Center for Research in Medical Education and Health Care

Annual Report
Academic Year 2013-2014

Sidney Kimmel Medical College at
Thomas Jefferson University
Philadelphia, PA

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AM Last Page: The Jefferson Longitudinal Study of Medical Education

Joseph S. Gonnella, MD, founder and director, Center for Research in Medical Education and Health Care; Mohammard Reza Hojjat, PhD, director, Jefferson Longitudinal Study; Jon Veloski, MS, director, Medical Education Division, Center for Research in Medical Education and Health Care, Jefferson Medical College of Thomas Jefferson University

Data Available by Matriculating Class

<table>
<thead>
<tr>
<th>Year</th>
<th>Demographic and academic*</th>
<th>Clinical clerkship</th>
<th>Residency</th>
<th>Career outcomes</th>
<th>Psychosocial</th>
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</thead>
<tbody>
<tr>
<td>1964</td>
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<td>1970</td>
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<td>2010</td>
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</tbody>
</table>

*Demographic and academic data for the classes of 1964-1969 were extracted retrospectively.

Scope of Database

Before Medical School
- Demographics
- SAT scores
- GPA science
- GPA non-science
- MCAT scores

During Medical School
- Matriculation survey
- Course grades
- GPA
- Course grades
- GPA
- NBME/USMLE 1

- Examination grades
- Clerkship ratings
- Hospitals of clerkships
- GPA
- NBME/USMLE 2
- Graduation survey
- Educational form

After Medical School
- Residency specialty
- Residency institution
- Geographic location
- Rating of competency
- NBME/USMLE 3
- Specialty
- Geographic location
- Board certification
- Faculty appointment
- Type of practice
- Active status
- Follow-up surveys

Reason for initiating the study: The Jefferson Longitudinal Study (JLS) at Jefferson Medical College of Thomas Jefferson University was initiated in 1970 based on the premise that medical schools have an obligation to society to monitor their educational outcomes.

History: The JLS was implemented with an intention to track every Jefferson medical student throughout his or her entire professional career. Data for the JLS are routinely updated for all entering classes from 1964 to the present using information from the Association of American Medical Colleges, American Medical Association, American Board of Medical Specialties, National Board of Medical Examiners, and in-house sources. The JLS retrieves information from the most comprehensive, extensive, and uninterrupted longitudinal database of medical students and graduates maintained in a single medical school.

Goals

Service to
- Faculty (e.g., responding to inquiries)
- Academic committees (e.g., providing data to analyze admissions trends, to evaluate programs, and to examine success/failure factors in students' performance)
- College/department's offices/administrators (e.g., providing data for the annual report, dean's letters of evaluations, or accreditation)
- Students (e.g., guiding academic and career development)

Research
- Data analyses in collaboration with faculty to support their scholarship and address issues in medical education for publication and presentation at professional meetings

By the Numbers

As of December 2010, the JLS contains approximately 6 million pieces of data:
- Tracked 10,000 students
- Gathered data from 579 postgraduate training hospitals
- Inspired 179 peer-reviewed publications* (56 in Academic Medicine)

* Abstracts of 155 publications of the JLS are posted at http://jls.jefferson.edu/jls.

New Instruments

The JLS has led to the development of the following instruments for measuring educational outcomes:
- Jefferson Scale of Empathy
- Jefferson Scale of Attitudes Toward Physician-Nurse Collaboration
- Jefferson Scale of Physician Lifelong Learning
- Scale of Attitudes Toward Physician-Pharmacist Collaboration

References

The Center for Research in Medical Education and Health Care provides technical support to the faculty in evaluating the knowledge, skills, and professionalism of students throughout the MD curriculum. It provides information to the administration concerning the metrics used to evaluate the effectiveness of policies related to admissions, curriculum, and students’ academic progress. The Center continues to receive external support for its health services and policy related research. Center faculty collaborate in scholarly work with other TJU faculty to disseminate medical education and health services research findings in peer-reviewed journals and at scientific meetings, nationally and internationally.

**MEDICAL EDUCATION**

The Jefferson Longitudinal Study of Medical Education developed and maintained at the Center, is the most extensive, comprehensive, uninterrupted physician tracking system of its kind. The database encompasses academic and career outcome data for 11,661 Jefferson students and graduates since the entering class of 1964.

It provides the medical college with vital information about the intermediate and long-term curricular outcomes. A total of 200 research studies based on the Longitudinal Study have been published in peer-reviewed journals since 1976. A brief summary of 155 such publications are described in a compendium entitled *Abstracts: Jefferson Longitudinal Study of Medical Education*, published in 2005 and available at [http://jdc.jefferson.edu/jlsme](http://jdc.jefferson.edu/jlsme). Because of the international reputation of the Jefferson Longitudinal Study, we were invited to present a workshop on how to develop and maintain a longitudinal study of medical education, to deliver a symposium on medical education outcomes at the 45th Annual Meeting of the Japan Society for Medical Education in Chiba, Japan. We were also invited by the Association of Medical Education in Europe (AMEE) to prepare a position article on personality assessments and outcomes in medical education and the practice of medicine which was published in 2013 in Medical Teacher and by AMEE as an independent report in 2014.

Center staff prepare routine reports for the Curriculum Committee, Dean’s Office, clinical departments, and 24 affiliated hospitals to help assess the quality of education at the clinical teaching sites. We provide the faculty with comprehensive student testing services and assist faculty and administration with a variety of surveys. We continued to support the use of NBME subject examinations in clerkships, and implemented a new computer system to enable the preclinical course directors to automate their test item databases and deliver tests to students on their laptop and tablet computers. Center staff provide psychometric support to the clinical departments using the TJU Simulation Center to gauge students’ proficiency on clinical simulations. We collaborate with the Dean’s Office, Jeff-IT, and the clinical clerkship directors in the design, operation, and continuing improvement of Jefferson’s Patient Encounter Log System (PELS).

The Jefferson Scale of Empathy (JSE), which has been translated into 49 languages and used in 74 countries, the Jefferson Scale of Attitudes toward Physician-Nurse Collaboration, and the Jefferson Scale of Physician Lifelong Learning (JSPLL) are used by medical educators and researchers worldwide. Because of our leading role in empathy research in the health profession education and patient care, we were invited to participate in several seminars, workshops, and grand rounds to present our findings and their implications for enhancing empathy among health professionals-in-training and in-practice. The seminal book: “Empathy in Patient Care” was translated into Spanish by Dr. Adelina Alcorta Garza and her colleagues in Mexico. Also, in response to the publisher’s suggestion, the book which was originally published in 2007, will be expanded in its second edition to include new research findings in which the JSE
has been used (including over 200 such publications from national and international researchers), as well as a new chapter on developments in the neurological underpinnings of empathy from brain imaging studies. In the upcoming 2014 annual meeting of the American Osteopathic Association, Dr. Hojat, as a keynote speaker in a one-day seminar, will present highlights of research findings on empathy in patient care with implications for admissions to undergraduate and graduate medical education, and for professional development of physicians-in-training and in-practice.

We continue our collaboration with the Jefferson School of Nursing in research on nursing students’ empathy and interprofessional collaboration; and with the Department of Emergency Medicine on strategies to enhance empathy among emergency medicine residents. In this academic year, in collaboration with Jefferson School of Nursing, Jefferson School of Population Health, Jefferson School of Pharmacy, and Jefferson Center for Interprofessional Education (JCIPE) we developed a new instrument: Jefferson Scale of Attitudes toward Interprofessional Collaboration (JeffSATIC). This is the first psychometrically supported instrument for measuring orientation toward teamwork and interprofessional collaboration in health profession students and practitioners regardless of their academic disciplines and areas of practice. Evidence in support of the psychometrics of this instrument collected in large samples of students in different disciplines from four health professions academic centers in the United States and Australia will be published in the *Journal of Interprofessional Care*.

**HEALTH SERVICES RESEARCH**

The Center receives external funding to support its health services and policy related research and quality improvement initiatives.

Center researchers continued work on a major series of projects being performed in collaboration with the regional health care system of Emilia-Romagna, Italy.

We have developed models to predict risk of hospitalization for patients with chronic disease. Details of these models, which perform as well or better than similar models in other countries, have recently been published in *BMJ Open*. A collaborative grant application submitted by the Regional Health Care Research Agency and Jefferson to refine these models has been funded by the Italian Ministry of Health. Model results, along with profiles of patients identified as “high risk” are being provide to physicians and other health professionals associated with newly formed “medical homes” to assist in efforts towards proactive management of patients with chronic disease that may reduce the likelihood of preventable, high cost hospitalization.

At the request of the Parma Local Health Authority we have begun to explore the development of predictive models to identify high risk patients in the pediatric population. Profiles of high risk children will be provided to pediatricians and other health care professionals involved in care for this population.

We are performing analyses using administrative data to measure quality of care at the end of life for patients with cancer. This project, performed in collaboration with the University of Bologna and the Emilia-Romagna Regional Health and Social Care Research Agency, evaluates key indicators, such as use of chemotherapy, hospitalization, home health care, hospice care, and use of pain medication in the last months of life.

At the request of the director general of the regional health care system, we analyzed the distribution and outcomes of major cancer surgery in the region focusing on the relationship between volume of procedures performed and patient outcomes. A study of follow-up care for breast cancer survivors was published in *Tumori*. 
Building on our work with the Emilia-Romagna Region and the database and analytical methods previously developed, the team at Thomas Jefferson University has been collaborating on a series of analyses for the Local Health Authority of Parma that use population-based methods to provide information useful to the hospitals, the health districts, and the Parma Health Authority in their ongoing efforts to improve the quality and efficiency of care provided to their populations.

The Emilia-Romagna Region has built a population-based longitudinal health care database for the ~5 million individuals who were residents of Emilia-Romagna in the period 2004 through 2013. The database is built from encounter-based records of an individual’s interaction with the health care system using administrative data. Since Italy has a National Health Service, all residents of the region are included, without limitations concerning age or insurance status. The value of the database has been increased by adding clinical classifications mapped from the hospital and pharmacy data. The Disease Staging classification, developed by Center faculty, has been used to classify the severity of primary diagnosis and co-morbidity for hospitalized patients and to identify individuals who may be at higher risk for utilizing more extensive or expensive health services in the future. Another set of indicators (Chronic Condition Drug Groups - CCDGs) uses outpatient pharmacy data and the Italian national formulary to identify individuals with selected chronic diseases.

The Center is collaborating with Timothy Showalter, MD, previously with the TJU Department of Radiation Oncology, now at the University of Virginia, on a project which uses the Emilia-Romagna longitudinal database to identify men who have had a radical prostatectomy for prostate cancer and assess complications of post-prostatectomy radiation therapy. The goal of the project is to improve our understanding of real-world complications in order to provide information that can help decision making about the use of radiotherapy after prostatectomy for patients with high risk prostate cancer. With support from the American Cancer Society, we are collaborating with Scott Keith, PhD, in a project investigating survival benefits associated with angiotensin blockade therapies in pancreatic cancer patients.

**TEACHING**

Center faculty taught a module on health care organization and financing as a part of the Introduction to Clinical Medicine course for first-year medical students and the Gateway to Internship course for fourth-year medical students and have served as guest lecturers at Catholic University in Rome and the University of Pisa.
Faculty

Joseph S. Gonnella, MD, Director
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Dr. Gonnella is Distinguished Professor of Medicine, Dean Emeritus of Jefferson Medical College, and founder and director of the Center. Dr. Gonnella received his BA from Dartmouth College (summa cum laude) and his MD from Harvard Medical School. He has been awarded the Commendatore dell’ordine della Stella della Solidarietà Italiana in 1978; the Grande Ufficiale in 1995 by the President of Italy; the Dongbaeg Medal by the President of Korea; the Presidential Medal by Dartmouth College; and the Presidential Citation by Thomas Jefferson University. He has received honorary degrees from the University of Chieti, Italy, SoonChun-Hyang University in Seoul, Korea, Widener University, the University of Minho in Portugal, and the International Medical University of Malaysia. He has also received an honorary professorship from Tianjin Medical College in Tianjin, China, and a Distinguished Fellowship from the International Medical University, Malaysia. In 1998 he received the Abraham Flexner Award from the Association of American Medical Colleges (AAMC). Dr. Gonnella’s research has focused on the relationship between knowledge, capabilities, and clinical performance. He has developed the Disease Staging evaluation system that is used in the U.S. and internationally to assess the quality and costs of health care.

Clara A. Callahan, MD, Deputy Director
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Dr. Callahan is a Professor of Pediatrics and the Lillian H. Brent Dean of Students and Admissions. She received her Bachelor of Arts degree in anthropology from Wayne State University. She subsequently attended the Medical College of Pennsylvania, where she did two years of her pediatric residency before moving to Jefferson to complete her last year of residency training. She subsequently was the Charles Culpepper Fellow in Ambulatory Pediatrics. She was appointed to the Pediatrics faculty in 1982 and joined the Dean’s Staff of the Medical College in 1987. After initially working in Student Affairs, she became the Dean for Admissions in 1999. Given Dr. Callahan’s long time involvement with medical students, it is not surprising that much of her research centers on the performance on students in medical school and beyond. Her most recent paper, with Drs. Hojat and Gonnella, “The predictive validity of three versions of the MCAT in relation to performance in medical school, residency, and licensing examinations: a longitudinal study of 36 classes of Jefferson Medical College”.

Mohammadreza Hojat, PhD, Director of Longitudinal Study
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Dr. Mohammadreza Hojat is Research Professor in the Department of Psychiatry and Human Behavior and the Director of the Jefferson Longitudinal Study at the Center. He received his PhD from the University of Pennsylvania. In addition to the development of the longitudinal database of medical students and graduates, he has pioneered new instruments measuring psychosocial factors and student personal qualities in relation to academic and clinical performance. Dr. Hojat has led the development of the following four scales that measure aspects of professionalism in medicine: Jefferson Scale of Empathy, Jefferson Scale of Physician Lifelong Learning, Jefferson Scale of Attitudes toward Physician–Nurse Collaboration, and Scale of Attitudes toward Physician-Pharmacist Collaboration. He has more than 30 years of experience in educational and psychological research, and has published over 200 articles in peer reviewed journals and 13 book chapters. He is a manuscript referee for several American and European professional journals, and has
served as a guest co-editor for thematic issues of the *Journal of Social Behavior and Personality* (on loneliness), *Academic Medicine* (on assessments in medical school and beyond), and *Evaluation, the Health Professions* (on changes in the health care system). Dr. Hojat is a licensed psychologist, and in addition to medical education, other areas of his research interest include physician empathy, physician lifelong learning, inter-professional collaboration, psychosocial factors in academic and professional performance, mother-child attachment, psychodynamic study of loneliness, cross-cultural studies, and personality development and measurement. Dr. Hojat is a coauthor of two books: *Loneliness: Theory, Research, and Applications* (Springer, 1987), and *Assessment Measures in Medical School, Residency, and Practice: The Connections* (Springer, 1993). Dr. Hojat’s book: *Empathy in Patient Care: Antecedents, Development and Outcomes* was published by Springer in 2007, and its second edition will be released in 2015.

**Daniel Z. Louis, MS, Managing Director, Research Associate Professor of Family and Community Medicine**

Daniel Z. Louis is a Research Associate Professor of Family and Community Medicine and Managing Director of the Center. He is one of the developers of the Disease Staging system used in the evaluation of severity of illness in the U.S. and internationally to assess quality and costs of health care. Mr. Louis is principal investigator of a series of collaborative projects with the Emilia-Romagna Region, Italy, and the Parma, Italy Local Health Authority which is using a large population-based database to address a variety of issues relating to organization, financing, and quality of care. Mr. Louis lectures on Health Policy as a part of the Introduction to Clinical Medicine course for first year medical students, and lectures at the Università Cattolica del Sacro Cuore, Rome, as part of their Master’s Program in Health Administration and the University of Pisa, Italy, faculty of economics. Mr. Louis is a reviewer for the *Annals of Internal Medicine* and *Medical Care* and a member of the editorial board of Jefferson’s Population Health Matters newsletter.

**Jon Veloski, MS, Director of Medical Education Research**

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As Director of Medical Education Research, Mr. Veloski’s primary responsibilities are in student assessment and evaluation of the MD curriculum. He serves as Instructor in the Department of Psychiatry and Human Behavior. His current research is related to measurement issues in simulation-based clinical skills assessment, the value of self-assessment in clinical simulation, and evaluation of inter-professional education. Mr. Veloski completed his graduate work (ABD) in Measurement and Evaluation at the University of Pennsylvania. He is a member of the Society of Directors of Research in Medical Education and served as a reviewer for six journals last year.

**Mary R. Robeson, MS, Project Coordinator, Medical Education Division**

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Tel: 215-955-9390  

Mary R. Robeson is an Instructor in the Department of Psychiatry and Human Behavior at Jefferson. Her primary responsibilities are with the collaborative projects studying the quality and cost of care in the Italian health care system and in the development of a longitudinal, population-based, health care utilization database including the four million residents of the Emilia-Romagna Region of Italy. She is also involved in student assessment and evaluation of the medical education programs. Ms. Robeson also has a major role in the data analysis and scoring of the OSCEs at the Clini-
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Ms. Robeson holds a master’s degree in educational measurement from the University of Pennsylvania.

**Technical Staff**

**Sarah Hegarty, MPhil, Statistical Analyst**
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Sarah Hegarty joined the Center in October 2013. As a Statistical Analyst, she is responsible for the programming and analysis of research projects in the healthcare field using SAS to analyze U.S. and Italian databases. Since starting at the Center, she has been involved with research projects studying end of life care quality indicators and rates of hospitalizations due to ambulatory care sensitive conditions in the Emilia-Romagna region. She holds an MPhil degree in Statistical Science from the University of Cambridge.

**Mengdan Liu, MS, Programmer/Analyst**
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Tel: 215-503-6087

Mengdan Liu joined the Center in August 2011. As a Research Programmer/Analyst, she is responsible for the programming and analysis of research projects in the healthcare field using SAS to analyze U.S. and Italian databases. Since she joined the Center, she has been working on various projects analyzing quality of the regional health care system using the data from Emilia-Romagna Region, Italy. She has also been involved in multiple research projects, such as distribution of surgical care in the region, and development of healthcare profiles for the population served by the health districts and primary care units in the AUSL of Parma. Her background includes an MS degree in Biostatistics.

**Kaye Maxwell, BS, Consultant**
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Kaye Maxwell earned her BS in Mathematics from Mary Washington College in Fredericksburg, VA, and taught secondary mathematics for 10 years before coming to Jefferson in 1995. After 17 years at Jefferson, she retired as manager of testing services in 2012 but continues to administer services related to the Jefferson Scales of Empathy on a consultant basis. Her responsibilities include correspondence with clients and prospective clients, creating paper and on-line surveys, updating scoring programs, analyzing data and reporting results. She maintains the databases that track correspondence, orders, translations of the scales and publications.

**Edward C. Nicks, Jr., Statistical Assistant**
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Mr. Nicks has been with the Center since 1986. He is a Statistical Assistant whose primary responsibility is coordinating examination and evaluation services for the Medical College and the College of Health Professions. He assists in the maintenance of the longitudinal database of medical students and graduates, coordinating mailings, collecting data, and providing statistical analysis and reports. He also assists in the management of computers and other hardware within the Center.

**Carol Rabinowitz, BA, Programmer/Analyst**
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Mrs. Rabinowitz is Programmer/Analyst for the Center. She holds a bachelor’s degree in Sociology and Mathematics from Rutgers University. She is responsible for SAS programming for projects analyzing data from
the health care databases of the Emilia-Romagna Region, Italy.

**Administrative Staff**

**Phyllis M. Accetta, Administrative Assistant**  
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Mrs. Accetta is the Administrative Assistant to Dr. Gonnella, Director for the Center. She came to the Center in July 2000. Prior to coming to the Center she was Secretary to the Dean of Jefferson Medical College from September 1996 to July 2000. Mrs. Accetta provides administrative support to Dr. Gonnella. She also provides support to Center staff for the preparation of project reports and publications.

**David Evans, BA, Administrative Assistant**  
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Tel: 215-955-9458

David Evans is the Administrative Assistant to Daniel Louis, Managing Director of the Center. He joined the Center in January 2010. David provides administrative support to Mr. Louis and assists with the organization of course materials and presentations. He also provides support to Center staff for the preparation of project reports and publications.
Research Collaborators

TJU Research Collaborators
The Center collaborates with multiple other TJU faculty and staff. The following individuals served a major role on externally funded Center projects in the current academic year.

Vittorio Maio, PharmD, MS, MSPH, Associate Professor, Jefferson School of Population Health
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Vittorio Maio is Research Associate Professor in the Jefferson School of Population Health. He is also Director of the Health Economics & Outcomes Research Fellowship Programs. Dr. Maio’s research interests are in the areas of outcomes analysis and medication usage and policy. He is Associate Editor of the American Journal of Medical Quality and serves as a reviewer for several professional journals, including JAMA-Internal Medicine, The Lancet, Pharmacoepidemiology and Drug Safety, and Drugs & Aging. Dr. Maio received his Doctor of Pharmacy degree from the University of Perugia (Italy), took the Italian Pharmacist Board Certification, and received both his Master of Science in Pharmacology and his Master of Science in Public Health from Thomas Jefferson University. He lectures on Health Policy issues in the Masters programs of the Jefferson School of Population Health and in the Master’s Program in Management of Health Care Organizations at the University of Pisa, Italy, Faculty of Economics. He teaches Pharmacoepidemiology in the Master of Science Program in Pharmacology for trainees in the NIH K30 Training Program and lectures on Applied Epidemiology in Healthcare at University of Parma, Italy, Faculty of Medicine, School of Specialization in Hygiene.

John McAna, PhD, Senior Research Statistical Analyst, Jefferson School of Population Health
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John McAna is a Senior Research Statistical Analyst in the Jefferson School of Population Health. He is responsible for providing statistical and programming support for active projects and assists in protocol development for proposed projects. Dr. McAna has a BS in biology from Manhattan College in New York and an MA in biology from City College of New York. He earned his PhD in epidemiology from the University of Pennsylvania, specializing in cancer and environmental epidemiology. Dr. McAna has 14 years of experience doing health care/health services analysis and research in the managed care industry (Independence Blue Cross and Greater Atlantic Health Service), 6 years in the biomedical information industry (Information Ventures, Inc.) and 6 years in public health (both the NY and NJ State Depts. of Public Health). Dr. McAna’s research interests are in the areas of the evaluation of disease and care management programs, quality management, and provider assessment and improvement.

Scott W. Keith, PhD, MS, Assistant Professor, Biostatistics Pharmacology & Experimental Therapeutics
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Scott W. Keith is an Assistant Professor of Biostatistics in the Department of Pharmacology and Experimental Therapeutics, Division of Biostatistics. He received his BA from The University of Vermont, his MS in Mathematics from The University of New Orleans, and his PhD in Biostatistics from The University of Alabama at Birmingham. He is Associate Editor of Frontiers in Nutrition Methodology and Editorial Board Member of the American Journal of Medical Quality. Dr. Keith’s research interests include obesity-related outcomes,
cancer outcomes, risk of hospitalization, medication usage and policy, modeling event rate data, and developing nonlinear statistical methods. He teaches GC 630: “Fundamentals of Clinical Trials” in the Jefferson Graduate School of Biomedical Sciences. Dr. Keith is collaborating with Center faculty and staff on several projects performed in collaboration with the Agency for Health and Social Care of the Emilia-Romagna Region and the Parma Local Health Authority.
Visiting Scholars

The Center periodically hosts researchers from other institutions. The Center’s visiting scholars include:

Yoshihisa Asano, PhD
The Founder, Trustee of Noguchi Medical Research Institute
President, CEO of Noguchi Medical Research Corp.
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Carlos Manuel Morais da Costa, PhD
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Publications and Presentations

Publications


Louis DZ, Robeson M, McAna J, Maio V, Keith SW, Mengdan L, Gonnella JS, Grilli R. Predicting risk of hospitalization or death: A retrospective population based analysis. BMJ


Presentations

Gonnella, JS
The education of the physician: An international challenge. Presented at States at Humanitas Research Hospital, Milano, Italy (March 2014).

How to develop and maintain a longitudinal study of medical education. Presented at the 45th Annual Meeting of the Japan Society for Medical Education, Chiba, Japan (July 2013).

Tracking the past to trace the future: Longitudinal study of medical education outcomes. Presented at the 45th Annual Meeting of the Japan Society for Medical Education, Chiba, Japan (July 2013).

Hojat, M
Empathy in the context of medical education and patient care. Grand rounds presentation at Vanderbilt University Medical Center, Nashville, Tennessee (May 2014).

Empathy in medical education and patient care: Dispelling the myth. Presented at the Cleveland Clinic’s Symposium on Empathy. Cleveland, Ohio (March 2014).

How to develop and maintain a longitudinal study of medical students. Presented at the 45th Annual Meeting of the Japan Society for Medical Education. Chiba University, Chiba, Japan (July 2013).


Personality and empathy assessments in health profession education: Credibility issues. Presented at a symposium on “Examining the Evidence” sponsored by the Association for the study of Medical Education (ASME), Sheffield University, Sheffield, United Kingdom (October 2013).

Tracking the past to trace the future: Longitudinal study of medical education outcomes. Presented at the 45th Annual Meeting of the Japan Society for Medical Education. Chiba, Japan (July 2013).


Veloski JJ
Young G, Stewart E, Veloski JJ. Gateway to Internship: Improving Confidence and Competence for Rising Interns. Accepted for presentation, Annual Meeting of the Association of American Medical Colleges, Philadelphia 2013.

Teaching and Other Professional Activities

Teaching
Gonnella JS, Louis DZ
“Evaluation of Health Care Quality and Cost”
Università Cattolica del Sacro Cuore, Facoltà di Medicina e Chirurgia, Istituto di Igiene (Rome, Italy), Masters Program in Health Administration
Louis DZ
“Health Policy/An Introduction to the US Health Care System: Cost and Financing.” (Part of ICM course for first year medical students)
Jefferson Medical College
MaioV
“Pharmacoepidemiology”
Master of Science in Pharmacology, Thomas Jefferson University
Maio V
“Foundations of Pharmacology” lectures
Jefferson Medical College
Maio V, Louis DZ
“Management delle Aziende Sanitarie” Masters Program in Health Care Management,
University of Pisa, Italy

Honors
Joseph S. Gonnella, MD
Dr. Gonnella received an Honorary Degree in Medicine from the International Medical University, Kuala Lumpur, Malaysia at an Honoris Causa Ceremony held on March 7, 2012.

Dr. Gonnella is a visiting professor at the Osaka City University Graduate School of Medicine, Osaka, Japan from July 1, 2012 to June 30, 2013.

Dr. Gonnella is honorary president of Tokyo Bay Urayasuichikawa Medical Center, (Noguchi Hideyo Memorial International Hospital), Tokyo, Japan. February 2012.

Clara A. Callahan, MD
Dr. Callahan is a visiting professor at the Osaka City University Graduate School of Medicine, Osaka, Japan, from July 1, 2012 to June 30, 2013.

Other Professional Activities
Joseph S. Gonnella, MD
Memberships
- Alpha Omega Alpha Honor Medical Society (Honorary)
- American Association for the Advancement of Science
- American Medical Society
- Royal College of Physicians, Edinburgh, Scotland
- Editorial Board, American Journal of Medical Quality

Extramural Activities
- Noguchi Medical Research Institute, Emeritus Trustee
- Tianjin Medical University, People’s Republic of China – Chairman of Advisory Committee of Foreign Experts
- University of Minho, Portugal, External Advisory Committee
- Japan Association for Development of Community Medicine, Tokyo Japan, Chairman of External Advisory Committee

Clara A. Callahan, MD
Memberships
- Phi Beta Kappa
- Alpha Omega Alpha Honor Medical Society (Honorary)
- Association of American Medical Colleges, Group on Student Affairs
- American Medical Association
- Representative to the Section of Medical Schools
- American Medical Women’s Association
- Pennsylvania Medical Society
- Philadelphia Medical Society
- Philadelphia Pediatric Society

Extramural Activities
- Reviewer for Research in Medical Education (RIME) presentations at the annual AAMC meetings
- Reviewer for the AAMC web-tool
MedEdPortal
- Reviewer for Academic Medicine
- Survey Visit Team Member for the Liaison Committee on Medical Education

Mohammadreza Hojat, PhD
Memberships
- American Psychological Association
Reviewer
Journal of Family Issues
Medical Education
Medical Teacher
Nursing Research

Daniel Z. Louis, MS
Memberships
- Scientific Advisory Committee, Italian Ministry of Health, New Hospital Financing System
- American Public Health Association
- Clinical Care Sub-Committee, Jefferson University Physicians (JUP)

- Editorial Board, Jefferson Health Policy Newsletter
Reviewer
Annals of Internal Medicine
Medical Care

Vittorio Maio, PharmD, MS, MSPH
Memberships
- Associate Editor, American Journal of Medical Quality

Jon Veloski, MS
Memberships
- Society of Directors of Research in Medical Education
Reviewer
Academic Medicine
BMC Medical Education
Journal of Arthroplasty
Medical Education
Medical Teacher
Teaching and Learning in Medicine