# Alexandra Health Centre and its Patients: Patients Trends, Age, Sex and Address Profiles - Dr Paulo Ferrinho, Gabisile Phakathi

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## Curriculum vitae

Paulo Ferrinho had his school education in Mocambique and then went on to the University of Cape Town to obtain the MBChB in 1980. He did his internship at the Groote Schuur hospital in Cape Town and then worked at the Gelukspan Community Hospital from 1982 to 1986. After that he became a registrar in Community Health at the University of the Witwatersrand. At the moment he is the Clinic Manager and Director for Research of the Alexandra Health Centre and University Clinic/Institute for Urban Primary Health Care. Although specialising in Community Health, his professional interest remains in support to primary health care.

## *Summary*

*We report on three surveys looking at patient loads in different days of a week and at sex, age and address profiles of patients attending the Alexandra Health Centre and University clinic (AHC) in Wynberg, Johannesburg. Most patients come from Alexandra, but a significant proportion comes from Sandton and the surrounding "white residential and industrial area." Thursday peaks in attendance, (domestic workers off duty days?) reflect the lack of health care facilities for "Black" workers in Sandton. Squatters are believed to account for > 40% of the Alexandra population but they account for less than 2% of our overall total attendances. (Under-utilization of services by the squatter communities?) Females and small children account for most attendances at the AHC, but paediatric attendances have been decreasing consistently for unknown reasons. Overall, the data points clearly to the need to expand health services to the squatters and to expand our geriatric care services, meeting the needs of those we are trying to target without turning anyone away.*

*An unresolved issue is the value of information on address as an indicator of risk for non-compliance. We conclude that address is not an useful indicator risk for individual patient management but grouped data is important for service development.*

*S Afr Fam Pract 1991; 12: 50-5*

KEYWORDS:
Health Centres, Ambulatory; Patients/trends; Age Factors; Sex Factors; Health Facility Planning.

## Introduction

Alexandra is an African Township near Johannesburg with a population over 150 000. It is predominantly occupied by a working class population. About 30 - 40% of the population are squatters, 40 - 50% of the population live under slum conditions and 10 - 30% reside in newly upgraded residential areas.

The squatter community is distributed between clearly defined squatter "camps" (20% of the township's population) and squatters living in shacks distributed amongst the more formal residential sector (also estimated at 20% of the township's population). This second group usually gives as their address the address of the nearest residential yard.

Except for 10 to 12 general practitioners in private practice and a small State Clinic providing a few preventative services, health care to the community is provided by the Alexandra Health Centre and University Clinic (AHC). The AHC provides comprehensive preventive, promotive, rehabilitative and curative care and maternity services on a 24 hour basis.[1] Under new management since 1986, there has been an attempt to develop a professional Primary Health Care (PHC) service, for the urban poor in and around Alexandra and consistent with the declaration of Alma-Ata and with a National Health Service in a democratic South Africa.[2]

Between April 1989 and March 1990 we attended to 167 024 patient visits. Of these about 10% were due to chronic illnesses (diabetes mellitus, hypertension, asthma, epilepsy), 10% are outreach based (child health outreach, geriatrics outreach, home

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based chronic care and home based postnatal care) and 40% are of a preventive or promotive nature (family planning, antenatal care, maternity services, postnatal care and well baby care). Of all the paediatric attendances (10 years of age or less) 4% are due to chronic illnesses (predominantly asthma, rheumatic heart disease or epilepsy) and 50% are of a promotive or preventive nature (well baby or postnatal care).

In order to plan the health services effectively there is a need for information on reasons for visits to the health services, on patient flow and load and on sex and ages of patients. This article reports on the Alexandra Health Centre (AHC) and the patients attending there. It brings data from three small studies together to give an idea of patient flow over the days of the week, place of residence of patients attending the health centre as well as their ages and sexes. During the discussion we will review data from other surveys and we will discuss the value of addresses as a risk indicator for non-compliance with treatment or preventive and promotive care schedules.

### Methods

Three one week surveys were conducted. In the first, during June 1988, addresses were collected for all patients attending the AHC. Data was collected from the patients' medical record cards at 4 points (general outpatients, antenatal clinic, postnatal clinic, and well baby clinic) by previously trained health workers using standard schedules. The general outpatients data excludes attendances for antenatal care and postnatal and antenatal clinics. This survey was repeated in February 1990 using a similar methodology but collecting

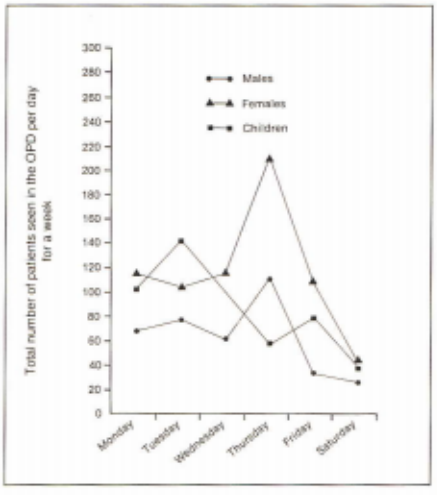


*Fig 1. OPD daily attendance*

information only for ANC, postnatal care (PNC) and for well baby care.

In September 1988 we collected information on sexes and ages of patients attending casualty, labour room, general outpatients, antenatal clinic, postnatal clinic, and well baby clinics. This information was collected using the personnel working in the different departments. During the day the casualty department functions as a surgical OPD and both during the day and also at night it provides emergency care.

Because government health facilities are zoned, there is a tendency for people to give a local address where they sometimes stay or where friends or relatives reside, in case the health services refuses to see 'outsiders'. Despite the fact that we do attend to all those coming to our service, independently of residential address, we suspect that, for the reason mentioned above, the proportion of patients from outside Alexandra might be under-represented in the following report.

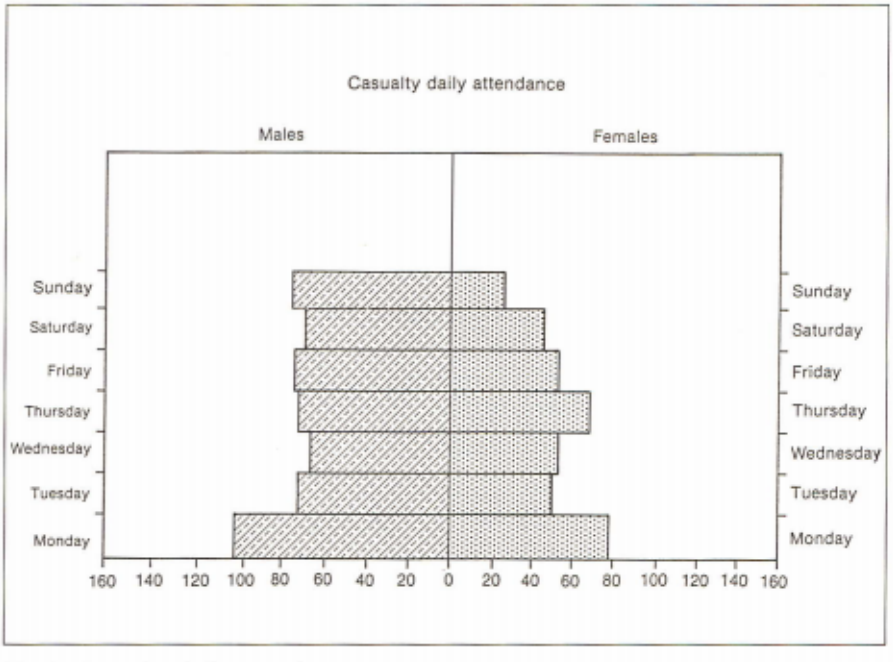


*Fig 2. Casualty daily attendance*

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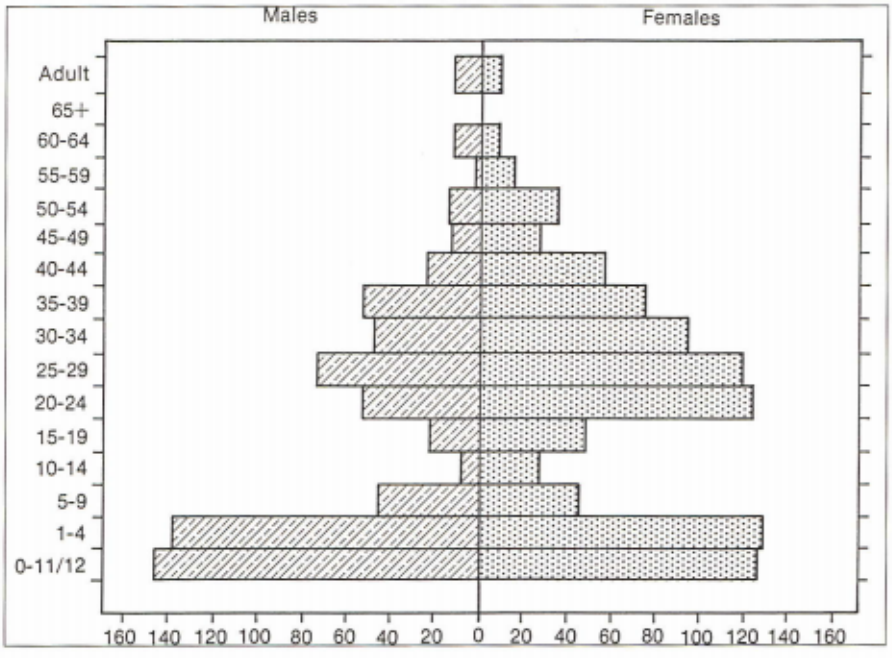


*Fig 3. Age and sex distribution of patients attending the outpatient department*

### *Addresses of Patients*

For a week, Monday to Saturday morning, during June 1988, daytime attendances for general outpatient services were 1 340. Of these 26% come from outside Alexandra, and 74% from Alexandra. Only 1% of the overall total gave addresses in squatter camps in Alexandra and 2% came from the hostels.

Of 377 patients coming for antenatal care (ANC) 21% came from outside Alexandra and 79% from Alexandra. Two percent from the total come from local hostels and also 2% give their address as one of Alexandra's squatter camps.

For well baby care services (WBC) that week there were 265 attendances. Fourteen percent of these came from outside Alexandra and 86% from Alexandra. There were no

## Results

### *Patient numbers and sex over one week in 1988*

The overall trend in the outpatient department is of an early week peak with a second peak on Thursdays. The Thursday peak is particularly marked for female patients. A similar trend is observed for casualty day attendances, with a Monday peak and a second peak for female patients on Thursday.

Fig 3 and 4 give us an age and sex distribution of patients attending in the course of the week studied.

In the OPD most patients are females and a significant proportion consist of small children. Very few elderly patients attend our service. In the casualty department there is an excess of young males and very few children.

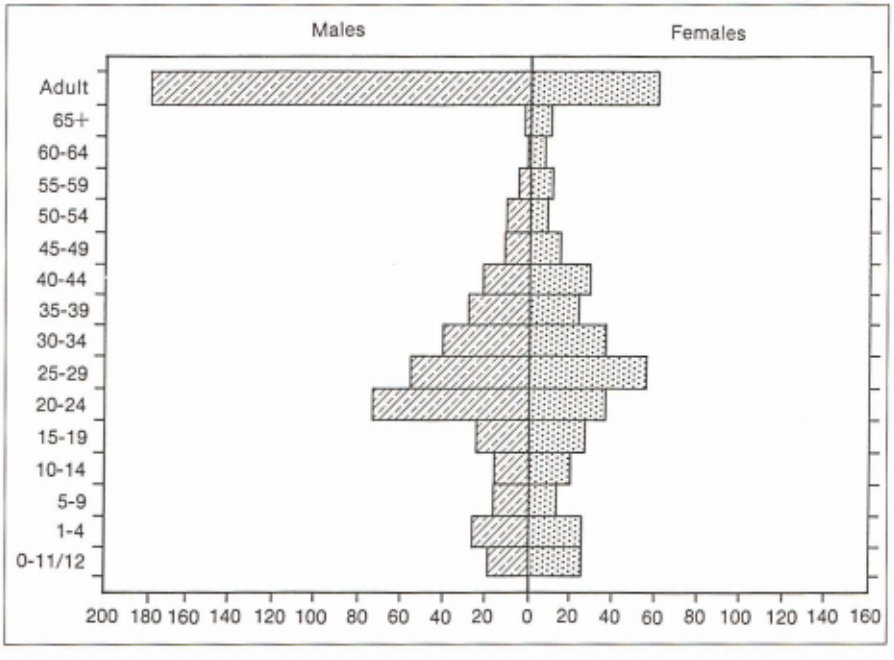


*Fig 4. Age and sex distribution of patients attending the casualty department*

attendances from the squatters and about 3% from hostels.

Family planning attendances numbered 220 women. Of these 59% came from outside Alexandra and 41% come from Alexandra. There was only one person from the squatters and only one from the female hostel.

Of all the patients in the hypertension register 31% (n = 1 233) come from outside Alexandra.

From the total attendances for preventive-promotive care 28% are from outside the township. The equivalent proportion for curative care is 21%.

The more recent data for 1990 continues to show the same Thursday peak in female attendances. Twenty six percent of ANC attenders (n = 499) still give addresses from outside Alexandra (9% from Sandton, 6% from Johannesburg and 11% from elsewhere). The equivalent figures for well-baby care attenders (n = 243) are 14% of attendances from outside the township, 4% from Sandton, 3% from Johannesburg and 7% from elsewhere. For PNC (n = 49) only 16% of attenders were from outside Alexandra.

## We need to reach the fast growing squatter group

## Discussion

Our figures show that although most patients seen at the AHC come from Alexandra, still a significant proportion comes from Sandton and the surrounding 'white residential and industrial areas.' The Thursday peak in attendances is likely to reflect domestic workers off-duties.

The significant proportion of women from outside Alexandra attending our family planning services are likely to reflect the lack of health care facilities for domestic workers in Sandton. The same comments would also apply to female attendances to the emergency care unit on Thursday.

The figure of 26% (in 1990) and 21% (in 1988) of ANC attenders coming from outside is a significant ($p < 0{,}01$) increase over 1984 (n = 2 754)[3] and 1987 (n = 520)[4] when only 13% of ANC attenders were from outside Alexandra. In 1989 24% of a sample of ANC attenders revealed that 24% were from outside Alexandra[5] and in 1990 a review of 70 cards of patients that delivered in our maternity unit over a two week period, revealed that 26% were not residing in the Township.[6] This is particularly worrying in view of the rapid expansion of the antenatal services and in regard to the need to ensure that growth of the service takes place because of demand of the local population and not because of the lack of services for black residents in, for example, Hillbrow or Sandton. The proportion of women from outside, coming for postnatal care, is not as high as for ANC.

An example on how to redirect resources to the Alexandra community without restricting accesses to those from outside is given by the development of our well baby services. By 1990 we had managed to increase the vaccination uptake in the Township without reducing the 14% of children coming from outside Alexandra, by making more use of community based mobile clinics.[7,9]

Small children are an important proportion of the outpatient department workload. During 1986 11% of 372 sick children attending the Health centre during a week came from the 'white residential areas' around Alexandra.[9] More recent data from March 1990 (n = 51) suggest that about 20% of sick children attending the services come from outside Alexandra, again a significant increase ($p < 0{,}001$).[10] This proportion is similar to the proportion of patients coming to the AHC with sexually transmitted diseases: in 1987[11] only 11% were from outside Alexandra and 22% in 1990 (Gidon Frame, personal communication). The above trends are likely to reflect an overall increase in the proportion of 'outsiders' attending the AHC. This is, probably, a reflection of the growth of the black residents in the 'white residential areas' with good access to us by means of public transport (eg Hillbrow), without a compensatory development of appropriate public sector health services to cope with the new demand. New policies in the public sector are likely to influence trends for outsiders' attendances at the AHC. The direction of these trends is not predictable as opening of public sector facilities to all races is associated with policies restricting numbers of patients being seen at some of the clinics (such as ANC)

## An address as a risk indicator for non-compliance?

and it is also associated with increased tariffs for services rendered by provincial health care facilities.

It is apparent to us that only a minority of patients come from squatter areas in Alexandra. This is likely to reflect a community less integrated with the larger Alexandra community and least able to make use of the available health care facilities. Our data is consistent with findings that children from the squatter area have poorer vaccination uptake and their minders are less well informed about health care problems and facilities than those in the more formal residential sector.[8,12,13]

The fact that out patient attendances are dominated by female patients is not surprising and it is consistent with data from other primary care services.[14]

Attendances to the Casualty Department reflect the higher prevalence of violent trauma amongst males > 15 years of age. This is compatible with national data that

An alarmingly high percentage of deliveries was from non-residents, showing lack of services for blacks in Hillbrow, Sandton, etc

shows that unnatural causes of death are more common amongst males than females.[15]

Although we only expect 3% of the population to be over 65 years of age[16] this small proportion usually accounts for a larger share of those utilizing health care resources.[17] The small proportion of over 60 yrs attendances suggests that the health needs of the geriatric patients are being neglected. Since these surveys were conducted we started a community based Geriatric Health Outreach Programme to try and meet this area of need.

The data presented emphasizes the importance of knowing patient addresses in order to redirect resources as necessary. They are also important to motivate the surrounding local authorities to subsidize our services. A very important issue is that of the importance of addresses as an indicator of risk for non-compliance with treatment, with follow up or with standard schedules for preventive-promotive care. Although we did not analyze this last aspect we have some limited data from other surveys.

So, in 1988 addresses of patients in the hypertensive register were not significant determinants of compliance with treatment (unpublished data), it is also irrelevant in terms of late or early booking[5] and in terms of early attendance when labour starts[6], although patients from Alexandra report more problems with transport than those from outside the township.[6]

On the other hand patients from outside the township that deliver in the clinic are less likely to bring their children back for vaccinations than patients from Alexandra.[18] Even Alexandra patients, residing further away from the AHC are less likely to come back to vaccinate their children.[19]

## Conclusions

The data points to the need for some obvious developments. Our efforts to allow for service growth directed at the population of Alexandra rather than those from outside should be strengthened without hurting those that elect to come to us from outside the township. This is particularly important in view of the

General trends reflect an overall increase of "outsiders" attending our ANC.

limited availability of health care for non-white patients in the surrounding white residential areas, as a consequence of the apartheid policies. Even with the collapse of apartheid it seems that bureaucratic hurdles and financial constraints will continue to restrict the access to public sector facilities. What is apparent is that rational service development at the local level is made very difficult by inadequate health care facilities at the regional level.

It is particularly important to reach the population residing in squatter areas, the fastest growing areas of the township. There is also a need to expand our geriatric care services.

All the indications are that patients addresses are not useful predictors of risk for individual patient care but still grouped data is useful for service development.

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