

## **GARY R. KRIEGER, MD, MPH, DABT, DTM&H**

### **Principal**

#### **EXPERIENCE SUMMARY**

Dr. Krieger has been involved in multiple public health evaluations, health impact assessments and risk assessments in both the United States and Overseas: Africa (Chad, Cameroon, Ghana, Zambia, and Angola) Europe (France, UK), South America (Ecuador, Peru, and Guyana) Eastern Europe, Russia, Asia-Pacific (Australia, Japan, Laos PDR, Papua New Guinea and China). He has co-authored, edited and published two editions of a large textbook on medical toxicology of hazardous materials. In addition, Dr. Krieger has edited both editions of the book on environmental practice for the National Safety Council. He has also co-edited the text on Occupational Health for the Safety Council. He has been a co-editor of three additional Occupational Safety and Health books for the National Safety Council and a guest editor of the Medical Clinics of North America, Occupational and Environmental Medicine. He is certified in Toxicology, Occupational Medicine, Internal Medicine and has a Diploma in Tropical Medicine and Hygiene (DTM&H) from the London School of Hygiene and Tropical Medicine. Dr. Krieger has extensive experience with multi-media environmental health issues, including international Health Impact Assessment (HIA), and regulatory-based risk assessments in the United States and in an international setting.

#### **Health Impact Assessments**

- Newmont Ghana Gold Limited – Mining Projects Ahafo and Akyem, Ghana
- Minera Yanacocha – Minas Conga Mining Site, Cajamarca, Peru
- Esso Highlands – PNG Gas Project
- Nam Theun 2 – Hydroelectric Project, Lao PDR
- ExxonMobil (EssoChad) - Chad Cameroon Pipeline Project
- Health Impact Assessment Toolkit - Developed Health Impact Assessment Toolkit (Newmont Mining) for use in planning, scheduling, and conducting HIAs in collaboration with Environmental and Social Impact Assessments.
- IPIECA/OGP Organization – Primary author in developing an HIA guidance document and pocket guide for the oil and gas industry. IPIECA [Guide to Health Impact Assessment for the Oil and Gas Industry](#).
- International Finance Corporation (IFC)- revision guidance for Performance Standards Guidance Notes covering Management Systems (PS#1) and Community Health (PS#4);
- World Bank/IFC- Guyana GoldFields Project, NT2 interim review

#### **Community Health Action Plans**

- Newmont Ghana Gold Limited – Mining Projects Ahafo and Akyem, Ghana
- Nam Theun 2 – Hydroelectric Project, Lao PDR
- ExxonMobil (EssoChad) – Chad Cameroon Pipeline Project Environmental Management Plan
- Guyana GoldFields, Ltd

#### **REGISTRATIONS AND PROFESSIONAL AFFILIATIONS**

American Board of Internal Medicine

American Board of Preventive Medicine, Section of Occupational Medicine

American Board Toxicology (recertified 1994, 1999, 2004)

Royal College of Physicians, Diploma Tropical Medicine & Hygiene (London 2006)

Level II Impairment Examiner, State of Colorado, Division Workers' Compensation (recertified 1998, 2001, 2004)

#### **UNIVERSITY AFFILIATIONS**

- Associate Professor, Adjunct, 1987 to present, University of Colorado, Department of Molecular and Environmental Toxicology, School of Pharmacy
- Graduate courses taught at the University of Colorado:
  - Toxicology of Hazardous Materials
  - Environmental Risk Assessment
- Guest Lecturer, Princeton University, Woodrow Wilson School, Science, Technology, Environmental Policy (STEP), 2006

- Visiting Faculty, Mayo Clinic, Department of Preventive Medicine
- Visiting Faculty, Johns Hopkins University, School of Hygiene & Public Health, 1990-1993, Environmental Risk Assessment: Heavy Metal Contamination
- Visiting Faculty, Boise State University, Department of Engineering and Environmental Sciences. 2001, 2002
- Visiting Faculty, Fudan University, School of Public Health, Shanghai, China. 2002

## EDUCATION AND TRAINING

Gorgas Expert Course (Peru) Tropical Medicine (2006)  
 London School Hygiene & Tropical Medicine (Diploma Course 2006)  
 Johns Hopkins School of Hygiene and Public Health, Masters Public Health, 1982  
 Mayo Clinic, Department of Medicine - Residency, 1979-1981  
 Mayo Clinic, Department of Medicine - Internship, 1978-1979  
 University of North Carolina, M.D., 1978  
 University of North Carolina, A.B., 1973

## EXPERT TECHNICAL APPOINTMENTS

ASTM Risk Assessment Task Force  
 Contributing Editor, The Occupational & Environmental Medicine Report  
 Editor and Co-Editor, National Safety Council: Volumes I-III Accident Prevention Manual for Business & Industry Series  
 Co-Chair Council on International Occupational and Environmental Medicine - American College of Occupational and Environmental Medicine  
 Editorial Board, Journal of Safety Research  
 Editorial Board, Annals of Agricultural and Environmental Medicine

Reviewer, Critical Reviews in Toxicology, Toxicological Reviews:

Peer reviewer, ATSDR "Case Studies in Environmental Medicine"

Peace Corps Expert Panel on Hazardous Materials Exposures

National Research Council, Environmental Studies and Toxicology, Subcommittee member, external reviewer;  
 Society of Petroleum Engineers - Health Subcommittee, 1999-2001; 2001-2007  
 International Association Oil & Gas Producers Health Sub-Committee, participant  
 Guest Editor, Medical Clinics North America, Clinics in Occupational and Environmental Medicine, 2002-4

North American Section Leader, International Medical Geology Association. 2007

## MEDICAL DIRECTOR/MEDICAL CONSULTANT

- U.S. Department of Commerce/Boulder: National Bureau of Standards, National Weather Service, National Oceanic Atmospheric Agency (Medical Director/Consultant) (1985-2005)
- Overseas Health Evaluations - Africa, Asia, South America, Eastern Europe, Russia, and Antarctica
- National Renewable Energy Laboratory (Medical Director) (1986-2005)
- Eastman Kodak Corporation (Medical Consultant)

## PAST WORK HISTORY

1999 - Principal, NewFields, LLC  
 1988-1999 Director of multidisciplinary group supplying services for Environmental Health, Occupational/International Medicine, Toxicology, Risk Assessment, Public Health Impact Evaluations, Dames & Moore, Inc.  
 1984-1988 Head, Department of Occupational Medicine/Human Toxicology, Boulder Medical Center  
 1984-1986 Director, Urgent Care Clinic, Boulder Medical Center  
 1982-1983 Medical Director, Exxon Chemical Americas, Baytown (Houston) Area

**LANGUAGE PROFICIENCY**

French: Speaking and Reading: proficient; Writing: proficient

Chinese (Mandarin): Speaking/writing/reading: beginner

**SCIENTIFIC PUBLICATIONS****Books:**

Clinics in Occupational and Environmental Medicine. Industrial Solvents and Human Health. Guest Co-Editor with Phillips S. Vol. I August 2004.; Vol II. Nov 2004.

Clinics in Occupational and Environmental Medicine. "Medical Issues in Challenging Global Locations" Guest Co-Editor with Moreau JM. February 2004.

Clinics in Occupational and Environmental Medicine. "Terrorism: Biological, Chemical and Nuclear" Guest Co-editor with Upfal MJ, Krieger GR, Phillips SD, Guidotti TL, and Weissman D. Vol.2 No.2, 2003.

Clinical Environmental Health and Toxic Exposures (CEHTE). Eds. Sullivan, J.B. and Krieger, G.R. Lippincott Williams & Wilkins. 2<sup>nd</sup> Edition. June 2001.

Hazardous Materials Toxicology (HMT): Clinical Principles of Environmental Health. 1st Edition. Eds. Sullivan, J.B. and G.R. Krieger. Williams & Wilkins, 1992.

Accident Prevention Manual (APM) for Business and Industry: Environmental Management. Editor, Krieger, G.R. National Safety Council, 1994, 2<sup>nd</sup> Edition Feb. 2000.

Accident Prevention Manual (APM): Administration and Programs for Industrial Operations. 11th Edition. Co-editor, Krieger, G.R., National Safety Council, 1997.

Accident Prevention Manual (APM): Engineering and Technology. 11th Edition. Co-editor, Krieger, G.R., National Safety Council, 1997.

Occupational Safety & Health; 3<sup>rd</sup> Edition, Co-editor, Krieger G.R., National Safety Council, 2000.

**Book Chapters/Papers:**

"The 6/94 gap in health impact assessment" Tobias E. Erlanger, Gary R. Krieger, Burton H. Singer and Jürg Utzinger Accepted for publication by Environmental Impact Assessment Review 2007.

"Baseline health situation of communities that will be affected by the Nam Theun 2 hydroelectric project in central Lao PDR, including indicators for monitoring" Erlanger T, Sayasone S, Krieger GR, Tanner M, Odermatt P Utzinger J. Accepted for publication International Journal of Environmental Research 2007.

"Nanotechnology and Nanotoxicology: A Primer for Clinicians" John Curtis, Michael Greenberg, Janet Kester, Scott Phillips and Gary Krieger. Toxicol Rev. 2006;25(4):245-60. Review.

"Toxics in the Tropics" Symposium November 2006 ASTMH Annual Scientific Meeting. Session chair and organizer, Gary R. Krieger.

"A Guide to Malaria Management Programmes in the oil and gas industry" Krieger GR and Balge MZ. International Petroleum Industry Environmental Conservation Association (IPIECA). 2006.

“A Guide to Health Impact Assessments in the oil and gas industry” Krieger GR and Balge MZ. International Petroleum Industry Environmental Conservation Association (IPIECA). 2005.

“HIV Impact Assessment Tools for Large Oil and Gas Projects” Krieger GR and Balge MZ. Society of Petroleum Engineers (Proceedings). Calgary 2004.

“Solvents and Malignancy” Wernke M, Phillips S and Krieger GR. In Clinics in Occupational and Environmental Medicine. Industrial Solvents and Human Health. Nov. 2004.

“Vapor Intrusion” Phillips S and Krieger GR. In Clinics in Occupational and Environmental Medicine. Industrial Solvents and Human Health. August 2004.

“Hematology”. Krieger, G.R and Phillips S, in Encyclopedia of Toxicology. Appleton and Lange Publishers, 2004.

“Stress in Expatriates” Lei L Liang YX and Krieger GR. . In Clinics in Occupational and Environmental Medicine. Medical Issues in Challenging Global Locations. Feb. 2004.

“HIV/AIDS: Impacts Assessment and Mitigation Strategies” Krieger GR, Magnus M and Hassig S. In Clinics in Occupational and Environmental Medicine. Medical Issues in Challenging Global Locations. Feb. 2004.

“An Outbreak of Chloracne in Seven Organic Chemists to Novel Polycyclic Halogenated Compounds” Gawkrödger, Cundliffe, Krieger *et al.* In preparation 2004.

“Chloracne Cases in Chemists Exposed to Novel Compounds Working in a Pharmaceutical Research and Development Laboratory: Analytic and Industrial Hygiene Investigation.” Brooks, S.; MacKenzie, R.; Mason, J.; Krieger, G.R.; Farris, J.; Ader, A.; Ku, R.; Cerven, D.; Clark, G.C.; and Brown, D.J. In preparation 2004.

“Water and Food Contamination,” Krieger GR. In Clinics in Occupational and Environmental Medicine. Terrorism: Biological, Chemical, and Nuclear. Vol 2. No. 2, pgs 253-262. 2003.

“Decision Traps in the Ecological Risk Assessment- Risk Management Process” Pye, LH and Krieger GR. Accepted abstract. SEATAC Annual Meeting.

“Particulate Toxicology: Risk Assessment Applications” Krieger, GR; Strehlow MA, Kester J. Fourteenth Annual Texas Environmental Superconference, August 2002.

“Medical Surveillance of Food Handlers.” Balge, M.Z.; Krieger, G.R.; Girgis, A.F. Society of Petroleum Engineers, Health, Safety and Environment (Proceedings). March 2002.

“Public Health Tool Kits.” Balge, M.Z.; Krieger, G.R.; Zampello, F.C. Society of Petroleum Engineers (Proceedings). Malaysia, March 2002.

“Indoor Environmental Air Quality and Health” Sullivan JB, Van Ert MD, Krieger GR, Brooks BO Peterson ME. In Small Animal Toxicology. Eds. Peterson ME and Talcott PA. W.B. Saunders. Philadelphia. 2001.

Guidelines for the control of HIV, Hepatitis B and C in the workplace. Report No. 6. 55/321 November 2001. International Association of Oil & Gas Producers. OGP Health Sub-Committee: member, G.R. Krieger.

“Risk Assessment and Business Decisions” Krieger, G.R., S. Neuse, and G. von Stamwitz, USTA Environmental Conference, May, 2001. Accepted for publication.

“A Sensible System for Food Safety”, 2001. Balge, Marci Z. and Gary R. Krieger Health Care and Trauma at Remote Locations (HECTRA) II, February 2001.

“HIV Post Exposure Prophylaxis Guidelines and Implications for Remote Operation”, 2001. Health Care and Trauma at Remote Locations (HECTRA) II, February 2001.

“Environment and Health: Going into the 21<sup>st</sup> Century”, (CEHTE) 2001. Sullivan, Jr., John B. and Krieger, Gary R. Section I General Principles of Environmental Health.

“Environmental Sciences: Pollutant Fate and Transport in the Environment”, (CEHTE) 2001. Sullivan, John B. and Krieger, Gary R. Section I General Principles of Environmental Health.

“Principles of Risk Assessment”, (CEHTE) 2001. Dalefield, Rosalind R.; Oehme, Frederick W.; and Krieger, Gary R. Section I General Principles of Environmental Health.

“Medical Surveillance and Medical Screening for Toxic Exposure”, (CEHTE) 2001. Krieger, Gary R.; Brailsford, Caryl S.; Balge, Marci; and Harrison, Myron C. Section II Prevention, Regulatory, Safety, and Legal Issues.

“Clinical Hematology”, (CEHTE) 2001. Weiss, Janet; Sullivan, John B. and Krieger, Gary. Section III The Individual and Organ Systems.

“Hazards of Wastewater Treatment Facilities, Sewage, and Sludge”, (CEHTE) 2001. Kraut, Allen G.; Krieger, Gary R.; Sullivan, Jr., John B. Section IV Environmental Health Hazards of Business, Industry, Sites, and Locations.

“Agricultural Hazards”, (CEHTE) 2001. Sullivan, Jr., John B; Krieger, Gary R.; and Runge, C. Ford. Section IV Environmental Health Hazards of Business, Industry, Sites, and Locations.

“Indoor Environmental Quality and Health”, (CEHTE) 2001. Sullivan, Jr., John B.; Van Ert, Mark; Krieger, Gary R.; and Brooks, Bradford O. Section IV Environmental Health Hazards of Business, Industry, Sites, and Locations.

“Glycol Ethers”, (CEHTE) 2001. Krieger, Gary R. and Sullivan, Jr., John B. Section IV Environmental Health Hazards of Business, Industry, Sites, and Locations.

“Economic and Ethical Issues”, 2000. Runge, C. Ford; Krieger, G.R.; Engel, Joan Gibb; Engel, J. Ronald. Accident Prevention Manual for Business & Industry Environmental Management 2<sup>nd</sup> Edition. National Safety Council.

“International Legal and Legislative Framework”, 2000. Krieger, Gary R. and Austin, Ian. Accident Prevention Manual for Business & Industry Environmental Management 2<sup>nd</sup> Edition. National Safety Council.

“Basic Principles of Environmental Science”, 2000. Krieger, Gary R.; Logsdon, Mark J.; Weis, Christopher P.; and Moreno, Joanna. Accident Prevention Manual for Business & Industry Environmental Management 2<sup>nd</sup> Edition. National Safety Council.

“Pollution Prevention Treatment and Technologies”, 2000. Kuhlmeier, Paul D.; Vajda, Gary F.; Hall, William L.; and Krieger, Gary R. Accident Prevention Manual for Business & Industry Environmental Management 2<sup>nd</sup> Edition. National Safety Council.

“Public Health Issues”, 2000. Krieger, Gary R.; Weis, Christopher P.; Rozelle, Martha A.; Kester, Janet S.; and Weis, Christopher. Accident Prevention Manual for Business & Industry Environmental Management 2<sup>nd</sup> Edition. National Safety Council.

“Risk Assessment”, 2000. Kester, Janet E. and Krieger, Gary R. Accident Prevention Manual for Business & Industry Environmental Management 2<sup>nd</sup> Edition. National Safety Council.

“Indoor Air Quality” 2000. Burton, D. Jeff; Greenway, Roger; Krieger, Gary R.; Ziff, Matthew D.; and Keane, William J. Accident Prevention Manual for Business & Industry Environmental Management 2<sup>nd</sup> Edition. National Safety Council.

“Global Issues”, 2000. Ohi, James M. and Krieger, Gary R. Accident Prevention Manual for Business & Industry Environmental Management 2<sup>nd</sup> Edition. National Safety Council.

“Program Assessment and Evaluation”, 2000. Krieger, Gary R. and Balge, Marci Z. Occupational Health & Safety 3<sup>rd</sup> Edition. National Safety Council.

“Health Programme Planning for a Large Pipeline Project in Sub-Saharan Africa: Analysis and Overview of World Bank Guidelines and Requirements.” Krieger G.R. and Balge M.Z. Meeting Proceedings of the Society of Petroleum Engineers, Health Safety and Environment. June 2000.

Chad Public Health. Cameroon Public Health. Krieger, G.R. and Balge, M.Z. Volume 6. Chad Export Project. World Bank Environmental Assessment. May 1999.

“AIDS Amplification and World Bank Projects in Developing Countries.” Krieger, G.R. and Balge, M.Z. Meeting Proceedings of the Society of Petroleum Engineers, Health Safety and Environment. June 1998.

“Risk Assessment as a Tool for Evaluating Environmental Economic Impacts in Eastern Europe.” Krieger, G.R., and Smith, T.R. Accepted for Fourth International Symposium on Environmental Contamination in Central and Eastern Europe. Warsaw, Poland. September 1998.

“Bioavailability Implications for Health Risk Assessment Metals in the Environment.” Krieger, G.R., J.E. Kester, H. Hattemer-Fry. USGS Proceedings. 1999.

“International Environmental Health: Specialized Assessment Techniques and Case Studies.” in International Occupational and Environmental Medicine. Eds. Herzstein J, Fleming L, and W. Bunn W. Mosby, 1998.

"Hematology." Krieger, G.R., in Encyclopedia of Toxicology. Appleton and Lange Publishers, 1996.

"Environmental Hazards in the International Setting." Krieger, G.R., in Issues in International Occupational and Environmental Medicine. OEM Press, 1996.

"Environmental Economics and Ethics." Runge C.F., G.R. Krieger, J. Engel, and R. Engel. APM, 1994, 1999.

"International Legal and Legislative Framework." Krieger, G.R. and I. Austin. APM, 1994, 1999.

"Basic Principles of Environmental Science." Krieger, G.R., M. Logsdon, C. Weis, and J. Moreno. APM, 1994, 1999.

"Public Health Issues." Krieger, G.R., C. Weis, and M. Rozelle. APM, 1994, 1999.

"Indoor Air Quality." Burton, D.J., G.R. Krieger, W. Keane, and R. Greenway. APM, 1994, 1999.

"Future Issues." Krieger, G.R. and J. Ohi. APM, 1994, 1999.

"Principles of Medical Surveillance and Human Exposure Standards." Krieger, G.R. and M. Balge, 1991 (HMT).

"Hazard Communications and Material Safety Data Sheets." Beck, C. and G.R. Krieger, 1991 (HMT).

"Assessing Community Risk from the Sudden Release of a Toxic Gas." Lowe, J., G.R. Krieger, S.R. Radis, and J.B. Sullivan, 1991 (HMT).

"Health-Related Hazards of Agriculture." Sullivan, J.B., M. Gonzales, G.R. Krieger, and C.F. Runge, 1991 (HMT).

"Lasers." Krieger, G.R., 1991 (HMT).

"Non-Ionizers Electromagnetic Radiation." Krieger, G.R., 1991 (HMT).

"Human Health Risk Assessment." Kester, J.E., H.A. Hattemer-Frey, and G.R. Krieger. Environmental Science and Technology Handbook. Government Institutes, 1994.

"Ecological Risk Assessment." Kester, J.E., H.A. Hattemer-Frey, and G.R. Krieger. Environmental Science and Technology Handbook. Government Institutes, 1994.

"Analysis of Current RCRA and CERCLA Risk Assessment Approaches and Strategies: Convergence or Divergence with the Proposed Republican "Contract with America."" G.R. Krieger, J.E. Kester, and M.E. Neal. Hazardous Waste Strategies Update, March 1995.

"An Evaluation of the Soil, Plant, and Chemical Parameters That Influence Root Uptake of Metals." H.A. Hattemer-Frey, V. Lau, and G.R. Krieger. Environ. Geochem. Health, 1994 in press.

"Ecological Risk Assessment Case Study: Impacts to Aquatic Receptors at a Former Metals Mining Superfund Site." H.A. Hattemer-Frey, R.E. Quinlan, and G.R. Krieger, Risk Analysis, 1995.

"An Evaluation of the Effect of Some Soil Properties on Root Uptake of Four Metals." H.A. Hattemer-Frey, G.R. Krieger, and V. Lau. Superfund Risk Assessment in Soil Contamination Studies: Vol. II, ASTM STP 1264, K.B. Hodinott, Ed., American Society for Testing and Materials, Philadelphia, PA.

"Health Planning for Remote Petrochemical Field Operations." G.R. Krieger, M.Z. Balge. Petro-Safe '95, Book 1; pp 475-497.

"Occupational and Public Health Issues in Remote Land-Based Field Operations." G.R. Krieger, M. Balge OEM Reporter. Vol. 8, Number 10; pp 81-83, October 1994.

Methods for Evaluating Potential Impacts to Aquatic Receptors at a Metal-Contaminated Superfund Site, *Proceedings of the 1994 Waste Management Conference*, Tucson, Arizona, February 29 - March 3, 1994. Hattemer-Frey, H.A., R.E. Quinlan, and G.R. Krieger, 1994.

Land Use and Demography Survey for a Large Superfund Site, *Proceedings of the 1994 Waste Management Conference*, Tucson, Arizona, February 28 - March 3, 1994 submitted. Hattemer-Frey, H.A., R.E. Quinlan, G.R. Krieger, and V. Lau, 1994.

"The Investigation of a Cluster of Neural Tube Defects in Cameron County, Texas," Krieger, G.R. OEM Report, 1992, 6(12):89-92 and editorial response, March 1993, pp. 23-24.

"Cancer and Residential Exposure to Low-Frequency Electromagnetic Fields," Krieger, G.R. OEM Report, 1993, 7(5):35-27.

An Evaluation of the Soil, Plant, and Chemical Parameters that Influence Root Uptake of Metals, *Environ. Geochem. Health*, in press. Hattemer-Frey, H.A., V. Lau, and G.R. Krieger, 1993.

Medical Surveillance: Biologic Monitoring with Personnel in Semiconductor Research Facilities. Krieger, G.R., Cambridge RM. In: *Photovoltaic Safety*. American Institute of Physics, pp. 67-73, 1988.

Shift Work Provides Clues to Industrial Disasters: *Occupational Safety & Health*; Vol. 56, Number 1; pp. 24-34, 1987.

Abstracts: International Conference on Ergonomics, Occupational Safety, Health & the Environment. Beijing, China, 1988.

- Shift Schedule Redesign in Larger Industrial Production Facilities. Krieger, G.R., D. Day, J. Hovell and C. Amoroso, 1988.

- Plant Error Rates as a Function of Shift Work Schedules: Chronobiologic and Management Consideration. Krieger, G.R. and S. Piantidosi, 1988.
- Multiple other papers and presentations; available on request.

Prothrombin Complex Concentrate in Treatment of Classical Hemophilia with Factor VIII Antibody. Lancet 2(7946) 1203, 12 December 1975.

### **Presentations (Various Forums)**

“Health Impact Assessment” World Bank/IFC Compliance Group. 2007.

“Health Impact Assessment” Princeton University Program Science, Technology and Environmental Policy (STEP) 2006.

“Why Is Malaria Chemoprophylaxis So Low and What Can Be Done About It?” Krieger GR, Balge MZ, Johnson CE. HECTRAIII November 2002.

“Will Wide Distribution of Cheap Drugs Lead to an Epidemic of HIV Resistance?” Krieger GR and Balge MZ. HECTRA III November 2002.

“Tuberculosis: Return of the White Plague Medical and Laboratory Strategies for E&P Projects.” Krieger, G.R. and Moreau, J-M. Society of Petroleum Engineers (Proceedings). Health Safety and Environment.

“Sexually Transmitted disease (STD) Evaluation and Treatment: Community Outreach Programs for E&P Projects.” Krieger, G.R. and Moreau, J-M. Society of Petroleum Engineers (Proceedings). Health, Safety and Environment.

“Science versus Art: HIV/AIDS Information, Communication and Information (IEC) Programs. What do we know about program effectiveness in an international setting?” Krieger, G.R. and Moreau, J-M. Society of Petroleum Engineers (Proceedings). Health Safety and Environment.

“Toxicology 101”. DRI, Toxic Torts & Environmental Law Committee Seminar, March 2001.

“HIV/AIDS Transmission Modeling.” The Industry Response To HIV/AIDS: Time for a Best Practice? Krieger, G.R. Panel. Society of Petroleum Engineers, Health Safety and Environment, June 2000.

Speaker, "Chronobiology and Shiftwork." American College of Occupational and Environmental Medicine Conference, April 1996.

Co-chair Scientific Committee - American College of Occupational and Environmental Medicine. State-of-the-Art Conference (SOTA), Seattle, October 1995.

Seminar Co-leader: "The Health Effects of Contaminated Soil and Water." SOTA Conference, Seattle, October 1995.

"When Disease and Pollution Co-exist: Evaluation of Environmental Sources to Disease Rates in Developing Countries." Pacific Rim Conference on Occupational and Environmental Health, October 1995.

"Heavy Metals Contamination of Agricultural Products." Conference: University of Minnesota Center for International Food & Agricultural Policy in Conjunction with the University of Padova. September 1994.

"Risk Assessment Techniques and Strategies for Evaluating Environmental Contamination." Planning Session. International Conference on the Environment. Ministry of the Environment, Russia. August 1994.

"Fundamentals of Toxicology" and "Investigation of Disease Clusters." Western Occupational Medicine Association. Annual Meeting, 1993.

United States Geologic Survey. Society of Economic Geologists. 1993 - August. Featured speaker and presenter. "The Environmental Geochemistry of Mineral Deposits." Accepted contributed article: Health Effects of Heavy Metal Environmental Contamination: The Role of Bioaccumulation, Krieger, G.R.

Featured Speaker: Fall 1991, 11th Annual Symposium Southeastern Poison Center: University Arizona School of Medicine, "Heavy Metal Contamination: Environmental & Human Health Evaluation."

Australian New Zealand Society of Occupational Medicine; March 1991. Keynote speaker: Environmental Chemical Exposure. A review of health effects and risk assessment.

Colorado Bar Association: "Health Risk Assessment." Fall 1991. Featured speaker.

Australian Society of Experimental Pharmacologists/Toxicologist. Featured speaker; August 1990. Risk Assessment of heavy metals associated with environmental contamination.

"Medical and Psychologic Effects of Shiftwork" and "Ergonomic Redesign and Medical Case Management in Cumulative Trauma Disorders," Rocky Mountain Academy Occupation Medicine, January 1989.

"Indoor Air Quality, The Problem of the '80s," American Society of Heating Refrigerating and Air-Conditioning Engineers, Rocky Mountain Region.

American Occupational Medicine Association National Meeting: May 1987, Shift Work Maladaptation Syndrome: Etiology, Diagnosis, and Management.

Medical Grand Rounds, May Clinic: "Circadian Rhythms in Health and Disease." 1986.

Mayo Clinic Preventive Medicine/Thoracic Diseases Division: "Indoor Environmental Epidemics," 1986.

"Pre-Employment Medical Evaluations for Shiftworkers." First Annual Conference on Shiftwork Management. August 1989.

"Practical Considerations in Alternative Work Schedules." Colorado Mine Association. September 1989.

Calculation of Human Health Impacts Associated with Mining Sites. Accepted for Publication and Presentation. Society for Mining Engineers, 1990.

"Biological Monitoring and Biological Exposure Indices in Industry." Colorado Safety Association. September 1989.

"Asbestos: Risk Assessment Techniques for Low Dose Exposures." Government Institutes, 1989.

"Environmental Fate and Transport of Agricultural Chemicals." Accepted in 1989: University of Minnesota, Department of Agricultural Economics; University of Padua, Italy, Joint Agricultural Policy Symposium.

1986 American Occupational Medicine Association National Meeting

- Scientific Sessions Organizing Committee
- Postgraduate Seminar: "Circadian Rhythms, Shift Work and Schedule Redesign" with Martin Moore - Ede, M.D., Ph.D., Director, Circadian Physiology Lab, Harvard Medical School
- Presentation: "Indoor Environmental Epidemics: Tight Building Syndrome -Investigative Approaches and Case Analysis"
- Chairman Scientific Session: "Newer Aspects of Toxicology"

- Presentation: Nuclear Industry Physicians Association: "Review and Analysis of Nuclear Regulatory Commission Practices for Shift Scheduling of Plant Personnel."

Rocky Mountain Academy Occupation Medicine Meetings. Presentation: "Occupational Health and Circadian Rhythms," 1986.

Medical Group Management Association National Meeting. Presentation: "Hazardous Communication Law: Analysis and Implications for Medical Groups," 1985.

Industrial Society, London, England, "Circadian Rhythms, Shift Work and Schedule Redesign," 1985.

American Industrial Hygiene Association, Postgraduate Seminars: 1985.

- New Approaches to Low Back Pain
- Indoor Environmental Epidemics
- Occupational Health and Circadian Rhythms

American Occupational Medicine Association National Meeting: Presentation: "A Program of Chronohygiene for the Shift Worker" Moderator - Panel discussion "Alternate Shift Schedules," 1984.

Participant National Task Force Committee on Alternate Work Schedule in the Nuclear Power and Airline Industries, 1984.

Presentation: "Plant Safety and Productivity as a Function of Shift Schedule." Texas Chemical Council Occupational Safety Committee, 1984.

Testimony before the Investigations and Oversight Subcommittee on Science and Technology, U.S. House of Representative - "Shift Work and the Petrochemical Industry: Defining Concerns - Formulating Solutions," 1983.

International Pacemaker Conference, Florence, Italy - Hemodynamic and Anti-tachycardia Efficacy of Dual-Chamber Pacing: Initial and Follow-Up Assessment -- Maloney, M.D. and Krieger, G.R., 1981.

Follow-Up Assessment of Double-Damaged A-V Sequential Pacing for Automatic Conversion and Prevention of Drug Refractory Reciprocating PSVT: Report of Multi-Center Cooperative Study - Maloney, J.D.: Krieger, G.R.: et al., 1981. Vienna Workshop on Antibodies to Factor VIII sponsored by IMMUNO, Inc., 1981.

"Can We Define a Hemophilic Population at Risk?" -- Allain, J. and G.R. Krieger, 1976.

### **Case Management/Cost Containment:**

New Approaches to Old Problems of Workers Compensation. Krieger, G.R., August 1989 Commerce, Vol. 86, No. 7, pp. 54-56.

The Case for Case Management, Occupational Safety and Health; Vol. 56, Number 5; pp. 92. Krieger, G.R. and J.B. Sullivan, 1987.

"Changing Physician Practice Patterns: Cost & Quality Implications," Lewis & John Dare Lectureship, Virginia Mason Medical Center, October 1988.

"Workers Compensation" and "Optimal Health Care Management," American Association Preferred Providers Organization, National Meeting, October 1988.

"Business Cost Containment: An Overview," Council of Hospital Corporations, St. Paul, NM.

"What Purchasers Want to Know from Providers," Colorado Hospital Association Trustee Conference.

"Emerging Problems in the Workplace," Longs Peak Association of Occupational Health Nurses.

"Collecting Health Care Data, The Employer Perspective," Conference on State Data Commissions.

"Drug Testing in the Workplace," 7th Annual OMA Educational Conference Medical Group Management Association.

"Perspective on Drug Testing in the Workplace," Physicians Clinic Conference, Omaha, Nebraska.

Medical Group Management Association National Meeting. Presentation: "New Trends in Occupational Medicine," 1986.