

**Update of Mortality Among
Vinyl Chloride Workers**

for the

Chemical Manufacturers Association

SUPPORTING INFORMATION

Prepared by

**Applied Epidemiology, Inc.
Amherst, Massachusetts**

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**APPLIED
EPIDEMIOLOGY
INC.**



R&S151360

Update of Mortality Among Vinyl Chloride Workers

SUPPORTING INFORMATION

The following materials are included as part of the proposal:

- Curricula Vitae for research team members
- Curricula Vitae for Expert Advisory Panel Members (except Dr. Cullen)
- A brief description of Applied Epidemiology, Inc.
- A concise introduction to ProQuest
- A sample program from our Intensive Course in Occupational Epidemiology
- A copy of the report, "The Significance of Cell Type in the Etiology of Brain Tumors: A Critical Review"

Curriculum Vitae

KENNETH ARTHUR MUNDT, Ph.D.

CURRENT POSITIONS

Assistant Professor (1989-present)

Department of Biostatistics and Epidemiology
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Visiting Associate Professor (1991-1996)

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Senior Epidemiologist (1991-present)

Applied Epidemiology, Inc.
P.O. Box 2424
Amherst, MA 01004

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EDUCATION

Ph.D., Epidemiology

University of North Carolina at Chapel Hill,
Chapel Hill, North Carolina, 1990.

M.S., Epidemiology

University of Massachusetts at Amherst,
Amherst, Massachusetts, 1986.

M.A., English

University of Virginia at Charlottesville,
Charlottesville, Virginia, 1982.

A.B., English

Dartmouth College,
Hanover, New Hampshire, 1981.

UNIVERSITY RESEARCH

- 1994 Principal Investigator
Healy Endowment Award. Lead Prevalence Study
(1993-4) \$5,000
- Co-Principal Investigator
Occupational Upper Extremity Disorders Clinic
University of Massachusetts Medical Center
(1993-4) \$57,000
- Principal Investigator.
E.I. Du Pont de Nemours Company. Educational Aid
Program. Occupational Epidemiology Unit.
(1992-4) \$15,000/year
- 1993 Principal Investigator/Convenor.
Second National Conference on Occupational Surveillance,
University of Massachusetts, Amherst, MA.
(March 9-11, 1993) \$26,000
- Co-Investigator.
Chemical Manufacturers of America. Definition and
Strategies for Developing Occupational Surveillance.
(1992-3) \$38,000
- Principal Investigator.
Faculty Research Grant. Epidemiological Surveillance.
(1992-3) \$4,940
- 1992 Principal Investigator.
Faculty Research Grant for Conference/Performance Travel.
Third Annual Symposium on Environmental and
Occupational Health in Central & Eastern Europe in Poland.
(1992) \$600
- Co-Investigator.
Occidental Chemical Corporation. Development of a
Corporate Epidemiological Surveillance System.
(1991-2) \$50,000/year
- 1991 Principal Investigator/Convenor.
National conference, "Occupational Surveillance"
University of Massachusetts, Amherst, MA.
(April 28-30, 1991) \$22,000
- 1990 Co-Investigator.
Chemical Manufacturers of America. Development of
Resource Materials for Occupational Epidemiology.
(1990) \$75,000

UNIVERSITY RESEARCH (continued)

- 1990 (cont'd) Principal Investigator.
National Institute of Occupational Safety and Health.
Immuno-Epidemiology of Crab-Induced Occupational
Asthma.
(1989-1990) \$43,500.
- 1989 Principal Investigator.
United Way of North Carolina.
Immuno-Epidemiology of Crab-Induced Occupational
Asthma: Pilot and Preparatory Phases.
(1989) \$4,000.
- Principal Investigator.
Biomedical Research Support Grant,
School of Public Health, University of North Carolina.
Production of Antigen Solutions for Skin Testing.
(1988-1989) \$5,886.

RELEVANT EXPERIENCE

- 1994 Guest Editor, Journal of Ambulatory Care Management
"Epidemiological and Managerial Challenges in the
Workplace" Volume 17(2), April, 1994.
- 1993 - present Director, Occupational Epidemiology Unit
School of Public Health, University of Massachusetts.
- 1993 - present Consultant to the Medical Director, The World Bank,
Washington, D.C.
- 1993 - present ATSDR Peer Reviewer in Epidemiology.
- 1993 Member, 1993 Internship Program Objective Review
Committee, Association of Schools of Public Health/Centers
for Disease Control/Agency for Toxic Substances Disease
Registry.
- 1992 - present Founder and Director, Surveillance Resource Center,
Occupational Epidemiology Unit.
- 1992 - present Epidemiologist, Northeast Regional Environmental Public
Health Center, School of Public Health, University of
Massachusetts.
- 1992 - present Member, Human Subjects Committee, School of Public
Health, University of Massachusetts.
- 1991-1993 Assistant Director, Occupational Epidemiology Unit,
University of Massachusetts

RELEVANT EXPERIENCE (continued)

1991 - present	Member, Union Carbide Scientific Board of Advisors.
1990 - 1992	Member, International Chrome Development Association, Health, Safety and Environment Committee, Paris, France.
1990 - 1992	Epidemiologist, Chromium Environment, Health and Safety Committee, Industrial Health Foundation, Pittsburgh, PA.
1988 - 1989	Research Assistant to Carl M. Shy, M.D., Dr.P.H., on Oak Ridge Universities Occupational Studies of Department of Energy Employees, and on North Carolina Dusty Trades Occupational Health Studies, University of North Carolina.
1988 - 1989	Visiting Researcher, Duke University Marine Biomedical Center, Duke Marine Laboratory, Pivers Island, Beaufort, North Carolina.
1983 - 1984	Commissioned Officer Student Training Extern Program (COSTEP). United States Public Health Service, Health Resources and Services Administration, Silver Spring, Maryland.

TEACHING EXPERIENCE

1989 - present	Assistant Professor University of Massachusetts, School of Public Health: "Principles of Epidemiology" "Applied Epidemiology" "Occupational Epidemiology" "Special Topics in Occupational Epidemiology" "Departmental Doctoral Seminar" Numerous Independent Study Projects
1987 - 1988	Teaching Assistant to David G. Kleinbaum, Ph.D. University of North Carolina, School of Public Health. "Special Topics in Epidemiological Methods" "Advanced Methods in Epidemiology"

SHORT COURSES

1993, 1994	Applied Epidemiology, Inc. and Akademie für öffentliche Gesundheit, Wermelskirchen, Germany: "Intensive Course in Occupational Epidemiology"
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SHORT COURSES (continued)

- 1991 Cancer Registry of Norway, Oslo, Norway. August 12-16:
 "Occupational and Environmental Epidemiology"
- 1989, 1990, 1991 International Summer School for Epidemiology, World
 Health Organization and the Akademie für öffentliche
 Gesundheit , Bochum, Germany
 "Occupational and Environmental Epidemiology"

HONORARY AND PROFESSIONAL SOCIETIES

- American Conference of Governmental Industrial Hygienists (Full Member)
- American Public Health Association
- Delta Omega, Public Health National Honor Society
- International Society for Environmental Epidemiology
- Sigma Xi, Scientific Research National Honor Society
- Society for Epidemiologic Research

PRESENTATIONS

1994

- Birk T, Mundt KA, Schumann J, Person M, Weiland S, Keil U. "Cost-center Accounting Codes ("Kostenstellen") as Exposure Indicators in an Epidemiological Study of the German Rubber Industry." Conference on Retrospective Assessment of Occupational Exposures in Epidemiology, Lyon, France, April 13-15, 1994.
- Weiland S, Birk T, Mundt KA, Person M, Schumann J, Keil U. "The Epidemiologic Study of Cancer in the Rubber Industry in Germany: An Update." International Conference on Occupational Health in the Rubber Industry, The Netherlands, May 31-June 1, 1994.

1993

- Mundt KA. "Occupational Epidemiology in a White-Collar Setting." Invited Speaker, The World Bank, May 11-12, 1993.
- Mundt KA. "Occupational Surveillance: Concepts and Goals." Second National Conference on Occupational Surveillance, University of Massachusetts, Amherst, MA, March 9-11, 1993.

PRESENTATIONS (continued)

Mundt KA. "Practical Strategy for Developing Epidemiological Surveillance." Design and Analysis Workshop, Second National Conference on Occupational Surveillance, University of Massachusetts, Amherst, MA, March 9-11, 1993.

1992

Mundt KA and Weiland S. "The Association of Asthma Symptoms and Allergic Rhinitis with Traffic Density on Street of Residence." Annual meeting of the International Societies for Environmental Epidemiology and of Exposure Analysis, Cuernavaca, Morelos, Mexico, August 26-29, 1992.

Pastides H and Mundt KA. "Retrospective Estimation of Exposure to Hexavalent Chromium in an Occupational Cohort." Annual meeting of the International Societies for Environmental Epidemiology and of Exposure Analysis, Cuernavaca, Morelos, Mexico, August 26-29, 1992.

Pastides H and Mundt KA. "Epidemiological Occupational Surveillance." Surveillance in Europe and the EEC, Devonshire Park Centre, Eastbourne, Sussex, United Kingdom, July 1-3, 1992.

Mundt KA. "Occupational Surveillance as a Strategy for Policy Development and Disease Prevention." Protecting Workers, the Environment and Health in a Market Economy: Translating Science into Policy and Action. The United States-Central and Eastern Europe Exchange for Occupational and Environmental Health, third annual symposium, Pultusk, Poland, June 26 - July 1, 1992.

Pastides H, Austin R, Lemeshow S, Klar J, Noess R, and Mundt KA. "A Retrospective Cohort Study of Health Risks Among Chromate Production Workers." Annual Meeting of the Society for Epidemiologic Research, Minneapolis, MN, June 10-12, 1992.

Weissman L and Mundt KA. "Prevalence of Immediate Hypersensitivity in Black Women: A Re-evaluation of Skin Prick Test Data from the Second National Health and Nutrition Examination Survey (NHANES II) and Comparison with an Occupational Study." Annual Meeting of the Society for Epidemiologic Research, Minneapolis, MN, June 10-12, 1992.

Mundt KA, Leeser J, Adams R. "Establishing a Mercury Biological Exposure Index (BEI)." American Conference of Governmental Industrial Hygienists (ACGIH) BEI and Threshold limit value (TLV) Committees, Orlando, Fla., March 21-22, 1992.

1991

Mundt KA. "Epidemiological Approach to Occupational Health." Annual Scientific Meeting, Industrial Health Foundation, Pittsburgh, PA, November 6-7, 1991.

Mundt KA. "Role of Epidemiology in an Occupational Medical Department." Bayer Chemical, Leverkusen, Germany, June 19, 1991.

PRESENTATIONS (continued)

Mundt KA. "Occupational Epidemiological Studies and the Social Context." Department of Epidemiology, State University of New York at Albany, April 18, 1991.

Mundt KA. "Use of Skin Tests in Epidemiological Research." Clinical Epidemiology Department, University of Pennsylvania, Philadelphia, PA, March 14, 1991.

Pastides H and Mundt KA. "Establishing an Occupational Epidemiology Program." Chemical Manufacturers Association, Washington, D.C., March 12, 1991.

1990

Mundt KA. "Studies to Document the Healthy Worker Effect." Department of Work Environment, University of Lowell, Lowell, MA, December 11, 1990.

Mundt KA and Miller J. "Use of Industrial Hygiene Data in Epidemiology Research." Occidental Chemical Industrial Hygiene Annual Meetings, Houston TX and Atlantic City, NJ, November 12-14, 1990.

Mundt KA and Shy C. "Occupational Allergies and the Healthy Worker Effect." Annual Meeting of the Society for Epidemiologic Research, Snowbird, Utah, June 12-15, 1990.

Mundt KA. "Health Effects of Vinyl Chloride Monomer (VCM)." Occidental Chemical Company, Plastics and Polymers Group, Berwyn, PA, May 11, 1990.

1989 and earlier

Mundt KA. "Skin Testing for Allergies in an Occupational Setting." Clinical Epidemiology Seminar Series, University of Massachusetts Medical Center, Worcester, MA, December 20, 1989.

Mundt KA. "Immuno-Epidemiology of Crab-Induced Occupational Asthma: Methodological Issues." Visiting Researcher Program, Duke University Marine Biomedical Center, Beaufort, North Carolina, January, 12-13, 1989.

Mundt KA and Heiss G. "Measuring Ankle Systolic Blood Pressure: Interaction Between Ankle Geometry and Method of Applying Blood Pressure Cuff." National Heart, Lung and Blood Institute Seminar, Bethesda, Maryland, November 3, 1987.

Mundt KA and Pastides H. "Microcomputer-Based Instruction: Applications in Epidemiology." Annual Meeting of the American Public Health Association, New Orleans, Louisiana, October 18-22, 1987.

Mundt KA. "Distribution of Selected Mineral Concentrations in Urban Children's Hair." Annual Meeting of the American Public Health Association, Las Vegas, Nevada, September 28 - October 2, 1986.

PUBLICATIONS AND REPORTS

1994

- Mundt KA, Dell LD. Neuropsychological effects of environmental dioxins and furans? (accepted for publication) *Occupational and Environmental Medicine Report* 1994.
- Pastides H, Austin R, Mundt KA, Ramsey F, Feger N. Transforming industrial hygiene data for use in epidemiology studies: A case study of hexavalent chromium (accepted for publication) *Journal of Occupational Medicine and Toxicology* 1994.
- Mundt KA. Epidemiological surveillance: A management tool for occupational health. *Journal of Ambulatory Care Management*. 1994;17(2):20-29.
- Weiland SK, Mundt KA, Rückmann A and Keil U. Self-reported wheezing and allergic rhinitis in children and traffic density on street of residence. *Annals of Epidemiology* 1994;4:79-83.
- Pastides H, Austin R, Lemeshow S, Klar J, Noess R and Mundt, K. A retrospective cohort study of occupational exposure to hexavalent chromium (accepted for publication) *American Journal of Industrial Medicine* 1994.
- Gehlbach SG and Mundt KA. Evaluating Worksite Health Programs. *Journal of Ambulatory Care Management* 1994;17(2):88-94.

1993

- Pastides H and Mundt KA. Establishing an Epidemiological Occupational Surveillance Program. Chemical Manufacturers of America, Washington, D.C., 1993.
- Mundt KA. Occupational surveillance as a strategy for policy development and disease prevention. In: *Proceedings of the Third Annual Symposium on Environmental and Occupational Health during Societal Transition in Central and Eastern Europe. Protecting Workers, the Environment and Health in a Market Economy: Translating Science into Policy and Action, June 26 - July 1, 1992.* Published by Management Sciences for Health, Boston, Massachusetts, 1993.

1992

- Mundt KA. The Workplace as Laboratory. *Business Digest*, June 1992;34.
- Mundt KA, Chambless LE, Burnham CB and Heiss G. Measuring ankle systolic blood pressure: Validation of the Dinamap 1846 SX. *Angiology*, 1992;43(7):555-566.
- Mundt KA. Letter to the Editor: RE: "Exposure to residential electric and magnetic fields and risk of childhood leukemia" and "Case-control study of childhood cancer and exposure to 60-HZ magnetic fields." *American Journal of Epidemiology* 1992;135(9):1070-1075.

PUBLICATIONS AND REPORTS (continued)

Health, Safety and Environment Committee, International Chromium Development Association. Health, Safety and Environment: Industry Guidelines. Paris, France, April, 1992.

Pastides H, Miller JR, Mundt KA, Klar J, Adams RF, Olendorf T.
A characterization of occupational static magnetic field exposures at a diaphragm-cell and a mercury-cell chlor-alkali facility. *Applied Occupational and Environmental Hygiene* 1992;7:42-48.

1991 and earlier

Mundt KA. Epidemiological Review of the American Conference of Governmental Industrial Hygienists (ACGIH) Recommended Biological Exposure Index (BEI) for Urinary Mercury. The Chlorine Institute, September 30, 1991.

Pastides H and Mundt KA. Resource Manual for Occupational Epidemiology, Chemical Manufacturers of America, Washington, D.C., 1991.

Walker A and Mundt KA. Feasibility of Conducting an Industry-wide Study of Respiratory Cancer Related to Ceramic Fiber Inhalation, Final Report to Thermal Insulators Manufacturers Association (TIMA), Epidemiology Resources, Inc., Boston, MA, November, 1990.

Mundt KA. Immuno-epidemiology of crab-induced occupational asthma, doctoral dissertation, University of North Carolina, 1990.

Pastides H, Mundt KA, McKnight CJ and Tuthill RW. Formulating case definitions and identifying cases for analysis (computer-assisted instructional software). In "Applied Epidemiology," Centers for Disease Control, Atlanta, Georgia, 1986.

Pastides H, Mundt KA, McKnight CJ and Tuthill RW. Descriptive analysis of the disease outbreak (computer-assisted instructional software). In "Applied Epidemiology," Centers for Disease Control, Atlanta, Georgia, 1986.

Pastides H, Mundt KA, McKnight CJ and Tuthill RW. Formulating and testing hypotheses (computer-assisted instructional software). In "Applied Epidemiology," Centers for Disease Control, Atlanta, Georgia, 1986.

Mundt KA. Distribution of selected mineral concentrations in urban children's hair. Masters thesis, University of Massachusetts, 1986.

Tuthill RW and Mundt KA. An evaluation of hazard abatement activities in selected state-funded lead screening programs, Final report to Massachusetts House of Representatives Post Audit and Oversight Committee, June 27, 1985.

Mundt KA and Polk BF. Identification of site urinary-tract infections by antibody-coated bacteria assay. *Lancet* 1979;2:1172-5.

Mundt KA and Polk BF. Predictive value of a single diagnostic test: a belated correction. *New England Journal of Medicine* 1979;300(15):859.

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