Program on Integrative Knowledge and Human Flourishing are now planning to host an interdisciplinary workshop on happiness and well-being in 2018. The goal of the workshop is to examine recent empirical research on the causes and correlates of happiness and the philosophical and theological traditions on happiness and good life. The workshop will consider what is known empirically about how different measures of well-being relate to health, various arguments that might be put forward concerning specific measures of happiness and well-being in different contexts, and how this area of research can best manage the proliferation of different measures and concepts within the field. Participation in the workshop will be by invitation only, with the intent of including leading academics from across the world who are conducting work in this area. Papers resulting from the workshop will be published in a journal special issue on happiness and well-being.

### **Center Inquiries**

Since its launch in spring 2016, the Center has been inundated with requests to collaborate and establish partnerships with individuals and groups outside of Harvard University. The Center has received over 50 inquiries, including formal requests for research collaborations, employment, and volunteer and student opportunities. Working closely with the Office for External Relations, the Center has developed systems and processes for vetting these invitations and for assessing if such partnerships might benefit the Center.

"Happiness is often talked about as if it were a cute catchphrase. But in fact, happiness is a product of how one is engaged with the world. If one is being treated inequitably in society or lives in poverty, there may be physical factors that influence one's health, such as limited access to nutritious food or health care. In addition, one's opportunities for engagement with the world and with other people may be limited. This Center will enable us to investigate in a systematic and rigorous way the factors that promote engagement, communication, community, and connection with others, and how engagement or lack of engagement can influence happiness and ultimately health."

-**Professor K. "Vish" Viswanath**, the Lee Kum Kee Professor of Health Communication at the Harvard Chan School and co-director of the new Center

# **Center Members and Affiliates**

An important component of the gift from the Lee Kum Kee family that created the Center for Health and Happiness is the establishment of two professorships within the Department of Social and Behavioral Sciences at the Harvard Chan School. Endowed professorships have been a Harvard tradition for nearly 300 years, and they are the highest honor bestowed upon current faculty members at the University. These professorships establish a permanent legacy and are an essential means of attracting and retaining faculty talent.



### Professor Laura Kubzansky, Co-director

Lee Kum Kee Professor of Social and Behavioral Sciences

Professor Laura Kubzansky is co-director of the Center and director of the Society and Health Laboratory at the Harvard Chan School. She also serves as co-director of the JPB Environmental Health Fellowship Program. Kubzansky received her PhD in social psychology from the University of Michigan, and completed a two-year postdoctoral fellowship in social epidemiology, as well as obtained her master of public health, from the Harvard Chan School. Kubzansky has published extensively on the role of psychological and social factors in health, with a focus on the effects of stress and emotion on heart disease. She also conducts research on whether stress, emotion, and other psychological factors help to explain the relationship between social status and health. Other research projects and interests, include a) biological mechanisms linking emotions, social relationships, and health; b) relationships between early childhood environments, resilience, and healthy aging, and; c) how psychosocial stress or assets may interact with toxic environmental exposures (e.g., lead, air pollution) to influence health.

Kubzansky has advised numerous graduate students and postdoctoral fellows as a mentor, academic advisor, and dissertation committee member. She is a fellow in the American Psychological Association and the Academy of Behavioral Medicine Research. She has served as senior advisor to the Robert Wood Johnson Foundation-funded Positive Health Research program, as a member of the Centers for Disease Control and Prevention Healthy People 2020 Health-Related Quality of Life and Well-Being Workgroup, and as a member of the American Heart Association Science of Well-Being Expert Panel. She is a principal or co-investigator on a wide variety of grants funded through the Veterans Administration, Robert Wood Johnson Foundation, Environmental Protection Agency, and the National Institutes of Health, among others.



#### Professor Kasisomayajula "Vish" Viswanath, Co-director

Lee Kum Kee Professor of Health Communication

Also serving as the co-director of the Center, Professor K. "Vish" Viswanath holds a joint appointment at the MacGraw-Patterson Center for Population Sciences at the Dana-Farber Cancer Institute and is the director of the Center for Translational Health Communication Science at the Harvard Chan School and Dana-Farber Cancer Institute. Viswanath's work—drawing from literature in communication science, social epidemiology, and social and health behavior sciences—focuses on translational communication science to influence public health policy and practice. His primary research is in documenting the relationship between communication inequalities, poverty, and knowledge translation to address health disparities.

He has written more than 200 journal articles and book chapters concerning communication inequalities and health disparities, knowledge translation, public health communication campaigns, e-health and digital divide, public health preparedness, and the delivery of health communication interventions to underserved populations. He is the co-editor of three books: *Mass Media, Social Control and Social Change* (Iowa State University Press, 1999), *Health Behavior and Health Education: Theory, Research & Practice* (Jossey Bass, 2015), and *The Role of Media in Promoting and Reducing Tobacco Use* (National Cancer Institute, 2008). He was also the editor of the social and behavioral research section of the 12-volume *International Encyclopedia of Communication* (Blackwell Publishing, 2008).

In recognition of his academic and professional achievements, Viswanath has received several awards, including the Joseph W. Cullen Memorial Award for Excellence in Tobacco Research, American Society for Preventive Oncology (2014); the Dale Brashers Distinguished Mentorship Award, National Communication Association (2013); Outstanding Health Communication Scholar Award (2010), jointly given by the International Communication Association and the National Communication Association; and Mayhew Derryberry Award from the American Public Health Association for his contribution to health education research and theory (2009).



**Natasha Rossi** is the administrator for the Center, overseeing day-to-day operations and providing strategic and managerial support for the administrative and research activities of both the Center and the co-directors.



**Kirsten Davison** is the Donald and Sue Pritzker Associate Professor of Nutrition in the Departments of Nutrition and Social and Behavioral Sciences at the Harvard Chan School. She is also the director of the graduate program in public health nutrition. Her research focuses on family- and community-level factors that influence children's lifestyle behaviors (diet, physical activity, screen-based activities) and risk of obesity. Key topics that she has researched to date include familial clustering of risk behaviors linked with accelerated weight gain in children, psychosocial consequences of obesity in children, parenting strategies that promote active lifestyles in children, and developmental and contextual factors that explain declines in adolescent girls' physical activity. More recently, her work has focused on the development and evaluation of family-centered interventions for obesity prevention in low-income children, including children enrolled in WIC and Head Start. A primary emphasis of these programs is the need to consider the family unit as a whole, and address factors beyond the family (e.g., community resources, media factors) that have impact on intrafamilial

interactions around healthy lifestyles. A secondary focus of Davison's work is the development and application of conceptual models that foster a stronger understanding of the contextual, developmental, and behavioral origins of obesity in children and adolescents.



**Scott Delaney** is an attorney and doctoral student of social and psychiatric epidemiology at the Harvard Chan School. He studies how psychological well-being and distress change brain function throughout one's life. His research relates to a broad spectrum of settings, from elementary school-based interventions to programs encouraging psychological and physical well-being in aging populations, and even to juvenile and criminal justice systems.



**Hayami Kikuchi** is a physician from Japan. She received her master of public health from the Harvard Chan School, and is currently working to gain research experience with the goal of eventually obtaining her PhD. She is interested in the relationship between psychological well-being and motivations for healthy behaviors, such as improved diet and higher levels of physical activity. She is working closely with Professor Kubzansky on intervention studies that examine the relationship between psychological well-being and physical health.



**Eric Kim** is a research fellow in the Department of Social and Behavioral Sciences and conducts work under the mentorship of Professor Kubzansky. His research is focused on the various ways that people pursue the good life, specifically through purpose in life, personal growth, optimism, resilience, and positive emotions, and how these pursuits influence various health behaviors and outcomes, with a focus on cardiovascular health. Kim was recognized as one of Forbe's *30 Under 30 in Healthcare* and one of the *Top 30 Thinkers Under the Age of 30* by Pacific Standard. He is a recipient of the Horace H. Rackham Predoctoral Fellowship, awarded for the top dissertation ideas at the University of Michigan, where Kim earned his PhD in clinical psychology. He is also the recipient of several organizational awards for both leadership and teamwork. Together with Kubzansky, Kim conducted a study that demonstrates a significant association between optimism and decreasing risks of death from cancer, heart disease, and infections. The study resulted in a first-authored manuscript in the *American Journal of Epidemiology* in December 2016.



**Rachel McCloud** received her doctorate in social and behavioral sciences from the Harvard Chan School, where she focused her studies on health communication in community-based settings. She also holds a master of public health in behavioral science and health education from the Emory University Rollins School of Public Health and a BA in sociology and an ABJ in magazine journalism from the University of Georgia. McCloud's dissertation work focused on health information engagement among individuals from low socioeconomic position, with an emphasis on how internet technology impacts communication inequalities. Her work continues to focus on the impact of smartphones and other devices in data gathering and disease prevention, and she is working with Professor Viswanath on the health communications research project for the Center.



**Shoba Ramanadhan** is a senior scientist at the Center for Community-Based Research at the Dana-Farber Cancer Institute and a research scientist in the Department of Social and Behavioral Sciences at the Harvard Chan School. Her research focuses on supporting the use of evidence-based programs in community-based organizations, particularly those serving vulnerable populations. She is interested in the potential for capacity-building programs and social network development to promote the use of research evidence in community settings. Much of her work uses a community-based participatory research approach. She received her doctorate from the Harvard Chan School, her master of public health in health management from the Yale School of Public Health, and her BA in biology from Cornell University. Ramanadhan is working with Professor Viswanath on the health communications project for the Center.



**Claudia Trudel-Fitzgerald** is a postdoctoral fellow in the Department of Social and Behavioral Sciences at the Harvard Chan School. She completed her PhD in clinical psychology at Laval University in Quebec City, Canada, with expertise in health psychology. The focus of her postdoctoral work is to investigate the psychological risk factors of chronic diseases and the extent to which health behaviors may act as a mechanistic pathway. She is also interested in identifying optimal ways of measuring positive psychological well-being in relation to physical health outcomes, as part of her work for the Center.



**Christiana von Hippel** is a third-year doctoral student in the Department of Social Behavioral Sciences at the Harvard Chan School. Her research explores how and why individuals innovate and communities organize to create solutions to better prevent and manage disease outside of the top-down health care system. Her dissertation specifically focuses on the phenomenon of patient innovation among young women with breast cancer, and how the coping strategies they develop may improve their quality of life in survivorship.

### **Scientific Advisory Board**

The Center has formed a five-person scientific advisory board to provide guidance on critical Center activities, goals, research priorities, and programming. Members will evaluate relevant science in the field and suggest areas of investment for the Center, such as recruitment, research funding, and other activities. The scientific advisory board will meet once a year, with the first convening planned for the fall of 2017.



Jo Ivey Boufford is president of the New York Academy of Medicine. Dr. Boufford is professor emeritus of public service, health policy, and management at the Robert F. Wagner Graduate School of Public Service and clinical professor of pediatrics at New York University School of Medicine. She is co-director of the National Program Office of the Robert Wood Johnson Foundation Health and Society Scholars Program. She served as dean of the Robert F. Wagner Graduate School of Public Service at New York University from June 1997 to November 2002. Prior to that, she served as principal deputy assistant secretary for health in the U.S. Department of Health and Human Services (HHS) from November 1993 to January 1997, and as acting assistant secretary from January 1997 to May 1997. While at HHS, she served as the U.S. representative on the executive board of the World Health Organization from 1994 to 1997. From May 1991 to September 1993, Boufford served as director of the King's Fund College, London, England. She served as president of the New York City Health and Hospitals Corporation, the largest municipal system in the U.S., from December 1985 until October 1989. In 2010, she was appointed by Governor Cuomo to serve on the New York State Public Health and Health Planning Council. She currently serves as vice chair of the council and chair of its public health committee. She also serves on the board of the United Hospital Fund and the Regional Plan Association in New York. Boufford was awarded a Robert Wood Johnson Health Policy Fellowship at the Institute of Medicine in Washington, D.C. from 1979 to 1980. She served as a member of the National Council on Graduate Medical Education from 1998 to 2002 and the National Advisory Council for the Agency for Healthcare Research and Quality from 1997 to 2002. She was president of the National Association of Schools of Public Affairs and Administration in 2002-2003. Elected to membership in the Institute of Medicine (now National Academy of Medicine) in 1992, she served as its foreign secretary from 2005 to 2015 and is a member of its board on global health. She received honorary doctorate of science degrees from the State University of New York in May 1992, New York Medical College in May 2007, Pace University in May 2011, and Toledo University in June 2012. She was elected a fellow of the National Academy of Public Administration in 2005. She has been a fellow of the New York Academy of Medicine since 1988 and a trustee since 2004. Boufford attended Wellesley College for two years and received her BA in psychology magna cum laude from the University of Michigan, and her MD, with distinction, from the University of Michigan Medical School. She is board certified in pediatrics.



Andrew Steptoe is director of the Institute of Epidemiology and Health Care and British Heart Foundation Professor of Psychology at the University College London (UCL). He graduated from Cambridge University in 1972, and completed his doctorate at Oxford University in 1975. He moved to St. George's Hospital Medical School in 1977, becoming professor and chair of the department in 1988, where he remained until his appointment in 2000 to UCL. He became deputy head of the department of epidemiology and public health at UCL in 2005 and subsequently head of the department before being appointed director of the Institute in 2011. He is a past president of the International Society of Behavioral Medicine and is a fellow of the Academy of Medical Sciences, the British Psychological Society, Academia Europaea, and the Academy of Social Sciences. He is founding editor of the British Journal of Health Psychology; an associate editor of Psychophysiology, Annals of Behavioral Medicine, British Journal of Clinical Psychology, International Journal of Rehabilitation and Health, and Journal of Psychosomatic Research; and is on the editorial boards of seven other journals. Steptoe directs the Psychobiology Group and the English Longitudinal Study of Ageing research group at UCL. He has published more than 400 peer-reviewed articles and is author or editor of 18 books, most recently the Handbook of Behavioral Medicine (2010) and Stress and Cardiovascular Disease (2012).



Suzanne Segerstrom's research primarily addresses the influence of individual differences in personality, cognition, and emotion on psychological health and physiological functions. She is particularly interested in understanding how aspects of self-regulation, including personality, behavior, and executive cognitive function affect well-being and health. She has worked on the questions of how personality factors (e.g., optimism) affect the way that people approach and pursue their goals, what the costs and benefits of goal pursuit are, and especially how acts of self-regulation affect cardiovascular, neuroendocrine, metabolic, and immune function. She currently has two National Institutes of Health-funded studies. One, with Leslie Crofford, MD, examines the health consequences of motivation and goal pursuit in older women in a longitudinal "burst" design. The other is a longitudinal study of the effects of self-regulation and especially self-regulatory capacity on psychological and physical health and physiology in older adults. She and her students are also actively pursuing a line of research on cognitive self-regulation as it is manifested in repetitive thought (e.g., worry, rumination, cognitive processing, and related concepts). This research is currently focused on understanding the structure of repetitive thought, the best ways to measure repetitive thought, its neuropsychological correlates, and its psychological and physiological consequences. Segerstrom received her MA in psychology and her PhD in clinical psychology from the University of California, Los Angeles.



**Howard K. Koh** is the Harvey V. Fineberg Professor of the Practice of Public Health Leadership at the Harvard Chan School and the Harvard Kennedy School. He is also co-chair of the Harvard Advanced Leadership Initiative. In these roles, he advances leadership education and training at the Harvard Chan School, Harvard Kennedy School, Harvard Business School, and across Harvard University.

From 2009 to 2014, Dr. Koh served as the 14th Assistant Secretary for Health for the U.S. Department of Health and Human Services (HHS), after being nominated by President Barack Obama and being confirmed by the U.S. Senate. During that time, he oversaw 12 core public health offices, including the Office of the Surgeon General and the U.S. Public Health Service Commissioned Corps; 10 regional health offices across the nation; and 10 presidential and secretarial advisory committees. He also served as senior public health advisor to the secretary of HHS. During his tenure, he promoted the disease prevention and public health dimensions of the Affordable Care Act, advanced outreach to enroll underserved and minority populations into health insurance coverage, and was the primary architect of landmark HHS strategic plans for tobacco control, health disparities (including Asian American and Pacific Islander health), and chronic hepatitis. He also led interdisciplinary implementation of Healthy People 2020 and the National HIV/AIDS Strategy, as well as initiatives in a multitude of other areas, such as nutrition and physical activity (including HHS activities for Let's Move!), cancer control, adult immunization, environmental health and climate change, women's health, adolescent health, behavioral health and substance abuse, health literacy, multiple chronic conditions, organ donation, and epilepsy. Koh previously served at the Harvard Chan School (2003-2009) as the Harvey V. Fineberg Professor of the Practice of Public Health, associate dean for public health practice, and director of the School's Center for Public Health Preparedness. He has served as principal investigator for over \$24 million in research grant activities, and has published more than 250 articles in the medical and public health literature. His writings address areas such as health reform, disease prevention and health

promotion, health disparities, tobacco control, cancer control, melanoma and skin oncology, public health preparedness, health literacy, health issues of the homeless, and public health leadership. Koh was commissioner of public health for the Commonwealth of Massachusetts (1997-2003) after being appointed by Governor William Weld. As commissioner, Koh led the Massachusetts Department of Public Health, which included a wide range of health services, four hospitals, and a staff of more than 3,000 professionals. In this capacity, he emphasized the power of prevention and strengthened the state's commitment to eliminating health disparities. During his service, the state saw advances in areas such as tobacco control, cancer screening, bioterrorism response after 9/11 and anthrax, health issues of the homeless, newborn screening, organ donation, suicide prevention, and international public health partnerships. Koh graduated from Yale College, where he was president of the Yale Glee Club, and the Yale University School of Medicine. He completed postgraduate training at Boston City Hospital and Massachusetts General Hospital, serving as chief resident in both hospitals. He has earned board certification in four medical fields: internal medicine, hematology, medical oncology, and dermatology, as well as a master of public health degree from Boston University. At Boston University Schools of Medicine and Public Health, he was professor of dermatology, medicine, and public health, as well as director of cancer prevention and control.



**Steven Gortmaker** is professor of the practice of health sociology in the Department of Social and Behavioral Sciences at the Harvard Chan School. His research is focused on the health of children and adolescents, particularly households living in poverty and minority populations. The major goal of this research has been to identify modifiable risks for morbidity and mortality in the young, and to both initiate and evaluate interventions to improve these outcomes. He has focused on a broad variety of risks, ranging from income poverty, social stress, and social networks to behaviors such as smoking, physical activity, television and other screen time, and diet. His interventions include national and state policy, and programs at the regional, county, school, hospital, clinic, and individual level. His research includes collaborative work with groups at Harvard, in the Boston area, nationally, and internationally.

Gortmaker directs the School's Prevention Research Center (HPRC). Established in 1998, the HPRC is one of 33 centers funded by the Centers for Disease Control and Prevention. Its mission is to work with community partners to design, implement, and evaluate programs that improve nutrition and physical activity, while reducing obesity and chronic disease risk among children and youth. HPRC projects involve community partners in every phase: conceptualization, design, planning, implementation, and evaluation. Their long-term goals are to build community capacity to implement and evaluate effective prevention programs and to advance national knowledge regarding interventions that promote nutrition and physical activity.

Gortmaker also leads the Childhood Obesity Intervention Cost-Effectiveness Study (CHOICES) project, a collaboration between the Harvard Chan School, Columbia University, and research partners at Deakin and Queensland Universities. The CHOICES research team is producing recommendations for 40 cost-effective childhood obesity intervention strategies for a range of settings, including local, state, and national governments, businesses, communities, and schools.



On May 10 and 11, the opening of the Lee Kum Sheung Center for Health and Happiness at the Harvard T.H. Chan School of Public Health was celebrated with a ribbon-cutting ceremony, luncheon, tour of the new Center, and a reception and dinner on the Harvard University campus.

### Contact

For all Center-related inquiries, please contact Natasha Rossi, administrator for the Lee Kum Sheung Center for Health and Happiness, by email at **NRossi@hsph.harvard.edu** 

To learn more about the Lee Kum Sheung Center for Health and Happiness, visit **www.hsph.harvard.edu/** health-happiness/



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