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Wetenskaplike Artikel

Geographical distribution of dental operators in South Africa over the period 1972-1992

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Keywords: Dentists, dental therapists.

SUMMARY

Using data available on dentists for 1972, 1982 and 1992 and on dental therapists for 1992 the geographical distribution of dental operators (dentists/dental therapists) in South Africa was determined and the dental operator to population ratios were calculated. Over a period of 20 years the number of dentists in South Africa has increased by 135,6 per cent while the total population of the area has increased by 59,8 per cent. The lowest operator to population ratio was 1:4517 found in the PWV-region, and the highest ratio was 1:48730, recorded in the Northern Transvaal. The greatest decrease in dental operator to population ratios occurred in Natal and Transvaal. The study shows that there is an imbalance in the geographic distribution of dental operators favouring large urban areas.

OPSOMMING

Aan die hand van data beskikbaar vir tandartse vir 1972, 1982 en 1992 en vir tandterapeute vir 1992 is die geografiese verspreiding van operateurs (tandartse/tandterapeute) in Suid-Afrika en die operateur tot bevolkingsgetalleverhouding bestudeer. Die getal tandartse in Suid-Afrika het oor 'n tydperk van 20 jaar met 135,6 persent toegeneem terwyl die totale bevolking oor dieselfde tydperk met 59,8 persent gestyg het. Die laagste operateur tot bevolkingsverhouding is in streek H (PWV-streek) gevind (1:4517) terwyl die hoogste operateur tot bevolkingsverhouding vir streek G (Noord-Transvaal), 1:48730, aangeteken is. Die grootste afnames in die operateur tot bevolkingsverhoudings is in Natal en Transvaal gevind. Die studie toon ook 'n wanverspreiding van tandheelkundige operateurs aan wat groot stedelike gebiede bevoordeel.

INTRODUCTION

A gradual decline in the prevalence of dental caries has occurred worldwide as a result of the availability of fluoride containing products, especially dentrifices. This has led to a decrease in the demand for curative dental services. Despite this trend, many dental schools, especially in Europe, have continued to train the same number of dentists each year. This has led to an oversupply of dentists which necessitated the closure of several dental schools in Europe or the reduction in intake of dental students. A recent development is that a previously closed dental school in the Netherlands is to re-open due to a shortage of dentists in that country.

This disturbing trend initiated several studies on dental manpower needs. In South Africa recommendations were put forward by the Commission of Enquiry into the Dental Services and the Training of Non-White Dentists (1967). As a direct consequence of this report three new dental faculties were established, and the facilities at existing faculties were expanded. This led to an increase of 143 per cent in dental graduates between 1970 and 1979. The Commission (1967) predicted that by 1980, there would be 1708 dentists registered in South Africa. Germishuys (1978) however, showed that this figure had already been reached in 1973 and that this trend would lead to an overproduction of dentists by 1983.

Dreyer, Lemmer and Dreyer (1984) summarized the views at that time of branches of the Dental Association of South Africa (DASA) and Faculties of Dentistry. They concluded that no new dental faculties should be established, but that existing faculties should be expanded and opened to all ethnic groups. They also suggested that four-yearly reviews of dental manpower should be undertaken. Reddy (1985) also supported the recommendation regarding the inclusion of all ethnic groups in dental manpower planning.

Smith and Cleaton-Jones (1985) reported on the geographical spread of dentists in the RSA and the dentist to population ratios in the years 1972 and 1982. They confirmed that there had been an increase in the number of dentists and a decrease

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in the dentist to population ratios between 1972 and 1982. The study highlighted the maldistribution of dentists in South Africa.

They believed that a better geographical spread of dentists could be encouraged through the annual publication of dentist to population ratios in magisterial districts. A year later, Dreyer *et al.*, (1986) in a report of the *ad hoc* Committee appointed by the Federal Council of the DASA, pointed out that an over-production of white dentists might become a reality and that a reduced intake of white students by dental faculties was essential.

Recent developments have placed less emphasis on dentists as the main dental service providers. Dreyer *et al.*, (1992) recommended the establishment of an oral health care workforce consisting of health educators, assistants, hygienists, dental therapists, dentists, specialists and technicians. They suggested that there should be a decrease of 50 per cent in the number of dentists trained over the next 5 to 10 years and an increase to 250 per annum in the number of dental auxiliaries.

The purpose of the present survey was to record trends in the geographical distribution of dentists and dental therapists over the period 1972-1992.

MATERIALS AND METHOD

The sample studied comprised dentists listed in the 1972, 1982 and 1992 registers and dental therapists listed in the 1992 register of the South African Medical and Dental Council but excluded those in Namibia, the independent national states of Bophuthatswana, Ciskei, Transkei and Venda and those outside the RSA. The dentists and dental therapists, were grouped into magisterial districts according to their registered postal address. Specialists were included as dentists and no distinction was made between dentists and dental therapists in academic or institutional employment and in private practice. Owing to their low numbers dental therapists were not included in previous studies in which manpower to population ratios were calculated. With increasing numbers of dental therapists qualifying at dental schools and their importance in oral health service rendering, especially in rural areas, it has become essential to include their numbers in the calculation of dentist to population ratios. In the 1992 figures, dentists and dental therapists were grouped together as operators.

Population figures used in the survey were those of the Population Census (1970 and 1980) adjusted for 1972 and 1982. The 1991 Population Census figures were used unchanged to calculate the 1992 operator to population ratios. The magisterial districts used were those listed by the Central Statistical Services (Population Census, 1991).

RESULTS AND DISCUSSION

1. National Distribution

Table I shows the total number of registered dentists, the total population, the dentist to population ratios for 1972, 1982 and 1992, and the operator to population ratio for 1992.

There has been an increase in the number of dentists in the area under study from 1599 in 1972 to 3767 in 1992, an increase of 135,6 per cent. During the same period the total population of the area increased from 19,4 to 31,0 million representing an increase of 59,8 per cent. The total dentist to population ratio has decreased from 1:12133 in 1972 to 1:8229 in 1992. The dental operator to population ratio decreased to 1:7991. If these data are converted to dentists/operators per 10 000 of the population the rate increases from 0,82 in 1972 to 1,25 in 1992 representing a change of 50,5 per cent. By applying linear regression techniques, Smith and Cleaton-Jones (1985) predicted a dentist to population ratio of 1:8019 for 1992. This ratio is very close to the 1:7991 and the 1:8229 calculated for the operator to population and the dentist to population ratios respectively in 1992. These figures clearly indicate that linear techniques could be a useful tool in manpower predictions.

Table I: *Total number of registered dentists, total population and the dentist/operator to population ratio over a period of 20 years.*

	1972	1982	1992
Number of registered dentists	1703	2994	3998
Number of dentists in the sample	1599	2584	3767
Percentage increase in dentists		61,6	45,8
Total population	19,4 million	25,5 million	31,0 million
Percentage increase in population		31,4	21,6
Dentist to population ratio	1:12133	1:9868	1:8229
Number of dental therapists			112
Operator to population ratio			1:7991
Dentists/Operators per 10 000 of the population	0,82	1,01	1,25

2. Regional distribution

It is envisaged that regionalism will play an important role in the future. An equitable distribution of resources is one of the basic elements of primary health care - the strategy which has been adopted by the Department of National Health and Population Development for health care delivery in South Africa (1992). It could therefore be assumed that the geographical distribution of oral health personnel by region could be a determining factor in the ability of a regional government to render oral health services. At the time of preparing this paper South Africa was divided into 4 provinces and 9 development regions (Fig. 1). The trends in the distribution of dentists/operators by province is shown in the appendix (See pages 461 *et seq*).

Functionally, dentists/operators could broadly be classified into those actively involved in service rendering in the private and public sectors or

Table II: *Distribution of dental operators by development region in 1992 (TBVC countries excluded).*

Region	Dental operators Total Number	Dental operators at training in-situations	Dental operators adjusted figures	Dental operator to population ratio total	Dental operator to population ratio adjusted
A (Western Cape)	857	108	749	1:4137	1:4734
B (Northern Cape)	46	-	46	1:15533	1:15533
C (Orange Free State)	145	-	145	1:16875	1:16875
D (Eastern Cape)	209	-	209	1:8924	1:8924
E (Natal)	524	6	518	1:15182	1:15358
F (Eastern Transvaal)	132	-	132	1:15750	1:15750
G (PWV)	85	-	85	1:48730	1:48730
H (Northern Transvaal)	1781	184	1597	1:4051	1:4517
J (Western Transvaal)	100	-	100	1:10240	1:10240
Total	3879	298	3581	1:7988	1:8653

Table III: *Original and revised dental operator to population ratios by development region.*

Development region	Total population	Dental Operator to population ratio	Revised operator to population ratio
A (Western Cape)	3 545 689	1:4734	1:1608
B (Northern Cape)	714 508	1:15533	1:4667
C (Orange Free State	2 446 870	1:16875	1:4531
D (Eastern Cape)	1 865 138	1:8924	1:2702
E (Natal)	7 955 526	1:15358	1:3904
F (Eastern Transvaal	2 078 978	1:15750	1:4216
G (Northern Transvaal	4 142 016	1:48730	1:11108
H (PWV)	7 214 248	1:4517	1:1507
J (Western Transvaal	1 023 947	1:10239	1:3059

Table IV: *Changes in the number of dentist/operators per province over a ten year period (1982-1992).*

Province	Increase	Decrease	No change
Cape	46 (70,8%)	6 (9,2%)	13 (20%)
Natal	24 (82,8%)	5 (17,2%)	0
Orange Free State	19 (61,3%)	5 (16,1%)	7 (22,6%)
Transvaal	59 (79,7%)	6 (8,1%)	9 (12,2%)
Total	148 (74,4%)	22 (11,1%)	29 (14,6%)

Table V: *Changes in the dentist/operator: population ratio per province over a ten year period (1982-1992).*

Province	Increase	Decrease
Cape	16(24,6%)	49(75,4%)
Natal	5(17,2%)	24(82,8%)
Orange Free State	10(32,3%)	21(67,7%)
Transvaal	13(17,3%)	61(82,7%)
Total	44(22,1%)	155(77,9%)

Table VI: *The five magisterial districts with the lowest operator to population ratios in South Africa for 1992.*

Magisterial District	Operators 1992	Operator: Population ratio 1992
Cape Town	169	1:1062
Pretoria	486	1:1374
Bellville	151	1:1788
Durban	252	1:1880
Hermanus	11	1:1965

Table VII: *The five magisterial districts with the highest operator to population ratio in South Africa for 1992.*

Magisterial District	Operators 1992	Operator: Population ratio 1992
Seshego	2	1:151338
Nongoma	1	1:169153
Witsieshoek	2	1:171443
Mokerong	1	1:446155
Ntuzuma	1	1:458529

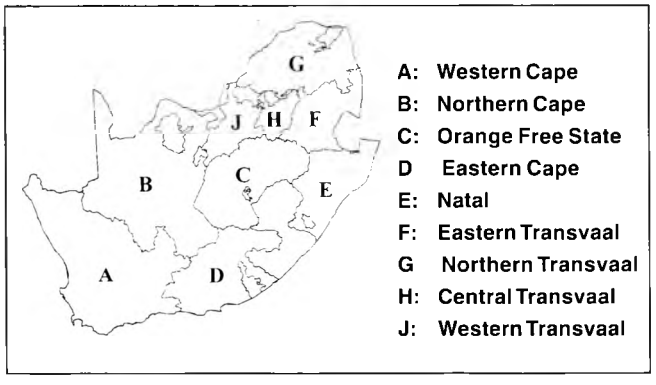


Fig. 1: **Development regions of South Africa.**

training institutions. Although a wide spectrum of oral health services is being rendered at training institutions it is generally accepted that staff at these schools are primarily involved in teaching and research. Their inclusion in the number of dentists/ operators available could therefore give a biased view of the real number of operators available for service rendering. To make dental operators to population ratios between regions more comparable the number in employment at training institutions in a specific region should therefore be subtracted from the total number of dentists/operators available in a specific region.

Table II shows the distribution of dental operators by development region, the number of dental operators at training institutions, the dental operator to population ratio as well as the dental operator to population ratio adjusted to compensate for operators employed in training institutions.

Of the 3879 dental operators in South Africa, 1781 or 45,9 per cent were in region H (PWV-region) and 857 or 22,1 per cent in region A (Western Cape). The dental operator: population ratio varies between 1:4517 to 1:16875, except for region G (Northern Transvaal) where at was 1:48730.

Caution should be exercised in the interpretation of ratios of dental operator to total populations because not all people need or seek dental care and furthermore socio-economic factors need to be taken into account. Results from the 1988/89 National Oral Health Survey indicated that 31,5 per cent of Asian, 21,5 per cent of Black 26,7 per cent of Coloured and 59,9 per cent of White respondents made use of oral health services during the year prior to the survey (Van Wyk *et al.*, 1991). The calculated weighted national mean was 28,9 per cent. By applying these percentages to total population figures, the total number of people in a region who made use of oral health services during a particular year and the dental operator to population ratio (revised) could be calculated (see Table III).

3. Magisterial district distribution

The numbers of registered dentists (1972 and 1982) and operators (1992) in magisterial districts as well as the corresponding dentist/operator: population ratio over a period of 20 years are listed in the appendix (See pages 461 *et seq*). In 1992 registered operators were resident in 189 or 58,9 per cent of the 320 magisterial districts used by the Central Statistical Services. Tables IV and V show changes in the number of dentists or operators and in the dentist/operator : population ratio per province over the 10 year period 1982-1992 (See appendix pages 461 *et seq*).

The greatest increase in the numbers of dentists/operators and the greatest decrease in the dentist/operator:population ratio occurred in Natal and Transvaal. A decrease in the dentist/operator: population ratio in a specific magisterial district could either be attributed to an increase in the number of dentists/operators or a decrease in the total population or both.

The five magisterial districts listed in Table VI have the lowest operator to population ratios and are either major urban areas or very popular retirement resorts or have a dental school within their boundaries. The magisterial districts with the highest operator to population ratios are listed in Table VII, are in rural areas and show a positive trend in that there is an influx of oral health personnel into these areas.

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APPENDIX

Please see pages 461 *et seq.*

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Appendix: *Number of registered dentists in 1972, 1982 and 1992 by magisterial district as well as the corresponding dentist to population ratio.*

Magisterial District	Dentist/Operators			Dentist/Operator:Population ratio		
	1972	1982	1992	1972	1982	1992
CAPE PROVINCE	430	702	1 112			
Adelaide	0	0	1	-	-	1:15220
Albany	5	9	5	1:14100	1:1576	1:13941
Albert	0	0	1	-	-	1:16995
Alexandria	0	1	1	-	1:30660	1:26651
Aliwal-North	2	3	2	1:11054	1:7527	1:13743
Bathurst	4	3	3	1:7536	1:11000	1:10806
Beaufort-West	1	1	1	1:26948	1:27600	1:31726
Bellville	27	105	151	1:10149	1:2057	1:1788
Bredasdorp	2	3	3	1:8410	1:5513	1:7692
Caledon	4	4	6	1:11933	1:15060	1:13175
Calvinia	0	2	2	-	1:9180	1:9215
Cape Town	174	212	169	1:1379	1:997	1:1062
Ceres	1	2	3	1:29834	1:18390	1:15684
Clanwilliam	0	0	2	-	-	1:14072
Cradock	2	4	4	1:17958	1:9790	1:9286
De Aar	1	1	2	1:20324	1:24140	1:12719
East London	23	27	44	1:7167	1:6080	1:5465
Fort Beaufort	0	1	2	-	1:22020	1:11397
Fraserburg	0	0	1	-	-	1:4367
George	4	12	21	1:12779	1:5188	1:4552
Goodwood	9	25	26	-	1:9468	1:9985
Gordonia	3	3	8	1:27825	1:31953	1:14828
Graaff Reinet	3	2	4	1:11250	1:14910	1:8610
Hartswater	0	0	1	-	-	1:29146
Herbert	0	1	1	-	1:20080	1:26316
Hermanus	5	4	11	1:2494	1:3850	1:1965
Hopefield	0	0	2	-	-	1:4411
Humansdorp	3	4	11	1:9323	1:6660	1:3982
Joubertina	0	0	1	-	-	1:13385
Kimberley	12	21	22	1:9610	1:7329	1:7594
King William's Town	4	7	7	1:8073	1:4689	1:4236
Kirkwood	0	0	3	-	-	1:10255
Knysna	6	9	19	1:5252	1:3842	1:2654
Kuilsrivier	1	4	17	-	1:13280	1:7858
Kuruman	1	2	2	1:25575	1:16320	1:12409
Malmesbury	3	6	11	1:17570	1:13003	1:10314
Middelburg	0	0	1	-	1:21737	
Montagu	0	0	1	-	-	1:21674
Mossel Bay	2	5	13	1:15982	1:6644	1:4552
Namaqualand	1	6	4	1:56009	1:11067	1:15634
Oudtshoorn	5	10	9	1:9978	1:6146	1:7566
Paarl	9	14	22	1:9310	1:7776	1:6187
Piketberg	1	1	2	1:29544	1:28900	1:17076
Port Elizabeth	45	71	93	1:9199	1:7911	1:7211
Postmasburg	1	1	6	1:41627	1:55880	1:9132
Queenstown	6	4	5	1:9267	1:12215	1:8894
Riversdale	2	3	4	1:10827	1:6733	1:6255
Robertson	1	2	2	1:25514	1:13970	1:16166
Simonstown	6	12	17	1:5388	1:4043	1:3431
Somerset East	1	2	3	1:27397	1:13450	1:9919
Somerset West	7	12	22	1:4068	1:3727	1:2725
Stellenbosch	9	19	35	1:8532	1:3374	1:2110
Sterkstroom	0	1	0	-	1:9280	-
Strand	2	9	13	1:13714	1:3358	1:3084
Stutterheim	0	0	2	-	-	1:20060
Swellendam	1	2	2	1:24797	1:13480	1:16074
Tulbagh	0	0	1	-	-	1:25334
Uitenhage	5	9	16	1:18909	1:14960	1:11411
Vredenburg	1	4	6	1:18851	1:7980	1:6651
Vredendal	1	3	4	1:19679	1:7613	1:7241
Vryburg	3	2	2	1:21286	1:39770	1:49276
Warrenton	0	1	2	-	1:18840	1:11184
Wellington	3	5	5	1:8374	1:6180	1:7486
Worcester	6	9	12	1:14183	1:10567	1:9763
Wynberg	8	15	235	1:70190	1:49736	1:4688
TRANSVAAL	887	1	423	2	098	
Alberton	3	9	15	1:50735	1:28693	1:24529
Amersfoort	0	1	1	-	1:29160	1:33461
Balfour	0	1	3	-	1:46000	1:12770
Barberton	2	8	6	1:39449	1:8860	1:12028
Belfast	1	1	3	1:32772	1:33100	1:9658
Benoni	13	26	50	1:12657	1:7901	1:5773
Bethal	3	5	7	1:36715	1:17588	1:11111
Boksburg	7	14	31	1:15000	1:11199	1:6320
Bolobedu	0	0	1	-	-	1:96669
Brakpan	9	12	11	1:12705	1:6650	1:11860
Brits	2	11	28	1:33842	1:6307	1:3993
Bronkhorstspruit	1	3	5	1:40004	1:12940	1:7721
Carolina	0	1	2	-	1:31840	1:15219
Christiana	1	1	1	1:13873	1:14280	1:13596
Cullinan	0	0	1	-	-	1:32006
Delareyville	0	3	1	-	1:10860	1:36036
Delmas	0	1	2	-	1:42800	1:24307
Eerstehoek	0	0	2	-	-	1:96058
Ermelo	6	7	11	1:17334	1:17129	1:10098
Germiston	25	36	81	1:5642	1:4623	1:2118
Giyani	0	0	3	-	-	1:70742
Groblersdal	1	3	3	1:39906	1:21313	1:10247
Heidelberg	2	4	5	1:17735	1:10710	1:15411
Highveld Ridge	3	11	15	-	1:12304	1:10392
Johannesburg	429	587	590	1:3305	1:2613	1:2669
Kempton Park	12	22	34	1:12112	1:13150	1:10435
Klerksdorp	15	25	34	1:13791	1:9547	1:9455
Koster	1	1	2	1:31579	1:27980	1:14614
Krugersdorp	15	22	32	1:8481	1:6995	1:6132
Letaba	5	11	10	1:16867	1:8087	1:5990
Lichtenburg	6	7	8	1:12832	1:11151	1:9877
Lydenburg	2	3	2	1:23242	1:14560	1:18488
Marico	1	1	3	1:48573	1:49020	1:12994
Mdutjana	0	0	1	-	-	1:25485
Messina	1	1	1	1:23014	1:26520	1:22959
Middelburg	4	10	18	1:30545	1:12746	1:7779
Mkobola	0	0	3	-	-	1:70924

Magisterial District	Dentist/Operators			Dentist/Operator:Population ratio		
	1972	1982	1992	1972	1982	1992
Mokerong	0	0	1	-	-	1:46155
Moutse	0	0	1	-	-	1:102179
Nelspruit	6	12	19	1:12511	1:9138	1:3259
Nigel	3	5	9	1:10107	1:6392	1:10320
Nkomazi	0	0	2	-	-	1:38483
Oberholzer	5	9	9	1:19181	1:13984	1:19752
Pilgrimsrest	0	3	6	-	1:17927	1:4844
Phalaborwa	0	0	5	-	-	1:6025
Piet Retief	2	3	4	1:31135	1:35840	1:16013
Pietersburg	6	14	24	1:11998	1:8249	1:2675
Potchefstroom	10	15	20	1:12415	1:9400	1:9278
Potgietersrus	2	7	10	1:47286	1:15103	1:6957
Pretoria	185	328	486	1:3419	1:1668	1:1374
Randburg	10	19	151	-	1:11037	1:2261
Randfontein	3	4	10	1:19570	1:22865	1:11641
Roodepoort	13	29	68	1:10964	1:5950	1:3223
Rustenburg	8	14	28	1:11025	1:7837	1:4475
Schweizer-Reneke	1	1	1	1:39308	1:41306	1:46893
Sekhukhuneland	0	0	3	-	-	1:34778
Seshego	0	0	2	-	-	1:51338
Soshanguve	0	0	1	-	-	1:46334
Soutpansberg	3	3	7	1:23058	1:25500	1:5120
Springs	11	15	26	1:9561	1:11345	1:6066
Standerton	3	6	6	1:28795	1:15410	1:14315
Swartruggens	0	1	0	-	1:11880	-
Thabamoopo	0	0	3	-	-	1:11731
Thabazimbi	0	0	3	-	-	1:16281
Vanderbijlpark	12	17	23	1:7541	1:19838	1:18870
Vereeniging	18	20	33	1:12479	1:8861	1:7591
Volksrust	1	1	1	1:29537	1:29860	1:29924
Warmbad	1	3	4	1:36675	1:14140	1:10423
Waterberg	2	5	8	1:29764	1:15076	1:6124
Westonaria	3	5	8	1:21310	1:21296	1:20066
White River	1	2	6	1:30870	1:64360	1:5039
Witbank	6	9	15	1:17386	1:17156	1:11552
Wolmaranstad	1	2	2	1:56803	1:29280	1:30749
Wonderboom	1	11	57	-	1:25931	1:4669
ORANGE FREE STATE	66	107	144			
Bethlehem	4	6	9	1:19305	1:13537	1:8991
Bethulie	1	2	1	1:11632	1:4940	1:9333
Bloemfontein	27	45	58	1:7955	1:5689	1:5175
Bothaville	0	1	1	-	1:60220	1:54726
Brandfort	0	0	1	-	-	1:23521
Bultfontein	0	1	2	-	1:27940	1:14278
Clocolan	1	0	0	1:20756	-	-
Dewetsdorp	1	0	0	1:15029	-	-
Edenburg	1	0	1	1:8644	-	1:6968
Ficksburg	1	1	2	1:28239	1:32580	1:18405
Frankfort	1	1	4	1:42891	1:43900	1:11154
Harrismith	2	2	6	1:37818	1:39760	1:10537
Heilbron	1	1	1	1:38397	1:39900	1:40987
Henneman	0	1	0	-	1:19120	-
Jagersfontein	0	0	1	-	-	1:6353
Kroonstad	5	8	10	1:18634	1:13020	1:11096
Ladybrand	1	2	1	1:34031	1:15930	1:30532
Lindley	1	0	1	1:37936	-	1:37664
Odendaalsrus	1	1	4	1:40482	1:55160	1:24401
Parys	1	3	2	1:27859	1:10707	1:24339
Reitz	0	1	1	-	1:31120	1:30712
Sasolburg	4	9	10	1:15072	1:8631	1:8908
Senekal	1	1	2	1:48853	1:48500	1:20776
Theunissen	1	1	1	1:29974	1:27320	1:38482
Viljoenskroon	0	0	1	-	-	1:59279
Virginia	3	3	6	1:17939	1:25273	1:13630
Vrede	1	1	2	1:42280	1:48040	1:18662
Welkom	7	14	24	1:19932	1:13404	1:10341
Wepener	0	1	1	-	1:14300	1:12964
Wesselsbron	0	1	0	-	1:24120	-
Witsieshoek	0	0	2	-	-	1:71443
NATAL	216	352	530			
Camperdown	1	1	0	1:26431	1:42180	-
Dundee	3	3	2	1:11630	1:11187	1:15806
Durban	133	195	252	1:4095	1:2657	1:1880
Eshowe	1	1	2	1:13807	1:28680	1:6678
Estcourt	2	1	3	1:22549	1:50660	1:16497
Glencoe	0	0	1	-	-	1:17265
Hlabisa (Natal)	0	0	3	-	-	1:56573
Impendle	0	0	1	-	-	1:2815
Inanda	3	13	37	1:64710	1:11938	1:8091
Ixopo	0	0	1	-	-	1:22626
Kliprivier	2	5	10	1:34196	1:21004	1:6478
Lions River	3	2	6	1:13597	1:21940	1:7177
Lower Tugela	3	7	13	1:33846	1:18329	1:7438
Lower Umfolozi	3	8	12	1:12717	1:7895	1:4674
Mooi Rivier	0	1	0	-	1:23680	-
Mount Currie	0	0	3	-	-	1:13855
Mtunzini	0	0	1	-	-	1:18455
Newcastle	4	13	12	1:11309	1:4282	1:4465
Nongoma	0	0	1	-	-	1:69153
Nqutu	0	0	2	-	-	1:6818
Ntuzuma	0	0	1	-	-	1:458529
Pietermaritzburg	25	46	64	1:6967	1:4070	1:3571
Pinetown	17	31	57	1:13925	1:11429	1:3232
Port Shepstone	4	15	20	1:11505	1:5275	1:3362
Umlazi	0	0	2	-	-	1:149638
Umvoti	2	1	4	1:18007	1:45220	1:10290
Umzinto	5	2	8	1:10975	1:46970	1:5865
Underberg	0	1	0	-	1:14540	-
Vryheid	4	5	6	1:22116	1:17644	1:14253