

## CURRICULUM VITAE

**NAME:** Bruce Wakefield Karrh

**BIRTH DATE & PLACE:** August 29, 1936; Carbon Hill, Alabama

**SOCIAL SECURITY NO.:** 422-46-6642

**MARITAL STATUS:** Married; 3 children

**HOME ADDRESS:** 547 Meadowlark Lane  
Hockessin, Delaware 19707  
(302) 655-9725

**UNDERGRADUATE:** University of Alabama  
Tuscaloosa, Alabama  
B.S. Chemistry  
(September, 1954-June, 1958)

**MEDICAL SCHOOL:** Medical College of Alabama  
Birmingham, Alabama  
M.D. (June, 1962)

**INTERNSHIP:** Brooke General Hospital  
Fort Sam Houston, Texas  
(July, 1962-July, 1963)

**MILITARY:** Graduate U.S. Air Force School of Aerospace  
Medicine (November, 1963)

Flight Surgeon/U.S. Army Medical Corps  
(Captain)  
(November, 1963-July, 1965)

**BOARD CERTIFICATION:** Occupational Medicine by The American Board  
of Preventive Medicine (1977)

**EXPERIENCE:**

Private Practice  
Athens, Alabama  
(July, 1965-August, 1970)  
(Provided part-time industrial medicine for  
several companies.)

E. I. du Pont de Nemours and Company  
Medical Supervisor  
Richmond, Virginia  
(August, 1970-March, 1973)

Research Manager  
Environmental Sciences Group  
Haskell Laboratory for Toxicology & Industrial  
Medicine  
Newark, Delaware  
(March, 1973-January, 1974)

Assistant Medical Director  
Wilmington, Delaware  
(January, 1974-March, 1977)

Medical Director  
Wilmington, Delaware  
(April, 1977-March, 1983)

General Director  
Medical, Safety and Fire Protection  
Wilmington, Delaware  
(April, 1983-June, 1984)

Vice President, Safety, Health and  
Environmental Affairs  
Wilmington, Delaware  
(June, 1984-Present)

MEMBERSHIPS

New Castle County Medical Society

Medical Society of Delaware

American Medical Association

Delaware Occupational Medical Association

Vice President, 1976

Board of Directors, 1974-1976; 1979-1981

President, 1978

American Academy of Occupational Medicine, Fellow

Membership Committee, 1975-1978

American Occupational Medical Association, Fellow

OSHA/NIOSH Standards Committee, 1974-1975

Occupational Medical Practice Committee, 1974-1979;

Chairman, 1976-1979

Chairman, Council on Scientific Affairs, 1979-1981

Board of Directors, 1980-1983

American College of Occupational and Environmental Medicine, Fellow

1990-Presen.

American College of Preventive Medicine, Fellow, 1977

American Board of Preventive Medicine, Diplomate, 1977

Member, Editorial Board, Journal of Occupational Medicine, 1977-1988

The Johns Hopkins University

Occupational Safety and Health Administration

MEMBERSHIPS (cont'd)

Energy & Environmental Study Institute  
Panel on Developing Countries, 1984-1985  
Board of Directors, 1990-Present

Organization Resources Counselors  
Occupational Safety and Health Group Steering Committee,  
1977-1984

Institute for Cooperation in Environmental Management  
Board of Directors, 1990-Present  
Executive Committee, 1990-Present  
Program Committee, Chairman, 1990-Present

Global Tomorrow Coalition  
Board of Directors, 1990-Present

Business Roundtable  
Occupational Safety and Health Subcommittee, 1978-1981

National Fund for Medical Education  
Board of Directors, 1981-1985  
Director Emeritus, 1985-1991

Chemical Industry Institute of Toxicology (CIIT)  
Board of Directors, 1981-1991  
Development Committee, 1981-1984  
Executive Committee, 1984-1990  
Chairman, Finance Committee, 1984-1988  
Vice Chairman, Board of Directors, 1986-1988  
Chairman, Board of Directors, 1988

National Advisory Committee on Occupational Safety and Health  
Member, 1981-1985

MEMBERSHIPS (cont'd)

American Medical Association, Advisory Panel on Reproductive  
Hazards in the Workplace, 1981-1985

Medical Center of Delaware  
Board of Trustees, 1983-

Thomas Jefferson University  
Board of Trustees, 1983-  
Clinical Affairs Committee, 1985-  
Hematology Search Committee, 1985  
Pathology Search Committee, 1985  
President Search Committee, 1989-1990  
Pharmacology Search Committee, Chairman, 1990-1991

Consensus Workshop on Formaldehyde,  
U.S. Office of Science and Technology Policy of the White House  
Executive Panel, 1982-1984

Delaware Heart Association  
Research Committee, 1974-1976  
Board of Directors, 1975-1978

National Council on Alcoholism  
Board of Directors, 1976-1981  
Preventive and Education Committee, 1976-1981  
Labor-Management Committee of Alternates, 1976-1981

Chemical Manufacturers Association  
Chairman, Reproductive Hazards Work Group, 1978-1979  
Chairman, Data Development & UAREP Work Groups, 1982-1985  
Chairman, Health and Safety Committee, 1985-1986

MEMBERSHIPS (cont'd)

National Academy of Sciences

Panel on Occupational Safety and Health Statistics, 1985-1987  
Committee on Risk Perception and Communication, 1987-1990

American Industrial Health Council (AIHC)

Board of Directors, 1986-1991  
Executive Committee, 1986-1991  
Vice Chairman, Board of Directors, 1987  
Chairman, Executive Committee, 1987  
Chairman, Board of Directors, 1988-1989

Governor's Commission on Health Care Cost Management (DE), 1987

Chairman, Task Force on Health Care Financing and Delivery  
Alternatives, 1987

Governor's Task Force on Indigent Health Care (DE), 1988-1990

The Wharton School of The University of Pennsylvania

Risk and Decision Processes Center Advisory Committee, 1986-

Environmental and Occupational Health Science Institute of the Robert  
Wood Johnson University of Medicine and Dentistry of New Jersey,  
Advisory Committee, 1988-

Governor's Task Force on Private Sector Initiatives on Substance Abuse  
and Alcoholism (DE)

Member, 1988-  
Chairman, 1991-

Carnegie Commission on Science and Technology Task Force on Federal  
Government Expenditures on Environmental Research and Development,  
1991-

MEMBERSHIPS (cont'd)

Delaware Nature Society  
William Penn Grant Advisory Committee, 1988-  
Board of Directors, 1991-

Synthetic Organic Chemicals Manufacturing Association (SOCMA)  
Board of Directors, 1991

The Conference Board  
Council on Environmental Affairs, 1991

HONORS

Health Achievement in Industry Award,  
American Occupational Medical Association, 1979

Ramazzini Orator, 1980

C. O. Sappington Memorial Lecturer, 1982

Keynote Speaker,  
National Safety Congress, 1985

William S. Knudsen Award,  
American Occupational Medical Association, 1986

George S. Gehrman Memorial Lecturer,  
American Academy of Occupational Medicine, 1987

PUBLICATIONS

More than 20 publications on various topics in the safety, health, occupational medicine and environmental areas.



PRESENTATIONS:

Bruce W. Karrh, M.D.

"Occupational Health Nursing"	Virginia Industrial Nurses Assoc. October, 1971
"Occupational Rehabilitation of Cardiac Patients"	Richmond Area Heart Association 1972
"Effective Hearing Conservation Programs"	Noise-Con 73 Proceedings Washington, DC October 15, 1973
"The Employed Alcoholic"	Ross County Council on Alcoholism Chillicothe, OH November 6, 1974
"Public Hearing--Noise Standard"	July, 1975
"Public Hearing--Ketone Standard"	September, 1975
"An Effective Hearing Conservation Program"	University of Wisconsin Extension Center Madison, WI October 16, 1974
"Medical Surveillance in Big Industry"	ACGIH December, 1975
"Rehabilitation Act of 1973--An Affirmative Action Program"	Connecticut IMA February, 1975
"Administration of Occupational Health Program"	"Symposium for Occupational Nurses" IHF, Pittsburgh, PA October, 1974
"OSHA Medical Monitoring Requirements and Surveillance Programs"	Industrial Hygiene Seminar, National Safety Council, O'Hare Hilton Hotel, Chicago, IL February 18, 1976
"Public Hearing--OSHA Noise Standard Economic Impact Analysis"	October, 1976
"Congressional Hearing - Environmental Causes of Cancer--Subcommittee on Oversight and Investigations of the House Committee on Foreign and Interstate Commerce"	September, 1976
"Public Hearing--Privacy Protection Study Commission"	December, 1976

PRESENTATIONS (Cont'd)

Bruce W. Karrh, M.D.

"Occupational Medicine's Role in Industry Today"

Hamilton County Medical Society,  
Chattanooga, TN April, 1977;  
Crawford Long Medical Society,  
Athens, GA April, 1977;  
Niagara Medical Society,  
Niagara Falls, NY June, 1977;  
Gloucester County Medical Society  
Woodbury, NJ November, 1977;  
Fayetteville, NC October, 1981;  
Athens, GA September, 1982;  
Szaaford, DE September, 1982;  
Niagara Falls, NY October, 1982;  
Victoria, TX October, 1982

"Testimony Before the New Jersey State Senate Committee on Environmental Causes of Cancer"

June, 1977

"A Company's Duty to Report Hazards"

New York Academy of Medicine  
"Symposium on Ethical Issues in Occupational Medicine"  
June, 1977

"Industry's Duty to Report Hazards"

Scientific Program of the Fifth International Conference of Medicine-- Occupational Health and Safety in the Chemical Industry, San Francisco, CA September 8, 1977

"Workplace Health Hazards: The Responsibilities to Assess, to Report, to Control"

Boston University Center for Industry and Health Care Conference  
November 4, 1977

"Industrial Health Surveillance-- Screening Programs in the US"

National Cancer Institute "State-of-the-Art Conference: Bladder Cancer Screening," Washington, DC  
December 5-7, 1977

"Women in the Workplace"

Hearing of the National Advisory Committee on Occupational Safety and Health (NACOSH), Washington, DC  
May 2, 1978

"Privacy and OSHA Surveillance"

"First National Seminar on Individual Rights in the Corporation," The Civil Liberties Review, Roosevelt Hotel, New York, NY  
May 8-10, 1978

"Components of Health Information Systems: Core Physical Examination"

Occupational Health-Developing "Medical Surveillance/Health Information," Mayflower Hotel, Washington, DC  
June 13-14, 1978

"Public Hearing--OSHA Proposed Cancer Policy"

July, 1978

PRESENTATIONS (Cont'd)

Bruce W. Karrh, M.D.

"The Confidentiality of Occupational Medical Records"

American Academy of Occupational Medicine, Williamsburg, VA  
September 20, 1978

"OSHA Oversight Hearings. Labor Subcommittee, Senate Human Resources Committee"

October, 1978

"Public Hearing--OSHA Proposed Rules on Access to Medical and Exposure Records"

December, 1978

"The Confidentiality of Occupational Health Data"

"The Emerging Revolution in Health Records Policy," National Commission on Confidentiality of Health Records, Mayflower Hotel  
December 11-12, 1978

"Control of Embryotoxins"

Special Conference on Women in the Workplace. Boston University Health Policy Institute, Boston University  
June 11-12, 1979

"The Effects of Gases, Toxic Fumes, Vapors, Solvents, and Radiation"

International Association of Industrial Accident Boards and Commission Annual Meeting, New York, NY  
September 10, 1979

"Problems of Health Care and Protection"

"Lost in the Workplace: Is There an Occupational Disease Epidemic?"  
U.S. Department of Labor, Occupational Safety and Health Administration, Chicago, IL  
September 13-14, 1979

✓ "Embryotoxicity"

Joint Conference on Occupational Health, Minneapolis, MN  
September 27, 1979

"Epidemiology--Needs and Applications in the Work Setting"

Presented at the Conference "Epidemiology for the Occupational Physician." Sponsored by the American Occupational Medical Assoc. and the National Heart, Lung and Blood Institute  
Grenolefe, FL  
February 16, 1980

"Ask the Expert--Occupational Medicine"

National Safety Council's Eastern Regional Meeting, Washington, DC  
May 29, 1980

"Brain Tumors in the Du Pont Company"

Presented at the "Workshop on Brain Tumors in the Chemical Industry." New York Academy of Sciences, New York, NY  
October 27-29, 1980

PRESENTATIONS (Cont'd)

Bruce W. Karrh, M.D.

- "Reproductive Hazards" Ramazzini Oration. Ramazzini Society Annual Meeting, Gleneden Beach, OR November 4, 1980
- "Hearing Conservation in Du Pont" Presented at the "Hearing Conservation and Noise Control Technology Symposium," Sponsored by CMA/NIOSH, Philadelphia, PA March 12, 1981
- "Protecting the Unborn" Presented at the American Occupational Health Conference, Atlanta, GA May 1, 1981
- "OSHA: Federal Agency Regulations in the '80's" Presented at the Conference on "Employee Relations and Regulation in the '80's," University of Pennsylvania, Wharton School, Philadelphia, PA June 11, 1981
- "Occupational Medicine in the 1980's" "The Expanding Role of Occupational Medicine." American Occupational Medical Association and School of Medicine, Medical College of Georgia, Charleston, SC October 1-3, 1981
- "Testimony on Genetic Screening" Oral Testimony Before the Subcommittee on Investigations and Oversight of the House Committee on Science and Technology, Albert Gore, Jr., Chairman, Washington, DC October 15, 1981
- "Occupational Safety and Health in the 1980's" Panel Discussion at a NIOSH-sponsored Occupational Medicine Course, Atlanta, GA November 13, 1981
- "The Influence of Government Regulation: Past and Present" C. O. Sappington Memorial Lecture, American Occupational Health Conference Toronto, Canada April 28, 1982
- "Role of Occupational Medicine in Health Care Cost-Containment" Blue Cross-Blue Shield Association Annual Meeting, Chicago, IL September 30, 1982
- "The Interaction of the Occupational Health Professional with Management" Annual Meeting, Northeast Industrial Hygiene Association Component Society Secaucus, NJ December 10, 1982
- "Testimony on Hazardous Waste and Victims' Compensation" Congressional Hearing - Congressman Schauer's Subcommittee on Agriculture, Natural Resources and Environment April 27, 1983

PRESENTATIONS (Cont'd)

Bruce W. Karrh, M.D.

"Testimony on Hazardous Waste and Victims' Compensation"	Congressional Hearing - Congressman Florio's Subcommittee on Environment, Committee on Energy and Commerce June 29, 1983
"Testimony on Hazardous Waste and Victims' Compensation"	Congressional Hearing - Congressman Levitas' Subcommittee on Oversight and Investigations, Public Works Committee July 21, 1983
"Victims' Compensation"	American Mining Congress Annual Meeting San Francisco, CA September 14, 1983
"Partners in Prevention"	Southeastern Occupational Health Conference, Columbia, SC. November 10, 1983
"Hazardous Waste and Victims' Compensation"	Conference of Mayors and City Administrators, New Orleans, LA November 29, 1983
"Issues in Occupational Health"	Sigma Xi Honorary Lecture, University of Oklahoma Health Science Center, Oklahoma City, OK December 1, 1983
"Occupational Health"	Texas Medical Society Annual Meeting, Fort Worth, TX May 11, 1984
"Victims' Compensation"	Panel Discussion, American Association for the Advancement of Science Annual Meeting, New York, NY May 25, 1984
"Testimony on Hazardous Air Pollutants"	Congressional Joint Hearings, Congressman Waxman and Florio Subcommittee on Health and Environment, Energy and Commerce Committee March 26, 1985
"Testimony on Victim's Compensation"	Massachusetts Legislative Hearing Boston, MA April 16, 1985
"Administration and Control of Work-Related Disease in Occupational Medicine"	Co-Keynote Address, American Occupational Health Conference, Kansas City, MO April 17, 1985
"Testimony on Hazards Communication and Effectiveness of OSHA Standards in Light of Bhopal"	Congressional Hearing - Congressman Gaydos' Subcommittee on Health and Safety, Committee on Education and Labor May 3, 1985

PRESENTATIONS (Cont'd)

Bruce W. Karrh, M.D.

"Testimony on High Risk Occupational Disease Notification and Prevention Act of 1985" HR 1309

Congressional Joint Hearing, Congressmen Gaydos and Murphy, Subcommittee on Health and Safety and Labor Standards Committee on Education and Labor  
July 17, 1985

"Industry Initiative in Controlling Pollutants"

Virginia Air Pollution Control Board Advisory Committee Annual Meeting, Virginia Beach, VA  
October 8, 1985

"Industry Sector Presentation"

"Blueprint for Action" Conference Ecumenical Task Force of the Niagara Frontier, Niagara Falls, NY  
October 21, 1985

Keynote Address

National Safety Congress  
New Orleans, LA  
October 28, 1985

Testimony on Toxic Tort and Product Liability Reform S1999.

Congressional Hearing, Senators Kasten and Danforth. Consumer Subcommittee, Senate Committee on Commerce, Science and Transportation  
March 11, 1986

"Industry Sector Perspective"

Conference on Insurance Wharton School Center on Insurance and Risk, University of Pennsylvania  
May 15, 1986

"Industry's Role in Reducing Toxic Exposures"

National Environmental Health Association General Environmental Session. Hartford, Connecticut  
June 16, 1986

PUBLICATIONS:

Bruce W. Karrh, M.D.

- Karrh, B.W.: "Effective Hearing Conservation Programs." Proceedings of Noise-Con 73. October 1973.
- Karrh, B.W.: "Medical Monitoring." National Safety News, August 1976, pg. 68-70.
- Karrh, B.W.: "A Medical Surveillance Program in Big Industry," Workplace Hazard Monitoring, Symposium Proceedings: American Conference of Governmental Industrial Hygienists, December 8-9, 1975, pg. 63-67.
- Karrh, B.W.: "An Epidemic of Environmental Cancer" Contribution on "Appropriate Steps," Business and Society Review, Spring 1977, November 21, pg. 59.
- Karrh, B.W.: "A Company's Duty to Report Health Hazards," Bull. N.Y. Academy of Medicine, Vol. 54, No. 8, September 1978, pg. 782-788.
- Karrh, B.W.: "Workplace Health Hazard: The Responsibilities to Assess, to Report, to Control." Health Services and Health Hazards: The Employee's Need to Know. Edited by Richard H. Egdahl and Diana Chapman Walsh. Published by Springer-Verlag, New York 1978.
- Hagan, D.; Karrh, B.W.; Salvaggio, J.; Stopford, W.; Tucker-Zavon, B.; Utidjian, H.M.; Zavon, M.; Paulshock, B.: "Fitting the Workplace into the Workup." Patient Care, Vol. 12, No. 17, October 15, 1978, pg. 108-133.
- Pell, S.; O'Berg, M.T.; Karrh, B.W.: "Cancer Epidemiologic Surveillance in the Du Pont Company." Journal of Occupational Medicine, Vol. 20, No. 11, November 1978.
- Hagan, D.; Karrh, B.W.; Paulshock, B.Z.; Salvaggio, J.; Stopford, W.; Tucker-Zavon, B.; Utidjian, H.M.; Zavon, M.: "Etiology Vague? Probe the Work History." Patient Care, Vol. 13, No. 4, February 28, 1979, pg. 164-182.
- Karrh, B.W.: "The Confidentiality of Occupational Medical Data." Journal of Occupational Medicine, Vol. 21, No. 3, March 1979, pg. 157-160.
- Karrh, B.W.: Contribution to "Chemicals and Health," EPA Journal, Vol. 5, No. 3, March 1979, pg. 4-7, 34.
- Karrh, B.W.; Bennett, B.H.; Briefer, C.; Deu Pree, R.M.; Mays, W.G.; Mitchell, J.W.; Moore, R.H.; Shevick, B.H.; Wright, W.L.: "Scope of Occupational Health Programs and Occupational Medical Practice--Committee Report." Journal of Occupational Medicine, Vol. 21, No. 7, July 1979, pg. 497-499.
- Dear, T.A. and Karrh, B.W.: "Practical Hearing Conservation Programme Prevents Industrial Noise-Induced Hearing Impairment." Noise Control, Vibration, Isolation, May 1979, pg. 185-190.
- Dear, T.A. and Karrh, B.W.: "An Effective Hearing Conservation Program - Federal Regulation or Practical Achievement?" Sound and Vibration, Vol. 13, No. 9, September 1979, pg. 12-19.
- Dear, T.A. and Karrh, B.W.: "Protecting the Hearing of Maintenance Workers in Industry," Measurements for Industrial Noise Control, published by the American Society of Mechanical Engineers, December 1979, pg. 27-33.

- Karrh, B.W.: "Evaluation and Control of Embryofetotoxic Substances." Women, Work, and Health: Challenges to Corporate Policy. Industry and Health Care Series, No. 6, Springer-Verlag. New York. Chapter 11. pg. 190-197.
- Karrh, B.W.: "Industry's Duty to Report Health Hazards." Proceedings of the Fifth International Conference. Medichem. Occupational Health in the Chemical Industry, September 1977; published 1980.
- Karrh, B.W.: "Occupational Medicine." Contempo '81. JAMA, Vol. 245, No. 21. June 5, 1981, pg. 2207-2208.
- Karrh, Bruce W.; Carmody, Thomas W.; Clyne, Robert M.; Gould, Kenneth G.; Portela-Cubria, G.; Smith, J.M.; and Freifeld, M. "Guidance for the Evaluation, Risk Assessment and Control of Chemical Embryo-Fetotoxins." Journal of Occupational Medicine. Vol. 23, No. 6, June 1981, pg. 397-399.
- Pell, S.; Dear, T.A.; Karrh, B.W.: "The Long-Term Effectiveness of a Hearing Conservation Program Based Upon Personal Hearing Protection." Chapter of a book: Personal Hearing Protection in Industry, edited by P. W. Albarti, Raven Press, New York, 1982.
- Karrh, B.W.: "Occupational Safety and Health Administration." Employee Relations and Regulations in the '80's, University of Pennsylvania, The Wharton School, Industrial Research Unit, 1982.
- Karrh, B.W.; Pell, S.: "Brain Cancer in the Du Pont Company," Brain Tumors in the Chemical Industry. Edited by Irving Selikoff and E. Cuyler Hammond. Annals of the New York Academy of Sciences, Vol. 381, 1982
- Karrh, B.W.: "The Critical Balance: The Influence of Government Regulation, Past and Present." Journal of Occupational Medicine, Vol. 25, No. 1, January 1983, pg. 21-26.
- Karrh, B.W.: "Public Compensation: The Need for Health Effect Studies." Monograph by the Chemical Manufacturers Association, Washington, DC, May 1983.
- Karrh, B.W.: "Occupational Health: Challenges and Opportunities." The Upstate Physician Journal, September 1983, pg. 8-11.
- Pernoll, M.L.; Bond, M.B.; Dixon, E.M.; Evans, P.C.; Karrh, B.W.; Schmidt, R.T.F.; Spraul, J.H.; McCahan, J.F.; Wheeler, R.H.: "Effects of Physical Forces on the Reproductive Cycle." Report of the Council on Scientific Affairs. Journal of American Medical Association, January 13, 1984. Vol. 251, No. 2.
- Pernoll, M.L.; Bond, M.B.; Dixon, E.M.; Evans, P.C.; Karrh, B.W.; Schmidt, R.T.F.; Spraul, J.H.; McCahan, J.F.; Wheeler, R.H.: "Effects of Pregnancy on Work Performance." Report of the Council on Scientific Affairs. Journal of American Medical Association, April 20, 1984. Vol. 251, No. 15.
- Karrh, B.W.; "Occupational Medicine," Journal of American Medical Association, Vol. 252, No. 16. October 26, 1984, pg. 2274-2277.
- Karrh, B.W.: "An Illustration of Voluntary Actions to Reduce Carcinogenic Risks in the Workplace." Chapter 6 of Reducing the Carcinogenic Risks in Industry. Edited by Paul F. Deisler, Jr. Marcel-Dekker. New York, 1984.



Pernoll, M.L.; Bond, M.D.; Dixon, E.M.; Evans, P.C.; Karrh, B.W.; Schmidt, R.T.F.;  
Spraul, J.H.; McCahan, J.F.; Wheeler, R.H.: "Effects of Toxic Chemicals  
on the Reproductive System." Report of the Council on Scientific Affairs.  
Journal of American Medical Association, June 21, 1985. Vol. 253, No. 23.  
pg. 3431-3437.

*Re: ...  
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