National-level outreach: South African Bureau for the Prevention of Blindness

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Introduction

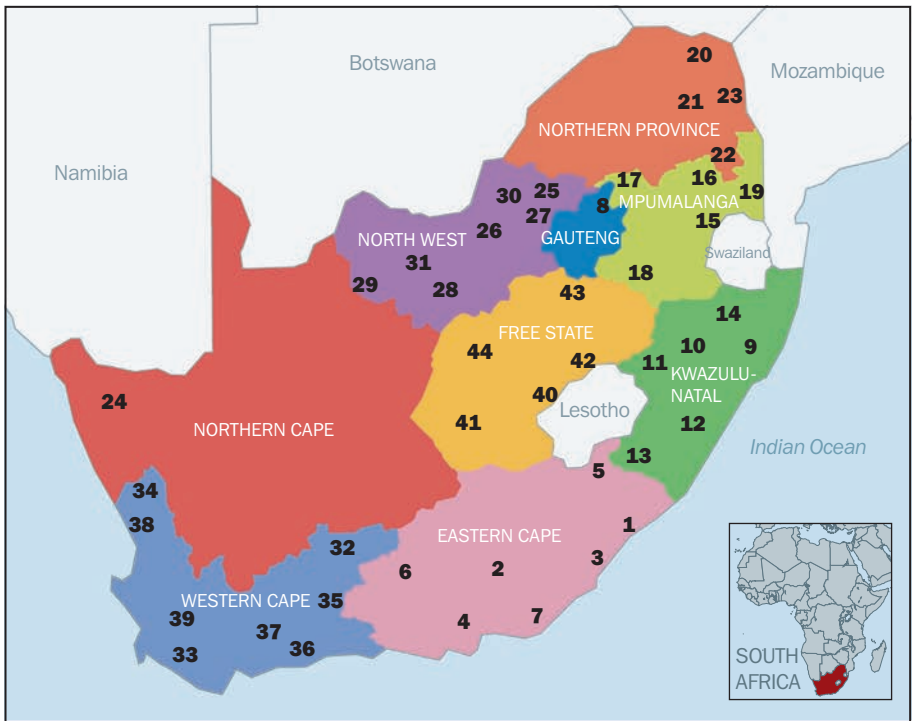
Early beginnings of the Bureau for the Prevention of Blindness

The Bureau for the Prevention of Blindness was founded in 1944 as a division of the South African National Council for the Blind. From 1944 to 1952, the Bureau conducted countrywide surveys to determine the need for eye care services in our rural communities. Based on the information gathered, a mobile unit was established in 1952 with the help of the Order of St. John. This legacy has been built on over the decades and has evolved into a model which aims to increase access to eye care, particularly for disadvantaged township and rural people, while at the same time building the capacity and self-sufficiency of district level hospitals to provide eye care services within provincial health care services and budgets.

The South African health service structure

South Africa has a decentralised health service structure. The country is divided into nine administrative units or provinces (Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North-West, Northern Cape, Western Cape). Services are provided by central, provincial and local health authorities. Within this system, a comprehensive national eye care intervention programme to the rural areas has been developed over the past six decades by the Bureau in collaboration with the respective provincial and local health authorities.

Figure 1. Visit points of the Bureau in the respective provinces



Eastern Cape
1 All Saints Hospital
2 Barkly East
3 Holy Cross
4 Kareedouw
5 Rietvlei
6 Somerset East
7 Umlami

Gauteng
8 Mamelodi

KwaZulu-Natal
9 Benedictine
10 Church of Scotland
11 Emmaus
12 Ixopo
13 Kokstad
14 Nkonjeni

Mpumalanga
15 Baberton
16 Matibidi
17 Mmametlhake
18 Standerton
19 Tonga

Northern Province
20 Donald Frazer
21 Kgapane
22 Mapulaneng
23 Nkansane

Northern Cape
24 Springbok

With a population density of only 2 per Sq Km, this province is served by the Red Cross Flying Doctor service, in collaboration with the University of Stellenbosch.

North West
25 George Stegmann
26 Lehurutshe
27 Rustenburg
28 Tshwaragano
29 Taung
30 Ventersdorp
31 Vryburg

Western Cape
32 Beaufort West
33 Caledon
34 Clanwilliam
35 Knysna
36 Mossel Bay
37 Oudshoorn
38 Vredenburg
39 Worcester

Free State
40 Botshabelo
41 Jagersfontein
42 Parys
44 Vrede

Population

South Africa has a population of 45 million. Slightly more than 50 per cent live in urban areas. Some 15 to 20 per cent of the population accesses health services through private medical schemes, while the public health sector is under pressure to deliver services to about 80 per cent of the population. Since 1994, the health sector has been transformed to increase access to the poor. Thirty million people are considered to be disadvantaged or indigent and it is on this population that the Bureau concentrates its efforts.

Blindness statistics

The estimated prevalence of blindness in South Africa is 0.75 per cent. It is estimated that 50 per cent of blindness is due to cataract, affecting an estimated 170,000 people. The cataract surgical rate amongst the indigent population is 1,000 per million per year.[1]

The field programme of the Bureau for the Prevention of Blindness

The aim of the national eye care service is to establish permanent eye care centres or to strengthen existing centres. The ideal is to have at least one centre in each of the health regions of South Africa, or for every million of the rural population, as recommended by VISION 2020. Over a period of time, the Bureau has identified where these centres can be located. The plan envisages the upgrading of facilities, the expansion and training of staff, and assistance with running costs on a diminishing basis over five years. After five years, the Provincial Department of Health will be in a position to take full responsibility for administering the centre.

The normal work of the Bureau is to offer ongoing support towards this aim. Mobile units aim to provide services to populations identified as having the greatest need for eye care services in underresourced areas. The strategy is to link the mobile units with district and rural-level base hospitals run by provincial health authorities. These sites will, over time, become established as permanent eye care centres.

Partners

The strategy relies on a partnership between the following:

The provincial health authorities – detailed agreements are needed to ensure the smooth running of the field programme and long-term sustainability through establishment of permanent units. In the first instance, provincial health authorities provide 70 per cent of the budget, as well as facilities and staff at base hospitals.

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One of four self-contained mobile units used to transport equipment, drugs and staff to base units. No procedures are performed in the units. SOUTH AFRICA

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The Bureau, which co-ordinates the field programme and provides the mobile units.
The mobile units, which transport equipment and supplies and provide ophthalmic nurses for screening and education of nurses at the base hospitals.
University teaching hospitals, in particular professors of ophthalmology who are in a position to identify final-year ophthalmology registrars to work in the programme.
Ophthalmologists and/or registrars who provide their services at no cost (all travel and living expenses and a modest per diem are covered by the programme, but no salaries).
Base hospitals, including administrators, general nurses, and general doctors.
Local organisations (schools, churches, media, etc.) that can help with publicity.
Community members and patients who use the service and who make a modest contribution to cover costs.

Structure and operation of the mobile units

The Bureau has four mobile eye care units, all based in Pretoria. Each unit is staffed by three ophthalmic nurses, who have all attended a basic two-week course in refraction run by the International Centre for Eye care Education (ICEE). Each mobile unit is completely self-contained, and transports the following: operating microscope, slit lamp, A-scan, microsurgical instruments, theatre linen, a full range of ophthalmic drugs and a full complement of plus and minus range of spectacles.

No procedures are performed in the units, which are only used to transport the equipment and drugs. The mobile units go into the field for a period of three weeks, return to base for rest, and then resume the field visits. The four teams work on this cycle continuously throughout the year.

The Pretoria-based Bureau has a staff of 21, which includes: programme manager, full time co-ordinator of the field programme, nursing manager, 12 nurses for the mobile units, and administrative staff. The full time co-ordinator is responsible, together with the nursing manager, for co-ordinating the field visits of the four teams.

About 100 visits are conducted per annum. Some of these visits last for four days, while others last for eight to ten days. Eighteen hospitals, each of which has resident ophthalmic nurses, are visited four times a year and the visits last four days. Twenty-eight hospitals are visited once every year and the visits last eight to ten days. The longer visits usually have three to four clinics in the area, where patients are screened and referred to the base hospital for further treatment.

Posters indicating the visits of the Bureau are also provided by the Bureau. Local schools, newspapers, churches and broadcasting houses are visited by the co-ordinator and provided with the annual programme.

Co-ordination with the base hospitals

South Africa has a good network of district hospitals and community-based clinics in all the provinces. All these hospitals have wards and operating theatres where patients can be admitted and operated. These are the hospitals used by the Bureau for its field programme. At present, the field programme includes 46 base hospitals. The co-ordinator visits each of these hospitals once a year, when the programme for the year is discussed with the hospital management and agreement reached on use of the operating theatre and the number of beds needed. The hospital is responsible for providing accommodation for the Bureau nurses and the visiting ophthalmologist. On his return to the office, the co-ordinator compiles a complete report for use by the teams.

Identification of ophthalmologists

Relationships are established with University Teaching Hospitals, who identify competent ophthalmologists to participate in the programme. All travel and living expenses are paid by the programme, and ophthalmologists are given a modest per diem (R300, the equivalent of about US$49, per day).

What happens during field visits?

During the first day of the visit, the mobile unit nurses and local nurses screen patients to be seen by the ophthalmologist the following day. Only uncomplicated cases are selected for surgery during the field programme; complicated cases are referred to tertiary hospitals.

During day two and day three, surgeons perform an average of 15 extracapsular cataract IOL operations per day for two days. Postoperative outcomes at one day are analysed and provided for the ophthalmologist at the end of the visit.

Costs and budgets

The field programme runs on a budget of R4 million per year. 30,000 patients are screened, 4,000 cataract operations are performed each year and between 5,000 and 10,000 spectacles are dispensed per year. Each cataract operation costs R1,000 per patient.

Patients contribute a R10 clinic fee (US$1) and pay for spectacles and IOLs at subsidised prices. IOLs are supplied at a cost of R70 (US$11) to the patient.

Initially, 70 per cent of the budget is met by the provincial health authorities, 10-15 per cent by corporate sponsorship and the remaining 15-20 per cent through cost-recovery by patients.

The ultimate goal: establishing permanent centres

Progress in achieving the ultimate goal of establishing permanent eye care services close to the needy populations has been achieved in two centres in Mpumalanga province. The permanent eye care service in Ermelo, Mpumalanga province, progressed from zero operations per year to 1,000 per year. The establishment of a permanent facility was made possible through establishing a clear written agreement with the provincial health authority, which stated that the Mpumalanga Health Department should appoint a full-time ophthalmologist, the necessary nursing personnel, and provide appropriate buildings. Sightsavers International undertook to equip the theatre and the outpatients department. It was agreed that Sightsavers would fund the drugs and disposables over a five-year period, reducing the funding by 20 per cent per year, so that the responsibility will eventually rest with the hospital to provide a sustainable eye care facility at the end of the five-year period. It was the Bureau's responsibility to oversee the project through regular support and bimonthly meetings. Following this pattern, it is intended that further permanent centres will be established in the future.

References

1. The National Eye Care Committee. See also WHO cataract surgical rates for Africa Region, 2004. www.who.int/blindness/data_maps/CSR_AFRO_2004.jpg