EDWARD F.X. HUGHES, MD, M.P.H.

Professor of Health Enterprise Management, and Management and Strategy, Kellogg School of Management Northwestern University 2001 N. Sheridan Road, #5216A

Evanston, Illinois 60208

(847) 491-8384 Fax: 847/491-2683

e-mail: efx-hughes@kellogg.northwestern.edu

Licensed Physician and Surgeon

State of Illinois

License #: 336-019057

Education

B.A., 1962 Amherst College (Philosophy) M.D., 1966 Harvard Medical School

M.P.H., 1969 Columbia University School of Public Health

Honors Bradley Award, 1962

Haley Research Fellowship, 1964

Strangeways Research Laboratory, Cambridge, England

Health Career Scientist Award,

Health Research Council of the City of New York,

1973, 1974, 1975

Beta Gamma Sigma, 1981

Latiolais Honor Medal in Managed Healthcare, 1999

Professional Experience

Current Positions:

Northwestern University Professor of Health Enterprise Management,

Kellogg School of Management

Professor of Management and Strategy,

Kellogg School of Management

Professor of Preventive Medicine, Feinberg School of

Medicine (1977-present)

Co-Director, The Biotechnology Program

Kellogg School of Management (2001 – present)

Previous Positions:

Northwestern University

Academic Director, "Managed Care Strategy," Executive Education Program, Kellogg School of

Management

Founder and Immediate Past Director, Center for Health

Services and Policy Research, 1977-1994

Director, Program in Hospital and Health Services Management, Kellogg Graduate School of

Management, 1980-1983

Founder of, and Co-Chairman, Steering Committee, MD/MBA Joint Degree Program, Kellogg School of

Management & The Feinberg School of Medicine, 1986-91

Mount Sinai School of Medicine, City University of New York

Instructor-Associate Professor,

Department of Community Medicine, 1969-77

Acting Director, Division of Health Economics, Department of Community Medicine, 1974-77

Director of Field Studies, Health Economics, Department of Community Medicine, 1972-77

Mount Sinai Hospital New York, New York Assistant Attending, 1970-77

National Bureau of Economic

Research

New York, New York

Research Associate, 1970-77

Project Director, Surgical Manpower Project

Columbia University Lecturer, School of Social Work, 1972-76

Mount Sinai School of Medicine,

City University of New York

Presbyterian Hospital in the

City of New York

Resident, Department of Community Medicine, 1969-70

Surgical House Officer (Intern, First, and Second Year

Resident, 1966-68)

Other Current Positions:

Academic Director, Leadership Program at Kellogg, The Regulatory Affairs Professionals Society, 2000-

Academic Director, Executive Leadership Program and Executive Leadership Program for Medical Directors, America's Health Insurance Plans, Inc, 1992 –

Member, Continuing Education Task Force, America's Health Insurance Plans, 2004 –

Member, Dean's Advisory Board, Chicago College of Osteopathic Medicine, Midwestern University,

2003 -

Member, Editorial Board, Health Care Business Digest, 1996 -

Member, Editorial Board, Journal of Clinical Outcomes Management, 1994 -

Member, Editorial Board, Counseline, 1993 -

Member, Editorial Board, Managed Healthcare News, 1990 -

Member, Editorial Board, ManagedCare Interface, 1988-

Member, Robert H. Lurie Cancer Center, The McGaw Medical Center of Northwestern University

Member, Advisory Board, Biotech Medical Management Association, 1998 -

Charter Member, The Health Care 500, 1993-

Fellow, American College of Physician Executives, 1986-

Fellow, Center on Aging, McGaw Medical Center, Northwestern University, 1987

Member, National Managed Health Care Congress, Executive Advisory Board, 1987 -

Co-Chairman, Steering Committee, MD/MM Joint Degree Program, The Kellogg

Graduate School of Management & The Medical School, Northwestern University, 1986-91 Who's Who in America, 1986-

Steering Committee, National Managed Health Care Congress, 1988

Member, Medical Administrators Conference, 1977-

Consulting Reviewer:

New England Journal of Medicine

Journal of the American Medical Association

Health Care Financing Review

Medical Care

Milbank Memorial Fund Quarterly/Health and Society

American Journal of Public Health

Other Previous Positions:

Founding Editor, HMO/PPO Trends, 1987-1989

Member, Board of Directors, Boston Latin School Club of Chicago, 1981-1985

Consultant, Blue Cross and Blue Shield of Illinois, Division of Provider Affairs, Professional Relations and Government Affairs, 1985-86

Charter Member, Editorial Board, HMO Practice, 1986-90

Senior Consultant, Midwest Business Group on Health, 1983-88

Consultant, American Medical Association, Department of Health Care Financing and Organization, 1980-83

Consultant, American College of Surgeons, SocioEconomic Affairs Department, 1978-80

Co-Founder; Charter Vice President; Member, Board of Directors; Chairman, National Affairs Committee; Association for Health Services Research, Washington, D.C., 1982-85

Member, Committee on Institutional Research, Association of University Programs in Health Administration, Washington, D.C., 1982-84

Who's Who in the Midwest, 1982

Personalities of America, 1982

Men of Achievement, 1981

Member, National Advisory Board, The American Network: Subsidiary of American Medical Buildings, Inc., Milwaukee, Wisconsin, 1981-83

Consultant, National Center for Health Services Research, Office of the Director:

Member, Advisory Group, "Synthesis and Dissemination of Research Findings on Catastrophic Health Insurance," Lewin and Associates, 1980-82.

Member, Advisory Group, "Synthesis and Dissemination of Research Findings on HMO

Operations and Performances," Applied Management Sciences, 1979-81

Member, Advisory Group, "Contract Workshops on Health Services Research Tools,"

University of Pennsylvania National Health Care Management Center, 1978-79

Member, Advisory Group, "Evaluation of Computerized Problem-Oriented Medical Information System (PROMIS)," 1975-78

Member, Advisory Committee: American Academy of Pediatrics Research Project, Division of Health Services Research, "Physician Participation in Medicaid," 1980-82

Who's Who in the East, 1976

Outstanding Young Men, U.S. Jaycees, 1976

Member, Committee on Public Health, New York Academy of Medicine, 1975-77 Chairman, Subcommittee on Medical Care, New York Academy of Medicine, 1975-77

Member, Board of Directors, Association of Teachers of Preventive Medicine, 1973-75

Representative, Council of Academic Societies, Association of American Medical Colleges, 1975-77

Consultant, Office of Policy Planning and Research, Health Care Financing Administration; Member, Advisory Group: "Evaluation of Ambulatory Surgical Centers," 1975-77

Member, Caucus on Renewal of Health Manpower Legislation, Washington, D.C., 1974

Founding Member, Editorial Board, Journal of Community Health, 1974-78

Consultant, Subcommittee on Organization, Financing, and Delivery of Surgical Care: Study of Surgical Services in the United States, American College of Surgeons--American Surgical Association, 1971-76

Consultant, Office of the Administrator, Health Services Administration of the City of New York, 1970-73

Professional Associations

American College of Physician Executives
American Medical Association
American Economic Association
American Public Health Association
Association for Health Services Research
Association of Teachers of Preventive Medicine
Boylston Society, Harvard Medical School
American Association for the Advancement of Science

Grant Resources Raised at Northwestern University

(Total Grant Resources Raised: over \$20 million

Publications

Books:

<u>Perspectives on Quality in American Health Care</u>, (Editor), McGraw-Hill, Washington, D.C., 1988.

<u>Hospital Cost Containment Programs: A Policy Analysis</u>, (with D.P. Baron, D.A. Dittman, B.F. Friedman, B.B. Longest Jr., M.V. Pauly and K.R. Smith), Ballinger Press, Cambridge, Massachusetts, 1978.

Publications (Continued)

Chapters:

"Assessing the Impact of Total Quality Management and Organizational Culture on Multiple Outcomes of Care for Coronary Artery Bypass Graft Surgery Patients," (with Shortell, S, et al.) Medical Care, February, 2000, Vol. 38:2, 207-217.

"Implementing Continuous Quality Improvement," (with Robin Gillies, Katherine Reynolds, Stephen Shortell, Peter Budetti, Alfred Rademaker, Cheng-Fang Huang, David Dranove) <u>The Quality Imperative</u>, Edited by John R. Kimberly, Univ. of Pennsylvania and Etienne Minvielle, Paris, Chapter 5, 2000.

"Physician Involvement in Quality Improvement: Issues, Challenges, and Recommendations," (with Stephen Shortell, Ph.D., James O'Brien, M.A., James Carman, Ph.D.; Richard Foster, Ph.D., Heidi Boerstler, Ph.D., Edward O'Connor, Ph.D. and Robin R. Gillies, Ph.D.) Improving Clinical Practice: Total Quality Management and the Physician, Edited by D. Blumenthal and A.C. Scheck, San Francisco: Jossey-Bass, Chapter 8, 1995.

"The Ascendancy of Management: National Health Care Reform, Managed Competition and Its Implications for Physician Executives." Lead Chapter in New Leadership in Health Care Management: The Physician Executive II, The American College of Physician Executives, Tampa, FL, 1994.

"Forward," in <u>The Physician's Guide to Managed Care</u>, David B. Nash, (Editor), Aspen Publishing, 1993.

"The Challenges Facing American Medicine: The Search for a New Equilibrium and Its Implications for Physician Executives." Lead Chapter in <u>The Physician Executive</u>, American Academy of Medical Directors, Tampa, FL, 1988.

<u>The Model Competitive Health Care Purchasing System</u>, Midwest Business Group on Health, Chicago, Illinois, 1984. Chapters: Basis of Payment - Hospitals; Basis of Payment - Physicians; and Basis of Payment - Other Providers.

Articles:

"Organizational and Economic Determinants of Formulary Adoption Decisions," Dranove, D., Hughes, E., Shanley, M., <u>Health Services Research</u>, February 2003.

"Does Continuous Quality Improvement Matter? The Case of Total Hip Replacement," Budetti, P., Dranove D., Gilles, R., Huang, C., Hughes, E., Rademaker, A., Reynolds, K., Shortell, S., Under Review.

"Keys for Successful Implementation of TQM in Hospitals," Carman, J.M., Shortell, S.M., Foster, R.W., Hughes, E.F.X., Boerstler, H., O'Brien, J.L., O'Connor, E.J; <u>Health Care</u> Management Review, Vol 21, #1, Winter, 1996.

"Implementation of Total Quality Management: Conventional Wisdom versus Reality Boerstler, H, Foster, R.W., O'Connor, E.J., O'Brien, J.L., Shortell, S.M., Carman, J.M., Hughes, E.F.X., <u>The Journal of Hospital & Health Services Administration</u>, Vol. 41, #2, 143-159, Summer, 1996.

"An Integrative Model for Organization-wide Quality Improvement: Lessons from the Field," O'Brien, J.L.; Shortell, S.M.; Hughes, E.F.X.; Foster, R.W.; Carman, J.M.; Boerstler, H; and O'Connor, E.J; Quality Management in Health Care, 3(4), 19-30, 1995.

"Assessing the Impact of Continuous Quality Improvement/Total Quality Management: Concept versus Implementation" Shortell, S; O'Brien, J; Hughes, E; Boersteler, H; and O'Connor, E; <u>Health Services Research</u>, 30:2, pp 377-401, June, 1995.

"Assessing the Evidence on CQI: Is The Glass 1/2 Empty or 1/2 Full?" Shortell, S, Levin, D.Z, O'Brien, J.L, and Hughes, E.F.X. <u>Hospital and Health Services Administration</u>, Vol 40, #1, pp 4-24, 1995.

"Assessing the Progress of TQM in US Hospitals: Findings from Two Studies," S. Shortell, J. O'Brien, E. Hughes, J. Carman, R. Foster, H. Boerstler, and E. O'Connor. <u>The Quality Letter</u>, pp 14-19, 1994.

"The Impact of Managed Care on Dermatology," (with T. M. Waters), <u>Cutis</u>, pp. 2-8, November, 1993.

"Open Cholecystectomy: A Contemporary Analysis of 42, 474 Patients," (with J. Roslyn, M.D., G. Binns, Ph.D., K. Saunders-Kirkwood, M.D., M. Zinner, M.D., and J. Cates, M.D., Annals of Surgery, Vol. 218, No. 2, 129-137, August, 1993.

"Should Cost-Effectiveness Analysis Be a Criterion for Medical Coverage? A Moderating Viewpoint," (with R. Friedman), Medical Interface, January, 1992.

"Regional Variation in Medicare Hospital Mortality," (with L.M. Manheim, J. Feinglass, and S.M. Shortell), <u>Inquiry</u>, 29: 55-66, Spring, 1992.

"The Physician's Role in Quality Assessment and Improvement," (with J. L. O'Brien), Topics in Health Care Financing, 18(2), pp. 33-45, Winter, 1991.

<u>Health Care in the 1990s and Beyond--Focus on Outcomes</u>, (Editor), Highlights of Symposia, Excerpta Medica, Inc., April 28, 1990, Newport Beach, CA. and June June 23, 1990, Minneapolis, MN.

"Training House Officers to be Cost Conscious: Effects of an Educational Intervention," (with L.M. Manheim, J. Feinglass, R. Hughes, G. Martin and K. Conrad), <u>Medical Care</u>, January, 1990.

"Trends in Health Care Systems Delivery." The American Association of Colleges of Pharmacy in "Pharmacy in the 21st Century", 1989

"The Effects of Regulation, Competition, and Ownership on Mortality Rates Among Hospital Inpatients," (with S.M. Shortell), <u>The New England Journal of Medicine</u> 318:17, pp. 1100-1107, April 28, 1988.

"The Future of Managed Care: Challenges Within the Search for the New Equilibrium-I." Keynote Address in "Changing Patterns of Health Care Delivery: Opportunity or Obstacle?" January 10, 1986. <u>Proceedings of the Annual Meeting</u>, The Medical Directors Division of the Group Health Association of America, Inc., Washington, D.C., 1986

"Medicare Beneficiary Decision Making About Health Insurance: Implications for a Voucher System," (with S.A. LaTour and B.F. Friedman), <u>Medical Care</u> 24:7, July 1986.

"The Cost-Effectiveness of Non-Steroidal Anti-Inflammatory Drugs for Arthritis." (Guest Editor.) <u>Postgraduate Medicine</u>, Special Supplement, July 1986.

"A Synopsis of Federal-State Sponsored Preventive Child Health" (with J. Reis and S. Pliska), <u>Journal of Community Health</u> 9:3, pp. 222-239, 1984.

"The Vouchering of Medicare: A Marketing Research Approach" (with S. LaTour and B. Friedman). Presented at the Conference on the Future of Medicare sponsored by the U.S. House of Representatives Committee on Ways and Means, the Congressional Budget Office, and Congressional Research Service, 98th Congress, 2nd Session, Washington, D.C., November 29-30, 1983. U.S. Government Printing Office, Washington, D.C., February 1, 1984.

"Surgical Utilization Statistics: Some Methodologic Considerations," (with V. Sauter) Medical Care, 21:370-377, 1983.

"The Contribution of Health Services Research to National Health Policy," Testimony before the Subcommittee on Health and the Environment, Committee on Commerce and Energy, U.S. House of Representatives, at its hearings on the Renewal of the National Center for Health Services Research and the National Center for Health Statistics (H.R. 2562), April 7, 1981, Serial No. 97-14, U.S. Government Printing Office, 1981, pg.241-256.

"Paraprofessional Manpower Policy and the GMENAC Report," <u>The Crisis in Health Professions' Strategy</u>, National Health Council, New York, 1981.

"Technological Innovation Under Regulatory and Competitive Cost Containment," <u>Health Care Regulation and Competition: Are They Compatible?</u> (Volume I),

Project Hope Institute for Health Policy, Health Sciences Education Center, Millwood, Virginia, 1981.

"Research on the Utilization of Evaluations: A Review and Synthesis," (with L. Leviton), Evaluation Review, 4:525-548, 1981.

"A Comparison of Surgical Assistance in a Prepaid Group Practice and a Community Hospital," (with E.M. Lewit, S. Bentkover, J. Bentkover), <u>Medical Care</u>, 18:916-929, 1980.

"Commentary:" Ghez, G.R. and Grossman, M., "Preventive Care, Care for Children and National Health Insurance," in National Health Insurance: What Now, What Later, What Never, Mark V. Pauly (Ed.), American Enterprise Institute, 1980.

"Why Does Medical Care Cost So Much?" in <u>The Nation's Health</u>, University Extension, University of California, San Diego, 1980.

"The Cost/Quality Tradeoff: A Critical Consideration in the Containment of Medical Care Costs," Special Report: Health and Medical Care Costs, <u>Medical and Health Annual, 1980, Encyclopedia Britannica</u>, 1979.

"The Study on Surgical Services for the United States: A Valid Prescription for American Surgery?" (with E.M. Lewit and M.V Pauly), <u>The Milbank Memorial Fund Quarterly:</u> <u>Health and Society</u>, 55:465-484, 1977.

"Residency Training and Service," (with E.M. Lewit), <u>New England Journal of Medicine</u>, 294:1190, 1976.

"Time Utilization of a Population of General Surgeons in a Prepaid Group Practice," (with R.N. Watkins, and E.M. Lewit), Medical Care, 14:824-838, 1976.

"The Utilization of Surgical Manpower in Comparative Settings: The Case of One Community and One Prepaid Group Practice" in "Getting Ready for National Health Insurance: Unnecessary Surgery." Hearings before the Subcommittee on Oversight and Investigations of the Committee on Interstate and Foreign Commerce. U.S. House of Representatives. Ninety-fourth Congress, Serial No.94-37, pp.183-190, U.S. Government Printing Office, Washington, D.C., 1975.

"Time Utilization of a Population of General Surgeons in a Community Practice," (with E.M. Lewit and F.V. Lorenzo), <u>Surgery</u>, 77:371-383, 1975.

"Residency Redistribution: The Need for Partnership." Proceedings of Hearings before the Senate Subcommittee on Health: "Residency Control Measures in the Health Professions Educational Assistance Act of 1975." U.S. Senate, September 30, 1975. U.S. Government Printing Office, p.1436-1473, Washington, D.C.

"Halsted and American Surgery," Surgery, 75:169-177, 1974.

"Training the Surgical Resident," (with E.M. Lewit), <u>New England Journal of Medicine</u>, 290:1384-1385, 1974.

"The Demand for Surgical Residents: Some Preliminary Observations," <u>Surgery</u>, 76:176-183, 1974.

"Utilization of Surgical Manpower in a Prepaid Group Practice," (with E.M. Lewit, R. Watkins and R. Handschin), <u>New England Journal of Medicine</u> 291:759-763, 1974. Reprinted in <u>Issues in Health Services</u>, ed. Stephen J. Williams, Sc.D., John Wiley & Sons, New York, 1979.

"On Monopoly in Medicine," (with E.M. Lewit), <u>New England Journal of Medicine</u>, 288, 1973.

"Operative Work Loads in One Hospital's General Surgical Residency Program," (with E.M. Lewit and E.H. Rand), New England Journal of Medicine, 289:660-666, 1973.

Transportation for Health for the East Harlem Triangle," Proceedings of Symposium: "A Health Care Plan for East Harlem--NOW." <u>Annals of New York Academy of Sciences</u>, 196:64-65, 1972, Article II.

"Alcoholism," in Marshall, C.L., <u>Dynamics of Health and Disease</u>, Appleton-Century-Crofts, New York, 1972.

"Surgical Work Loads in a Community Practice," (with V.R. Fuchs, J.E. Jacoby, and E.M. Lewit), Surgery, 71:315-327, 1972. Reprinted in The Health Economy, V. Fuchs, Editor.

Harvard University Press, 1986.

Published Panel Presentation:

"What's Ahead for Governing Boards? Panelists Look at the 80's", <u>Trustee</u>, January, 1980, p. 18-25.