

# **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

*Courtesy of Frederick P O'Brien, Honorary  
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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**

Apathy and lack of participation have been the ruin of many an organization. The Federation is all too typical in this regard. It is understandable that finances can make it very difficult for some member organizations to participate in Council meetings or World Congresses. However, even when finances are no impediment to participation, apathy and lack of participation still reign supreme. A recent example illustrates this point all too well.

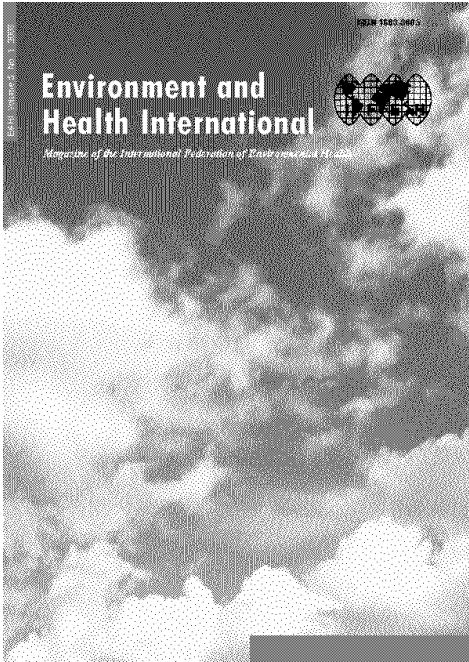
The Federation recently conducted its first open nomination and election process for the position of President Elect. Ballots were sent out for the 74 Council representatives from the 33 member organizations of the Federation, allowing a period of nearly 6 weeks for completion and return. In spite of subsequent reminders to return the ballots by the closing date, ballots were returned from only 38 Council representatives (out of a possible 74), representing only 16 of the 33 members of IFEH. Such a low rate of participation in the Federation's first election is very disappointing, considering that the only expense that would be involved for those casting votes would have been the cost of return postage.

It is this apathy and lack of participation that causes me and other members of the Board great concern. Unless the member organizations are more active in the Federation, the Federation cannot possibly expect to grow and gain recognition and respect as an organization to be consulted by international bodies when they consider issues of environment and health. Nor will the members within our own associations recognize and respect the Federation, with the result that member organizations may well decide not to renew their membership in the future. Once that happens, the apathy and lack of participation will have led to the gradual and inexorable death of IFEH.

To those of you who, for whatever reason, did not cast their ballot, I challenge you to examine the reasons and change them. Perhaps the person who collects mail at your association's address did not pass the ballots on to your Council representatives. This is easily

correctible. Maybe your association's mailing address has changed and you failed to notify the Federation. Also easily correctible. Perhaps you simply didn't take the time to read the ballot papers and make a decision. Whatever the reason, it is within your power to correct it. In the interests of the viability of the Federation as an organization, I urge you to do so. And I also urge you to examine the process by which your organization receives and reviews the agenda and material for Council meetings. Even if your organization's representative cannot be at the meeting, the opportunity to participate through written means is still wide open to you.

On a positive and closing note, the 8<sup>th</sup> World Congress on Environmental Health in Durban (23-27 February 2004) will be an opportune time to participate in both the work of the Federation and the enjoyment that the IFEH brings in the way of education, friendships and networking, and the rare opportunity to visit a new part of the world while being hosted by colleagues who live and work there. I look forward to seeing you in Durban. *Bon voyage!*



**Environment and Health International**  
 Membership of the International Federation of Environmental Health Professionals

**Deadline for submission of articles for next edition of Environmental and Health International is the 5th January 2004**

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## Individual Associate Membership

A British Parliamentarian once stated “Nagging is the repetition of unpalatable truths” and I am pleased to say that the Editor has given me another opportunity to undertake further nagging of readers of this magazine. I have been a bit crafty however in changing the heading so that those who chose not to act on my article in Volume 4 number 2 will start to read this and soon realise the error of their ways!

My last article issued an appeal to readers to consider assisting the Federation by becoming “Sustaining Subscribers”. The concept of a body of sustaining subscribers was first raised by the late Eric Foskett when he persuaded the Council of IFEH to establish a scheme to allow individuals to support the Federation by donating a modest sum of money each year. In return those individuals would learn more about the work of the Federation and would receive periodically publications issued by IFEH.

The scheme was initially very successful and at one time over 100 persons, with an interest in environmental health and who supported the aims of the Federation, contributed to the Federation’s funds. For a number of reasons the scheme withered and in 2000 the Council agreed to re-launch it.

In the first full year (2002) of the new scheme, 30 generous individuals donated GB£15 each and became the first of a new breed of sustaining subscriber. Renewal notices sent out at the start of 2003 have resulted in the same number of donations although they are not the same 30 people!

Through the generosity of these persons the Federation receives a welcome boost to its coffers to the tune of GB£450 but I am sure that there are many more “out there” who would also be able to assist. So this is by way of a plea for you to consider supporting IFEH in the future.

At present we are attempting to attract funds to enable us to set up an office and to employ staff, who would be tasked with the job of improving the service that IFEH gives to its members. At the moment all the work that needs to be done is undertaken by volunteers, most of whom have jobs to do during the day and who can help only

in their spare time. It is the view of the Council that the Federation will never make the impact that we all want it to make, unless it can devote time and energy to achieving its aims. Despite their best efforts, volunteers will never be able to do so.

One of the primary aims of IFEH is to assist those member organisations based in the “developing” countries to make progress in some of the very necessary public & environmental health areas that they face. Clean water and adequate sanitation are but two but with the funds to support staff and projects run by these persons, IFEH could do a lot more.

The Federation is also trying to expand its role and wishes to introduce more twinning links between organisations in different parts of the World. It also is examining facilitating job exchanges, so that an environmental health practitioner is able to work in another country. In this scheme we are enlisting the help of our Academic Associate Members, mainly those in the educational field, such as Universities and Colleges which train such officers.

In an effort to raise additional money from individuals hitherto known as sustaining subscribers, the Council of IFEH has decided to change its constitution to recognize a new name for this form of associate membership specifically for individuals. With the innovative approach that hallmarks IFEH, we have decided to call these persons “Individual Associate Members” (IAMs)! This fits in with the other two forms of associate membership already allowed within IFEH.

It is proposed that this new system should be introduced right away and the 30 persons noted above already bask in the glow of that new title.

Why don’t you join them?

In return for your donation we will send you the IFEH annual report each year and you will also receive a copy of our magazine “Environment & Health International”. We are examining ways of providing a section on our web site ([www.ifeh.org](http://www.ifeh.org)) specifically for IAMs. We are also looking into how we can involve individual members of member organisations more closely in the work of the Federation. Our first idea is

to look into the feasibility of allowing IAMs to attend meetings of the Council and of the four Regional Groups – Africa, the Americas, Europe & the Pacific Rim.

The Federation is also on the lookout for individual environmental health professionals to assist in some of the working groups that are being set up. For instance, IFEH now has official observer status with the Codex Alimentarius Commission and the work that could potentially flow from this involvement could not be done without the help of individuals who are not at present engaged in IFEH work.

The location of our present IAMs makes interesting reading as the following shows: England has 13 supporters followed by Scotland and the USA with 4 each, Norway and Northern Ireland have 2 each and there is one from each of Australia, Canada, Mauritius, New Zealand and the South Pacific.

Since IFEH has no member organisation in either Northern Ireland (which is part of the CIEH's territory) or the South Pacific, it is evident that the persons supporting the IFEH financially through this scheme are located in only 8 countries. The Federation has member organisations based in 34 countries. It would be marvellous if we managed to attract even one Individual Associate Member from each of the remaining 26 countries. The income from the scheme would almost double!

Please give this matter earnest consideration. I can guarantee that you will be doing good in assisting IFEH grow and further enable its aim of "Caring for the Environment in the Interest of World Health".

A form inviting your participation is provided as an insert in this edition of the magazine.



Michael Halls  
HONORARY  
SECRETARY

**Daventry District Council – Iganga Town Council, Uganda Partnership  
By Peter Minhinnett, EHO East Midlands, England. Associate Member IFEH**

Since it started in 1995, the link and partnership between Daventry District Council (DDC) in the United Kingdom and Iganga Town Council in Eastern Uganda has flourished. There is now an NGO 'The Daventry Friends of Iganga' carrying on the good work started by the Council and in Iganga the start of a similar NGO 'The Iganga Friends of Daventry'. A large amount of this work has involved Health Professionals in both Daventry and Uganda and most recently has led to the linking of Ugandan Public Health Officers and East Midlands Environmental Health Officers and also Membership of the IFEH for the Ugandans.

**Environmental Health in the Canadian Arctic**

The Canadian Arctic territory of Nunavut, established on April 1, 1999, is immense. It is as large as Europe and stretches above the tree line across more than two million square kilometers of land, water and ice. Its people, the Inuit, were previously identified by the Algonquin Indian term "Eskimo" meaning "eaters of raw flesh". The Inuit were proud to accept this designation and to identify themselves as practicing the principles arising out of Inuit Qaujimajatuqangit (IQ). IQ encompasses all aspects of traditional Inuit culture, including values, world-view, language, social organization, knowledge, life skills, perceptions and expectations.

Fred O'Brien, Hon. Vice-President of IFEH, moved to Nunavut in May 2003 and will provide an article for E&HI Volume 6 No 1 2004. It will examine and discuss aspects of environmental health science as they relate to Nunavut and should be of interest to an international audience.

Nobody had envisaged in 1996, when a Community based project sent a small minibus to Iganga followed by a second hand refurbished refuse truck in 1998, that the link between the two communities would lead to such a firm partnership and lasting friendships which have now spread into other communities across Uganda.

One of the people involved in the links is Peter Minhinnett who works as a Principal EHO in Daventry. Peter had first worked in Africa back in the seventies as a Public Health Inspector for the Zambian Government. He had been the first PHI working on the Borders of Zambia, Tanzania and Malawi involved in the latter stages of the WHO Smallpox Eradication programme. Now he has been given the chance, some years later, to once again work in Africa by travelling to Iganga and being involved with a European Funded Project assisting with Refuse Collection and Disposal.

Objectives of the Link were:

- the two authorities would work in partnership to share ideas, experience and best practice in order to improve the quality and implementation of local government services;
- to pursue appropriate sustainable development projects and seek assistance from government or international agencies;
- to raise the awareness of life in a different culture amongst local residents and the business community within both communities.

During 1998 a storm water drainage project was funded by the Commonwealth Local Government Forum (CLGF) led by the DDC Engineers Team and with an input by EHO's. Peter and his colleague David Walsh (PEHO) were involved in Health Education linked to the Project. During visits they were able to further their links within the community, make more progress with the earlier Refuse Project and Peter met and made a good friend of Uganda's Chief Environmental Health Officer, Mr Paul Luyima. During an earlier visit meetings had been held with Iganga's Public Health Inspectors with a view to linking them formally with the local branch of the CIEH in the UK. This was formally confirmed later during 2000. It was now hoped with the friendship with Paul to further expand this to the dormant Ugandan Public Health Inspectors Association (UPHIA)

In 2001 with further support from the CLGF a Health project was started and led by the Environmental Health Team at Daventry. Only some 18 months was allowed for this Project, which planned to assist, the town council in expanding and improving its existing health services, introduce training of health personnel into the local community and expand the already excellent health education practices. Iganga Towns Public Health Officer Mr Gwaivu Abdalla was involved in the content of the Project along with Peter and David as were also a new EHO at Daventry Mrs Rachael Hughes and colleague Mr Nick Ravine a Technical Officer. Several visits were made both to Iganga and by Igangans to Daventry. During the visits to Iganga help was given providing new protected water sources, training health workers to further train community workers in health education techniques and introduce improved water sampling and testing procedures by the Igangan health department. At the same time the first meetings were held by Peter and Nick with the officers of the UAPHI with a view to re-establishing its membership and holding meetings once again, which had not occurred for some years.

Back in the UK Peter now involved the East Midland Centre of the CIEH and got their approval at the Centre AGM in February 2003 to a formal link being established between them and the Ugandan PHIA.

At the same time as this link was confirmed, a grant had been obtained from the Association of Commonwealth Universities to fund a 3-month scholarship in the UK for Ugandan Health Assistant Mr Muzamiru Bidondole. He worked for Iganga Town Council and had become a very important part of the link between the two councils. Muzamiru spent his 3 months mainly working at Daventry and attended the East Midlands Centre Regional Conference where he won the hearts of delegates with an unprepared speech about the link and his thanks for receiving the scholarship. At the Conference Muzamiru was presented with a formal signed document setting out the terms of the link between the East Midlands and the UPHIA. But before Muzamiru could return to Iganga, Peter was able to deliver the document in person to Paul Luyima and his colleagues at a meeting in Kampala, Uganda during April 2003. Following this, Membership of the IFEH was completed

for the UPHIA during the summer when the East Midlands Centre paid the subscription to the IFEH for the next 3 years.

At the present time the Link remains strong with a flourishing NGO in Daventry, which has obtained a second refuse truck that is about to be refurbished and it is planned to send to Iganga as soon as possible. There continues to be strong links with Iganga Town Council, Schools, Churches, Women's Groups, a University, an Agricultural College, Youth Groups, Scouts, Guides and a Young Offenders Institution. Donated and collected items for Iganga could already fill two new refuse trucks and plans are in hand to consider using a container to send everything.

A second application is about to be made for a Commonwealth Scholarship hopefully to bring a second Ugandan Health Professional to the UK. This time possibly a new Degree qualified PHI from Kampala who is involved in the UPHIA. If this is successful this person will work with health professionals across the East Midlands who have offered their assistance.

Peter is also hoping that he will be able to encourage the East Midlands Centre to further support the UPHIA and will be wishing to discuss this at next years Centre AGM. He is also hoping to travel to the World Congress in Durban in February where hopefully he will witness the Ugandan PHIA being formerly welcomed to the IFEH.

Clearly the Iganga Town Council and Community have benefited from the link and you may ask what has Daventry obtained from this. The Daventry District Council has benefited from the motivation and commitment of staff with more than 12 staff visiting Iganga, staff personal development and team building, training and a challenge to find technical solutions in a new environment. The external funding obtained and the commitment to LA21 make a difference. The Community of Daventry District has benefited from raising awareness of life in another culture, an added role in the school curriculum, provision of a trial resource pack to assist with teaching lessons, money for provision of a website and overseas links for schools and groups

What are the particular lessons learnt:

Partnership is the key to an appropriate solution, listen and look before suggesting ways forward,

share expertise and experience, do not *tell* - "western" ways are not always the best. Concentrate on core issues, involve the local community, do not rely on one or two 'champions' – give as many people as possible a chance to be involved and visit. Support is needed from both politicians and senior management in both partner authorities. Publicise the work and be proud of it. Adopt a holistic approach to the link both technical and community.



*Muzamiru Bidondole attending East Midlands Regional Conference April 2003 — receiving the formal document confirming the link from Paul Smith Centre President.*



*Peter Minhinnett with officers of UAPHI in Kampala, May 2002.*



*New water source provided to replace a heavily polluted one.*



**Association of Commonwealth Universities - Professional Scholarship**

**By Dr. A.M. Grimason**, Head of Environmental Health, University of Strathclyde, Glasgow, UK (A.M.Grimason@strath.ac.uk)

**Nominee**

Mr. Paul Chunga, District Environmental Health Officer, Chikwawa District Hospital, Malawi, Central Africa has been awarded the first *Association of Commonwealth Universities (ACU) professional scholarship* in Environmental Health. Mr. Chunga was nominated by Dr. Grimason, Head of Environmental Health, University of Strathclyde. The University of Strathclyde and the University of Malawi have been working in close collaboration over a number of years on various environmental and public health research projects. Most of these projects have been undertaken in Chikwawa and Blantyre, Malawi funded through a Department for International Development (DfID) Higher Education Link on Environmental Health. During this time, the Royal Environmental Health Institute of Scotland and the International Federation of Environmental Health have embraced the objectives of this link and have attempted to develop the Environmental Health Officers Association of Malawi.

**The role of the Royal Environmental Health Institute of Scotland (REHIS), the Chartered Institute of Environmental Health for England and Wales (CIEH) & the International Federation of Environmental Health (IFEH).**

The Malawi Ministry of Health in its National Health Plan (1990 - 2004) set a goal of providing quality services to all Malawians. The services are preventive, curative or rehabilitative. In order to achieve good preventive services, Health Inspectors at the Ministry of Health headquarters, initiated the establishment of the Environmental Health Officers' Association of Malawi (EHOAoM). However, in recent years it has been noted that "the Environmental Health profession in Malawi is suffering and losing its professional credibility as a result of the Association's inactivity" (Prof. Kafwe Tembo, University of Malawi, personal

communication). The reasons for this are many e.g. inadequate human and financial resources, poor secretariat management and the premature death of key executive members. This in turn has led to general disappointment amongst the membership at grass root level, especially amongst newly qualified graduates who then decide to leave the profession to pursue a different career after only a few years.

Mr. Chunga is from the Southern Centre of the EHOAoM and has been trying to revitalise the association with the help of the Ministry of Health, the REHIS, the CIEH, the IFEH, the Department of Environmental Health, University of Malawi and University of Strathclyde. Preliminary discussions have taken place between Mr. Tom Bell, Director of Professional Development, REHIS and Mr. Chunga regarding the revitalisation of the profession in Malawi. For the past three years, the UoS & Mr Bell have been actively encouraging the Association, through the office of the Chief Environmental Health Officer of the Ministry of Health Malawi, to re-activate itself but little progress has been made. This scholarship will provide an ideal opportunity for Mr. Chunga to consult with the UK national and international bodies responsible for environmental health to explore potential avenues of income generation to make the EHAoM both viable and sustainable. Mr. Chunga will also learn about the range of Food Safety, Occupational Health and Safety and Environmental Protection accredited courses offered by REHIS & CIEH which are available to the commercial sector. These courses generate significant income for the UK professional bodies, and it is envisaged that similar courses could be instigated in Malawi and overseen by the EHOAoM. Mr. Chunga will also discuss with REHIS & CIEH, the potential for developing a Continuous Professional Development (CPD) programme for Environmental Health Officers in Malawi similar to those in the UK.

In addition, Mr. Chunga will spend time at the following UK organisations (in consultation with the following professionals):

**Scottish Centre for Infection and Environmental Health (Prof. George Morris)**

- National surveillance of communicable diseases and environmental health hazards.

**Scottish Environment Protection Agency (Mr. John Beveridge)**

- Environmental protection and improvement

**Environmental Health Department, South Lanarkshire Council (Mr. Rob Howe)**

- Environmental health policies through monitoring and control activities.

**Water for Kids Charity, UK (Mr. Stewart Petrie)**

- To discuss instigation of a safe water and sanitation projects in Malawi

**Scottish Parasite Diagnostic Laboratory (Prof. Huw Smith)**

- Standard methods for the detection of protozoan and metazoan parasites in water and water-related samples.

**The Commonwealth Scholarship Commission In The UK**

The Commission was set up under the Commonwealth Scholarship Act 1959, as the body responsible for the United Kingdom's participation in the Commonwealth Scholarship and Fellowship Plan, itself established in 1959. The Plan was designed as a system of awards to men and women from all Commonwealth countries chosen for their high intellectual promise and their capacity to return to make a significant contribution to life in their own countries. One of its guiding principles is that it be based upon mutual co-operation and the sharing of educational experience among all countries of the Commonwealth. Funds for awards tenable in the United Kingdom come from two Government Sources: the Foreign and Commonwealth Office, which provides an annual budget of around £2 million to support scholars from Canada, Australia and New Zealand; and the Department for International Development which provides an annual budget of some £10 million to support award holders from the remainder of the Commonwealth. As well as General Scholarships, the Commission also administers Academic Staff Scholarships, Commonwealth Academic Fellowships, Split-Site Doctoral Scholarships, Scholarships by

Distance Learning, Professional Fellowships and the DfID Shared Scholarship Scheme. More information on all of these schemes, and also on the work of the Commission (including Annual Reports and Events information) can be found on the UK page of the recently launched international CSFP website, at <http://www.csfp-online.org/hostcountries/uk/>.

**ACU Professional Fellowships.**

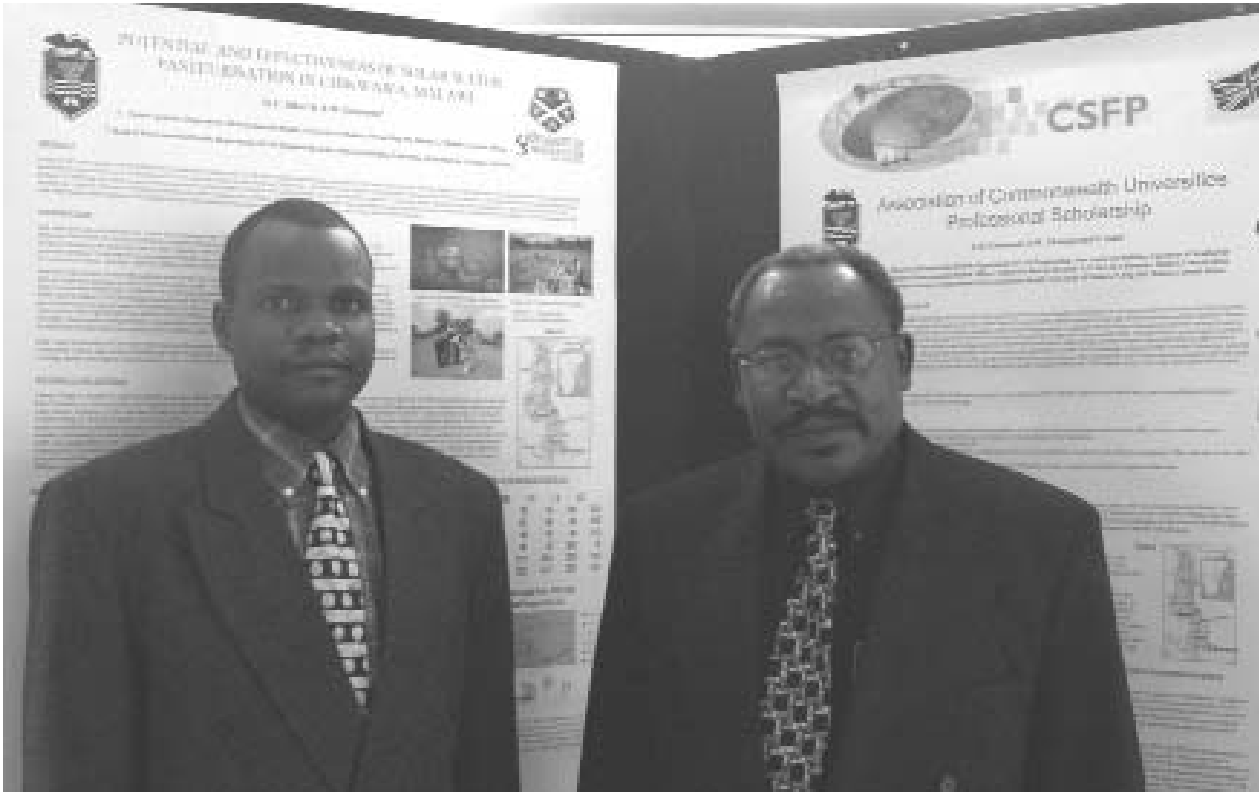
The Professional Fellowship Programme seeks to enhance the skills of mid-career practitioners in developing countries. Priority is given to visits which have a practical application in the areas of education, engineering, environment, governance, public health and technology.

Key features of the programme:

- Applications must be made by organisations based in the United Kingdom which have the capacity to host fellows. Host organisations can be from the public, private or voluntary sectors
- Applications should be on behalf of named individuals. Each host organisation can nominate up to six individuals in their application.
- Applications must contain the details of the programme to be followed in the UK.
- Awards cover living costs of Fellows whilst in the UK, return airfares to the UK, an allowance for travel and a contribution towards the costs of the host organisation. Other costs may be met subject to individual approval.
- Fellows can be drawn from any sector, but must not hold a full-time academic appointment as the Commission operates a separate competition for academic fellowships

**Conclusion**

In Malawi, very little opportunity exists for practising Environmental Health Officers to be seconded abroad for professional training and development. Those EHOs that are successful at obtaining scholarships usually work for international Non-Governmental Organisations or scholarships are restricted to Medical Officers of Health within the Ministry of Health or



*Pictured above are Mr. Paul Chunga (left) and Mr. George Jabu (University of Malawi) at the CIEH Conference, Belfast, September 2003.*

ENVIRONMENTAL NEWS FROM THE UNITED KINGDOM ON EARTHWIRE

academics at the University of Malawi. It is highly unusual that a government official at District Environmental Health Officer level is successful and offered such an opportunity, despite the fact that he/she may be best person to benefit from the training programme. Here I report the successful nomination of Mr. Paul Chunga, District EHO in Chikwawa, Malawi for an ACU professional scholarship. This is the first ACU scholarship to be awarded to a practicing Environmental Health Officer from a commonwealth country and hopefully will not be the last.

#### **Acknowledgement**

The support of the above organisations and institutes, especially REHIS, CIEH, IFEH and South Lanarkshire Council is acknowledged.

#### **Environmental News from the United Kingdom on EarthWire**

EarthWire/UK is a new edition to the three existing EarthWire environmental news sites. Updated daily, the site features relevant environment stories sorted by area, topic and date. A search engine allows users to harvest archive stories. EarthWire/UK is a joint initiative between UNEP/GRID-Arendal and the

International Institute for Environment and Development (IIED).

EarthWire/UK gives you a free daily overview of environmental news from the United Kingdom.

Every working day, a team from the International Institute for Environment and Development (IIED) reviews national, regional and local media sources for environment and sustainable development-related news stories. Relevant stories are included in EarthWire/UK where they can be viewed by country, topic, or time period. A search engine allows users to search for issues and keywords in the archive. Press releases and news from research organisations, the public sector, and environmental organisations are included as well. EarthWire/UK is a joint initiative between UNEP/GRID-Arendal in Norway and IIED in the United Kingdom.

EarthWire is used by government officials as a briefing on the day's environmental news, journalists following hot issues, students and researchers looking for current information on the state of the environment, and by anyone interested in current events and the environment. EarthWire/UK covers media sources from

England, Northern Ireland, Scotland, and Wales. It is the fifth in a series of regional news services, the first of which was EarthWire/Norway. There is also a special edition of EarthWire for the World Summit on Sustainable Development. EarthWire/WSSD, partly financed by the Norwegian Ministry of Environment, is a joint initiative by GRID-Arendal and the South African Department of Environmental Affairs and Tourism. In 2002, we started EarthWire/Serbia, in the Serbian language, as well.

#### *EarthWire by Email*

With EarthWire's email feed, you can get environmental news from UK, Norway, Serbia, and southern Africa emailed to you every day. The email service is free and allows you to choose whether you would like to get all news compiled for our EarthWire editions, or only news related to specified environmental topics or regions we cover. Registering for EarthWire by Email is simple, and we pledge to protect your privacy.

For more information, please contact Lars Haltbrekken at UNEP/GRID-Arendal, or Vanessa Mcleod at IIED.

The **International Institute for Environment and Development (IIED)** is an independent, non-profit research institute working in the field of sustainable development. IIED aims to provide expertise and leadership in researching and achieving sustainable development at local, national, regional and global levels. In alliance with others we seek to help shape a future that ends global poverty and delivers and sustains efficient and equitable management of the world's natural resources.

**GRID-Arendal** is a United Nations Environment Programme (UNEP) centre with headquarters in southern Norway. GRID-Arendal is UNEP's key polar centre, and also supports UNEP's global mission with capabilities in environmental information management, regional and thematic assessments, communications, and capacity building. A prime focus for GRID-Arendal is to make credible, science-based knowledge available and understandable to both the general public and decision makers.

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### **A brief report on the Intergovernmental Meeting on Children's Environment and Health by Kia Regner Past President IFEH and Ann Thuvander, National Board of Health and Welfare in Sweden**

In June of this year representatives from 46 countries gathered together in Stockholm, Sweden, to discuss children's environment and health.

The meeting focussed on the World Health Organisation's action plan for Children's Environment and Health in Europe CEHAPE, which is currently being developed. This action plan is meant to be a framework and support for the countries in their national work to ensure children's right to a safe environment and good health. The CEHAPE is to be adopted at the Ministerial Conference for environment and health, which will take place in Budapest, Hungary, June 23-25 2004. The theme of the conference is "*The future of our children*".

Delegates from the EU Commission and other intergovernmental organisation's (IGOs), as well as nongovernmental organisations (NGO's), were also present at the meeting in Stockholm. The meeting was arranged by the Swedish government following an invitation from WHO and the European Environment and Health Committee (EEHC). This committee was set up after the previous ministerial conference, London'99, and has representatives of IGOs and NGOs from different countries. IFEH represents environmental health professionals on the EEHC. Its main function is to keep the environment and health process for Europe going and to prepare for the next ministerial conference.

The Swedish Minister for Public Health, who stressed the risks that children are subject to, not least traffic accidents, opened the Stockholm meeting. In the wealthier parts of the world, traffic accidents are the most frequent cause of death among children between 5 and 14 years of age. This is something that should be possible to avoid and should be given high priority in the CEHAPE work according to the minister.

After the initial presentations there was a report by WHO presenting recent findings regarding the state of the environment and health in Europe – primarily in the newly emerging states



– that will be a background document for the development of the CEHAPE. Another study presented was an evaluation of WHO's work to organise ministerial conferences and set targets for environment and health and to what extent this work has influenced the different countries. There was also a report about the national implementation of the decision taken by the ministers at London'99.

### CEHAPE

The main theme of the meeting - Children's Environmental Health Action Plan for Europe – was discussed in detail and in the main was received very favourably by the delegates. WHO presented a document describing the special vulnerability of children in relation to environmental factors and also presented a first draft proposal for actions to be taken at national level. The aim of this document is to facilitate national prioritising and be a framework for nationally adapted and adopted action plans. Considering the very diverse socio-economic situation in the different countries it seems a reasonable way of handling these issues. It would hardly be realistic to bring out an action plan that would suit all countries. A possibly critical issue for the ministers to agree on in Budapest will be to what extent they will have to promise to develop and implement national action plans. A tentative discussion was also held on the actual phrasing of the ministerial declaration to be signed in Budapest. The general feeling was that it must be rather short and to the point. The first draft presented by WHO was generally well received. Further deliberations and negotiations will take place during the coming year.

### Indicators for environmental health.

The second big issue at the meeting was an indicator system for environmental health developed by WHO in co-operation with the European Environmental Agency (EEA). A pilot study has taken place in several countries where the indicators have been tested and a computer program – EuroIndy – has been developed. The IFEH project on Sustainable Indicators should also be an input to this work.

This project was also supported, and during the discussions it was emphasised that it is necessary to co-ordinate different international indicator systems and to make sure that

reporting is made useful and understandable for all involved parties.

### The Precautionary Principle

There was also a brief discussion on the Precautionary Principle and its use, with a short WHO report as a background document. This is a rather sensitive subject for many countries and the discussion was rather circumstantial but on the whole gave a positive response to developing this further

In some countries, such as Sweden, the obligation to use the Precautionary Principle is part of the environmental legislation and thus it is felt to be a natural component in environmental work. However in countries where this principle has not yet been adopted this topic might be a positive step forward towards more preventive thinking and action.

### Next steps towards Budapest

Non Governmental Organisations and other Major Groups participated in the meeting and were generally accepted as important partners and were invited to participate in the future activities. An important element at London'99 was a parallel conference called the Healthy Planet Forum, where IFEH was one of the actively involved major groups. It is hoped that a similar event will be organised in Budapest.

In conjunction with the Stockholm meeting representatives from these major groups gathered again and drew up the first draft plans for future joint work towards Budapest. IFEH participates in this process. Our experience and expertise as environmental health professionals is important.

Information about the Budapest Conference is available at [www.euro.who.int/budapest2004](http://www.euro.who.int/budapest2004)

The Commissioner for the Environment, Margot Wallstrom, made a brief but very much appreciated appearance at the meeting. In her speech she linked together environment and health, the EU 6<sup>th</sup> Environment Action Program and the recently adopted EU Environment and Health Strategy. Those were certainly very welcome words, especially for an Environment and Health Protection Professional of long standing.



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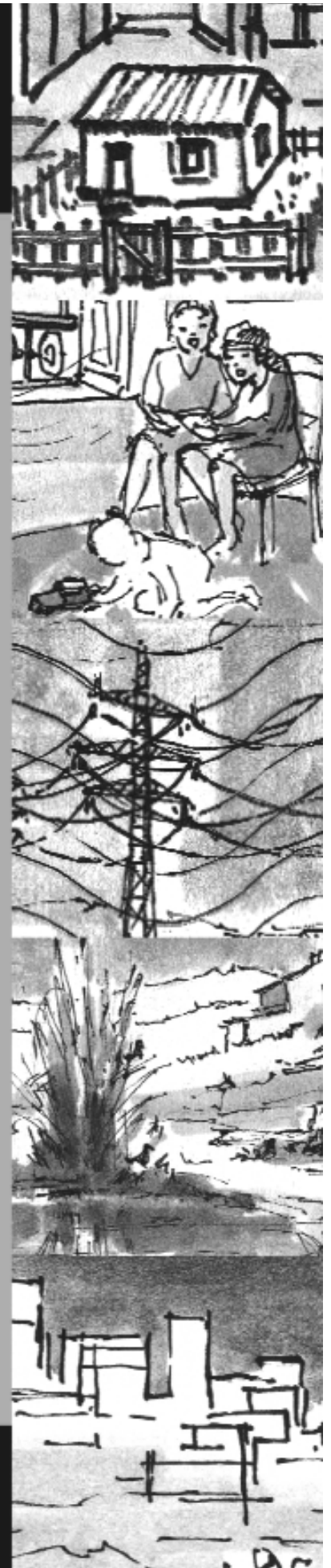
# WHO Environmental Health Pamphlets

The World Health Organisation needs no introduction – barely a day goes by when the famous WHO initials are not in the papers. Yet you may not be aware that you can take advantage of their international expertise.

If you want to increase your knowledge of the issues facing the environmental health profession today in order to facilitate better training – the WHO pamphlets are essential reading.

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**SCALE / EU Commission's Environment and Health Strategy (SCALE: Science, Children, Awareness, Legislation, and Evaluation) by Kia Regner Past President IFEH and Ann Thuvander, National Board of Health and Welfare in Sweden**

During the Stockholm meeting EU Commissioner Margot Wallstrom presented the Strategy that the Commission adopted on June 11, 2003. The need for this strategy is obvious – in the big cities of Europe it is estimated that some 60.000 deaths annually occur due to environmental factors. Children are more vulnerable than grown-ups; every 7th child suffers from asthma, which has significantly increased during the last 30 years. That is why issues concerning environment and health are high on the Community agenda at present. The commissioners for the Environment develop the strategy jointly, for Research and for Public Health. Most vulnerable groups especially children are given high priority.

The Strategy has the following five parts:

- It is to be based on *science* in a broad perspective e.g. the interface between different risks.
- It is to focus on *children* since they are very exposed to environmental risks.
- Awareness* about environmental health problems and how these can be solved is to be raised.
- Legislation* is to be revised considering the situation and needs of children.
- All activities are to be *evaluated* continuously..

Four health effects are to be prioritised during the initial part of the implementation of the Strategy: Children's asthma and allergies, neurodevelopmental disorders, children's cancer and endocrine disruptures. Indicators are to be developed jointly by WHO and the member countries.

The Commission intends to present an action plan for the year 2004 – 2010 during next spring and this action plan will also be part of the Ministerial Conference on Environment and Health for Europe in Budapest in June 2004.

Actions that are to be part of this plan are to be based on consultations with experts and actors in the field of environment, health and research which will take place during the last part of 2003 and the initial part of 2004. IFEH has been invited to participate in this process. Information about the EU Environment and Health Strategy is available at [http://europa.eu.int/comm/environment/health/index\\_en.htm](http://europa.eu.int/comm/environment/health/index_en.htm)

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**What are the benefits of international co-operation for us as members of IFEH and as environmental health professionals? by Kia Regner Past President IFEH and Ann Thuvander, National Board of Health and Welfare in Sweden**

The link to international agreements is not always obvious or explicit even for us, who to a large degree, are employed to implement these decisions and transfer them into practical actions. When international decisions reach the national /regional/local level in the form of new or changed legislation or recommendations the background is mostly lost. It is especially difficult to follow international processes that can go on for years without any visible result and then a long time later become part of our legislation and our daily life. It is extremely important to try to make an input, based on the experiences from practical implementation and closeness to the general public concerned in the early stages of these processes This is one reason why IFEH actively tries to influence and participate in different projects and investigations.

The EU Strategy will certainly lead to more work at national level since there will be several meetings to develop and follow up the strategy.



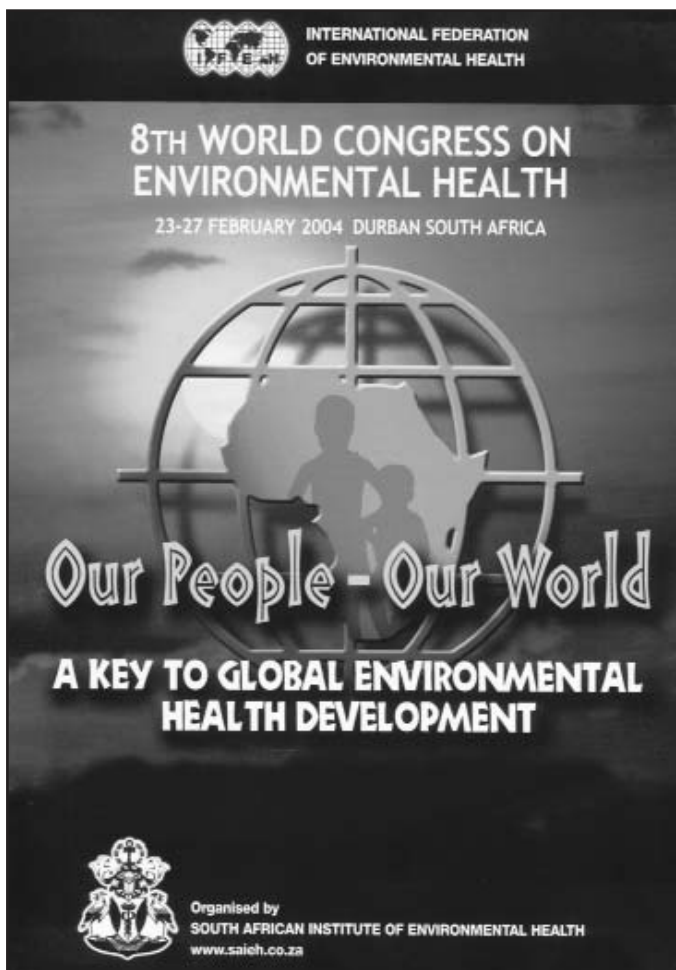
When the action plan has been adopted in 2004 a joint development phase will probably go on for several years and possibly in the end lead to joint legislation in the area of environmental health.

We are already faced with a broad request to gather information and data to be sifted through the national level and sent on to different international reports and evaluations. The EU Strategy on Environment and Health and also the result of the Budapest ministerial conference will eventually lead to an increased demand for further data collection in order to report on the international indicators. This is work that will probably involve all levels in the environmental health field. The co-ordination of international and national systems is important but it is also important that we get feed-back to use in our work as well. The indicators and the practical systems for data gathering are of course of paramount interest for us who are to contribute to these systems.

Hopefully these international agreements will

also increase the political interest in environmental health issues, which might lead to more resources and additional research. Research and especially applied research in environmental health has long been an area where a lot is lacking. This should also lead to an increased demand for special training and competence in environmental health. Basic and continued training of environmental health professionals is also an area where a lot more can and should be done. Within the EU-project IMPEL (Implementation and Enforcement of Environmental legislation) a lot has been done to compare professional training and methods and minimum criteria for inspections. Similar work should be done in the field of environmental health.

The professional network that IFEH provides is of great help when trying to understand, implement and develop environmental health methods and activities.



*Second  
announcement  
and registration  
available from  
[www.ifeh.org](http://www.ifeh.org).*

*This also includes  
the preliminary  
programme*



## **CIEH Journal of Environmental Health Research**

**Full electronic journal is available at  
[www.jehr-online.com](http://www.jehr-online.com)**

**Volume 2 - Issue 1 - 2003**

### **Aims and Scope**

The Journal of Environmental Health Research is a peer reviewed journal published in three formats: printed full journal, printed abstracts and electronic journal. The journal publishes original research papers, review articles, technical notes and professional evaluations covering the diverse range of topics which impinge on environmental health including: occupational health and safety, environmental protection, health promotion, housing and health, public health and epidemiology, environmental health education, food safety, environmental health management and policy, environmental health law and practice, sustainability and methodological issues arising from the design and conduct of studies.

The journal provides a communications link between the diverse research communities, practitioners and managers in the field of environmental health and aims to promote research and knowledge awareness of practice-based issues and to highlight the importance of continuing research in environmental health issues.

All CIEH members and other subscribers have full access to the electronic version of JEHR at [www.jehr-online.org](http://www.jehr-online.org).

Editorial correspondence: papers for publication, letters and comments on the content of the journal and suggestions for book reviews should be sent to the editors by email to [JEHR@lycos.co.uk](mailto:JEHR@lycos.co.uk) or [hd.harvey@ulster.ac.uk](mailto:hd.harvey@ulster.ac.uk).

Details regarding the preparation and submission of papers can be found at [www.jehr-online.org](http://www.jehr-online.org)

### **Editorial**

The publication of the third issue of the Journal of Environmental Health Research has more than ever convinced the editorial team of the

need for capacity building in the reporting of environmental health research. We have undertaken an extensive call for papers and have found that while much good work is being undertaken, relatively little of it is being disseminated at present. This brings into sharp relief a number of issues.

We need to ask why reporting of research is not a priority. In many cases, research is undertaken to pass an academic qualification. The immediacy and relief of finishing the project can lessen the enthusiasm to share findings with the wider professional world. Often those who undertake needs assessments and evaluations as part of their professional role are not given time to disseminate often interesting and important findings. In the academic world, the pressures of teaching and administration can militate against publication.

No matter what the inhibiting factors, we are losing the opportunity to enrich the environmental health profession as a whole and strengthen the evidence base from which we work. Therefore, to assist the large numbers of people who are undertaking research, but who are relatively new to the world of academic and professional publication, we have included a paper in this issue entitled '*Writing for JEHR and other peer reviewed journals*'. The aim of this paper is to contribute to the capacity building process which seeks to reinforce the evidence-based practice approach to professional activity which we hope will yield a crop of interesting and informative publications.

The substantive academic papers, which encouragingly have been written by both academics and field-based practitioners, cover an eclectic range of issues from food safety, home maintenance and waste management to health and safety systems in small business. These display a range of research designs and strategies from biochemical environmental monitoring to desk-based research into policy. This range of strategies also contributes to the capacity building agenda in that they demonstrate the wide range of endeavour which bears reporting.

The inclusion of the progress reports on CIEH supported research reminds us of the important contribution being made by the Institute to capacity building through research funding. It is

one of the functions of this journal to help practitioners to build up a publishing record which will assist them in the often difficult task of obtaining research funding.

We hope that this and subsequent issues of the Journal will play a part in developing the research culture in environmental health.

Paul Fleming and Harold Harvey

### **Performance assessment in local authority food safety services.**

**Charlotte Yapp and Robyn Fairman**  
**Division of Life Sciences, Kings College**  
**London**

Performance assessment has traditionally been a management tool used by private sector businesses to assess their quality, efficiency and effectiveness based on a range of different input and output indicators. Such approaches are being integrated into public services to allow an assessment of the quality of service to be made.

This paper critically examines assessment measures currently in place to evaluate local authority food safety services in England and Wales: 'Best Value', Audit Commission, the Communicable Disease Surveillance Centre (CDSC) data and the Food Standards Agency monitoring data. It concludes that these are biased towards the use of 'efficiency' indicators and that measurement of 'effectiveness' and 'quality' of services is limited.

The use of alternative criteria is examined, including food poisoning data collected by the CDSC and food safety inspection rating scheme data that are collected by all local authorities. Current food poisoning statistics allow the identification of unusually high or low numbers of cases within particular regions of England and Wales. However, there are difficulties in tracing the source of food poisoning cases, as well as issues relating to over/under reporting within different areas of the country. Thus, while such statistics offer an important indicator of general food poisoning activity within the nine general regions of the country, they are of

limited use in identifying the effectiveness of specific local authority services in improving standards of food hygiene within food businesses.

Extending the Food Standards Agency's existing use of food hygiene inspection rating scheme (outlined in Code of Practice 9) could enable evaluation of service effectiveness. Data for individual food premises could be analysed to identify their compliance levels, both over time, and with premises in other local authority districts. If analysed in conjunction with details of enforcement and educational initiatives, it would allow local authorities to assess the performance of their strategies by their effect on inspection rating scores. The shortcomings in the use of such data are acknowledged:

- the difficulties in applying a quantitative rating scheme in the assessment of risk within a food business;
- the difficulties in accessing inspection rating scheme data within local authorities; and
- the difficulties in interpreting statistical analyses of inspection rating data.

In addition, extending the use of performance indicators based on the inspection rating scheme may not be possible until the current review of the statutory guidance is completed. If the inspection rating scheme is altered, it may be several years before local authorities are able to analyse the true effectiveness of their service. At this time, inspection rating scheme data may offer a true assessment of service quality to be made.

### **Encouraging home-owners to maintain their homes: Initiatives in the Bellenden Renewal Area, Peckham.**

**Jill Stewart**  
**School of Health and Social Care, University of Greenwich**

With declining capital grant expenditure and ageing and deteriorating UK private sector housing conditions, policy makers at national and local level are charged with finding new ways forward in encouraging home-owners to maintain their homes before they fall into

disrepair. This is more economical to both home-owners and the state. However, the situation is complicated by a culture that seems to lack initiative to invest in home maintenance. This is for a variety of reasons, which include rapidly rising house-prices, often regardless of condition in some areas, and the inability of low income home-owners to be able to afford, or in some cases, to understand, the importance of regular maintenance. This paper explores literature relating to the history of housing grants, existing home maintenance initiatives and new requirements under The Regulatory Reform (Housing Assistance) (England and Wales) Order 2002 and supporting Renewal Guidance (ODPM, 2002). It then turns to overview how officers in the Bellenden Renewal Area are and will be seeking innovative new ways of encouraging home-owners themselves to sustainably invest in their homes as housing expenditure moves away from public provision.

**Safety Management in Small Businesses:  
promoting good practice in SME's**

**Susan Lammin**  
**Head of Environmental Protection, Rutland  
County Council**

In June 2000 the Government launched a strategy aimed at 'Revitalising Health and Safety'. Two years on, at a conference in May 2002, the Local Government Minister admitted that involving SME's in the strategy process was proving a "challenging" task. He acknowledged that the daily survival pressures on small companies "can often mean health and safety being quietly relegated to the backburner and forgotten about".

This paper reports on the findings from four years' field-research. The crux of the study was the investigation of how safety is managed in small businesses. The research considered how management in micro and small organisations differed from the approaches championed by large employers. The concern was that what is good practice for some businesses might not transpose to others which differ in numbers of employees, managerial complexity and access to information and advice. The study was based on a multi-method research design utilising case studies which included a

postal survey and focus groups. The aim of the study was to identify how control and management of change for safety improvements were effected in small businesses and highlight where there was good practice which could, in full or part, be transferable to other SMEs. The case studies were therefore not intended merely to provide an accounting of how many small firms were under-performing, or performing well.

The study revealed four key elements to successful hazard identification and acknowledgement: formal training, experience or awareness of industry norms to facilitate the identification of hazards; regular and thorough workplace inspections and checks; reviews of accident/incident reports for causality; and regular 'intelligence' or feedback from informed staff. Where one, or more, of these elements was lacking the 'safety performance' was found to be worse than where all elements formed part of regular managerial processes.

**Characterization of leachates from a  
municipal solid waste landfill site in Ibadan,  
Nigeria**

**OO Aluko, MKC Sridhar, PA Oluwande**  
**Division of Environmental Health,**  
**Department of Epidemiology, Medical**  
**Statistics and Environmental Health, Faculty**  
**of Public Health, College of Medicine,**  
**University of Ibadan, Nigeria.**

Leachates have been implicated in environmental pollution, developmental anomalies, birth defects, surface and groundwater pollution world-wide. The knowledge of the quantity and composition of leachates usually gives an insight into appropriate, effective and sustainable treatment approach. Hence, the study documented the physical, chemical and trace metals characteristics of leachates from the major repository of municipal solid wastes in Ibadan.

The study was descriptive and analytical in design aimed at documenting the quality of leachates with the intention of designing a cost effective treatment method. Integrated samples of leachates were collected during wet and dry periods and analysed for pH, Suspended Solids (SS), Biochemical Oxygen Demand (BOD),

Chemical Oxygen Demand (COD), Ammonia, Nitrate Phosphate, Sulphate and trace metals among others. Leachates were alkaline and amber in appearance.

Analyses of samples revealed variation during wet and dry periods, respectively in turbidity (83.4 and 139 Formazin Turbidity Units (FTU)), SS (213.6 and 148 mg/l), BOD (990.6 and 675.0 mg/l). Mean concentrations of SS (176.9 mg/l), BOD (795.8 mg/l) and nitrogen (885.1 mg/l) mainly as ammonia were high and prevailed in leachate samples. Nitrate (0.58 mg/l), phosphate (2.2 mg/l) and sulphate (84.9 mg/l) values were within acceptable limits recommended by regulatory bodies in Nigeria. Iron predominates and total metals concentration (175.8 mg/l) exceeded the regulatory limit of 3 mg/l. The ratio of BOD/COD ranged from 0.11 – 0.40. Therefore, physicochemical and/or biological methods of treatment are required to treat leachates before they are discharged into the environment at the dumpsite to either eliminate, or drastically reduce, the short term and long term detrimental effects on ecology, public health and the environment.

#### **Writing for JEHR and other peer reviewed journals**

**Harold D Harvey and Paul Fleming**  
**Editors, Journal of Environmental Health Research**

This paper sets out the fundamentals of the peer review publication process, with particular emphasis on writing for JEHR. It is intended to encourage and advise a range of potential authors including those who wish to convert an academic dissertation into a journal paper (original research paper); environmental health and other professionals who have evaluated a professional practice issue and wish to write it up for JEHR (professional evaluation); and subject experts who wish to undertake a detailed review of the literature (review articles). The reasons for investing the time and effort to get published are examined and the benefits to the individual and the profession explored. In the main, though, the paper concentrates on the practicalities of constructing a paper for submission to the rigours of the peer review process. Advice is given on how to avoid

disappointment at the first hurdle by selecting the right journal based on the published aims and scope. How to meet the challenge of converting a 20,000 or more word dissertation into a 6,000 word paper is addressed; compared with a dissertation, a journal paper requires more focus and precision in the 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. The importance of constructing a paper precisely in accordance with the instructions for authors of the target journal is emphasised and practical advice given on the development of each part of the paper - Title, Abstract, Author(s) Introduction, Method, Results, Discussion, Conclusions and References.

*Has your organisation  
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 papers or position  
 statements?*

*If so, please send a copy  
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 producing something  
 similar.*

#### **BIBLIOGRAPHY OF ARTICLES APPEARING IN IFEH MEMBER MAGAZINES**

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Hon. Editor John Stirling  
[J.Stirling@btinternet.com](mailto:J.Stirling@btinternet.com)

11 Muirwood Drive, Currie, Edinburgh,



Scotland EH14 5EZ

**New Zealand Journal of Environmental Health**

**Update on California's New Indoor Fungal Laws – Will there be standards soon? – Sandra V McNeel, DVM, California Department of Health Services, Environmental Health Investigations Branch**  
Dampness and indoor fungal growth are common in tropical climates the prevalence of mold and water damage in buildings is typically 23.79%, while even in cold regions such as the Nordic countries dampness has been identified in 4- 75% of buildings studied (Platt et al. 1989, Jaakkola et al. 1993, Husman 1999, Bornehag et al. 2001). Five interacting factors appear to be driving the increasing public demand for mold-related information, guidance and development of enforcement standards

**Toxic Fungi in Water Damaged Buildings – Dr Nick Waipara (Landcare Research), Dr Denis Lauren and Dr Janine Cooney (HortResearch), Dr Margaret DiMenna (AgResearch) and Dr Iona Weir (Biodiscovery)**

Preliminary study results into fungi in water damaged building materials show that there could be a link between toxic fungi and occupant health in New Zealand's homes. Regulating Genetically Modified (GM) Foods in Australia and New Zealand – Dr Paul J Brent, Manager, Biotechnology Product Standards, Australia New Zealand Food Authority

National food standards in Australia build on the level of food safety that is generally accepted by the community. An explicitly cautious approach is applied in cases where there is no established history of safe human consumption, as is the case for foods produced using gene technology. Novel foods, including genetically modified (GM) foods, must undergo a mandatory pre-market safety assessment. The approach used in Australia and New Zealand to assess the safety of foods produced using gene technology draws on concepts and principles that have been developed internationally.

**Chemicals and Microbes in Food – Is it Safe to Eat? – Professor Ian Shaw Consultant Toxicologist (ishaw@xtra.co.nz)**

Everybody wants good, clean, uncontaminated food. But we also want a plentiful food supply. The latter means that pesticides, veterinary medicines, preservatives and processing are unavoidable. All of these leave contaminants of chemicals (e.g. pesticides) or microbes. We must balance the benefits of food against the risks associated with production and decide what is acceptable. This is a complex process because one person's acceptability criteria are not necessarily accepted by others. So we assess risks based on exposure to food contaminants in order to help regulate a safe food supply.

**Cross Contamination by Campylobacter and Salmonella via Tongs During the Cooking of Chicken – J Andrew Hudson, Rosmary Whyte, Barry Armstrong and Lauren Magee**

Observations made by Health Protection Officers and Environmental Health Officers in food businesses preparing chicken dishes revealed that, on occasion, the same set of tongs was used to turn a chicken portion during cooking and to transfer the portion to a serving plate afterwards. This raised the possibility of cross contamination from raw chicken to tongs to cooked chicken during this process. Thirty chicken samples were inoculated with Salmonella and Campylobacter, cooked with one turn using a pair of sterile tongs and transferred to a sterile surface with the same tongs after cooking. Both tongs and cooked chicken were tested for the pathogens. Individual pathogens were found on between 23.2 and 40.0 of the cooked chicken or tongs tested. Of the cooked chicken samples, 46.7 were found to be contaminated with either Salmonella or Campylobacter. This cooking practice clearly resulted in significant cross contamination. Separate tongs need to be used, or the tongs decontaminated prior to touching the cooked food.

**Environmental Health Journal CIEH**

**As Clear as Mud – Roger Braithwaite**  
Roger Braithwaite says he is 'exasperated' by the 'intolerable' position the Government has placed local authorities in when it comes to enforcing the contaminated land regime. Here he

says why...

### **Unlock the Potential – David Walton**

David Walton talks to EHJ about the need for sustainable development awareness training in schools and businesses

### **Keeping the Cogs Oiled – Nick Warburton**

Nick Warburton talks to a number of environmental health practitioners that are actively working in the field of health protection.

### **Dealing with a Disaster – Nick Warburton**

Nick Warburton looks at recent developments in emergency planning and response, and the challenges UK local authorities may face in leading the recovery process.

### **Fallen Stock – Which Way Now? – Tracey Khanna**

New European Legislation that bans the routine on-farm burning of animal carcasses was introduced on 1 May 2003. Tracey Khanna looks at the implications

### **Time to Switch from Certification to Competency? – Euan MacAuslan**

Euan MacAuslan argues that food hygiene training that culminates in certification for the candidate is no demonstration of competency. Here he offers some ideas for change.

### **Crime and Grime – Sue Blakeley**

Reports suggest that the majority of people are more concerned with litter, noise, graffiti, fly-tipping and dog fouling than issues such as food hygiene. If fighting environmental crime is the new challenge for environmental health, the author looks at some options for achieving cleaner and safer public places.

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

### **Public Health Issues Related to the Treatment of Private Surface Water Supplies – Richard Ovcharovich, BAACPHI(C)**

It is unbelievable that in some rural areas of Canada people are still consuming surface water

without adequate treatment and in some cases with no treatment at all.

### **Preliminary Water Quality Study of Kaszon Performed by: “Alcsik” Microregional Development Association – Drew Thurman, Environmental Protection Consultant, Peace Coros Volunteer**

The mayor's office of Kaszon asked Drew Thurman, through Alcsik Microregional Development Association (AMDA) to consult with their office concerning the water quality of their commune. The mayor's office, an observant local doctor, and other concerned citizens were interested in documenting aspects of Kaszon's poor drinking water quality. AMDA is a non-profit and Non-Governmental Organization (NGO) which works within the Alcsik microregion in order to promote development of all types, promote environmental protection, and to assist all communities included therein. The author visited the community in order to conduct a review of existing water quality documentation, to meet with a local doctor concerned about poor drinking water quality in the villages, and to administer a field test for nitrate drinking water contamination. The following report is documentation of the results of this exercise.

### **Risk Evaluation of Arsenic exposure in Playgrounds – Nelson Fok, MSc, CPHI(C), Associate Director Environmental Health, Capital Health Edmonton, Alberta**

It can be concluded that the low-level exposures to arsenic that most consumers will encounter from exposure to CCA-wood are not expected to result in immediate or acute effects.

### **Waste Mercury in Dentistry: The Need for Management – Gena Van Boom, G Mark Richardson and Luke J Trip**

Dental amalgam is 50% mercury(Hg) by weight and its continued use as the preferred dental restorative material in Canada constitutes a significant source of Hg to municipal sewers and ultimately to the environment. The recent CCME Canada Wide Standard on Hg for Dental Amalgam Waste provides a national basis for managing the Hg-containing wastes from dental clinics and ultimately reducing what is currently considered to be the single largest source of Hg to municipal sewers. This paper briefly reviews the

background and rationale that lead to the need for and ratification of that Canada Wide Standard.

### **Environmental Health Scotland REHIS**

#### **Contaminated Land – Just an Environmental Health Issue? – Nicola Paton**

The author provides a flavour of the contaminated land related duties carried out within the Environmental health section of the Scottish Local Authority The Moray Council and gives an indication of the level of co-operation which has been required.

#### **Smoking in Licensed Premises: the Health and safety Viewpoint – Keith McNamara**

Passive smoking is a health issue which is at last gaining momentum. The author presents the viewpoint of the local authority officer with regulatory control for health and safety in the workplace.

#### **Planning for Air Quality management – C I Beattie, J W S Longhurst and N K Woodfield**

Although air quality has improved dramatically since the smogs of the 1950s, which prompted the Clean Air Acts and concerted action to clean up domestic and industrial chimneys, pollution problems still remain. In order to tackle contemporary air pollution problems from sources such as motor vehicles, industry and domestic coal burning, the system of Local Air Quality Management (LAQM) was introduced. LAQM represents a new direction for air quality control, building on the existing technology-based controls by adding on an effects-based risk management approach (Beattie et al 2001b). This means the focus of the process is locations where members of the public are exposed to the pollutants in question over a relevant averaging period. LAQM also has a future focus, with predictions required against air quality objectives at a future target date. In the long term the planning system can, therefore, contribute to eliminating air pollution hot spots through careful consideration of the siting of development and characteristics of land use in order to avoid unnecessary private car journeys and conversely

unnecessary exposure to pollutants.

#### **Noise Exposure to Workers in Pubs and Clubs: Noise levels and Enforcement of the Noise at Work regulations – David Smeatham**

The relationship between noise exposure and hearing acuity has been extensively researched over the years. This research is the basis for EU legislation that is implemented in the UK by the Noise at Work Regulations 1989 which places duties on employers to prevent damage to the hearing of workers from exposure to excessive noise. The study reported here was prompted by concerns that in pubs and clubs: • the legislation would impose commercial restrictions • the legislation, which is based on industrial noise, may not adequately deal with the risk to hearing from loud amplified music • changes in youth culture now pose a greater risk of noise induced hearing loss. Objective The objective was to review literature published since 1985 to establish what is known about noise exposure to workers in pubs and clubs. The literature review focused on: • the noise levels and exposure periods experienced by both employees and members of the public and whether these present a risk • practical measures that can be adopted to control the levels of noise exposure • methods adopted by local authorities to enforce control.

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

##### **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—from 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.

**Skills and Abilities Needed by Environmental Health Science and Protection Professionals in the Public Sector – Michele Morrone, PhD, RS**

The National Environmental Health Science and Protection Accreditation Council (EHAC) accredits undergraduate academic environmental health science programs in the United States. The guidelines used by EHAC include core and technical courses that students should take in order to graduate with a bachelor of science degree in environmental health science. As part of a review of the accreditation guidelines, the research reported in this paper was undertaken with support from the Centers for Disease Control and Prevention. To identify the skills and abilities needed by entry-level environmental health professionals in the public sector, the research 1) examined existing environmental health priorities in public-health agencies, 2) reviewed entry-level job postings, and 3) surveyed more than 120 public-health professionals across the country. The results suggest that students who graduate from accredited programs must be skilled interpersonal communicators with a broad base of technical knowledge.

**Health Education and Food Safety Behaviour in the University Setting - Michele Morrone, PhD, RS, Anne Rathburn PhD**

Health education in colleges and universities offers an opportunity to reach a captive audience of young people in order to promote a lifetime of healthy behavior. University health education typically focuses on topics such as alcohol and substance abuse, sexual behavior, and nutrition. Environmental health issues are not a prominent component of university health education, even though an understanding of a healthy environment is critical to promoting overall health. Food safety is an environmental health issue of particular concern in universities since many young adults prepare their own meals for the first time there.

Food safety questions from the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance Survey were used to assess the behaviors of 354 upper-level undergraduate students. Findings from the survey indicate that students are engaging in risky food consumption and handling behaviors and that the educational techniques mandated by the federal government are ineffective in reaching college students.

**Characterisation of the Solid Waste Stream of Tohono O'odham Nation – Ann Marie A Wolf, MS, Anna H Spitz, PhD, Gary Olson, Anita Zavodska, PhD and Mamoun Algharaibeh, PhD.**

The Tohono O'odham Nation's Solid Waste Management Program (SWMP) and the Sonora Environmental Research Institute, Inc. (SERI) completed a waste characterization study for the Tohono O'odham Nation (the Nation) to aid in the development of an effective waste management plan. The Nation has recently switched from open dumping and burning of waste to collection in dumpsters and transportation to regulated landfills. The study indicated that members of the Nation produce approximately one-third of the average amount of municipal solid waste produced per person per day in the United States. Far fewer hazardous materials and yard trimmings are found in the waste stream than is the U.S. average. Source reduction options are limited because much of the residential waste comes from packaging materials. Recycling opportunities exist but are hampered by the long distance to markets, which forces the Nation to look at innovative ways of utilizing materials on site. An education program focusing on the traditional O'odham lifestyle has been



implemented to help reduce solid waste generation while improving people's health and the environment.

**Enhancing Compliance at Departemnt of Defense Facilities: Comparison of Three Environmental Audit Tools – Jeff A**

**Hepler, MS and Cathy Neumann PhD,**

To enhance environmental compliance, the U.S. Department of Defense (DOD) recently developed and implemented a standardized environmental audit tool called The Environmental Assessment and Management (TEAM) Guide. Utilization of a common audit tool (TEAM Guide) through-out DOD agencies could be an effective agent of positive change. If, however, the audit tool is inappropriate, environmental compliance at DOD facilities could worsen. Furthermore, existing audit systems such as the U.S. Environmental Protection Agency's (U.S. EPA's) Generic Protocol for Conducting Environmental Audits of Federal Facilities and the International Organization for Standardization's (ISO's) Standard 14001, "Environmental Management System Audits," may be abandoned even if they offer significant advantages over TEAM Guide audit tool. Widespread use of TEAM Guide should not take place until thorough and independent evaluation has been performed. The purpose of this paper is to compare DOD's TEAM Guide audit tool with U.S. EPA's Generic Protocol for Conducting Environmental Audits of Federal Facilities and ISO 14001, in order to assess which is most appropriate and effective for DOD facilities, and in particular those operated by the U.S. Army Corps of Engineers (USAGE). USAGE was selected as a result of one author's recent experience as a district environmental compliance coordinator responsible for the audit mission at this agency. Specific recommendations for enhancing the quality of environmental audits at all DOD facilities also are given.

**A Common-Source Outbreak of Trichinosis from the Consumption of Bear Meat – Morton Nelson, MD, MPH, Terry L Wright, MPH, RS, Alan Pierce, RS and Roger A Krogwold, DVM, MS, MPH**

This paper discusses an outbreak of trichinosis that occurred in 1998 in Montgomery County, Ohio, and the investigation that followed. The

outbreak was associated with consumption of bear meat from a hunt in Ontario, Canada. The person who had the index case had eaten two bear burgers that were cooked rare in a microwave oven. Bear meat from the same hunt later was consumed by 15 other people at a church supper and an additional 13 people who did not attend the supper. Of the 15 attendees at the church supper who ate the bear meat, seven developed illness consistent with *Trichinella* infection (attack rate about 47 percent). An additional seven people attended the supper but did not eat the bear meat and did not become ill. Having eaten bear meat at the church supper was associated with an increased risk of ill-ness ( $p = .05$ ). Inadequate cooking of the bear meat resulted in the transmission of live trichinae. The 13 other people who ate the bear meat but did not attend the supper report-ed no illness. A total of eight people, including the person with the index case, met the case definition for trichinosis. Adequate cooking of the bear meat or consumption of uninfected portions of the meat was probably the protective factor for those who did not become ill after consuming the bear meat.

**Campylobacter jejuni Enteritis Associaed with Consumption of Raw Milk – Michael C Peterson, MD, FACP.**

An outbreak of *Campylobacter jejuni* enteritis occurred among people who had attended a meal where raw milk was served.

A case control study was conducted using instances of illness as cases; those who attend-ed the event but did not become ill served as controls. Thirteen of 20 people who had attended the meal became ill. *C. jejuni* was cultured from five of six stools that were sub-mitted. Raw milk consumption was strongly associated with illness ( $p = .0072$ , Fisher exact test). Although *C. jejuni* outbreaks associated with milk can be prevented with pas-teurization, they still occur in association with raw milk consumption.

**Growth and Survival of Selected Pathogens in Margarine-Style Table Spreads – Ann M Guentert and Richard h Linton, PhD**

Although margarine-style table spreads can have a pH above 4.6 and a water activity greater than 0.85, there is some question if such products can

support the growth of pathogenic bacteria. The objective of this study was to evaluate the growth and survival of *Staphylococcus aureus*, *Listeria monocytogenes*, *Escherichia coli* 0157:H7, and *Salmonella typhi* in 60-percent- and 70-percent-vegetable-oil, margarine-style, water-in-oil-emulsion table spreads stored at different temperatures. Samples of 25 grams of each table spread were inoculated with  $1 \times 10^3$  cells of each bacterial mixture. The samples were stored at 5°C, 7°C, and 21°C, and the microbial population in colony-forming units per gram (CFU/gram) was enumerated over time. In almost all storage conditions, bacterial levels were shown to decrease over time. Inactivation was observed in (listed from fastest to slowest, respectively) *S. aureus*, *L. monocytogenes*, *E. coli* 0157:H7, and *S. typhi*. Growth was observed only for *S. typhi* in table spreads stored at 21°C, but the rate of growth was extremely slow. Based on these findings, the table spreads evaluated in this study are not potentially hazardous foods, and cold temperature storage is not necessary from a food safety perspective.

### **Efficacy and Durability of Bacillus anthracis Bacteriophages Used Against Spores – Michael H Walter PhD.**

Antibiotics and vaccines help fight anthrax disease, but there are no anthrax spore control methods suitable for use in environments where humans are present. The work reported in this article indicates that bacteriophages may help reduce risk from anthrax spores. Dose-response studies demonstrated that higher concentrations of mixed *Bacillus anthracis* bacteriophages ( $3.5 \times 10^8$  plaque-forming units per milliliter) inhibited subsequent growth of bacteria when sprayed on *B. anthracis* spores. Phages also were tested for durability under conditions designed to simulate environments possibly encountered during mass phage production, storage, and use against anthrax spores. They remained infectious at temperatures from -20°C to 37°C, under filtration, aerosolization, and treatments with perspiration and blood. Phages were sensitive to temperatures over 55°C and to desiccation. Ultraviolet light reduced spore viability more than phage infectivity under similar conditions. The potential for personal or environmental

decontamination of anthrax spores with phages is discussed.

### **Defining and Managing Biohazardous Waste in U.S. Research-Oriented Universities: A Survey of Environmental Health and Safety Professionals – Robin Lyn Mecklem, MS, RBP and Catherine M Neumann PhD**

A survey was conducted of environmental health and safety professionals responsible for biohazardous waste management at 122 institutions. The overall response rate was 82.6 percent (100 out of 122). Results indicate that university policies for biohazardous waste are heavily influenced by state environmental regulations and Health Administration Bloodborne pathogens Standard, and the biosafety guidelines of the Centers for Disease Control and Prevention and the National Institutes of Health. Of 111 waste, 84 percent of the universities treat non-infectious human-cell-culture waste as biohazardous. Sharp items, including hypodermic needles, syringes with needles, and scalpel blades, are commonly treated (by 85 percent of universities) as biohazardous sharps regardless of contamination status. Importantly, while 90 percent of universities use auto-clave sterilization for waste treatment, only 52 percent use a biological indicator to validate the process. On-site incineration is currently used by 42 percent of universities. Twenty-two of 42 incinerators are hospital/medical/infectious-waste incinerators, and 10 of these will continue to operate under the U.S. Environmental Protection Agency's revised incinerator regulations. Eighty-seven percent of the respondents indicated that some portion of their university's biohazardous waste is treated and disposed of through a licensed medical waste hauler (MWH). To ensure compliance with institutional policy, most universities segregate and package waste, train waste generators, and conduct inspections.

### **Environmental Health Officers' Association, Ireland, Yearbook 2002-2003**

#### **Progress on Source Apportionment of PM<sub>10</sub>s – Gibson MD, Bache DH, Hursthouse AS, and Beverland IJ**

Source apportionment of PM<sub>10</sub> represents a useful tool for air quality managers in terms of

identifying local and long range sources of PM<sub>10</sub> that impinge on human health. This paper outlines the general approaches used in source apportionment and illustrates the approach by means of a 'Transect Study' carried out in West Scotland. The study centered on PM<sub>10</sub> samples gained at four locations, including Glasgow and a coastal site. Filtered samples were analysed to determine their composition. The macro chemical composition of PM<sub>10</sub> was determined and then classified in terms of local wind direction and air mass back trajectories. From this information a simple receptor model was constructed in order to classify the PM<sub>10</sub> composition. Scanning Electron Microscopy (SEM) and Energy Dispersive X-ray Fluorescence (EDX) were used to investigate the morphology and chemical composition of individual PM<sub>10</sub>. The study showed that the marine background dominated coastal sites. Where as urban sites were dominated by local primary and secondary sources. Wind direction and location are shown to have a critical influence on the PM<sub>10</sub> composition.

**Environmental Fate and Behaviour of Dioxins and Furans (PCDD/Fs) and the Significance to Human exposure through the Contamination of Cows' Milk – Steven Holmes**

Following the discovery of significant dioxin contamination of the environment in Derbyshire in 1991, a research project was commenced to investigate their environmental fate and behaviour once released into the atmosphere and how this may ultimately affect human exposure. In particular, experiments were designed to investigate the transfer between the various environmental compartments. This paper utilises the data from these to examine the uptake of PCDD/Fs into a lactating cow and the subsequent elimination in cows' milk. The link between emissions into the atmosphere and human exposure from this major human food source is also investigated.

It was found that the human exposure to 2,3,7,8-TCDD from 25ml of whole cows' milk is equivalent to that from breathing the air at the same location for over 50 days. The transfer factors from air to milk (through grass and soil) varies by a factor of 103 with the most efficient transfer being for the more toxic, lower

chlorinated congeners, such as 2,3,7,8-TCDD. Possible explanations for this phenomenon are discussed.

**A Study of the Prevalence of Sick Building Syndrome in Three Office Buildings – Marie McCaffrey**

Awareness of and knowledge concerning health issues related to the work environment have grown in recent years. Many new hazards and risks exist due to advancing technology. However, detection of environmental contaminants and pollutants as well as diagnosis of related conditions have improved leading to greater detection of environmental issues. One area of emerging concern to health and safety experts is 'Sick Building Syndrome', due to the public health significance associated with it.

*The IFEH thanks those organisations which have provided support by advertising in this edition*

# Sustainability Indicators

## [www.ifeh.org/indicators](http://www.ifeh.org/indicators)

The International Federation of Environmental Health has launched a project with the target to build up an internet based example collection on how indicators until now have been used by the local environment and health authorities across the World.

The project has been presented at the UN World Summit on Sustainable Development in Johannesburg, South Africa, in 2002, at the World Congress on Environmental Health in San Diego, USA, in 2002 and at an international conference on Sustainability Indicators and Intelligent Decisions in Vilnius, Lithuania, in 2003".

We would like very much to expand the example collection even more. Check out the project website to see how your authority or organisation can contribute to the collection with your experience in the field of using indicators, or mail to [indicator-project@ifeh.org](mailto:indicator-project@ifeh.org)

Many national IFEH member organisations around the World are now represented in the project and several examples from local authorities and other organisations can be found on the project web site: [www.ifeh.org/indicators](http://www.ifeh.org/indicators)"

By using indicators it should be easier to answer some basis questions related to sustainable development at the local level, such as:

what is the actual pressure on, and the state of, the environment and health of our local/regional community;

on which topics should we focus our efforts;

do our efforts result in measurable changes to the state of the environment and/or health; and

do we contribute to the move towards sustainable development both locally as well as globally?"



### Aims of the project:

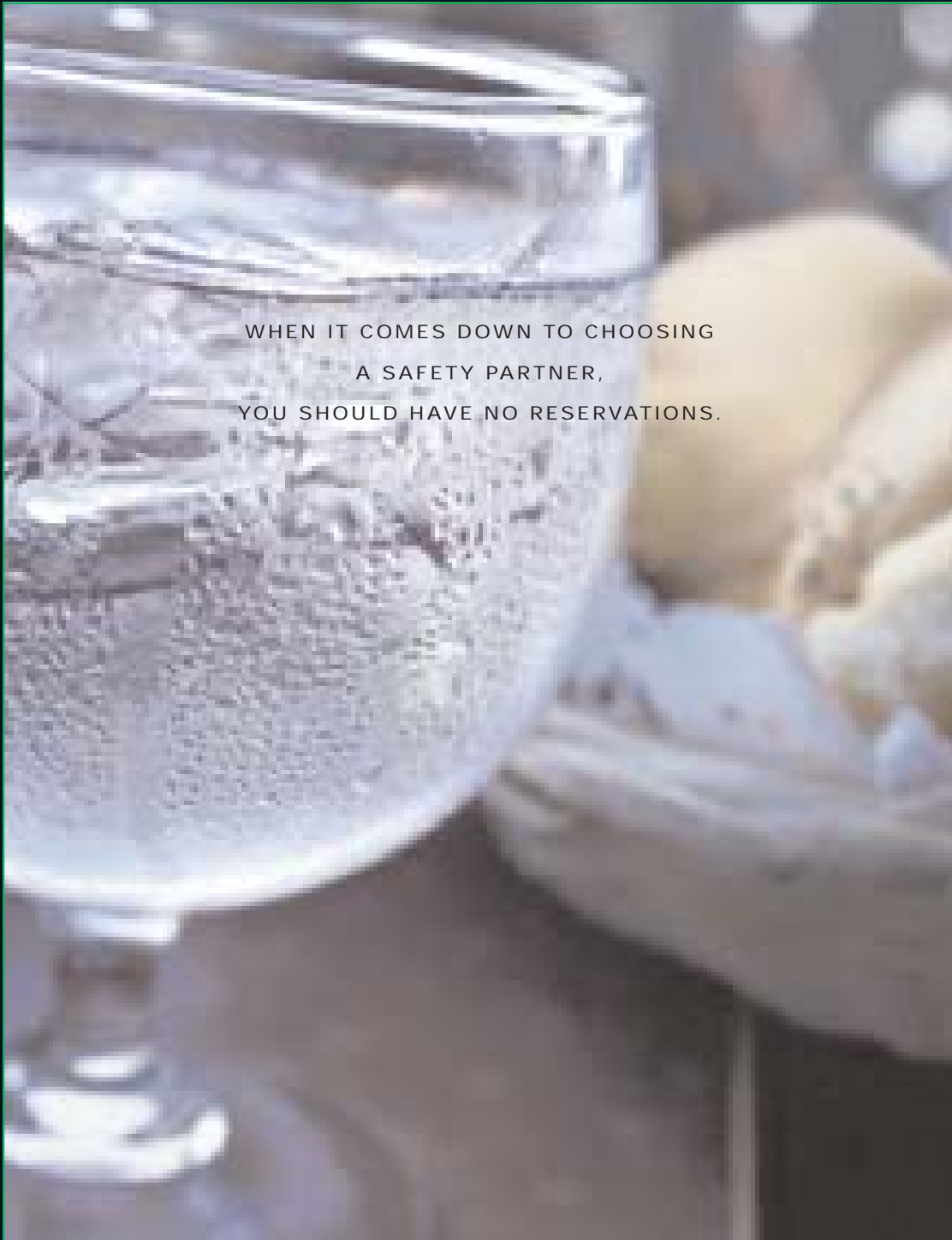
To build a collection of initiatives and activities undertaken primarily by local and regional environment and health authorities world-wide, in order to demonstrate how indicators can be used as a tool for planning and monitoring.

To share the experience of using indicators, primarily at local and regional level.

The use of indicators will allow for a more accurate assessment to be made by local authorities and others on whether progress has been made towards sustainable development.







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