

## Crime causing high blood pressure

A WITS University study has found that neighbourhood crime and household amenities can have a negative effect on teenagers' blood pressure.

"The bottom line is that targeting crime reduction, helping communities to feel protected from crime, ensuring good indoor sanitation facilities and improving household wealth from infancy to adolescence could improve adolescent systolic (heart contraction) blood pressure in similar environments," says Wits Professor John Pettifor, a researcher on the study.

The study reveals that adolescents in poorer households are at greater risk of increased systolic blood pressure as well as systolic

prehypertension than their counterparts enjoying better socio-economic status in society.

It further determines that high crime levels or a lack of neighbourhood crime prevention could make healthy lifestyle behaviours, like physical activity, more difficult, which could have negative effects for blood pressure.

It is also probable that the effect of such neighbourhoods on blood pressure could be mediated through stress, for example through increased cortisol secretion, which increases the risk of higher blood pressure.

The study also reveals that it is possible that poor sanitation facilities result in a high risk environment for infections, like diar-

rhoea. Conducted by Professor Pettifor and Dr Shane Norris, of Wits University, and their counterparts, Professor Noël Cameron, Dr Paula Griffiths and Dr Zoë Sheppard, of Loughborough University, the Bone Health cohort, a sub-cohort of the Birth to Twenty study, is the first of its kind in that it uses a longitudinal approach in the South African context to show these associations.

Birth to Twenty, colloquially nicknamed Mandela's Children, is the largest and longest running study of child and adolescent health and development in Africa and one of the few large-scale longitudinal studies in the world. - Sapa