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Personal report¹, focusing on Sarajevo case study, Surveillance panel and Surveillance workshop

9 May 1999

Inaugural Conference
International Environmental Epidemiology Institute (IEEI)
April 28-30, 1999, San Francisco, USA
The Environmental Health Effects of Civil Unrest

Overview

This 3-day conference concerning the Environmental Health effects of civil unrest and humanitarian emergencies was organized² by the International Environmental Epidemiology Institute (IEEI), a project of the Tides Center of San Francisco³ (www.tides.org).

The conference aimed at identifying gaps in knowledge, policy, and practice related to the environmental health consequences of civil unrest and at developing workable strategies for alleviating them. The underlying assumption was that there are "lacunae" in the coping strategies currently in place to deal with both the short- and long-term environmental health consequences of civil unrest situations. Specific conference **objectives** included the following:

- Clarify the role of environmental epidemiology in assessing the impact of civil unrest on Public Health
- Identify gaps in the current strategies and tactics
- Raise the awareness and concern about complex emergencies in the Public Health arena, including Public Health education
- Explore the need of continuity of this conference's work, and options (if necessary) on how to proceed
- Generate support for continuing the effort.

Conference participants included researchers, Public Health professionals and graduate students, journalists, and citizens. The conference was funded by a grant from the U.S. Institute of Peace of Washington, D.C. (www.usip.org). Support for conference publications was also provided by the Archstone Foundation of Long Beach, Ca. The Jennifer Altman Foundation has funded conference fee scholarships for college and university students.

¹ Based on our agreement to keep the whole group of participants involved in building the output from this conference, I circulate this preliminary report. It is mostly directed towards the speakers and other participants in "my" case study, panel session, and workshop, and therefore covers these sessions in more detail. The amended report is going to become part of the overall conference report at a later stage.

² Local organizers were Warren Winkelstein (Professor emeritus of epidemiology, UC Berkeley) and Steve Kasierski (US National Park Service, San Francisco). Involved in the preparation of IEEI and of this inaugural conference were also Carlos Santos-Burgoa (Instituto de Salud Ambiente y Trabajo, Mexico) and Rainer Fehr (Iögd and University of Bielefeld, DE).

³ The Tides Center offers project sponsorship and management services for charitable activities that promote progressive social change on a local, national and international level. Currently the Tides center supports approximately 300 projects in forty US states and twelve countries.

The conference was audio-taped and "graphically" recorded by Grove Consultants International, Presidio of San Francisco⁴ (www.grove.com).

Preparation of this conference had been a long process, including an international workshop "Critical gaps in environmental epidemiology" during the 1995 meeting of the International Society of Environmental Epidemiology (ISEE) in the Netherlands. The workshop produced a list of priority topics, incl. "civil unrest". Preparatory discussions were also held in the "Policy and Planning" working group of ISEE, especially at the 1998 meeting in Boston, Ma.

Program

The conference tried to face the full range of physical, biological, ecological, psychological, and social aspects of civil unrest, related complex emergencies as well as wars and war-like situations. Presenters included representatives from the Centre for Research on the Epidemiology of Disasters (CRED, Brussels), Instituto de Salud Ambiente y Trabajo (Mexico), Centers for Disease Control, WHO-Regional Office for Europe⁵, Pan American Health Organization (PAHO, Washington, D.C.), The Soros Foundation / Open Society Institute, and others.

The program consisted of case studies, panel sessions and discussions, workshops, and lectures. Sir Donald Acheson, the former Former Chief Medical Officer of the United Kingdom, delivered a **keynote speech** which provided very stimulating initiation of the discussion. Using his vast experience in many aspects of Public Health and drawing on personal experiences in Belfast, in Chechenia, and Bosnia, he outlined a model that could help to facilitate prevention of civil unrest. Starting out from early phenomena such as prejudices, polarized beliefs and a sense of superiority, the model includes several stages, down to discrimination, segregation, intimidation and finally genocide. He pointed at the tragic irony that the values of so many religions that are against violence end up being behind the unrest. He maintained that early examples of unrest should not go unreported, and advocated a global lighthouse of civil unrest, watching for early warning signs on a global basis.

The two **case studies**, Chiapas (Mexico) and Sarajevo (Bosnia), provided quite diverse examples, fueling also the three subject-oriented panels. The presenters of the **Sarajevo** case study were Jakob Finci⁶ and Hannu Vuori⁷.

⁴ Christina Merkley and co-workers produced 16 "murals" which document the key elements of the presentations and discussions.

⁵ WHO-Europe in its most recent evaluation of the Environmental Health situation in Europe includes war and war-like situations as an issue of major concern (www.who.dk/London99/).

⁶ Jakob Finci has been working in Bosnia to further the development of democratic institutions. He works for the Soros Foundation Open Society Institute; the Soros Foundation is a large non-profit foundation operating world-wide (www.soros.org.ba).

⁷ Hannu Vuori was the director of the WHO Humanitarian Assistance programme to the former Yugoslavia and now works in a different function for WHO-Europe (www.who.dk).

This case study dealt with the civil war in Bosnia which was started in 1992 and was one of the most deplorable examples of humanitarian emergencies in recent years. Characterized by a triangular ethnic conflict (Croats, Serbs, Muslim), the situation was characterized by ethnic cleansing, war against civilians, open genocide, and war against health. There were huge numbers of refugees as well as displaced persons. Health problems included hypothermia, tuberculosis and scabies. "Seesaw" oscillations of hope and despair contributed to severe mental stress. Soccer fields were turned into graveyards.

Panel sessions dealt with health surveillance and research, the role of governmental agencies and NGOs, and thirdly media and public affairs. The **surveillance** panel brought together persons with a broad range of experience and expertise, and reflected key institutions working on these issues. Public Health surveillance was defined to be the ongoing, systematic collection, analysis, and interpretation of data about specific health events. These data are used in planning, implementing, and evaluating Public Health programs (Wetterhall & Noji 1997, p.37-8). In disaster settings, surveillance faces specific challenges (loc.cit., p.39):

- data must be collected rapidly under highly adverse conditions
- multiple sources of information must be integrated in a cohesive fashion
- circumstances and forces may exist that impede the flow from one step in the surveillance cycle to the next
- the cycle from information to action must be completed rapidly, accurately, and repeatedly

Since civil unrest and other complex emergencies including war and war-like situations are likely to be a frequent occurrence worldwide, the panel had to try and apply the generic concept of environmental health surveillance to these specific situations. Paul Spiegel⁸ explained three phases of disaster response, i.e. emergency, post-emergency, and repatriation. He discussed information sources, e.g. cluster samples, visual survey, census data, and aerial photography, as well as key health issues, including water, food, and sanitation. Debarati Guha-Sapir⁹ introduced the international disaster database kept at her institute, and maintained that surveillance should only be done if there are also mechanisms for response. She also discussed the failure of Cholera epidemic prevention in Goma. Horacio Riojas Rodriguez¹⁰

⁸ Paul Spiegel is from the US Centers for Disease Control and Prevention, representing a governmental agency with a record of speedy and effective interventions in humanitarian emergencies worldwide; CDC is also widely seen as the world leader in Public Health surveillance (www.cdc.gov).

⁹ Debarati Guha-Sapir is the director of the Centre for Research on the Epidemiology of Disasters in Brussels which keeps a number of databases on disasters (both natural and human-made), and works on the surveillance of complex emergencies (www.md.ucl.ac.be/entites/esp/epid/misson).

¹⁰ Horacio Riojas Rodriguez is Coordinator of Environmental Health in the Instituto de Salud Ambiente y Trabajo in Mexico, where he works together with Carlos Santos-Burgoa; they explore the implementation of environmental health surveillance in Mexico and particularly in the Chiapas area.

described experiences from Chiapas, discussed the role of indicators beyond morbidity and mortality, and of graphic representation of data. He also raised ethical questions concerning the use of such data. Hannu Vuori shared his impression that "truth is the first victim of war"; he described monitoring experiences in Bosnia, including nutritional surveys. An important result was the need of training for data gatherers.

The subsequent panel discussion dealt with a variety of issues, including the lack of coordination amongst organizations, the role of surveillance and data quality, and the feasibility of prevention. The need for a "lighthouse" taking care of surveillance was confirmed. Data of limited quality can cause severe errors and misunderstanding. The only way out seems to be the cautious usage and gradual improvement of such data. Feedback to data providers is of great importance, to keep up motivation and to improve data quality. In addition to the health effects of civil unrest and similar humanitarian emergencies, precursors and early warning signs should also be covered. WHO's DPSEEA model (Driving forces, Pressures, State of the environment, Exposures, Effects, Activities) may be helpful when it comes to developing a more comprehensive surveillance system.

The panel sessions were followed by a **presentation**, given by Alberto Concha-Eastman: Violence in urban environments - The PAHO perspective. The presentation described worldwide trends in the epidemiology of intentional injuries, and identified structural, institutional, and situational factors. It was suggested to identify violence as a key issue of Public Health, and to improve the epidemiologic analysis of violence.

The subsequent **workshops** provided an opportunity to synthesize the panel discussions and to generate specific policy and program proposals. It was agreed to structure the results according to the Public Health triad, i.e. "assessment", "policy development", and "assurance". The **Surveillance** workshop¹¹ agreed on the importance of Sir Donald Acheson's suggestion to establish a "lighthouse" organisation of multidisciplinary nature for Public Health surveillance of civil unrest. This lighthouse would gather qualitative and quantitative information on effects and causes, from diverse sources; it would raise the profile of issues of civil unrest, e.g. in PH curricula; and work on the assessment of protective factors and "community resilience". Specific program options were seen to include: flexible methodology, ranging from state of the art technology such as Geographic Information Systems (GIS) to simple exploratory methods, where necessary; definition of indicators; an adequate conceptual framework to put the elements together; various outputs tailored to the needs of various types of audiences. In interdisciplinary collaboration, episodes of civil unrest should be analyzed comprehensively in order to facili-

¹¹ Workshop participants: Sir Donald Acheson (University College, London), Julie A. Baker (U Buffalo), Alberto Concha-Eastman (PAHO Washington, DC), Rainer Fehr (lögD Bielefeld, DE) (moderator), John Frank (U California, Berkeley), Catherine Ley (Stanford U) (rapporteur), Beth Moscato (U Buffalo), Horacio Riojas (Instituto de Salud Ambiente y Trabajo, Mexico), Maya Shaw (Heserpien Foundation, Berkeley, CA).

tate collective learning; such ex-post analysis of incidences of civil unrest could perhaps be dubbed "Social autopsies".

Additional issues included the need to focus on both causes and outcomes of civil unrest, and on both risk factors and protective factors ("community resiliency"); the adjustment of surveillance methodology to complex humanitarian emergencies; the selection of appropriate indicators (especially early indicators of tension); the need for flexible approaches, including "grass-root" epidemiology; the use of quantitative as well as qualitative (even anecdotal) data; options for improvement of data quality, options of improved data analysis, e.g. using Geographic Information Systems (GIS); the difficult situation of "cases without denominators"; the need of interdisciplinary approaches; avoidance of reductionism; involvement of other disciplines; participation of numerous actors and institutions; the integration of cultural sensitivity, with potential need of cultural consultants.

Concerning mechanisms for implementation ("assurance"), the list included the following: Identify, and collaborate with, existing players, e.g. UNHCR, WHO, CRED, ECHO, USAID, USIDP, CDC; define the specific tasks which are hitherto not taken care of; continue these discussions with professional associations, e.g. ISEE; develop and/or improve curricula of civil unrest surveillance for Schools of Public Health.

Presenters and moderators

Sir Donald Acheson, MD

Former Chief Medical Officer of the United Kingdom; Chair, International Centre for Health and Society at University College, London, UK

Nick Cater

Independent journalist and consultant, Words & Pictures / International Centre for Humanitarian Reporting

Robert Collier

Staff Writer, The San Francisco Chronicle, San Francisco, Ca., USA

Alberto Concha-Eastman, MD, MS

Consultant, Violence and Health Program, Pan American Health Organization, Colombia and Washington, DC, USA

Rainer Fehr, MD PhD MPH

Chief, Department of Environment and Health, Institute of Public Health North Rhine-Westphalia, Bielefeld, and the University of Bielefeld, DE

Jakob Finci

Executive Director of the Bosnia Office, Soros Foundation Open Society Institute, Sarajevo, Bosnia

Debarati Guha-Sapir

Professor, Director, Centre for Research on the Epidemiology of Disasters (CRED), Universite Catholique de Louvain, Brussels, B

Stephen Kasierski
Program Officer, US National Park Service, San Francisco, Ca., USA

Bruno Lopez
Mexico City Bureau Chief, Univision Television News, Mexico City, Mexico

Maria-Elena Martinez-Torres, PhD candidate
Geographer, Founder of Rural Mexico Working Group under auspices of Center for Latin American Studies, University of California, Berkeley, Ca., USA

Horacio Riojas Rodriguez
Epidemiologist and Coordinator of Environmental Health, Instituto de Salud Ambiente y Trabajo, Mexico City, Mexico

Carlos Santos-Burgoa, MD PhD MPH
Founder and Director General, Instituto de Salud Ambiente y Trabajo, and Former Dean, Mexico National School of Public Health, Mexico City, Mexico

Paul Spiegel, MD, MPH
Medical Epidemiologist, International Emergency and Refugee Health Branch, National Center for Environmental Health, Centers for Disease Control and Prevention, Atlanta, Ga., USA

Hannu Vuori, MD PhD MA
Former Director of the Humanitarian Assistance Programme to the former Yugoslavia, World Health Organization, now Executive Management Coordinator, Copenhagen, DK

Warren Winkelstein Jr., MD MPH
Professor of Epidemiology Emeritus and Former Dean, School of Public Health, University of California at Berkeley, Berkeley, Ca., USA

Selected URLs: Sarajevo, Bosnia

International Federation of Red Cross and Red Crescent Societies (IFRCRC)	www.ifrc.org
... World Disasters Report 1997: Ch. 4: Epidemiological data for effective disaster decision-making (Box 4.3: Implications from the siege of Sarajevo)	www.ifrc.org/pubs/wdr/97/ch4.htm
Open Society Fund Bosnia and Herzegovina	www.soros.org.ba
Sarajevo State Hospital	www.dbs-bh.org
... War in Bosnia and Herzegovina (1992-1995), incl. statistical data	www.dbs-bh.org/war.htm
UN High Commissioner for Refugees (UNHCR)	www.unhcr.ch
... Bosnia-Herzegovina	www.unhcr.ch/world/euro/bosnia.htm
... UNHCR maps	www.unhcr.ch/refworld/maps/europe/bosnia_oct98.htm
US Institute of Peace	www.usip.org
... Bosnia in the Balkans	www.usip.org/oc/BIB/bibintro.html
... Web links	www.usip.org/library/regions/bosnia.html

Selected URLs: Environmental Health surveillance in civil unrest situations

Center for Research on the Epidemiology of Disasters (CRED), Université catholique de Louvain (Belgium)	www.md.ucl.ac.be/entites/esp/epid/misson
... Projects, incl. Emergency database (EM-DAT) etc.	www.md.ucl.ac.be/entites/esp/epid/misson/projet_uk.htm
... Summary statistics from EM-DAT (4 tables)	www.md.ucl.ac.be/entites/esp/epid/misson/stat_uk.htm
Centers for Disease Control (CDC)	www.cdc.gov
... International Emergency and Refugee Health Program	www.cdc.gov/nceh/programs/internat/ierh/ierh.htm
... Complex emergencies: Refugees and displaced persons	www.cdc.gov/nceh/programs/internat/ierh/desc/complexem.htm
International Federation of Red Cross and Red Crescent Societies (IFRCRC)	www.ifrc.org
... World Disasters Report 1997: Ch. 3: From information management to the "knowledge agency"	www.ifrc.org/pubs/wdr/97/ch3.htm
... World Disasters Report 1997: Ch. 4: Epidemiological data for effective disaster decision-making (incl. 7 assessment methods)	www.ifrc.org/pubs/wdr/97/ch4.htm
... World Disasters Report 1995: Ch. 5: Evaluation: Measuring effects not process	www.ifrc.org/pubs/wdr/95/ch05.htm
... World Disasters Report 1995: Ch. 11: Meeting the need for systematic data	www.ifrc.org/pubs/wdr/95/ch11.htm
WHO, Div. of Emergency and Humanitarian Action (EHA)	www.who.int/eha/home.htm
... Health Intelligence Network for Advanced Contingency Planning (HINAP)	www.who.int/eha/hinap/index.htm
... Pilot Background Health Information Data Types (16 categories)	www.who.int/eha/hinap/infotype.htm

Encl.

- Conference program
- Warren Winkelstein: Introductory remarks
- 4 graphic recordings: Sarajevo case study, Surveillance panel presentations, Surveillance panel discussion, Surveillance workshop results (limited legibility due to fax transmission)