WORLD HEALTH ORGANIZATION

ORGANISATION MONDIALE DE LA SANTÉ

SECOND MEETING ON STRATEGY OF LEPROSY CONTROL

EM/SND.MTG.STR.LEP CNT /4 PAK

Mogadishu, 30 October - 5 November 1982

20 October 1982

Agenda Item 4

REVIEW OF THE LEPROSY PROBLEM IN THE EASTERN MEDITERRANEAN REGION

COUNTRY REPORT : PAKISTAN

1. Leprosy Control
2. Statistical Report: 1981

by

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LEPROSY CONTROL IN PAKISTAN

1. BRIEF DESCRIPTION OF THE COUNTRY

Pakistan, boarding India on the South, Russia and China on the East, Afghanistan on the North, and Iran on North West, occupies an area of 888,000 sq.km. It is inhabited by 91 million people, predominantly (97%) Muslim population. With a birth rate of 3%, it is doubling its population every 20 years.

The country shows striking contrast in its geological formation, from desert areas to the heights of the Himalayan range; a wide variety in cluture, language, and social customs, and a wide gap between rich and poor, all factors which heavily influence the Leprosy Control Programme.

Politically, Pakistan is essentially a loose federation of four provinces, with additional tribal and border areas of special administrative status. Presently, the country is ruled by a Military Government, with a certain participation of elected local representatives.

Health is the responsibility of Provincial Governments; certain coordinating functions are exercised by the Federal Government. For Leprosy, the National Leprosy Control Board is serving as forum for discussion, policy making, and coordination.

Health allocations total 0.37% of the National Budget.

Slide 1

II STRUCTURE OF THE LEPROSY CONTROL PROGRAMME

1. History

The Leprosy Control Programme of Pakistan has been initiated by Voluntary Agencies who, from the start, have aimed at Government involvement and country-wide coverage.

The latter one, however, has only been achieved after prolonged struggle. Today, the provinces either :

- have a Government-managed Leprosy Control Programme aided by Voluntary Agencies, or
- A Voluntary Agency-managed programme coordinated with the Government.

2. Administrative set-up

Leprosy Control Projects are administratively integrated, and professionally vertical programmes, based on field work with a minimum of institutional care.

Slide 2

At present, two major and four smaller Voluntary Agencies are engaged in Leprosy work, besides the local governments. Expenses are partly met by Provincial and Federal Government, partly by foreign donors (mainly German Leprosy Relief Association).

The programme consists of:

66 field units staffed by 92 Leprosy Technicians, supervided by 14 Paramedical Supervisory Staff

2 Base Hospitals, and

3 Referral Hospitals, with 50 Leprosy Technicians and 8 full-time Medical Officers, offering various levels of service.

2 Homes for crippled patients have been established.

Of the two Training Institutions of the country, the National Training Institute at Karachi, Marie Adelaide Leprosy Centre, is providing most of the professional staff.

The National Institute of Health at Islamabad has of late added a Leprosy Research Cell to its departments.

III METHODOLOGY OF LEPROSY CONTROL

Is based on WHO Guidelines, consisting of standard methods of case finding, case holding and health education, adapted to local conditions.

- DDS 7 mg/kg body weight for negative and paucibacillary cases (bacterial index 1 + acc. to Ridley scale), started gradually (from 25 mg/kg body weight) in case of impending nerve damage, and
- DDS 10 mg/kg body weight plus B663 mg/week initially for six months, for multibacillary cases.

  Full dose of DDS is given to all positive cases except those showing impending nerve damage; in this case, B663 alone, or B 663 with gradually increasing dosage of DDS is administered.

IV LEVEL OF SERVICE RENDERED

Leprosy control services in Pakistan are a rather multifaceted programme, consisting of:

- field services for surveys, treatment and follow-up of defaulters,
- two specialized institutions offering reconstructive surgery,
- rehabilitation services including case work, sheltered workshops, a rehabilitation farm, housing projects, and
- training programmes for Leprosy staff, general and specialized,
- multipurpose programmes including:
  - combined Leprosy/Tuberculosis programme
  - Leprosy and prevention of blindness (with stress on Trachoma control)
  - Leprosy and mobile basic health services
  - Leprosy and Health Education

- Health education activities (mainly based on schools)
- a local fund raising campaign
- social uplift programme and fringe benefits for workers employed in the Leprosy Control Programme.

V EPIDEMIOLOGY

Leprosy is found in Pakistan in strictly focal pattern. Prevalence in Leprosy affected areas is usually between 1 - 1.5 0/00, while localized foci and certain population groups show figures as high as 17 0/00 A total of 21.533 patients have been registered in Pakistan, of whom 17.068 (79%) are still under treatment (31.12.81). Of these latter ones,

60% are concentrated in urban Karachi (8.2 million inhabitants)

35% are contributed by the smaller, less developed provinces (North West Frontier Province, Sind, Azad Kashmir, Baluchistan, Northern Areas), while only

5% are originating from Punjab, the most populous province of Pakistan (with 2/3 of the population).

Slide 3

Migration, especially refugee population, has played a major role in the Leprosy problem of Pakistan:

- refugee population from India (1947)
- Bihari refugees from Bangladesh (since 1971, still ongoing)
- and, of late, Afghan Refugees, mainly in NWFP and Baluchistan

VI RESULTS ACHIEVED

Though documentation has been regular since 1968, nation-wide data are only collected since 1980, when a National Register for Leprosy patients was introduced and completed.

7. DDS Resistance

No documented studies exist about the number of treatment failures. As there are no facilities for mouse inoculation, only one proved case of DDS resistance is known in Pakistan - test performed at Tropical Institute in Hamburg -, a primary resistant case from Karachi, the source of his disease is not yet known.

Two secondary tuberculoid cases have been diagnosed in his family.

In addition to this patient, there are an additional 22 suspected cases of DDS resistance total 25 = 0.15% suspected DDS resistance cases

Reasons for the comparatively low incidence.

- inability to test patients - probably, the number would be higher if facilities for investigation existed
- absenteeism (25%) is more common in Pakistan than irregularity (18%), probably caused by the mobility of the Pakistani labour force
- treatment regimens have never been less than 300 mg per week, and even this only for short periods

VII PRIORITY REQUIREMENTS OF THE PROGRAMME

- Implementation of Leprosy Technicians Service structure, determining pay scales and additional training course for promotional posts
- formulated plans of action for Leprosy control, based on WHO/LEP 79· these agreements have been worked out, but not yet signed
- additional funding to defray part of the expenses occurring in programme taking on additional health tasks
- effective steps to improve case holding, and check emergence of further resistant cases
- arrangements for mouse inoculation in Pakistan.

1379 = 8% are receiving low dose DDS, all of them in increasing doses

1055 = 77% are classified TT to BT, no patient is kept on permanently low doses

1379 = 8% are being treated with combined treatment, usually DDS and B 663; Rifampicin is used rarely. Two districts are using DDS/Tb-I-combination, which is being objected to by the remaining workers, the National Tuberculosis programme in Pakistan is based on INH-Tb I administration, and the area, keeping a regularity rate of not more than 35%, may be the source of strains of M.Leprae cross-resistant to Ethionamide.

105 = 0.6% are taking either Ciba 1906, or B 663 alone; the former ones comprise usually neuritic or BT patients, while the latter ones are frequently patients in ENL reactions.

28 = 0.6% are on alternate drugs (drug trial patients from Karachi)

3084 = 18% are defaulters who did not receive any treatment during 1981, and the treatment status of

850 = 5% is unknown (poor feedback into National Register by 2 districts)

6. Response to Treatment

The clinical status of 5399 = 32% of all patients is unknown at present, the majority of them (18%) being defaulters. Of the remaining 11.369 patients, 3.625(21%) have reached inactivity, while a further 2.434 inactive patients are kept under surveillance, after discontinuing specific treatment.

Highest inactivity rate (27%) is found among the LL patients, as they are kept on life-long treatment in Pakistan.

7 DDS Resistance

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LEPROSY IN PAKISTAN 1981

Statistical figures collected for 1981, show the following trends:

1). Total Registration, Case Load and Case Detection Rate (Table 1, 2, 8);

On 31.12.81, a total of

21.533 patients were entered into the National Register (Hazara, Punjab and Manghopir had not been received)
17.068 patients were under treatment (total Pakistan), and
2.434 discharged patients were kept under surveillance,
7 relapses were reported during 1981. Sind contributed with 67% the highest number of cases, (60% in Karachi, 7% in Rural Sind)

The case detection rate registered a slight decrease during 1981,

1.641 new patients were detected (duplicate entry eliminated except for Manghopir, Hazara and Punjab) against 1.893 registered during 1980. Karachi, with 64% of all new cases registered, has contributed more than half to the newly registered cases (64%), followed by NWFP (16%) and Sind Rural (7%),
while the remaining provinces contributed 4% (Punjab and Azad Kashmir), 3% (Baluchistan) and 1% (Northern Area) respectively.

Marie Adelaide Leprosy Centre,
Baluchistan and Northern Area increased their case yield, while the other Provinces showed a slight decrease (Table 1 and 2).

2). Sex and Age Ratio among the Newly Detected Cases (Table 5 and 8):

Female rate averages 33% in Pakistan (against 35% internationally);

Greater Karachi, Sind Rural and Punjab
showing 39 and 38% respectively, while
the remaining provinces remain below average.
All provinces registered a slight decrease as compared with 1980.

NWFP, as previously, shows with 20% the lowest percentage.

Child rate reached with 17% an unusually high figure caused by extensive school surveys conducted in Karachi, which raised the child rate in Greater Karachi to 38%.
All provinces, with exception of Azad Kashmir, registered a slight increase.

3). Infectivity and Deformity Rate (Table 3, 4, 8):

Both parameters have deteriorated in all Provinces except in Sind Rural and Punjab. National average, with 26% is conditioned by the low deformity rate of Greater Karachi (24%) which however, has nearly doubled as compared with 13% in 1980.

Northern Area shows an alarming 65%, while Baluchistan, NWFP and Azad Kashmir show 30% and above.

Infectivity rate is above 30% in all Provinces with the exception of Greater Karachi; the latter one has however been unable to counter-balance the development in the Provinces, thus the overall Pakistan Infectivity Rate reached 34% in 1981.

4). Case Holding (Table 6, 8):

Has been persistently low, with 58% average in Pakistan, NWFP (52%) Greater Karachi (56%) and M.A.C.Referral Centre (37%) remaining below average. The high absentee rate of the latter one (48%) is presently being investigated.

Case Holding, especially in Karachi and NWFP, needs urgent attentio

5). Clinical Status of Patients under Treatment (Table 7a-c, 8):

The disease of 32% of all patients under treatment has reached inactivity; Punjab showing the highest percentage (62), followed by Azad Kashmir (40%), Baluchistan (39%), and Greater Karachi (32%).

65% of all patients only are included into this statisti as the status of the remaining 35% is unknown; NWFP, followe by Baluchistan having the lowest re-examination rates (59% and 60% respectively).

The most urgent needs of the programme are

- better case holding in Karachi and NWFP,
- improved referral system to reduce the absentee rate among the migrant leprosy patients,
- better coverage of Northern Area,

while an improved discharge policy is indicated in Punjab.

LEPROSY SITUATION IN PAKISTAN 1981

	MAC	Gr.K'chi	Rural Sind	Pjb	BAL	NWFP	AK	NA	Total
Infectious	125	168	38	29	34	124	30	17	565
non-infect.	269	483	68	24	30	139	43	20	1076
Total	394	651	106	53	64	263	73	37	1641
% Infectivity	32%	26%	36%	55%	53%	47%	41%	46%	34%
Deformed	105	155	12	11	23	75	22	24	427
not def.	289	496	94	42	40	170	50	13	1194
Total	394	651	106	53	63	245	72	37	1621
% Deformed	27%	24%	11%	21%	37%	31%	30%	65%	26%
unknown	o	o	o	o	1	18	1	o	20
Male	261	411	65	38	46	214	52	27	1114
Female	133	262	41	23	18	52	21	10	560
Total	394	673 [1]	106	61 [2]	64	266 [3]	73	37	1674 [4]
% Female	34%	39%	39%	38%	28%	20%	29%	27%	33%
Adult	356	489	93	54	60	233	70	35	1390
Child	38	184	13	7	4	32	3	2	283
Total	394	673 [1]	106	61 [2]	64	265 [3]	73	37	1673 [4]
% children	10%	38%	12%	11%	6%	12%	4%	5%	17%
+ unknown						1			1
Grand total New Cases	431	869	110	61	72	266	73	37	1919
Of these previously not reg.	394	651	106	53	64	263	73	37	1641
Transferred	37	211	4	8	8	3	0	0	271
relapsed	0	7	0	0	0	0	0	0	7

1) Manghopir & New Karachi have included their referred cases as well, thus total is 22 excess over the patients registered for the first time.

2) Punjab did the same, both used the old OMSLEP forms.

3) Balakot, too.

4) This figure includes 33 patients which have been transferred only, but were accounted for in the sex column.

LEPROSY SITUATION IN PAKISTAN 1981

	MAC	Gr.K.	Rural Sind	Pjb.	BAL.	NWFP	AK	NA	TOTAL
Total No. under treatment.	2956	7342	952	808	599	3143	1037	231	17.068
% of total	17%	43%	6%	5%	3%	19%	6%	1%	100%
Regular	1099	4085	705	700	472	1551	810	215	9.637
Irregular	437	1463	112	51	53	785	134	5	3.040
Absent	1420	1794	135	57	74	624	89	11	4.204
Total	2956	7342	952	808	599	2960	1033	231	16.881
% Regular	37%	56%	74%	87%	79%	52%	78%	93%	57%
% Irregular	15%	20%	12%	6%	9%	27%	13%	2%	18%
Absent	48%	24%	14%	7%	12%	21%	9%	5%	25%
Unknown	0	0	0	0	0	183	4	0	187
Active treated	1085	3303	569	305	202	1361	570	180	7.593
Inactive treated	267	1534	162	496	140	508	375	36	3.518
Total	1352	4837	731	801	360	1869	945	216	11.111
% Active	80%	68%	78%	38%	61%	73%	60%	83%	68%
% Inactive	20%	32%	22%	62%	39%	27%	40%	17%	32%
Unknown	1604	2505	221	7	239	1274	92	15	5.957 =35%
% known	46%	68%	77%	99%	60%	59%	91%	94%	= 65%
not	54%	34%	23%	1%	40%	41%	9%	6%	= 35%
Inactive under surveillance	283	1838	153	0	17	68	73	2	2434

Pakistan — Total Registration: 21.533

Pakistan: Total No. treated	: 17.068
of these, new adm. 81	: 1.641 = 9.5% of total
relapsed	: 7 = 0.04% of total
Discharged patients under surveillance	: 2.434

TABLE 1:

TOTAL NUMBER OF LEPROSY PATIENTS UNDER TREATMENT IN THE DIFF. PROVINCES ON 31. 12 81

[FIG IN BRACKETS INDICATE 1980 RESULTS]

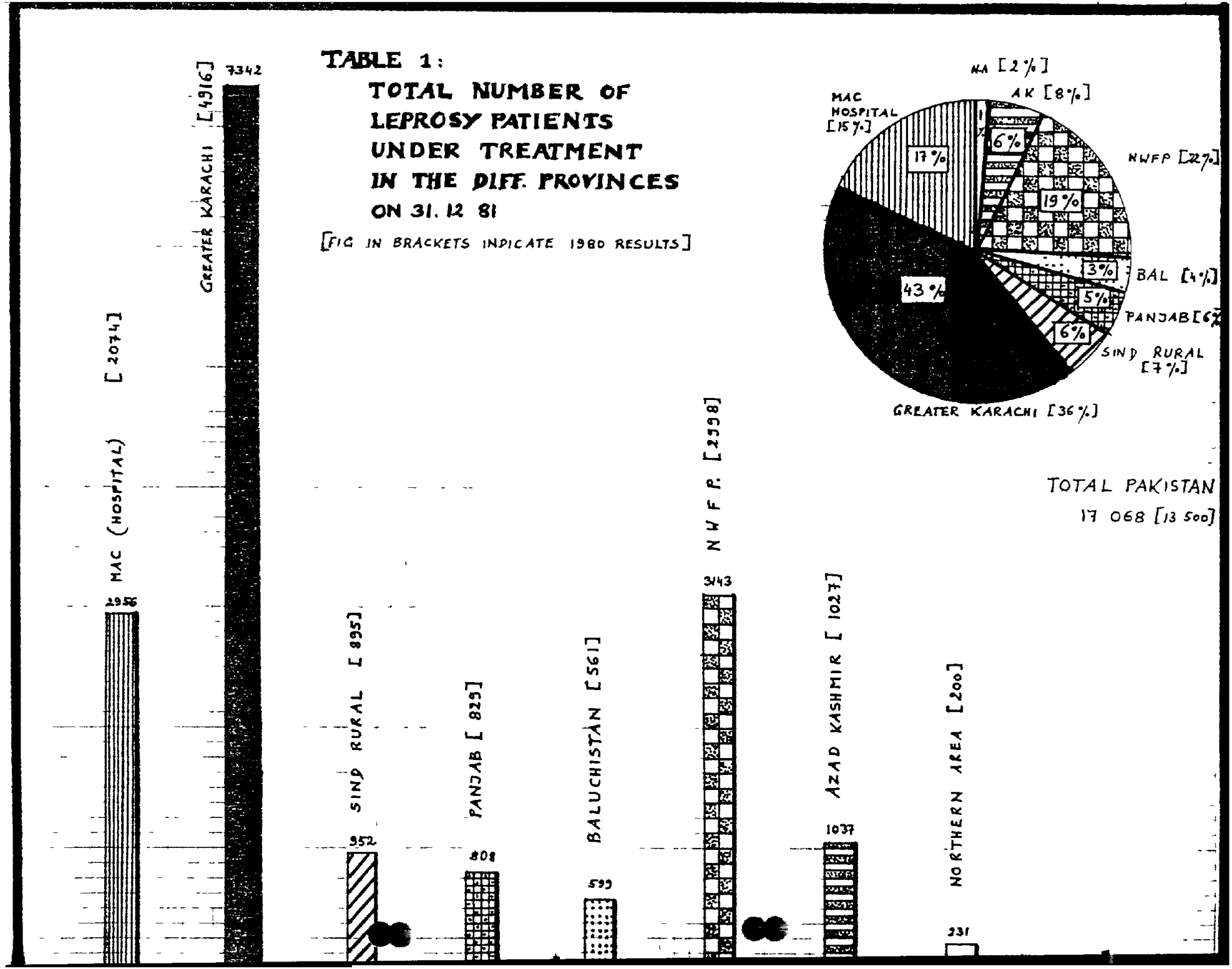


TABLE 2 · NUMBER OF NEWLY DETECTED PATIENTS, 1981, PROVINCEWISE

[FIG IN BRACKETS SHOW 1980 RESULTS]

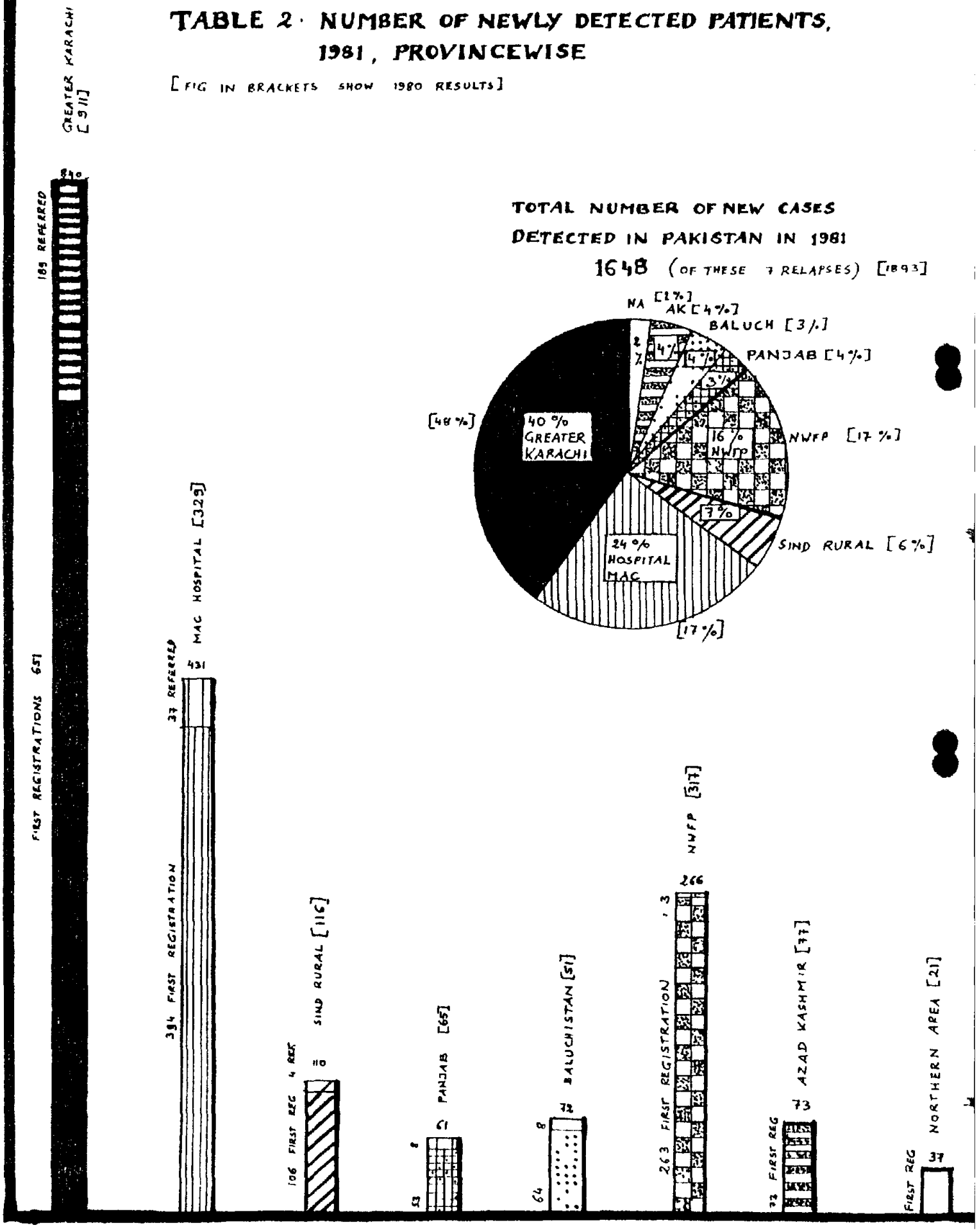


TABLE 3: INFECTIVITY RATE PROVINCEWISE.

NEW ADMISSIONS 1981 [FIG. IN BRACKETS INDICATE 1980 RESULTS]

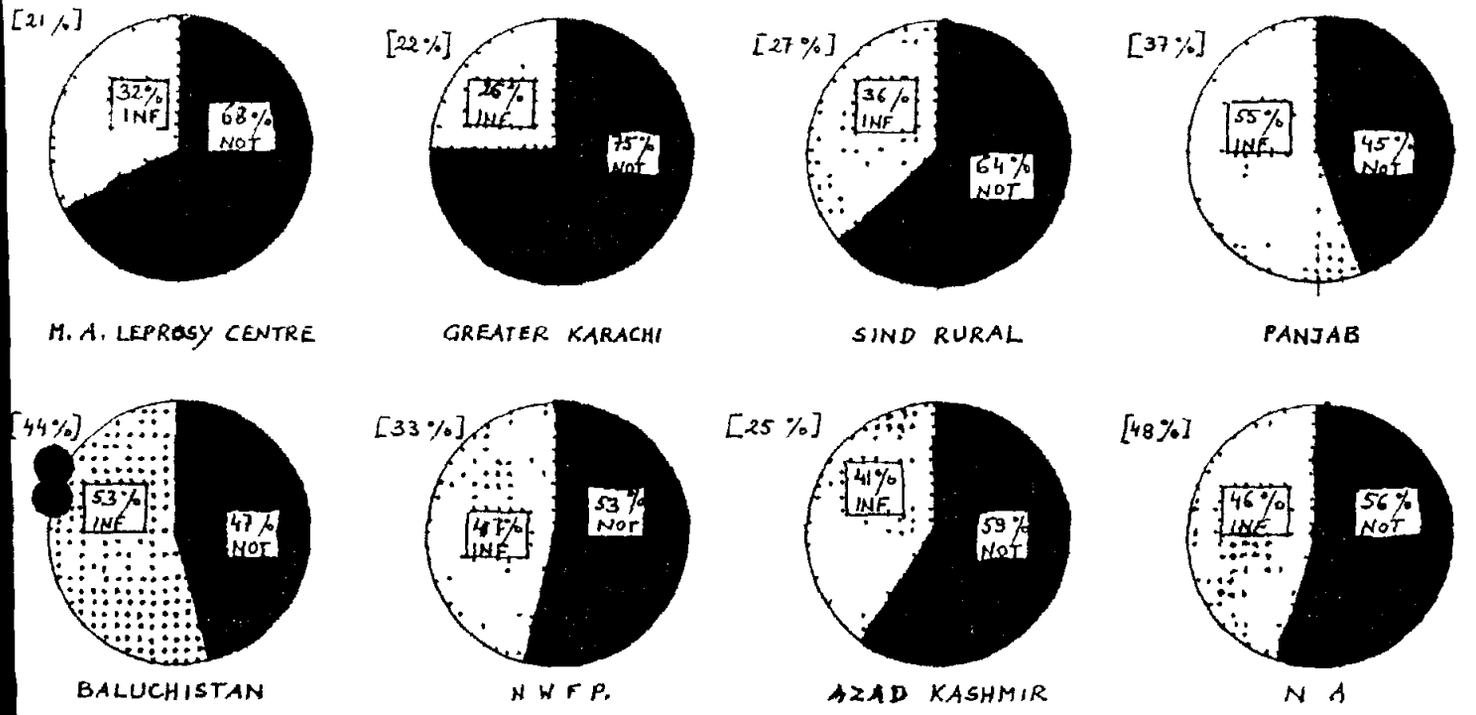


TABLE 4. DEFORMITY RATE PROVINCEWISE

NEW ADMISSIONS 1981 [FIG IN BRACKETS INDICATE 1980 RESULTS]

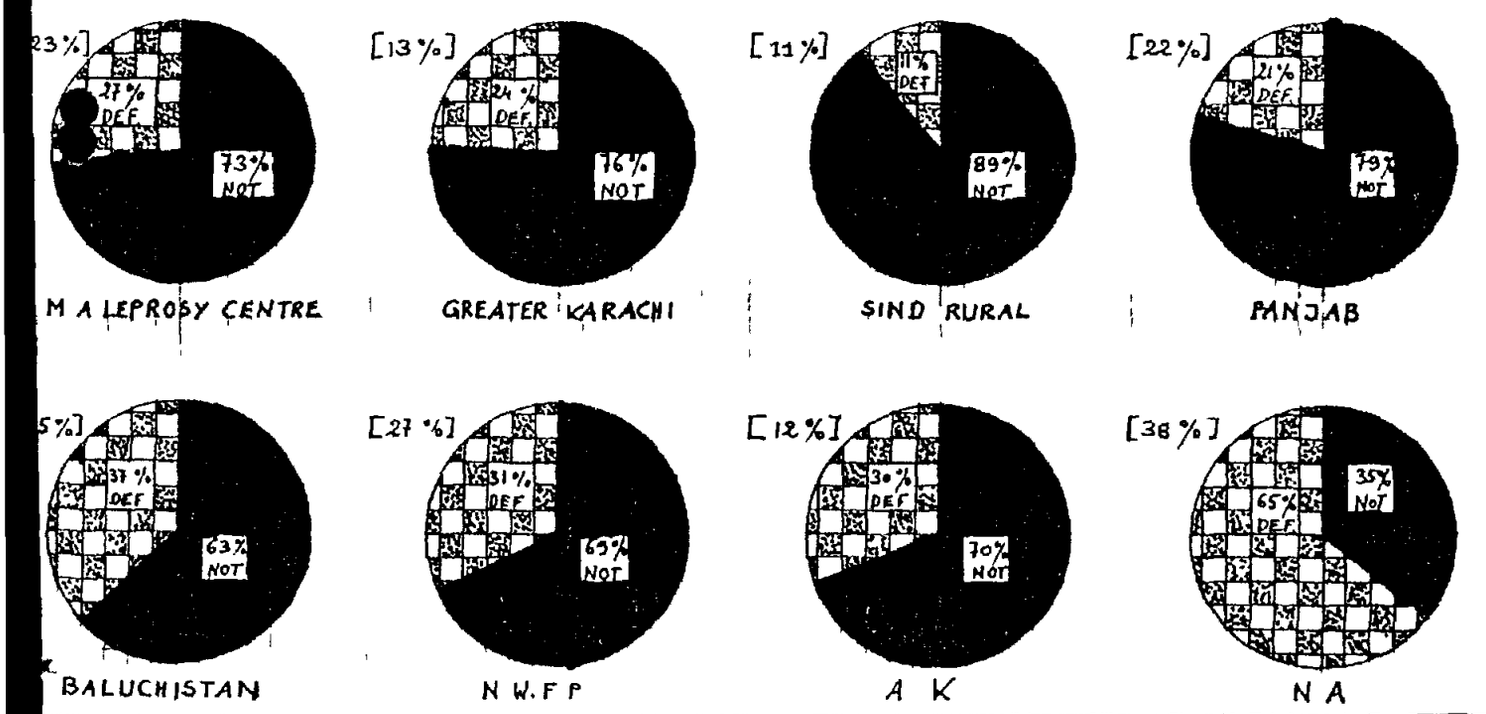


TABLE 5. SEX- AND AGE-RATIO PROVINCEWISE NEW ADMISSIONS 1981

[FIGURES IN BRACKETS INDICATE RESULTS 1980]

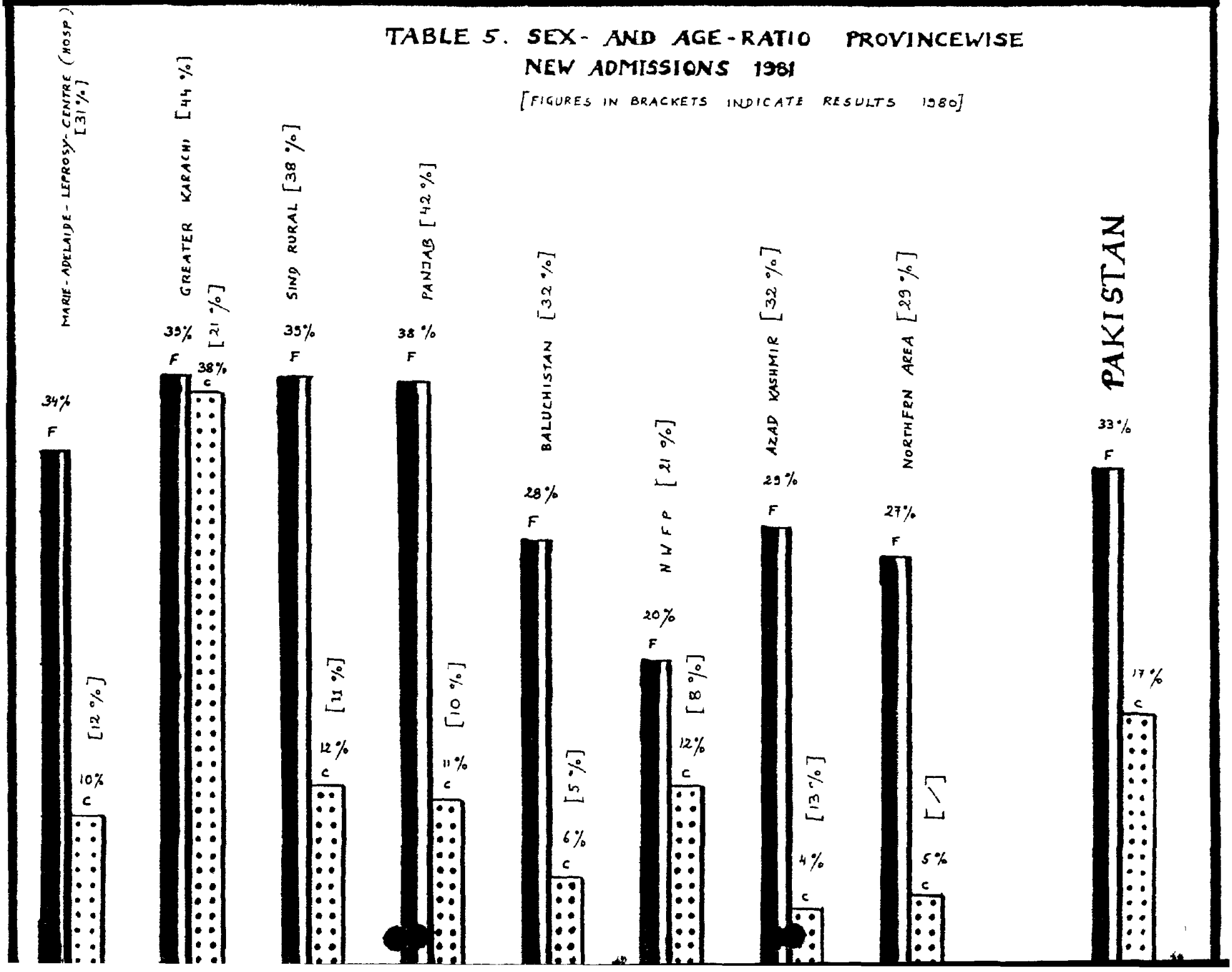


TABLE 6: CASE-HOLDING 1981 PROVINCEWISE

[FIG IN BRACKETS INDICATE 1980 RESULTS]

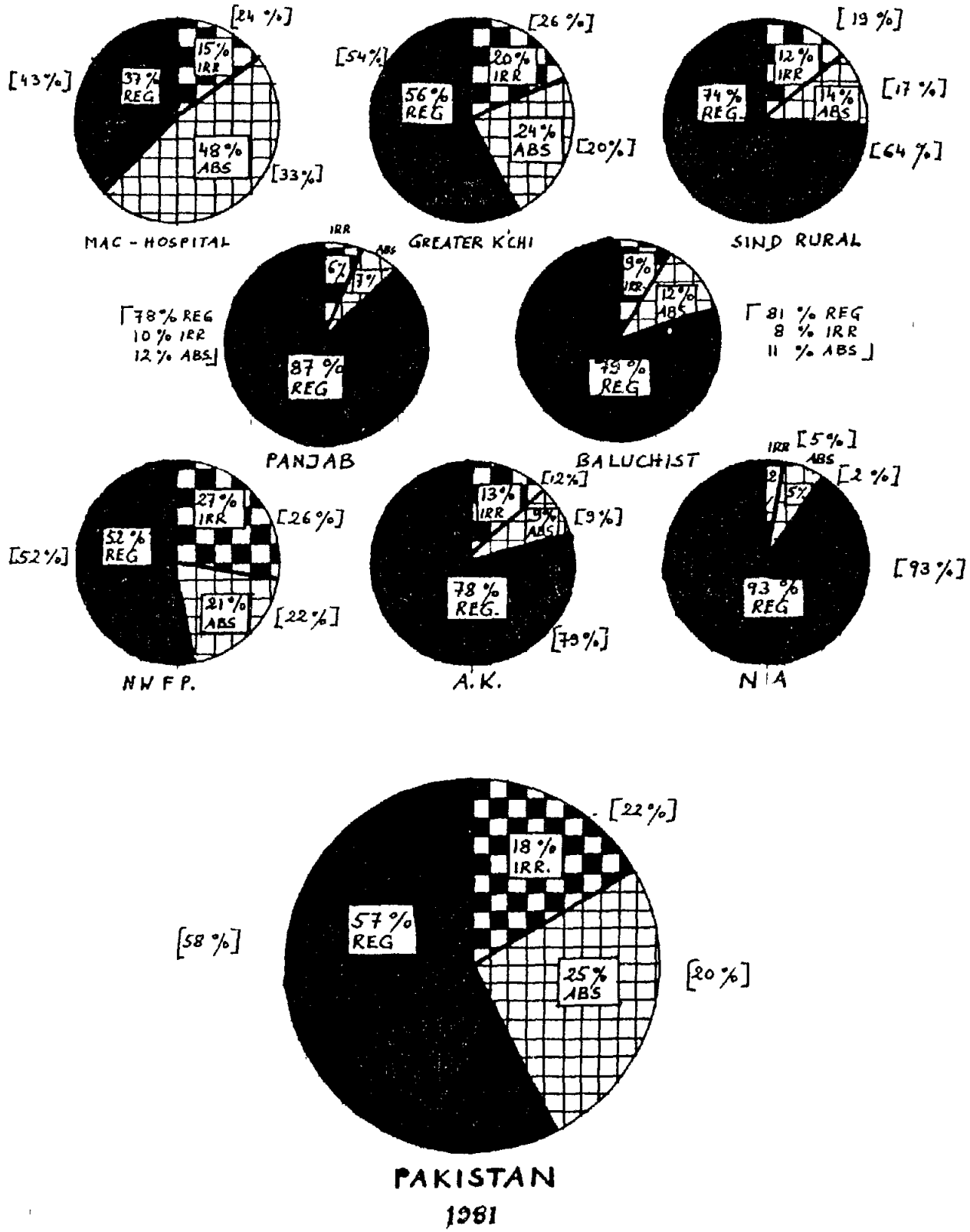
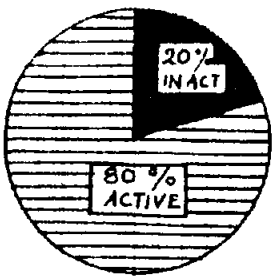
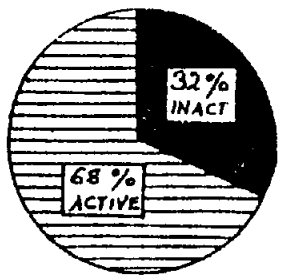


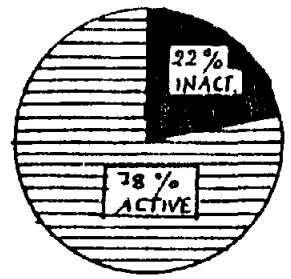
TABLE 7a: CLINICAL STATUS OF PATIENTS UNDER TREATMENT 1981



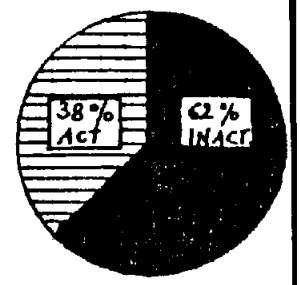
MAC - HOSPITAL



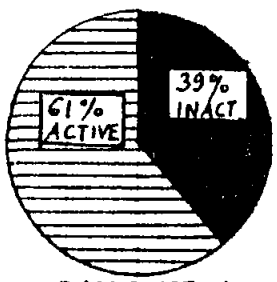
GREATER K'CHI



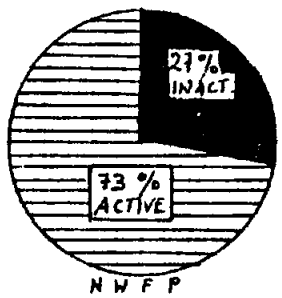
SIND RURAL



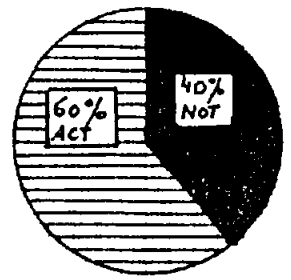
PANJAB



7b BALUCHISTAN



NWFP



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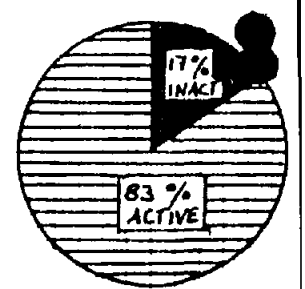
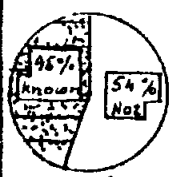
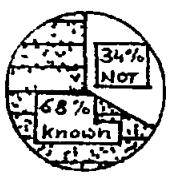


N A

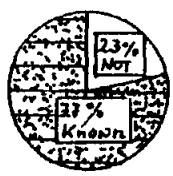
CLINICAL STATUS OF PATIENTS.



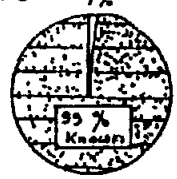
MAC



GR KARACHI



SIND RURAL



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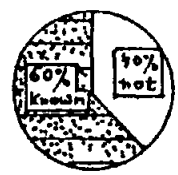

BALUCHIST

NWFP

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INACTIVE PATIENTS UNDER SURVEILLANCE:

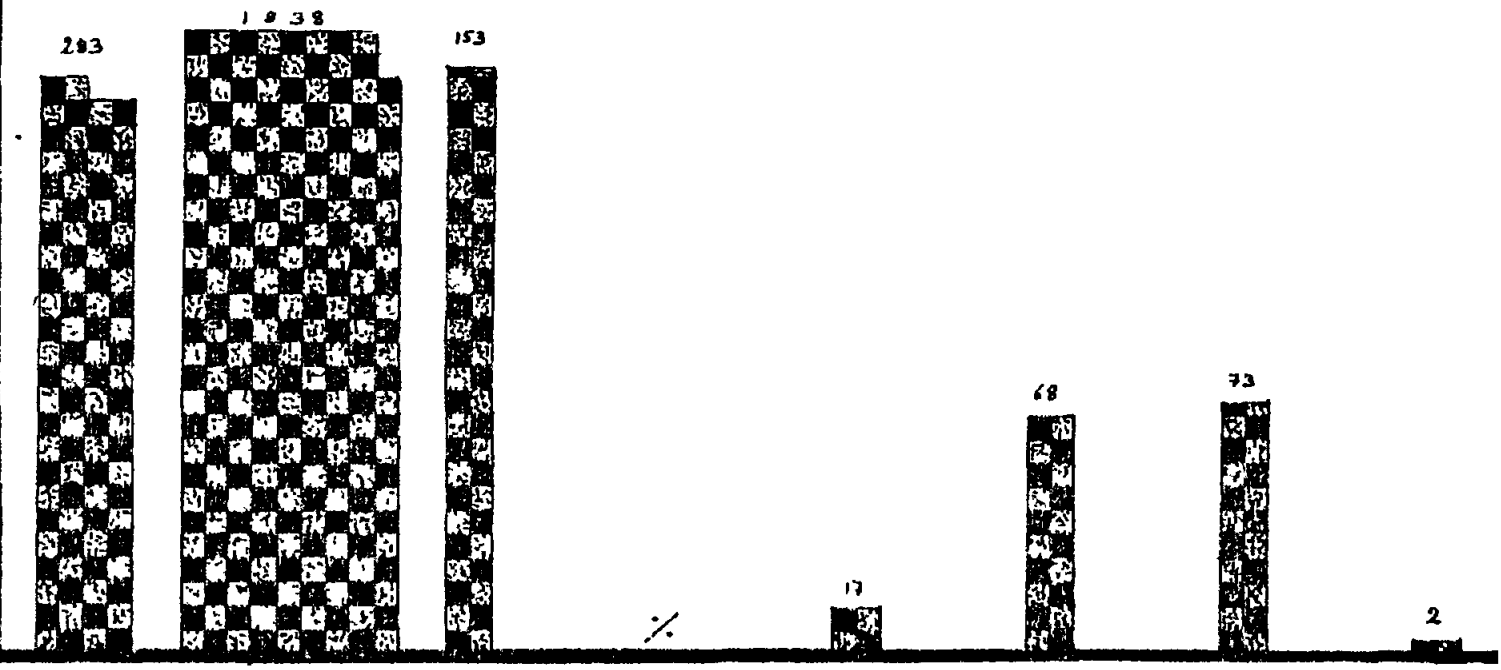


TABLE 8

LEPROSY IN PAKISTAN 1981

TOTAL CASES REGISTERED 21 583

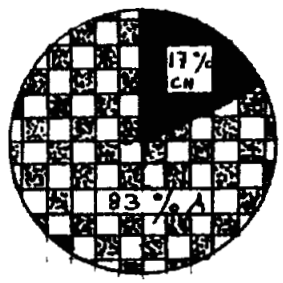
PATIENTS UNDER TREATMENT 31.12.81 17 068

NEWLY REGISTERED PATIENTS [1893]

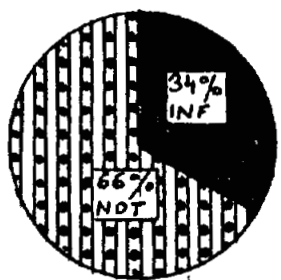
DISCHARGED PATIENTS UNDER SURVEILLANCE 2434

RELAPSES 164

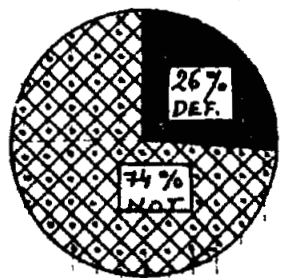
SEX - RATIO



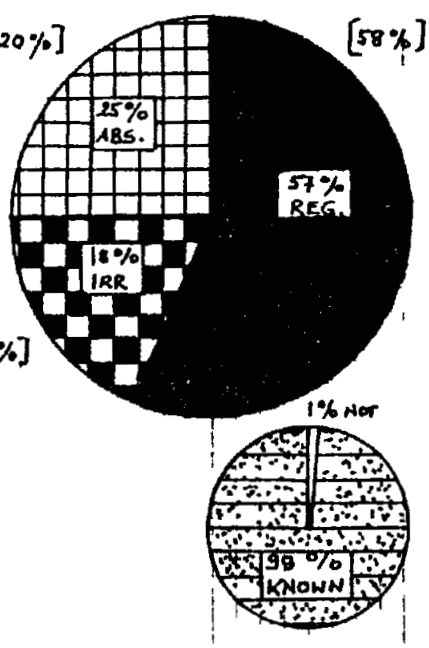
AGE-RATIO



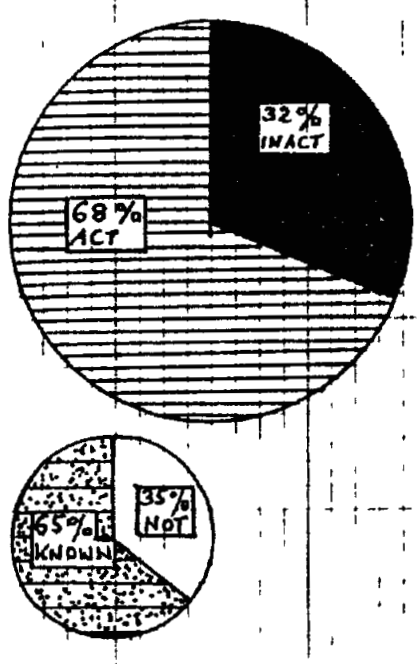
INFECTIVITY-RATE



DEFORMITY RATE



REGULARITY RATE



CLINICAL STATUS

[FIG IN BRACKETS INDICATE 1980 RESULTS]

ALMAS