



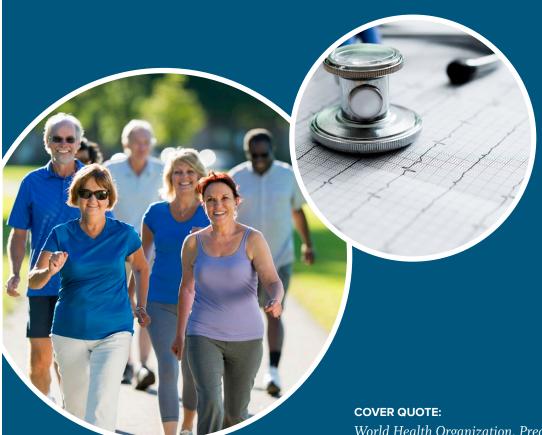
"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."



HARVARD T.H. CHAN SCHOOL OF PUBLIC HEALTH

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World Health Organization. Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19–22 June, 1946. Official Records of the World Health Organization. Geneva, Switzerland: World Health Organization; 1946.

#### **Greetings from the Center Co-directors**

We are delighted to share the second 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. Since our launch in April 2016, we have made strong progress in advancing the interdisciplinary science of happiness and health.

As we reflect on an exciting and productive 2017, we are pleased to share some of the highlights of the Center's work and activities. In particular, we have established the Center's programming, research and translational efforts while also building interfaculty initiatives within the Harvard community and beyond. We have convened faculty, researchers and postdoctoral fellows, and graduate students from across Harvard in a variety of ways to leverage their expertise in a range of disciplines and prioritize key areas of research for the Center.

As we look forward to the future, we anticipate another year filled with important insights and discoveries regarding the relationships between social factors, emotional well-being, and physical health, as well as how to best translate our findings. The Center is excited to continue to develop our rigorous science and to use the science to influence practice and policy.

**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 The Center is excited to continue to develop our rigorous science and to use the science to influence practice and policy.



Center Co-directors Vish Viswanath and Laura Kubzansky with members of the Lee Kum Kee family and delegation.

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# Advancing Rigorous and Interdisciplinary Science of Health and Happiness

Independent, but mutually-reinforcing research projects are running concurrently over the Center's first three years: **Positive Health**, **Intervention Research**, 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.

#### **Positive Health**

these effects.

#### Positive Psychological Well-being and Cardiovascular Health

Dr. Kubzansky is leading research to examine the relationship between psychological

well-being and cardiovascular health. This research uses existing data to identify which elements of well-being and happiness might serve as health assets and contribute to maintaining cardiovascular health. A key goal of the project is to assess the extent to which enhanced psychological well-being in adolescence is associated with favorable cardiovascular health in early adulthood, independent of known confounders, and to consider potential behavioral mediators of

The team, including two doctoral students, one postdoctoral fellow, and one faculty collaborator, identified two longitudinal studies with which 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 adolescents in the United States for 14 years, and it includes a wide array of data on psychological functioning and cardiovascular health. Similarly, ALSPAC has followed about 14,500 children born in the early 1990s in Avon, England. Like ADD Health, ALSPAC contains biomarker data as well as a spectrum of measures on psychological functioning. After successfully securing Institutional Review Board authorization for several studies, the team gained full access to both ALSPAC and ADD Health data. Analyses of both datasets began in April 2017. All findings from these studies will be submitted for publication in peer-review journals.

To date, these analyses have produced three sets of interesting findings. First, in ADD Health, adolescents with a greater number of internal resources, including higher levels psychological well-being, were found to be more likely to have favorable cardiovascular health in their mid to late 20s. This analysis also found that external resources, including those related to family support and encouragement, were less strongly associated with likelihood of maintaining favorable cardiovascular health in early adulthood. This finding is

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significant because it underscores the importance of positive psychological functioning and other internal resources in physical health trajectories. These findings were submitted and recently accepted for presentation at the 2018 Society for Epidemiologic Research annual meeting. A Center-affiliated researcher and dissertation award recipient, Farah Qureshi, will present the findings at the Society for Epidemiologic Research conference to a wide range of public health researchers. Second, additional findings from ADD Health suggest positive psychological well-being may have stronger effects on cardiovascular health among girls than boys. The team is conducting further analyses to evaluate the robustness of this finding. Future analyses will explore links between different measures of psychological well-being and positive health to build upon the work already completed.

In ALSPAC, analyses have revealed complementary findings. The team investigated the association between positive psychological and behavioral resources in childhood on cardiometabolic health in adolescence, and recently presented these findings at the Society for Epidemiologic Research annual meeting (June 2017). Using data from 3,074 participants, the prospective relationship between childhood health assets and cardiometabolic health at age 17 was examined. Childhood assets were measured between the ages of 8 and 10 and included executive functioning skills, prosocial behaviors, and exhibiting low levels of psychological distress, while cardiometabolic health was assessed using multiple biological parameters (cholesterol, blood pressure, inflammation, insulin resistance, and adiposity). Results found that participants with multiple assets were 1.08 to 1.27 times more likely to be in optimal cardiometabolic health at age 17 compared to those with 0 or 1 asset, suggesting that childhood assets may set up healthier trajectories in early life.

### Positive Psychological Well-being and Health Behaviors or Stress Response

This work also includes an experimental component, whereby aspects of psychological well-being are manipulated in a laboratory setting and effects on short-term healthrelated behaviors (e.g., food choice, willingness to exercise, and faster stress recovery) are 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 seeks to determine causal directionality 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. In this past year, two experimental studies were initiated and are ongoing. Each protocol includes four writing tasks, one phone call, and a lab visit. Participants are randomly assigned to an intervention or control group. The intervention is designed to induce optimism while the control group engages in activities designed to induce a neutral mood. When participants come to the lab, in Study 1 (physical activity) they are invited to complete some exercise tasks, and in Study 2 (stress recovery) they are asked to complete some stressful tasks in the lab and their responses to stress are recorded. After data collection is completed, the team will assess if participants who were induced to be optimistic are more likely than those in the neutral condition to engage in more exercise and have a faster recovery from their stressful experience.

Study 1 (physical activity) aims to have a final sample of 300 study participants. Since last November, a total of 90 participants (56 female, 34 male) have completed the study.



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).

The average age of the participants was 31 years (SD = 10.69), with a range from 22 to 59 years. Participants are from different racial/ethnic backgrounds, with the majority White (34.44%) or Asian (35.56%). Comparisons of the characteristics of the participants between conditions revealed no significant differences at baseline, suggesting that the randomization was successful. Study 2 (stress recovery) aims to have a final sample of 100 participants. To date, 42 participants (19 female, 22 male, and 1 other) have completed the study. The average age of the participants is 29 years.

#### Measuring Positive Psychological Well-being

Center affiliate scientist and Research Associate Dr. Claudia Trudel-Fitzgerald evaluated and reviewed a spectrum of positive psychological well-being measures that have been used in scientific research to determine whether psychological well-being is associated with physical health outcomes, including health behaviors, biological markers and development of chronic diseases over time among individuals who are initially disease free. These measures have been compiled by the Center Administrator Natasha Minor into an online repository, available on the Center's website, which describes the positive well-being dimensions measured by each scale, explains the scoring method and presents relevant scientific references. Dr. Trudel-Fitzgerald will be evaluating and reviewing measures of resilience and community well-being that will be added to the repository in the Fall of 2018.

Visit the online repository to learn more about the measures of positive psychological well-being:

https://hsph.me/repository

#### **Intervention Research**

#### Positive Psychological Well-being to Improve Healthy Aging

Globally, the number of people aged 60+ is projected to double by 2050. As societies grapple with rising health care and long-term care costs, it is imperative to develop and apply evidence-based interventions that can promote healthy aging and the psychosocial well-being of older adults. In close collaboration with UnitedHealth Group and AARP, Dr. Eric Kim has been working with the team to assess the feasibility of translating the most promising psychological well-being interventions into a suite of engaging exercises that are hypothesized to lower physical and psychological morbidity, lower health care expenditures, and enhance prognosis if illness

does strike. So far the group has searched the scientific literature and built a library of interventions that target a range of positive psychosocial well-being factors. Further, the group has had several rounds of discussions around health care delivery, benefit design, financing, operations, and marketplace incentives, in order to realistically determine which interventions are most likely scalable. The team is currently running focus groups, deploying pilot tests, and drafting protocols, as it continues to test the feasibility of this model. Dr. Kim has also been working on two other translational projects. This past year he served as an issue-matter specialist (psychological well-being of older adults) for AARP and Age UK's Global Council on Brain Health. The group's aim is to help translate scientific evidence into actionable recommendations. After several meetings, and peer-review, these recommendations were widely disseminated to the public in a recently published report available at https://www.aarp.org/health/brain-health/global-council-on-brain-health/social-engagement-and-brain-health/. Finally, Dr. Kim has begun working with the Chan Zuckerberg Initiative to explore how sense of purpose might potentially be enhanced at a societal level.

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### Improving Health to Increase Happiness among Children with Mental Health Challenges: Understanding and Changing Community, School, and Family Health Contexts

Together with her research team, Center affiliate scientist Professor Kirsten Davison is leading two separate projects with the goal to better understand contextual factors impacting broad dissemination and implementation of evidence-based lifestyle interventions aimed at improving mental and physical health among children and adolescents with special needs. Their work utilizes two major guiding theories. First, the Social Ecological Model, which posits that individual, family, and community contexts interact to promote or diminish health. Secondly, the Reserve Capacity Model, which frames the process by which long-term chronic diseases may deplete family and individual resources needed for healthy living and helps identify factors to stop or reverse that process. Given these theoretical frameworks, the team's research focuses on two main settings—families and schools—in which the vast majority of childhood and early adolescent health behaviors develop and take place.

### Project One — Parenting Health Behaviors of Children with Complex Mental Health Disorders: Understanding Barriers, Facilitators, and Strategies

The aims of this research project were to identify perceived barriers and perceived facilitators to parenting nutrition, screen time, sleep, and physical activity behaviors in children with complex mental health disorders, and to identify strategies for parents to employ to address barriers and manage health behaviors in their children.

The research team conducted structured interviews with parents of children enrolled in the Manville School. Important themes emerging from interviews place context around the substantial health disparities experienced by children with mental illness. These include enormous barriers to effective parenting of health behaviors, such as child aggression, short-term exacerbation of symptoms including sensory processing issues, lack of clinical support for health behavior management, resource exhaustion, and medication side effects. However, inclusion of positive outliers also helped identify important facilitators of healthy living, as well as successful strategies for managing health behaviors, even among children facing very complex mental health challenges. This finding helped shape the aims of their second project funded by the Center, which are detailed below.

### Project Two — Building the Infrastructure of Public School-based Exercise Therapy: A Pilot of the CONQuER School Dissemination and Implementation Process

The aims of Project Two are to develop and pilot a university-public school partnership aimed at effective dissemination, adaptation, and implementation of evidence-based therapeutic exercise (ETE) programming for children with mental health challenges; and to evaluate pilot findings to help build a Happiness Center ETE consulting program for public school systems throughout New England.

This project is utilizing a well-established implementation science framework—the Exploration, Preparation, Implementation, and Sustainment (EPIS) framework—to guide Worcester Public School's (WPS) adaptation of an evidence-based therapeutic exercise program serving students with significant social, emotional, and behavioral challenges. The school system was selected due to their interest in adapting and implementing the CONQuER (Creating Opportunities for Neurocognitive improvement through Quality



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 $\underline{\underline{E}}$ xercise and  $\underline{\underline{R}}$ ecreation) cybercycling intervention into a variety of school settings. CONQuER is an evidence-based intervention previously developed and tested by this research team.

riculum, and supplies for a student riding challenge. The research team continued to provide support and feedback to support implementation, while simultaneously collecting ongoing data on student engagement and staff implementation fidelity. WPS is also providing aggregated behavioral data, to examine potential changes in disciplinary patterns on days that students participate in therapeutic exercise. Implementation is ongoing and data collection will be completed by June 2018. At the end of this project, the team will be able to assess both intervention outcomes (e.g., behavioral outcomes) and implementation outcomes (e.g., delivery of the program as intended). This will be critical to ensure that the impact of the program was maintained and identify organizational and system-level barriers to and facilitators of implementation.

WPS was provided with four cybercycles, teacher training, a physical education cur-

With support and feedback from the research team, Worcester Public School is implementing a therapeutic exercise program serving students with significant social, emotional, and behavioral challenges.

#### **Health Communications**

### Communication and Translation Science to Promote Happiness and Well-being

Dr. Viswanath is examining the role of health communications on physical and psychosocial well-being, resilience, and happiness to inform effective communication interventions. In phase one, Dr. Viswanath and his research team reviewed the literature on the relationship between communication and emotions, and how emotions have been used in health communications to promote health.

Drawing on findings from this review, Dr. Viswanath and his team conducted a survey of diverse population groups to examine the relationship among communication, well-being, and health outcomes. There were two data collection arms of the study that gathered data from adults age 25–74 across the state of Massachusetts: 1) online data collection from a probability-based sample of Massachusetts residents with an oversample of rural residents conducted by GfK, and 2) supplementary, in-person data collection among population groups of interest (African-Americans, Hispanics, people of lower socioeconomic position, the homeless population, and blue collar workers).

GfK maintains the KnowledgePanel, a cohort of respondents that are representative of the general population. GfK included an additional sample from a partner vendor in order to oversample rural residents across the state to cover urban and rural areas in sufficient numbers. Dr. Viswanath's team also administered surveys in conjunction with community partners to recruit participants from different population subgroups from the communities of Boston (>50% minority), Lawrence (80% Hispanic), and other towns with diverse population groups including the homeless. Paper surveys were administered in community locations such as homeless shelters, public libraries, community centers, and a carpenter's training center.

All participants received a core survey of items including psychological well-being (happiness), cancer screening behaviors, health behaviors, health status, health information

seeking behaviors, access to health care, and sociodemographics. They were then randomized to receive either a module on their health-related technology behaviors or a module containing an expanded set of well-being items, including validated happiness items.

The final sample consisted of 1,511 participants. There were noted differences in the composition of the online versus in-person sample; for example, only 8% of the GfK sample had an annual income of \$20,000 or less, compared with 58% of the in-person sample, highlighting the importance of in-person data collection to gather information from vulnerable groups. Across the entire sample, the mean score on the Pemberton Happiness Index (A) was 93, with scores ranging from 23 to 121 (higher scores equal a higher happiness score). Early results indicate that there are significant associations between factors such as health status and socioeconomic position and happiness as measured by both the Pemberton and National Health and Nutrition Examination Survey (NHANES) items. Future analyses will explore subgroup differences in happiness scores and the range of social determinants that may impact these differences.

#### Center-related Publications, Presentations, and Awards

In line with the Center's mission to advance a rigorous science of positive health and well-being and translate scientific discoveries to inform policy and practice, Center faculty and affiliates have made substantial contributions to the field of positive health science and remain committed to the dissemination of knowledge and research related to the Center and its mission. Their findings have been disseminated in peer-reviewed publications in high impact academic journals, such as the American Journal of Public Health, Proceedings of the National Academy of Sciences of the United States of America and Health Psychology. They have also presented their research in various reports, presentations, books, and book chapters, as well as through the popular press. See the appendix on page 30 for a sampling of the many publications, presentations, and grants awarded to Center faculty and affiliates. These publications and awards represent a selection of the work produced by Center scientists.

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"A calm and modest life brings more happiness than the pursuit of success combined with constant restlessness."

### Building Interfaculty Initiatives at Harvard University

The Center convenes 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.

### Social and Population Determinants of Positive Health and Well-Being

While research on the various determinants of positive health and well-being has been conducted at a high-level, the Center seeks to identify gaps in the current research and literature to further examine these factors and discuss potential opportunities to translate practice into policy. The Center will organize a focus group to brainstorm these topics to take place in July 2018.

#### **Center Working Groups**

In its first year, the Center committed to supporting two working groups on topic areas of interest that were identified through previous interfaculty activities. The goal of these working groups is to meet and engage in activities to advance the science of health and happiness on identified topics, with the objective to produce white papers, review articles, and grant proposals. The Center is currently providing support and assistance for two working groups on measurement of well-being and dissemination and implementation science of well-being research.

The working group on **Measurement of Psychological Well-Being**, led by Dr. Tyler VanderWeele and research associate Dr. Claudia Trudel-Fitzgerald, has met quarterly over the last year. The group is exploring the challenges related to well-being measurement and research and investigating the difference between various dimensions of well-being. Working group members are currently preparing an editorial paper on the state of the science with regards to measurement of psychological well-being as a predictor of physical health and mortality. The paper will be submitted to a scientific peer-reviewed journal within the next year.

The working group on **Dissemination and Implementation**, led by Dr. Kirsten Davison and Center affiliate scientist Dr. Shoba Ramanadhan, has met regularly to conduct a scoping review of the literature related to dissemination and implementation science as it pertains to well-being. The review will focus on studies that address issues of dissemination and implementation science and well-being, and will work to advance the science of well-being related to school and community based interventions. The group is preparing a conceptual paper to be submitted in fall 2018.

The Center is currently providing support and assistance for two working groups on measurement of well-being and dissemination and implementation science of well-being research.

#### **Collaboration with Centers and Programs Across Harvard**

#### Osher Center for Integrative Medicine

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 often co-sponsors seminars organized by the Center, including a talk entitled "Meditation and the Brain" given by Dr. Sara Lazar. They are sponsoring a future seminar by Dr. Peter Wayne.

#### Harvard Center for Population and Development Studies

The Harvard Center for Population and Development Studies is a University-wide initiative to produce population-based evidence that will better inform policies needed to create resilient and vital societies and improve well-being around the world by better understanding the interaction of demographic changes with social and economic development. The Harvard Center for Population and Development Studies conducts research, dissemination, and public engagement that will enable societies to be more responsive to demographic transitions in terms of policies and culture change. The Harvard Center for Population and Development Studies co-sponsored a seminar by Laura Carstensen entitled "Taking Time Seriously in Life-Span Development" and collaborated with Center co-directors on joint research projects.

### Mind Brain and Behavior Faculty Interest Group: Emotion, Decision Making, and Health

Center faculty participated in this interest group to promote collaboration among experts in the fields of emotion, decision making, and health. The primary goals for the interest group were to 1) discuss topics, issues, and methods, and develop research ideas on emotion, decision making, and health, 2) connect behavioral scientists and health practitioners, 3) co-author commentary pieces on key topics, and 4) collaborate on research and/or grant proposals.

#### Harvard Initiative on Global Mental Health and Sustainable Development

The goal of this initiative is to foster a collaborative and multi-disciplinary community at Harvard dedicated to transforming mental health of the world's population through education, research, innovation, and engagement. The overarching objective is to energize a community of students and faculty within Harvard who are passionate about promoting a broad perspective on mental health as a fundamental public good and a universal human right. The group seeks to build the capacity of future generations of scholars in this field.

In April 2018, Dr. Kubzansky was invited to speak at the inaugural Global Mental Health Open Day organized by the Harvard Global Health Institute. In her talk entitled "Do Happy People Live Longer? Positive Psychological Well-Being and Healthy Aging," Dr. Kubzansky discussed recent research on the link between positive psychological well-being or happiness and physical health. The event was a showcase of the various activities oriented toward global mental health across Harvard and Harvard Medical School affiliated hospitals and consisted of student-led workshops, panel discussions, and TED-style talks by Harvard Faculty.

Center leadership will continue to explore future opportunities for partnership in research and programming, which may include co-sponsoring seminars, workshops, research, and developing curriculum and courses.

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#### Center for Translational Health Communication Science (C-TRaHCS)

Dr. Viswanath leads the Center for Translational Health Communication Science which is developing models of translating research to influence practice and policy on wellbeing in the United States and several other countries. The Center's focus has been building capacity for evidence-based public health practice and policy and activating existing assets such as community-based and faith-based organizations and social networks to promote well-being. Dr. Viswanath's membership on national boards such as the Board of Scientific Counselors of the Centers for Disease Control and Prevention's Office of Public Health Emergency Preparedness provides opportunities to influence policy making on well-being informed by evidence.



# **Center Programming and Events**

#### **Seminar Series**

The Center launched a seminar series in February 2017 to bring Harvard and non-Harvard faculty and researchers to the Center to talk about relevant topics related to its mission. Seminars are presented monthly to enhance collaboration and partnerships across the many investigators in the research community at Harvard. Seminars are generally attended by students, faculty, staff, and post-doctoral fellows from Harvard University. Attendance is generally strong with a range of 25 to 50 attendees at most events.







Above left: Members of the Lee Kum Kee family and delegation and students at Center affiliate scientist Dr. Tyler VanderWeele's seminar (above right) entitled "On the Promotion of Human Flourishing" held on October 16, 2017.

Left: Center affiliate scientist Dr. Robert Waldinger during his seminar entitled "The Harvard Study of Adult Development: What We Learn from Tracking Lives over 80 Years" held on March 29, 2018. Previous seminars have featured a diverse group of speakers covering a wide range of topics:



**Meditation and the Brain** 

Sara Lazar, PhD

Associate Researcher, Department of Psychiatry, Massachusetts General Hospital; Assistant Professor in Psychology, Harvard Medical School

The focus of Dr. Lazar's research is to elucidate the neural mechanisms underlying the beneficial effects of yoga and meditation, both in clinical settings and healthy individuals.

During her seminar entitled "Meditation and the Brain," Dr. Lazar discussed the impact of mindfulness meditation on well-being, psychiatric, and stress-related symptoms. She also reported results of her research on mindfulness practice and increases in gray matter density in the brain.



**Does Positive Psychological Functioning Influence Health Behaviors in Older Adults?** 

Eric Kim, PhD

Research Associate, Department of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health

In his lecture entitled "Does Positive Psychological Functioning Influence Health Behaviors in Older Adults? Current Evidence and Future Directions," Dr. Kim discussed recently published and currently ongoing studies that examined this question. He described how positive psychological factors are assessed and cited a recently published study that showed a link between higher optimism and reduced risk from several causes of mortality. Dr. Kim also discussed studies that examined the link between positive psychological factors and health behaviors—a possible mechanism that links positive psychological functioning with better health.



The Role of Decision Science in our Quest for Health and Happiness Myriam Hunink, MD, PhD

Professor of Clinical Epidemiology and Radiology, Erasmus University Medical Center, Rotterdam; Adjunct Professor of Health Decision Science, Harvard T.H. Chan School of Public Health

Dr. Hunink's main research interests are comparative effectiveness research and health technology assessment studies of diagnostic and prognostic imaging tests (biomarkers) and image-guided therapies, in particular for cardiovascular disease. Her research aims to optimize medical decisions by combining the best-available quantitative evidence on risks and benefits from diverse sources and integrating this with a solid understanding of patient values, preferences, quality of life, and costs.

During her seminar entitled "The Role of Decision Science in our Quest for Health and Happiness," Dr. Hunink provided an overview of the concept and tools of decision science and their role in health and happiness, particularly focusing on decision analysis and the use of decision models and multi-criteria decision making in this research.



### The Value Proposition for Health and Well-being in the Corporate Setting Nicolaas Pronk, PhD

President, HealthPartners Institute; Chief Science Officer, HealthPartners, Inc.; Adjunct Professor of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health

Dr. Pronk's work is focused on connecting evidence of effectiveness with the practical application of programs and practices, policies, and systems that measurably improve population health and well-being. His work applies to the workplace, the care delivery setting, and the community, and involves the development of new models to improve health and well-being at the research, practice, and policy levels.

During his seminar entitled "The Value Proposition for Health and Well-being in the Corporate Setting," Dr. Pronk discussed the role of the environment on an individual's behavior and how individual decisions also matter when thinking about well-being. Dr. Pronk went on to discuss the importance of worksite health promotion as a public health strategy that fosters economic growth in the community.



#### On the Promotion of Human Flourishing

Tyler VanderWeele, PhD

John L. Loeb and Frances Lehman Loeb Professor of Epidemiology, Departments of Epidemiology and Biostatistics, Harvard T.H. Chan School of Public Health; Co-director, Initiative on Health, Religion and Spirituality; Faculty Affiliate, Harvard Institute for Quantitative Social Science; Director, Program on Integrative Knowledge and Human Flourishing, Harvard University

Dr. VanderWeele's work is focused both on biostatistics and epidemiologic methods, as well as on the science of happiness and flourishing. He also conducts work on the study of religion and health, including both religion and population health and the role of religion and spirituality in end-of-life care.

During his seminar entitled "On the Promotion of Human Flourishing," Dr. VanderWeele discussed the nature of human flourishing as well as issues regarding its measurement and factors that may increase likelihood of flourishing. He also considered how these issues can inform research and practice. He discussed a definition of flourishing as "a state in which all aspects of a person's life are good" and argued that the definition should also include health and virtue. In addition to students, postdoctoral fellows, faculty, and staff, the seminar was attended by members of the Lee family and Lee Kum Kee delegation.



#### **Taking Time Seriously in Life-Span Development**

Laura Carstensen, PhD

Fairleigh S. Dickinson Jr. Professor in Public Policy and Professor of Psychology at Stanford University; Founding Director, Stanford Center on Longevity

Dr. Carstensen is best known for the development of socioemotional selectivity theory—a life-span theory of motivation. The theory suggests that as a person ages, he/she becomes increasingly selective with regards to the investment of their time, effort, and other resources. This increased selectivity enables individuals to focus on aspects of their lives that increase their emotional well-being. During her seminar, Dr. Carstensen discussed how and why individuals become more selective with regard to their social partners and activities, and the evidence suggesting that individuals generally have improved emotional experience in their daily lives as they age.

The seminar was entitled "Taking Time Seriously in Life-Span Development" and was co-sponsored by the Harvard Center for Population and Development Studies.



If Work Makes You Happy, Is It Work? Gregory Wagner, MD

Adjunct Professor, Department of Environmental Health, Harvard T.H. Chan School of Public Health; Senior Advisor, Harvard Center for Work, Health, & Well-being

In his distinguished career providing organizational leadership both nationally and internationally, Dr. Wagner has served as Senior Advisor to the Director of the National Institute for Occupational Safety and Health and as Deputy Assistant Secretary of Labor for Mine Safety and Health, and he has worked closely with both the World Health Organization and the International Labor Organization. At Harvard, Dr. Wagner teaches about the science behind occupational and environmental policies and regulations, and the limits of regulatory health protective strategies.

During his seminar entitled "If Work Makes You Happy, Is It Work? Exploring Intersections of Work, Happiness, and Well-being," Dr. Wagner framed the discussion around the "work well-being conception model." Dr. Wagner talked about the role of the workplace in determining worker health, well-being, and life satisfaction. He reviewed research findings suggesting that people who are employed are more likely to be satisfied than dissatisfied. However, negative work conditions—including high job demands, a dangerous or sedentary physical work environment, or even a long commute—are associated with lower satisfaction and reduced productivity.



### The Harvard Study of Adult Development: What We Learn from Tracking Lives over 80 Years

Robert Waldinger, MD

Clinical Professor of Psychiatry, Harvard Medical School; Director, Harvard Study of Adult Development

Dr. Waldinger is the Director of the Harvard Study of Adult Development, one of the longest longitudinal studies of adult life ever done. His research focuses on the lifetime predictors of healthy adult development, studying two groups of men recruited as teenagers who have been part of the study for 80 years. His 2015 TED talk about the study has been viewed by over 20 million people.

The seminar was entitled "The Harvard Study of Adult Development: What We Learn from Tracking Lives over 80 Years." During his seminar, Dr. Waldinger shared lessons and insights from the study, including findings that marital satisfaction has a protective effect on people's mental health and that warm relationships contributed to longer and happier lives.

#### Future speakers through June 2018 include:

#### Daniel Horowitz, PhD

Professor of American Studies Emeritus, Smith College

#### Peter Wayne, PhD

Associate Professor of Medicine, Harvard Medical School; Research Director, Osher Center for Integrative Medicine

#### Meike Bartels, PhD

Professor in Behavior and Quantitative Genetics, Department of Biological Psychology, EMGO Institute, VU University Amsterdam

### Interdisciplinary Workshop on Well-being and Flourishing

This April 2018, in collaboration with the Program on Integrative Knowledge and Human Flourishing at Harvard University, the Center organized and hosted an interdisciplinary workshop on the dimensions and measurement of human well-being.

The goal of the workshop was to examine recent empirical research on well-being and issues related to its measurement, and also to consider the philosophical and theological perspectives on happiness, well-being, and the good life. The workshop was aimed at addressing three central questions: 1) how to determine which aspects of well-being are best to measure in which contexts, 2) how major dimensions of well-being relate to each other, and 3) how to make progress in the face of the proliferation of well-being measures in research, surveys, and polls.

The workshop took place on the Harvard Longwood Campus and brought together over 30 scientists from the U.S and internationally across various disciplines such as psychology, philosophy, theology, economics, and statistics, to pursue a range of activities to advance the understanding of subjective well-being and its measurement. The diverse group of scholars are working collectively to develop next steps for action and may publish their findings and recommendations in an open-access monograph or journal which will be available to a wide academic and professional audience.

Findings from this workshop have the potential to make a significant scientific impact in the field by bringing together leading experts on the topics of measurement and well-being who will join their efforts in disseminating their findings and recommendations among members of the scientific community to guide future research. This work will redirect conversations around this topic and will help to inform future social and economic policies for improving the public's health. Participants were asked to consider possible ongoing activities to resolve important questions around measuring and monitoring well-being. Next steps might include applying to other funding agencies to support an ongoing network of investigators to enable sustained focus on this topic or embarking on critical research to evaluate more systematically which components of human well-being are critical for future studies and for monitoring purposes.

Left: Professor Mark Wynn during his seminar at the Interdisciplinary Workshop on Well-Being and Flourishing

Right: Professor Viswanath and attendees at the workshop





### Building a Pipeline: Student Engagement and Development

As of April 2018, the Center has supported the research activities of four doctoral students.

#### **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 an effort 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. As of April 2018, the Center has supported the research activities of four doctoral students.

#### 2017–2018 Dissertation Research Award Recipients

**Farah Qureshi** is a Doctor of Science candidate in the Department of Social and Behavioral Sciences at the Harvard T.H. Chan School of Public Health. Her dissertation research examines the psychosocial predictors of cardiometabolic disease, specifically the

pathways by which social adversity impacts early indicators of disease and the ways positive assets may buffer disadvantaged children against poor health over the life course. Her research will contribute to a growing body of work exploring the interplay between environments, children's emotional functioning and cardiometabolic risk with the goal of identifying new social and psychological targets for primordial prevention of heart disease.

**Emeka Agudile** is a Doctor of Science candidate in the Department of Social and Behavioral Sciences at the Harvard T.H. Chan School of Public Health. His dissertation research focuses on the protective roles of positive family social support on substance abuse and risky sexual behaviors by young adults in South Africa, and on the utilization of

health care services by women in Nigeria. As a community-based physician, Emeka's work seeks to explore the relationships between supportive social networks at the family and community levels and apply this research to inform community-level change.



Farah Qureshi and Emeka Agudile

#### 2018–2019 Dissertation Research Award Recipients

**Alina Schnake-Mahl** is a Doctor of Science candidate in the Department of Social and Behavioral Sciences at the Harvard T.H. Chan School of Public Health. Her dissertation research will examine the effects of residential population movement and neighborhood on health. Specifically, she will draw on ecosocial theory and positive health science to explore

the positive and protective factors that exist in low-income, racially-segregated neighborhoods, and her research will contribute to the understanding of the positive assets that exist in economically-deprived neighborhoods.

**Scott Delaney** is a Doctor of Science candidate in the Department of Social and Behavioral Sciences at the Harvard T.H. Chan School of Public Health. His dissertation research will focus on the connection between elements of a positive social environment and healthy neurodevelopment in children. Specifically, his research will assess the impact of positive family functioning on markers of favorable brain development, including measures of cortical gray matter thickness and global white matter integrity.

In March 2018, Scott Delaney was also awarded a Doris Duke Fellowship after a competitive, nationwide application and interview selection process. Doris Duke Fellowships for the Promotion of Child Well-Being are granted by the University of Chicago with support provided by the Doris Duke Charitable Foundation. The fellowships are designed to identify and develop new leaders capable of creating practice and policy initiatives that will enhance child development and well-being. During the fellowship, students work with both academic mentors, who advise on the development of their dissertation, and policy mentors, who help students identify ways to apply their research. The fellowship provides support for up to two years, during which Scott will research two primary questions. First, he will investigate the extent to which physically threatening experiences in early childhood are associated with neurodevelopmental changes and aggressive behavior in late childhood. While the first research question investigates negative exposures and outcomes, the second question focuses on positive well-being and brain development. Specifically, Scott will assess the extent to which positive, healthy family functioning leads to favorable brain development throughout childhood. Support from Center Co-director Laura Kubzansky was integral to Scott's selection for this prestigious fellowship.





Alina Schnake-Mahl and Scott Delaney

#### **Student Engagement**

As part of its effort to engage with students and grow the field of the science of positive health and well-being, the Center has established a partnership with the Mental Health Student Alliance (MHSA), an active, interdisciplinary, cross-departmental student group at the Harvard T.H. Chan School of Public Health. The mission of the MHSA is to create an academic forum for all students to engage with relevant and current issues in public mental health research, practice and policy, and to promote a positive and inclusive environment for student mental health at the School.

In partnership with the MHSA, the Center has formed a journal club for postdoctoral fellows, research associates, master's and doctoral students to critically address academic journal articles in the field of positive health and well-being. The journal club meets monthly during the fall and spring semesters. Facilitators have included Center affiliate scientists Drs. Claudia Trudel-Fitzgerald and Eric Kim.

In addition, Co-director Vish Viswanath co-chairs the Harvard Chan's Health Communication Concentration (HCC) which provides doctoral and master's students with an opportunity to learn about communication and translation by taking courses across the School and Harvard University. HCC brings in speakers and provides opportunities for internships to gain practical experience.

### Communications

As part of the Center's communication strategy to establish itself as a hub of innovative and multidisciplinary research, the Center published its first electronic newsletter in January 2018. The newsletter will provide regular updates on the Center's research, activities, accomplishments, and initiatives to a wide academic and professional audience. Past editions of the newsletter will be archived on the Center's website. The newsletter was distributed to students, faculty, and researchers within the Harvard community who have subscribed to the Center's email distribution list. The newsletter is open access and individuals are welcome to subscribe to receive future editions.

COMMUNICATIONS HIGHLIGHTS IN 2017-18:

Published first electronic newsletter

Launched Twitter account

Covered frequently in the popular press

The goals of the Center's online presence are to share the innovative and multidisciplinary research in the field as well as to provide evidence-based information about well-being to researchers, practitioners, and policymakers. The website is updated regularly with the latest information and research.

The Center launched a Twitter account in 2017 with the goal of sharing information relevant to the mission of the Center with the general public in an approachable and accessible way. The Center also utilizes social media to establish and foster relationships among faculty and researchers across Harvard and other colleges and universities.

Center research is frequently covered in the popular press. Outlets such as *The New York Times*, *Washington Post*, NPR, *US News and World Report*, The Today Show Online, and *Harvard Magazine* have published articles reporting on Center findings. For example, a study conducted by Center affiliate scientist Dr. Eric Kim and Center co-director Dr. Kubzansky that found significant associations between increasing levels of optimism and decreasing risks of death from cancer, heart disease, stroke, respiratory disease, and infections, was covered in several media outlets such as *The New York Times*.



### **Future Directions**

As the Center embarks on another year of leadership in the field of positive health science, it is making plans to engage in new activities and collaborations to expand the scope of the Center and its mission. Future initiatives focus specifically on training new generations of scholars in the field, encouraging scientists and leaders to build a science of positive health and resilience, and effectively disseminating research findings to a broad community of stakeholders and members of the public.

Here are some of the exciting initiatives the Center is developing for the future:

Establishing
a seed funding
program to support
pioneering research
at early stages of
development.

Developing curriculum and incorporating positive health curriculum into existing courses when possible.

Connecting with faculty and scholars across disciplines, departments, and schools via seminars and workshops.

Expanding the capacity of the Center in ways that contribute to the scientific research activities of the Center, like hiring more researchers and funding additional working groups.

Connecting students interested in participating in research and communication about Center-related research with faculty who are looking for research assistants or student participation in their research via an intra-Harvard web networking site.

### **Scientific Advisory Board**

The Center's scientific advisory board provides guidance on critical Center activities, goals, research priorities, and programming. Members of the board convene annually to evaluate relevant science in the field and suggest areas of investment for the Center, such as recruitment, research funding, and other activities.



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 (WHO) from 1994–1997. From May 1991 to September 1993, Dr. 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 (HHC), the largest municipal system in the United States, 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. Dr. Boufford was awarded a Robert Wood Johnson Health Policy Fellowship at the Institute of Medicine in Washington, D.C. for 1979–1980. She served as a member of the National Council on Graduate Medical Education from 1998–2002 and the National Advisory Council for the Agency for Healthcare Research and Quality from 1997–2002. 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 (IOM) 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, Brooklyn, May 1992, New York Medical College, May 2007, Pace University, May 2011, and Toledo University, 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. Dr. Boufford attended Wellesley College for two years and received her BA (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 in the Faculty of Population Health Sciences, and British Heart Foundation professor of psychology. He graduated from Cambridge 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 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 was founding editor of the British Journal of Health Psychology, an associate editor of Psychophysiology, the Annals of Behavioral Medicine, the British Journal of Clinical Psychology, the International Journal of Rehabilitation and Health and the Journal of Psychosomatic Research, and is on the editorial boards of seven other journals. Dr. 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** is Professor of Psychology at the University of Kentucky. Her 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 NIH-funded studies. One 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. Dr. Segerstrom's work has been funded by the National Institutes of Health, the Norman Cousins Program, and the Dana Foundation. She is also a winner of the prestigious Templeton Positive Psychology Prize, awarded in recognition of her work on optimism. Dr. Segerstrom is the current President of the American Psychosomatic Society.



**Howard K. Koh** is the Harvey V. Fineberg Professor of the Practice of Public Health Leadership at the Harvard T.H. Chan School of Public Health 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 T.H. Chan School of Public Health as well as with the Harvard Kennedy School, Harvard Business School, and across Harvard University.

From 2009–2014, 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. Dr. Koh previously served at Harvard School of Public Health (2003-2009)

as the Harvey V. Fineberg Professor of the Practice of Public Health, Associate Dean for Public Health Practice, and Director of the Harvard School of Public Health 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.

Dr. Koh was Commissioner of Public Health for the Commonwealth of Massachusetts (1997–2003) after being appointed by Governor William Weld. As Commissioner, Dr. 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. Dr. 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.

Dr. 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.

Dr. 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.

# **Center Faculty, Staff, 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

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. Dr. 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. Dr. 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.

Dr. 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 investigator 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, Dr. K. "Vish" Viswanath holds a joint appointment at the McGraw/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. Dr. 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, and 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 (Wiley-Blackwell Publishing, 2008).

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



Natasha Minor Center Administrator

Natasha 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.



Alfredo Perez-Hidalgo Financial Administrator

Alfredo is Director of Administration for the Department of Social and Behavioral Sciences and Financial Administrator for the Center. He manages the Center's overall budget and administration of all funding.



#### **Christina Pechette**

Social and Digital Media Program Assistant

Christina manages the Center's social media platforms and assists with other administrative tasks. She is a first-year MPH student in the Department of Social and Behavioral Sciences at the Harvard T.H. Chan School of Public Health.

#### **Affiliate Scientists**

Harvard faculty associated with the Center are considered affiliate scientists. These members support and actively contribute to the goals and mission of the Center. Membership is granted to collaborators who contribute to enhancing and maximizing interdisciplinary research efforts in positive psychological well-being and human health. All affiliate scientists are required to apply for membership.



**Lisa Berkman, PhD** *Director, Harvard Center for Population and Development Studies* 

Director, PhD Program in Population Health Sciences

Thomas D. Cabot Professor of Public Policy, Departments of Epidemiology and Global Health and Population, Harvard T.H. Chan School of Public Health



Sara Bleich, PhD

Professor of Public Health Policy, Department of Health Policy and Management, Harvard T.H. Chan School of Public Health

Carol K. Pforzheimer Professor, Radcliffe Institute for Advanced Study



Justin Chen, MD, MPH

Psychiatrist, Department of Psychiatry, Massachusetts General Hospital Assistant Professor of Psychiatry, Harvard Medical School



Ying Chen, ScD

Research Scientist, Program on Integrative Knowledge and Human Flourishing, Harvard Institute for Quantitative Social Science



**Kirsten Davison, PhD**Donald and Sue Pritzker Associate Professor of Nutrition, Department of Nutrition, Department of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health



Nancy Etcoff, PhD

Assistant Clinical Professor, Harvard Medical School

Faculty Member, Harvard University Mind/Brain/Behavior Interfaculty Initiative

Director, Program in Aesthetics and Well-Being, Department of Psychiatry,

Massachusetts General Hospital



Francine Grodstein, ScD

Professor, Department of Epidemiology, Harvard T.H. Chan School of Public Health

Professor of Medicine, Harvard Medical School, Brigham and Women's Hospital



Jeffrey Huffman, MD
Director, Cardiac Psychiatry Research Program, Massachusetts General
Hospital
Associate Professor of Psychiatry, Harvard Medical School



Professor of Clinical Epidemiology and Radiology, Erasmus University
Medical Center, Rotterdam
Adjunct Professor of Health Decision Science, Department of Health Policy
and Management, Harvard T.H. Chan School of Public Health



Peter James, ScD Assistant Professor, Department of Population Medicine, Harvard Medical School

Myriam Hunink, MD, PhD



Leslie John, PhD
Associate Professor of Business Administration, Harvard Business School



Ichiro Kawachi, MBChB, PhD

John L. Loeb and Frances Lehman Loeb Professor of Social Epidemiology

Chair, Department of Social and Behavioral Sciences, Harvard T.H. Chan
School of Public Health



**Eric S. Kim, PhD**Research Associate, Department of Social and Behavioral Sciences, Harvard T.H. Chan School of Public Health



Sara Lazar, PhD
Associate Researcher, Department of Psychiatry, Massachusetts General Hospital
Assistant Professor in Psychology, Harvard Medical School



Jennifer Lerner, PhD
Professor of Public Policy and Decision Science, Harvard Kennedy School
Co-Founder, Harvard Decision Science Laboratory



Rachel Millstein, PhD, MHS

Clinical Psychologist and Health Researcher, Cardiac Psychiatry Research

Program, Massachusetts General Hospital



Shoba Ramanadhan, ScD, MPH
Senior Scientist, Center for Community-Based Research, Dana-Farber
Cancer Institute
Research Scientist, Department of Social and Behavioral Sciences,
Harvard T.H. Chan School of Public Health



Susanna Rinard, PhD
Assistant Professor of Philosophy, Harvard University



Joel Salinas, MD Neurologist, Behavioral Neurology and Neuropsychiatry, Massachusetts General Hospital



Glorian Sorensen, PhD
Professor, Department of Social and Behavioral Sciences, Harvard T.H. Chan
School of Public Health
Director, Center for Community-Based Research, Dana-Farber Cancer Institute



Claudia Trudel-Fitzgerald, PhD
Research Associate, Department of Social and Behavioral Sciences,
Harvard T.H. Chan School of Public Health
Clinical Psychologist



**Tyler VanderWeele, PhD**John L. Loeb and Frances Lehman Loeb Professor of Epidemiology,

Departments of Epidemiology and Biostatistics, Harvard T.H. Chan School of Public Health



Gregory Wagner, MD

Adjunct Professor, Department of Environmental Health, Harvard T.H. Chan School of Public Health

Senior Advisor, Harvard Center for Work, Health, & Well-being



Robert Waldinger, MD
Clinical Professor of Psychiatry, Harvard Medical School
Director, Harvard Study of Adult Development



Peter Wayne, PhD
Associate Professor of Medicine, Harvard Medical School
Research Director, Osher Center for Integrative Medicine



David R. Williams, PhD

Florence Sprague Norman and Laura Smart Norman Professor of Public Health,

Department of Social and Behavioral Sciences, Harvard T.H. Chan School of

Public Health



Gloria Yeh, MD

Director of Mind-Body Research, Division of General Medicine and Primary Care,
Beth Israel Deaconess Medical Center

Associate Professor of Medicine, Harvard Medical School

### **Appendix:**

## Selected Publications, Presentations, and Awards

#### **Selected Peer-Reviewed Publications**

Bowling A, Slavet J, Miller DP, Haneuse S, Beardslee W, **Davison KK**. (2017). Cybercyling effects on classroom behavior in children with behavioral health disorders: An RCT. *Pediatrics*. 139(2): e20161985. PMID28069663.

**Davison KK**, Charles JN, Khandpur N, Nelson TJ. (2017). Fathers' perceived reasons for their underrepresentation in child health research and strategies to increase their involvement. *Maternal and Child Health Journal*, 21(2), 267-274. PMC5500207.

Lim J, Davison KK, Jurkowski JM, Horan CM, Orav EJ, Kamdar N, Fiechtner LG, Taveras EM. (2017). Correlates of resource empowerment among parents of children with overweight or obesity. *Childhood Obesity*. 13(1), 63-71. PMC5278806.

Bowling A, Slavet J, Miller DP, Haneuse S, Beardslee W, & **Davison KK**. (2017). Doseresponse effects of exercise on behavioral health in children and adolescents. *Mental Health and Physical Activity*. 12, 110-115.

Neshteruk CD, Nezami BT, Nino-Tapias G, **Davison KK**, Ward DS. (2017). The influence of fathers on children's physical activity: A review of the literature from 2009 to 2015. *Preventive Medicine*. 102, 12-19.

Ash T, Bowling A, **Davison KK**, Garcia J. Physical activity interventions for children with social, emotional, and behavioral disabilities: A systematic review (2017). *Journal of Developmental and Behavioral Pediatrics*. 38(6), 431-445.

**Davison KK**, Blake CE, Kachurak A, Lumeng JC, Coffman DL, Miller AL, Hughes SO, Power TG, Vaughn AF, Blaine RE, Younginer N, Fisher JO (in press). Development and preliminary validation of the Parenting around SNAcking Questionnaire (P-SNAQ). *Appetite*.

**Davison KK**, Kitos N, Aftosmes-Tobio A, Ash T, Agaronov A, Sepulveda M & Haines J (in press). The forgotten parent: Fathers' representation in family interventions to prevent childhood obesity. *Preventive Medicine*.

Kim, E.S., Kawachi, I., Chen, Y., Kubzansky, L.D. (2017). Association between purpose in life and objective measures of physical function in older adults. *JAMA Psychiatry*. 74(10), 1039-1045.

**Kim, E.S., Kubzansky, L.D.**, Soo, J., & Boehm, J.K. (2017). Maintaining healthy behavior: A prospective study of psychological well-being and physical activity. *Annals of Behavioral Medicine*. 51, 337-347.

**Kim, E.S. & Kawachi, I.** (2017). Perceived neighborhood social cohesion and preventive healthcare use. *American Journal of Preventive Medicine*. 53, e35-e40.

Chopik, W. J., **Kim, E.S.**, Smith, J. (2018). An examination of dyadic changes in optimism and physical health over time. *Health Psychology*. 37:42-50.

Donnelly, G., Zatz, L., Svirsky, D., & **John, L.K**. (Forthcoming). The effect of graphic warnings on sugary drink purchasing. *Psychological Science*.

**VanderWeele, T.J.** (2018). Is forgiveness a public health issue? *American Journal of Public Health*, 108:189-190.

Li, S., Hagan, K., **Grodstein, F.**, and **VanderWeele, T.J.** (2018). Social integration and healthy aging among U.S. women. *Preventive Medicine Reports*, 9:144-148.

**VanderWeele, T.J.** (2017). On the promotion of human flourishing. *Proceedings of the National Academy of Sciences of the United States of America*, 31:8148-8156.

**VanderWeele, T.J.** (2017). Discussion of: "New statistics for old? — measuring the well being of the UK." *Journal of the Royal Statistical Society*, Series A, 180:38-39.

**VanderWeele, T.J.** (2018). Religious communities, health, and well-being — Address to the US Air Force Chaplain. *Military Medicine*, in press.

VanderWeele, T.J., Balboni, T.A., Koh, H.K. (2017). Health and spirituality. *JAMA*, 318(6):519-520.

**VanderWeele, T.J.** (2017). Religious communities and human flourishing. *Current Directions in Psychological Science*, 26:476-481.

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#### **Selected Book Chapters and Monographs**

Boehm, J.K., **Kim, E.S., Kubzansky, L.D.** (2018). Psychological well-being and physical health. In M Kivimäki, DG Batty, I Kawachi, A Steptoe (eds.) *International Handbook of Psychosocial Epidemiology*. London: Routledge.

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#### **Selected Presentations**

**Kubzansky**, L. (2018). Positive psychological functioning: An enduring asset for healthy aging. 13th Annual Broad Institute Scientific Retreat. Boston, MA.

Kubzansky, L. (2018). Beyond the absence of fatigue: Emotional vitality and reduced risk of cardiometabolic disease. American Psychosomatic Society Annual Convention. Louisville, KY.

**Kubzansky, L.** (2018). Do happy people live longer? Positive psychological well-being and healthy aging. Global Mental Health Open Day, Department of Global Mental Health and Social Medicine, Harvard Medical School. Boston, MA.

Kim, E.S., James, P., Kubzansky, L.D., Zevon, E., Trudel-Fitzgerald, C., Grodstein, F. (2018). Optimism and healthy aging in older women. American Psychosomatic Society; Louisville, KY.

Kim, E.S. (2017). Roundtable on sense of purpose. Chan Zuckerberg Initiative, Palo Alto, CA.

**Kim, E.S.** (2017). Psychological well-being and health. UnitedHealth Group Executive Board, Washington, D.C.

Qureshi, F., Delaney, S., Kubzansky, LD. (2018). Comparing the impact of positive psychosocial resources on favorable cardiovascular health in young adulthood [Oral Presentation]. Society for Epidemiologic Research Annual Meeting. Baltimore, MD.

**Qureshi, F., Kubzansky, LD.** (2017). Sex differences in the relationship between socioeconomic factors and cardiometabolic health from childhood to adolescence [Poster]. Society for Epidemiologic Research Annual Meeting. Seattle, WA. \*Awarded Best Student Poster Recognition

**Qureshi, F.,** Koenen, KC, Williams, MA, **Kubzansky, LD.** (2017). The impact of childhood psychological and behavioral assets on cardiometabolic health from ages 9 to 17 [Poster]. Society for Pediatric and Perinatal Epidemiologic Research Annual Meeting. Seattle, WA.

**Trudel-Fitzgerald, C.** (2017) Associations of positive psychological well-being with future lifestyle among midlife women. 5th World Congress on Positive Psychology, International Positive Psychology Association. Montreal, Canada.

**Salinas, J.** (2018). How your social relationships may be helping or harming your brain health [Selected oral abstract]. American Academy of Neurology National Conference, Los Angeles, CA.

**VanderWeele, T.** (2018). On the promotion of human flourishing. Symposium on the Culture of Health, University of Pittsburgh, Pittsburgh, PA.

**VanderWeele, T.** (2018). Empirical foundation of religion and medicine. Conference on Religion and Medicine [Plenary address]. St. Louis, MO.

**VanderWeele, T.** (2018). Associations between religious service attendance and mortality, depression and suicide: Is it causal? What are the mechanisms? Spirituality and Health Seminar. Duke University, Durham, NC.

#### **Selected Grants and Awards**

**Delaney, S.** "Positive Social Environments and Neurodevelopment in Children," Doris Duke Fellowship for the Promotion of Child Well-Being.

Kim, ES. "Characterizing the Mechanisms Behind the Purpose in Life and Health Association." (National Institutes of Health / National Institute on Aging (NIA), K99/R00 - Priority Score: 20; currently under review)

**Kubzansky, L.** "Developing Novel Social-Media Derived Measures of Psychological Well-Being and Other Health Assets for Studies of Health and Longevity." (McLennan Family Fund Dean's Challenge, funded)

**Kubzansky, L. and Grodstein F.** "Optimism and Exceptional Longevity competing revision," National Institutes of Health – under review

Kubzansky, L. "Optimism and Exceptional Longevity," National Institutes of Health.

Kubzansky, L. "Workplace Re-design or Worker Well-being: Blueprint for Resilience," Robert Wood Johnson Foundation. The project will be led by Professor Lisa Berkman, Center affiliate scientist and the Thomas D. Cabot Professor of Public Policy, Departments of Epidemiology and Global and Population Health, Harvard T.H. Chan School of Public Health, and co-led by Professor Laura Kubzansky, Center Co-director and the Lee Kum Kee Professor of Social and Behavioral Sciences.

VanderWeele, T. "Well-Being Research Collaboration," Aetna.

**VanderWeele, T.** "Advancing Health, Religion and Spirituality Research from Public Health to End of Life," John Templeton Foundation.

**VanderWeele, T.** "A Culture of Health: A Business Leadership Imperative," Robert Wood Johnson Foundation.

Viswanath, V. "Mass Health Information National Trend Survey (Mass HINTS)," National Institutes of Health/National Cancer Institute.

**Viswanath, V.** "Culture of Health: The Business Imperative," Robert Wood Johnson Foundation.

**Viswanath, V.** "Center for Social and Behavioral Change, Ashoka University," Bill and Melinda Gates Foundation.

**Viswanath, V.** "Accelerating Adoption of Responsiveness Practices in Health Programming," Bill and Melinda Gates Foundation.

**Viswanath, V.** "Initiative to Promote Evidence-Based Public Health and Policy Change," Bill and Melinda Gates Foundation.



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