

## 4. Collaboration in strengthening technical & Scientific collaboration with member states in the WHO-Afro region in the development of capacity building

### 4.1 Understanding child lead exposure in Gabarone, Botswana: a pilot study

Child lead exposure is associated with a number of ill health outcomes amongst young children, including reductions in IQ, cognitive, affective and behavioural impacts as well as lowered school performance. Currently no data exists on child lead exposure in Botswana. The aim of this work is to describe child lead exposure amongst 300 pre-school children in Gabarone, Botswana. The specific objectives are:

- ♦ to determine lead levels in painted surfaces, soil and dust in and around the homes and play areas of children aged 1-6 years in Gabarone;
- ♦ to determine lead levels in drinking water from the surveyed children's homes and schools;
- ♦ to determine blood lead levels of children aged 1-6;
- ♦ to assess the level of awareness on lead among the parents of children who will participate in the pilot project.

This study is due to commence in January 2006 and forms part of extending the work of the Centre into neighbouring African countries.

#### Study Cost:

an undetermined contribution from the University of Botswana

### 4.2 Sharing environment and health information resources

Funding has been applied for from the United States Environmental Protection Agency to design and produce public awareness materials in relation to lead hazard awareness in South Africa, with particular emphasis on the risk of lead-based paint in the home setting. To date two posters and a 'lead in toys alert' have been finalised. An agreement to make electronic copies of the materials available to WHO-AFRO for further distribution to African member states, is written into the proposal.

#### Cost:

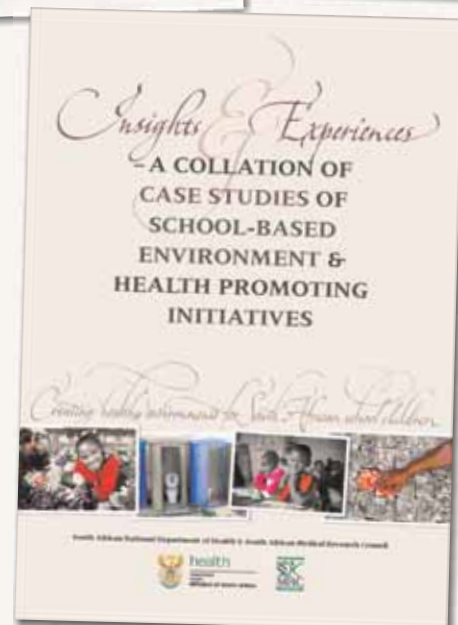
R72 000.00 (from the United States Environmental Protection Agency)

In partnership with the National Department of Health, a collation of case studies of *healthy schools* has been drafted. In particular, the case studies reflect instances in which school communities, in partnership with parents, local government departments and non-governmental

Organizations, have implemented relatively simple measures to improve the school environment and children's health. The healthy schools case studies will also be made available to WHO-AFRO.

#### Cost:

R20 000.00 (from MRC) for design costs. The National Department of Health to pay for reproduction and distribution costs.



## 5. Development and updating of curricula of health and environment-related professionals

### 4.3 A partnership for housing and health research: four African cities

After being informed about the HEAD Study, the African Population and Health Research Centre (APHRC) has approached the Centre to discuss a possible partnership with three other African cities. There is interest in undertaking similar studies (to the HEAD study) in the cities of Blantyre, Accra and Nairobi. An initial meeting to discuss areas of potential cooperation was held in Johannesburg with representatives of APHRC.

#### **Cost:**

not applicable at this stage

### 4.4 Building capacity in environmental health

Following from the success of the short course for environmental health practitioners offered by the Centre during 2004, the Minister of Health, Namibia, extended an invitation to Professor André Swart to facilitate a workshop in Windhoek with a specific focus on the development of capacity in environmental health.

The workshop, held from 15 to 17 August 2005 in Windhoek, Namibia, was attended by 60 delegates, including municipal councillors, environmental health practitioners and other specialists providing technical support for environmental health activities.

During his opening address, the Minister of Health and Social Services, the Honorable Richard Nchabi Kamwi, highlighted the importance of environmental health in the Namibian strategy for rendering health services, and the importance of knowledge networks, including those with South Africa. The workshop focused on the use of indicators, planning for health outcomes and implementing risk assessment and management strategies.

Current discussions are focusing on future exchange visits, while negotiations with the City of Windhoek is well advanced to provide support for two environmental health practitioners to undertake master's level studies at the University of Johannesburg.

### 5.1 Environment & health training module at the University of the Witwatersrand

Each year Angela Mathee coordinates an environment and health module as part of the Masters in Public Health degree offered at the Wits School of Public Health of the University of the Witwatersrand. Representatives from all of the WHOCCUH partner Organizations teach on the module.

The module includes topics such as long-standing and emerging issues of concern in environmental health, the changing role of environmental health practitioners, indoor and ambient air pollution, housing and health, environmental exposure to pollutants such as lead, mercury and endocrine disruptors, urban environmental health concerns emerging from the Birth-to-Twenty Study and models for environmental health action.

In 2005 the module attracted 39 students from South Africa, the United States of America, Lesotho, Zimbabwe, the United Kingdom, Uganda, Nigeria, Democratic Republic of Congo, Kenya and Botswana.

### 5.2 Public Health Medicine registrars' environmental health rotation

As part of their training programme, the Public Health Medicine registrars (trainee specialists in Public Health Medicine) are required to spend six months in an Environmental Health Unit. In a highly successful collaborative venture, the Wits School of Public Health decided to allocate one registrar for six monthly rotations to the Centre with effect from March 2004. To date, four registrars have participated in the initiative and undertaken wide-ranging collaborative projects. These include:

- ♦ Anthony Joffe (drafting the first national State of Children's Environmental Health Report and coordinating the Children's Voices study);
- ♦ Debashu Basu (drafting a paper on urban housing and health in Johannesburg);
- ♦ Nisha Naicker (undertaking the pilot study for the HEAD Project);
- ♦ Sinola Rajaram (to conduct a study on the relationship between daily temperature and child hospital visits over three years at the Coronationville and Baragwanath Hospitals, as the entry point to a focus on global climate change).

## 6. Development of more effective and efficient delivery of appropriate services to

### 5.3 Seventeenth Annual Conference of the International Society for Environmental Epidemiology

A consortium of the University of Johannesburg, the South African Medical Research Council and the University of Pretoria hosted the Seventeenth Annual Conference of the International Society for Environmental Epidemiology, from 13 to 16 September 2005 at the Sandton Convention Centre.



Around 400 delegates from countries around the globe, including South Africa, Norway, Spain, Italy, Taiwan, China, United States of America, United Kingdom, Nigeria, France, the Faro Islands, Russia and Brazil, attended the meeting. Members of the Centre were integrally involved in the arrangements. For example, Dr Halina Röllin chaired the Scientific Programme Committee, while Angela Mathee and Prof. André Swart co-chaired the fund-raising committee. More than R1,6 million was raised for the conference.

The Centre hosted the Welcome Reception for the conference, and the Medical Research Council and University of Johannesburg jointly hosted the official conference dinner.

A number of oral and poster presentations were delivered by members of the Centre. Student volunteers from the Centre's institutions provided invaluable assistance throughout the conference, and were awarded scholarships to attend the conference.

In the evaluation conducted, the conference was highly rated.

**5.4 Qualitative research course at Wits**  
The Wits School of Public Health will be running a master's level one-week training course in qualitative research from 7 to 11 November 2005. The School of Public Health is sponsoring places for four participants from the partner institutions of the Centre.



### 6.1 WHOCCUH publication on housing and health in South Africa

Following a recommendation from the Centre's Advisory Panel meeting of August 2003, a working group has been created to draft a paper on the experience and lessons learned by the partners of the WHOCCUH concerning research undertaken on urban housing and health in South Africa. The paper will draw on the housing-related experience and research conducted by the Centre's partners over the past decade, and will include work undertaken in, for example, Hillbrow, Alexandra, Port Elizabeth, Newclare, Bertrams, Noordhoek, Hout Bay and other areas, in relation to informal housing, shack farms, high rise flats, "RDP" housing and townships dwelling.

**Cost:** Not Applicable

### 6.2 The changing role of environmental health practitioners

With the transition to democracy, there has been a dramatic shift in the scope of work of environmental health practitioners (EHPs) - from a focus on control to one of development and change facilitation, especially in informal settlements and areas of degradation. As a consequence, there is a need for training and re-training of EHPs, as well as an assessment of new approaches being adopted and their feasibility and effectiveness.

It has been decided to develop a new research study, with the current aims of examining the perceptions and practices of EHPs. The main goal of this study will be to contribute to a changing model for the provision of environmental health services in South Africa.

An application has been submitted to the MRC for an internship to conduct a nation-wide survey of the perceptions, knowledge and practices of EHPs regarding the discipline of environmental health. In addition, it is planned that Rob Couch, a doctoral student at South Bank University, includes Johannesburg in a study of the changing role of environmental health officers. Rob Couch has undertaken work in this area in the United Kingdom and Tanzania.

### 6.3 Global climate change

As part of the registrars' environmental health placement programme, Sinola Rajaram will be undertaking the first study under the umbrella of the Centre in relation to global climate change.

## cient approaches to promote urban health

- \* the effects of global climate change are already being felt;
- \* that for the first time in earth's history a significant contribution to climate change is being made by human activity; and
- \* those most likely to bear the brunt of phenomena associated with climate change are children, especial in sub-Saharan Africa.

At this stage it is planned that a study be conducted at Coronationville and Baragwanath Hospitals, which will look at daily hospital visits in relation to daily temperature. The study period will be from 2003 to 2005. A protocol is currently being drafted for submission to the University of the Witwatersrand Ethics Committee.

The study findings will be used as vehicle to comment on the state of preparedness in South Africa regarding the likely child-related outcomes of climate change phenomena such as increased daily temperature. This study is pertinent in light of the fact that this summer is predicted to be the hottest in South Africa for more than 30 years.

### Cost:

R5 000 and in-kind contribution from School of Public Health of the University of the Witwatersrand.

### 6.4 Siyakhana Bezuidenhout Park Food and Garden Project

On 1 September 2005, the Johannesburg City Parks, in the presence of the Minister of Health, Dr Manto Tshabalala-Msimang, local councillors and officials from the South African Police Service, launched the Siyakhana Bezuidenhout Park Food and Garden Project. The Project developed as a result of the involvement of the Health Promotion Unit (Wits) in civic initiatives aimed at improving urban quality of life.

In inner city Johannesburg, children are at risk because of a lack of health education and promotion initiatives and inadequacies in the registration and management of crèches. For example, three hundred inner city Early Childhood Development Centres cater for 12 000 children, most of which are not registered with the Department of Social Welfare, and therefore do not benefit from government poverty alleviation feeding programmes.

Bezuidenhout Park (Region 8) is a popular recreation centre for children and adults, and was a logical choice for the establishment of the



### Siyakhana Food and Garden Project.

Johannesburg City Parks (JCP) provided the Health Promotion Unit with 1.5 hectares of park space to provide vegetables, fruits and herbs for the benefit of children attending Early Childhood Development Centres, as well as non-governmental Organizations providing care and support for people living with HIV/AIDs.

The project is aligned with the Integrated Development Plan for the City of Johannesburg. Other initiatives under the umbrella of the Project include life skills training, permaculture and income generation. The skills development programme emphasises the establishment of healthy plant and vegetable nurseries, bee keeping units, earthworm farms, vegetable plots and orchard and herb production as a business. A long-term goal is to have participants develop their own food and herb gardens as small to medium enterprises (SMEs).