1. Development of urban health and environment policy, programmes & projects

1.1 The Health, Environment and Development (HEAD) Study

Urbanization and natural population increase, together with a process of household unbundling towards the formation of smaller units, presents ongoing, large-scale challenges in respect of the provision of sufficient urban housing to meet demand, and to ensure that housing promotes health and community development in a sustainable manner. For example, between 1996 and 2001 the South African population grew by 11%, but the number of households grew by 30%. The HEAD study has been implemented as a response by the Centre to the concerns of urban housing and health in South Africa. HEAD is a long-term project that will monitor health status in relation to housing conditions in five different housing settlements in Johannesburg. The HEAD Study will also serve as a vehicle for student training, research capacity development and the generation of information for planning and decision-making in respect of housing and health in Johannesburg.

The specific objectives of the HEAD study are to:

- conduct annual household surveys of living conditions and health status, with a special focus on children in five sentinel or indicator sites across the city;
- provide experiential training opportunities in research processes for undergraduate students in environmental health at the University of the Johannesburg;
- create opportunities for in-depth research on environment, development and health matters for master's or doctorate students at the Universities of Johannesburg and the Witwatersrand;
- create continuing development opportunities for environmental health practitioners in the City of Johannesburg in research processes;
- present to the City of Johannesburg, the findings of the annual surveys, and in time, the results of temporal analyses of the data collected through households surveys and other post-graduate student research projects, which may positively influence their policy and service delivery strategies in these areas.

The project will comprise annual cross-sectional surveys in the following sites:

- Hillbrow, a high-rise inner city area;
- Bertrams, an inner city suburb earmarked for rapid development in the run-up to the World Cup Soccer Tournament in 2010 (a local stadium is to be one of the main match venues);
- Riverlea; an old, degraded apartheid township;
- Braamfischerville, a new RDP housing project; and
- Hospital Hill and Sweetwater, two un-serviced settlements.

First-year environmental health students at the University of Johannesburg, following a programme of training in research processes and fieldwork techniques, will undertake cross-sectional surveys of living conditions and health status in the selected sentinel sites, using a pre-structured questionnaire and checklist of housing conditions.

Data generated through the annual cross-sectional surveys will be supplemented with data emerging from relevant, additional master's and doctoral research projects undertaken under the umbrella of the HEAD study. At this time, projects related to mould proliferation in dwellings and the role of environmental health practitioners are being explored. A variety of research methodologies, as appropriate, will be adopted in the supplementary master's and doctoral research projects.

There will be a strong focus on the outcomes and outputs of initiatives undertaken under the umbrella of the HEAD Study. In particular, participants will be encouraged to publish findings in local and international journals. An effort will also be made to ensure that key research findings are relayed to appropriate city authorities in Johannesburg and as well as elsewhere through the South African Cities Network.

Anticipated specific outcomes of the HEAD Study include:

- students in environmental health at the University of Johannesburg, who will, upon graduation, be well versed with research processes and the housing and health concerns that they are likely to encounter in the South African urban context.
- Master's and doctoral students at the Universities of Johannesburg and the

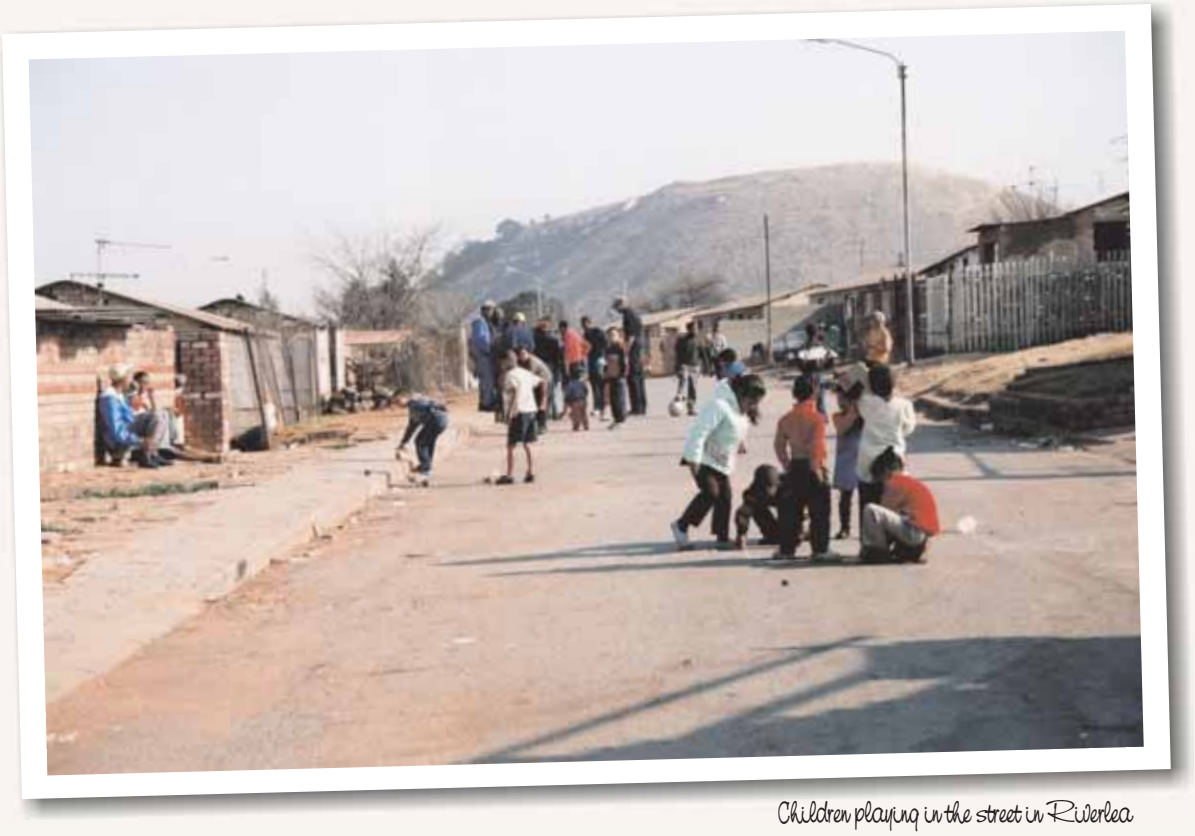
Witwatersrand who will have conducted research on matters of contemporary concern to city managers;
- the provision of information to the City of Johannesburg that will facilitate tracking of changes in respect of living conditions and health in the City.

Anticipated outputs of the HEAD Study include:

- an annual report or research seminar presenting the findings of the annual surveys;
- reports on the findings of student research projects related to a variety of environment, development and health concerns in Johannesburg.
- the provision of experiential training in research processes to more than 50 undergraduate students at the University of the Witwatersrand on an annual basis.

Following approval of the study protocol by the Ethics Committee of the University of the Witwatersrand, the implementaion of the HEAD pilot study was co-ordinated by Nisha Naicker. She is a registrar who participated in the Wits School of Public Health/Medical Research Council environmental health rotation. During August/September 2005 interviews were conducted with 584 residents randomly selected from the five study sites. The interviews were conducted by environmental health students from the University of Johannesburg, after an intensive training programme in research processes, including interviewing techniques.

Participating dwellings were selected from lists and maps obtained from the City of Johannesburg's Planning Department, with each dwelling having been allocated a unique number. In each site, an initial dwelling was randomly selected, with every second dwelling being selected thereafter. In sites where subdivisions existed (such as high-rise apartment buildings), each subdivision was numbered and a random number chosen between one and the total number of subdivisions. The procedure was repeated for the selection of a floor within an apartment building and for the selection of an apartment on a particular floor. Once the first dwelling unit was selected, the second dwelling was chosen to be two doors away from the first, and so on. On completion of an entire floor, the floor above was chosen, with the first dwelling unit on that floor being randomly selected. For example, in Hillbrow/Berea six buildings were randomly selected. In each of the six buildings, 20 apartments were selected. No dwelling lists were available for the informal settlements. A starting point was randomly selected on a map, following which every second house was included in the study. If there was no one home during the first



Children playing in the street in Riverlea

visit, the house was visited again at another time. If on that occasion there was still no suitable respondent, the next closest dwelling was selected for inclusion in the study.

Preliminary results from the study show that the majority of respondents (70%) were born in South Africa, with the remainder having been born elsewhere in Africa. Amongst those born in South Africa, 59% were from Johannesburg. The highest levels of resident mobility were noted in Bertrams and Hillbrow, where 19% and 24% respectively of households had been residing for less than one year, compared to Riverlea, for example, where the majority of households (more than 90%) had been staying for more than five years. Apart from the informal settlements, the majority of residents made use of electricity for daily cooking and had access to an indoor water supply, as well as waste removal and sanitation services. There were concerns around food security in the informal settlements and Braamfischerville in particular, where more than 30% of households reported that children sometimes (or more frequently) went to bed hungry because there was insufficient food at home.

Funding has been secured from the Department of Science and Technology for the appointment of a student, Ms Daphney Conco, to undertake the main HEAD study. As part of the agreement with the Department of Science and Technology, Ms Conco is required to complete a doctoral degree. Registrars from the University of the Witwatersrand School of Public Health will also play a key role in the HEAD Study.

The HEAD Study is timed such as to make an important contribution to the global resurgence in research attention devoted to the role of housing in public health.

Cost of HEAD Study:
Approximately R30 000.00 per annum (MRC) as well as in-kind contributions from the University of Johannesburg and the University of the Witwatersrand.

1.2 WHO Commission on Social Determinants of Health

The World Health Organization has set up a three-year commission to recommend interventions and policies to improve health, and to narrow health inequalities through action on social determinants. The commission's multiple aims include the compilation of evidence, formulation of policies, raising debate and to set the agenda for interventions within the WHO and beyond. A series of knowledge hubs and networks have been set up focusing on a number of themes (see Figure 1).

The Centre for Health Policy (Wits School of Public Health) was selected as the knowledge hub for the health systems work. The Cities and Health Programme Secretariat of the WHO Kobe Centre, Japan, was selected as the hub for urban settings. The involvement of the WHO Collaborating Centre in these two knowledge hubs and networks will allow for some of the insights from Centre's research to feed into matters being considered by the Commission.

Following an invitation from the WHO-AFRO Regional Director, the Centre was represented by Prof. André Swart at a **Regional Consultation on Social Determinants of Health**, held in Brazzaville, Congo, from 27 to 29 July 2005.

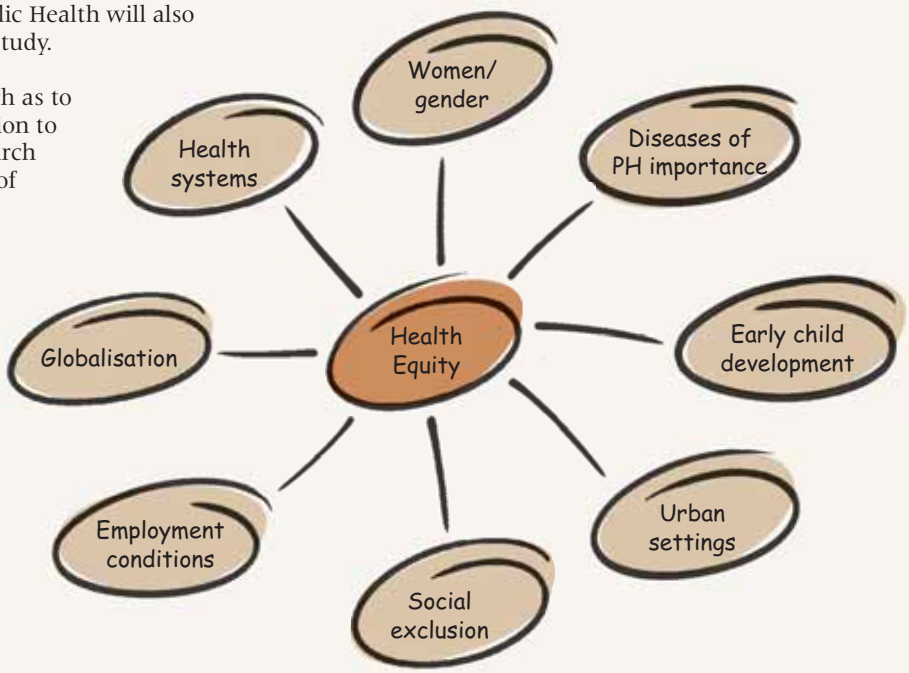


Figure 1: Social determinants of health knowledge network global priority themes