#### PUBLIC HEALTH GIS NEWS AND INFORMATION

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Dedicated to CDC/ATSDR scientific excellence and advancement in disease control and prevention using GIS



#### Presentations at the GIS in Public Health Conference

#### **Environmental Health Protection**

<u>Health Risk Analysis Of The Rio De Janeiro Water Supply Using Geographical Information Systems</u>
C Barcellos, KC Barbosa, MF Pina, MMAF Magalhães, JCMD Paola. Departamento de Informações para a Saúde, Fundação Oswaldo Cruz (DIS/FIOCRUZ), Avenida Brasil 4365, Rio de Janeiro, RJ, 21045-900, Brazil.

### A GIS Dose Reconstruction Of The Air Pathway: Correlating The Impact Of Air Sources From An Air Force Base And The Incidences Of Excess Cancers

GM Zarus (1), DA Fowler (1), and AL Dent(2). (1) Division of Health Assessment and Consultation, Agency for Toxic Substances and Disease Registry, Atlanta, Georgia. (2) Electronic Data Systems, Atlanta, Georgia.

<u>The Evaluation Of Environmental Exposures Using Geographic Information Systems</u>

DM Abouelnasr, Ph.D. (1), RR Parker (1), G Aiken (2), ME Hewitt (2) and U Shanmugam (2). (1) Agency for Toxic Substances and Disease Registry, Atlanta, GA; (2) Electronic Data Systems, Atlanta, GA.

<u>Understanding The Role Of Geospatial Information Technologies In Environmental And Public Health:</u>
<u>Applications And Research Directions</u>

US Tim. Iowa State University, Dept. of Agricultural & Biosystems Engineering, 215 Davidson Hall, Ames, Iowa.

Assessing Exposure to Trichloroethylene in Drinking Water using GIS
X Chen, CE Feigley, EM Frank, WA Cooper, and Y Huang. Univ. of South Carolina, Columbia, SC.

<u>Tax Assessor Data And GIS In Targeting Lead Poisoning Prevention Interventions</u> GB Curtis RB Kaufmann and AB Bloch. CDC/NCEH/EHHE/LPPB, Atlanta, GA.

Enhancing Superfund Site Management With GIS

JD Generaux and V Damm. US EPA, Region 7, Kansas City, KS 66101.

GIS Implementation Of 1997 CDC Guidelines For Childhood Lead Screening In North Carolina CL Hanchette. NC State Center for Health Statistics; Raleigh, NC.

<u>A Study To Examine Mercury Toxicity In Aquatic Ecosystems Using GIS</u>
DP Krabbenhoft and JG Wiener. USGS, 8505 Research Way, Middleton, WI 53562; USGS, P.O. Box 818, LaCrosse, WI 54602.

<u>Potential Risk Indexing System Utilizing GIS To Rank Geographic Areas, Industrial Sectors,</u> Facilities And Other Areas Of Concern

AC Wilkins (1) and DL Forman (2). (1) USEPA/ORD/National Center for Evironmental Assessment, (Mail Code 8623-D), Washington, DC 20460; (2) USEPA Region 3, 841 Chestnut Bldg. (MC 3WC30) Philadelphia, PA 19107 (S.A.I.C. Inc., 1710 Goodridge Dr. (MS 1-11-10), McLean, VA 22102 Versar, Inc., 6850 Versar Center, PO Box 1549, Springfield, VA 22151).

<u>The Use Of GIS In Identifying Risk Of Lead Poisoning In Australia</u> LA O'Dwyer and SG Fildes. Flinders University, Adelaide, South Australia.

Geographic Analysis Of Childhood Lead Exposure In New York State

TO Talbot, MSPH; SP Forand, MA and VB Haley, MS. New York State Department of Health, Albany, NY.

<u>Public Health Assessment Of Shellfish Growing Areas: A GIS-Based Prototype</u>
MP Barrette, MS Mohrman and RE Hoskins. Washington State Department of Health, Olympia, WA.

Kriging Analysis of Benthic Ecological Data in Harbor Eco-Risk Assessments

CJ Leadon. Southwest Division, Naval Facilities Engineering Command, 1220 Pacific Highway,

San Diego, CA 92101-3327.

GIS In A County Environmental Health Agency

MM Blanchet, RS; P Isaksen, RS and TW Yerkes, RS. Seattle-King County Department of Public Health (SKCDPH), Seattle, WA.

<u>Using Geographic Information Systems For Environmental Health Program Planning & Evaluation</u> JW Purvis. ATSDR/DHEP/HPB, 1600 Clifton Road NE MS E-33, Atlanta, Georgia 30333.

<u>Using GIS To Create Childhood Lead Screening Guidelines In Florida</u>
TM Johnson and CM Duclos. Florida Dept of Health, Bureau of Environmental Epidemiology.

Spatiotemporal Mortality Clusters And Particulate Air Pollution In An Industrial City
MS Anderson (1) and M Jerrett (2). (1) Dept. of Geography, SDSU, San Deigo, CA;
(2) Dept. of Geography, SDSU, San Diego, CA.

WWW-Based Access And Visualization Of Hazardous Air Pollutants

J Symanzik (1), T Woodruff (2) and D Axelrad (2). (1) George Mason University, Fairfax, Virginia; (2) EPA, Washington, DC.

Elevated Lead Levels Screened In Salt Lake County, Utah, January - October 1995

TL Schlenker (1), RD Sadler (2), I Risk (2) and H Harris (2). (1) SLCCHD, The Government Center, 2001 S State St S2500, Salt Lake City, UT 84115; (2) SLCCHD 610 S 200 E, SLC, UT 84111.

#### Integration Of Particulate Air Modeling With A GIS:

An Exposure Assessment Of Emissions From Two Phosphate Processing Plants
G Ulirsch, D Gable and V Lee. ATSDR, Division of Health Assessment and Consultation, Atlanta, Georgia.

<u>Spotlighting Local Sources Of Pollution: EDF's Scorecard Information Service</u> WS Pease and K Leiserson. Environmental Defense Fund, Oakland, CA.

<u>Airborne Pesticides Along The Mississippi River And Their Relation To GIS Mapping</u>
<u>Of Agricultural Pesticide Use And Cropping Patterns</u>

MS Majewski, WT Foreman and DA Goolsby. U.S. Geological Survey, Sacramento, CA 95825; U.S. Geological Survey, Arvada, CO 80002; U.S. Geological Survey, Lakewood, CO 80225.

Geographic Information Analysis Of Pediatric Lead Poisoning
FL Margai. Department of Geography, Binghamton University-SUNY, P.O.Box 6000,
Binghamton, NY 13902..

<u>Screening For Childhood Lead Exposure Using A Geographic Information System And Internet Technology</u>
SA Scott and RD Knipple. Dakota County Environmental Management Dept. Apple Valley, MN.

<u>Design And Implementation Of A GIS In The Connecticut Department Of Public Health.</u>

<u>Water Supplies Section For Managing Information On Public Drinking Water Systems</u>

TE Reed (1), EK Cromley (2) and H Sternberg (3). (1) CT Dept of Public Health, Hartford, CT 06134; (2) University of CT Dept of Geography, Storrs, CT 06268; (3) CT Dept of Env Prot, Hartford, CT 06106.

<u>A GIS-Based Approach For Assessing Population Exposures To Tropospheric Ozone And Fine Particles</u>
V Purushothaman and PG Georgopoulos. Ozone Research Center, Environmental and
Occupational Health Sciences Institute, Piscataway, NJ.

#### Multimedia Exposure Modeling Using GIS

A Walia and PG Georgopoulos. Environmental and Occupational Health Sciences Institute, Piscataway, NJ.

Exposure Assessment in Environmental Epidemiology: Application of GIS Technology

JR Nuckols (1), MH Ward (2). (1) Dept. of Env. Health, Colorado State U., Fort Collins, CO

(2) Occupational Epidemiology Br., National Cancer Inst., Bethesda, MD.

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#### Disease Surveillance

Analyzing Motor Vehicle Injuries With The Connecticut Crash Outcome Data Evaluation System GIS

EK Cromley (1), ML Kapp (2), BR Pope (1). (1) Univ. of Connecticut, Storrs, CT;

(2) Connecticut Dept. of Public Health, Hartford, CT.

A GIS Based Intranet Site For Communicable Disease Reporting And Analysis

RE Hoskins (1), C Johnson (2) and P O'Carroll. (1) Washington State Department of Health, Olympia, WA;

(2) University of Washington, Seattle, WA.

<u>Evidence Of Geographic Clustering Of Reported Gonorrhea Cases At The Census Tract Level From Small Area</u>

Analysis Using Socio-Demographic And Structural Risk Factors

RA Scribner (1), DA Cohen (1) and TA Farley (2). (1) LSU Medical School, Dept Public Health Preventive Medicine, New Orleans, LA; (2) Louisiana DHHS, Office of Public Health.

Exploratory Data Analysis In A Study Of Breast Cancer And The Environment

SJ Melly, NI Maxwell, YT Joyce, JG Brody. Silent Spring Institute, Newton, MA; Applied

Geographics, Inc., Boston, MA.

<u>Spatial And Environmental Risk Factors For Diarrheal Disease In Matlab, Bangladesh</u>
ME Emch. University of Connecticut, Department of Geography, 565-20 Talcottville Rd., Apt. 1C8,
Vernon, CT 06066.

Applications Of GIS And Landscape Ecology To Surveillance And Control Of Vector-Borne Diseases
U Kitron. College of Vet. Med., Univ. of Illinois, Urbana, IL 61801.

Design And Implementation Of A Geographic Information System For The General Practice Sector In Australia

J. Green (1), E. Waters (1), F. Escobar (2) and I. Williamson (2). (1) Centre for Community Child Health & Ambulatory Paediatrics (University of Melbourne), Royal Children's Hospital, Flemington Road, Parkville 3053, Victoria, Australia. (2) Department of Geomatics, University of Melbourne, Parkville, 3053, Victoria, Australia.

#### Power Lines, Line Transects, And GIS

HL Weiss (1), JW Drane (2), TE Aldrich (3), GF Pyle (4), DL Creanga (2). (1) UAB, Birmingham, AL; (2) USC, Columbia, SC; (3) UT, Salt Lake City, UT; (4) UNC-C, Charlotte, NC.

<u>Using A Proximity Filter To Improve Rabies Surveillance Data</u>
AJ Curtis. Dept. of Geography, Morehead State University, Morehead, Kentucky.

<u>Data Issues And Cartographic Techniques As Applied To The Use Of GIS In Epidemiology:</u>

<u>The Alberta Health Model</u>

EA Ellehoj. Surveillance Branch, Alberta Health, Edmonton, AB, Canada.

Application Of Potentials Of GIS In Analysing The Spatial Epidemiology Of Disease Surveillance In A

Developing Country: A Case Study Of STDs And Risk Of AIDS In Tamilnadu, India

S Shanmuganandan (1), DR Phillips (2) and RK Shukla (3). (1) Department of Geography, University of Nottingham, Nottingham, Nottinghamshire, UK; (2) Professor and Head, Department of Geography, University of Nottingham, Nottingham NG7 2RD, UK; (3) Institute of Eng. Surveying & Space Geodesy, University of

#### On The Bias Of The Knox Test And An Unbiased Alternative

Nottingham, Nottingham, Nottinghamshire, UK.

M Kulldorff and U Hjalmars. Biometry Branch, DCP, National Cancer Institute, EPN 344, 6130 Executive Blvd, Bethesda, MD 20892-7354; Dep. of Pediatrics, Ostersund Hospital, 83183 Ostersund, Sweden.

<u>Agricultural Pesticide Use And Risk Of Childhood Cancer: A Pilot Study In San Diego And Imperial Counties</u>
EP Elkin, P Reynolds, B Gunier, A Hertz and M Harnly. Impact Assessment, Inc., La Jolla, CA
California Department of Health Services, Emeryville, CA.

<u>Methodology To Simulate Control Populations For The Spatial Analysis Of Surveillance Data</u>

MB Knapp (1), GV Archambault (2) and DD Aye (2). (1) Marlboro College Graduate Center, Brattleboro, VT;

(2) Ct Dept Of Public Health, Hartford, CT.

### <u>Assessment Of Environmental And Climatic Conditions Associated With Coccidioidomycosis</u> <u>In San Diego County, 1991-1997</u>

AS Kao, J Estey, LS Gresham and MM Ginsberg. San Diego State University, Graduate School of Public Health, Department of Epidemiology, San Diego, CA; San Diego County Health and Human Services Agency, San Diego.

### A GIS Based, Case-Control Analysis Of Cancer Incidence And Land Use Patterns

SM Dearwent. Univ. of AL at Birmingham, School of Public Health, Department of Environmental Health Sciences, Birmingham, AL 35294-0022.

#### Molecular And Geographic Epidemiology Of Tuberculosis In Baltimore

WR Bishai (1), OO Obansanjo (1), PL Beilenson (2), NMH Graham (1), S Harrington (1), DS Pope (2), N Hooper (1), J Astemboroski (1), L Sheely (1), D Vlahov (1), GE Glass (1), RE Chaisson (1) and N Dambita (2). (1) Johns Hopkins School of Public Health, 615 N. Wolfe Street, Baltimore, MD 21205; (2) Baltimore City Health Department: 210 Guilford Avenue, Baltimore, MD 21202.

#### Use Of GIS To Examine Associations Between Traffic Flow And Asthma

PB English (1), R Neutra (1), R Scalf (1), M Sullivan (1) and L Waller (2). (1) Env Hlth Investigations Branch, CA Dept of Hlth Services, Emeryville, CA;(2) Div of Biostat, School of Pub Hlth, Univ of MN.

# <u>Cancer Incidence In Southington, CT, 1968-1991 In Relation To Emissions From Solvents Recovery Services</u> <u>Of New England</u>

DD Aye (1), GV Archambault (1) and D Dumin (2). (1) CT Dept of Public Health, Hartford, CT; (2) CT Dept of Environmental Protection, Hartford, CT.

# <u>Mapping The Risk Of Severe Malaria In Bancoumana, Mali: GIS Methods For Studying</u> <u>Malaria At The Village Level</u>

C Brown, S Doumbia, A Dicko, M Bagayogo, D Mokadam, JL Regens, YT Toure, DG Hodges, O Doumbo, JC Beier, JL Gerone and DJ Krogstad. Entergy Spatial Analysis Research Laboratory, Tulane School of Public Health and Tropical Medicine, New Orleans, LA; Mali-Tulane Tropical Medicine Research Center, Tulane School of Public Health and Tropical Medicine, New Orleans, LA and Faculty of Medicine, Pharmacy and Dentistry, University of Mali, Bamako, MALI.

<u>Spatio-Temporal Trends In The Decline Of Ischemic Heart Disease Mortality - U.S. Labor Market Areas, 1980-1995</u>

JA Halverson and E Barnette. Department of Community Medicine, West Virginia University,

Morgantown WV, USA.

#### The Importance Of Error In Geocoding: A Tuberculosis Case Study

B Tempalski, B Kreiswirth and P Alcabes. (1) University of Washington, Dept of Geography, Seattle WA; (2) Public Health Research Institute, New York, NY; (3) New York University School of Medicine, Dept of Environmental Medicine, New York, NY.

Environmental Conditions Conducive To The Clustering Of Hantavirus Pulmonary Syndrome VN Cavataio. Dept. of Geography, SDSU, San Diego, CA.

#### Social and Demographic Analyses

Enumeration Unit Equalization Using The Area-Proportion Technique And ArcView

AL Dent. Agency for Toxic Substances and Disease Registry, Electronic Data Systems, Atlanta, GA.

<u>Race, Class, Health Risks And Environmental Equity: A Spatio-Temporal Analysis Using Arcview GIS</u>
US Tim. Iowa State University, Dept. of Agricultural & Biosystems Engineering, 215 Davidson Hall, Ames, Iowa.

#### Warren County Landfill: Still Provocative After All These Years

PS Wittie (1) and B Nicholson (2). (1) Dept. of Geography, UNC-CH and NC Superfund, DWM, DENR, 401 Oberlin Rd, Ste 150, Raleigh, NC 27605; (2) Superfund, DWM, NC DENR, Raleigh, NC.

<u>Pilot Project To Develop A Geographic Information System-Based Sampling Frame For National Surveys Of</u>
<u>Local Health Departments: Progress Report, 1997 To 1998</u>

TB Richards, CM Croner, CK Brown, L Fowler. Public Health Practice Program Office, CDC, Atlanta, GA; National Center for Health Statistics, CDC, Hyattsville, MD; National Association of County and City Health Officials, Washington, DC; Association of State and Territorial Local Health Liaison Officials, Norman, OK.

#### Using GIS To Define The Determinants Of Obstetrical Bypassing

TJ Morgan (1,2), MS; LA Savitz, PhD, MBA (3); PK Halverson, DrPH (3); WM Gesler, PhD, MS (3); MJ McMahon, MD, MPH (4) and M Beck, MS (4). (1) UNC-CH, Department of Health Policy and Administration, Chapel Hill, NC; (2) University of Arkansas, Department of Health Science, Fayetteville, AR; (3) UNC-CH, Department of Health Policy and Administration, Chapel Hill, NC; (4) UNC-CH Hospitals, Chapel Hill, NC.

The Role Of Geographic Information Systems In Population Health: Yardstick, Roadmap, Or Analytical Framework?

RS Kirby, PhD, MS, FACE and SL Foldy, MD. niv. of Wisconsin Medical School, Milwaukee Clinical Campus, Milwaukee, WI; Milwaukee Department of Health, Milwaukee, WI.

#### Assessing The Accuracy Of Address Data From Birth Certificates

MC Fulcomer (1), MM Bastardi (2), H Raza (1) and M Duffy (1). (1) New Jersey Department of Health and Senior Services (NJDHSS), Center for Health Statistics (CHS), Trenton, NJ; (2) New Jersey Department of Treasury, Office of Telecommunications and Information Systems, Trenton, NJ.

<u>Spatial Analysis Of Premature Deaths Among African American Males In Fulton County (Atlanta), Georgia</u>
A Troutman. Fulton County Department of Health and Wellness, Atlanta, GA.

Small Area Analyses Of Cardiovascular Disease And Sociodemographic Patterns: A GIS Approach
ML Casper, PhD (1); A Halverson, MA (2); GA Elmes, MA (3); V Braham, MA (2) and E Barnett, PhD (2). (1)
Centers for Disease Control, Atlanta GA, USA; (2) Department of Community Medicine, West Virginia
University, Morgantown WV, USA; (3) Department of Geology and Geography, West Virginia University,
Morgantown WV.

<u>Hazard Ranking Of Chemical Releases From Tri Facilities In Oregon And</u> <u>Environmental Equity Analysis Of Nearby Populations</u>

- JE Rothlein and C Neumann. Cntr. Res. Occup. and Environ. Toxicol., Oregon Health Sciences Univ., Portland OR and Dept. Public Health, Oregon State Univ., Corvallis, OR.
- <u>Targeting Urban Neighborhoods For A Proactive Community Outreach Effort Aimed At Families With Young</u>

  <u>Children: Geocoding Of Birth Certificates And Neighborhood Surveys</u>

  LR Kallenbach. Wayne State University, Dept. of Community Medicine, Detroit, MI.
- <u>Demographic Data And Geographic Information Systems For Decision Making: The Case Of Public Health</u>
  JG Gobalet and RK Thomas. Lapkoff & Gobalet Demographic Research, Inc., Saratoga, CA;
  Medical Services Research Group, Memphis, TN.

Proximity To Hospitals And Preventive Health Care For Young Children

J Currie and PB Reagan. Dept of Economics, UCLA, 405 Hilgard Ave, LA, CA 90095; Dept of Economics,
Ohio State Univ, 1945 N. High St, Columbus, OH 43210.

<u>A New GIS Based Tool For The Assessment Of Environmental Equity And Death Rates</u>

<u>Near Super Fund Sites In The Urban Counties Of Washington State</u>

RE Hoskins. Washington State Department of Health, Olympia, Washington.

GIS Analysis Of Firearm Morbidity And Mortality In Atlanta, Georgia
DS Fuqua-Whitley, MA; KK Bartolomeos, MPH; and AL Kellermann MD, MPH.
Emory Center for Injury Control, Atlanta, GA 30322.

The New Mexico Mammography Project: Using GIS To Determine
Geographic Variation In Mammography Utilization

AM Amir-Fazli. New Mexico Tumor Registry, University of New Mexico School of Medicine,
2325 Camino de Salud NE, Albuquerque, NM 87131-5306.

Spatial Distribution Of White Male Low Birth Weight In Georgia FH Millard. Georgia Div. of Public Health, Atlanta, GA.

An EPA Region 2 GIS Application For Identifying Environmental Justice Areas SK Tang, L Timander and A Streets. USEPA Region 2, New York City, NY.

A GIS Heuristic For Spatial Partitioning In Small Area Analysis

S Loftus, GA Elmes, JA Halverson and E Barnett. Dept. Geology and Geography, Regional Research Institute, and Prevention Research Center, West Virginia University, Morgantown, WV 26506.

<u>Can GIS Help MCH Related Issues In South Carolina?</u>
K Heidari and PW Laymon. MCH Epidemiology,
Vital Statistics South Carolina Department of Health and Environmental Control, Columbia, SC.

<u>Using GIS To Prioritize Efforts In Tobacco Control For Communities In Washington State</u>
SL Scheel (1), JA Dilley (2) and RE Hoskins (1). (1) Washington State Department of Health -- GIS & Spatial Epidemiology Unit, Olympia, WA; (2) Doctoral Student of Epidemiology, University of Washington, Seattle, WA.

<u>Baseline Aggregate Environmental Load Analysis Of Greenpoint/Williamsburg Brooklyn. Methodology</u>
<u>And Pilot GIS Application In A Mixed Use Densely Populated Urban Area</u>

D Kass, MSPH and J Osleeb, PhD. Hunter College Center for Occupational and Environmental Health,
New York, NY; Hunter College Department of Geology and Geography.

#### **Implementation and Operations**

<u>Industry Trends: The Windows NT WorkStation Tidal Wave</u>
P Dolan. WorkStation Brand Manager, Dell Federal Marketing, Round Rock Texas.

GIS Infrastructure: UNIX and NT Integration R Murphy. EDS, Atlanta, GA, USA.

Effects of Smoothing Mortality Data Using the Weighted Head-banging Algorithm

M Mungiole (1), LW Pickle (1), KH Simonson (2). (1) National Center for Health Statistics, CDC, Hyattsville, MD 20782, (2) Sandia National Laboratories, Albuquerque, NM 87185-0844.

Managing and disseminating information with an Internet Map Server

PA Calame. GIS Specialist, Electronic Data Systems (EDS), ATSDR, 1600 Clifton Rd., Mail Stop E56,

Atlanta, GA 30333.

<u>Dynamic Integration Of A Geographic Information System With A Relational Database Management System</u>
RR Parker (1), DM Abouelnasr, Ph.D. (1), G Aiken (2), ME Hewitt (2) and U Shanmugam (2). (1) Agency for Toxic Substances and Disease Registry, Atlanta, GA; (2) Electronic Data Systems, Atlanta, GA.

<u>Health Service Sites Accessibility Analysis On Internet</u>
Y Lu. Department of Geography, SUNY at Buffalo, Buffalo, NY.

<u>Using GIS As A Management Tool For Health Care Facilities</u>

A Eason and US Tim. Iowa State University, Dept. of Agricultural & Biosystems Engineering,
215 Davidson Hall, Ames, Iowa.

PCB Health Impact Evaluation: Case Study Of The Air Pathway Migration Of PCB

GM Zarus (1), A Dent (1), T McRae (1), SM Burchette (2), HD Schmidt (2) and K Ocheski (2). (1) ATSDR,
Division of Health Assessment and Consultation, Atlanta, GA, 30333; (2) RF Weston REAC,
2890 Woodbridge Ave, Edison, NJ, 08837.

Remote Sensing Applied To Schistosomiasis Control: The Anning River Project

EYW Seto (1), DR Maszle (1), RC Spear (1), P Gong (1) and B Wood (2). (1) University of California,

Berkeley, CA; (2) NASA Ames Research Center, CA.

Internet Access To 1990 Census Data On Housing And Population For

Targeting Childhood Lead Poisoning Screening

RT Ing, LT Killen and AB Bloch. CDC/NCEH/OC, Atlanta, GA; TRW Inc., Atlanta, GA;

CDC/NCEH/EHHE/LPPB, Atlanta, GA.

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MR Bobo, LR Beck and BL Wood. JCWS, Moffett Field, CA; California State University Monterey Bay,
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C Steinweis. Lincoln-Lancaster County Health Department.

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SL Patrick, MPH, PhD. Institute of Rural Health Studies, Idaho State University.

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W Davenhall. Manager, Healthcare Solutions, Environmental Systems Research Institute,
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N Gupta, JSRK Sastry and BFAM Peters, MD. DANLEP, New Delhi, India.

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L Li (1), TE Aldrich (2) and HJ Miller (1). (1) Univ. of Utah, Dept. Geography, Salt Lake City, Utah; (2) Univ. of Utah, Dept. Family/Preventive Medicine, Salt Lake City, Utah.

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P Van Zuyle. Dept. of Geography, UCSB and Ventura County Public Health Dept..

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RA Roche, J Henry, K Hendricks, J Underwood. Texas Department of Health,

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JW Shields and RE Hoskins. Office of Environmental Health Assessment Services, Washington State

Department of Health, PO Box 47846, Olympia, WA 98504-7846; Office of Epidemiology, Washington State

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MM Vasconcellos, FF Nobre and RD Galvão. National School of Public Health - Oswaldo Cruz Foundation, Rio de Janeiro, Brazil; Biomedical Engineering Program, COPPE - Federal University of Rio de Janeiro, Brazil; Department of Production Engineering, COPPE - Federal University of Rio de Janeiro, Brazil.

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S Soret and RG Mutters. Department of Environmental and Occupational Health, Loma Linda University School of Public Health, Loma Linda, CA; University of California, Davis, CA.

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CJ Burley and RH Bourdeau. Center for International Earth Science Information Network (CIESIN), Columbia

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MH Vachon (1), K Barry (2), MD Martian (1) and TL Trople (2). (1) Yakima County GIS, Yakima, WA; (2)
Grant County Health District, Ephrata, WA.

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K Smith, D Dugas. LA Dept of Health and Hospitals, Office of Public Health, Env. Epidemiology and Tox. Section.

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WA Patrzek. Representative of Mayor of Gdansk for IT, Head of IT/GIS Department, Municipality of Gdansk, 80-803 Gdansk, Nowe Ogrody 8/12, POLAND.

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I Waisman (1), A Larriestra (2), J Gonzalez (2), L Gastaldi (1) and G Orellana (1). (1) Private Institute of Neonatology and Pediatrics of Río Cuarto, Rio Cuarto, Argentina; (2) National University of Río Cuarto, Rio Cuarto, Argentina.

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WF Wieczorek and CE Hanson. Ctr for Health & Social Research, Buffalo State College, Buffalo, NY 14222.

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JL Librett (1), R Hopkins (2) and B Granberg (3). (1) University of Utah, Health Promotion and Education, Salt Lake City, UT; (2) University of Utah, Health Promotion and Education, Salt Lake City, UT; (3) University of Utah, Digitally Integrated Geographic Information Technologies (DIGIT) Lab, Salt Lake City, UT.

#### Geographic Origin And Health Services Utilization Among Medicaid Outpatients:

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T Brady, MS, MPH; JA Flaherty, MD; A Dontes, MBA.

Department of Psychiatry, College of Medicine, University of Illinois/Chicago.

### <u>Perceptions and Reality: GIS in Environmental Justice Pollution Prevention</u>

MC Kinkade (1), CL Steinweis(2), JJ Steinauer (3). (1) GIS Coordinator, (2) Acting Epidemiologist, (3) Environmental Engineer II, Lincoln-Lancaster County Health Department.

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DJ Exeter. Dept of Geography, University of Auckland, New Zealand.

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(2) Univ. of Miami, School of Medicine, Dept. of Obstetrics & Gynecology, Miami, FL, (3) Florida International Univ., Green Library GIS Laboratory, Miami, FL.

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WM Darby (1), J Harrison (2), J Richardson (2), W Irwin (2). (1) University of Denver, University College, Denver, CO, (2) USACHPPM, DSA-West, Aurora, CO.

#### Public Health National Charter

Ana Patuleia(1), Marco Painho(2). (1) Master student, ISEGI, New University of Lisbon, Lisbon, Portugal (2) Associate Professor, ISEGI, New University of Lisbon, Lisbon, Portugal.

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RT Masse, MPH. University of Illinois at Springfield, Springfield, Illinois.

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DP Lince, LR Wilson, GA Carlson. New York State Department of Health, Bureau of Environmental Exposure

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AM Shagiakhmetov. Harvard Univ., Physics Dep., Cambridge, MA-02138.

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AM Shagiakhmetov and I Linkov. Harvard Univ., Physics Dep., Cambridge, MA-02138.

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JS Litt. Johns Hopkins School of Public Health, Department of Health Policy and ManagementBaltimore, MD.

Geographic Information Systems and Endemic Ciguatera Fish Poisioning.

JF Stinn (1), B Li (2), DP de Sylva (1), LE Fleming (3). (1) Univ. Of Miami, Rosenstiel School of Marine and Atmospheric Science, (2) Univ. of Miami, Dept. of Geography, (3) Univ. of Miami, NIEHS Marine and Freshwater Biomedical Science Center.

Conference Information and Registration: see <a href="http://atsdr1.atsdr.cdc.gov:8080/GIS/conference/">http://atsdr1.atsdr.cdc.gov:8080/GIS/conference/</a>
Breakout Sessions and Abstracts: see <a href="http://atsdr1.atsdr.cdc.gov:8080/GIS/conference/at a glance.html">http://atsdr1.atsdr.cdc.gov:8080/GIS/conference/at a glance.html</a>

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