Proceedings of the
International Collaborative
Effort on Injury Statistics
Volume I

From the CENTERS FOR DISEASE CONTROL AND PREVENTION/National Center for Health Statistics

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control and Prevention
National Center for Health Statistics

Hyattsville, Maryland
March 1995
DHHS Publication No. (PHS) 95-1252
Preface

On May 18-20, 1994 the National Center for Health Statistics (NCHS) convened the first symposium of the International Collaborative Effort (ICE) on Injury Statistics. This symposium was co-sponsored by the National Institute of Child Health and Human Development (NICHD), National Institutes of Health.

The mission of the Injury ICE is to identify the problem(s) and propose solutions aimed at improving the quality and reliability of international statistics related to injury. In order to achieve the maximum benefits for participating researchers, the symposium brought together leading researchers from the United States and from 13 other countries to address the multiple issues related to the comparability of injury data.

The members of the ICE on Injury steering committee are from: the NCHS, Lois A. Fingerhut, Bob Hartford, Harry Rosenberg, Sue Meads; the National Center for Injury Prevention and Control (NCIPC), Lee Annest; the NICHD, Mary Overpeck; the Johns Hopkins Injury Prevention Center, Gordon Smith; and the WtIo Working Group on Injury Surveillance and the Consumer Safety Institute in Amsterdam, Netherlands, Wim Rogmans.

This volume contains the papers presented at the symposium as well as the deliberations that took place in the various workshops.
Acknowledgments

Overall responsibility for planning and coordinating the content of these Proceedings was assumed by Lois A. Fingerhut, Special Assistant for Injury Epidemiology, Office of Analysis, Epidemiology and Health Promotion, and Bob Ilford, Deputy Director, Office of International Statistics, National Center for Health Statistics.

Many thanks to the individual authors and workshop chairs for their contributions to this volume. Each of the presentations is included as submitted by the respective authors. Individual comments should be addressed to them.

Publications management was provided by Thelma Sanders.
Participants

Interests are included after the address for those who provided the information.

*Anders Åkberg
Principal Administrative Officer
Centre for Epidemiology
National Board of Health and Welfare
S-106 30 Stockholm
SWEDEN
Interests: Surveillance, data analysis

Les R. Becker
Evaluation Manager
Division of Injury and Disability Prevention and Rehabilitation
Department of Health and Mental Hygiene
State of Maryland
201 West Preston Street
Baltimore, MD 21201

*Duane Alexander, M.D.
Director
National Institute of Child Health and Human Development
Building 31, Room 2A03
Bethesda, MD 20892

Jean Athey, Ph.D.
Director
Injury Prevention and EMSC Programs
Maternal and Child Health Bureau
Room 18-A-39
5600 Fishers Lane
Rockville, MD 20857

Tim Baker
621 North Washington Street
Baltimore, MD 21205

*Vita Barell
Head, Health Services Research Unit
Ministry of Health
The Gertner Institute
The Chaim Sheba Medical Center
Tel Hashomer 52621
ISRAEL
Interests: Injury surveillance; emergency room information systems; Trauma registries; outcome evaluation; Registry of effective prevention programs; consumer product safety programs

*Henning Bay-Nielsen, M.D.
Syndhedsstyrelsen
National Health Council
P.O. Box 2020
1012 Copenhagen
DENMARK

Kathie Binysh, M.D.
Senior Medical Officer
Department of Health
Room 527
Wellington House
133-155 Waterloo Road
London SE1 8UG
ENGLAND

Ruth Brenner, M.D.
NICHD
6100 Executive Blvd. Room 7B03
Bethesda, MD 20892
Bill Carl  
Injury Prevention Unit  
Minnesota Department of Health  
717 SE Delaware Street  
P.O. Box 9441  
Minneapolis, MN 55440--9441  
Interests: Suicide, child maltreatment, sports injury

Erich M. Daub  
Injury Prevention Program  
Baltimore County Dept of Health  
One Investment Place, 10th floor  
Towson, MD 21204--4111  
Interests: Surveillance (intentional/unintentional); coding, mapping/geography; Prevention

John Delargy, M.D.  
Consumer Safety Unit  
10/18 Victoria Street  
London SW11 0NN  
ENGLAND  
Interests: Home and leisure accident prevention, Special Studies

Alan Dellapenna  
Injury prevention Specialist  
Phoenix Area IHS  
3738 N. 16th Street, Suite A  
Phoenix, AZ 85016--5981

Patricia C. Dischinger, Ph.D.  
University of MD at Baltimore  
MD Institute for Emergency Medical Services  
National Study Center for Trauma  
22 South Greene Street  
Baltimore, MD 21201

Benjamin C. Duggar  
Center for Health Policy Studies  
9700 Patuxent Woods Drive, Suite 100  
Columbia, MD 21046

John H. Ferguson, M.D.  
Director, Office of Medical Applications of Research  
Office of the Director  
National Institutes of Health  
Federal Building, Room 618  
Bethesda, MD 20892  
Samuel Nana Fourjuoh  
Center for Injury Research and Control  
200 Lothrop Street - Room NE-560 MUII  
Pittsburgh, Pa 15213

Birthe Frimodt-Moller, M.D.  
Syndhedsstyrelsen  
National Health Council  
P.O. Box 2020  
1012 Copenhagen  
DENMARK  
Interests: Classifications, surveillance, utilization of injury data for prevention

Sue Gallagher  
Children's Safety Network  
Education Development Center, Inc.  
55 Chapel Street  
Newton, MA 02160  
E-mail: SLrSANG@EDC.ORG  
Interests: Injury surveillance, coding, minimum data sets, child and adolescent injury prevention, evaluation

Herbert Garrison, M.D.  
Center for Injury Research and Control  
University of Pittsburgh, MUIH, Rm. NE-560  
200 Lothrop Street  
Pittsburgh, PA 15213-3170

Rosa Gofin, M.D.  
Department of Social Medicine  
Hadassah School of Public Health and Community Medicine  
P.O.B. 1172  
Jerusalem 91010  
ISRAEL  
Interests: Injury surveillance; Outcome of Injuries; Prevention program evaluation

Cathy Gotschall  
National Children's Medical Center  
Washington, DC 20010
Yossi Harei, Ph.D.
I lead, Medical Sociology Program
Bar Ilan University
Ramat Gan, 52900
ISRAEL

Interests: Childhood and adolescent injury; risk behavior; psychosocial cross-national comparisons; survey methodology in injury research

Keith D. Harries, Ph.D.
Department of Geography
University of MD
Social Sciences Building, Room 211
5401 Wilkens Avenue
Baltimore, MD 21228-5398

Joan Harris
National Highway Traffic Safety Administration
400 Seventh Street, SW
NPP-32
Washington, D.C., 20590

James Harrison, Ph.D.
National Injury Surveillance Unit
Mark Oliphant Building
Laffer Drive, Science Park
5042 Bedford Park
AUSTRALIA

E-mail: NIJEIt@INDERS.EDU.AU

Interests: Minimum data set for injury surveillance; Improved mortality surveillance, (through work with coroners); Technical aspects of inpatient morbidity (standards; definitions; achieving state to state comparability; etc.); Emergency room surveillance; Linkage (esp. of police mid hospital data for road injury); Severity measures; Injury inlondnation reporting methods (how to get the information to the right people, in useable forms); Special purpose injury registers (spinal cord injury); Monitoring national injury targets.

Michael Hlayes, Ph.D.
Project Director
Child Accident Prevention Trust
Clerks Court, 4th Iqoor
18-20 Farringdon Lane
London ECIR 3AU
ENGLAND

*Yvette Holder
PAHO/WHO Caribbean
Caribbean Epidemiology Center (CAREC)
P.O. Box 164
16-18 Jnnai-t Blvd.
Port of Spain
TRINII)AI)

Interests: Surveillance, injury economics; quality of data

David It. Janda, M.D.
Director
Institute for Preventative Sports Medicine
P.O. Box 7032
Ann Arbor, MI 48107

Interests: Sports Injuries/Prevention

Lt. Col. Bruce tl. Jones, M.D.
Chief, Occupational Medicine Division
U.S. Army Research Institute of Environmental Medicine
Natick, MA 01760-5007

Ilceen Kessler
U.S. Consumer Produce Safety Coinmission
Washington, DC 20207

Interests: Injuries and deaths (unintent., intent.); surveillance systems; in--depth investigation of injury events

*Jess Kraus, Ph.l)
University of California, Los Angeles
School of Public Ilealth
10833 La Conte Avenue
Los Angeles, CA 90024-1772

*John Langley, Ph.D.
Director, Injury Prevention Research Unit
University of Otago Medical School
P.O. Box 913
Dunedin
NEW ZEALAND

ix
Louis Quartrano, Ph.D.
Chief
Center for Rehabilitation Medicine
Room 2A03
NICHD
Building 6100
Bethesda, MD 20892

Michael Rand
Bureau of Justice Statistics
633 Indiana Avenue, N.W.
Washington, DC 20531

Interests: Intentional injury, firearm injury, mortality

Susan Reed
Department of Veterans Affairs
810 Vermont Avenue, NW
Washington, DC 20420

FAna Roberts
Pan American Health Organization
525 23rd St. NW
Washington, DC 20037-2895

Interests: Comparability of international statistics (Mortality and morbidity); minimum data sets; indicators

*Ian Rockett, Ph.D.
Department of Health Leisure and Safety
University of Tennessee at Knoxville
1914 Andy Holt Avenue
Knoxville, TN 37996–2700

Interests: Surveillance, mortality, data linkage

*Wim Rogmans, Ph.D.
Consumer Safety Institute
P.O. Box 75169
1070 AD Amsterdam
THE NETHERLANDS

*C.J. Romer, M.D.
Chief, Injury Prevention Program
World Health Organization
20, Avenue Appia
1211 Geneva
SWIT—_RLAND

Cleone Rooney, M.D.
Office of Population Censuses and Surveys
Medical Statistics Division
10 Kingsway
London WC2B 6JP
ENGLAND

Interests: Comparability and accuracy of mortality data; suicide; international comparisons—cure and prevention; record linkage and followback

Beatrice Rouse, M.D.
Substance Abuse and Mental Health Services Administration
16–105 Parklawn Building
5600 Fishers Lane
Rockville, MD 20857

phone-301..-443-8005
fax 301-.-443-..-9847
BROUSE@ AOA2.SSW.DHHS.GOV

Interests: Injuries and deaths associated with substance abuse, mental disorders, and violence; epidemiology; and methodological issues such as classification and coding rules and guidelines.

Carol W. Runyan, Ph.D.
Director, IPRC
University of North Carolina
Chase Hall–CB 7505
Chapel Hill, NC 27599-7505

*George Rutherford, M.S.
U.S. Consumer Product Safety Commission
Epidemiology
Washington DC 20207

Interests: Unintentional injuries

Sue Ryan
Chief
Emergency Medical Services Division
National Highway Traffic Safety Administration
400 Seventh Street, SW
Washington, DC 20590

Interests: Out-of-hospital data, data linkage, GIS

Nancy Rytina
Division of Hazard Analysis
U.S. Consumer Product Safety Commission
Washington DC 20207
*Peter Scheidt, M.D.
Director
Department of General Pediatrics
National Children's Medical Center
11 Michigan Avenue
Washington, DC 20010

Robert Schwartz, M.D.
Department of Medicine
Hartford Hospital
80 Seymour Street
Hartford, CT 06115

Interests: Ed surveillance; Documentation issues
(data acquisition); Computers in medicine
(computer based patient record); the clinician as
injury prevention specialist

*Greg Sherman, Ph.D.
Chief, Diseases of Infants and Children Division
Health Canada
46-LCDC Building
Tunney's Pasture
Ottawa ON K1A OL2
CANADA

Interests: GIS, data analysis, database
design/linkage

*Gordon Smith, M.B., M.P.II.
Associate Professor
The Johns Hopkins University
Injury Prevention Center
624 North Broadway
Baltimore, MD 21205

*Richard J. Smith, M.S.
Injury Prevention Program Manager
Indian Health Service
610 Twinbrook Plaza Suite
12300 Twinbrook Parkway
Rockville, MD 20852

*Lorann Stallones, Ph.D.
Associate Professor
Colorado State University
Department of Environmental Health
BI20 Microbiology Building
Fort Collins, CO 80523

E-mail:
LSTALLONF~S@VNINES.COLOSTATE.EDU

Interests: Rural/farm injuries (intentional and
unintentional); GIS

*David Stone, Ph.D.
Public Health Research Unit
University of Glasgow
Greater Glasgow Health Board
1 Lilybank Gardens
Glasgow G12 8RZ
SCOTLAND

Interests: GIS, data analysis, database
design/linkage

*Imif Svanstrom, Ph.D.
Karolinska Institute/Kronan Health
Centre, Department of Social Medicine
17283 Sunbyberg - Stockholm
SWTSJEN

Alvin R. Tarlov, M.D.
The Health Institute
New England Medical Center, Box 345
750 Washington Street
Boston, MA 02111

Roger Trent, Ph.D.
Chief, Injury Surveillance and Epidemiology
Emergency Preparedness and Injury Control
Program
601 North 7th Street
PO Box 942732
Sacramento, CA 94234-7320

Internet RTRENT@IWI.W1.NET.GOV

Interests: Injury surveillance; central nervous
system trauma; drowning; violence

Ann Trumble, Ph.D.
Epidemiology Branch
Room 7B03
National Institute of Child Health and Human
Development
Building 6100
Bethesda, MD 20892

*Anne "I'ursz, M.D.
Scientific Director
International Children’s Center
Chateau de Longchamp—Bois de Boulogne
F 75016 Paris
FRANCE

Interests: Childhood injury; long term
consequences of injuries; sports related injuries
Elinor Walker  
Health Science Administrator  
Agency for Health Care Policy and Research  
Division of Technology and Quality Assessment  
Center for General Health Services Extramural Research  
2101 East Jefferson Street  
Suite 502  
Rockville, MD  20852-4908

*Patricia F. Waller, Ph.D.  
Director  
University of Michigan Transportation Research Institute  
2901 Baxter Road, Room 154  
Ann Arbor, Michigan  48109-2150

*William Walsh  
Director  
National Center for Statistics and Analysis  
National Highway Traffic Safety Administration  
Room 6125  
400 Seventh Street, SW  
Washington, DC  20590

Ilarold B. Weiss  
Center for Injury Reduction and Control  
Division of Emergency Medicine  
MUH-Room NE 560  
3459 Fifth Avenue  
Pittsburgh, PA  15213-3241  
E-mail: WEISS@VAXA.MUH.UPM(71-DU  
Interests: Surveillance, emergency department

Diane Willard  
American Medical Association  
515 North State Street  
Chicago, IL  60610

*Pnina Zadka  
Director, Health Division  
Central Bureau of Statistics  
Ilakrya--Romema  
PO Box 13015  
Jerusalem  91130  
ISRAEL  
Interests: Mortality, morbidity, coding, data linkage
CDC participants, on pages 14--15, are not alphabetized.

*David Satcher, M.D., Ph.D.
Director
Centers for Disease Control and Prevention
1600 Clifton Road NE
Atlanta, GA 30333

From the National Center for Health Statistics:
6525 Belcrest Road
Hyattsville, MD 20782

Office of the Director
*Manning Feinleib, M.D., Dr.P.H.
Director
Office of International Statistics
*Robert Israel, Associate Director
*Bob Hartford, Ph.D., Deputy Director
Paul Ahmed
*Jacqueline P. Davis
Sam Notzon, Ph.D.

Office of Analysis, Epidemiology and Health Promotion
Jacob J. Feldman, Ph.D., Associate Director
*Lois A. Fingerhut, Special Assistant for Injury Epidemiology

Interests: Childhood injury, injury resulting from violence; cross-national comparisons

E-mail: LAF4@NCH07A.EM.CDC.GOV

Division of Epidemiology
Jennifer Madans, Ph.D., Director

Division of Health and Utilization Analysis
Harold Lentzner, Ph.D.
Deborah D. Ingrain, Ph.D.
Laura E. Montgomery

Interests: Child health, family violence, socioeconomic indicators

Division of Health Promotion Statistics
John F. Seitz, Ph.D.

Office of Vital and Health Statistics Systems
Division of Vital Statistics
Mortality Statistics Branch
*Harry Rosenberg, Ph.D., Chief
Hsiang-Ching Kung, Ph.D.
Jim Spider
Division of Health Care Statistics
Edward W. Bacon, Ph.D., Director
Morbidity Classification Branch
Sue Meads, Chief
Perianne Lurie, M.D.
Hospital Care Statistics Branch
*Brenda Gillum

Interests: Childhood Injury Prevention; Coding Issues; Computerization of coding systems

Division of Health Interview Statistics
Peggy R. Barker
Office of Planning and Extramural Programs
Gall F. Fisher, Ph.D., Associate Director
Office of Research and Methodology
Chuck Croner
Office of Data Processing and Services
Sandy Smith, Public Affairs Specialist

From the National Center for Injury Prevention and Control
4770 Buford Highway
Atlanta, GA 30341 (Mailstop F36)

Office of Statistics, Programming and Graphics
*Joseph L. Annest, Ph.D., Director

Interests: Mapping, injury statistics, firearm injuries, coding, injury surveillance

Division of Unintentional Injury Prevention
Terry Chorba, M.D.
Julie Russel, Ph.D.
Interests: Motor vehicle related injury prevention, data linkage, childhood injury prevention

Division of Violence Prevention
*Ken Powell, M.D.

Division of Acute Care, Rehabilitation Research, and Disability Prevention (Mailstop E4_)
Rick Waxweiler, Ph.D., Acting Director
*Dan Pollock, M.D.
David Thurman, M.D.
From the National Center for Environmental Health
Atlanta, GA  30333  Mailstop F35

Division of Environmental Hazards and Health
   Roy T. Ing, M.D.
   Surveillance and Programs Branch

*Gib Parrish, M.D., Chief

From the National Institute for Occupational Safety and Health
*Nancy Stout, Ed.D.
Chief, Injury Surveillance Section
Division of Safety Research
944 Chestnut Ridge Road
Morgantown, WV  26505-2888

E-Mail NAS5 @NIOSR1.EM.CDC.GOV

Interests:  Occupational safety/injury; automated coding software; child labor

* Co-Author of paper or Co-Chair of workshop