Urbanisation and women's health in Khayelitsha

Part II. Health status and use of health services

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Summary

A study was conducted among women in Khayelitsha to determine the relationship between urbanisation, health status and use of health services; 722 households were visited, and 659 female respondents provided information on acute and chronic illness for the 3 229 individuals who were members of their households. In addition, they provided information concerning their reproductive health, AIDS awareness, knowledge of cervical smears and use and knowledge of health services. Acute illness was reported for 4,3% of the study population, the commonest complaints being diarrhoea, abdominal pain and upper respiratory infections; 4,4% reported chronic illness, the commonest complaints being hypertension and tuberculosis; 16,2% of women reported gynaecological illness; 86% had of heard of AIDS (although their knowledge of transmission and prevention was poor); and 45% had heard of cervical smears. Patterns of illness and knowledge and use of health services vary in the different areas of residence of Khayelitsha. This appears to be related to urbanisation, age, and environmental and socio-economic factors.

Urbanisation as a phenomenon has major implications for health.[1] Women have been identified as one of the most vulnerable groups in the peri-urban areas created by urban-rural and urban-urban migration.[2]

This paper describes aspects of the health status, morbidity and utilisation of health service among women in Khayelitsha and their relationship with sociodemographic and urbanisation factors. The data were collected as part of a study on urbanisation and women's health and included information about acute and chronic illness among household members and about reproductive health, AIDS awareness, knowledge and experience of cervical smears, contraception and gynaecological illness, and use and knowledge of health services among women. The socio-economic and urbanisation status of this population have been described in a companion paper.[3] A strong relationship was described between area of residence and urbanisation factors. Those in the housing area have longer urban exposure and weaker rural ties than those in the 'shack' areas, particularly Greenpoint. Area of residence can therefore act to some extent as a proxy for urbanisation status when examining the effects of urbanisation on the health of respondents.

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Methods

Details of the methods used and the study population and area have been described elsewhere.[4,5] This includes the urbanisation indicators used to examine urbanisation status and urban-rural links. The geographical areas of residence of Sites B and C and Greenpoint, which include serviced and unserviced sites, will be referred to as the 'shack' areas.

Information on acute and chronic illness among household members was collected by proxy from the main female respondents. The information obtained was based on the reported cases of illness rather than diagnosed cases. The recall period used for acute illness was the 2 weeks preceding the interview. The recall period for chronic illness among household members and for gynaecological illness among respondents was the 3 months preceding the interview. In the case of acute and chronic illness, respondents were asked if anyone in the household had been ill. In the case of gynaecological illness, respondents were asked if they had been treated for gynaecological illness.

Results

The results are in two parts: (*i*) information concerning the 3 229 individuals who were living in the 722 selected households; and (*ii*) data concerning the 659 female respondents.

Acute illness was reported for 4,3% of the 3 229 household members; 4% of household members had used the health services in the preceding 2 weeks. There were no marked differences between respondents on the basis of area of residence.

The prevalences of the commonest complaints were 0,5% for diarrhoea/gastro-enteritis and vomiting, 0,46% for abdominal pain and upper respiratory tract infections, 0,43% for influenza and colds, 0,2% for headaches and 0,15% for rashes. Table I indicates the prevalence of these commonest illnesses by area of residence.

Markedly different patterns of acute illness are evident in housing compared with 'shack' areas (Fig. 1). Upper respiratory tract infections predominate in the housing area and diarrhoea/gastro-enteritis and abdominal pain in the 'shack' areas.

Chronic illness was reported for 4,4% of the 3 229 household members. There was a significantly higher prevalence of chronic illness reported in the housing area (5,8%) than in the 'shack' areas (1,6%) ($\chi^2 = 23,636$; $P < 0,001$).

The prevalences of the commonest complaints for all ages were 0,56% for hypertension, 0,4% for tuberculosis, and 0,2% for diabetes, asthma and epilepsy. Table I indicates the prevalences of these commonest illnesses by area of residence. There was a significantly higher prevalence of hypertension (2,7%) in the housing area than in the 'shack' areas (0,2%) (Fisher's exact test, $P < 0,001$). Considering persons between the ages of 15 and 64 years, the reported hypertension in all areas of residence was 1%. The highest prevalence was 4,3% in the housing area. The prevalence of diabetes in all areas of residence in the over-30-years age group was 0,6%. This was highest in the housing area at 2%.

TABLE I. AREA V. DISTRIBUTION OF RESPONDENTS (%) ACCORDING TO MOST COMMON ACUTE AND CHRONIC ILLNESS

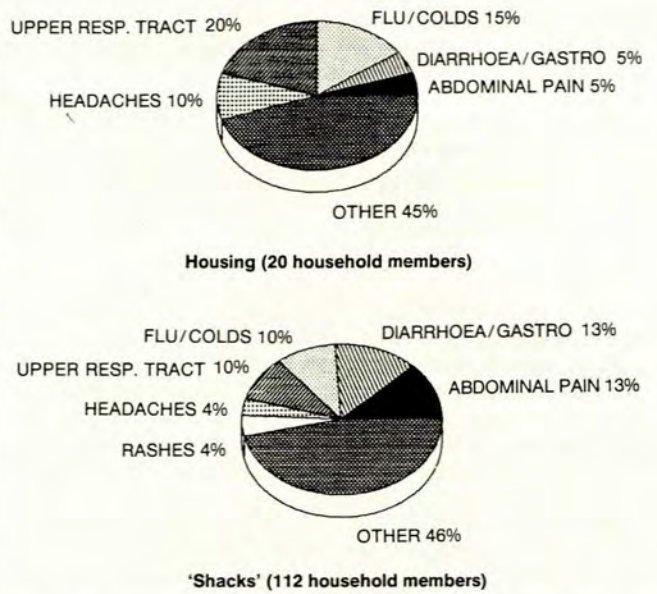| Area	Common acute illness								Common chronic illness						
	Abdominal pain	Diarrhoea, gastro./ vomiting	Flu/colds	Upper resp. tract	Headaches	Rashes	Other	Hypertension	TB	Diabetes	Epilepsy	Asthma	Other
Housing (451)	0,2	0,2	0,7	0,9	0,4	0,0	2,0	2,7	0,4	0,7	0,2	0,2	1,3
Site C (1 056)	0,8	0,7	0,2	0,4	0,3	0,2	0,9	0,2	0,1	0,0	0,0	0,0	0,3
Site B (1 393)	0,3	0,5	0,5	0,4	0,1	0,2	2,4	0,2	0,5	0,1	0,4	0,4	0,9
Greenpoint (369)	0,5	0,3	0,5	0,3	0,0	0,0	2,4	0,3	0,8	0,3	0,0	0,0	0,3
Overall (3 229)	0,5	0,5	0,4	0,5	0,2	0,2	1,9	0,6	0,4	0,2	0,2	0,2	0,7

Fig. 1. Pattern of distribution of acute illness by area of residence.

Markedly different patterns of chronic illness are evident in the housing area compared with the 'shack' areas combined (Fig. 2). Hypertension predominates in the housing area and tuberculosis in the shack areas.

The following are the results for the female respondents. Of the 659 women questioned, 95% had been pregnant. There were no significant differences between respondents on the basis of area of residence.

The mean number of pregnancies was 3,82. The number of pregnancies ranged from 1 to 15, with women in the housing area less likely than women in other areas to have had 5 or more pregnancies (20,4% v. 35,7%) ($\chi^2 = 8,31$; $P = 0,00039$).
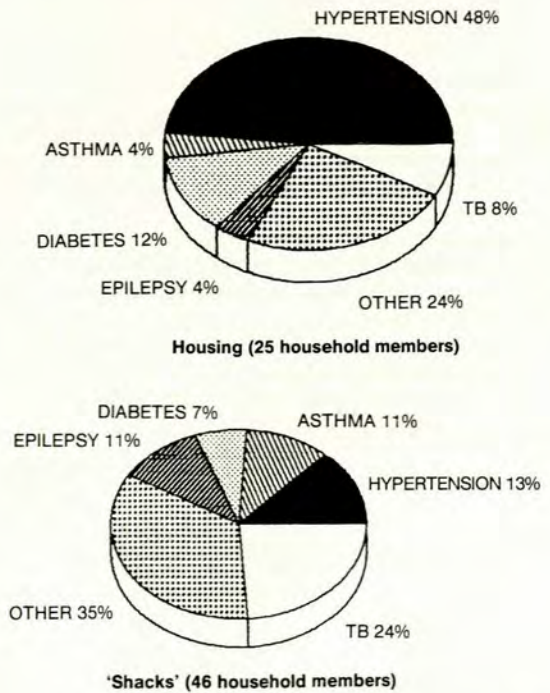

Fig. 2. Pattern of distribution of chronic illness by area of residence.

TABLE II. DISTRIBUTION OF RESPONDENTS (%) BY AREA V. AGE AT FIRST PREGNANCY

Area	Age at first pregnancy (yrs)						
	< 15	15 - 19	20 - 24	25 - 29	30 - 34	≥ 35	Unknown
Housing (93)	1,0	35,5	48,4	12,9	1,0	0,0	1,0
Site C (202)	0,0	57,4	35,6	6,4	0,5	0,0	0,0
Site C (252)	1,2	51,6	38,0	6,4	0,0	0,8	2,0
Greenpoint (77)	1,3	54,5	40,3	2,6	1,3	0,0	0,0

Age at first pregnancy ranged from 13 years to 38 years, with a mean of 19,89 years; 24% of the respondents had had their first pregnancy at the age of 17 years or younger. As demonstrated in Table II, women in the housing area were significantly less likely than women in other areas to have had their first pregnancy between the ages of 15 and 24 years ($\chi^2 = 5,33$; $P = 0,02$).

Of the 373 respondents who had been pregnant in the last 5 years, 94% had attended for antenatal care. This proportion was not influenced by area of residence or number of years spent in an urban area.

The following results refer to the last child born to the 620 respondents: 67% had been born in Cape Town and 29,5% in a homeland; only 4% of the children born in Cape Town had been born at home, as opposed to 42% of those who had been born in a 'homeland'. A significantly higher proportion of children in the housing area (88%) than of those in the 'shack' area (62,9%) had been born in Cape Town ($\chi^2 = 22,60$; $P < 0,001$). Eighty-six per cent of children in the housing area and 66% of those in the 'shack' areas had been born in a hospital ($\chi^2 = 14,37$; $P < 0,001$) (Table II).

Infertility was a problem among 13,3% of respondents. Of these women, 74,7% had sought help from a doctor and 6,9% from a traditional healer; 9% had not sought any help.

More than a quarter of the women (28%) had lost a liveborn child at some stage of their lives. A significantly higher proportion of respondents in Greenpoint (41,6%) than of those in the housing and other 'shack' areas (25,8%) had lost a child ($\chi^2 = 8,37$; $P = 0,0038$). Child loss increases linearly with the number of pregnancies (χ^2 for trend = 119,09; $P < 0,001$).

Half of the 658 respondents were on some form of birth control. There were no significant differences between respondents on the basis of area of residence or any of the urbanisation indicators. Seventy-six per cent of these women reported using intramuscular hormones, 15,6% had been sterilised and 8,4% used the contraceptive pill. No condom or barrier method use was reported.

Gynaecological illness was reported by 16,2% of the 659 female respondents. There were no marked differences between respondents on the basis of area of residence or any of the urbanisation indicators.

The prevalences of the commonest gynaecological problems were 9,4% for pelvic inflammatory disease, 2,7% for abdominal pain, 1,8% for vaginal infections, 1,4% for urinary tract infections and 0,9% for menstrual problems. There was a significantly higher prevalence of pelvic inflammatory disease in Site C than in the housing area together with Site B and Greenpoint ($\chi^2 = 13,69$; $P = 0,0002$). The prevalences of vaginal infections (Fisher's exact test $P = 0,02$) and menstrual problems (Fisher's exact test $P = 0,0003$) were significantly higher in the housing area than in the 'shack' areas (Table III).

There were markedly different patterns of gynaecological illness in the housing area and the 'shack' areas (Fig. 3). Pelvic inflammatory disease and abdominal pain predominate in the 'shack' areas and menstrual problems and vaginal infections in the housing area.

A high percentage of respondents (86%) had heard of AIDS. There were no significant differences between respondents in
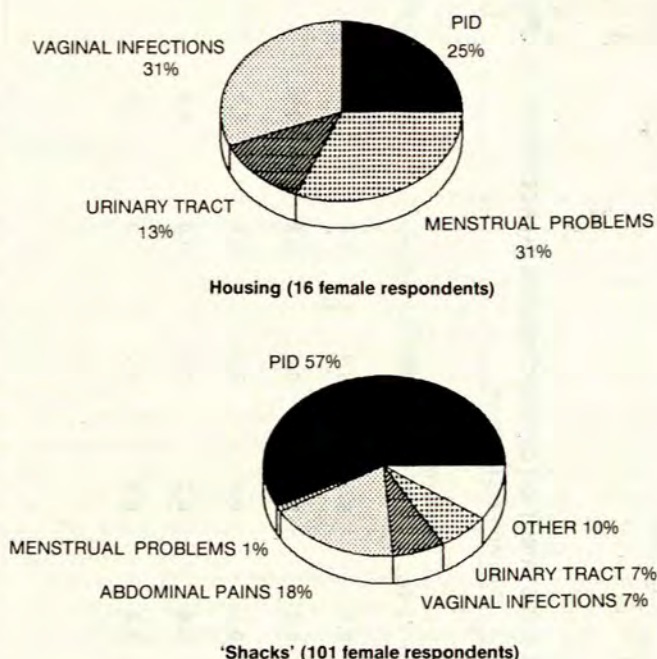
Housing (16 female respondents)

'Shacks' (101 female respondents)

Fig. 3. Patterns of distribution of gynaecological illness.

TABLE III. GYNAECOLOGICAL ILLNESS V. AREA

Area	Type of gynaecological illness					
	Pelvic inflammatory disease	Abdominal pain	Vaginal infections	Urinary tract infections	Menstrual problems	Other
Housing (96)	4,2	0	5,2	2,1	5,2	0
Site C (213)	15,5	5,6	0	2,3	0	0,9
Site B (268)	6,7	2,2	1,9	0,7	0,4	3,7
Greenpoint (82)	8,5	0	2,4	0	0	1,5
Overall	9,4	2,7	1,8	1,4	0,9	1,3

the different geographical areas, except for Greenpoint, where a significantly smaller proportion of respondents (58,5%) had heard of AIDS ($\chi^2 = 59,40$; $P < 0,001$).

When asked what they thought AIDS was, 54% replied that they did not know. A further 36% replied with vague answers such as 'it is a disease' or that it was 'dangerous'; 4,4% linked AIDS to sexual transmission, with a greater proportion of respondents in the housing area (11,2%) than in the 'shack' areas (4,7%) relating the spread of AIDS to sexual transmission ($\chi^2 = 5,33$; $P = 0,02$).

Respondents displayed poor knowledge regarding possible interventions for AIDS. Fifty-two per cent of the 574 respondents said that they did not know of any and 4,3% linked prevention to safe sexual practices.

Almost half (44,8%) of the respondents had heard of a cervical smear, with those in the housing area (60%) being more likely to have heard of cervical smears than those living in the 'shack' areas (42%) ($\chi^2 = 10,405$; $P = 0,0013$). Women born in an urban area (62%) are more likely to have heard of cervical smears than those born in a 'homeland' (41%) ($\chi^2 = 13,00$; $P = 0,0003$). Forty-four per cent of respondents had had a cervical smear performed. Most of the smears had been performed at a hospital, clinic or day hospital.

Of the 652 respondents, 69,3% replied that they would go to the day hospital or clinic and 16,9% to a private doctor when ill. Only 0,3% stated that they would seek the assistance of a traditional healer.

A high proportion of respondents in all areas of residence did not know where to go for a cervical smear (35% in the housing area, 30% in Site C, 32% in Site B and 49% in Greenpoint). A higher proportion of the 77 Greenpoint respondents (16,5%) than of respondents in the housing area together with Sites C and B did not know where they should go for all of the following services: immunisation of a baby/child ($\chi^2 = 22,24$; $P < 0,001$); to acquire milk for a baby ($\chi^2 = 9,09$; $P = 0,0025$); if a child had diarrhoea (Fisher's exact test $P = 0,00189$); and for tuberculosis tests ($\chi^2 = 10,82$; $P = 0,001$).

Discussion

The effects of urbanisation status co-vary with the effects of age, environment, access to health services and social class. The results therefore show the mixed effects of these factors and urbanisation.

The prevalence of acute illness (4,3%) is lower than in similar studies in the USA, the UK and developing counties.[6,7] The reasons for this low figure may be underreporting of illness that did not require medical treatment and stoicism, rather than a true low rate of acute illness.

The preponderance of illnesses such as abdominal pain, diarrhoea and gastro-enteritis is closely linked to bad environmental and socio-economic conditions, particularly poor access to water and inadequate sewage removal. Social class and factors relating to health services may also have an effect.[1] The population in the 'shack' areas, especially those in the unserviced 'shack' areas, can be identified as most at risk. Gastro-enteritis is the second most common cause of death among black people (86/100 000).[8]

The fact that prevalences of hypertension and diabetes were higher in the housing area than in the 'shack' areas could be attributed to perceptions of what constitutes illness, access to services and the hence diagnosis. In a recent study in which blood pressures *were measured*, the overall prevalence for hypertension in the 15 - 64-year age group was 7,7% (K. Steyn, CERSA — personal communication, 1990). The results in the housing area confirm the theory that only half of hypertensives are diagnosed.

Similarly, the prevalence of reported diabetes in this study was lower than that of a study conducted in 1990 in the black townships of Cape Town, in which blood glucose levels were *measured*. In this latter study the prevalence was 6% for all black townships and 1,9% for Khayelitsha (J. Levitt — personal communication, 1990).

A local study[9] which showed an increase in the number of cases of hypertension and diabetes over time ascribed this to the process of urbanisation. The higher prevalence of these conditions in the more 'urbanised' housing area tends to confirm this; however, we are unable to disentangle the multitude of contributing factors.

The prevalence of tuberculosis (0,4%) is lower than the 0,56% for the area covered by the Regional Services Council.[10] This may be due to the fact that this study relied on reported cases, whereas the RSC figures are based on notifications and estimated population figures.

The predominance of tuberculosis in the 'shack' areas confirms the relationship between this illness and poor environmental and socio-economic conditions.

Women in the housing area have higher socio-economic status and fewer children than women in the 'shack' areas. This tends to confirm that there is a relationship between decreased fertility and increased socio-economic status.

More than half of first pregnancies were to teenagers. This constitutes a large problem, since associated risks for the young mother and child have been well described.[11]

Although a high proportion of women had received antenatal care, the extent of this care could not be determined.

The higher proportion of last children born outside Cape Town in the 'shack' areas (37%) compared with the housing area (12%) identifies these children as 'most at risk' for certain diseases. Other studies have found[12] that children born outside Cape Town have the lowest immunisation coverage.

A high proportion of women (28%) had lost a child. This is particularly high for Greenpoint, which tends to have the younger, least 'urbanised' respondents and the poorest environmental and socio-economic conditions. Differences in health services could not be ruled out as an explanatory factor.

There is a strong relationship between parity and loss of a child. Higher parity is linked to lower socio-economic status. There is likely, therefore, to be a relationship between the fact that a high proportion of women in Khayelitsha have lost a child and the extremely poor socio-economic conditions shown to prevail.

Acceptance of family planning is slightly higher (50%) among women in this study compared with black women in the Cape Town area (44,7%).[13] The predominant use of involuntary methods of contraception (intramuscular hormones) is confirmed.[14,15] The lack of use of condoms is of particular concern given their role in the control of the spread of sexually transmitted diseases in general and AIDS in particular.

The preponderance of pelvic inflammatory disease in the 'shack' areas, particularly Site C, can be linked to environmental factors. A fairly high proportion (13,3%) of women had problems with infertility. There is a possible association between infertility and pelvic inflammatory disease. The preponderance of vaginal infections and menstrual problems in the housing area may be due to the fact that respondents in this area are more likely to perceive these as problems and seek treatment, rather than an actual higher incidence of these conditions.

Although there was generally a high level of AIDS awareness, this was not matched by adequate knowledge of AIDS transmission and prevention. This clearly demonstrates the need for effective health promotion. Greenpoint, in which AIDS awareness was much lower than in other areas and where respondents were amongst the youngest and least 'urbanised', can be identified as a target area in this regard.

It is striking that fewer women had heard of cervical smears than had heard of AIDS. This was particularly marked in the 'shack' areas and among those born outside of Cape Town.

The results also show lack of knowledge of where to have a cervical smear done. This impacts on the need for health promotion and the need for a cervical smear screening service. This is particularly important given the high role of carcinoma of the cervix among black women. Twenty-five per cent of cancer deaths in black women are due to this disease.[16]

A substantial overall percentage of respondents use private health services. The lower use of traditional healers may be due to reluctance by respondents to admit to this.

Respondents living in Greenpoint had poor knowledge concerning health services, confirming that in the unserviced and poorly serviced areas, which accommodate the more recent arrivals and those with the poorest socio-economic conditions, there is least access to health care and facilities.[12]

The results clearly show that perceptions of health and access to health services are strongly linked to the mixed effects of urbanisation and socio-economic and environmental factors. There is a particularly pressing need to promote health knowledge for certain important conditons such as HIV and cervical cancer.

Efforts need to be targeted at the particularly vulnerable areas, such as Greenpoint, which have been identified by this study.

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