

Leprosy situation in Uttar Pradesh

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ABSTRACT

Present paper describes the leprosy scenario in the state of Uttar Pradesh using data for last 15 years. Available data reveals that the leprosy control activities in UP are going on well. All the leprosy indicators have suggested significant progress towards achieving elimination.

INTRODUCTION

Uttar Pradesh is one of the most populous states in India with nearly 182 million population dispersed in 70 districts. It contributes to 16% of the country population. The literacy rate is about 60 %. The population and other statistics are slightly more before the year 2000 when a new state, Uttaranchal was carved out covering 13 of the 83 districts. Being one of the largest states and with relative higher endemicity levels of leprosy, the contribution to the national pool of the leprosy cases is quite substantial accounting to 23 % of the caseload. Thus all the parameters and indicators and the progress U.P is making in the changing scenario of leprosy has considerable influence on the situation of leprosy in the country a whole. As of now i.e at the end of Dec 2005, the important indicators for the state of U.P are as given below

1. Mid year Population 181,864,935

2. No. of Leprosy Cases	23,925
3. New cases detected	27,806
April to Dec 2005	(Projected for 12 Months 37,075)
4. ANCDR	2.02 /10,000
5. P.R	1.3/ 10,000
6. PD Ratio	0.65
7. Child Rate	6.35
8. Deformity Rate	0.94
9. MB Rate	42 %
10. Female Rate	30%

MDT was introduced first in Varanasi district in the year 1985. 17 more districts were covered by MDT in 1992. It took in all about 10 years to cover all the districts in the State which was achieved by the year 1995. Till the year 2000, concerted efforts were made to detect cases, treat them with MDT and discharge them through the vertical system. It also included special campaigns like MLEC (Modified Leprosy Elimination Campaign) and VRC (Voluntary Reporting Centers). These NLEP

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activities made significant impact on the leprosy profile of the state. Integration of Leprosy services into General Health Care system was introduced in the year 2001 which slowly but surely gained acceptance and momentum. From September 1998 ILEP agencies joined forces in establishing a support structure called Zonal/ District Technical Support Teams. The DTSTs are mainly focusing on capacity building of General Health Care staff, implementation of SIS (Simplified Information System), updation of records and reports, case validations, minimizing operational factors and helping in monitoring and supervision of the programme by the health facilities. A comparison of the milestones set by GOI for U.P and the achievements are highlighted below- There is a gradual increase in the population of the State. The average annual growth rate is 2.3. The increase in population surely dilutes the prevalence rate and other indicators to a minimal extent but we have to contend that when population increases, there are more

Targeted Milestones

Indicators	Decembe 2005	
	Target	Achievement
PR/ 10,000	<1	1.3
ANCDR/ 10,000	2.8	2.02
MB proportion	43 %	42 %
Disability proportion	1.2 %	0.94 %
Female proportion	40 %	30 %
No. of Districts with PR < 1 /10,000	60 %	27 %

The 15-year data is enclosed as an appendix.

people to catch leprosy, especially those who are immunologically deficient and if they have increased opportunities of exposure. If the population growth rate is checked, probably many communicable diseases including leprosy will vanish faster.

Leprosy Trend

The new case detection shows peaks during the period 1998 to 2004, as five MLECs were conducted. These included some active search as well as leprosy counseling centers following IEC activities. These campaigns probably

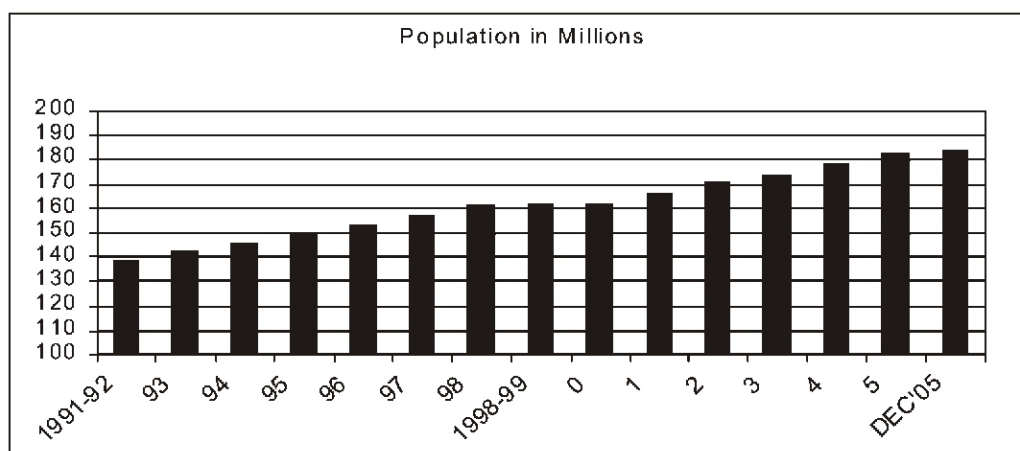


Fig. 1

resulted in inflating the trends due to some amount of re-registrations and inaccuracies in diagnosis. Fortunately the situation is improving since the cessation of MLECs.

During the year 1993 to 1994, the maximum number of cases have been deleted when cleaning up of registers was undertaken. Thereafter case discharges were nearly static before the year 2001 followed by a peak in 2001- 2002 after which we can notice a sharp decline. This

is due to the fact that the cases detected during the MLECs have been removed after completion of treatment between 2001 & 2002. It appears that case discharges are fewer in the recent 2 to 3 years corresponding with the fall in the number of cases.

The ANCDR (Annual new case detection rate) is showing an appreciable downward trend recently and the explanation, which is given in Graph 2 for the absolute Graph-6

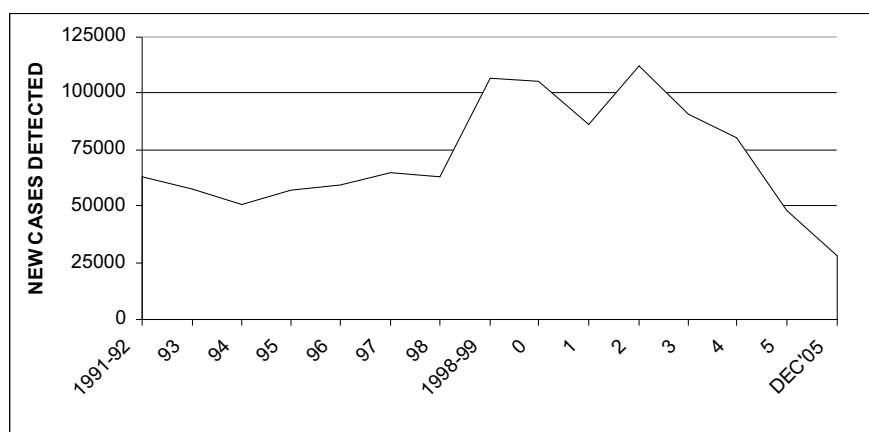


Fig. 2

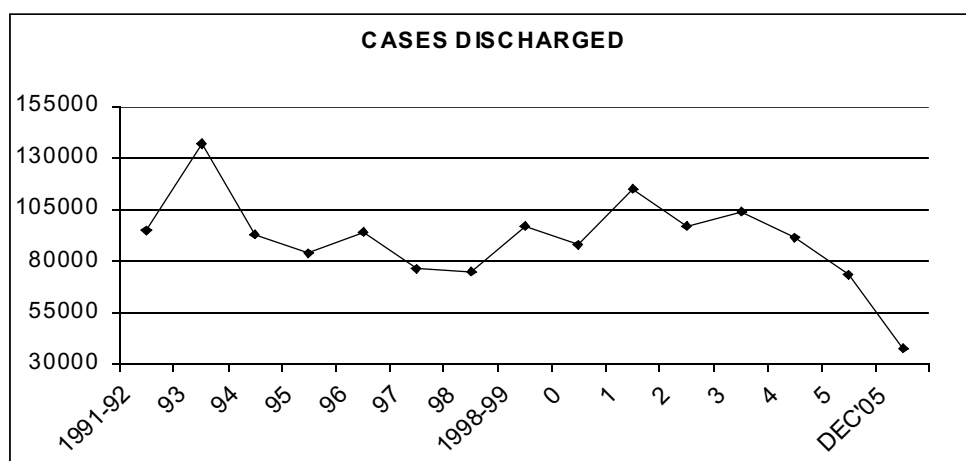


Fig. 3

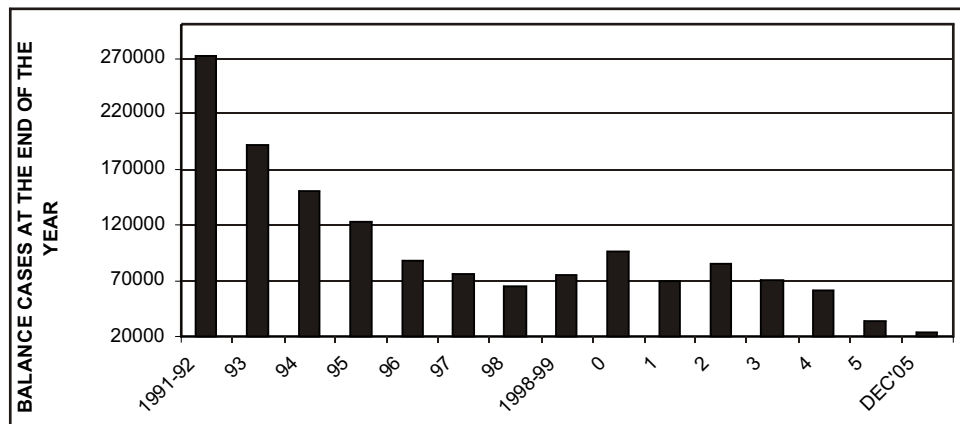


Fig. 4

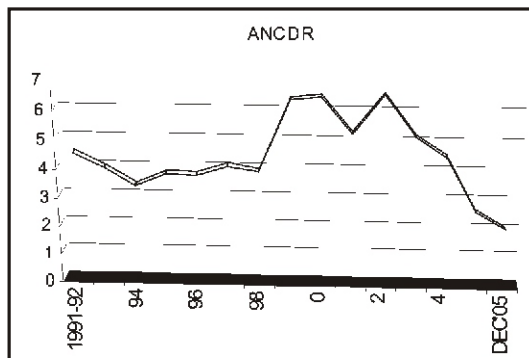


Fig. 5 : NCDR, PR and PD Ratio

There is a dramatic fall in the balance of cases, initially due to the cleaning up of registers and later due to wide spread MDT implementation since 1995. There was a slight increase in the balance cases during the years when five MLECs were conducted i.e. between 1998 & 2004. Afterwards a sharper decline can be seen in the balance number of cases. At the end of December there are only 24,000 cases as against 2,72,000 cases, which is reduction of 91.2 % over a period of 15 years.

Number of new cases detected, holds goods for this graph too.

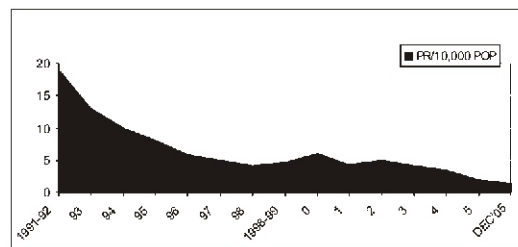


Fig.6. Prevalence rate (PR) trend

The PR (Prevalence Rate) is showing a remarkable downward trend and the explanation, which is given in Graph-4 for the absolute number of Balance Cases holds goods for this graph too.

The comparison between prevalence and ANCDR reveals that there is a dramatic fall of PR between 96 to 99 due to the MDT implementation and shortening of duration of treatment. However there is a moderate peak during MLECs after which, currently there is steady decline. The ANCDR is almost static from 1991 till 1997 followed by a peak during the MLEC periods. Significantly the ANCDR is also showing a sharper decline since then.

The PD ratio is a relatively new concept in the indicators. This shows the dynamicity

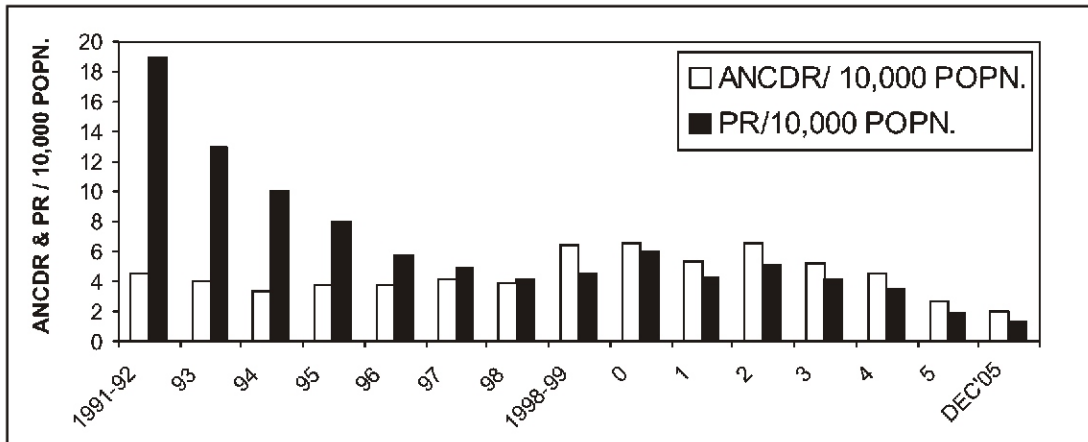


Fig. 7

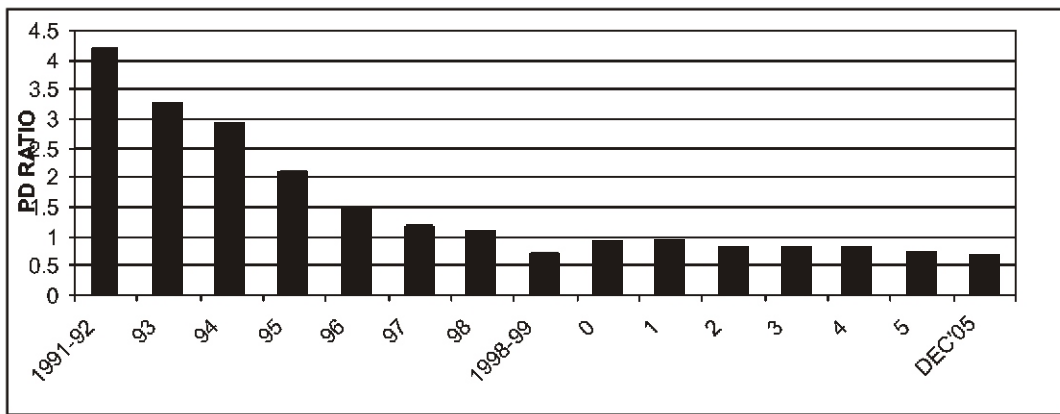


Fig. 8

in the influx of cases due to new case detection and out flow of cases due to completion of treatment and other forms of discharges. Ideally it should be less than 1, which the State could achieve after 1998, thanks to MDT. Since then the PD ratio is always less than one and currently is 0.65, which is quite healthy.

Child rate, deformity rate and MB proportions

The child proportion is for the most of the time between 6 to 8 %. The MLECs

produced a spike. IEC in schools should be fine but school surveys should be discouraged as they are likely throw up doubtful cases.

The deformity proportion has shown a dramatic decline over the last 15 years. This can be attributed to the availability of MDT and early diagnosis that was taking place. However we should be conscious in recording all the new cases that have visible deformity. As a future strategy we can go one step further and

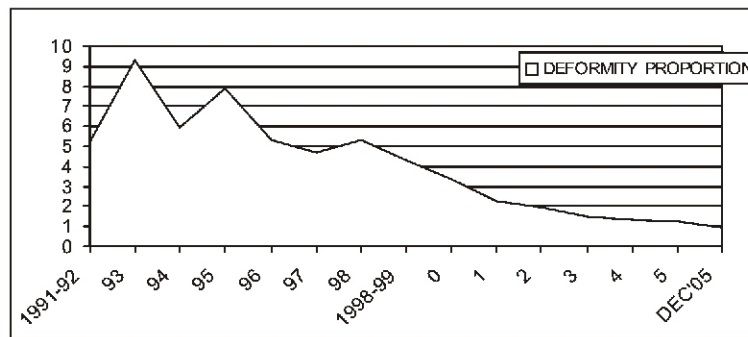


Fig. 9

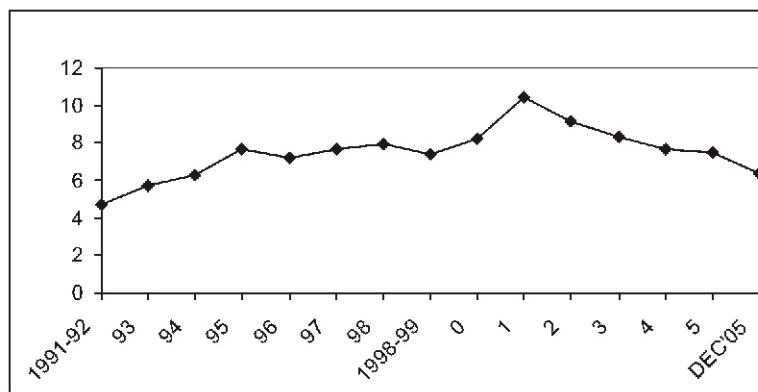


Fig. 10 : Child Rate

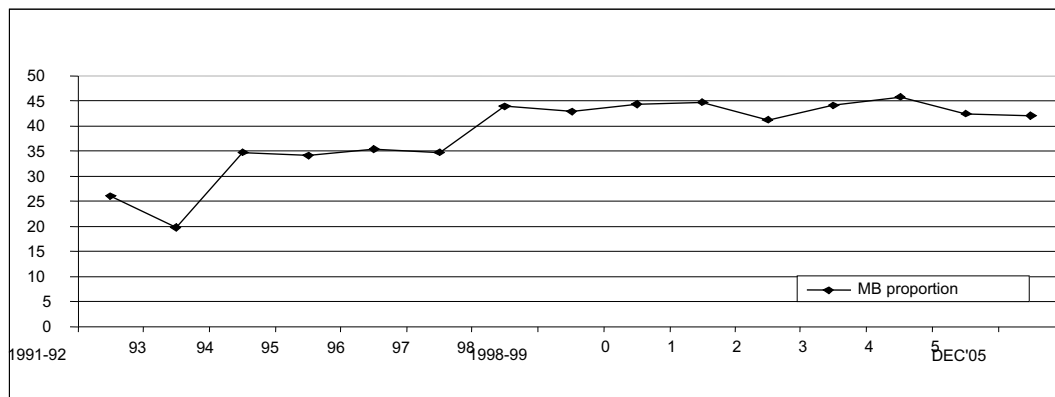


Fig. 11 : MB Proportion

include cases with GR-I disability i.e. anesthesia of the extremities and corneal anesthesia. This will help us to monitor patients progressing from GR-I to GR-II disability and prevent the process by

undertaking POD (Prevention of Disability) activities. These measures will contribute to the prevention of debilitation of current and cured leprosy patients.

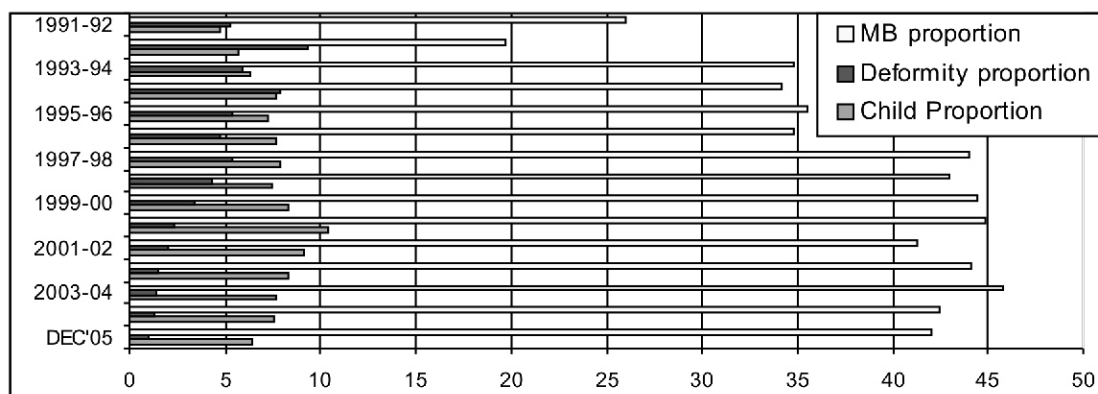


Fig. 12

MB (Multi Bacillary) proportion is between 35 % to 40 % at most of the times. It should be noted that there is change in criteria in classifying cases into MB. Earlier it used to be upto 10 patches but now a patient with 5 patches is classified as MB. Recently a trial is being conducted to give UMDT (Uniform MDT) irrespective of classification and number of patches. Hopefully this will be the norm in the not too distant future.

CASE VALIDATION BY DTST-U.P

Case validations are done by the DTSTs within 1 to 3 months after the case has been diagnosed at the Primary Health centers. The overall figures, as shown in the above table, are encouraging as wrong diagnosis and re-registration are less than 4 % and wrong typing is only 3.8 %. However there is room for improvement. The capacity building that the District Technical Support teams are involved when they visit Health Facilities is expected to minimize these operational factors further down.

Intensive supervision in all the 70 districts was conducted in Nov- Dec 2005

- 37 out of the 70 districts were allotted to the DTST teams.

	Number validated	Not a case	Wrong* Type	Re-registered
MB	3595	112 (3.1 %)	201 (6.1 %)	200 (5.6 %)
PB	3954	180 (4.6 %)	62 (1.7 %)	84 (2.1 %)
TOTAL	7549	292 (3.9%)	263 (3.8%)	284 (3.8%)

*Excluding re-registered cases and wrong diagnosis

- The remaining 33 districts were shared between NLEP Coordinator, NLEP Zonal Coordinator and State Epidemiologist.

The DTST findings after the verification of reports at the PHCs are

1. Number of cases 7780
2. Number of cases reported regular in MDT collection 6573 (85%)
3. Number of patients irregular 401 (5%)
4. 1 Time visit patients deleted 331 (4%)
5. Cases made RFT during the visit 459 (6%)

DTST findings are nearly in the same range as of the findings of the NLEP

Coordinator who carried out this exercise in 17 other districts.

The data thus show that leprosy is steadily declining in the State of U.P. The information relates to a long period of 15 years, without no major unexplained fluctuations, reveals the reliability and consistency of the data and no influence of any extraneous factors. If these parameters are projected into the future and if we can improve the socio-economic conditions and reduce the population growth, leprosy will be rarer in the years to come. Increased literacy levels which are consistent with better attitudinal and behavioral changes coupled with women empowerment will

go a long way in making not only leprosy **but also several other communicable** diseases a thing of the past.

ACKNOWLEDGEMENTS

Author thanks to Dr. C.B Prasad, SLO - Uttar Pradesh; Dr. Aley Siddiqi, ZLO-U.P; Dr. Rashmi Shukla, State NLEP Coordinator, U.P; Dr. R.P Mall, Epidemiologist, SLS, U.P; Dr. Munish Joshi DLA DTST Lucknow, U.P; Dr. S.K Noordeen, Former Chief WHO (Leprosy); Dr. V.M Katoch, Director Jalma, Agra; Dr. Anil Kumar, Dy Director Jalma, Agra; Mr. Vishwas Manmode Administrator DTST U.P; Mr. Naveen Chand, Secretary, Project Coordinators Office, Lucknow for advise and support.

Appendix : Leprosy scenario in UP during 1991-2005

S. No.	YEAR	Population in lakhs	New Cases detected during the year	Cases discharged	Balance cases at the end of the year	ANCDR per 10,000 popn.	PR per 10,000 popn.	Child Cases among new cases	Deformity among new cases	Child proportion	Deformity proportion	MB proportion
1	1991-92	13,87.60	63038	94785	272059	4.5	19	3024	3292	4.7	5.2	26.0
2	1992-93	14,22.90	57764	137268	192555	4	13	3314	5377	5.7	9.3	19.7
3	1993-94	14,57.86	50432	92620	150367	3.4	10	3197	3023	6.3	5.9	34.8
4	1994-95	14,94.30	57106	84205	123268	3.8	8	4409	4563	7.7	7.9	34.2
5	1995-96	15,31.66	59016	93929	88355	3.8	5.76	4264	3180	7.2	5.3	35.5
6	1996-97	15,69.95	64640	76028	76969	4.11	4.9	5010	3056	7.7	4.7	34.8
7	1997-98	16,09.20	63236	75099	65669	3.93	4.08	4989	3374	7.9	5.3	44.0
8	1998-99	16,21.33	106776	97309	75962	6.4	4.55	7911	4609	7.4	4.32	43.0
9	1999-2000	16,22.33	105170	87714	96597	6.48	5.95	8677	3544	8.25	3.37	44.42
10	2000-2001	16,60.52	86304	115018	69865	5.27	4.21	9122	1993	10.42	2.28	44.83
11	2001-2002	17,01.75	112089	96936	85633	6.59	5.03	10239	2176	9.13	1.94	41.3
12	2002-2003	17,40.89	90586	103764	71647	5.17	4.12	7541	1364	8.32	1.51	44.1
13	2003-2004	17,80.93	80323	91515	61634	4.5	3.46	6117	1060	7.64	1.32	45.8
14	2004-2005	18,21.90	48010	73532	33884	2.64	1.86	3606	594	7.51	1.24	42.47
	TOTAL		1044490	1319722				81420	41205			