

## DAVID MICHAELS PhD, MPH

### PROFESSIONAL EMPLOYMENT AND APPOINTMENTS

#### Current Employment and Academic Appointment

The Milken Institute School of Public Health of George Washington University		
Department of Environmental and Occupational Health		
Professor		2009-present
Vice-Chair for Education		2019-present
Interim Chairman		2008-2009
Associate Chairman		2004-2008
Research Professor		2001-2009
Department of Epidemiology		
Professor		2017-present

#### Previous Employment and Primary Academic Appointments

The United States Department of Labor		
Assistant Secretary for Occupational Safety and Health		2009-2017
The United States Department of Energy		
Assistant Secretary for Environment, Safety and Health		1998-2001
The City University of New York Medical School		
Department of Community Health and Social Medicine		
Professor		1996-2001
Acting Chairperson		1992, 1996-7
Associate Professor		1990-1995
Montefiore Medical Center/Albert Einstein College of Medicine		
Department of Epidemiology and Social Medicine		
Director, Division of Public Health		1988-1990
Director, Program in Occupational Health		1981-1988
Curriculum Coordinator		1979-1981
Research Associate		1977-1979

#### Additional Academic Appointments

The Icahn School of Medicine at Mount Sinai		
Department of Environmental Medicine and Public Health		
Adjunct Professor		2001-present
Adjunct Associate Professor		1993-2000

The Albert Einstein College of Medicine  
 Department of Epidemiology and Population Health

Visiting Associate Professor	1991-2008
Associate Professor	1990-1991
Assistant Professor	1981-1990
Instructor	1980-1981

**EDUCATION**

The City College of New York	1977 BA	History ( <u>cum laude</u> )
Columbia University	1981 MPH	Epidemiology
	1987 PhD	Sociomedical Sciences

**ADDITIONAL POST-GRADUATE TRAINING**

Quantitative Methods in Cancer Epidemiology. The International Agency for Research on Cancer, Lyon, France, 1985.

**FELLOWSHIPS AND RESIDENCIES**

World Health Organization Travel Fellowship, 1992  
 Robert Wood Johnson Foundation Health Policy Fellowship, Washington, DC 1993-1994  
 Rockefeller Foundation Bellagio Center Residency, Bellagio, Italy 2018

**AWARDS, HONORS & ELECTED MEMBERSHIPS**

Jay S. Drotman Memorial Award, American Public Health Association, 1984  
 Bicentary Keynote Lecturer, Sydney Hospital, Sydney, Australia, 1988  
 Samuel Gompers Award, International Assoc. of Industrial Accident Boards & Commissions, 2000  
 National Academy of Social Insurance, 2000-2009, 2017-Present  
 Meritorious Service Award, United States Department of Energy, 2001  
 Honorary Kentucky Colonel, 2001  
 Honorary Duke of Paducah (Kentucky), 2001  
 David P. Rall Award for Advocacy in Public Health, American Public Health Association, 2001  
 Collegium Ramazzini (Fellow), 2003-2009, 2017-present  
 Scientific Freedom and Responsibility Award, American Association for the Advancement of Science, 2005  
 Delta Omega (Honorary Society in Public Health), 2007-present  
 John P. McGovern Science and Society Award, Sigma Xi, 2009  
 Environmental Hero of the Year, Environmental Relief Center, 2009  
 ASPH/Pfizer Public Health Academy of Distinguished Teachers, 2009-present  
 Jeffrey S. Lee Lecture, American Industrial Hygiene Conference, Toronto, Canada, 2009  
 Robert Wood Johnson Health Policy Fellowship Program, Lifetime Achievement Award, 2010

Isidore I. Benrubi Lecture, Columbia University School of Public Health, 2010  
Clara Lemlich Public Service Award, Triangle Shirtwaist Factory Fire Memorial, 2011  
Allan Rosenfield Alumni Award for Excellence, Columbia Univ. School of Public Health, 2012  
Inaugural Cancer and Society Lecture, International Agency for Research on Cancer, Lyon, France, 2012  
John T. Dunlop Memorial Forum, Harvard Law School, 2013  
William Steiger Memorial Award, American Conference of Governmental Industrial Hygienists (ACGIH), 2013  
Paul Robeson Award, District 1199C American Federation of State, County and Municipal Employees, 2013  
Jorma Rantanen Award, Finnish Institute of Occupational Health, Helsinki, Finland, 2013  
J. William Lloyd Award, United Steelworkers, 2018  
William D. Wagner Award, American Conference of Governmental Industrial Hygienists (ACGIH), 2018

### **ORIGINAL COMMUNICATIONS**

1. Velasquez E, Hassan A, Belmar R, Drucker E, Michaels D. Inorganic Mercury Poisoning- Nicaragua. *MMWR* 29:393, 1980.
2. Hassan A, Velasquez E, Belmar R, Coye M, Drucker E, Landrigan P, Michaels D, Sidel K. Mercury Poisoning in Nicaragua. A Case Study of Environmental and Occupational Health Hazards by a Multinational Corporation. *Int J Health Serv* 11:221-226, 1981.
3. Michaels D. Occupational Cancer in the Black Population. The Health Effects of Job Discrimination. *J Nat Med Ass* 75:1014-1018, 1983.
4. Michaels D, Nagin D, Zoloth S. Occupational Hazards in the Dental Office. *NY State Dent J* 50:294-297, 1984.
5. Michaels D, Barrera C, Gacharna MG. Economic Development and Occupational Health in Latin America. *New Directions for Public Health in Less Developed Countries. Amer J Pub Health* 75:536-542, 1985.
6. Zoloth S, Michaels D. Asbestos Disease in Sheet Metal Workers. The Results of a Proportional Mortality Analysis. *Amer J Ind Med* 7:315-321, 1985.
7. Zoloth SR, Michaels DM, Villalbi JR, Lacher M. Patterns of Mortality among Commercial Pressmen. *J Nat Cancer Inst* 76:1047-1051, 1986.
8. Zoloth S, Michaels D, Lacher M, Nagin D, Drucker E. Asbestos Disease Screening by Non-Specialists. The Results of an Evaluation. *Amer J Pub Health* 76:1392-1395, 1986.
9. Michaels D, Zoloth S, Lacher M, Holstein E, Lilis R, Drucker E. Asbestos Disease in

- Sheet Metal Workers II. Radiologic Signs of Asbestosis among Active Workers. *Amer J Ind Med* 12:595-603, 1987.
10. Drucker E, Michaels D, Nagin D, Zoloth S. Exposure of Sheet Metal Workers to Asbestos during Construction and Renovation of Commercial Buildings in New York City. A Case Study in Social Medicine. *Ann NY Acad Sci* 502:230-244, 1987.
  11. Michaels D, Zoloth S. Asbestos Disease in Sheet Metal Workers. Proportional Mortality Update. *Amer J Ind Med* 13:731-734, 1988.
  12. Michaels D. Waiting for the Body Count. Corporate Decision Making and Bladder Cancer in the U.S. Dye Industry. *Med Anthro Q* 2:215-232, 1988.
  13. Solet D, Zoloth S, Sullivan C, Jewett J, Michaels D. Patterns of Mortality in Pulp and Paper Workers. *J Occup Med* 31:627-630, 1989.
  14. Alcabes P, Vossenas P, Cohen R, Braslow C, Michaels D, Zoloth S. Compliance with Isoniazid Prophylaxis in Jail. *Amer Rev Resp Dis* 140:1194-1197, 1989.
  15. Shenson D, Dubler N, Michaels D. Jails and Prisons. The New Asylums? *Amer J Pub Health* 80:655-656, 1990.
  16. Michaels D, Zoloth S. Mortality among Urban Bus Drivers. *Int J Epidem* 20:399-404, 1991.
  17. Michaels D, Zoloth S, Stern FB. Does Low-Level Lead Exposure Increase Risk of Death? A Mortality Study of Newspaper Printers. *Int J Epidem* 20:978-983, 1991.
  18. Welch LS, Michaels D, Zoloth S. Asbestos-Related Disease among Sheet Metal Workers: Preliminary Results of the National Sheet Metal Worker Asbestos Disease Screening Program. *Ann NY Acad Sci* 643:287-295, 1991.
  19. Michaels D, Zoloth S, Alcabes A, Braslow C, Safyer S. Homelessness and Indicators of Mental Illness among Inmates in New York City's Correctional System. *Hospital and Community Psychiatry* 43:150-155, 1992.
  20. Michaels D, Zoloth S, Bernstein N, Kass D, Schrier K. Workshops Are Not Enough. Making Right-To-Know Training Lead to Workplace Change. *Amer J Ind Med* 22:637-649, 1992.
  21. Michaels D, Levine C. Estimates of the Number of Motherless Youth Orphaned by AIDS in the United States. *JAMA* 268:3456-3461, 1992.
  22. Zoloth S, Safyer S, Rosen J, Michaels D, Alcabes P, Bellin E. Anergy Compromises

- Screening for Tuberculosis in High Risk Populations. *Amer J Pub Health* 83:749-751, 1993.
23. Welch LS, Michaels D, Zoloth SR. The National Sheet Metal Worker Asbestos Disease Screening Program. Radiologic Findings. *Amer J Ind Med* 25:635-648. 1994.
  24. Michaels D. When Science Isn't Enough: Wilhelm Hueper, Robert A.M. Case and the Limits of Scientific Evidence in Preventing Occupational Bladder Cancer. *Int J Occup Environ Health* 1:278-288, 1995.
  25. Michaels D. Fraud in the Workers' Compensation System. Origin and Magnitude. *Occupational Medicine State of the Art Reviews* 13:439-442, 1998.
  26. Michaels D, Bingham E, Boden L, et al. Advice without Dissent. (editorial) *Science* 298:703, 2002.
  27. Michaels D. Environmental Health Science and the Legacy of Popular Literature. *Environ Health Perspectives* 111:14-5, 2003.
  28. Michaels D, Wagner W. Disclosure in Regulatory Science. *Science* 302:2073, 2003.
  29. Wagner W, Michaels D. Equal Treatment for Regulatory Science. Extending the Controls Governing the Quality of Public Research to Private Research. *Amer J Law Med* 30:119-154, 2004.
  30. Michaels D. *In Memoriam*. Thomas F. Mancuso, MD, MPH 1912-2004. *Amer J Ind Med.* 47:1-3, 2005. (Also published in *Eur J Oncol* 9.189-190, 2004.)
  31. Michaels D. Scientific Evidence and Public Policy. (editorial) *Amer J Public Health* 95:Suppl1.S5, 2005.
  32. Michaels D, Monforton C. Manufacturing Uncertainty. Contested Science and the Protection of the Public's Health and Environment. *Amer J Public Health* 95.Supp11:S39-48, 2005.
  33. Michaels D, Monforton C. Scientific Evidence in the Regulatory System: Manufacturing Uncertainty and the Demise of the Formal Regulatory System. *J Law Policy* 13(1): 17-41, 2005.
  34. Dweck A, Lurie P, Michaels D, Wolfe S. Hexavalent Chromium Study's Conclusions Unjustified. (letter) *J Occup Environ Med.* 47:980-1, 2005.
  35. Michaels D. Doubt is their Product. *Scientific American* 292:74-80, June 2005.

36. Michaels D, Monforton C, Lurie P. Selected Science: An Industry Campaign to Undermine an OSHA Hexavalent Chromium Standard. *Environmental Health* 5:5, 2006.
37. Neutra RR, Cohen A, Fletcher T, Michaels D, Richter ED, Soskolne CL. Toward Guidelines for the Ethical Reanalysis and Reinterpretation of Another's Research. *Epidemiology*. 17:335-8, 2006.
38. Michaels D. Mercenary Epidemiology – Data Reanalysis and Reinterpretation for Sponsors with Financial Interest in the Outcome. *Ann Epidemiol* 16:583-5, 2006.
39. Michaels D. Manufactured Uncertainty: Protecting Public Health in the Age of Contested Science and Product Defense. *Ann NY Acad Sci*. 1076:149-62, 2006.
40. Michaels D. Sarbanes-Oxley for Science. *Law & Contemp Problems* 69(3):1-19, 2006.
41. Michaels D, Monforton C. The Beryllium Occupational Exposure Limit: Historical Origin and Current Inadequacy. *J Occup Environ Med*. 48:998-1001, 2006.
42. Michaels D, Monforton C, Lurie P. Lung Cancer Mortality in the German Chromate Industry, 1958 to 1998. *J Occup Environ Med*. 48:995-7, 2006.
43. Welch LS, Haile E, Dement J, Michaels D. Change in Prevalence of Non-Malignant Asbestos-Related Disease among Sheet Metal Workers 1988-2004. *Chest*. 131:863-9, 2007.
44. Michaels D, Monforton C. How Litigation Shapes the Scientific Literature: Asbestos and Disease Among Automobile Mechanics. *J Law & Policy* 5(3):1137-1169, 2007.
45. Michaels D, Monforton C. Beryllium's Public Relations Problem. Protecting Workers When There Is No Safe Exposure Level. *Public Health Reports* 123:79-88, 2008. doi: 10.1177/003335490812300112
46. Michaels D. Addressing Conflict in Strategic Literature Reviews: Disclosure is not Enough. *J Epidemiol Comm Health*. 2009;63:599-600. doi: 10.1136/jech.2009.089524
47. Michaels D. OSHA Does Not Kill Jobs: It Helps Prevent Jobs from Killing Workers. *Amer J Ind Med* 55:961-963, 2012. doi: 10.1002/ajim.22122. Epub 2012 Sep 19.
48. Michaels D, Howard J. Review of the OSHA-NIOSH Response to the Deepwater Horizon Oil Spill: Protecting the Health and Safety of Cleanup Workers. *PLOS Currents Disasters*. 2012 Jul 18. doi: 10.1371/4fa83b7576b6e.

49. Michaels D, Burke T. The Dishonest HONEST Act. (editorial) *Science* 356:989 2017. DOI: 10.1126/science.aan5967.
50. Gandhi TK, Kaplan GS, Leape L, et al. Transforming concepts in patient safety: a progress report. *BMJ Quality & Safety*. 2018;27(12):1019-1026. DOI: 10.1136/bmjqs-2017-007756.
51. Michaels, D. Reimagining Our System for Public Health Protection. *Amer J Public Health* 109(7):975-976. 2019. DOI: 10.2105/AJPH.2019.305126.
52. Michaels D, Barab J. OSHA at 50: Protecting Workers in a Changing Economy. *Amer J Public Health* 2020;110(5):631-635. DOI: 10.2105/AJPH.2020.305597.
53. Ndebele P, Shaikh H, Paichadze N, et al. Commercial determinants of health: an ethical exploration [published online ahead of print, 2020 Aug 25]. *Int J Public Health*. 2020;10.1007/s00038-020-01427-x. doi:10.1007/s00038-020-01427-x.
54. Michaels D, Wagner GR. Occupational Safety and Health Administration (OSHA) and Worker Safety During the COVID-19 Pandemic. *JAMA*. 2020;324(14):1389-1390. doi:10.1001/jama.2020.16343

### **BOOKS, CHAPTERS, TRANSLATIONS, AND REPORTS**

1. Michaels D. Minority Workers and Occupational Cancer. The Hidden Costs of Job Discrimination. In *Behavior, Health Risks and Social Disadvantage*. National Academy of Sciences Interim Report No. 6. Washington, DC. National Academy Press, 1982.
2. Michaels D, Zoloth S. Occupational Safety. Why Do Accidents Happen? *Occ Health Nursing* 30.12-16, 1982.
3. Michaels D, O'Leary K, Frumkin H. How to Determine the Hazard of a Substance. In Occupational Health. Recognizing and Preventing Work-Related Disease. Levy B and Wegman D, editors. Boston. Little, Brown and Company, 1983.
4. Michaels D, Zoloth S. Securite du Travail. Pourquoi les Accidents Arrivent-Ils? *Histoire des Accidents du Travail* (Nantes, France), 15.71-83, 1983.
5. Michaels D, Barrera C, Gacharna MG. Occupational Health and the Economic Development of Latin America. *Multinational Monitor* 9.11-13, 1984.
6. Michaels, D. Tackling Tight Building Syndrome. What Can Workers Do? In Human Aspects in Office Automation. Cohen BGF, editor. Amsterdam, The Netherlands; Elsevier Science Publishers, 1984.

7. Michaels D, Barrera C, Gacharna MG. O Desenvolvimento Economico e a Saude Ocupacional na America Latina. Novas Tendencias para a Saude Publica em Paisessubdesenvolvidos. Revista Brasileira de Saude Ocupacional (Sao Paolo, Brazil), 13:7-14, 1985.
8. Michaels D, Barrera C, Gacharna MG. Occupational Health and the Economic Development of Latin America. In The Export of Hazards. Transnational Corporations and Environmental Control Issues. Ives J, editor. Boston. Routledge & Kegan, Paul, 1985.
9. Dubler NN (ed). Standards for Health Services in Correctional Institutions, 2nd Edition. (Contributed chapter "Occupational Health Services") Washington DC. American Public Health Association, 1986.
10. Michaels D. Remarks on the Role of the University. In Asbesto y Salud en America Latina. Mitastein M, editor. Mexico City. Pan American Health Organization, 1987.
11. Michaels D, Mendes R, Christiani DC, Xue-qi G. Occupational Health in Selected Developing Countries. In Occupational Health. Recognizing and Preventing Work-Related Disease (2nd Edition). Levy B and Wegman D, eds. Boston. Little, Brown and Co., 1988.
12. Michaels D, Zoloth S. How to Research the Toxic Effects of Chemical Substances. In Occupational Health. Recognizing and Preventing Work Related Disease (2nd Edition). Levy B and Wegman D, eds. Boston. Little, Brown and Co., 1988.
13. Michaels D, Mazzocchi A, Eller SW, Edelsack P. A Labor Perspective on the Role of the Health Care Provider in Occupational Health and Safety. In Environmental and Occupational Medicine (2nd Edition). Rom W, ed. Boston. Little, Brown and Co., 1992.
14. Geiger HJ, Rush D, Michaels D. Dead Reckoning. A Critical Review of the Department of Energy's Epidemiologic Research. Washington DC. Physicians for Social Responsibility, 1992.
15. Kaminsky M, Klitzman S, Michaels D. Health Profile of Cancer, Asthma and Childhood Lead Poisoning in Greenpoint/ Williamsburg. New York City Department of Health 1992.
16. Belmar R, Hofmeister V, Michaels D, Moreno AR, Romieu I. Air Pollution. In Environmental Epidemiology. A Project for Latin America and the Caribbean. Finkelman J, Corey G, Calderon R, editors. Mexico City. Pan-American Health Organization, U.S. Environmental Protection Agency, International Programme on Chemical Safety and Global Environmental Epidemiology Network (WHO) 1993.



17. Michaels D. Colorfast Cancer. The Legacy of Corporate Malfeasance in the U.S. Dye Industry. In Toxic Circles. Workplace to Community. Sheehen HE and Weeden RP, editors. New Brunswick. Rutgers University Press 1993.
18. Michaels D, Levine C. The Youngest Survivors. Estimates of the Number of Motherless Youth Orphaned by AIDS in New York City. In A Death in the Family. Orphans of the HIV Epidemic. New York. United Hospital Fund 1993.
19. Michaels D. Projections of Motherless AIDS Orphans under 15 in Six Countries. In Action for Children Affected by AIDS. Programme Profiles and Lessons Learned. A Joint World Health Organization/United Nations Children's Fund Document. New York. UNICEF 1994.
20. Zoloth S, Michaels D. How to Research the Toxic Effects of Chemical Substances. In Occupational Health. Recognizing and Preventing Work-Related Disease (3rd Edition). Levy B and Wegman D, editors. Boston. Little, Brown and Company 1995.
21. Michaels D. ERISA - State Flexibility. In Winning Issues in Health Care Reform. A Report from the 1993-1994 RWJ Health Policy Fellows. Advances. The Newsletter of the Robert Wood Johnson Foundation 8(1):2, 1995.
22. Levine C, Michaels D, Back SD. Orphans of the HIV/AIDS Epidemic. Emerging Global Trends and Programmatic Responses. In AIDS and the World (2nd Edition). Mann J and Tarantola D, editors. New York. Oxford University Press 1996.
23. Michaels D. Estimated Number of Children and Adolescents Orphaned by Maternal HIV/AIDS in New York State. In Families in Crisis. A Report of the Working Committee in HIV Families and Children. New York. Feder. Protestant Welfare Agencies 1996.
24. Michaels D. Estimates of Motherless Youth in New Jersey. In Issues Affecting New Jersey's Orphans of the HIV Epidemic New Jersey AIDS Partnership 1997.
25. Forest W, Kubota C, Zoloth S, Michaels D, Cone J. How to Research the Effects of Chemical Substances or Other Workplace Hazards. In Occupational Health. Recognizing and Preventing Work-Related Disease (4th Edition). Levy B and Wegman D, editors. Philadelphia. Lippincott Williams and Wilkins 2000.
26. Michaels D. Regulatory Science. Does Peer Review Help or Hurt? In Rescuing Science from Politics. Regulation and the Distortion of Scientific Research. Wagner W and Steinzor S, editors. New York. Cambridge University Press 2006.
27. Michaels D. Manufactured Uncertainty. Contested Science and the Protection of the Public's Health and Environment. In Agnotology. The Making and Unmaking of Ignorance. Proctor RN and Schiebinger L, editors. Stanford University Press 2008.

28. Michaels D. Doubt is Their Product. How Industry’s War on Science Threatens Your Health. New York. Oxford University Press 2008.
29. Michaels D, Wagner GR. Work, Health, and Well-Being. In Environmental Health: From Global to Local.(3rd Edition). Frumkin H, ed. San Francisco. Jossey-Bass, 2016.
30. Michaels, D. Seven Ways to Improve Operations without Sacrificing Worker Safety. Harvard Business Review. March 21, 2018.
31. Michaels D. The Triumph of Doubt: Dark Money and the Science of Deception. New York. Oxford University Press 2020.
32. Michaels D. Wagner GR. Halting Workplace COVID-19 Transmission: An Urgent Proposal to Protect American Workers. The Century Foundation. October 15, 2020.

**RECENT MAJOR NATIONAL AND GLOBAL LEADERSHIP POSITIONS**

Federal Advisory Council on Occupational Safety and Health, Chair Administrative Conference of the United States	2009-2017
Government Member	2010-2017
Senior Member	2018-present
Emerging Technologies Interagency Policy Coordination Committee	2010-2012
National Science and Technology Council, Committee on Homeland and National Security	2010-2017
National Toxicology Program, Chair, Executive Committee	2011-2017
Member, Board of Scientific Counselors	2018-present
National Academy of Medicine Roundtable on Environmental Health Sciences, Research, and Medicine	2011-2018
Global Reporting Initiative, Occupational Health & Safety Work Group Member	2017-2018
Lucian Leape Institute of the Institute for HealthCare Improvement/ National Patient Safety Foundation Member	2017-present
Singapore Ministry of Manpower International Advisory Panel	2018-present
Steelworkers Charitable & Educational/Tony Mazzocchi Center Advisory Board	2019-present
Aspen Institute Science and Society Advisory Council Member	2020
National Academy of Sciences, Engineering, and Medicine Study Panel Member “A Framework for Equitable Allocation of Vaccine for the Novel Coronavirus”	2020
Study Panel Member “Respiratory Protection for the Public and Workers without Respiratory Protection Programs at their Workplaces	2020-present
Lancet COVID-19 Commission Member, Task Force on Workplace, School, and Travel Safety	2020-present
Biden-Harris Transition COVID-19 Advisory Board	2020-2021

## **PEER REVIEWER**

### **Journals:**

AIDS

American Journal of Industrial Medicine

American Journal of Public Health

International Journal of Epidemiology

International Journal of Occupational and Environmental Health

Journal of the American Medical Association

Preventive Medicine (Editorial Board)

Public Health Reports

Science

### **Agencies and Institutions:**

National Academy of Sciences/Institute of Medicine

National Center for Environmental Health/Agency for Toxic Substance and Disease Registry

National Institute for Occupational Safety and Health

## **INTERNATIONAL CONSULTANTSHIPS**

Inter-American Center for the Study of Social Security (Mexico)

International Labour Organization

Marshall Islands Nuclear Claims Tribunal, Office of the Public Advocate

Ministry of Health and Institute of Social Security (Colombia)

Pan American Health Organization - Center for Human Ecology and Health (Mexico)

United Nations Centre on Transnational Corporations (New York)