

# CURRICULUM VITAE

## DAVID MENDEZ

Work Address:  
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## EDUCATION

Ph.D. in Management Science/Operations Management. 1995. Department of Management, The Eli Broad Graduate School of Management, Michigan State University. Minor fields in System Science, Econometrics and Information Systems. Dissertation title: *An Investigation of the Impact of Continuous Quality Improvements on Optimal Pricing.*

M.S. in Applied Statistics. 1990. Department of Statistics and Probability, Michigan State University.

M.S. in Operations Research/ System Science. 1987. Department of Electrical Engineering and System Science, Michigan State University.

B.S. in Civil Engineering (Cum Laude). 1985. Universidad Nacional Pedro Henriquez Ureña. Santo Domingo, Dominican Republic.

## HONORS AND AWARDS

Keynote Speaker, University of Michigan Enriching Scholarship Conference, 2004.

Laureate of the ComputerWorld Honors Program, for innovation in Instructional Technology and Distance Education, 2003.

Excellence in Teaching Award. School of Public Health, University of Michigan, 2000.

Health Care Theme Chair. Decision Sciences Institute Annual Meeting. Orlando, Fl., November 2000.

## **EMPLOYMENT**

2005-present; Associate Professor, Department of Health Management and Policy, School of Public Health, The University of Michigan

1997-2005; Assistant Professor, Department of Health Management and Policy, School of Public Health, The University of Michigan.

1996-1997; Visiting Assistant Professor, Department of Management, Eli Broad Graduate School of Management, Michigan State University.

1995-1997; Paul A. Cornely Postdoctoral Fellow, Department of Health Management and Policy, School of Public Health, The University of Michigan.

1993-1995; Research Associate, Department of Public Health Policy and Administration, School of Public Health, The University of Michigan.

1987-1993; Teaching and Research Assistant, Department of Management, Eli Broad Graduate School of Management, Michigan State University.

1984-1985; Computer Systems Consultant, METALDOM, Santo Domingo, Dominican Republic.

1981-1985; Computer Systems Manager, Natural Resources Management Project, Ministry of Agriculture, Dominican Republic.

## **TEACHING**

### **Core Courses:**

Health Management & Policy 654. *Operations Research and Control Systems*

This Course provides a rational framework for decision making for both operating and control systems in the hospital environment. Emphasizes basic modeling techniques and examples of actual hospital applications. Aims at thorough understanding of concepts of total value analysis, objective function formation, and exception reporting. Students become familiar with operations research techniques of inventory modeling, queuing, computer simulation, PERT/CPM, mathematical programming, and quality control. Presentation emphasizes objectives, constraints, and required assumptions of each of these techniques as applied to specific hospital examples.

Health Management & Policy 655. *Decision Making Models in Health Care*

Application of computer models for decision making in the health care sector. The students are exposed to Monte Carlo Simulation, Process Simulation, Multiple

Regression analysis, Discriminant Analysis, Project Management, Inventory Control, Integer Linear Programming, and Multi-Criteria Optimization. Use of computers and spreadsheet modeling is emphasized throughout the class.

### Health Management & Policy 553. *Data Management in Health Care*

This course covers relational database theory and spreadsheet modeling with applications to health care. The students are expected to develop a working knowledge of design, implementation, administration and maintenance of small to medium relational database systems. The students will also be exposed to complex spreadsheet modeling and analysis.

## PUBLICATIONS

### Peer-Reviewed Journal Articles:

- Mendez D, Tam J, Giovino GA, Tsodikov A, and Warner KE. "Has Smoking Cessation Increased? An Examination of the US Adult Smoking Cessation Rate 1990-2014." *Nicotine & Tobacco Research*, 2016, 1-7, doi:10.1093/ntr/ntw239.
- Li, S, Bruen BK, Lantz PM, and Mendez D. "Impacts of Health Insurance Expansions on Non-elderly Adults with Hypertension." *Preventing Chronic Disease*, 2015;12:150111.
- Lantz, PM, Mendez, D, Philbert, MA, and Gondik, S. "The role of smoking in radon-induced lung cancer: Implications for radon control policy." *American Journal of Public Health*, 2013;103(3):443-7.
- Warner, KE and Mendez, D. "Accuracy and Importance of Projections from a Dynamic Simulation Model of Smoking Prevalence in the United States." *American Journal of Public Health*, 2012;102(11):2045-8
- Mendez, D, Alshanqeety, O, and Warner KE. "The Impact of Smoking Control Policies on Future Smoking Trends." *Tobacco Control*, 2012(April 25) doi:10.1136/tobaccocontrol-011-050147.
- Mendez D, Alshanqeety O, Warner KE, Lantz PM and Courant PN. "The impact of declining smoking on radon-related lung cancer in the U.S." *American Journal of Public Health*, 2011;101(2):310-4.
- Warner KE and Mendez D. "Tobacco control policy in developed countries: Yesterday, today and tomorrow." *Nicotine and Tobacco Research*. 2010;12(9):876-87.
- Mabry PL, Marcus SE, Clark PE, Leischow S and Mendez D. "System science: a revolution in public health policy research." *American Journal of Public Health*, 2010;100(7):1161-3.

- Mendez D, "A systems approach to a complex problem." *American Journal of Public Health*, 2010;100(7):1160.
- Dempsey AD and Mendez D. "Examining future adolescent human papillomavirus vaccine uptake, with and without a school mandate." *Journal of Adolescent Health*, 2010;47(3):242-8.
- Nahra TA, Mendez D and Alexander JA. "Employing Super-efficiency Analysis as an Alternative to DEA: An Alternative Approach to Efficiency Analysis with an Outpatient Substance Abuse Treatment." *European Journal of Operational Research*, 2009;196(3):1097-106.
- Mendez D and Warner KE. "Setting a challenging, yet realistic smoking prevalence target for Healthy People 2020: Learning from the California experience." *American Journal of Public Health*, 2008;98(3):556-9.
- Warner KE, Mendez D and Alshanqeety O. "Tobacco control success or demographic destiny? Examining the causes behind the low smoking rates in California." *American Journal of Public Health*, 2008;98(2):268-9.
- Alaimo K, Bassett EM, Wilkerson R, Petersmarck K, Mosack J, Mendez D, Coutts C, Grost L and Stegmier L. "The Promoting Active Communities Award: Development of Michigan's Self-Assessment Tool." *The Journal of Physical Activity and Health*, 2008;5(1):4-18.
- Mendez D and Narasimhan R. "Dynamic Interaction among Price, Quality, Durability and the Sales Rate in a Steady State Environment." *Mathematical and Computer Modeling* 2006;44(1-2):49-64.
- Ramson S, Keeton K, Mendez D, Johnson T and Randolph J. "Maximize births or minimize cerebral palsy: A cost effectiveness analysis of in vitro fertilization." *American Journal of Obstetrics and Gynecology*, 2004;191(6):S116-S116.
- Warner KE, Mendez D and Smith DG. "Cost Effectiveness of Smoking Cessation Programs in Managed Care Organizations." *Inquiry*, 2004;41(1):57-69.
- Mendez D and Warner KE. "Smoking Trends in the US: Declining as Expected if not as Desired." *American Journal of Public Health*, 2004;94:251-2.
- Mendez D, Hassmiller KM, Jacobson PD, and Zellman GL. "Physician Response to Prenatal Substance Exposure." *Maternal and Child Health Journal*, 2003;7:187-96.
- Hassmiller KM, Warner KE, Mendez D, Levy D and Romano E. "Non-Daily Smokers: Who are they?" *American Journal of Public Health*, 2003;93:1321-7.

- Mendez D and Narasimhan R. "Examining Market Oriented Aspects of Cost of Quality through an Implicit Estimation Procedure." *IEEE Transactions on Engineering Management*, 2002;49(2):131-9.
- Levy D, Chaloupka F, Gitchell J, Mendez D and Warner KE. "The Use of Simulation Models for Surveillance, Justification and Understanding of Tobacco Control." *Health Care Management Science*, 2002;5:113-120.
- Forker L and Mendez D. "An Analytical Method for Benchmarking Best Peer Suppliers." *International Journal of Operations and Production Management*, 2001;21(1-2):195-209.
- Narasimhan R. and Mendez, D, "Strategic Aspects of Quality: A Theoretical Analysis", *Production and Operations Management*, 2001;10(4):514-26.
- Narasimhan R, Talluri S and Mendez D. "Supplier Evaluation and Rationalization via Data Envelopment Analysis: An Empirical Examination." *Journal of Supply Chain Management*, 2001;37(3):28-37.
- Mendez D and Warner KE. "Smoking Prevalence in the Year 2010: Why the Healthy People Goal is Unattainable." *American Journal of Public Health*, 2000;90(3):401-3.
- Grabski S and Mendez D. "Implementation of a Knowledge-Based Agricultural Geographic Decision Support System in the Dominican Republic: A Case Study," *Information Technology and People*, 1998;11(3):174-93.
- Mendez D, Warner KE and Courant PN. "The Effects of Radon Mitigation vs. Smoking Cessation in Reducing Radon-related Risk of Lung Cancer." *American Journal of Public Health*, 1998;88(5):1811-2.
- Mendez D, Warner KE and Courant PN. "Has Smoking Cessation Ceased? Expected Trends in the Prevalence of Smoking in the United States." *American Journal of Epidemiology*, 1998;148(3):249-58.
- Forker L, Mendez D and Hershauer J. "Total Quality Management in the Supply Chain: What is its Impact on Performance?" *International Journal of Production Research*, 1997;35(6):1681-701.
- Narasimhan R, Mendez D and Ghosh S. "An Examination of the Effect of Continuous Quality Improvements on Optimal Pricing for Durable Goods." *Decision Sciences*, 1996;27(3):389-413.
- Warner KE, Mendez D and Courant PN. "Toward a More Realistic Appraisal of the Lung Cancer Risk from Radon: The Effects of Residential Mobility." *American Journal of Public Health*, 1996;86(9):1222-7.
- Warner KE, Courant PN and Mendez D. "Effects of Residential Mobility on Individual Versus

Population Risk of Radon-related Lung Cancer.” *Environmental Health Perspectives*, 1995;103(12):1144-9.

Narasimhan R, Ghosh S and Mendez D. “A Dynamic Model of Product Quality and Pricing Decisions on Sales Response.” *Decision Sciences*, 1993;24(5):893-908.

### **Chapters of books:**

Institute of Medicine. “Assessing the Use of Agent-Based Models for Tobacco Regulation.” Institute of Medicine committee report. 2015.

Mendez D et al. “Tobacco Control Simulation Models.”, Appendix 15.1 in 50 Years of Progress: A Report of the Surgeon General, 2014. US Department of Health and Human Services, 2014.

Mendez D and Warner KE. “Commissioned Simulation Modeling of Smoking Prevalence as an Outcome of Selected Tobacco Control Measures.” Chapter in The Institute of Medicine's Committee on Reducing Tobacco Use, eds. *Ending the Tobacco Problem: A Blueprint for the Nation The Institute of Medicine*, 2007.

Mendez D, Warner KE and Courant PN. “Expected Trends in the Prevalence of Cigarette Smoking.” Chapter in Lu R, Mackay J, Niu S and Peto R, eds. *The Growing Epidemic*, Singapore: Springer-Verlag, 2000:49-52.

Mendez D and Grabski S. “DREAGIS: A Knowledge-Based Agricultural Geographic Information System for the Dominican Republic.” Chapter in Mann CK and Ruth SR, eds. *Expert Systems in Developing Countries: Practice & Promise*, Boulder, CO: Westview Press, 1992:127-145.

## **FUNDING**

MI-Health and Human Services. An Investigation of the Impact of Radon Remediation in Michigan, \$86,718. 05/16 – 08/17. Mendez, Principal Investigator

Robert Wood Johnson Foundation. University of Michigan Policies for Action Research Hub, \$1,200,000. 06/16 – 05/18. Lantz, Principal Investigator.

NIH. School Mandates for Human Papillomavirus Vaccination: Use of an Agent-Based Model to Express Potential Impact of Social Networks and Different Policy Options, \$250,000. 07/10 - 06/12. Dempsey/Mendez, Principal Investigator

Trinity Health. Health IT Evaluation at the Trinity Health System: Review of Research Summaries, \$11,234. 01/09 - 12/09. Zheng, Principal Investigator

International Union Against Tuberculosis. Development of Global Smoking Rate Targets for Tobacco Control, \$110,275. 10/08 - 08/09. Warner, Principal Investigator

UM - Office of the Vice President for Research. Tobacco Modelers Conference: How to Avoid

25 Million Tobacco Related Deaths Over the Next 50 Years in the U.S. \$2,500. 05/08 - 05/08. Mendez, Principal Investigator

NIH. Study of the Impact of Heterogeneity and Non-Random Mixing on Smoking Behavior, \$50,717. 04/08 - 03/10. Mendez, Principal Investigator

Hewlett Foundation. Global ACCESS: Open Educational Resources for Health Sciences Education University of Michigan Health Professions Education Schools, \$25,000. 02/08 - 01/09. Stern, Principal Investigator

NIH. Modeling the Impact and Costs of Radon Policy for Lung Cancer Control, \$393,961. 04/07 - 03/10. Mendez, Principal Investigator

UM - Tobacco Research Network. Systems Modeling in Tobacco Control: State of the art and future directions, \$10,000. 09/06 - 08/08. Mendez, Principal Investigator

UM - Tobacco Research Network. The Impact of Smoking on Population-Level Tuberculosis Dynamics and Policy Implications, \$39,961. 09/05 - 08/07. Mendez, Principal Investigator

Blue Cross Blue Shield of Michigan Foundation. The Costs and Burden of Declining Health Among Nursing Home Residents in Michigan, \$75,000. 09/05 - 08/07. Banaszak-Holl, Principal Investigator

Environmental Assessment for Physical Activity Surveillance. Association of Schools of Public Health, \$279,416. 10/03 – 09/06. Mendez, Principal Investigator

Rich Media Modules for On Demand Learning Solutions. Faculty Development Fund. University of Michigan Center for Research in Learning and Teaching. \$10,000. 01/04 – 12/04. Mendez, Principal Investigator

Executive Training Institutes for Public Health Leaders. Association of Schools of Public Health (CDC Prime), \$263,330. 11/22 – 10/04. Monto, Principal Investigator

Michigan Academic Center for Public Health Preparedness. Association of Schools of Public Health (CDC Prime), \$913,639. 10/02 – 09/04. Clark, Principal Investigator

The Michigan Public Health Training Center. Health Resources and Services Administration, \$511,444. 09/00 – 08/05. Citrin, Principal Investigator

Robert Wood Johnson Foundation. A Comparative Evaluation of Risk-Adjustment Methodologies for Profiling Physician Practice Efficiency., \$202,247. 05/99 – 06/02. Thomas, Principal Investigator

Robert Wood Johnson Foundation. The Impact of Smoking Control Policies on Future Smoking Prevalence and Health Status., \$287,030. 09/98 – 08/01. Mendez, Principal Investigator

Modeling the Impact of Public Health Policies Regarding Professionals. National Institutes of Health, \$10,000. 10/97 – 06/99. Lantz, Principal Investigator

## **PROFESSIONAL ACTIVITIES**

### **Editorial Boards:**

Decision Sciences Journal of Innovative Education, Associate Editor  
Decision Sciences Institute, Publications Committee Member  
*Decision Sciences Journal*, Editorial Board Member  
*Journal of Production and Operations Management*, Editorial Board Member  
*Journal of Telemedicine*, Editorial Board Member  
*American Journal of Health Promotion*, Editorial Board Member

### **Professional Memberships:**

Decision Sciences Institute  
The Institute for Operations Research and the Management Sciences  
Production Operations Management Society

### **University Service:**

SPH Practice Committee, Member  
HMP Web Committee, Chair  
HMP Residential Masters Committee, Member  
Information Services (PHISA) Steering Committee, Chair  
Executive Master's Degree Program (On-Job/On-Campus) Committee, Member  
On-Job/On-Campus Programs, Distance Learning Coordinator  
Reach Detroit, Steering Committee Member  
Invited Faculty Speaker, Center for Research on Learning and Teaching  
School of Public Health Distance Learning Pilot, Project Coordinator  
Bioterrorism Preparedness Center, Distance Learning Consultant  
Michigan Public Health Training Center, Distance Learning Consultant  
Committee on Institutional Innovation in Collaborative Technologies for Learning, Chair  
University Librarian and Dean of the Libraries Search Committee, Member  
CTools Faculty Advisory Committee, Member  
Health Management and Policy Executive Masters' Program, Chair  
Digital Innovations Advisory Group, Member  
University of Michigan Academic Innovation Steering Committee, Member  
University of Michigan Information Technology Council, Member

### **Extramural Service:**

Healthy People 2020 Objectives – Tobacco Use Workgroup (CDC)  
ASPH Council on Learning Futures, Chair  
Consultant, Institute of Medicine  
Consultant, Food and Drug Administration  
Member, Institute of Medicine Committee