

# IMPROVING THE GENERAL WELLNESS OF A COMMUNITY AT RISK



## UNIVERSITY OF JOHANNESBURG'S RIVERLEA OUTREACH PROJECT

**Contact details:**

Pieter Els (Dr)  
Manager: Health Training Centre  
Faculty of Health Sciences  
PO Box 524  
Auckland Park, Johannesburg  
2006  
Tel: +27 11 559-6089  
Email: pels@uj.ac.za



UNIVERSITY  
OF  
JOHANNESBURG

### **Riverlea: A community at risk**

Many households continue to live in unhealthy conditions such as low cost housing or informal settlements, despite an impressive housing delivery record in Johannesburg,

Riverlea is one such low-cost housing development west of Johannesburg, constructed in the early 1960's with a population of approximately 24 000 people. This community is currently the closest residential area to Soccer City. There are two large mine dumps situated on either side of the community, posing a myriad of health risks to the community members.

A Health Environment and Development study (HEAD) study was conducted over a five year period and is a collaborative effort between the Medical Research Council (MRC), the University of Johannesburg (UJ), the University of the Witwatersrand and the City of Johannesburg (CoJ). The study was conducted in Hillbrow, Bertrams, Riverlea, Braamfischerville and Hospital Hill. In the poorest communities, the study also revealed concerns about mental ill health symptoms (such as depression and anxiety), as well as growing food insecurity and hunger.



According to the results of the HEAD study, Riverlea has a wide range of social, environment and health problems. Compared to the remaining four sites in the survey, Riverlea residents were found to have high levels of chronic illness such as asthma, diabetes and hypertension due to the high levels of smoking.

Alcohol and drug abuse, drug peddling, and glue sniffing as well as problems such as rodent infestations and mental ill health symptoms (depression and anxiety) were prevalent in this disadvantaged urban community.

### **An outreach project to address general health**

The Riverlea Outreach Project was undertaken as a collaborative intervention by the University of Johannesburg (UJ), Medical Research Council (MRC), Riverlea Development Trust (RDT) and the City of Johannesburg (CoJ).

The Riverlea Project was officially launched on 28 April 2010, which incorporated the services of the Departments of Environmental Health, Podiatry and Optometry. The project was initiated with a weekly Optometry and Podiatry Clinic within the community, as well as the implementation of an environmental health education programme in conjunction with the Environmental Health Department of CoJ. Effectively responding to the health issues revealed by the HEAD study will require a long-term, cross-sectorial plan of action that is rooted in a strategy to eliminate poverty and joblessness. The HEAD study concluded in 2017.

The Faculty of Health Sciences considered multiple motivations for the activation of a social outreach project of this nature.

- **Sustainable social change:** UJ wishes to provide a viable and sustainable service within a needy community and to create holistic support in order to produce a long-term impact by addressing the specific health needs of the Riverlea Community that were identified.
- **Practical student experience:** Facilitate Work Integrated Learning (WIL) requirements of UJ Health Sciences students.
- **Ongoing research:** Contribute to the research objectives of the Faculty and University through the creation of new research opportunities.
- **Curriculum Development:** Creation of new Short Learning Programmes (SLP).
- **Staff training:** Engendering of Continual Professional Development (CPD).
- **Partnering with local government:** The Environmental Health Department of UJ coordinated activities with the CoJ Health Department as a joint venture.

There are various aspects to a project of this nature, which involve changing community practices, fostering networks, educating stakeholders, promoting community education and strengthening individual knowledge and skills.

The broader vision of the Riverlea Outreach Project is to enhance and promote general wellness within the Riverlea community. Special areas of concern will be concentrated on:

- Hypertension, diabetes, obesity and food insecurity which most of the departments involved will be confronted with during their activities in the community and the clinic;
- Maternal and child healthcare;
- Prevention and control of locally endemic diseases;
- Appropriate treatment of common diseases and injuries;
- Promotion of food supply and proper nutrition;
- Education concerning prevailing health problems and the methods of preventing and controlling them;
- Training focusing on health disciplines.

**Over 20 000 people, including members of the community and UJ students have benefitted from this project since 2010.**

### **Environmental Health**

The department was involved since the inception of the project in 2010. The focus of the Riverlea Community Engagement Initiative are prevention; promotion; community participation; advocacy (community awareness) and development. It is complimentary to the CoJ Department of Environmental Health. Some activities that were undertaken included practical health interventions, such as education and demonstration on hand washing and nail care. This initiative positions the Department to engage with the community on environmental health aspects.

#### Activities in 2010:

- HEAD study household level interviews by administering questionnaires;
- Issuing of a new dish cloth in exchange for an old one;
- Vegetable seeds were issued to households to encourage people to plant their own gardens.

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#### Activities in 2012:

- HEAD study household level interviews by administering questionnaires;
- Issuing of a new dish cloth in exchange for an old one;
- Issuing of a rat trap and demonstration on how to use it;
- Stage drama by UJ students on vector control; and
- A presentation on vector control by the Pest Control Operator of CoJ.

#### Activities in 2013:

- HEAD study household level interviews by administering questionnaires;
- Vegetable seeds were issued to households to encourage people to plant their own gardens.

#### Activities in 2014:

- HEAD study household level interviews by administering questionnaires;
- Dust swipes were performed at selected households to determine air quality;
- Vegetable seeds were also issued to households to encourage people to plant their own gardens.

#### Activities in 2015:

- HEAD study household level interviews by administering questionnaires;
- Vegetable seeds were issued to households to encourage people to plant their own gardens;
- Presentation by 2<sup>nd</sup> year student on Children's environmental health at the Riverlea Community Centre in commemoration of World Environmental Health Day.

#### Activities in 2016

- HEAD study household level interviews by administering questionnaire;
- Illegal dumping clean-up campaign and health education in Riverlea;
- Hand washing education sessions at a primary school.

#### Activities in 2017:

- HEAD study household level interviews by administering questionnaire;
- Hand washing education sessions at a primary school.

#### Impact

- Since 2010 an estimated 1088 households were visited, interviewed and educated on environmental health aspects (5440 individuals);
- Encourage communities to plant their own vegetable gardens;

- Learners were educated on food hygiene and food safety;
- Awareness was raised about the importance of aesthetics, cleanliness and hygiene of the environment and its relationship to health;
- UJ students gain appropriate practical experience in their field of study.

## **Optometry**

Optometric services are not primarily available at the Riverlea clinic. The service offered by UJ is a new service introduced to the clinic and community.

An optometrist is a healthcare professional specializing in a range of eye-care services. Services include visual screening, full optometric consultation and professional advice on the provision of appropriate frames and lenses, contact lenses and other optical aids. This professional service aims to optimize visual function.

Since the project commenced in 2010, the Optometry department had sent 6 students, under clinical supervision, to Riverlea on Wednesday afternoons to consult patients. They conduct a full optometric evaluation and examination. The need to introduce a second clinic was identified earlier in 2014 and one additional clinic per month was introduced.



## **Impact**

The majority of members in the Riverlea community attending the clinic can't afford to purchase spectacles. About 70 – 80% of patients attending the clinic need spectacles to correct their vision. Examinations are free of charge. Spectacles are provided at a greatly subsidized rate. In many cases it was life changing e.g. a primary school boy was said to be “stupid” and put in the back of the class and ignored. He was examined and found to be in need of spectacles to correct his vision. Since then he has excelled at school.

UJ students gain appropriate practical experience in their field of study and the general health and wellbeing of the community is enhanced. Research projects could also originate from this community project.

Patients consulted:

- 2010: 344
- 2011: 296
- 2012: 249
- 2013: 242
- 2014: 337
- 2015: 417
- 2016: 391
- 2017: 331

**TOTAL: 2607**

## **Podiatry**

Podiatric services are not primarily available at the Riverlea clinic. The service offered by UJ is a new service introduced to the clinic and community.

A Podiatrist is a health-care professional who assesses and manages foot and related lower-limb conditions and provides a comprehensive range of services including:

- Foot and lower-limb assessment;
- Treatment of lesions of the skin and nail, including corns, calluses, and nail problems;
- Treatment of infections (e.g. plantar warts);
- Nail surgery;
- Foot care and footwear education;
- Biomechanical assessment;
- Diabetic foot screening;
- Foot wound management;
- Assessment and management of the At-Risk Foot due to systemic pathology;
- Insole and orthosis manufacture.

Since the project commenced in 2010, the Podiatry department has sent students to Riverlea on Thursday mornings to conduct full podiatric examinations on patients.

### **Impact**

The majority of members in the Riverlea community attending the clinic can't afford to consult a podiatrist and/or purchase inner soles or orthotics if indicated. Examinations are free of charge and inner soles or orthotics are supplied at cost price. Many patients receive professional attention and advice which they would never have had if it was not for this service provided. Very important is the care of a diabetic patient.

UJ students gain appropriate practical experience in their field of study and the general health and wellbeing of the community is enhanced. Research projects could also originate from this community project.

Patients consulted:

- 2010: 316
- 2011: 418
- 2012: 424
- 2013: 464
- 2014: 389
- 2015: 331
- 2016: 317
- 2017: 293

**TOTAL: 2952**

## **Sport and Movement Sciences**

The Department became involved in the project in 2011. They developed an Early Childhood Development (ECD) programme. Learners between the ages of 4 – 6 participate in a 10 week specific gross motor movement programme to identify any problems in this regard. Educators/teachers receive training to help them access children regarding gross motor skills. Mini sport day coaching commenced at schools in 2015. In 2015 and 2017 the format of the sports day was changed with all the crèches participating together at a UJ sports field.

The “Adopt-a-Crèche” project was introduced in 2013 with 2<sup>nd</sup> year students working with a 3<sup>rd</sup> year student (as the group leader) for each crèche. Each crèche hosts a sports day. The UJ students and school principals determine the needs of the school or crèche e.g. painting of jungle gyms, providing stationary, playing with the children, planting trees etc.



### **Impact**

- Sports and Movement Science will continue with the motor skills testing and Adopt-a-crèche project. This will identify any motor skills early in a child’s development which can be attended to timeously;
- Training of educators/teachers will enable them to identify any gross motor skills for many years after their training;
- UJ students gain appropriate practical experience in their field of study;
- The general health and wellbeing of the community is enhanced;

Research projects have and will further originate from this community project

### **Medical Imaging and Radiation Sciences**

Antenatal ultrasound examinations (screenings) are not primarily done at Riverlea clinic, patients are usually referred to the Rahima Moosa hospital but only during the second trimester of pregnancy and then only if there is a complication with the pregnancy.

The objective of the service is to date a pregnancy in the 1<sup>st</sup> trimester and to identify any abnormalities there may be with the pregnancy or foetus during the 2<sup>nd</sup> trimester of pregnancy. The Obstetrics and Paediatric Departments of the Rahima Moosa Hospital support the initiative. The department commenced screenings in June 2013 and is currently only hosting one clinic per week but have identified the need to perhaps conduct two clinics per week. During the first six months of 2014 patients were not screened as the site in Riverlea had to be accredited as a training facility by the Health Professions Council of South Africa.

## **Impact**

Enhancing maternal, foetal and infant health and outcomes.

UJ students gain appropriate practical experience in their field of study and the general health and wellbeing of the community is enhanced. Research projects can also originate in this community.

Patients consulted:

- 2013: 162
- 2014: 124
- 2015: 277
- 2016: 411
- 2017: 380

**TOTAL: 1354**

## **Nursing**

The service offered by the Nursing Department of UJ are complimentary to the nursing service already offered at the Riverlea CoJ clinic.

Second and fourth year nursing students are placed at the clinic for Community Health training. Third year midwifery students are also placed at the clinic. In 2015 a total of 2156 patients were consulted by UJ nursing students at the Riverlea clinic, 1794 in 2016 and 541 in 2017.

## **Impact**

- The workload of the Riverlea nursing staff are alleviated;
- UJ students gain appropriate practical experience in their field of study;
- Enhancing the general health and wellbeing of the community.
- Research projects could also originate from this community project.

## **COMMONALITIES**

The broader vision of the Riverlea Outreach Project is to enhance and promote general wellness within the Riverlea community. Special areas of concern are concentrated on: i.e. hypertension, diabetes, obesity and food insecurity which most of the departments involved will be confronted with during their activities in the community and the clinic.

### **Catalyst for change in South African public health system**

The University of Johannesburg's (UJ's) Faculty of Health Sciences is a key training institution addressing the national health concerns of the country. Through the programmes offered by the Faculty of Health Sciences, emerging health service practitioners are being equipped to provide crucial skills within the national health care framework.

UJ's Faculty of Health Sciences, one of nine faculties at UJ, provides quality training in the disciplines of Nursing, Emergency Medical Care, Radiography, Optometry, Podiatric Medicine, Biokinetics, Chiropractic, Biomedical Technology, Environmental Health, Homoeopathy as well as Sport and Movement Studies.

The Faculty is recognized nationally and internationally for the provision of quality programmes traditionally associated with the Health Professions Council of South Africa, South African Nursing Council and the Allied Health Professions Council.

With a focus on producing competent and innovative practitioners, the Faculty provides an engaging learning experience within the context of problem-based learning with real life experiences in clinics. Our Health Training Centre is an active learning hub with at least 22 000 consultations per year. This practical teaching and learning component ensures that our diplomats and graduates are sensitive to and understand the broader health care needs of society. During the training of the students/interns, they consult patients within the UJ campus based clinics as well as satellite clinics. Various disciplines have selected clinics off campus, some at hospitals but also in communities where the need exists for such services. A total of **341638** patients were consulted from 2005 to 2017. Further, more than 2000 people per annum have some sort of health screenings performed by students.

This work readiness focus is further enhanced by placements in relevant service-rendering facilities who are accredited by the University and relevant regulatory bodies. On completion of their studies, our students have a high placement ratio in their respective service domains.



The Faculty is also the first health services training centre to develop a pioneering Clinical Simulation Training Facility primarily for the Nursing, Biomedical Technology, Emergency Medical Care and Radiography disciplines, but is also available for other disciplines and Continual Professional Development activities.

The Clinical Simulation Training Facility provides simulation of real life emergency and other situations, in order to expose students to environments, similar to the working environment. There are true replicas of ambulances and hospital wards that aid in orienting students to what will be required of them during their careers within health services.

In line with the University strategic endeavours, the Faculty drives sustainable and relevant community development projects. Various programmes are involved in sustainable social investment and community outreach programmes, and our programme in Riverlea is one example where we have already made an impact and difference to the community by way of an innovative, integrated and multi-disciplinary approach.

## Financial cost of the project

A partner in health is a partner in saving lives.

Funding for the project relies solely on donations. The patients treated all received free consultations and glasses and orthotics are provided at cost price.

The bulk of the operational costs are used to pay for the clinical supervision of the students and to ensure adherence to clinical standards of operations.

However, there are substantial operational costs that the University cannot cover alone. We therefore invite interested partners to engage with us on ways in which you can get involved in this innovative social change project.

The cost of running the project is in excess of R 500 000.00 per annum and the only funding received up to 2015 was R 457 500.00 from various funders, which included R 260 000.00 from the Discovery Fund in 2015. R350 000.00 was received from the Discovery Fund in 2017 and R 350 000.00 in 2018. With the #FeesMustFall campaign universities received no increase in tuition fees in 2016 which highlighted once more the funding crisis at South Africa's universities. External funding is there for sought to help sustain the project.

We therefore invite you to partner with us in ensuring that sustainable health interventions can be provided to the Riverlea community.

*\*Individual department budgets are available on request.*