Visioning Future Excellence at Illinois (VFE) is a campus-wide attempt to capture what challenges the world will face in the next twenty to fifty years and what role our preeminent institution will play in addressing those challenges. Twenty groups totaling over 700 people gathered for focus group sessions over the Spring 2012 semester. Represented in these groups were faculty, academic professionals, civil service staff, graduate students, undergraduate students, alumni, community members and corporate leaders.

The groups were asked to address two questions:

- What are society’s most pressing issues?
- What distinctive and signature role Illinois can play in addressing those issues in the next 20 to 50 years?

At the completion of the process, six major categories, or themes, emerged from the focus group sessions, including: Health and Wellness, Economic Development, Education, Information and Technology, Energy and Environment, and Social Equality and Cultural Understanding.

In the Kinesiology and Community Health department, in our own VFE retreats we have attempted to articulate how our own work interfaces with the 6 VFE themes identified by the campus. For more information about the VFE outcomes and process visit the [VFE website](#).

**Health and Wellness Theme:**

**KCH Theme Participants:** All KCH Faculty

1. **Examples of how KCH faculty contributes to the Health and Wellness VFE theme:**
   - By exploring the role of financial incentives in changing health behaviors and outcomes (An)
   - By exploring how demographic, epidemiological and nutritional changes influence the health and wellbeing in Latin America and the Caribbean and among Latinos in the US (Andrade)
   - By estimating the impact of disability on healthy life expectancy (Andrade)
   - By elucidating the molecular and cellular responses to exercise in skeletal muscle (Boppart)
   - By defining a role for mesenchymal stem cells in muscle repair and growth (Boppart)
   - By developing molecular- and stem cell-based strategies to prevent and treat age-related disabilities (Boppart)
• By validating health behavior change theories for people with disability and chronic illness (Chiu)

• By exploring how demographic, epidemiological and nutritional changes influence the health and wellbeing in Latin America and the Caribbean and among Latinos in the US. (Andrade)

• By estimating the impact of disability on healthy life expectancy. (Andrade)

• By defining the optimal nutritional factors (i.e., food texture, timing, amount, and source of dietary protein) to maximize the anabolic response to ingestion of food. (Burd)

• By increasing understanding of the pathophysiology of sarcopenia (Burd)

• By exploring if exercise interventions are a viable strategy to reduce healthcare costs, improve quality of life and benefit aging and obese populations. (De Lisio)

• By determining if exercise can be used as an adjuvant therapy for bone marrow transplantation which could potentially decrease the use of drugs and reduce hospital stays by decreasing recovery time (De Lisio)

• By seeking to capture complex processes in the social environment that influence diabetes and obesity risk, particularly in vulnerable populations across various stages of human development (Grigsby - Toussaint)

• By exploring the behavioral, social, cultural, and policy factors that influence the health of individuals, families, and communities across the lifespan (Iwelunmor)

• By developing undergraduate student projects that focus on one or more of the six dimensions of wellness (physical, social, intellectual, environmental, spiritual, psychological) and target older adults in the community. (Graber)

• By exploring how factors such as physical activity, fitness, and obesity relate to brain structure and function, cognition, and scholastic performance. These factors have been related to aspects of cognitive control, attention, and memory that impact to mental (Hillman)

• By studying factors that increase the risk of or prevent cancer in populations (Rosenblatt)

• By explore the feasibility of implementing a behavioral change program addressing physical activity, nutrition and stress management in the Latino community. (Schwingel)

• By investigating effects of aging, disability and sedentary lifestyle on microvascular dysfunction and by exploring the effect of physical activity on improving microvascular function (Jan)
• By aiming to understand the factors that contribute to exercise adherence and promote cognitive control & brain health (Mullen)

• By focusing on the treatment of chronic neurological disease and disability through physical activity and exercise. (Pilutti)

• By exploring strategies for preventing and treating a variety of lifestyle related diseases and conditions. (Klonoff-Cohen)

• By understanding differences in breast cancer histology in Caucasians, African-Americans, Hispanics, Asians and Pacific Islanders. (Klonoff-Cohen)

• By better understanding the affective responses to exercise, the relationship of such responses to exercise enjoyment and adherence, and individual differences influencing these relationships. (Petruzzello)

• By optimizing health, function, inclusion, and quality of life of persons with disabilities (Rice, I.)

• By exploring quality of life for wheelchair users affected by a variety of disabilities including the impact that secondary impairments, such as pain, spasticity, pressure sores, etc. have on the quality of life of an individual. (Rice, L.)

• By studying the interplay between physical activity, aging, and well-being in both healthy and chronically diseased individuals (e.g., cancer, multiple sclerosis) (McAuley)

• By investigating the control of movement in health and disease and various rehabilitation strategies to prevent loss of mobility in special populations (Sosnoff)

• Through the education of healthcare providers to improve the care they provide in rehabilitation services. (Rice, L.)

• By examining the interaction between disability and quality of life through the lens of employment (Strauser)

• By critiquing and illuminating goods and ills of physical culture in modernity including sport, play and ritual (Sydnor)

• By investigating the effect of exercise training and dietary modifications on co-morbidities associated with chronic renal failure (Wilund)

• By exploring the role of school-based physical activity positive health and wellness. (Woods, A.)

• By exploring the effects of physical activity, exercise and nutrition on inflammation-induced health problems in populations such as the elderly or obese (Woods, J.)
• By increasing understanding of physical activity and public health and issues related to physical activity assessment (Zhu)

2. Selected KCH Publications Related to the Health and Wellness VFE Theme:


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**Economic Development Theme**

**KCH Theme Participants:** RUOPENG AN; FLAVIA ANDRADE; MIKE DE LISIO; CHUCK HILLMAN; CASSIE MEINERT; STEVE NOTARO; DAVID STRAUSER

1. **Examples of how KCH faculty contributes to the Economic Development VFE theme:**
   - The impact of economic inequalities on health outcomes and health behavior (Andrade)
   - How racial disparities exposure to poverty and poor healthcare access impacts health outcomes and health behaviors (Andrade)
   - Guiding policy making regarding providing adequate services for minority groups (Andrade)
   - Quantitative evaluations of public policies to promote healthy behaviors and reduce the burden of chronic illnesses (An)
• The relationship between neighborhood food environment and diet/obesity (An)

• Relationship between local labor market fluctuations and physical activity (An)

• The adoption of incentives or legislation for increase participation in exercise based upon peer-reviewed research could have major public health implications (De Lisio)

• Living in racially segregated and economically deprived neighborhoods and health (Grigsby-Toussaint)

• International Health, CHLH 415 introduces students critical links between global health and social and economic development (Schwingel)

• How structural factors such as poverty and the distribution of wealth influences health outcomes and health care infrastructure in developing countries (Iwelunmor)

• Employment status as an indicator of clinically meaningful events in persons with multiple sclerosis physical activity as an method of maximizing employment and associated economic outcomes (Motl)

• How chronic health conditions and disability impact individual’s ability to access the job market, impacts wages, and the relationship between poverty and disability (Strauser)

• Commercial development of improved wheelchair technology for the mobility impaired (Sosnoff)

• Patients with kidney failure account for greater than 7% of Medicare expenditures (Wilund)

• Comprehensive, intensive lifestyle interventions (changes in nutrition and physical activity behavior) can be implemented in a sustainable and cost-effective manner in hemodialysis clinics. (Wilund)

• The economic consequences of sedentary behavior (Zhu)

• The design of new active office working environments (Zhu)

2. Selected KCH Publications Related to the Economic Development VFE Theme:


**Education Theme**

**KCH Theme Participants:** REGGIE ALSTON; KIM GRABER; STEVE PETRUZZELLO; LAURA RICE; AMY WOODS; JEFF WOODS; JUSTINE KAPLAN; KRISTI CARLSON; CAROL FIRKINS, AMY O’NEILL

1. **Examples of how KCH faculty contributes to the Education VFE Theme:**

   - By exploring how different strategies and technologies can be used to improve learning and critical thinking among college students. *(Andrade)*

   - By providing doctoral candidates with scholarly knowledge and practical experiences related to teaching, mentoring, and presenting in the professoriate *(Graber)*

   - By understanding the relationship between health and aspects of cognition that underlie academic achievement. *(Hillman)*

   - By exploring how single bouts of exercise influence cognitive performance and academic achievement in the classroom. *(Hillman)*

   - By influencing educational policy in USA and beyond. *(Hillman)*

   - By contributing to the development of textbooks on rehabilitation engineering and assistive technologies. *(Jan)*

   - By translating advanced knowledge to the K-12 students *(Jan)*
• By educating patients, physicians, and the public about cancer (Klonoff-Cohen)

• By educating teachers and families about vision and refractive errors in preschoolers (Klonoff-Cohen)

• By provide a historical lens for contemporary scientific practices and technologically-driven concerns (Littlefield)

• By educating future generations about issues of access, globalization, intersectionality, and diversity in the fields of science and technology studies (Littlefield)

• By teaching grant writing and professional development to prepare doctoral students for life in higher education (McAuley)

• By providing educational materials related to physiological and psychological effects of exercise (Petruzzello)

• By educating professionals about the physiological and psychological challenges of firefighting (Petruzzello)

• By providing educational opportunities for persons with disabilities. (Pilutti)

• By developing physical activity guidelines for persons with disabilities, specifically multiple sclerosis. (Pilutti)

• By develop and refining clinical practice guidelines to improve therapists’ delivery of healthcare services. (Rice, I.)

• Through the education of healthcare providers to improve the care they provide in rehabilitation services. (Rice, L.)

• By creating knowledge concerning the historical, artistic, cultural dimensions of kinesiology (Sydnor)

• By understanding and enhancing teacher development and improving physical education teacher effectiveness. (Woods, A.)

• By developing national and international youth fitness tests (Zhu)

2. Selected KCH Publications Related to the Education VFE Theme:


McAuley, E. (2011). Becoming a Faculty Member: Transition from Graduate Student/Post-Doc to the Tenure Track The Physiologist: A publication of the American Physiology Society.


Laferrier JZ, Rice I, Pearlman J, Sporner M, Cooper RM, Liu H, Cooper


Information and Technology Theme:

KCH Theme Participants: MARNI BOPPART; YIH-KUEN JAN; MELISSA LITTLEFIELD; EDWARD MCAULEY; ROBERT MOTL; SEAN MULLEN; LARA PILUTTI; IAN RICE; JEFF WOODS; WEIMO ZHU

1. Examples of how KCH faculty contributes to the Information & Technology VFE Theme:

- By examining factors associated with the use of assistive technologies by persons with disabilities, particularly across races. *(Alston)*

- By exploring strategies and technologies to improve learning and critical thinking in the classroom *(Andrade)*

- By developing online resources to educate primary care physicians about caring for cancer patients and survivors in underserved communities. *(Klonoff-Cohen)*

- By developing novel technologies to measure activities and behavior of wheelchair users. *(Jan)*

- By using cloud computing to improve clinical practice on monitoring physical activity *(Jan)*

- By translating engineering discoveries to develop technologies to promote the quality of life in people with disabilities. *(Jan)*

- By exploring the use of computer technology to understand and influence physical activity behavior *(McAuley)*

- By designing novel experimental paradigms for testing hypotheses about deception and truth *(Littlefield)*

- By exploring the history of technology use in psychophysiology *(Littlefield)*

- By improving adaptive technologies to optimize function in persons with disabilities *(Rice, I.)*

- By exploring the use of adapted technologies to develop accessible exercise programs and testing for persons with disabilities. *(Pilutti)*

- By utilizing web-based technologies for delivering interventions in persons with neurological conditions that preclude typical in-person delivery mechanisms. *(Motl; Pilutti)*

- Through the collection and management of person-centered data for medical management of patients. *(Motl; Pilutti)*

- By evaluating technology-delivered exercise and cognitive training interventions *(Mullen)*
• By evaluating tablet-based psychosocial and cognitive assessment methodologies (Mullen)

• Through the development of remote monitoring systems to prevent the development of skin breakdown and other secondary impairments associated with their disability. (Rice, L.)

• By investigating the utility of various technologies to detect movement impairment (Sosnoff)

• By applying new information technology to physical activity assessment and promotion. (Zhu)

2. Selected KCH Publications Related to the Information & Technology VFE Theme:


Energy & Environment Theme:

KCH Theme Participants: NICK BURD; DIANA GRIGSBY-TOUSSAINT; EDDIE MCAULEY; SEAN MULLEN; KARIN ROSENBLATT; SYNDY SYDNOR; KEN WILUND; LENA HANN

1. Examples of how KCH faculty contributes to the Energy & Environment VFE theme:

- By defining the potential of plant-based proteins to stimulate postprandial muscle protein accretion and their applicability as a sustainable food source. (Burd)

- By examining the role of exercise may be playing in protection from radiation damage. Changing the public perception of radiation may lead to the more widespread adoption of nuclear power as a sustainable energy source. (De Lisio)

- By examining the connections between ecosystems services (e.g., greenspace) and health, as well as accessibility and availability of foods, particularly for vulnerable populations. (Grigsby-Toussaint)

- By examining the effects of population growth on health and well-being in developing countries. (Iwelunmor)

- By understanding how aspects of the environment affect health behaviors, particularly among under-represented populations and persons with chronic disease. (Motl)

- By examining the effect of endocrine disruption on cancer risk (Rosenblatt)

- By providing undergraduate students with the skills they need to develop programs for older adults to educate them about environmental sustainability (Graber)

- By exploring the effects of caffeine, secondhand smoke, bisphenol A, sulfur dioxide, and drinking water to protect the public from cancer, birth defects, and reproductive harm, and to inform citizens about such exposures. (Klonoff-Cohen)

- By evaluating the effects of outdoor carbon monoxide, nitrogen dioxide and SIDS, and passive tobacco on SIDS. (Klonoff-Cohen)

- By exploring links between global health and social and economic development. (Schwingel)

- By understanding physical activity friendly environments in community. (Zhu)
2. Selected KCH Publications Related to the Information & Technology VFE Theme:


Biological effects and adaptive response from single and repeated computed tomography scans in reticulocytes and bone marrow of C57BL/6 mice.


Social Equality & Cultural Understanding Theme:

KCH Theme Participants: REGGIE ALSTON; FLAVIA ANDRADE; CHUNG-YI CHIU; DIANA GRIGSBY-TOUSSAINT; JULIET IWELEUNMOR; HILLARY KONOFS-CHOEN; IAN RICE; ANDIARA SCHWINGEL; JAKE SOSNOFF; WEIMO ZHU; SUSAN FARNER

1. Examples of how KCH faculty contributes to the Social Equality & Cultural Understanding VFE theme:
   - By exploring the interplay between race, adjustment to disability, and disparities in rehabilitation outcomes. (Alston)
• By exploring how cultural differences influence health outcomes. (Iwelunmor)

• By improving social and sports participation of persons with disabilities (Rice, L.)

• By exploring how gender and racial inequalities shape life experiences, such as educational achievement, and later life health status. (Andrade)

• By studying how access to care and education influences health outcomes. (Andrade)

• By analyzing national health and rehabilitation data sets to understand how race/ethnicity, gender, age, education, occupation, and economic status influence health disparity and employment conditions (Chiu)

• By examining differential demand responses to health-related excise taxes across racial/ethnic groups in the U.S. (An)

• By studying the effect of mental health parity legislation on disparities in mental health care (An)

• By developing assistive devices to assist people with disabilities to pursue their full potential on employment and social participation and increase the quality of life (Jan)

• By advocating for disability related acts and laws to empower people with disabilities (Jan)

• By exploring histological differences between racial & ethnic groups and breast cancer, and differences between women and men experiencing cardiovascular events. (Klonoff-Cohen)

• Through the evaluation of quality of life measures in persons affected by a variety of disabilities and evaluation of how those individuals are perceived by their peers. (Rice, L.)

• By exploring the feasibility of implementing a behavioral change program addressing physical activity, nutrition and stress management in underrepresented groups (Schwingel)

• By exploring how social programs such as vocational rehabilitation promote equality, justice, and personal freedom of individuals with chronic health conditions and disability. (Strauser)

• By understanding differences and issues of diversity are examined as variables that impact employment outcomes, community integration, and overall quality of life. (Strauser)

• By creating and critiquing historical-cultural knowledge of systems/customs/traditions uniquely associated with physical culture, play and ritual across time and space. (Sydnor)
• By conducting disability research and promoting culture exchanges worldwide. (Zhu)

• By ameliorating health disparities associated with diabetes and obesity (Grigsby-Toussaint)

2. Selected KCH Publications Related to the Social Equality & Cultural Understanding VFE Theme:


