Discussion

The EIA tests are recommended for the screening of blood and plasma products and, as shown by this study, are not suitable for testing immunoglobulins for anti-HTLV-III antibodies because of the problem of nonspecific reactions. The kits are also not recommended for diagnostic purposes, again because of the false-positive reactions. Because of the severe social and psychological implications for individuals reported to have HTLV-III antibodies, specimens positive with the EIA should be tested with an alternative assay system.

At the NIV the IF assay has been used to screen individuals for anti-HTLV-III antibodies and as a confirmatory test for the EIA assay. The presence of specific 'belly button' patterns of immunofluorescence with known anti-HTLV-III-positive sera has aided in the differentiation of nonspecific from specific fluorescence, as has the use of the HTLV-III-negative cell line. For individuals belonging to high-risk groups for HTLV-III the IF test is performed by the NIV without cost to the patient.

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The incidence of cleft lip and palate in the Western Cape

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Summary

The incidence of cleft lip and palate in the Western Cape was studied using data from two cleft palate centres and from all plastic surgeons in practice in the area. A high incidence was found among coloureds, while the incidences among whites and blacks were similar to figures reported from other countries.

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Despite the fact that cleft palate units in South Africa have maintained a high standard in the surgical treatment of cleft lip and palate, the incidence of the condition has remained elusive.

As far as can be established the data presented here represent the most reliable incidence figures available so far for a specific area. The study on which the figures are based is an ongoing project on the epidemiological and aetiological aspects of this common congenital anomaly, which in most cases appears to have a multifactorial origin.[1]

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Cleft lip and palate is not a notifiable condition, which added to the difficulty of establishing incidence figures in previous studies mainly limited to reviews of cases treated at individual hospitals.[2,3]

Patients and methods

As clefts of the lip and palate are clinically obvious deformities, the diagnosis is usually made at or soon after birth. In the relatively urbanized population of the Western Cape it is thus unlikely that children with this deformity will not be brought for treatment at an early stage by their parents or their medical advisers. Submucous clefts of the palate form an exception to this general rule.

A fairly unique situation appears to exist in the Western Cape area in that all cases of cleft lip and palate are treated by plastic surgeons. This is not necessarily the case in other parts of this country or indeed in other countries.

Data on affected cases were initially obtained from the point of treatment rather than the place of birth. Cleft palate units at Tygerberg and Red Cross War Memorial Children's Hospitals were responsible for the bulk of the data, supplemented by data on cases seen by plastic surgeons in private practice. All the doctors in the study area were alerted to the project through the *Newsletter* of the Cape Western Branch of the Medical Association of South Africa. None of the notifications was received from non-plastic surgical colleagues. On receipt of the initial notification, each case was followed up and detailed genetic and environmental histories were obtained.

Geographical area

The study area included greater Cape Town, Bellville, Paarl, Stellenbosch, Somerset West, Strand, Wellington,

TABLE I. INCIDENCE RATE OF CLEFT LIP AND PALATE IN THE CAPE (PER 1 000 LIVE BIRTHS)

Population	Births 1982	CL	CP	CL (P)	Total	Incidence (/1 000 births)	No. of births/ defect
Whites	**10 214**	**—**	**4 (67%)**	**2 (33%)**	**6**	**0,59**	**1/1 700**
Coloureds	**31 708**	**11 (25%)**	**18 (42%)**	**14 (33%)**	**43**	**1,40**	**1/700**
Blacks	**9 377**	**3 (100%)**	**—**	**—**	**3**	**0,32**	**1/3 000**
Total	**51 299**	**14**	**22**	**16**	**52**		**1/1 000**

CL = cleft lip; CP = cleft palate; CL (P) = cleft lip and cleft palate.

Wynberg, Simonstown, Kuilsrivier and Goodwood. The southern and western boundaries are formed by the sea. To the east is a series of well-defined mountain ranges. The northern boundaries follow existing municipal boundaries. This latter area is relatively sparsely populated and no problems were encountered in deciding whether or not to include any particular patient in the study group.

Population and birth figures were obtained from the Central Statistical Services.[4]

Results and discussion

Between January 1983 and January 1984 a total of 52 new patients under the age of 1 year were reported in the study area — 3 blacks, 43 coloureds and 6 whites. Since the census figures for the corresponding period of the survey were not available, the birth figures of the 1982 census were used for denominators.[4]

A marked difference between population groups is seen in the joint incidence of cleft lip and palate (Table I). In Table II these are compared with incidences obtained in other studies. Among blacks there is a low incidence, which is in agreement with the figures among blacks in Nigeria.[5] It has been suggested that a high infant mortality rate, including infanticide, in children with palatal clefts could account for the low incidence among blacks.[5]

For some yet unexplained reason, coloureds have the highest incidence, which compares well with the incidence for whites in the English,[6] USA[7] and European[1] surveys. South African whites seem to have a relatively low incidence compared with that in other white populations.

TABLE II. RACIAL INCIDENCE

Population group	Date	Author	Incidence
Japanese	**1958**	**Neel[9]**	**1/373**
White	**1958**	**MacMahon and McKeown[6]**	**1/600**
	1971	**Fogh-Andersen[1]**	**1/500**
Negro	**1963**	**Althemus[10] (America)**	**1/2 218**
	1965	**Millard and McNeill (Jamaica)[11]**	**1/8 887**
Black	**1981**	**Iregbulem[5] (Nigeria)**	**1/2 703**
White (SA)	**1985**	**Morrison *et al.***	**1/1 700**
Coloured (SA)	**1985**	**Morrison *et al.***	**1/700**
Black (SA)	**1985**	**Morrison *et al.***	**1/3 000**

TABLE III. TYPE OF CLEFTS

Author	Population	CL (%)	CP (%)	CL (P) (%)
Fogh-Andersen[1]	**White**	**25**	**25**	**50**
Fraser and Calnan[8]	**White**	**20**	**46**	**24**
Iregbulem[5]	**Black**	**49**	**19**	**32**
Morrison *et al.*	**White**	**—**	**67**	**33**
	Coloured	**25**	**42**	**33**
	Black	**100**	**—**	**—**

CL = cleft lip; CP = cleft palate; CL (P) = cleft lip and palate.

Type of cleft

In spite of the limited number of cases there seems to be an interpopulation difference in the prevalence ratio of cleft lip versus cleft palate separately (Table I). Clefts are dominated by cleft lip (100%) among blacks, whereas cleft palate predominates (67%) in whites. Coloureds have intermediate frequencies.

In Table III the ratios between cleft lip, cleft palate and cleft lip and palate are compared with those obtained in other studies. The tendency towards differential occurrence of cleft lip and cleft palate between populations seems to be supported by findings of surveys in Nigeria[5] and Britain.[8]

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