

# **Environment and Health International (online)**

**The Magazine of the International Federation of Environmental Health**

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# Environment and Health International

*Magazine of the International Federation of Environmental Health*

# INTERNATIONAL FEDERATION OF ENVIRONMENTAL HEALTH

*President – Diane Evans*



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Cover photograph

The views expressed in this magazine are not necessarily the views of the International Federation of Environmental Health

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## President's Comments

Diane Evans

Expanding the number of member organizations of the Federation is always a main topic of discussion whenever the Council or the Board of Directors meets. It is perhaps noteworthy that most of the growth in membership in recent years has been from within Africa. The member organizations from Africa now number 9 out of the 33 total members in the Federation, with a tenth member (Uganda) possibly joining in 2003. A number of the African members are twinned with other associations (such as the CIEH Northern Ireland Centre with the Tanzanian Association of Health Inspectors and the California Environmental Health Association with the South African Institute of Environmental Health). The possible "twin" for the Public Health Inspectors Association of Uganda is the CIEH East Midlands Centre.

The reasons for the growth of the Federation in Africa particularly (growth elsewhere has been static in recent years) is likely due to multiple factors. These include: outreach to peers in other countries by current members within Africa; the interest sparked by the All-Africa Conference in Tanzania during 2001; activities of the Africa Regional Group of the Federation; person-to-person contact by individuals as they travel and work in Africa; and growing interest in the 8<sup>th</sup> World Congress on Environmental Health in Durban, South Africa next year.


The point I am making to everyone with an interest in and dedication to the goals of the Federation is that you can make a significant difference in the development of IFEH if your group offers to twin with another association or you seek out and talk with fellow professionals as you travel for business or pleasure. I hope you will take up the challenge of being in the vanguard of the advancement of environmental health globally by being an advocate for the Federation.

As an individual, you can have an impact in another way. Individuals can support the Federation by becoming associated as a Sustaining Subscriber. Hon. Secretary Michael Halls authored an excellent article on the IFEH's Sustaining Subscriber scheme in the previous edition of the Magazine, to which I would refer you for more details. The scheme will be discussed at the 31 May – 1 June 2003 meeting of the Council in Paisley, Scotland, where the

Council will be asked to change the name to either "Individual Associate Member" or "Friend of the Federation." The goal of the proposed change is to increase interest by individuals in being associated with and becoming supporters of IFEH.

Translations of portions of the IFEH website, public relations material, and adopted policy papers into German, French, and Russian are underway. New position papers will be developed by the Regional Groups for consideration and adoption by the Council at its meeting in Durban, held in conjunction with the 8<sup>th</sup> World Congress. These activities, and others, are all being undertaken with the goal of increasing the Federation's profile and visibility. I hope you will take part if you are asked to be involved in any of these activities.

Your comments, suggestions, and ideas are always welcome. Please contact me through the Federation's website ([www.ifeh.org](http://www.ifeh.org)) by leaving a message for the IFEH President. I hope to hear from you. Last, but not least, be sure you have put the dates of the 8<sup>th</sup> World Congress on Environmental Health, 23-27 February 2004, on your calendar!



**Deadline for submission of articles  
for next edition of *Environmental  
and Health International* is the  
15th September 2003**

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## Jerry Chaka – President Elect IFEH



Jerry Chaka was born on 26 April 1960 in Randfontein, Gauteng Province, South Africa.

Due to the bad apartheid system of education in South Africa for blacks then, it was very difficult for one to choose a career at an early stage or lower levels of your studies. Whilst I was studying my Standard Ten (10) (Grade 12) which is the last class of high school in 1980 around July, a close friend of mine who was in the same class met a health inspector who briefed him about the profession. My friend therefore advised me that we should venture into this unknown and scarce field of study. The most common professions were teaching, nursing and medicine. Unfortunately my friend could not be admitted to study for the three year diploma in public health.

After completion of my diploma, I worked in a rural set-up, a homeland created by the apartheid South Africa. My first year of employment (1984-1985) was the most fascinating year of my career. For the first month of my employment my Senior went on leave and I was left with the challenge of dealing with all Environmental Health Problems in my district covering a radius of approximately two hundred and eighty square kilometers, travelling in dusty and gravel potholed roads providing services ranging from food safety to post mortem meat examinations at slaughter houses, rural water and sanitation services, house inspections and vector control for malaria. With a team of four field assistants the work was carried out with all the diligence and professionalism it deserves.

After three years in the rural areas I moved to my hometown, Pretoria to work for Pretoria City Council. I was then promoted to a post of Senior Health Inspector and Supervising Health Inspector

in Pretoria. I left Pretoria City Council after ten years of service to head Health Services as Director: Health Services in Nigel Town, East of Johannesburg. Nine towns in the East merged after December 2000 municipal elections to form a Metropolitan Municipality, Ekurhuleni Metro with a population of approximately 2,6 million. I was then called to the head office to act as Executive Director: Health and Social Development Department for fifteen (15) months until the appointment of the Executive Director. I am presently acting as Executive Director: Environmental Health for the Metropolitan City responsible for a staff complement of two hundred and twenty (220) 140 of which are Environmental Health officers.

My love for Environmental Health inspired me to play an active role in Environmental Health professional matters and to improve my studies in the field of Environmental Health. I furthered my studies to acquire a higher diploma in Public Health a certificate in Air Pollution Control, a B-tech degree in Environmental Health and a BSc (Medical) (Honours) Degree in Environmental Health. I am presently studying for a Masters Degree in Public Health (MPH).

I was an active member of the now defunct Association of Environmental Health officers of South Africa, became the first deputy president of South African Institute of Environmental Health in 1996 when the former black and former white associations merged. I then took over the Presidency from 1997 to date. I was nominated last year November as one of the first recipients of the national Environmental Health awards for the Country, the Alfred Nzo Environmental Health Award, and was honoured for my contribution to Environmental Health development in the Country.

My final contribution to Environmental Health is in Africa and the rest of the world. As Chair of Africa Group, I am looking forward to contribute to improvement of Environmental Health conditions in Africa and the world. I have initiated an African Environmental Health Structure that will cut through African borders linked with the WHO Afro, to address African Environmental Health matters. The initiative is at its initial stages mooted through South African National Ministers office and WHO Afro office in Congo Brazzaville. The intention is to see one united African Environmental Health voice working towards the improvement and development of Environmental Health throughout the continent. I hope this initiative will work for the continent.

## **Innovation and Implementation: US State and Local Governments Address Climate Change**

**by Christopher A. James, Director,  
Connecticut Department of Environmental  
Protection, Air Planning Division. Co-chair  
STAPPA/ALAPCO Global Warming and  
Stratospheric Ozone Committee**

The Eighth Conference of the Parties to the United Nations Framework Convention on Climate Change (UN COP-8) in New Delhi, India, [held from 23 October- 1 November 2002] disappointed countries that anticipated more leadership from the United States for actions to reduce greenhouse gas (GHG) emissions that are contributing to global climate change. The US government indicated that it is sticking with its preferred policy approach: reduce the intensity of carbon emissions and develop strategies for human adaptation to the changes that are expected to occur in the next few generations.

While the US Federal government has not yet addressed reducing GHG emissions to the same degree as its European colleagues or even that of many large businesses, significant climate change actions have already taken place in the US, led by State and local governments. State and local governments have a long history of being leaders and policy incubators, whether the issue is education, health care or the environment.

Beginning in the 1960s, State and local governments recognized the need to address environmental issues. The State of California and the City of Los Angeles passed initial standards to regulate automobile emissions, and local districts across the country began to ban open burning, especially at dumps. Initially, there was a patchwork of requirements with little consistency among States and local agencies. This local activity grew into a national debate on the environment and led to the first Earth Day in 1970. Spurred by the degree of public attention, Congress soon enacted and President Nixon signed the first Clean Air Act [later enacting the Clean Water Act and land related legislation]. For the first time, national standards for ambient air quality would be established. A key component of this legislation — one that continues to this day — is the right of a State or local agency to regulate additional pollutants and/or to establish more stringent standards in order to be more protective of public health and the environment.

Local decisions and actions have therefore driven broader regional and national environmental debate in the US for more than 30 years. With respect to climate change, the realization that climate change

will impact the economy and environment of States and localities, both now and in the future, has prompted the development and implementation of many significant local, State and regional activities. While these efforts cannot stand in place of a strong national program, they provide direction and models that will be useful once national actions are developed. Also, the sheer size of the US and its emissions means that actions by individual States or regions can have benefits equivalent to or greater than that of many countries.

Two key points derive from actions taken to date by State and local agencies:

- 1) they make economic sense and have ancillary benefits. Example: replacement of torchiere halogen lights with other versions saves significant energy costs and eliminates a fire hazard;
- 2) harmonized benefits are realized for regulated air pollutants, such as fine particulate matter, sulfur dioxide and oxides of nitrogen.

### **Local Climate Friendly Actions**

Local governments have passed commitments/resolutions to develop climate change action plans. The International Council for Local Environmental Initiatives (ICLEI) helps cities and towns build capacity and design environmental plans that achieve multiple benefits by combining the efforts of many actions taken together. ICLEI's Cities for Climate Protection Campaign is a five step process that begins with the passage of a resolution, then moves into establishment of an emissions baseline, a commitment to a targeted reduction and monitoring to measure progress/success in meeting the goals. Over 125 US cities and towns have adopted ICLEI's principles and are moving ahead to reduce GHG emissions. These range in size from New York, New York to Salt Lake City, Utah to Brattleboro, Vermont [a town with about 10,000 people]. See [www.iclei.org](http://www.iclei.org) for further information, links to the 125 towns and other climate related information.

### **State Climate Friendly Actions**

State actions have been numerous and diverse. Most States have developed greenhouse gas emission inventories. About half of States have restructured their electricity markets. Most of these States have ratepayer funded programs that invest in energy efficiency and renewable technologies. Seventeen States, including Texas, have enacted renewable portfolio standards that require that a certain percentage of electricity be generated from renewable energy sources. Several States have gone much further than this and have developed comprehensive action plans. These plans anticipate

changes in policies and regulations to achieve the desired emissions reductions.

California has been a notable leader. With 10% of the US population, California's efforts tend to lead to national efforts, as we saw with its efforts to address air pollution. During 2002, its General Assembly passed a bill that requires the State air agency to develop automotive emission standards for GHGs. California is permitted by law to establish its own automobile emission standards separate from those established by the federal government, as provided in the Clean Air Act. The remaining 49 States may choose to either accept the Federal automotive standards or to adopt the California standards. California's efforts are being watched very closely [as well as being challenged in court]. Interested readers should expect a decision on the court challenge during 2003.

New Jersey (NJ) was another early leader in State climate change actions. Under then Governor Christine Todd Whitman [now US EPA Administrator], NJ developed a GHG action plan in 1999 that commits the State to reduce GHG emissions from 1990 levels by 3.5% by 2005. This plan was developed as the result of a four-year stakeholder process that was led by NJ Department of Environmental Protection Commissioner Shinn.

### Regional Climate Friendly Actions

The US has a strong history of collaborative regional actions, even among regions that do not share boundaries. For example, many Northeastern States have adopted California's emission standards for automobiles. The Northeast States have collaborated for over 30 years on air quality issues, ranging from agreements to reduce the volatility of gasoline sold to implementing control measures for oil and coal fired power plants. On a broader geographic basis, 17 States from regions across the country, representing diverse ideological and political perspectives, have either proposed and/or enacted more stringent emission standards for heavy-duty diesel engines. This type of collaboration has continued with efforts to address climate change.

STAPPA/ALAPCO [the associations that represent the interests of US State and local air quality agencies] has contributed through two important efforts that have directly helped State and local agency planning and implementation efforts. A 1998 workbook provides numerous and detailed examples that describe the environmental, economic and energy benefits from a harmonized approach to address air quality issues. This tool underscores the efficiencies of addressing climate change within a framework that also results in reductions of other air pollutants, such as fine particulate matter, sulfur dioxide and oxides of

nitrogen. This work has been followed by development of a software tool that State and local agencies can use to evaluate and quantify the benefits of various strategies to reduce GHG emissions. In tandem, the workbook and the software tool provide a comprehensive and facile mechanism for State and local agencies to consider, evaluate, integrate and implement control strategies that will both improve local air quality and reduce GHG emissions.

The New England Governors and Eastern Canadian Premiers (NEG/ECP) adopted a resolution in 2001 [see [www.cmp.ca](http://www.cmp.ca) for a copy the resolution] to address and reduce emissions of GHGs. NEG/ECP comprises of the six New England States and the five easternmost Canadian Provinces. This effort was modeled after two previous collaborations that have resulted in significant reductions of mercury and emissions that contribute to acid rain. The climate change resolution has short, medium and long-term goals. Its ultimate goal is to reduce the effects of anthropogenic GHGs on the earth's climate. This is expected to require a 75-85% reduction in anthropogenic emissions over a multi-generational timeframe. Short-term goals envision stabilization of 1990 emissions by 2010 and several immediate action items have been identified. Among them are replacement of all traffic lights with their light emitting diode (LED) equivalent (which use much less energy) and working with colleges and universities to develop and implement climate change action plans. Progress in meeting the goals of the NEG/ECP effort is to be measured regionally, recognizing that States and Provinces have different mechanisms that can be implemented. Successes and lessons learned can then be shared among the agencies once one adopts a particular strategy.

While many may continue to criticize the US for its absence of a comprehensive Federal strategy, actions like that taken by the NEG/ECP can have significant contributions to the overall effort to reduce greenhouse gases. For comparison, the GHG emissions from New England are about the same as the entire African continent. Adding to the momentum is that the New England states, along with New York, have the most energy efficient economies in the US. These states have used this attribute to promote economic development and continue to look for opportunities to increase output while using less energy. Several of these States are centers for fuel cell technology. New York has the largest concentration of wind power in the Eastern US now, with Vermont also actively developing sites.

Elsewhere in the US, wind power in the Midwest is now competitive in price with conventional fossil fueled generation. Energy conservation across the

US has produced significant savings at costs as low as 2c/kwh, which are lower than the cost of constructing new generation. San Francisco voters recently passed a bond measure that will result in a large installation of photovoltaic solar panels.

### Conclusion

State and local agencies will continue to make progress in addressing the importance of climate change. Many difficult issues lie ahead, especially in the transportation area. Americans' increasing preference for sport utility vehicles (SUVs) and light trucks, coupled with habits like driving alone and a lack of proper mass transit infrastructure in much of the country, pose a particular long-term challenge, even as the vehicles themselves have cleaner tailpipe emissions. A counterweight is that public transit ridership in many metropolitan areas has increased, in part due to frustration with long commutes on congested motorways.

Corporations may also play an important role in developing a national debate and climate change strategy. Many multinational corporations are headquartered in the US. Regardless of which country a corporation is doing business in, development of consistent metrics of performance such as ISO 14000 favor consensus around meeting a single standard. Also, US companies may not be able to get credit under the Kyoto Protocol for climate friendly actions in other countries since the US has not ratified the Protocol. The economic effects of these components, coupled with pressure from progressive companies that favor taking action now, will be a substantial driver towards consistent global approaches. While the US government may not appear to recognize the economic benefits of taking action now, it will feel compelled to do so at some point by the actions taken by US companies and by the positive economic story that can be told. State and local efforts, whether through coordinated regional actions like the NEG/ECP effort, or individually at the local level, will play an increasingly important role in formulating national policy and action. At a hearing held 8 January 2003 by the US Senate Commerce Committee on climate change, panelists recognized the State and local actions that have already taken place. As additional States develop climate change action plans, there will be increased pressure for a consistent national program in order to address the GHG trading and registry issues that are being addressed now by EU. Finally, State and local action underscore the economic benefits of taking action now. The large number of cost-effective strategies coupled with the known and increased costs of not doing anything should also be substantial drivers to develop an effective US climate change action plan.

## Local Government Environmental Advisory Boards

by James Harless, program manager, Tennessee Department of Environment and Conservation



Ask a local government official if he or she would welcome another committee or board, and you will likely elicit a skeptical look. Citizens and public officials alike are leery of using committees to solve difficult problems. But, citizen committee input to elected leaders and local government staff is both undervalued and underused for a broad range of programs and services.

Basically, a citizen committee—or environmental advisory board, as they are frequently known—works with the local government on environmental concerns. Among these local program areas are public health and safety, and environmental protection and quality. I advocate more citizen involvement in local government—and state and federal government as well—in spite of the current stronghold of citizen apathy. Although there are many demands on the time of local officials and citizens in every community, an environmental advisory committee or board requires an investment of comparatively modest time, given the importance of a community's environmental health.

The advisory board can be established by ordinance and operate informally under bylaws and an annual work plan. As a committee, one of the goals can be to improve environmental conditions—including water—in ways that are both reactive and proactive.

### Local Use of Advisory Units

Most people recognize that the number of issues facing local governments on which they must take direct action is long and growing longer. Even as



local authorities struggle with budgets, taxes, staffing, equipment levels, and user fees, they increasingly must confront the complex issue of community environmental quality. Nonetheless, most local governments could maximize their resources and economic viability, as well as citizen health and safety, by adopting an environmental agenda.

The issues on this agenda may include water and wastewater treatment, solid waste collection or disposal, the remedial status of Superfund sites, the impact of proposed industrial development, and comprehensive resource evaluation or regulatory oversight. A local agenda might be formulated in reaction to an existing problem, to prevent future problems, or for both. The advisory committee's agenda can be limited to one or two topics of immediate concern or priority, or address dozens of topics during each meeting.

Until relatively recently, local governments have benefited from state and federal governments in the area of environmental protection; only now is environmental quality and protection being recognized as a local responsibility. However, local governments continue to be cautious and reserved on the topic of sponsoring an active environmental agenda.

There is evidence of an increasing need for additional local involvement in order to maximize information exchange and community self-direction, as well as evaluate the complex environmental issues facing many communities. After all, who knows a local community better than those who live and work there? For that matter, who has a greater investment? An optional environmental advisory board or committee is one tool that can help communities make the effort more formal, if they so desire, following an annual work plan as broad or as narrow as the local government creating the advisory board may desire.

In addition to health and safety considerations, long-term economic development cannot occur without simultaneous human and environmental resource protection. Contrary to assertions of die-hard economic boosters, economic development and environmental quality are not adversaries, but instead have a symbiotic relationship. If communities are to attract new people and new industries for future growth, adoption of an active program to protect local resources is just common sense: Both new residents and new or expanding companies are attracted to clean, healthful communities.

Every community has an interest in maximizing human and natural resources, protecting public

health and safety, and promoting appropriate and sustainable economic development. The protection of each citizen, the air, land, and water is something on which we can all agree. Most citizens would support a clean environment and implementation of the local, state and federal programs necessary to achieve it. In this regard, an environmental quality advisory board to local government can be instrumental not only in ensuring environmental quality, but also in preserving the community's economic development potential.

### **Local Commitment to Environmental Quality**

While pro-development interests may oppose the formation of environmental quality advisory boards, another obstacle resides in the often "chilly relationship" between environmental activists and environmental science professionals. Professionals sometimes think that citizen advocates are simply interfering in the business of conscientious, trained specialists engaged in highly technical work. Meanwhile, citizens may think that the professionals have failed in some way to carry out their responsibility to protect the public interest, health, or safety. But the public and environmental professionals *need* one another.

Another challenge to environmental quality and related issues is the changing nature of federalism in the United States. The days of generous federal grants for expensive wastewater collection or treatment facilities have passed, replaced by state revolving loans. Such loans might be available at very reasonable interest rates, but they must be repaid by the local utility, making utility-rate increases necessary. In communities where environmental quality-assurance infrastructure is weak or non-existent, these increases will be high. Accompanying higher utility rates will be increased costs and user fees to finance water and wastewater improvements, and for other infrastructure needs.

Citizens who may not have asked many questions when rates were low may become more interested and active in the coming era of cost and fee increases. Communities will require mechanisms to educate and inform citizens on the purpose of proposed rate increases and how improvements will result in either enhanced or maintained community health and environmental standards. Hence, the environmental quality advisory committee may serve an indispensable educational and public relations role in the future. They may also play a public interest role, serving as forums for the discussion of environmental issues as they relate to utility-rate increases.

### Environmental Concern Among Citizens

With their awareness of the sources and consequences of water, air, and soil pollution on the rise, citizens of all races and socio-economic circumstances are not shrinking from confrontation. Over the past decade, environmental protest has been spearheaded by community groups targeting industrial plants and other perceived sources of pollution.

These groups not only demonstrate levels of citizen concern, but also illustrate the need for two-way communication. We cannot spend all our public resources on environmental protection. Even as activism grows, duly elected and chartered policy-making bodies require input from credible risk and health professionals, in order to balance emotional protest with accepted science. The formation of citizen activist groups that seek to deal with issues they feel are not receiving appropriate attention is to be expected. But, if local governments were the sponsors of active and effective environmental agendas, citizens would be less inclined to undertake the work of environmental protection on their own, sometimes without good information.

A well intended local environmental group might succeed merely in alarming people where a recognized, voluntary educational/advisory body could serve as a stable, ongoing advocate and sounding board for citizens. Informal environmental associations and organizations have an important role to play—a role that could be rendered far more effective when exercised in the context of a rational local environmental agenda.

Considering the high cost of Superfund cleanup to industry and taxpayers—well into the billions of dollars—it is evident that comprehensive site remediation will become financially impossible if we fail to stem the introduction of new toxics into the environment. This means that pollution prevention is not just about aesthetics but about financial feasibility and the responsible use of citizen tax dollars. While local advisory boards can be employed in broadly based efforts to address existing problems, their long-term utility may be in the *prevention* of environmental damage.

### Government Responsiveness to Environmental Concern

Most local officials are “back-door” environmentalists, making important environmental decisions on a somewhat piecemeal basis, failing to take a comprehensive look at the role of local government in environmental protection. Instead of merely reacting to environmental crises or

problems, local governments should consider getting out-front on environmental issues. Involving citizens in environmental decisions is the key to securing acceptance of viable solutions *and* their costs. If local officials see protecting the safety and health of citizens as a priority, then developing a comprehensive approach to the complex environmental challenges facing their communities is a major step toward fulfilling that responsibility.

Observation of communities with citizen environmental quality advisory boards (sometimes known by other names like natural resources committee or local oversight committee) reveals they represent a useful tool. Local governments from coast to coast, both small and large, have adopted environmental advisory boards. Analysis of the ordinances adopted by several of these communities reveals some interesting patterns.

It is not uncommon for these boards or communities to be initiated in reaction to a single local environmental problem. Examples include oil spills, long-term and ongoing industrial pollution, abandoned hazardous wastes, solid waste disposal crises, resource recovery, ground water pollution, and air quality. Some boards are launched primarily to encourage conservation, environmental planning, and interaction of citizens and industries with local government in a proactive, mutually respecting fashion.

One assistant city manager explained that having an environmental quality advisory committee is a way to institutionalize citizen participation on environmental issues. A councilwoman describes her community’s committee as particularly helpful with complex or difficult environmental issues. “It works well,” says a public works staff liaison, discussing his community’s natural resources commission. One spokesperson for a local community development agency expressed enthusiastic praise for the contribution of the local environmental review committee. In addition to serving as cushions or buffers for elected officials—as well as valuable forums for sharing technical information and maintaining good public relations—environmental advisory committees can be both sympathetic and objective on the array of issues the public may introduce.

One small-town manager says citizen committees help to run the community, and the conservation commission is among them. The Citizens Environmental Protection Advisory Committee in another community receives professional staff support from the local department of water and power, operating under an ordinance that empowers it to take actions to improve environmental quality.

## ENVIRONMENT AND HEALTH INTERNATIONAL

Although many environmental quality boards simply function to educate citizens and offer advice to the local governments, a few have coordinated more intensive and detailed efforts using funds from both private and government sources.

In Tennessee, one of the early efforts was in the city of Oak Ridge, where the advisory committee was established by city ordinance in the early 1970s and continues to operate today. Although this city has been a “company town,” where a few major industrial employers may have greater-than-average influence on local policy, its advisory board has made an environmental contribution not otherwise possible. In the Oak Ridge example, the committee continues to comment on public works issues, general city environmental issues, and federal agency National Environmental Policy Act documents, as well as work with Superfund clean-up reviews, comment letters, and other high-profile roles. The committee interfaces with the city council as needed.

Environmental advisory committees may expect to have relatively little influence in a locality with one or only a few dominant employers, but the community still is likely to be better off than it would be in the absence of an environmental agenda and an agency to pursue it.

There are other Tennessee local government examples. Newport adopted a resolution to establish a local environmental agenda. The Knoxville Metropolitan Planning Commission sponsored the adoption of an expanded local environmental agenda. Germantown adopted a citizen environmental/public works advisory board and made it part of the city program. Memphis established an Earth Complex, and its mayor selected a citizen advisory committee to work with the city regarding policy directions and facility use.

Communities that employ environmental quality advisory committees for curative/reactive purposes must interpret these bodies as a mechanism for proactive and preventative environmental impact planning. The contributions of these bodies can be substantial, depending on the degree of teamwork and trust among committee members, local government staff, elected officials, and citizens concerned with ensuring a high-quality environment for present and future generations. John Bartlit questions in a 1990 Environmental News Digest article are still valid today: How safe is “safe enough”? How clean is “clean enough”? The answer is as safe and as clean as society will support. Environmental advisory boards can help communities achieve this goal.

A version of this article originally appeared in the National Civic Review, published by the National Civic League, Denver, Colorado. It has been adapted and reprinted here with permission.

For information about the Environmental Quality Advisory Board for the city of Oak Ridge, Tennessee, visit the city’s Web site at [www.ci.oak-ridge.tn.us/eqab](http://www.ci.oak-ridge.tn.us/eqab).

Another useful website in this connection is the Environmental Advisory Councils in Eastern USA States [www.eacnetwork.org](http://www.eacnetwork.org) The IFEH is obliged to the EAC to be able to publish this address.

### About the Author

James Harless has more than 35 years of experience in public and environmental health, and technical assistance. He is currently the manager of environmental monitoring with the Tennessee Department of Environment and Conservation.

### Ten Good Reasons to Form an Advisory Board

There are numerous reasons why a local environmental advisory board or committee is a good idea. Here are 10:

1. To assist local government officials in planning, organizing, and evaluating their local environmental services and programs, and in solving operational problems or reviewing new environmental impacts or activity, either in the existing work plan or as requested by elected officials or other authorities;
2. To help coordinate local government environmental programs with other environmental programs, services, companies, or organizations within the community;
3. To provide opportunities for those citizens affected by environmental services or regulations to have a role in the formation of local environmental services or programs and to establish two-way communication, furnishing citizens an opportunity to serve as “community eyes and ears,” and facilitate direct interaction of environmental staff with citizens in a non-enforcement context;
4. To serve as a stabilizing body for the local officials who administer environmental programs in the community;
5. To assist in securing resources for environmental health and safety purposes that might not otherwise be appropriated;
6. To act as a sounding board for major changes to local environmental policy under possible review

or consideration by elected officials and to ensure continuity in environmental programs during periods of transition in political leadership or environmental support staff;

7. To provide leadership for enhancing or extending existing environmental programs to better serve the health interests of citizens. (In environmental quality and protection, there is typically a need to balance economic development and environmental resource protection, and to recognize that there is a symbiotic relationship between these two important goals.);

8. To provide a forum for officials responsible for environmental programs to promote their services;

9. To encourage thorough discussion and review, using guest speakers or specialists, and otherwise seek to inform staff members of proactive ways to ensure environmental program success; and

10. To take advantage of group thinking processes and teamwork in reaching advisory decisions about problems, proposals and situations confronting the community.

Adapted from Alan Kahler, et al. *Methods in Adult Education*. Danville: Interstate, 1985.

## **Chartered Institute of Environmental Health**

### ***Conference and Exhibition 2003***

### **'Environmental Health - Working in Business'**

**23 – 25 September 2003**

**Belfast Waterfront Hall**

*For more information please contact  
**events@chgl.com***

## **Getting published: converting your environmental health dissertation**

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### **Introduction**

All PhD programmes and many masters and undergraduate courses incorporate a research project which typically involves library and field or laboratory work carried out over many months or several years and written up as a dissertation of some 15,000 to 100,000 words. Within this mass of words there often lies information of importance to a much wider community than those who will read it in dissertation format. The wider dissemination which comes with publishing in a journal will bring benefits to the environmental health profession as well as experience and career enhancing exposure to the author. For the profession, publishing in professional and academic journals provides a resource for the development of colleagues. Dissemination of current research via peer-reviewed publications, which carry the credibility of a rigorous quality assurance mechanism, is an essential part of developing and maintaining the credibility of a profession. People who can communicate well with their peers are in demand and publishing in journals is an important means of demonstrating your skills. Publishing in journals also leads to the author being recognised by a wider audience and increases the chances of being invited to speak at conferences and seminars. This establishes you within professional networks and helps promote your work and your skills.

This paper sets out the fundamentals of the publication process, with particular emphasis on peer reviewed publications, and is intended to encourage those who are in the process of writing a dissertation, or indeed have one that has been sitting on the shelf for a year or two, to seek to have their work published.

### **Dissertation v journal publication**

Converting a dissertation into a journal publication is challenging! Paring the 20,000 (or more) word dissertation to maybe 4000 words (the length of this article) for publication is not an easy task. It must be done with care and probably with the assistance of your academic supervisor. The substance of the research methodology and findings must be preserved while cutting the extraneous detail that may be important for the dissertation but not appropriate in a journal paper.

Of course you should first decide if your work is good enough for publication. In most cases it will be provided the field and/or laboratory work has followed established research protocols.

Selecting and rewriting rather than cutting and pasting is usually necessary. There is no need to try to incorporate a condensed version of every piece of information from the dissertation into an paper; only the most salient findings should be included. By eliminating the unnecessary communication is improved! Seek feedback from your supervisor(s) and colleagues on what is salient and what is superfluous. In some cases there may be more than one paper in a dissertation but here you need to be careful about duplicated and fragmented publications; a dissertation should not be the basis for more than one research publication unless each paper is substantially different.

### **Compared with a dissertation a journal paper requires;**

a tighter theoretical framework (don't include everything about the research topic)

a more succinct literature review (salient)

a more discriminating use of references (selective)

a more controlled description of the methodology (get rid of extraneous words and avoid excessive reporting and repetition)

a more focused discussion of the results (explicit but not overly detailed)

care not to over interpret the validity and significance of the data

a more economical use of tables and figures

an agreement on the authorship (dissertations are always collaborations between students and their academic supervisors and sometimes practitioners and the names should normally be included in the publication)

careful attention to the style of the target journal.

### **Where to publish: the target journal**

#### ***Peer-reviewed academic research journals***

In terms of academic credibility and status, publication in *peer reviewed journals* (sometimes referred to as a *refereed journals*) is the ultimate goal. These are scholarly periodicals which require that each manuscript submitted for publication is judged by an independent panel of experts - scholarly, scientific and/or professional peers under the guidance and arbiter-ship of an editor, usually assisted by an editorial team. Submitted articles or papers (often referred to as manuscripts at this stage) are evaluated firstly by the editor and, if considered appropriate for that journal, are subjected to what is referred to as 'double blind' peer review (see below).

There is a small number of peer reviewed journals dedicated to environmental health. Many others will however, publish papers on environmental health topics. Table I provides a list of peer reviewed journal titles relevant to environmental health.

#### **Contributions to peer-reviewed research conferences**

Amongst the academic community peer-reviewed research conferences are a common method of sharing research findings and encouraging immediate discussion. The best conferences have a peer review process and publish the papers in the form of Conference Proceedings. Where the conference has been adequately peer-reviewed, the papers in the proceedings have the same status as those in a peer-reviewed journal. Many conferences have 'parallel sessions' which allow a number of people to present shorter papers to smaller audiences in simultaneous sessions. These are a useful way for the aspiring author to craft a paper which is then discussed in the course of the seminar presentation.

The IFEH in association with the University of Ulster originated the Graduate/Post Graduate Research Conference on Environmental Health Protection and Safety which usually occurs annually and provides a forum for new and emerging researchers to present their work; papers are peer reviewed and Proceedings are published.

#### **Professional Journals**

Papers for publication in professional journals are commonly selected by an editor or an editorial board. Whilst the manuscript must conform to the instructions for authors for that journal it may not require the strict adherence to research protocols essential for publication in peer-reviewed journals. Usually, these journals contain a range of material,

**Table I: Selected peer reviewed journal titles relevant to environmental health**

<i>Title</i>	<i>Publisher</i>	<i>Editor/contact details for submissions/website</i>
International Journal of Environmental Health Research	Taylor and Francis Group in association with the International Federation of Environmental Health	Editor-in-Chief: Professor Paul G. Smith Email: <a href="mailto:smithce0@ppmail.paisley.ac.uk">smithce0@ppmail.paisley.ac.uk</a> <a href="http://www.tandf.co.uk/journals/titles/09603123.html">www.tandf.co.uk/journals/titles/09603123.html</a>
Journal of Environmental Health Research	Chartered Institute of Environmental Health	Chief Editor: Harold Harvey Tel: 028 9036 6309 Email: <a href="mailto:jehr@lycos.co.uk">jehr@lycos.co.uk</a>
Journal of Environmental Health published by the	National Environmental Health Association (USA).	Journal Project Specialist: Vanessa T. DeArman Phone: (303) 756-9090, ext. 311 Email: <a href="mailto:vdearman@neha.org">vdearman@neha.org</a> Web: <a href="http://www.neha.org">www.neha.org</a>
Journal of the Royal Society of Health	Royal Society for the promotion of Health	Editor: Professor G Davies Contact: Tel: 020 7630 0121 Email: <a href="mailto:rshealth@rshealth.org.uk">rshealth@rshealth.org.uk</a> Web: <a href="http://www.rsph.org">www.rsph.org</a>
Institution of Occupational Safety and Health Journal	Institution of Occupational Safety and Health	Journal Administrator Tel: 0116 257 3100 Email: <a href="mailto:jacobaslee@iosh.co.uk">jacobaslee@iosh.co.uk</a> Web: <a href="http://www.iosh.co.uk/index.cfm?go=publicationsjournal">www.iosh.co.uk/index.cfm?go=publicationsjournal</a>
Communicable Disease and Public Health	Public Health Laboratory Service and the Scottish Centre for Infection and Environmental Health	Deputy Editor: Lynne Bacon, Tel: 020 8200 6868 Email: <a href="mailto:lbacon@phls.org.uk">lbacon@phls.org.uk</a>
Environmental Health Perspectives	National Institute of Environmental Sciences, US Department of Health and Human Resources	Editor in Chief: Thomas J Goehl Email: <a href="mailto:ehsubmit@niehs.nih.gov">ehsubmit@niehs.nih.gov</a> Web: <a href="http://ehp.niehs.nih.gov/instructions">http://ehp.niehs.nih.gov/instructions</a>
British Medical Journal	British Medical Association	The Editor Tel: 020 7387 4499 Email: <a href="mailto:editor@bmj.com">editor@bmj.com</a> Web: <a href="http://www.bmj.com">www.bmj.com</a>
Health Education Research	Oxford University Press	Executive Editor: Prof. K. Tones, 42 Moseley Wood Lane, Leeds LS16 7EP, UK.
Health Promotion International	Oxford University Press	Editor: Gordon Macdonald University of Glamorgan, Welsh Institute for Health and Social Care, Glynstaff Campus Pontypridd CF37 1DL UK
Public Health	Nature Publishing on behalf of Royal Institute of Public Health	The Editors Tel: 020 7580 2731 <a href="mailto:public.health@rph.org.uk">public.health@rph.org.uk</a> <a href="http://www.nature.com/ph">www.nature.com/ph</a>
Environmental Management and Health	Published in co-operation with the United Nations Environment Programme (UNEP)	Editor: Professor Walter Leal Filho Tel: 49 40766 18056 Web: <a href="http://www.mcb.co.uk/bij.htm">www.mcb.co.uk/bij.htm</a>

from more journalistic articles about current professional issues to reports of research projects. They are usually meant to inform and update rather than to give rigorous coverage to in-depth research issues. Standards of scholarship in such journals may be comparable to those of peer-reviewed publications, although this is not always the case and, in a sense, the reader can't be certain. The absence of peer-review usually means that the publication has a different mission to serious research publications and maintains its own standards within its field. Often, those at an early stage of writing find this type of publication a useful vehicle for publishing views and brief research reports. There are many environmental health oriented professional journals, mostly national with a few international. Most of the environmental health professional bodies have their own journal. Some have a peer-reviewed section.

### **The 'Double blind' Peer Review Process**

When the manuscript is received from the author(s) it is sent to two or more specialist reviewers whose identities are not known to the author and the identity(s) of the author(s) are not known to the reviewers – thus the 'double blind' terminology. Only the editor knows both the identity of the author(s) and those reviewing the manuscript. This is designed to assure the independence and objectivity of the review process.

Following peer review the editor has three possible responses to the author(s):

accept the paper as submitted (with or without minor amendments)

request the author(s) to revise the paper based on the comments of the reviewers (with or without further peer review)

reject the paper

The first two are fine and indicate that you have developed your paper satisfactorily. The third probably means that either you haven't achieved a high enough academic standard, or that you haven't targeted the right journal for the subject matter of your paper. Most commonly the editors' response is to seek a revision of the paper with the implication that the paper will be published if it is revised in accordance with the comments of the reviewers and any additional comments from the editor(s). The following advice responds to common statements and findings by peer reviewers.

### **Constructing Your Paper**

#### *Aims and scope of the target journal/audience*

It is important that you send your paper to the right journal. Thus you need to carefully read the aims and scope which are usually found on the inside front or back cover of the majority of journals. Most journals now have specific web sites or pages and much of the information you need to enable you to target the right journal, follow the right style and submission procedures, can be accessed online (see Table I). About half of all papers received by a journal are rejected immediately because are not within the aims and scope of the journal.

It is a good idea to look carefully at other papers published in your target journal to get a better idea of the subjects they cover and how they are treated. Looking at other published papers will help you with the style followed by the journal.

#### *Instructions for authors*

Scholarly articles follow a fairly standard format which commonly includes; an abstract, key words, introduction including a literature review, methods, results, discussion, conclusion and reference list. While some writers and readers may find the format restrictive, it exists for an important reason. It allows your work to be compared or replicated, a fundamental of research.

It is essential that you follow the instructions for authors in every respect. Unlike some professional and popular journals where the publishing team will make adjustments to the paper on behalf of, or indeed without the knowledge of, the author, this will not occur with a peer-reviewed journal. Thus if you haven't included an abstract, or key words, or have too many sub-headings or haven't precisely followed the referencing protocol, the paper will be sent back to you. You are the expert and only you can make adjustments to your manuscript.

#### **The title**

The title is important! It should be specific enough to describe the contents of the paper, but not so technical that only specialists will understand. The title usually describes the subject matter of the article, for example, 'The effect of poor housing on the health of occupants'. Or you may wish to construct a title which summarises the results of your study, 'Occupants in poor housing show higher level ill health'. Sometimes a sub-heading may be appropriate, 'The effect of poor housing on the health of occupants; a study of 500 families'.

### Authors' names and other details

Each person who made a significant contribution to the paper (or the research work on which it is based) is entitled to be listed as an author. This commonly includes the academic supervisor whose name may appear as a joint author. Some journals (e.g. BMJ) require an explicit description of the contribution of each named author.

The names should be formatted exactly as instructed by the journal. Sometimes this will include post nominal letters (letters after your name), sometimes not. Mostly authors' affiliations will be included (i.e. employer or organization) and one author must be identified as the 'corresponding author' whose contact details will be published.

### Abstract

An abstract, or summary, is published together with the paper and is usually located on the first page. The abstract has several purposes. It gives the reader a preview of what's to come and may determine whether your paper is read or not. Abstracts are commonly published separately in bibliographical sources, such as MEDLINE and Environmental Abstracts. These large databases allow readers to quickly search and scan the extensive literature-base, and decide which articles they want to read in depth. Today they are typically electronic and facilitate comprehensive searching and downloading. Some journals publish the abstracts in a separate publication, for example, the Journal of Environmental Health Research.

The abstract is typically between 100 and 250 words and you must follow the specification for your target journal. This is important because many of the abstracts databases specify the maximum word length which the publishers must enforce for their journal if they wish the abstracts to be included. Your abstract should summarise the purpose, methods, results and conclusions of the paper. It's not easy to include all this in just a few words. Start by writing a summary which includes all that you think is important, and gradually edit it down to size by removing unnecessary words and phrases, while still retaining the necessary concepts. Normally you shouldn't use abbreviations or citations in the abstract - it should stand alone without any reference list or bibliography. The abstract is usually, but not always, a single paragraph. This paragraph is 250 words.

### Introduction

Those who are well informed about the subject suggest that you have about 30 seconds worth of readers time in the introduction to confirm to them

that they should continue to read your paper! It may be that your manuscript in the hands of the editor or reviewer may be subjected to the same evaluation process, although you can be sure that the reviewers at least will read your paper through before forming their opinion.

The introduction should be fairly concise, but its length will vary considerably depending on the subject and the overall length of the paper. It should be well referenced in accordance with the protocol followed by the target journal (see later). The introduction typically outlines the topic, explains to the reader why you were interested in the subject, summarises the relevant literature by means of a literature review and states how your work, which you are just about to describe, contributes to the subject. The literature review should identify the key contributions of past researchers, and identify theories or patterns or schools of thought/key debates. You could end the introduction by suggesting that the current research is needed to answer some outstanding question and/or a concise paragraph which explains the aims of your paper.

### Method

If you are reporting on a laboratory or field experiment you should include enough information here to allow other experts to repeat your experiment. The same can be applied to the methods section whatever type of research work your paper is based on. If you followed a complicated protocol, it may be helpful to include a diagram, table or flowchart to explain the methods you used. It is always necessary to provide the reader with as much confidence as possible in the way you carried out your work by explaining how the methods selected are appropriate together with adequate reference to documented and evaluated methods.

Results are not usually included here although it may be appropriate to include preliminary results that were used to design or refine your method, for example, the results from a pilot procedure. The method section is usually where you outline how analysis of results was undertaken and assure your readership of the validity and reliability measures taken (trustworthiness in qualitative research) and any relevant ethical considerations. For example, if you used human subjects, did they give their consent?

### Results

Obviously this is where you present your results but you need to think carefully about how you will present them within the constraints of a paper for publication. As mentioned earlier what would be suitable in a 20,000 word dissertation will not be



acceptable. Use tables and graphs if appropriate but it is a good idea to also summarise your main findings in the text. Many journals request a minimal use of tables and graphs or suggest a maximum number allowable. If you do use tables or graphs make sure that you include an explanatory title. If you can summarise the information in a sentence, then a table or graph is not necessary.

This is not the place to discuss the data, that comes in the formal discussion unless you have opted for a combined results/discussion section which may be appropriate in some papers. It is, however, the place to record data which may prove that you 'failed' to prove your hypothesis (or 'hunch' in qualitative work). Remember, recording and discussing the research which 'didn't work' is as important as recording that which did. You could prevent the wastage of many person-hours and considerable sums of research funds by warning others of pitfalls and unsuccessful designs!

### **Discussion**

In this part of the paper you discuss your findings in the light of various themes. The structure and content will vary depending on the type of work you have done but it would usually be appropriate to include an analysis of your findings in relation to your main research question, a discussion of the relationship between your findings and the existing literature and the significance of your findings to practice. Here you can make full use of your earlier literature review and show how your results agree, disagree or add to the existing knowledge. It is not usual to introduce new literature into the discussion which has not previously been placed in context and had its inclusion justified.

Once you have finished a first draft you should go back and read your title, aim, objectives and research questions and then read the draft again. Does it reflect what the title claims the paper is focusing on? Are the aims, objectives and research questions adequately addressed? If they are, then your discussion is appropriate to the paper.

### **Conclusions**

The characteristics of a good 'conclusions' section are simplicity, logic, ease of understanding and inclusiveness, not easy to achieve in a few words. Yet the conclusions and the abstract may be the only parts that some people read. It would be appropriate to include a brief summary of the paper's main points including the clear answers that you have been able to come to as a result of your work. Don't be afraid to say if questions remain

unanswered as it may be appropriate to suggest some further research work to provide further answers. You may also wish to ask a provocative question and/or call for some sort of action.

### **References**

The various academic disciplines use their own editorial styles for citing sources and for listing the works that have been cited. For example publications in humanities commonly follow the MLA style (MLA, 1999) and those in psychology and social sciences use the APA style (APA, 2001). There are several others including Harvard and Chicago styles. Indeed different journals have their own style which may be a combination of documented styles, making it rather confusing for authors. Nevertheless the style required by your target journal must be followed precisely; you cannot expect the editor or the editorial team to adapt your referencing system – it will be returned to you for revision and could be one of a number of issues which leads to the rejection of your paper.

Fundamentally there is a way of indicating your sources in the body of your paper and of listing more details at the end. The purpose is to allow readers to easily see what sources you have used and to give sufficient information for them to conveniently locate the source in the literature.

Whole textbooks are written on the topic of referencing (see below) and thus in this short paper we will give a brief outline of just one system used commonly in environmental health related journals.

#### ***Referencing in the body of the text***

Within the system described here there are several ways of citing (or acknowledging) the work of others in your text.

You can simply refer to the work in the course of your discussion:

Some believe that the fines administered by the courts in relation to food safety offences are ineffective deterrents (Kyle, 2001), whilst others feel that they are punitive (Ryan et al 2002)....

#### ***Or you can use a short quote***

Kyle (2001) describes the fines administered by the courts in relation to food safety offences as ineffective deterrents...

Note that you don't include the authors initials here and where there are more than two authors you use the term 'et al' to indicate that there are several other authors, all of whom will be in the reference list at the end of your paper. Page numbers are not normally included in the text if you are citing a journal article as the full details

will be given in the references list but if you are citing something from a text book it is usual to give the page number in the text here (eg. Hetherington, 2001, p146).

### The reference list or bibliography

This provides information on all the sources cited in the text and appears as a list at the end of your paper presented in alphabetical order of authors. The presentation is slightly different depending on where the source is to be found. In the following examples take careful note of the use of capital letter, italics, commas, periods and brackets.

### Journal paper or article

Biener, L. and Nyman, A.L. (1999) Effect of workplace smoking policies on smoking cessation: Results of a Longitudinal Study. *Journal of Environmental Medicine* 41 (12): 1121-1127.

Mulcahy, M (2001) Safeguard or smokescreen? *Environmental Health Journal* vol 109/11: 331-335.

### Chapter in a book

Fleming, P. (1999) Health Promotion for Individuals, Families and Communities. In Long, A. (ed) (1999) *Interactions for practice in community nursing*. Basingstoke: Macmillan

### Government sources

Government of Ireland (1997) Sustainable Development; a strategy for Ireland. Dublin, Government Publications.

### Legislation

Government of Great Britain (1998) Human Rights Act 1998, Chapter 42, London, Stationery Office Limited.

Web Site (this aspect of style is still developing and there are many variations – see Internet Resources below)

Health and Safety Authority (2003) Guidelines for Employers, Employees and Clients in the Security Industry [web site]  
<http://www.hsa.ie/pub/publications/security.pdf>  
 [accessed 20th January 2003]

### Conclusions

The wider dissemination which comes with writing up your dissertation for journal publication will bring benefits to the environmental health profession as well as experience and career enhancing exposure to the author;

Compared with a dissertation a journal paper requires a tighter theoretical framework, a more succinct literature review, more discriminating use of references, a more controlled description of the methodology, economical use of tables and figures and a more focused discussion of the results;

Publication in a peer reviewed journal carries the highest status as these publications are expected to be the bastions of quality in their subject;

Construct your paper precisely in accordance with the instructions for authors for the target journal;

Create a good relationship with the editor of the target journal. Peer reviewed journal editors usually perform the role on a part-time, voluntary basis involving hundreds of extra hours of work. Don't mess them around by sending manuscripts which are clearly outside the aims and scope, by submitting in the wrong format, by sending your manuscript to more than one journal, by not responding quickly to requested revisions and by asking for new material to be included at the proofing stage!

### References (for this article)

Publication manual of the American Psychological Association (5th ed.). (2001). Washington, DC: American Psychological Association

MLA Handbook for Writers of Research Papers (5th ed) (1999). New York: MLA.

### Internet Resources

<http://www.dianahacker.com/resdoc/humanities/pdf/dalypaper.pdf> (sample of a paper on the health effects of mobile phone users in MLA style) (accessed 17 Jan 03).

<http://www.agius.com/hew/resource/searchap.htm> (resource on searching, appraising and citing environmental and occupational health information on the Internet) (accessed 17 Jan 03).

<http://www.aresearchguide.com/styleguides.html> (Research, Writing, and Style Guides - MLA, APA, Chicago, Harvard) (accessed 17 Jan 03).

<http://www.ulster.ac.uk/library/magee/citing.htm> (Writing and Citing) (accessed 14 Mar 03).

[http://www.bournemouth.ac.uk/learning\\_support/unit\\_8.html](http://www.bournemouth.ac.uk/learning_support/unit_8.html) (citing bibliographical references – the HARVARD system) (accessed 14 Mar 03).

## Past Presidents of IFEH

Whilst I believe we should always look to the future we should never lose sight of the past. This applies to the IFEH as it does to any organisation and we in the Federation owe a debt to those who were involved in the creation of what we have today. Sadly Eric Foskett is no longer with us but I have attempted to contact the Past Presidents to ascertain what the Federation meant for them or where they are now in their career and am pleased to say it has met with some success. Whilst it will be the duty of my successor to contact the more recent Past Presidents at a date in the future I hold out hope that we will shortly receive some thing from Haji Ugku Abu Bakar bin Abdul Rahman.



### Personal Thoughts on Coming of Age by Roy Emerson, First President of IFEH

*“Roy I have an idea, will you help?”* That was my introduction to the International Federation of Environmental Health. Eric Foskett approached me very quietly in 1982 and said he wanted to develop his thoughts of an organisation of environmental health officers throughout the world. Eric was then Chairman of the Institution of Environmental Health Officers, which covered England, Wales and Northern Ireland, and of course I gave him my full support. When Eric had completed his travels and his spadework, I hosted the first meeting on the 24 September 1985 in my suite of the Heathlands Hotel, Bournemouth, England when I was President of I.E.H.O.

Those attending that meeting were  
Clarence Phoenix IEHO  
John Tiffney (England, Wales  
Eric Foskett and Northern Ireland)  
Dr T S Wilson REHIS  
Bernard Forteath (Scotland)  
H J Sulaiman Malaysia  
Fred O’Brien EHOA  
Gerry Heraghty (Ireland)  
Barbara Blomberg Sweden

That was not a formal meeting but the three organisations in the UK and Ireland signed a document inaugurating the IFEH. Eric’s enthusiasm was infectious but the hurdles of lack of money and great distances were formidable.

The formal start of the Federation was on the 29th August 1986 in London when the first council meeting was held. Australia was represented and became the fourth founding member.

It was also agreed that the First World Congress would be held in Sydney, Australia in 1988. Much to my pleasure I was invited to be the first President of the IFEH in September 1986. This led to the highlight of my professional career when I stood on the stage of world famous Sydney Opera House in the presence of the Governor General of Australia and other distinguished guests and made my Presidential Speech to representatives of 17 different countries. Although only eight were full members, most of the others joined later. A brilliant occasion, which those present will never forget.

A president’s badge had been bought and I managed to wear it for forty minutes before passing it on to Ron Spratt of Australia. That meeting really launched the Federation and further congresses took place in Brighton (England) 1991, Kuala Lumpur (Malaysia) 1994, Aberdeen (Scotland) 1996, Stockholm (Sweden) 1998, Oslo (Norway) 2000 and San Diego (USA) last year.

I have managed to attend all but the last one and each has brought a new dimension to the organisation. However my outstanding memory of the years since my presidency ended is, without doubt, the trip to Tanzania in 2001 to meet environmental health officers from the African countries in the tiny village of Bagomoyo and seeing and hearing first hand the problems of water supply, education and infectious disease in the third world was a humbling experience.

I only hope the movement we have started will bring tangible support to our colleagues in environmental health in Africa. The Northern

Centre of the Chartered Institute of Environmental Health, of which I am President, is to try to support Kenyan EHOs over the coming years. Other centres in the United Kingdom and hopefully in other countries are twinning in the same way, not only in Africa but also throughout the world. So much remains to be done.

Of course there have been disappointments over the last 21 years. Early on it hurt when a few potential members thought we were making money and getting free rides around the world – nothing could have been further from the truth. Disappointment too that the Individual Subscribers scheme has not been more successful. Individual EHOs in the more prosperous countries can surely afford to support the Federation in its work. Surprise too that some EHOs asked the question “What is in it for us?” instead of “What else can we do?”

As I know from my own experience over the last 21 years, Eric Foskett’s dream has materialised and more and more people have contributed time and effort to its undoubted success. There is no shortage of knowledge and talent to be shared, everybody involved has been friendly, communication and travel has been much easier so we have a base to work from to expand the good work.

As I celebrate my 80th birthday I can only seek the support of younger people to take up Eric Foskett’s challenge of 21 years ago.

*Will you help?*

### **Ron Spratt 1989 - 1991**

My term as President finished in 1991; subsequent to this I was appointed as an Honorary Vice President and attended all world congresses except San Diego in 2002.

My employment as an Environmental Health Officer in a local authority ceased in 1992 after thirty years in management of an Environmental Health Department.

Over the next several years I was engaged in major environmental health consulting activities in the divided bin system of waste collection and associated materials handling operations.

From 1992 to 1999 I was engaged in judicial position in a Consumer Claims Tribunal dealing mainly in the residential building sector. I attained qualifications as a Mediator and carried out extensive activities in this capacity again in the field of residential building.

In 2000 I was awarded the Medal of the Order of Australia in the General Division (OAM) for services to community health, through the environmental health and waste management industries.

The past two years have seen my wife and I enjoying retirement and seeing as much of this large country of our as is possible. However to fill in the time I have been elected as President of the St Huberts Island Residents Association.

## **CALL FOR PAPERS**

### **The Institute for Global Studies in Culture, Power and History, Johns Hopkins University**

We are at a critical moment in human history. The fabric of ideas and relationships that sustained the post-World War II order has come unraveled, exposing serious gaps in the ways that differently situated human communities understand and pursue the good, and undermining institutions that served, however, precariously, to bind them together. Can the old fabric be restored, or will it be substantially rewoven, and if so, on what basis? What part will understandings of human rights, of difference and dignity, of belief, and of sustainability play in the reconfiguration of power, governance, and livelihood in the 21st Century.

The Institute for Global Studies in Culture, Power and History (IGS) at Johns Hopkins University seeks original papers that address these themes for its General Seminar, to be held on Thursdays in Fall 2003. We will give preference to work that expresses views not adequately represented in the United States and Europe. Topics may include issues of political, legal and/or economic institutions, cultural and/or social movements, human rights, the environment, militarization and violence.

Please submit a 75-100 word abstract to IGS by June 16th 2003. (would members of IFEH indicate this on their submissions)  
We prefer electronic submission (to Dr. Felicity S. Northcott, igs@jhu.edu) but copies may be mailed to:

**Dr. Felicity S. Northcott, Associate Director**  
**The Institute for Global Studies in Culture, Power and History**  
**Room 117, The Greenhouse, Johns Hopkins University**  
**3400 North Charles Street, Baltimore, MD. 21218**  
**FAX: (410) 516-3490 PHONE: (410) 516-7794**

## **Report on World Summit on Sustainable Development held in Johannesburg, South Africa**

**by Jerry Chaka, President Elect IFEH**

The United Nations World Summit on Sustainable Development, also known as the Johannesburg Summit, brought together approximately seventeen thousand (17 000) participants, one hundred and five (105) heads of states and one hundred and eight countries (180). Five hundred (500) parallel sessions were staged during the Summit.

Business, NGO's and other major groups were represented. The South African Institute of Environmental Health (SAIEH) represented the IFEH at the World Summit. The delegates who represented the IFEH at the Summit were Jerry Chaka and Francois Nel, General Secretary of the SAIEH. The Summit was held in the Sandton Convention Centre, Johannesburg from 26 August to 04 September 2002. The non-governmental forum (NGO's) meetings took place at the Expo Centre, approximately 16km from the Sandton Convention Centre. The logistical organization of the Summit was managed by the Johannesburg World Summit Company (JWSCO), on behalf of the government of South Africa.

The Summit was a follow-up of the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992. The 1992 Rio Conference provided fundamental principles as well as a programme of action for achieving sustainable development. The Johannesburg Summit had to craft an agreement on a new agenda for practical action that could decisively alter the global framework for sustainable development.

Inputs were made on environmental health matters and submitted to Heads of States at the Convention Centre as NGO's positions on these matters. NGO's concerns were around reduction of environmental health threats, the relationship of health to environment, poverty reduction strategies, basic health services delivery, access to sanitation as a basic human right, provision of clean and safe drinking water for all, etc. Different sessions were conducted daily on a number of topics by NGO's to develop positions on topics discussed by governments at the Summit. There were also daily feedback sessions on deliberations, different views and consensus reached by the Heads of States on different topics.

A presentation on the IFEH's sustainability indicator project was made at the Summit. Though the attendance to the presentation was

very low, an NGO from South Africa identified the need to initiate a project in their area to measure air pollutants and document the effects of air pollution in their area so as to put pressure on the Municipality to take appropriate actions. The SAIEH is consulting with relevant stakeholder to initiate an IFEH sustainability indicator project at this place.

Fliers and posters on the IFEH 8<sup>th</sup> World Congress were widely distributed at the Summit. A number of contacts were established with people from all over the world.

### **Outcomes of summit**

Heads of States deliberations culminated in the development of a plan of implementation, the World Summit on Sustainable Development plan of implementation. Inputs made and agreed upon as part of the plan of implementation were as follows: (Some of the resolutions where inputs by our Group were taken)

### **Chapter II Poverty Eradication**

Actions to be taken by countries are:

To halve by the year 2015, the proportion of the world's people whose income is less than \$1 a day and the proportion of people who suffer from hunger and, by the same date, to halve the proportion of people without access to safe drinking water.

Deliver basic health services for all and reduce environmental health threats, taking into account the special needs of children and the linkages between poverty, health and environment with provision of financial resources, technical assistance and knowledge transfer to developing countries and countries with economies in transition.

Increase access to sanitation and improve human health and reduce infant and child mortality, prioritizing water and sanitation in national sustainable development strategies and poverty reduction strategies where they exist.

Halve, by the 2015, the proportion of people who are unable to reach or afford safe drinking water and the proportion of people who do not have access to basic sanitation.

A number of other resolutions supported by us jointly as Health NGO Sector were also adopted, some without changes and others with minor changes. These are contained in Chapter III 13(b); 15, 17, 21 & 22; Chapter IV 23, 24, 35, etc; Chapter VI, Chapter VII, Chapter VII, etc.

## Conclusion

The Summit fulfilled a number of key objectives. Some of the objectives are as follows:

The Summit created the correct balance of the three pillars of sustainable development, which are, social development, economic growth and the protection of the environment. This is a decisive shift from the predominantly wrong perspective over the past decade that sustainable development equals the protection of the environment.

The Summit emphatically pronounced that sustainable development cannot be achieved separately from the quest to eradicate poverty, and that the growing gap between rich and poor is one of the biggest threats to sustainable development. Among the decisions in this regard is the decision to establish a world poverty fund.

The Summit introduced a major shift from the donor-recipient paradigm to one that focuses on the obstacle to economic growth in poor countries posed by the unfair global economic system.

While there is agreement to increasing aid from rich to poor countries, there is, more importantly, an acknowledgement that by far the biggest obstacle to poverty eradication is the lack of market access and the anti-poor trade system.

The cause of the African continent was greatly advanced with the practical focus on the New Partnership for Africa's Development.

The Summit served to advance the cause of multilateralism during this troubled time in the world. It asserted the centrality of the United Nations and called for democratic global focus on the state of the environment, and renewed high-level commitment to environment protection.

Though we lacked sufficient IFEH material, the IFEH profile was raised. The enquiries made by the Summit delegates about the 2004 World Congress bears testimony to this.

**Has your organisation produced any policy papers or position statements?**

**If so, please send a copy to the Honorary Secretary so that IFEH can consider producing something similar.**

## Resolutions of the South African Institute of Environmental Health National Conference held at the ICC on the 18-20 November 2002

**The following resolutions were unanimously adopted on the 20th of November 2002 at the ICC.**

Moved by:- Falatu - Eastern Cape

Seconded by:- S. Flepu -Free State

### Medical waste

That the strategic medical waste control plan for an informed approach by the provinces, municipalities and other organizations of state be drafted to ensure that all generators manage their medical waste according to internationally acceptable standards and norms and that adequate funding made available by the department of health to give effect to this resolution.

### Over-used cooking oil

Considering the great health risk pertaining to the consumption of cooking oil and to curb cooking oil adulteration, legislation be passed to keep control, by means of licensing and monitoring procedures, the buying, selling and further over-used cooking-oil.

### Conference strategy

In future similar conference seminars focus on addressing and resolving of the environmental issues rather than focusing on the environmental health problems and issues.

### Indoor pollution

Serious consideration be given to curb indoor air pollution in homes of disadvantaged communities specifically and for the development and promulgation of indoor air quality standards/legislation in South Africa.

### African environmental health committee

To seek the co-operation and commitment of the National Department of Health to develop and establish the African Environmental Health Committee.

### Environmental health month

To recommend that the National Minister of Health declare the month of February 2004 as "Environmental Health Month" to commemorate the hosting of the 8th World Congress of the International Federation of Environmental Health.

### **Integrated development plan**

Ensure that National, Provincial Health and Municipalities clearly include all Environmental Health aspects in their IDP's.

### **Research**

That we vigorously pursue with the Ministry of Health to guarantee funding and other resources for research and forge partnership with the SAIEH in this venture.

### **Scope of profession - promulgation**

That the SAIEH be mandated to pursue the revised scope of the profession with the National Minister of Health and find a solution to same together with the Health Professions Council and Environmental Health.

### **Common set of indicators**

The SAIEH jointly with the National Department of Health accelerate the process to develop a common set of Environmental Health Indicators for the whole country.

### **Roles and responsibilities of different departments on environmental health issues**

The SAIEH jointly with the National Department of Health pursue the matter of clearly detailing the roles and responsibilities of different departments working in the field of Environmental Health.

The SAIEH jointly with the National Department of Health pursue and work out strategies to implement the WSSD Resolutions regarding

### **Environmental Health matters**

The delegates noted with appreciation the participation and commitment of the

National Ministry of Health with regards to Environmental Health matters and the SAIEH, but this commitment and participation must also be evident at Provincial level. We call upon the National Minister of Health to pursue this matter at her MIMEC meeting.

Finally, the SAIEH drive the process to ensure the finalization of resolutions adopted by the conference delegates.

**Deadline for submission of articles for the next edition of Environmental and Health International is 15th September, 2003**

**Contact John Stirling  
j.stirling@btinternet.com**

## **Mike Jackson retires**



*Mike Jackson with a group of successful graduates*

Mike Jackson BA, PhD, CBiol, FIBiol, FRSA, FRSH, FREHIS, MCIEH and Professor in Environmental Health has retired from the University of Strathclyde after 25 years of service. Mike began his academic career at the University in 1977 as a Lecturer in Environmental Health having worked previously as an EHO for over 20 years with Ellesmere Port & Neston DC, Stone Rural DC and City of Stoke-on-Trent. In 1980 he became Head of Environmental Health and in 1994, the first Professor of Environmental Health at a British University. He is author of the Environmental Health Reference Book and over 140 research papers and reports. As a result of such research, Mike has been made a fellow of the Royal College of Pathologists, Institute of Biology, Royal Society of Arts, Royal Society of Health and the Royal Environmental Health Institute of Scotland.

In the past, he has also been a member of the British Society of Parasitology, The Society of Protozoology, the Mammal Society of Great Britain and the Chartered Institute of Environmental Health. Throughout his academic career, he has been External Examiner for undergraduate and postgraduate Environmental Health courses at the Universities of Leeds Metropolitan, Manchester Metropolitan, Salford, Greenwich, Birmingham, Nottingham Trent, University of Wales Institute, Cardiff and Trinity College, Dublin. Time for a well earned rest, I think!

The date for the official presentation by the Department in recognition of Mike's service was 9th May.

## BIBLIOGRAPHY OF ARTICLES APPEARING IN IFEH MEMBER MAGAZINES

Anyone wishing a copy of any of the following articles should contact me by e-mail or post with their name and address.

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### **New Zealand Journal of Environmental Health**

#### **Downtown noise – upmarket expectations Graham W F Warren, Marshall Day Acoustics**

The changing face of major New Zealand cities whereby the now popular trend for inner-city living has created a conflict of expectations relating to the acoustic environment.

There are two acoustical issues facing those persons who decide to change their lifestyles from what is still mostly usual in New Zealand, a conventional house-on-a-section in a residential suburb, for an inner-city existence in an apartment (sometimes very expensive) where there are typically other apartments immediately adjacent both horizontally and vertically, and other potentially conflicting activities in the vicinity.

First, there is the noise transmission from the adjacent apartments, which is related to the standard of construction of the building; and secondly, there is the issue of the transmission of noise from noisy external activities, which is related to zoning, and also to the standard of building construction and ventilation systems.

Existing commercial, industrial and entertainment activities have an expectation that they should be able to continue with their often noisy activities without further restriction or incurring expenditure on noise control measures.

New inner-city residents, on the other hand, who have usually come from a relatively quiet residential environment, have an expectation of a similar acoustic environment, or who have simply not thought about the 'noisy city', are frequently rudely awakened. Herein lies the conflict.

This paper focuses on the conflicting activities, the expectations of residents, the pressures placed on inner city businesses, some suggested solutions together with comments on the matter of the adequacy of acoustic insulation of residences.

#### **Contaminated horticultural land, a development issue for the Auckland region. Sally K Gaw, Alastair L Wilkins and Nick D Kim.**

A re-convergence of environmental health and planning – Professor Jenny Dixon, Department of Planning, University of Auckland.

Health issues figure strongly when people are asked to identify what is important to their quality of life. Whether in the context of personal well being, or in the context of the public arena, it is clear that public and environmental health issues are of key importance. In the end, factors such as sanitation, air and water quality, standard of housing, and quality of infrastructure have a great impact on health status and the well being of individuals and communities.

### **Environmental Health Journal CIEH**

**The true legacy of contaminated land – Nick Warburton** It has been nearly three years since local authorities were given the task of identifying contaminated land in their area. Nick Warburton reports on the progress made in implementing the Part IIA regime.

**Safety first – Nick Warburton** As the Food Standards Agency campaigns to reduce the incidents of food poisoning by 2006, Nick Warburton looks at different approaches to improving food safety.

**Sink or swim – Andrew Statham** The environmental health profession is facing its biggest crisis. Local government must take responsibility and act now to raise recruitment levels.

**A life worth saving – Nick Warburton** The importance of EHOs in allergen management has generally been overlooked in favour of more highly-publicised food-related issues. But allergies can, and do, kill and as Nick Warburton explains, EHOs have a key role in raising awareness.

**Deadly urban cocktail** Despite improvements in air quality over the past few decades, air pollution continues to seriously affect people's health. A study in the Bristol area argues that further research is needed to measure the long-term impacts.

**Empowering local communities – Jeanette Longfield** argues local sustainability projects not only can empower local people but can also promote health improvement and environmental sustainability.

**Addressing the root cause – Dominic Harrison** The NHS is wasting an opportunity to make significant health improvements by failing to exploit its 'leverage capital.' Time for rethink says the author.



**A new goal – Ian Gray** Recent work by the Health Development Agency and the CIEH envisages a greater role for environmental health practitioners in improving the health and wellbeing of communities.

**Making a world of difference – Ian MacArthur** The sanitary inspector laid the foundations for the public health improvements made in 19th century Britain. As Ian MacArthur explains, the approaches they pioneered are equally relevant today in tackling global public health challenges.

**Health the burning issues – Tracy Khanna** Sustainable development is inextricably linked to the health and wellbeing of the nation. Tracy Khanna talks to CIEH president Brian Hanna on how environmental health can contribute to the 'new public health agenda.'

### **Journal of Environmental Health – NEHA**

**Is contaminated groundwater an important cause of viral gastroenteritis in the United States? – Floyd J Frost, Ph.D., Twila R Kunde, M.P.H., Gunther F Craun, M.P.H., O.E.**

The large volume of human sewage discharged into the ground has raised concerns about contamination of underground water supplies and possible human health risks. Few groundwater outbreaks reported in the United States, however, have been linked to enteric viruses. Studies on the occurrence of groundwater enteric viruses have detected viruses in groundwater, but many of these studies selected high-risk wells for testing. The results likely overestimated the occurrence of virus contamination in groundwater as well as the resulting public-health risks. This study found only limited evidence for viral contamination of groundwater in the absence of bacterial indicators of sewage contamination. From current studies of virus contamination in groundwater, the authors could not identify a sufficient population with evidence of exposure convincing enough to make an epidemiological investigation feasible and thus were unable to epidemiologically evaluate health risks that may be associated with viral contamination of groundwater. To better estimate the potential health risks, surveys should look at the occurrence of groundwater virus contamination in water that does not have bacterial indicators of sewage contamination and in water that has not been adequately disinfected. These surveys should include groundwater from a wide range of geological conditions.

**Fluoride overfeed at a well site near an elementary school in Michigan – Kirpal S Sidhu, D.V.M., Ph.D., Robert O Kimmer**

A fluoride overfeed occurred at a well site near an elementary school in Portage, Michigan. The incident resulted in a high concentration of fluoride (92 milligrams per litre) in drinking water at the school. Seven students who drank water from the school fountain reportedly suffered nausea and vomiting. Toxicological evaluations were made by conducting a risk assessment. On the basis of the symptoms experienced by the students, it was concluded that the fluoride had irritated the stomach causing nausea and vomiting. This mild oral exposure to fluoride was, however, deemed too low to cause any long-term appreciable adverse health effects. Despite subsequent flushing, the concentration of the fluoride in the drinking water remained variable during the first nine days after the incident. With several flushings over the 48 days after the incident, the concentration of fluoride was brought down to optimal levels. The electrical circuit that energized the fluoride system was modified to prevent another overfeed. In addition, operational changes were made to further minimize the impact of such an overfeed.

**Risk communication and public response to industrial chemical contamination in Sydney, Nova Scotia: a case study – Daniel Rainham, M.Sc.,**

The town of Sydney, located on the north coast of Nova Scotia, is Canada's most contaminated community. The local tidal estuary, called the tar ponds, was used as a receptacle for industrial waste from a century of coke production and steel making and is estimated to contain more than 700,000 metric tons of polycyclic aromatic hydrocarbons, 50,000 metric tons of polychlorinated biphenyls, and many other residuals including arsenic, naphthalene, and toluene. Many residents have expressed consternation over the potential for exposure and subsequent health effects from the ponds. Recent epidemiological studies estimate a 30 to 40 percent increased incidence in several types of cancer within the community. This paper examines the claims and responses made by a variety of interested parties about the chemical contamination in Sydney. It also considers how those claims, in addition to a number of other mediating factors, may have influenced the local community in the mobilization of a response to the contamination.

**Attitudes about electric and magnetic fields: do scientists and other risk experts perceive risk similarly? Shari McMahan, Ph.D., Rafer Lutz, Ph.D., Jon'a Meyer, Ph.D.**

Wherever there is electric power, 60.hertz (60.Hz) electric and magnetic fields (EMFs) are produced. Recently, conflicting reports have been published by government agencies about adverse health effects linked to EMFs. This paper seeks to identify the demographic and job-related factors that may explain differences among experts' perception of risk attributable to EMFs. Eighty-one participants at a bioelectromagnetics conference completed a survey on risk perceptions. Results indicated that education and employment sector were significant predictors of agreement with the statement that EMFs are not a problem. Future studies should look at the role of risk perception on environmental risk communication and determine the extent of message distortion, if any, based upon employment and demographic characteristics.

**Releases of hazardous substances in schools: Data from the hazardous substances emergency events surveillance system, 1993-1998 – Zahava Berkowitz, M.Sc., Gilbert S Haugh, M.S., Maureen F Orr, M.S. and Wendy E Kaye, Ph.D.**

This report describes the adverse public-health effects resulting from releases of hazardous substances in schools. Data were analyzed from emergency events reported to the Hazardous Substances Emergency Events Surveillance (HSEES) system by 14 participating states during 1993-1998. Compared with all other types of events, a higher proportion of school-related events resulted in victims (relative risk [IRR] = 3.94, 95 percent confidence interval [a] = 3.37-4.60) and in evacuation (RR = 5.76, 95 percent a= 5.16-6.43). The most common cause of these events was operator error, followed in frequency by equipment failure, improper mixing, and deliberate releases. The majority of victims were exposed to spills emitting noxious gases, and their resulting symptoms were primarily associated with the respiratory tract.

**An exposure assessment of PM10 from a major highway interchange: Are children in nearby schools at risk? – Steven Korenstein, R.E.A., M.S., and Bill Piazza**

In urban areas, elementary schools may be in close proximity to major roadways. Major roadways have been shown to be a significant source of particulate (PM10) air pollution. In several recent studies, particulate air pollution has been demonstrated to be an important factor associated with negative respiratory health effects, especially in minority children. In response to community concerns, during April 2000 the Office of

Environmental Health and Safety of the Los Angeles Unified School District conducted an exposure assessment study in the East Los Angeles area, a region populated predominantly by ethnic minorities (predominantly Hispanic). The purpose of this study was to determine if children attending some of these schools are exposed to PM10 at sufficient levels to cause negative respiratory health effects. Results of this study show that students in close proximity to major roadways receive a dose of PM10 at levels approaching 10-15 micrograms per cubic meter, an exposure predicted to cause negative health effects.

**Laboratory Investigation of an E.Coli 0157:H7 outbreak associated with swimming in Battle Ground Lake, Vancouver, Washington – Mansour Samadpour, Ph.D., Jeff Stewart, Karen Steingart, M.D., M.P.H., Carl Addy, John Louderback, Marty Mginn, Joe Ellington and Tom Newman**

Escherichia coli 0157:H7 has been associated with a number of waterborne outbreaks, but it has never been recovered from an implicated environment. This paper reports on an August 1999 outbreak of E. coli 0157:H7 associated with swimming in Battle Ground Lake in Clark County, Washington. E. coli 0157:H7 was isolated from duck faeces, as well as from two water samples. The authors used pulsed-field gel electrophoresis to compare these isolates with patent isolates for genetic homology. All the isolates yielded the same restriction fragment patterns. In addition, using polymerase chain reaction, the authors found patient isolates and environmental isolates to have the same virulence factors (Stx, *eaeA*, and *hly*).

**Grading systems for retail food facilities: Preference reversals of Environmental Health Professionals – Owen H Seiver, R.E.H.S., Dr.P.A., Thomas Hatfield, R.E.H.S., Dr.P.H.**

The authors asked a random sample of 89 environmental health professionals in California about their willingness to dine in restaurants under three different scenarios: 1. The restaurant has received an inspection grade of A, B, or C and is one they normally dine in. 2. the restaurant was closed for health violations but recently reopened with a grade of A, B, or C, and 3. the restaurant has been given a numerical score only (88, 78, 68, or 58) A paired-samples sign test showed differences among the scenarios with statistical significance above 99.9 per cent. Professionals were less willing to dine in a restaurant if it recently had been closed and more willing to dine in it if only the numerical scores were given. The results indicate various cases in which there is a preference reversal from the expected order of A, B, and C: these results are largely consistent with those of an earlier study of university students.

The study reported here suggests that the attitudes of environmental health professionals are consistent with those of the public they represent, and that most professionals are quite willing to distinguish grades depending on underlying conditions provided. Significant differences were found among environmental health professionals depending on whether they had experience with grading systems. In the interests of encouraging thought and dialogue on the subject, this paper closes with a courtroom scenario that examines some of the repercussions of grading systems.

**The recovery of bacteria from the Handpiece of a High School Telephone – Mathew Yalowitz, Itzhak, MD, MSc.**

The purpose of the experiment reported in this paper was to study the bacteria on the public telephones at Montgomery Blair High School in Silver Spring, Maryland, to determine if there is a risk of infection to students who use the phones. Five phone handpieces from around the school—four public phones and the principal's phone—were swabbed twice, at 7 a.m. and at 3 p.m., on November 6, 2000. Three sites on each handpiece were swabbed: the mouthpiece, the handle, and the earpiece. The swabs were streaked onto media supportive of aerobic-bacteria growth and incubated at 5 percent carbon dioxide for 24 and 48 hours at 37°C. The plates were studied for quantitative and qualitative data. Microscopic examination of Gram-stain preparations and, in some cases, biochemical identification were performed on the bacterial isolates.

Results showed an increase in the number of bacteria from morning to afternoon in specimens from 10 of the 15 observations (67 percent). Eight of these 10 observations found more than threefold increases in the number of bacteria. In the afternoon, more types of bacteria were found in eight of the 15 specimens. Only one specimen had decreases in the number and types of bacteria from morning to afternoon. None of the bacteria that were found, however, were known pathogens. The authors conclude that even though more bacteria were recovered from phones in the afternoon than in the morning, their study did not show a serious health risk to students who used the public telephones on the day of the experiment.

**The Readability and Audience Acceptance of Printed Health Promotion Materials Used by Environmental Health Departments – Harold D Harvey, MSc, FCIEH, MRSH, MIOSH, RSP., Paul Fleming, MSc, PDHE, FRIPH, MIHPE, ILTM.**

A significant part of the work of an environmental health professional is the communication of information to clients, customers, and the public in the context of safety and health promotion or as an

adjunct to enforcement activities. While a wide range of communication methods are available today, printed material still forms an important aspect of the communications methodology of environmental health departments.

This paper raises a number of questions about the effectiveness of environmental health promotion brochures in common use in the United Kingdom and the problems that could arise from simply assuming that the brochures are conveying the intended message to the target audience.

Through a series of case studies conducted in environmental health departments, evaluative data on a range of brochures were gathered in two interlinked stages: a readability test and a target-audience questionnaire survey. The sources of the brochures included the central government, charities, trade unions, and commercial enterprises; some brochures were produced "in house." Results indicated a common mismatch between the estimated reading age of the target audience and the reading age determined by the readability test; concern about the efficacy of using commercially sourced brochures carrying advertising that may conflict with advice on other environmental health issues; "in-house" brochures that appeared to optimize self-promotion rather than the conveyance of topic information; ineffective brochures used as an adjunct to enforcement activity; and the possibility that the latter could be introduced as defense evidence in related legal proceedings. Overall, the study showed that a well-structured method for brochure choice and ongoing evaluation are essential tools for environmental health departments seeking to maximize their resources and effectiveness.

**Environmental Health Scotland REHIS Preliminary results of a study into the incidence of cryptosporidiosis in paediatric patients in rural and urban areas of Malawi**

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Two hospital based studies are currently underway in Blantyre (urban) and Chikwawa (rural) districts, Malawi, to determine the incidence of cryptosporidiosis in children under 5 years of age presenting with symptoms of diarrhoea. To date, stool samples have been collected over a period of 7 months (February-August) constituting the rainy

and dry seasons. Stools were examined for the presence of *Cryptosporidium* oocysts using the modified Ziehl-Neelsen technique and an immunofluorescence antibody technique. Of two hundred and seventy-nine samples examined from both paediatric wards and out patient clinics (Blantyre n=218; Chikwawa n=61), 13 (4.6%) were found to contain oocysts (9 Blantyre (4.1 %); 4 Chikwawa (6.6%)). The number of oocysts per field of view (magnification x400) ranged from +1 to +4. The majority of cases were in children under the age of 12 months (62%), with a number of these suffering persistent diarrhoea. These findings can be compared to the findings of other studies undertaken in African countries.

### **The reintroduction of beavers to Scotland – Gordon Downie**

Scottish Natural Heritage has a proposal for a trial reintroduction of the European Beaver onto Forest Enterprise land at Knapdale in Argyll. An application is being made for an exemption under Section 16(4)c of The Wildlife and Countryside Act 1981 which permits the release of wild animals not normally resident in this country or not a regular visitor under the terms of a licence. This application is at present being considered by the Scottish Executive.

The proposed release has twice been featured on BBC TV Scotland's 'Landward' programme and although the problem of *Giardia lamblia* infection was mentioned it was only raised by a retired vet.

### **The proposed trial reintroduction of European Beaver: The giardia issue – Dr Colin A Galbraith, Chief Scientist/Head of Advisory Services, Scottish Natural Heritage and Dr Martin J Gaywood, Beaver Project Officer, Scottish Natural Heritage,**

The project proposed by Scottish Natural Heritage (SNH) is a trial which will allow an investigation into the ecology of the European beaver *Castor fiber* in the Scottish environment, and the effect of its presence on wildlife and land uses. Rigorous scientific monitoring will be a key element of the trial, including the monitoring of water supplies by Local Authority public health specialists (further details of which are given below). An exit strategy has been built into the project in case it needs to be halted at any stage. It is worth emphasising at the outset that the proposed trial is subject to approval by Scottish Executive. Gordon Downie's article raises a number of interesting points. A Steering Committee, made up of representatives of a number of organisations, drafted the framework for undertaking a trial beaver reintroduction in Scotland. The issue of *Giardia* and other diseases was investigated by a technical sub-group.

### **Industrial slip and fall accidents, can footwear make a difference? by Steve Thorpe, Jon Karnon and Paul Lemon, Human Factors Group, Health and Safety Laboratory, Sheffield**

Slips and falls are the major cause of accidents reported to the UK Health and Safety Executive. They account for 35% of non fatal major injuries (eg, fractures and amputations) and 21% of over-three-day injuries (e.g., sprains, strains and minor fractures). A recent estimate of the costs to the UK of these accidents was £11: per annum. We have recently proposed a holistic risk assessment-based approach as a way of reducing the stubbornly high incidence of these accidents. One element of that approach is footwear. This study shows an informed choice of footwear in a workplace situation can make a significant contribution. The DIN ramp method has been used to identify footwear with good slip resistance in the laboratory. The slip resistant footwear identified has been used in an industrial environment where it has produced significant safety and cost benefits.

### **Canadian Institute of Public Health Inspectors – Environmental Health Review**

#### **A study of the Effects of the Traditional Methods of Preparation and Display of Chinese Style Roast Pig on the Number and Types of Micro-organisms Present on the Roast Pig bought by the Consumer – Mabel Lim**

The Toronto Public Health department (TPH) initiated this study on the microbial safety of Chinese style roast pig to come up with a policy concerning the display of this ready-to-eat meat product for sale. Samples of roast pig were obtained by public health inspectors from 35 food premises selling that kind of meat product in areas frequented by the Chinese community in Toronto in February 2002. Microbial analyses on Aerobic Plate Count (APC), Coliforms, *Escherichia coli*, Total Gram Negative Count (TGNC), *Clostridium perfringens*, *Bacillus cereus*, *Staphylococcus aureus*, *Salmonella* spp. And *Campylobacter* spp. Were performed by the Ministry of Health Laboratory Services (MOHLS). Laboratory findings show that the meat product is free of *Salmonella* and *Campylobacter* when roasted, suggesting that the roasting process has destroyed any pathogens present in the raw meat. The main concern is around post-processing contamination (32.4% of the samples had APCs at or over 105/g; 18.9% of the samples had TGNCs at over 103/g). More stringent equipment cleaning and sanitizing, proper hand washing facilities and practice, and measures to minimize post-purchase abuse of the meat product are called for.



INTERNATIONAL FEDERATION  
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