MAIN EQUIPMENT (FROM JAPAN)

YEAR	I T E M	QUANTITY	AMOUNT(¥)	PLACEMENT	C O N D I T I O N
8 9 4 5	ELEVATOR UNIT FOR "CANON" MIRROR CAMERA	1	597,600	STORAGE	GOOD
4 6	X-RAY FILM"KONICA"			USED	
	14×17" box/100's	4	160,000		
	14×14" box/100's	2 0	660,000		
	11×14" box/100's	2 0	520,000		
4 7	X-RAY FILM DEVELOPER	3 0	189,000	USED	
4 8	X-RAY FILM FIXER	3 0	102,000	USED	
4 9	STARTER 1 Litt.	3 0	39,000	USED	
5 0	"DENYO" ELECTRIC GENERATOR GA-1600	1	160,000	STORE	GOOD
5 1	"EIKI" 16mm. PROJECTOR ESL-2	1	440,000	STORAGE	GOOD
5 2	PROJECTION LAMP, Halogen 250W	2	7,600	USED	
5 3	EXCITER LAMP	2	3,800	USED	
5 4	REEL,2000ft.	1	3,400	USED	

MAIN EQUIPMENT(FROM JAPAN)

YEAR	I T E M	QUANTITY	AMOUNT(¥)	PLACEMENT	C O N D I T I O N
8 9 5 5	SPLICER ST-16 with splizing tape	1	47,700	USED	
5 6	SLIDE PROJECTOR "OMNIGRAPHIC 252"	1	129,000	TRAINING HALL	GOOD
5 7	ZOOM LENS 70-120mm.	1	22,000	T.HALL	GOOD
5 8	SPARE SLIDE TRAY	1	1,600	T.HALL	GOOD
5 9	SPARE LAMP FOR CAROUSEL TRANSVIEW	2	4,800	STORAGE	GOOD
6 0	VTR SET 1)MULTISYSTEM TV TC-AL2190 2)MULTISYSTEM VTR 3)RACK TYG21AV2 4)CABLE VX-16 2M	 1 1 1 1	 103,000 108,000 9,000 1,500	STORAGE	2)MULTISYSTEM VTR STOLEN
6 1	VIDEO CAMERA "SONY"	2	372,000	EXPERT'S	ROOM GOOD
6 2	VIDEO CASSETE TAPE	2 4	28,800	USED	
6 3	MULTI TV "JVC"	1	271,000	EXPERT'S	ROOM GOOD
6 4	WIRELESS MEETING AMP WITH CASSETE PLAYER	1	70,000	TRAINING HALL	GOOD

MAIN EQUIPMENT(FROM JAPAN)

YEAR	I T E M	QUANTITY	AMOUNT(¥)	PLACEMENT	C O N D I T I O N
8 9 6 5	WIRELESS MICROPHONE WM-210E	1	28,490	TRAINING HALL	GOOD
6 6	WIRELESS TUNER WU-20	1	15,000	TRAINING	HALL GOOD
6 7	DINAMIC MICROPHONE	1	16,000	TRAINING	HALL GOOD
6 8	DRY BATTERY	2 4	40,800	USED	
6 9	BATTERY CHARGER	1	4,000	STORAGE	GOOD
7 0	OVERHEAD PROJECTOR SET "ELMO"			TRAINING	HALL GOOD
	1) PROJECTOR HP-285P	1	111,000		
	2) SPARE LAMP, 300W	1 0	30,000		
	3) TP ART KIT	1 2	180,000		
	4) COLOR MAGIC PEN	1 2	14,400		
	5) OHP TABLE	1	20,000		
	6) SCREEN HW-3,	1	45,000		
	7) ROOL ATTACHMENT	1	6,800		
	8) TRANSPARENCY	5	22,000		
	9) ROOL FILM	5	12,000		
7 1	"TOSHIBA" VACUUM CLEANER VC302EJ 6L	2	46,000	STORAGE	GOOD
7 2	"TOSHIBA" VACUUM CLEANER VC350P 14L	2	51,600	STORAGE	GOOD

MAIN EQUIPMENT(FROM JANPAN)

YEAR	I T E M	QUANTITY	AMOUNT(¥)	PLACEMENT	C O N D I T I O N
8 9 7 3	ISUZU SPARE PARTS FOR CAR.	6 3	125,440	STORAGE	GOOD
7 4	HONDA SPARE PARTS FOE MOTORCYCLE	1 5	3,870	STORAGE	GOOD
7 5	MONOPOTASSIUM PHOSPHATE (500g)	2 0	19,000	USED	
7 6	SODIUM GLUTAMATE (500g)	1 0	17,500	USED	
7 7	GRYCEROL (500ml)	2 0	22,000	USED	
7 8	MALACHITEGREEN (25g)	1 0	17,500	USED	
7 9	SODIUM HYDROXIDE (500g)	3 0	19,500	USED	
8 0	ANILINE (500ml)	5	5,750	USED	
8 1	ETHANOL 95% (500ml)	4 0	44,000	USED	
8 2	FUCHSIN (BASIC) (25g)	3 0	84,000	USED	
8 3	PHENOL (500g)	2 0	23,000	USED	
8 4	SULFIC ACID (500ml)	4 0	28,000	USED	

MAIN EQUIPMENT(FROM JAPAN)

YEAR	I T E M	QUANTITY	AMOUNT(¥)	PLACEMENT	C O N D I T I O N
8 5	METHYLEN BLUE (25g)	1 0	15,000	USED	
8 6	INH (50g)	1	1,700	USED	
8 8	EB (25g)	1	6,000	USED	
8 9	SLICAGEL (500g)	6	5,400	USED	
9 0	PETROLFUMBENZINE (500ml)	1 0	5,000	USED	
9 1	XYCLENE (500ml)	4 0	26,000	USED	
9 2	IMMERSION OIL (50ml)	3 0	84,000	USED	
9 3	HIVITAIN (500ml)	1 0	16,000	USED	
9 4	CRESOL (500ml)	2 0	32,000	USED	

MAIN EQUIPMENT (LOCAL PURCHASE)

YEAR	I T E M	QUANTITY	AMOUNT (Rs)	PLACEMENT	C O N D I T I O N
8 9 1	R.D. NIAZIDE FORT (300mg)	146,000	26,280	USED	
2	R.D. NIAZIDE FORT (100mg)	43,000	3,870	USED	
3	R.D. ZONE FORT (TB1+INH)	210,000	56,700	USED	
4	RIFAMPICINE- REMACTANE (450mg)	93,000	553,350	USED	
5	RIFAMPICINE-SYRUP (50ml)	3,000	62,250	USED	
6	PYRAZINAMIDE-PZA- (750mg)	102,000	363,120	USED	
7	ETANBUTOL (400mg)	200,000	180,000	USED	
8	R.H.Z.	60,000	187,200	USED	
9	RIFAMPICINE (150mg)	8,000	18,560	USED	
1 0	R.H. (RIFADIN+ INH)	10,000	57,400	USED	
	TOTAL		Rs 1,508,730 ¥ 6,952,672		

MAIN EQUIPMENT(FROM JAPAN)

YEAR	I T E M	QUANTITY	AMOUNT(¥)	PLACEMENT	C O N D I T I O N
9 0 1	BIOLOGICAL BINOCULAR MICLOSCOPE "OLYMPUS"	5 0	7,800,000	TRAINING ROOM/STORE	GOOD
2	WATER BATH,COPPER.	2	15,600	RESEARCH	LAB. GOOD
3	TRIPOD	2 4	8,400	RESEARCH	LAB. GOOD
4	TEST TUBE RACK	5 0	495,000	RESEARCH	LAB/STORE GOOD
5	TEST TUBE BASKET 30cm. suare "SANWA"	5	55,000	STORE	GOOD
6	TEST TUBE BASKET 20cm. suare "SANWA"	5	18,000	STORE	GOOD
7	ELECTRONIC BALANCE Spare Fuse	1 5	135,000 1,750	RESEARCH LAB.	GOOD
8	TEST TUBE WITH RIM 16.5φ × 165mm.	2,000	84,000	RESEARCH LAB.	GOOD
9	TEST TUBE WITH RIM 15.0φ × 150mm.	2 0 0	7,000	RESEARCH LAB.	GOOD
1 0	RUBBER STOPPER FOR CULTURE TUBES, 16.5mm. φ "RKI"	2,000	90,000	STORE	GOOD

MAIN EQUIPMENT(FROM JAPAN)

YEAR	I T E M	QUANTITY	AMOUNT(¥)	PLACEMENT	C O N D I T I O N
9 0 1 1	GALASS HOMOGENIZER 10ml.20 ×163mm.	5 0	100,000	RESEARCH LAB./STORE	GOOD
1 2	ALUMINUM CAPS "RKI"	1 0 0	23,000	RESEARCH	LAB.STORE/GOOD
1 3	CENTRIFUGAL TUBES	3 0	3,900	STORE	GOOD
1 4	ERLENMEYER FLASKS			RESEARCH	GOOD
	100ml. "SHIBATA"	2 0	7,600	LAB./STORE	
	300ml. "SHIBATA"	2 0	9,600	EXAM. ROOM	
	500ml. "SHIBATA"	1 0	7,100		
	1,000ml. "SHIBATA"	5	7,000		
1 5	BEAKER GRIFFIN 100ml	1 0	2,400	RESEARCH	GOOD
	BEAKER GRIFFIN 500ml	1 0	5,100	LAB./STORE	
1 6	REAGENT BOTTLE white			RESEARCH	GOOD
	narrow mouth 120ml.	5	4,250	LAB./STORE	
	250ml.	5	4,600	EXAM. ROOM	
	500ml.	5	6,500		
	amber 120ml.	1 0	9,900		
	250ml.	1 0	11,000		
	500ml.	1 0	16,000		
	wide mouth, 250ml.	1 0	10,800		
1 7	UNIVERSAL GLASS JARS	6	5,400	STORE	

MAIN EQUIPMENT (FROM JAPAN)

YEAR	I T E M	QUANTITY	AMOUNT (¥)	PLACEMENT	C O N D I T I O N
9 0	MEASUREING CYLINDERS			RESEARCH	GOOD
1 8	50ml. "SHIBATA"	5	6,750	LAB./STORE	
	100ml. "SHIBATA"	5	7,750	EXAM. ROOM	
	250ml. "SHIBATA"	5	10,500		
	1,000ml. "SHIBATA"	5	42,500		
1 9	KOMAGOME'S TRANSFER PIPETTES, 2ml.	5 0	12,500	RESEARCH LAB./STORE	GOOD
2 0	PIPETA MEASUREING			RESEARCH	GOOD
	1ml. "SHIBATA"	2 0 0	70,700	LAB./STORE	
	5ml. "SHIBATA"	5 0	22,000		
	10ml. "SHIBATA"	5 0	27,500		
2 1	GLASS FUNNELS			RESEARCH	GOOD
	90mm. ϕ	1 0	5,000	LAB./STORE	
	240mm. ϕ	1 0	58,000	EXAM. ROOM	
2 2	DISPENCER "SOCOLEX"	4	84,000	STORE	GOOD
2 3	SPARE PARTS FOR DISPENCER	1 0	40,000	STORE	GOOD
2 4	MICROSCOPIC SLIDE GLASS	1 0 0	82,000	STORE	GOOD

MAIN EQUIPMENT (FROM JAPAN)

YEAR	I T E M	QUANTITY	AMOUNT (¥)	PLACEMENT	C O N D I T I O N
9 0 2 5	PE. WASHING BOTTLE 250ml. 500ml.	 2 0 2 0	 4,000 5,000	RESEARCH LAB./STORE EXAM. ROOM	GOOD
2 6	DIAMOND PEN	2 0	80,000	R. LAB. EXAM	LAB. GOOD
2 7	SPUTUM CONTAINEER WITH SCREW CAPS	5,000	250,000	USED	
2 8	NICHROM WIRE, 750W	1	1,900	R. LAB.	GOOD
2 9	HOLDER FOR NICHROM WIRE	2 0	3,600	RESEARCH LAB.	GOOD
3 0	TEST TUBE RACK, for 16.5mm. tubes × 24pcs. 15. mm. tubes × 20pcs.	 1 0 0 1 0	 160,000 12,000	RESEARCH LAB./STORE	GOOD
3 1	PIPETS STERILIZING CONTAINER, 60mm × 75mm × 400mm. 70mm × 80mm × 300mm.	 1 0 1 0	 42,000 42,000	RESEARCH LAB./STORE	GOOD
3 2	SILICON RUBBER CAPS	5 0	4,000	R. LAB.	GOOD
3 3	SAFETY PIPETTER	5	6,500	R. LAB.	GOOD
3 4	ABSORBENT GAUZE	1 0	33,000	USED	

MAIN EQUIPMENT (FROM JAPAN)

YEAR	I T E M	QUANTITY	AMOUNT(¥)	PLACEMENT	C O N D I T I O N
9 0 3 5	MICRO SLIDE BOX "MATSUYOSHI"	2 0	19,000	RESEARCH LAB./STORE	EXAM. ROOM GOOD
3 6	PIPETE CASE TYPE6	2	30,000	R.LAB.	GOOD
3 7	FILTER PAPER	2 0	120,000	USED	
3 8	POWDER PASPER	2 0	4,000	R.LAB.	GOOD
3 9	COLOWER WAPPEN, 5 coloured	3 0 0	444,000	USED	
4 0	LABO. GLOVES	1 0	14,400	R.LAB.	GOOD
4 1	MONOPOTASSIUM PHOSPHATE 500g G	2 0	17,000	USED	
4 2	SODIUM GLUTAMATE 500g G	1 0	16,000	USED	
4 3	GLYCEROL 500g G	2 0	24,000	USED	
4 4	MALACHITE GREEN 25g	1 0	14,000	USED	
4 5	SODIUM HYDOROXIDE PELLETS 500g G	3 0	18,000	USED	
4 6	ETHANOL(95%) 500g G	4 0	44,000	USED	

MAIN EQUIPMENT(FROM JAPAN)

YEAR	I T E M	QUANTITY	AMOUNT(¥)	PLACEMENT	C O N D I T I O N
4 7	FUCHSINE (BASIC) 25g "MATSUYOSHI"	3 0	76,800	USED	
4 8	PHENOL 500g	2 0	48,000	USED	
4 9	SULFIC ACID 500ml. G	4 0	21,200	USED	
5 0	METHYLENE BLUE 25g G	1 0	16,500	USED	
5 1	INH (Isonicotinic Acid Hydrozide) 25g	1	1,800	USED	
5 2	EB(Etham Butol) 25g	1	8,000	USED	
5 3	SILICAGEL BLUE MID 500g G	6	5,100	USED	
5 4	XYLENE 500g G 500g G	4 0	23,200	USED	
5 5	IMMERSION OIL 50ml.	3 0	72,000	USED	
5 6	HIVITAIN 500ml.	1 0	16,700	USED	
5 7	PROPYLENE GRYCOLE 500ml. G	5	4,450	USED	

MAIN EQUIPMENT (FROM JAPAN)

YEAR	I T E M	QUANTITY	AMOUNT (¥)	PLACEMENT	C O N D I T I O N
9 0 5 8	"ELMO" 35mm. SLIDE PROJECTOR			STORAGE	GOOD
	1) OMNIGRAPHIC	1	134,450		
	2) ZOOM LENS	1	22,000		
	3) SPARE SLIDE TRAY G	1	1,800		
	4) SPARE HALOGEN BULBS	2	4,800		
5 9	"CABIN" VIDEO PROJIEKTOR			STORAGE	GOOD
	1) PROJIEKTOR	1	485,000		
	2) SPEAKER	1	28,000		
	3) CARRYING CASE	1	36,000		
	4) AV Cable	1	20,000		
	5) SCREEN with Tripod	1	94,000		
	6) VIDEO CASSETTE RECORDER	1	320,000		
6 0	FOLDING STRETCHER	2	367,100		GOOD
6 1	FOLDING CHAIR	2	154,000		GOOD

＊EQUIPMENTS (FROM JAPAN) FOR '91 HAVE NOT ARRIVED YET. THIS LIST DOES'NT CONTAIN THOSE EQUIPMENTS.

MAIN EQUIPMENT (LOCAL PURCHASE)

YEAR	I T E M	QUANTITY	AMOUNT (¥)	PLACEMENT	C O N D I T I O N
9 0	RIFAMPICIN (450mg)	7,500	198,430	STORAGE	
2	RIFAMPICIN (150mg)	5,500	56,720	STORAGE	
3	RIFAMPICIN SYRUP (50ml)	1,500	138,901	STORAGE	
4	INH (300mg)	10,000	11,210	STORAGE	
5	INH (100mg)	3,000	1,210	STORAGE	
6	INH SYRUP (120ml)	1,500	92,448	STORAGE	
7	PYRAZINAMIDE (750mg)	90,000	1,436,771	STORAGE	
8	ETHANBUTOL (400mg)	180,000	726,457	STORAGE	
9	TB1+INH	85,000	125,784	STORAGE	
1 0	RIFATOR	165,000	1,923,776	STORAGE	
1 1	RIFADIN+INH	45,000	1,099,775	STORAGE	
	TOTAL	(¥ 5,811,512)			

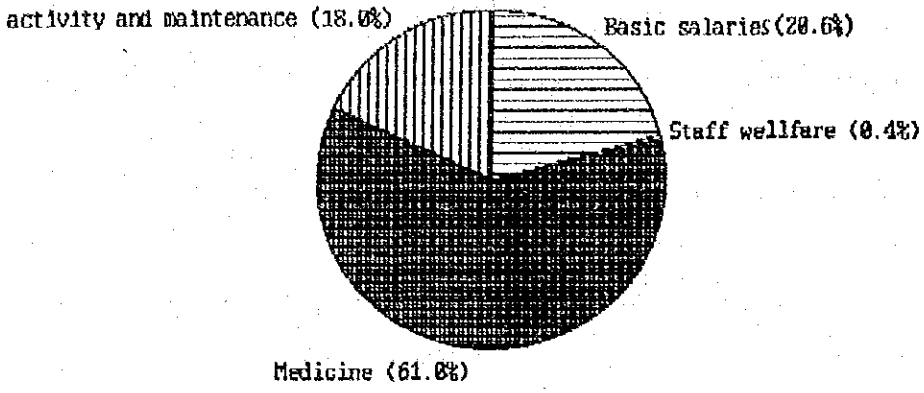
MAIN EQUIPMENT (LOCAL PURCHASE)

YEAR	I T E M	QUANTITY	AMOUNT ($)	PLACEMENT	C O N D I T I O N
9 1	X-RAY FILM 100枚/box	2 0	3,910	UNDER	PROCURING
2	DEVELOPER 5ガロン/unit	3 0	1,650	UNDER	PROCURING
3	RIPLENISHER 5ガロン/unit	2 0	1,100	UNDER	PROCURING
4	FIXER 5ガロン/unit	3 0	1,800	UNDER	PROCURING
5	INTENSIFYING SCREEN 14" ×14" 12" ×10"	 3 0 5	 3,750 527.50	UNDER	PROCURING
	SUBTOTAL	$ (1) ¥	12,737.50 1,690,903		

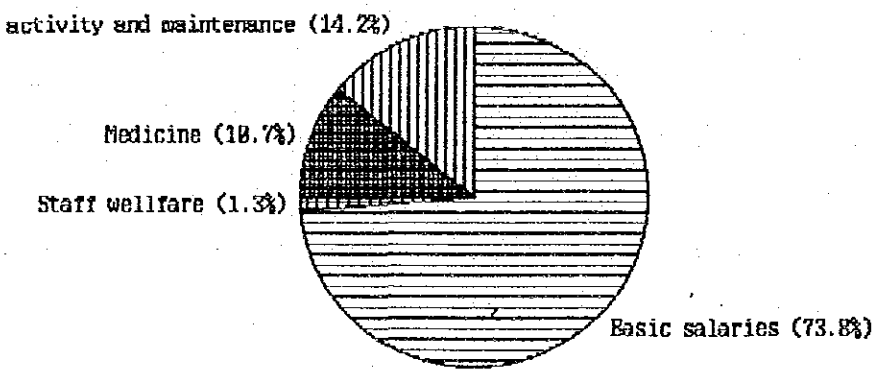
MAIN EQUIPMENT (LOCAL PURCHASE)

YEAR	I T E M	QUANTITY	AMOUNT (Rs)	PLACEMENT	C O N D I T I O N
6	RIFATER	300,000	711,000	UNDER	PROCURING
7	RED (450g) + INH (300g)	230,000	1,150,000	UNDER	PROCURING
8	PYRAZYNAMIDE (750mg)	180,000	477,000	UNDER	PROCURING
9	ETHAMBUTOL (400mg)	400,000	284,000	UNDER	PROCURING
10	INH (300mg)	25,000	4,500	UNDER	PROCURING
11	INH (100mg)	25,000	1,750	UNDER	PROCURING
12	INH (300g) + THIACETAZONE (150mg)	400,000	116,000	UNDER	PROCURING
13	REP SYRUP (50ml)	3,000	60,600	UNDER	PROCURING
14	INH SYRUP (120ml)	3,000	39,750	UNDER	PROCURING
	SUBTOTAL		Rs 2,844,600 (2) ¥ 9,176,679		
	(1) + (2) TOTAL		¥ 10,867,582		

TB control budget distribution
11141000Rs.= ¥35940000



National TB Centre budget distribution
1864000Rs.= ¥6010000



National TB centre Budget, according to HMG heading

Rs.

items	2048/49	2047/48	remarks
Salaries	1375000	1265000	
Allowances	14000	115000	eg.training
TA.DA	8000	7000	
Services	150000	217000	
Other services	17000		
Repair maintenance	20000	20000	
Office stationary	10000	10000	
Books	5000	5000	
Fuel for vehicle	31000	31000	
Fuel for others	2000	2000	
Clothes allowance	4000	4000	
Health equipment	20000	40000	for the staff
Other office materials	4000	4000	
Medicines	200000	250000	
Miscellaneous	4000	6000	
Other development,construction			
TOTAL	1864000	1976000	-5.7%
value in ¥	¥6012903	¥10030456	-40.1%

Budget for Tubeuclosis Control

items	2048/49	2047/48	
Salaries	2300000	2650000	
Allowances	100000	190000	eg.training
TA.DA	300000	785000	
Services	300000	550000	
other services	200000		
Repair maintenance	50000	50000	
Office stationary	80000	100000	
Books	6000	6000	
Fuel for vehicle	125000	125000	
Fuel for others	25000	40000	
Clothes allowance	15000	32000	
Health equipment	25000	50000	for the staff
other office materials	500000	240000	
Medicines	6800000	6400000	
Miscellaneous	15000	30000	
other development,construction	300000	345000	
TOTAL	11141000	11593000	-3.9%
value in ¥	¥35938709	¥58847715	-38.9%

NATIONAL TUBERCULOSIS CENTRE

PROPOSED PLAN OF ACTION
2048-49
(1992/93)

1. Introduction:-

Tuberculosis is one of the major public health problems in Nepal. The disease is as prevalent in rural areas as in urban areas. Hence, bulk of the tuberculosis patients are in rural areas as 93 % of the total population are village dwellers in Nepal.

His Majesty's Government (HMG) of Nepal, has been trying to bring the disease under control for which International agencies like Japan International Cooperation Agency (JICA), International Nepal Fellowship (INF), Britain Neapl Medical Trust (BNMT), United Mission to Nepal (UMN) and National Voluntry Organisation such as Nepal Anti-TB Association are cooperating the Government in this direction.

Every effort is being made to bring the tuberculosis services such as diagnosis and treatment of tuberculosis as nearer to the patient's home as possible by integrating the services into the general health services. As a matter of fact, National Tuberculosis Programme is methodical approach within the country's health system, to reduce the problem of tuberculosis in the country to such a level as it is no longer a public health problem. This is certainly an uphill task and is challenging specially for a country like Nepal, where the resources in terms of manpower, money and materials are limitted and the infrastructures of health are not even upto the level of satisfaction because of the aformentioned reasons and also due to difficult terrain.

National Tuberculosis Programme intends to make the services available and accessible to the people in need through the net works of Primary Health Care available in the country and with the cooperation of international agencies and community people's participation in this direction.

2. Programme:

2.1. Case finding and Treatment of Tuberculosis:

So far 55 districts out of the total 75 districts of Nepal have been covered by the services. In the Eastern region, B.N.M.T. is providing services in 8 districts, similarly in Midwestern region, INF is providing services in 6 districts, Aid Medical and Sanitary Services of France, has been trying to provide tuberculosis services in two districts of Western region

with cooperation of District Public Health Offices. The service will be further strengthened by way of training health manpower of the districts, periodical supervision of the programme, logistic support, monitoring and evaluation of the programme. Both B.N.M.T. and I.N.F. have taken the responsibility of developing manpower needed for the programme in these district covered by them. This fiscal year, 58 districts will be covered by the programme.

3. Training, Seminar and Workshops:

Training of health manpower for effective and efficient delivery of tuberculosis control services, is one of the important components of National Tuberculosis Programme. Training is required at all levels :- Central, Intermediate and Peripheral levels.

3.1. At the Central level:

Training is required for:

Policy making
Planning and programming
Co-ordinating the activities
Training of all catagories of health workers
Direction
Monitoring and EValuation

The 9th Report of WHO Expert Committee on Tuberculosis stressed the "MANAGERIAL TEAM" in the implementation of the National Tuberculosis Programme. The team members must be specially trained in all technical and operational aspects of the programme so as to manage the tuberculosis control activities in the districts. The concept of Managerial Team for the tuberculosis control,programme was derived from the following situations in Modern Tuberculosis Control Programme.

1) Tuberculosis is one of the integral component of Primary Health Care (PHC). PHC is multipurpose and tuberculosis service is one of its components. It is therefore essential that a specialized team is needed in the centre to oversee the technical and managerial aspects of tuberculosis activities carried out by the multipurpose health workers of general health institutions so that they are operated efficiently and effectively.

2) Secondly the methods and technology of tuberculosis control, have been so simplified as can be operated by para medical workers effectively, provided they are trained, retrained on the jobs to be performed and supervised canstantaly.

3) Success of TB Control Programme depends upon the availablity of the drugs in sufficient quantity in treating institutions.

Seven Managerail Teams, each consisting of one Supervisor, one Microscopist and a Statistical Assistant, have been formed in the Centre and trained. They are specially geared to fulfill the following responsibilities. They visit each district under their supervision at least 3 times in a year.

Functions of Managerial Team:

i) Supervision
ii) Training
iii) Monitoring
iv) Evaluation
and v) Central Logistic Supports.

3.2. Workshop on National Tuberculosis Control Programme Policy:

The aim of the National Tuberculosis Programme is to deliver the tuberculosis services to the people by integrating the programme in the Primary Health Care supported by all levels of National Health System. It is equally important to take into considerations, the technical, administrative and resources constrains that stand on the way of tuberculosis control programme and discussed among the cocerned authorities so as to formulate a sound and valid policy, plan and programme of national tuberculosis programme. With the view, a seminar workshop on National Tuberculosis Control Programme Policy was proposed to be held last year. But due to political turmoil, the proposed seminar had to be postponed that time. This year, the seminar is going to be held in the last week of November with the cooperation of JICA.

Objective of the Seminar:

To lay down valid and sound policy of National Tuberculosis Programme according to the concept of National Policy of Health Care delivery of His Majesty's Government.

Methods:

@ Working paper presentations on different activities of Tuberculosis Control Programme and discussions on each topics.

@ Recommendations for adopting policies on NTP.

Participants:

The seminar will be participated by administrators and policy makers of health and also other members of concerned ministries.

3.3. Lectures on National Tuberculosis Programme to medical students:

The medical students from Tribhuvan University, Teaching Hospitals are attending the NTC for orientation on NTP. University Teaching Hospital, will be requested to arrange for special lectures on NTP for the final year medical students and include the topic in the curriculum as well. It is very essential because the doctors to be posted at peripheries, must know the policy and strategies of National Tuberculosis Control Programme.

3.4. Regional Level:

Background: Provisions of tuberculosis services in the districts through the staff of health institutions are the responsibilities of District Public Health Offices (DPHO) which are in fact the nerve centres of Primary Health Care to be delivered in the districts. DPHO implements the National Tuberculosis Programme in the district with the directives, technical guidance and support of Regional Directorate of Health and Regional or National Tuberculosis Centres respectively. DPHO has to organise job oriented training for health workers in the districts, supervise the tuberculosis control activities being carried out by the district health units, keep upto date records of the tuberculosis patients of the districts, procure logistic supplies required for the tuberculosis control programme etc. For these purposes, National Tuberculosis Centre proposed to have regional level workshop seminars for District Public Health Officers in western and central regions (sponsorship JICA), in the Eastern region (sponsorship BNMT) and in the mid western region (sponsorship INF). The workshops were held on 17-18 Feb. 1991 in the Eastern Region and on 29-30 Sept. 1991 in the Mid-Western Region with the sponsorship of the above mentioned agencies. In the Central and Western Regions, JICA's assistance in conducting the aformentioned workshop seminar have been requested for and are expected to be held in January 1992. For far western region, negotiation is going on with Netherlands Leprosy Relief Association to conduct Regional Leprosy and Tuberculosis Control Seminar.

Objectives of the Workshop Seminar:

i) To orientate the District Public Health Officers about the Tuberculosis Control Programme Policies and strategies.

ii) To assist DPHOs in planning and programming of District Tuberculosis Control Programme in an effective and efficient manner with the cooperation and coordinatio of all levels of health services in the region.

3.5. At the peripheral levels:

a) As the health post staff are the front line health workers to deliver the primary health care to the people including tuberculosis services, they need training on case detection, treatment of tuberculosis, recording and reporting of tuberculosis patients to the concerned DPHO. The training to the Health Post staffs will continue and will be organized by respective DPHOs. National and Regional Tuberculosis Centres will provide technical supports to DPHO for conducting the training. This fiscal year, about 8 districts have been selected for pilot studies in acheiving high completion and cure rate. In those districts, Short Course Chemotherapy will be introduced. Special attention will be paid in training health care staff of those districts.

b) Trainer's Training:

In each five development regions of the country, there are Regional Health Training Centres which conduct training programme for health workers of the region. NTC, this fiscal year, has made plan to give training to the trainers of those Regional Training Centres so as to train the peripheral health workers through the Regional Training Centres themselves which would be economical, time saving and convinent as well.

4. Training for NTC and RTC staffs in Japan:

4.1. Regular TRaining

a) Group training course in TB control - 1 doctor
b) Advance training course in TB control - 1 doctor
c) Group training course in laboratory technilogy - 1 lab.technician
d) Training for X-ray technician

4.2. Counter part training

a) Training for public health nurse
b) Post graduate training in bacteriology - 1 doctor
c) Training in Computer Programming - 1 statistician

4.3. Training sponsored by WHO

a) Statistical method and operational research
b) Training in TB Control:
- Treatment Organisation - 3
- Laboratory Technicia - 3
- Statistical Assistant - 3

5. Research and Survey

5.1. Operational Research :- Will be continued in Chitawon and Dhading districts.

5.2. Research proposals in improving the treatment completion and cure rate among the sputum positive TB patients in pilot areas (8 districts) have been designed.

Methodology

i) Full cooperation of health care staffs of the districts will be ensured.

ii) Short course chemotherapy will be instituted.

iii) Regular drug supply system will be established.

iv) Registration of patients and cohort analysis will be done in proper ways.

v) Assessment of response to treatment will be done on the following ways:

a) Speed of sputum conversion

b) Relapse rates

c) Sputum examination will be made at, 1, 2, 3, 6, 12 and 18 months after treatment.

vi) Training will be provided to the health staffs:-

> On case finding

> Treatment

> Record keeping

vii) Training will be provided to DPHO staffs and central supervisory staffs on:

> Technical supervision
> Monitoring
> Drug supplies
> Technical knowledge on Tuberculosis Control activities.

viii) Mobilize all available resources to achieve the better treatment completion rate:

The research will be conducted in pilot areas for demonstration purposes with the cooperation of WHO and JICA.

District Selected:

Central Region

1. Dhanusha
2. Sindhupalchowk
3. Makawanpur
4. Nuwakot
5. Kavrepalanchowk
6. Nawalparasi
7. Rupandehi
8. Palpa

5.3. Centralize Sputum Examination To Improve Quality and Coverage of TUBERCULOSIS CASE FINDING:

Tuberculosis control programme aims at preveing the transmission of infection by indentifying sources of infection in the community i.e. persons who transmit tubercle bacilli in the community. Hence, top priority is given to detect and treat direct sputum microscopy positive tuberculosis patients in National Tuberculosis Programme. But at the present situations, the health posts, where most of the patients of infective nature visit, have deficiencies in many respects e.g. technical facilities for diagnosis, manpower etc. whereby coverage of case finding is lower. Even if facilities of sputum examination are there in these health institutions, case detection rate is lower because of not sufficient case load to them on one hand and on the other hand, the quality of the test also contribute to such low rate of case finding from these peripheral health institutions. Hence, only selected health posts in the districts from the point of view manpower, locations etc. should be provided with facilities of case finding by sputum microscopy. The performance of such microscopic centres also have to be carefully supervised and duplicate smears from each specimen be checked from the District Public Health Office Laboratory. The performance of the DPHO laboratory also have to be rechecked from the centre to maintain the quality. It is presumed that the above mentioned system of sputum examination of the patients presenting themselves to the health posts with chest symptoms, will help improving the quality and coverage of case finding of pulmonary tuberculosis.

Methodology

i) Sputum will be collected from symptomatic patients attending the health posts.
ii) Two smears will be prepared at health post, one will be stained and examined at health post itself, the other will be dispatched to DPHO laboratory where it will be stained and examined.

iii) The slides examined by DPHO lab also will be rechecked at centre laboratory of NTC.

iv) Assesment will be based on the total number of smear positives detected by each of the procedures.

Obstacles:

There are difficulties in transportation of the specimen. These difficulties will be solved by possible means according to the situation.

6. Surveys:

Tuberculin surveys at some places have been carried out during 2 years period in order to prepare for the National Prevalence Survey. Pending the National survey, tuberculin surveys in some districts, have been proposed to be carried out in this fiscal year.

7. Health Education:

To improve the coverage of case finding, there is a critical need of increasing awareness of the people, cooperation of the community members and staffs of health institutions. Hence, participation and cooperation of the community will be ensured by way of discussions etc. dessimination of health education by various means and methods such as education meterials, community deliberations, educating the patients etc.

8. National Tuberculosis Centre - Clinic:

The central clinic has been offering services to the tuberculosis patients visiting the clinic and also to the patients referred from private physicians, hospitals and from different parts of the country. Efforts will be made to make the clinic as referral centres and drug collection centres will be established in the valley for the convience of the patients and decrease the increasing case loads of the clinic.

9. Establishment of T.B. Hospital:

Recently Nepal Anti TB Association has given notice to the Government that for different reasons, they are not able to run the TB hospital, they are running uptil now. A discussion in this respect was held in Ministry of Health in presence of the then Hon'ble Minister of Health. NTC was informed about the matter. Keeping in view of the necessity of a referral TB hospital and also for the research purposes, NTC has submitted a draft proposal for a 50 beded Tuberculosis Hospital to be run by NTC. For the purposes, extra manpower and other resources will be required.

ネパールＮＴＣ患者の分析（患者調査　第一報）

Smear ㊉新患者８５名に対するインタビュー

1991.４～７月　無作為抽出（但、着席してインタビュー可能なもの＝重症者は除かれる）

男　６０名　女　２５名　平均年齢　３０才

○職　業

農　民	37(44％)
Office Worker	3
Factory Worker	17(20％)
Marchant Woker	3
Government Worker	1
Others	10
Student	9
No	5

○現住所

カトマンドゥ・バクタプールの Town・パタン	26(30％)
・同　村　落	11(13％)
・近接の district	20(24％)
・その他の district	28(33％)

ＮＴＣ年間統計とほぼ一致

○ＮＴＣへの所要時間

３０分以内	3	55％
１時間以内	12	
３時間以内	22	
半日以内（１日で往復可）	10	
１日以内	22	45％
それ以上	16	

○識字率　※男の患者が多い

識字可　52(61％)　不可　33(39％)

但、

Valley 内 Town　識字率　81％

それ以外の地区　識字率　53％

○ Radio の保有率

（全員には聞いていない）

Valley 内 Town	85％
それ以外	45％

Delay Analysis（単位　Months）

	Patient delay	※Medical staff	（うち Drs. delay）	Total Delay
全患者（85）	2.5	1.6	（1.5）	4.1
Town（26）	2.0	0.8	（0.8）	2.8
それ以外（59）	2.6	1.9	（1.8）	4.5

※Medical staff delay：Health Post の staff 以上の医療従事者に起因する delay

Patients delay が	1Mを越える者	2Mを越える	6Mを越える
Town	14(54%)	9(35%)	0
他	33(56%)	27(46%)	5(8%)

NTC 受診前に医師にかかった者

Town	19 (73%)
他	40 (68%)
計	59 (99%)

ヘルスポストに行った者 7／59(12%)

(※NTCにおける delay (1w以内)は計算に含まれない。)

Pt. delay の原因

無自覚	17
無視	15
怖れ	2
貧困	14
多忙	4
医療機関への距離	5
家族の反対など	2

受診中断の理由

貧困	6
症状の不改善	5
多忙	2
距離	1
家族の無理解などジャンクリ	3
スタッフの不親切	1

自覚症状(複数回答)

	せき	血液	胸痛	発熱	やせ	Weaknes	他
はじめに自覚	55 (65%)	2 (2%)	6 (7%)	27 (32%)	2 (2%)	0	1 (1%)
次に自覚	20	19	37	37	19	6	3
さらに後に自覚	2	15	10	10	7	7	0
計	77 (91%)	36 (42%)	53 (62%)	64 (75%)	28 (33%)	13 (15%)	4 (5%)

結核に関する教育を受けたことは？（知識を得たのは）

ある　19（22%）　by　VHW　2　Healthpost　1　INF　1

ない　66（78%）　School　5　Radio　6　TV　3　他　1

Posterをみたことは

ある　17（20%）　病院　12　ヘルスポスト　2　学校　1

店　1　不明　1

Flash card

ある　0

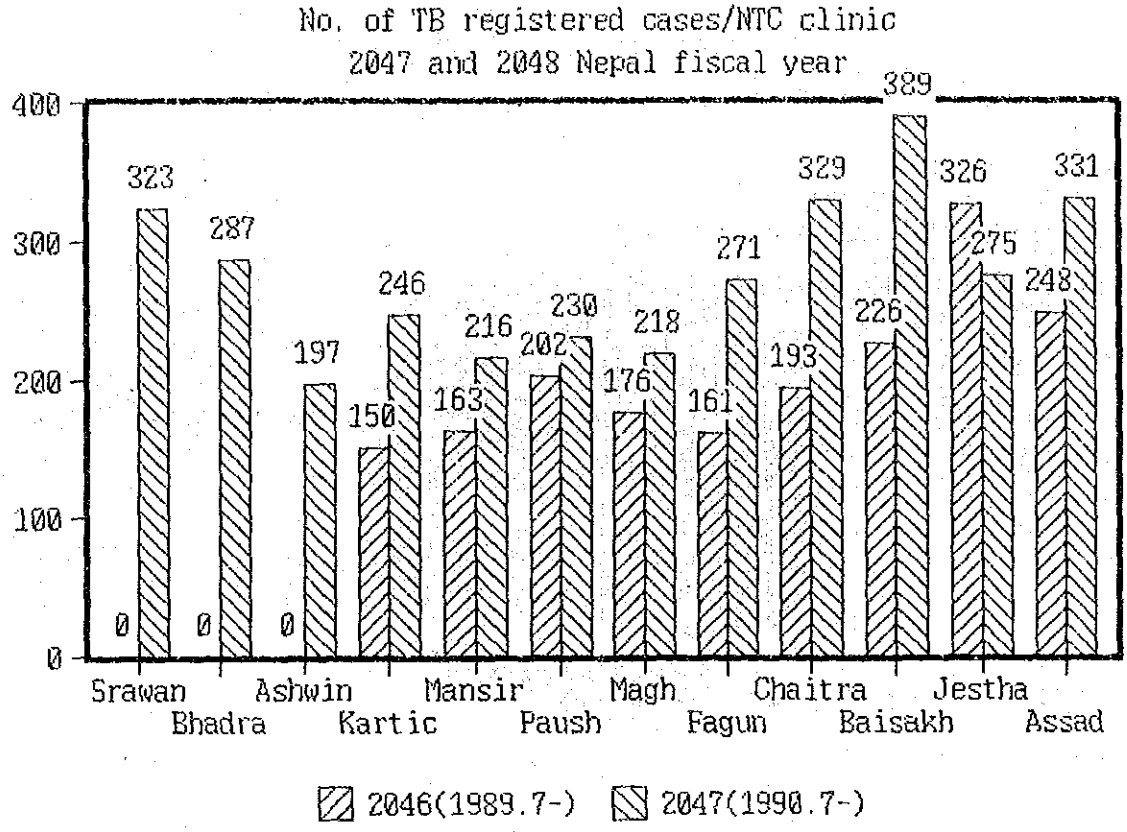
Calender

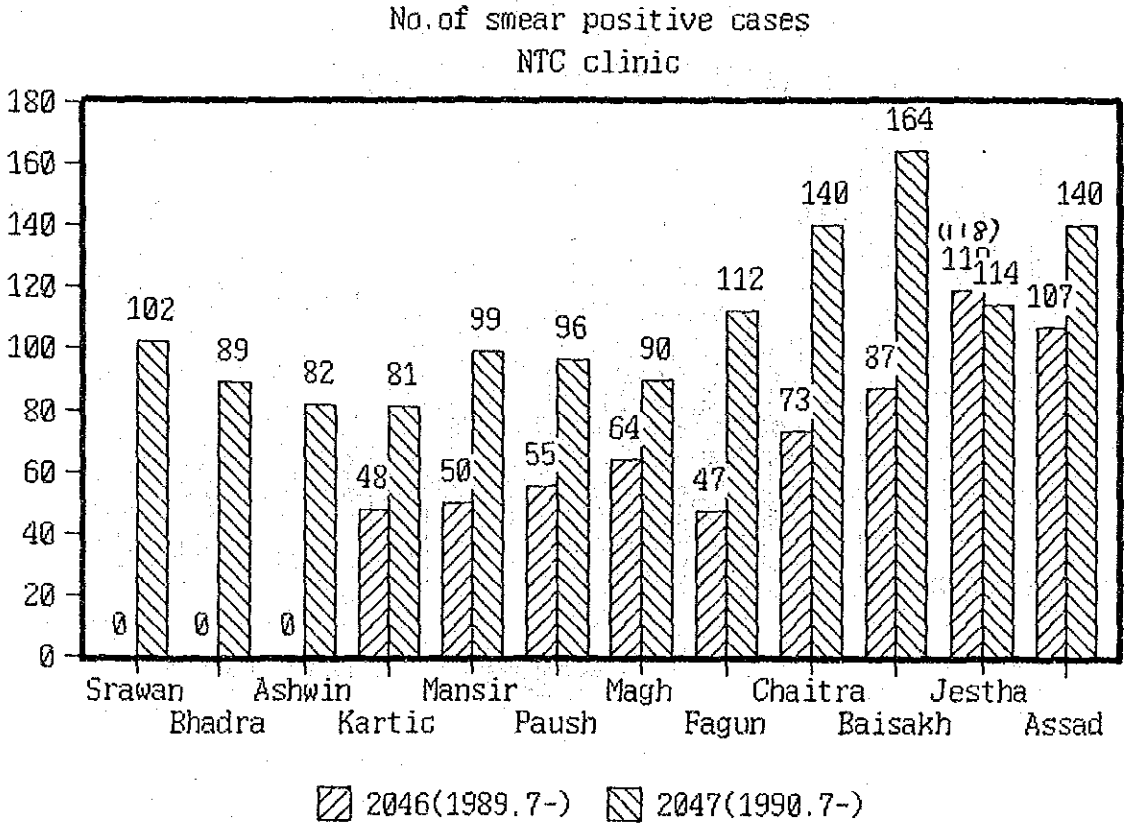
ある　11（13%）　病院　5　ヘルスポスト　1　政府機関　2

友人の家　1　店　1　不明　1

上段　Town
下段　それ以外

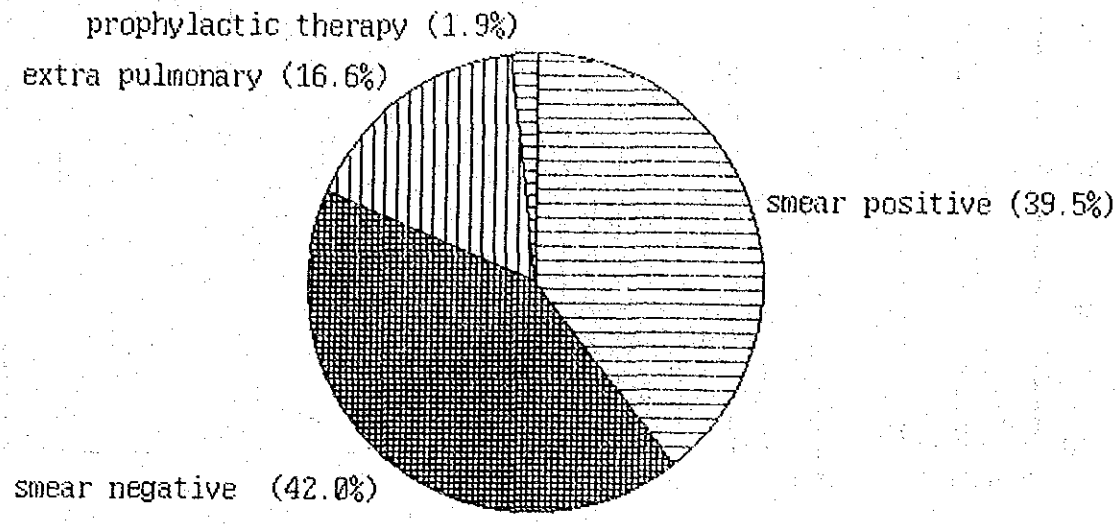
	なし（自分）	家族・血縁者	友人・近隣の人	ダミジャンクリ	薬店・薬屋	CHV	VHW	HELTHPOST	DPHO	個人開業医	病院	他
最初に相談したのは？	0 1	3 13	9 8	1 12	6 6	×	0 1	0 1	×	1 7	5 10	1 0
次に相談したのは？	×	3 5	2 8	2 9	2 1	×	0 1	0 5	×	6 4	5 11	0 4
3番目に相談したのは？	×	0 2	2 4	0 1	0 3	×	×	0 1	0 1	2 6	2 4	0 2
4番目に相談したのは？	×	0 1	0 1	×	×	×	×	×	0 1	1 0	0 1	0 4
Total	0 1	6 21	13 21	3 22 38%	8 10	×	0 2	0 7	0 2	38% 10 17 29%	46% 12 31 53%	1 10
結核かもしれないと指摘したのは？	1 4	3 5	9 9	×	0 2	×	0 1	0 3	×	3 8	9 17	1 9
NTC受診をすすめたのは？	3 7	6 6	6 10	×	0 1	×	0 1	0 2	×	4 2	6 15	1 15


No. of TB registered cases/NTC clinic
2047 and 2048 Nepal fiscal year
400
300
200
100
0
323
287
197
246
216
230
218
271
329
389
326
331
275
248
226
193
176
163
150
161
0
0
0
Srawan
Bhadra
Ashwin
Kartic
Mansir
Paush
Magh
Fagun
Chaitra
Baisakh
Jestha
Assad
2046(1989.7-)
2047(1990.7-)


No.of smear positive cases
NTC clinic
180
160
140
120
100
80
60
40
20
0
102
89
82
81
99
96
90
112
140
164
140
114
107
87
73
64
55
50
48
47
0
0
0
Srawan
Bhadra
Ashwin
Kartic
Mansir
Paush
Magh
Fagun
Chaitra
Baisakh
Jestha
Assad
2046(1989.7-)
2047(1990.7-)

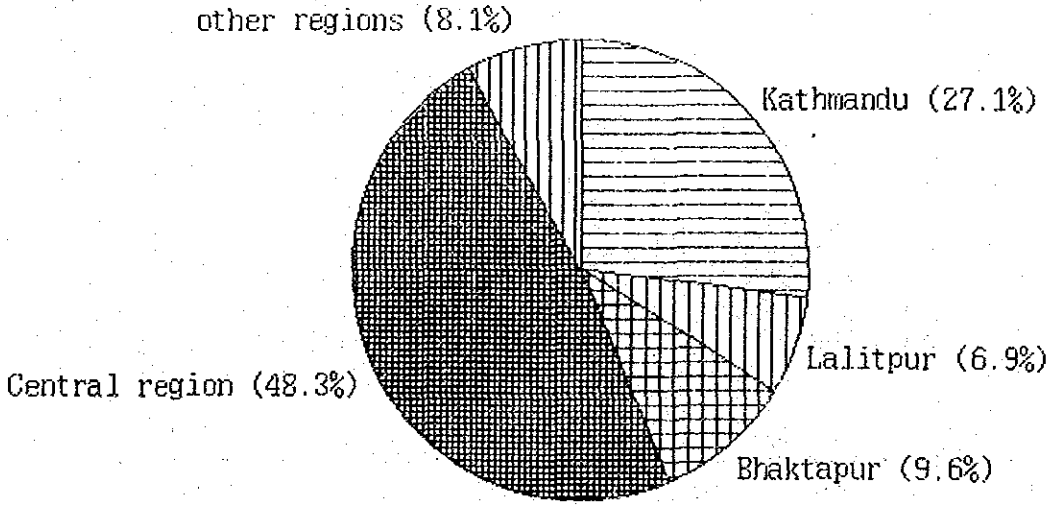
NTC clinic TB registered 2047

(3312 cases)

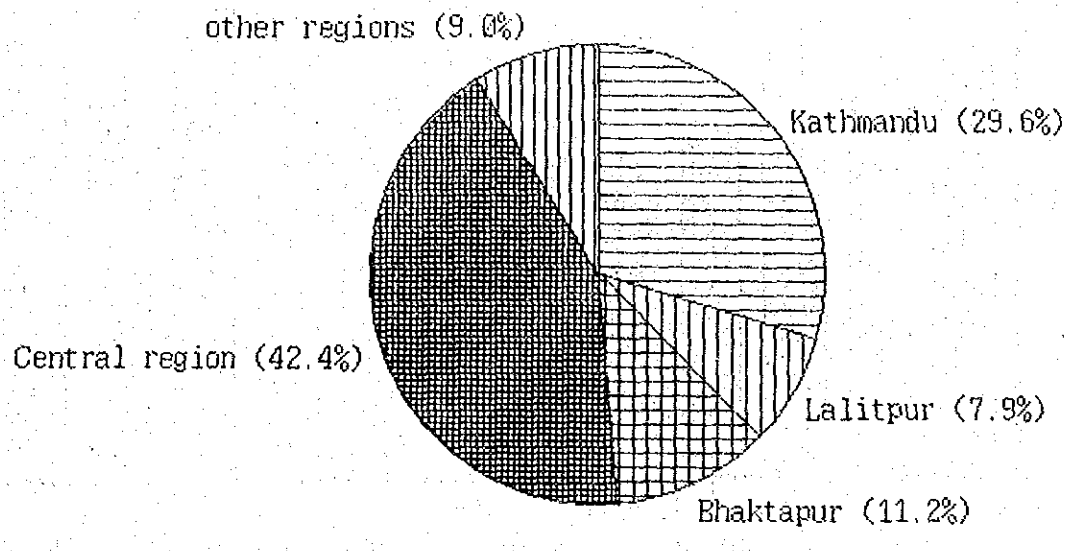


Address of TB patients/NTC clinic

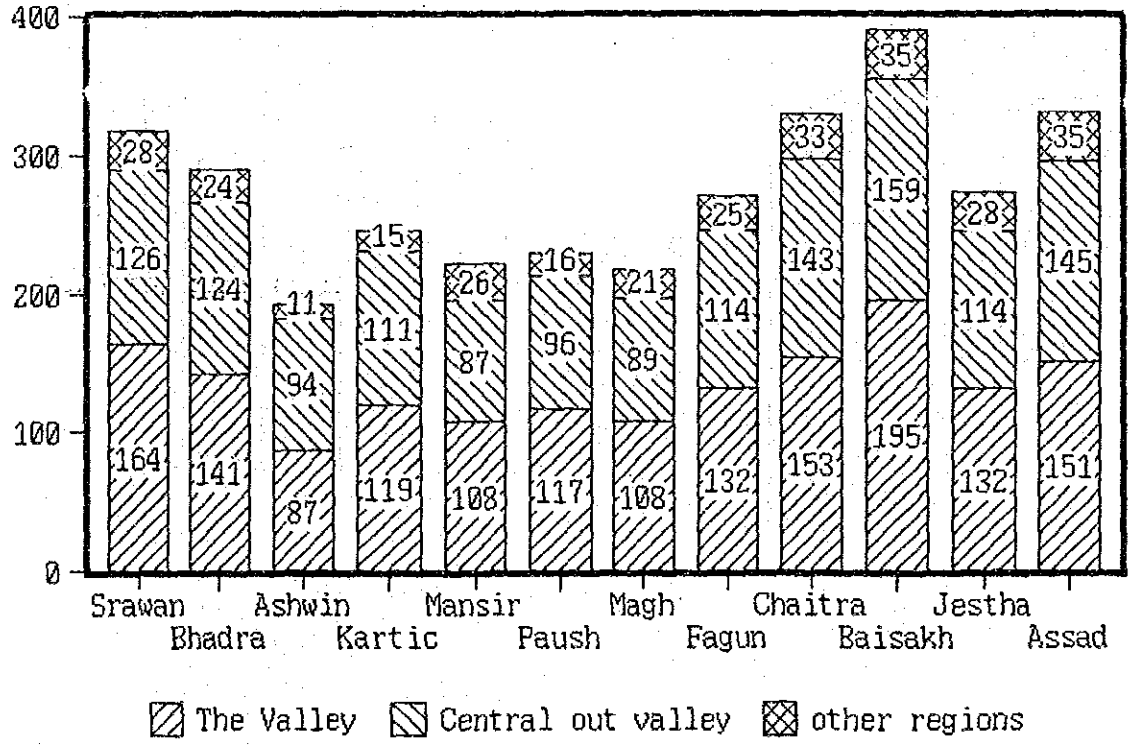
(1309 smear positive cases)



Address of TB patients/NTC clinic
(3312 cases registered in 2047)



NTC TB REGISTERD CASES/all TB
(address of the patients/2047)



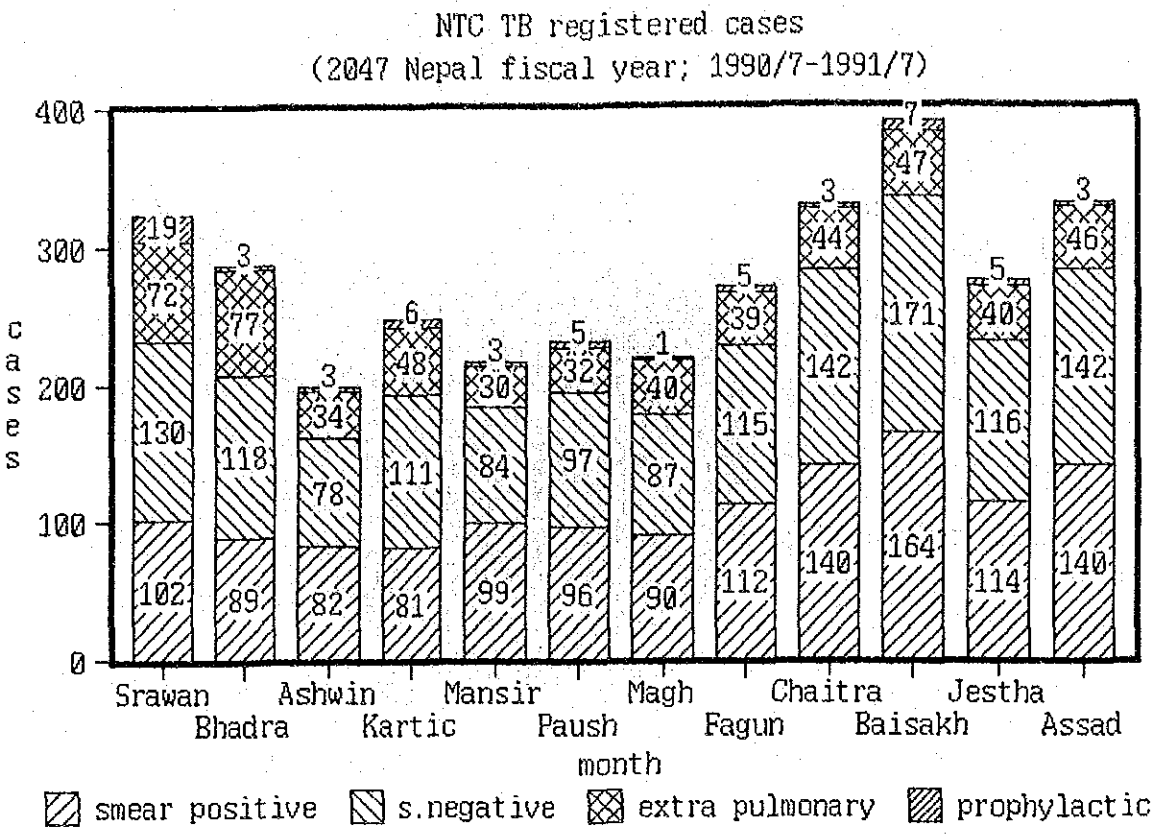

NTC TB registered cases
(2047 Nepal fiscal year; 1990/7-1991/7)
400
300
200
100
0
cases
19
72
130
102
3
77
118
89
3
34
78
82
6
48
111
81
3
30
84
99
5
32
97
96
1
40
87
90
5
39
115
112
3
44
142
140
7
47
171
164
5
40
116
114
3
46
142
140
Srawan
Bhadra
Ashwin
Kartic
Mansir
Paush
Magh
Fagun
Chaitra
Baisakh
Jestha
Assad
month
smear positive
s.negative
extra pulmonary
prophylactic

Table 1a. ACTIVITIES OF OUT PATIENT DEPARTMENT OF NTC(# OF PATIENTS)

	1989			1990									1991									
MONTH	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	Total
# OF NEW ATTENDANTS	786	985	1165	1146	973	1075	1677	2281	2162	2255	2184	1669	1456	1446	1597	1562	2017	2320	2614	2759	2772	36901
前年度同月比													1.9	1.5	1.6	1.4	2.1	2.2	1.6	1.2	1.3	
# OF TB PATIENTS REG.	150	163	202	176	161	193	226	326	265	320	304	207	245	216	229	217	277	331	389	382	382	5361(14.4%)
前年度同月比													1.6	1.3	1.1	1.2	1.7	1.7	1.7	1.2	1.4	
B CASE										102	89	82	81	99	96	90	112	140	166	161	158	1376(40.4%)
X CASE										130	118	73	111	84	97	87	115	142	169	152	164	1442(42.3%)
E CASE										72	77	34	48	30	32	40	39	44	47	66	60	589(17.3%)

Table 1b. ACTIVITIES OF OUT PATIENT DEPARTMENT OF RTC(# OF PATIENTS)

	1989		1990										1991							
MONTH	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	Total	
# OF SYMPTOMATICS	147	245	336	409	373	353	508	477	572	460	353	278	276	366	322	401	354	441	6671	
前年度同月比													1.9	1.5	1.0	1.0	0.9	1.2		
# OF TB PATIENTS REG.	34	47	52	67	66	43	67	68	98	63	60	54	51	73	68	69	86	80	1146	(17.2%)
前年度同月比													1.5	1.6	1.3	1.0	1.3	1.9		
B CASE	4	8	9	17	12	9	10	31	53	32	28	23	22	11	15	31	19	17	351	(31.1%)
X CASE	23	27	34	39	45	26	46	26	32	26	26	24	28	50	44	33	56	59	644	(57.1%)
E CASE	4	7	4	7	6	8	11	11	13	5	8	4	4	12	9	5	11	4	133	(11.8%)

Table 2a.

ACTIVITIES OF OUT PATIENT DEPARTMENT OF NTC (SPUTUM EXAMINATION)

				1990			2047									1991			2048	
MONTH	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
# OF SMEAR EXAM. New	450	568	384	315	308	402	511	708	734	647	497	341	362	409	415	334	387	543	644	666
SPUTUM(+)	60	59	58	70	50	68	92	116	113	94	88	66	62	72	80	67	91	119	134	132
SPUTUM(+)%	13.3	10.4	15.1	22.2	16.2	16.9	18.0	16.4	15.4	14.5	17.7	19.4	17.1	17.6	19.3	20.1	23.5	21.9	20.8	19.8
# OF SMEAR EXAM. OLD	177	215	175	178	184	146	207	243	338	330	330	374	362	411	433	427	527	534	438	558
SPUTUM(+)	31	28	27	30	20	26	31	34	45	51	44	54	54	73	83	69	75	69	77	88
SPUTUM(+)%	17.5	13.0	15.4	16.9	10.9	17.8	15.0	14.0	13.3	15.5	13.3	14.4	14.9	17.8	18.7	16.2	14.2	12.9	17.6	15.8
# OF REF.CASES	12	26	25	30	9	15	40	36	40	46	33	4	1	20	19	12	24	21	69	48
SPUTUM(+)	1	2	6	4	1	0	4	6	4	8	4	0	0	2	3	2	3	6	15	15
SPUTUM(+)%	8.3	7.7	24.0	13.3	11.1	0.0	10.0	16.7	10.0	17.4	12.1	0.0	0.0	10.0	15.8	16.7	12.5	28.6	21.7	31.3
# OF TOTAL CASES	639	809	584	523	501	563	758	987	1102	1023	860	719	725	840	877	773	938	1098	1152	1272
SPUTUM(+)	92	89	91	104	71	94	127	156	162	153	136	120	116	147	166	138	169	194	226	235
SPUTUM(+)%	14.4	11.0	15.6	19.9	14.2	16.7	16.8	15.8	14.6	15.0	15.8	16.7	16.0	17.5	18.9	17.9	18.0	17.7	19.6	18.5
# of CULTURE EXAM. NEW CASES									13	18	10	7	1	0	5	2	3	8	2	
CULTURE(+)									3	3	0	1	0	0	0	0	0	0	0	
CULTURE(+)%									23.0	16.7	0.0	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
# OF CULTURE EXAM. OLD CASES									7	14	15	5	1	8	16	4	9	15	19	
CULTURE(+)									5	2	1	1	0	0	6	3	3	3	8	
CULTURE(+)%									71.4	14.3	6.7	20.0	0.0	0.0	37.5	75.0	33.3	20.0	42.1	
# OF CULTURE EXAM. TOTAL CASES									20	32	25	12	2	8	21	6	12	23	21	
CULTURE(+)									8	5	1	2	0	0	6	3	3	3	8	
CULTURE(+)%									40.0	15.6	4.0	16.7	0.0	0.0	28.5	50.0	25.0	13.0	38.1	

Table 2b. ACTIVITIES OF OUT PATIENT DEPARTMENT OF RTC (SPUTUM EXAMINATION)

	1990		2047 (1990/91)												1991		2048 (1991/92)	
MONTH	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
# OF SMEAR EXAM. New	103	148	229	267	265	256	187	227	287	301	220	213	221	221	236	210	226	321
SPUTUM (+)	6	13	25	27	24	20	22	39	44	39	31	18	24	16	18	28	17	17
SPUTUM (+) %	5.8	8.8	10.9	10.1	9.1	7.8	11.8	17.2	15.3	13.0	14.1	8.5	10.9	7.2	7.6	13.3	7.5	5.3
# OF SMEAR EXAM. OLD	0	6	34	37	63	34	100	111	161	83	129	86	97	76	88	103	99	91
SPUTUM (+)	0	0	1	1	11	1	13	12	21	12	10	9	5	4	10	8	8	2
SPUTUM (+) %	0	0	2.9	2.7	17.5	2.9	13.0	10.8	13.0	14.5	7.8	10.5	5.2	5.3	11.4	7.8	8.1	2.2
# OF TOTAL CASES	103	154	263	304	328	290	287	338	1448	1384	349	299	318	297	324	313	325	412
SPUTUM (+)	6	13	26	28	35	21	35	51	65	51	41	27	29	20	28	36	25	19
SPUTUM (+) %	5.8	8.4	9.9	9.2	10.7	7.2	12.2	1.1	14.5	13.3	11.8	9.0	9.1	6.7	8.6	11.5	7.7	4.6

Table 3a. ACTIVITIES OF OUT PATIENT DEPARTMENT OF NTC (X-RAY EXAMINATION)

	1989			1990									1991											
MONTH	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6
TOTAL X-RAY EXAM.	1427	1299	1160	901	1249	1440	1160	992	1100	1663	2077	2011	1928	1893	1369	1436	1526	1643	1635	2168	2053	2284	2493	2388
													1.4	1.5	1.2	1.6	1.2	1.1	1.4	2.2	1.9	1.4	1.2	1.2
DIRECT X-RAY EXAM.	0	0	0	33	112	96	92	136	123	146	157	160	153	135	290	185	137	95	107	141	135	183	206	31
POSITIVE EXAM.	0	0	0	14	35	31	40	56	52	55	67	74	61	41	80	71	60	39	40	40	58	70	87	17
% OF POSITIVE EXAM.				42.4	31.3	32.2	43.5	41.2	42.3	37.7	42.7	46.3	39.9	30.4	27.6	38.4	43.8	41.1	37.4	28.6	43.0	38.3	42.2	54.8
MMR X-RAY EXAM.	1427	1299	1160	868	1137	1344	1068	856	977	1517	1920	1851	1775	1758	1079	1251	1389	1548	1528	2027	1918	2101	2287	2357
POSITIVE EXAM.	329	292	164	387	307	332	346	315	304	486	554	563	504	480	298	445	452	529	492	655	618	630	759	745
% OF POSITIVE EXAM.	23.1	22.5	14.2	44.6	27.0	24.7	32.4	36.8	31.1	32.0	28.9	30.4	28.4	27.3	27.6	35.6	32.5	34.2	32.2	32.3	32.2	30.0	33.2	31.6

Table 3b. ACTIVITIES OF OUT PATIENT DEPARTMENT OF RTC (X-RAY EXAMINATION)

	1990									1991		
MONTH	4	5	6	7	8	9	10	11	12	1	2	3
TOTAL X-RAY EXAM.	354	453	382	537	430	383	275	398	436	457	418	476
DIRECT X-RAY EXAM.	160	192	210	75	65	49	48	90	122	158	102	130
POSITIVE EXAM.				34	24	16	5	45	30	42	49	60
% OF POSITIVE EXAM.				45.3	36.9	32.7	10.4	50.0	24.6	26.6	48.0	46.2
MMR X-RAY EXAM.	194	261	172	462	365	334	227	308	314	299	316	346
POSITIVE EXAM.				168	143	129	69	155	108	116	130	203
% OF POSITIVE EXAM.				36.4	39.2	38.6	30.4	50.3	34.4	38.8	41.1	58.7

Table 4a. ACTIVITIES OF OUT PATIENT DEPARTMENT OF NTC (HEALTH EDUCATION)

	1989			1990									1991						
MONTH	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	TOTAL
(a) PATIENTS RECEIVING HE. AT FIRST VISIT	147	154	166	71	142	166	226	325	259	308	281	197	243	212	229	212	278	323	3939
(b) FOLLOW UP PATIENTS RECEIVING HE.		129	177	159	34	25	156	164	216	192	168	117	260	483	427	552	624	678	4561
(c) ALL MEMBER OF FAMILIES RECEIVING HE.							195	272	388	293	125	130	189	119	117	57	72	67	2024
(d) EXAMINED FAMILY MEMBERS AFTER HE.					13	7	55	43	78	73	56	22	40	34	39	17	31	37	545
(e) TB CASES DETECTED AMONG FAMILIES RECEIVING HE.					2	0	29	24	28	29	21	4	8	7	8	5	11	6	182

* HE. : HEALTH EDUCATION.

Table 4b. ACTIVITIES OF OUT PATIENT DEPARTMENT OF RTC (HEALTH EDUCATION)

	1990					1991				
MONTHE	7	8	9	10	11	12	1	2	3	4
PATIENTS RECEIVED HE. AT FIRST VISIT	55	42	24			63	57	57	74	74
FOLLW UP PATIENTS RECEIVED HE.	15	8	3						38	

1st phase OR; numbers of cases analysed

	New		Retreatment		Pediatric	Total
	S+	others	S+	others		
NTC	168	122	102	25	41	458
RTC	16	10	11	7	0	44
KTM	50	59	13	4	1	127
Kaski	88	55	15	3	2	163
Chitawan	75	18	10	5	1	109
Dhading	90	90	19	19	0	218
Total	487	354	170	63	45	1119

PLACE of DETECTION (Smear + New)

	own HP	other HP	DPHO	Health C. private or Hosp.	clinic	NTC/RTC	Total
Dhading	31	4	18	18		19	90
Chitawan	64		7	3		1	75
Kaski	25		2	42	5	13	87
Kathmandu	23			1		26	50
HP total	143	4	27	64	5	59	302
RTC						15	15
NTC				6		162	168
ALL TOTAL	143	4	27	70	5	236	485

1st phase OR result
Smear Positive New

Place	regimen	Registered	complete	(cured)	(un-judged)	(fai-lure)	lost	died	trans. out
NTC	R1	41	31	29	2		10		
	R2	101	74	54	18	2	25		2
	R3	24	12	8	3	1	11		1
	R4	2	1	1			1		
	subtotal	168	118	92	23	3	47	0	3
	%		70.2	54.8	13.7	1.8	28.0	0.0	1.8
RTC	R1	9	5	2	3		1		3
	R2	6	4	3	1		2		
	R3	1	0				1		
	R4	0	0						
	subtotal	16	9	5	4	0	4	0	3
	%		56.3	31.3	25.0	0.0	25.0	0.0	18.8
KTM	R1	12	10	6	4		1		1
	R2	19	13	3	10		3	3	
	R3	18	9	3	6		7	1	1
	R4	1	1	1					
	subtotal	50	33	13	20	0	11	4	2
	%		66.0	26.0	40.0	0.0	22.0	8.0	4.0
Kaski	R1	15	15	9	6				
	R2	46	38	15	23		4	3	1
	R3	27	20	1	19		3	1	3
	R4		0						
	subtotal	88	73	25	48	0	7	4	4
	%		83.0	28.4	54.5	0.0	8.0	4.5	4.5
Chitawan	R1	28	24	10	13	1	1	3	
	R2	23	20	4	15	1	2	1	
	R3	19	19	6	12	1			
	R4	5	5	3	1	1			
	subtotal	75	68	23	41	4	3	4	0
	%		90.7	30.7	54.7	5.3	4.0	5.3	0.0
Dhading	R1	15	11	6	4	1	3	1	
	R2	31	26	15	11		4	1	
	R3	41	31	7	22	2	5	4	1
	R4	3	1	1				1	1
	subtotal	90	69	29	37	3	12	7	2
	%		76.7	32.2	41.1	3.3	13.3	7.8	2.2
Total	R1	120	96	62	32	2	16	4	4
	%		80.0	51.7	26.7	1.7	13.3	3.3	3.3
	R2	226	175	94	78	3	40	8	3
	%		77.4	41.6	34.5	1.3	17.7	3.5	1.3
	R3	130	91	25	62	4	27	6	6
	%		70.0	19.2	47.7	3.1	20.8	4.6	4.6
	R4	11	8	6	1	1	1	1	1
	%		72.7	54.5	9.1	9.1	9.1	9.1	9.1
	Total	487	370	187	173	10	84	19	14
	%		76.0	38.4	35.5	2.1	17.2	3.9	2.9

1st phase OR result
Smear positive Retreatment

Place	regimen	Registered	complete	(cured)	(un-judged)	(fai-lure)	lost	died	trans. out
NTC	R1	22	17	13	4		5		
	R2	74	48	39	7	2	26		
	R3	6	3	1	1	1	3		
	R4	0							
	subtotal	102	68	53	12	3	34	0	0
	%		66.7	52.0	11.8	2.9	33.3	0.0	0.0
RTC	R1	8	8	5	3				
	R2	3	1	1			1	1	
	R3	0							
	R4	0							
	subtotal	11	9	6	3	0	1	1	0
	%		81.8	54.5	27.3	0.0	9.1	9.1	0.0
KTM	R1	4	4	3	1				
	R2	7	5	4	1		2		
	R3	2	1		1			1	
	R4	0							
	subtotal	13	10	7	3	0	2	1	0
	%		76.9	53.8	23.1	0.0	15.4	7.7	0.0
Kaski	R1	5	3	1	2		2		
	R2	7	7	2	5				
	R3	3	1		1		1		1
	R4	0							
	subtotal	15	11	3	8	0	3	0	1
	%		73.3	20.0	53.3	0.0	20.0	0.0	6.7
Chitawan	R1	4	4	1	2	1			
	R2	6	6	1	4	1			
	R3	0							
	R4	0							
	subtotal	10	10	2	6	2	0	0	0
	%		100.0	20.0	60.0	20.0	0.0	0.0	0.0
Dhading	R1	4	4	1	2	1			
	R2	14	11	5	4	2	2	1	
	R3	1	1	1					
	R4	0							
	subtotal	19	16	7	6	3	2	1	0
	%		84.2	36.8	31.6	15.8	10.5	5.3	0.0
Total	R1	47	40	24	14	2	7	0	0
	%		85.1	51.1	29.8	4.3	14.9	0.0	0.0
	R2	111	78	52	21	5	31	2	0
	%		70.3	46.8	18.9	4.5	27.9	1.8	0.0
	R3	12	6	2	3	1	4	1	1
	%		50.0	16.7	25.0	8.3	33.3	8.3	8.3
	R4	0							
	%								
	Total	170	124	78	38	8	42	3	1
	%		72.9	45.9	22.4	4.7	24.7	1.8	0.6

1st phase OR result

Smear Negative Pulmonary and extra pulmonary New

Place	regimen	Registered	comp lete	(cured)	(un- judged)	(fai- lure)	lost	died	trans. out
NTC	R1	0							
	R2	8	6				2		
	R3	110	70				38	2	
	R4	4	1				3		
	subtotal	122	77				43	2	0
	%		63.1				35.2	1.6	0.0
RTC	R1	1	1						
	R2	2	2						
	R3	7	2				5		
	R4	0							
	subtotal	10	5				5	0	0
	%		50.0				50.0	0.0	0.0
KTM	R1	4	3				1		
	R2	3	1				2		
	R3	49	22				18	4	5
	R4	3	2					1	
	subtotal	59	28				21	5	5
	%		47.5				35.6	8.5	8.5
Kaski	R1	1	1						
	R2	4	3						1
	R3	48	30				9	9	
	R4	2	1					1	
	subtotal	55	35				9	10	1
	%		63.6				16.4	18.2	1.8
Chitawan	R1	0							
	R2	0							
	R3	16	12					3	1
	R4	2	2						
	subtotal	18	14				0	3	1
	%		77.8				0.0	16.7	5.6
Dhading	R1	1	1						
	R2	7	7						
	R3	80	58				16	3	3
	R4	2	1				1		
	subtotal	90	67				17	3	3
	%		74.4				18.9	3.3	3.3
Total	R1	7	6				1	0	0
	%		85.7				14.3	0.0	0.0
	R2	24	19				4	0	1
	%		79.2				16.7	0.0	4.2
	R3	310	194				86	21	9
	%		62.6				27.7	6.8	2.9
	R4	13	7				4	2	0
	%		53.8				30.8	15.4	0.0
	Total	354	226				95	23	10
	%		63.8				26.8	6.5	2.8

1st phase OR result

Smear Negative Pulmonary and Extra Pulmonary Retreatment

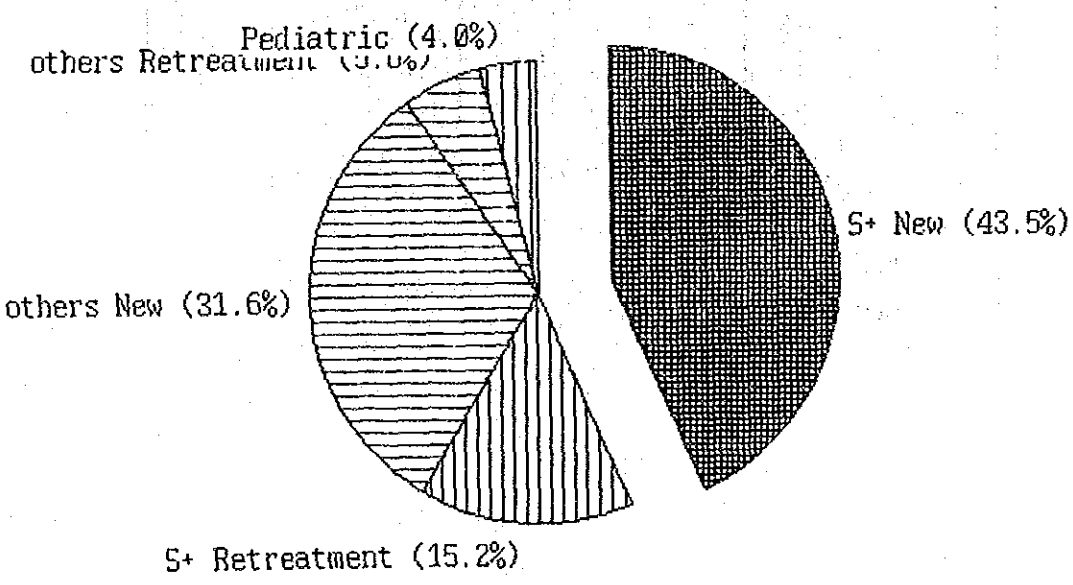
Place	regimen	Registered	comp lete	(cured)	(un-judged)	(fai-lure)	lost	died	trans. out
NTC	R1	0							
	R2	4	4						
	R3	21	14				7		
	R4	0							
	subtotal	25	18				7	0	0
	%		72.0				28.0	0.0	0.0
RTC	R1	0							
	R2	2	2						
	R3	5	1				4		
	R4	0							
	subtotal	7	3				4	0	0
	%		42.9				57.1	0.0	0.0
KTM	R1	1	1						
	R2	0							
	R3	3	1				2		
	R4	0							
	subtotal	4	2				2	0	0
	%		50.0				50.0	0.0	0.0
Kaski	R1	0							
	R2	2	2						
	R3	1					1		
	R4	0							
	subtotal	3	2				1	0	0
	%		66.7				33.3	0.0	0.0
Chitawan	R1	0							
	R2	2	2						
	R3	3	2						1
	R4	0							
	subtotal	5	4				0	0	1
	%		80.0				0.0	0.0	20.0
Dhading	R1	0							
	R2	5	5						
	R3	12	9				3		
	R4	2	2						
	subtotal	19	16				3	0	0
	%		84.2				15.8	0.0	0.0
Total	R1	1	1				0	0	0
	%		100.0				0.0	0.0	0.0
	R2	15	15				0	0	0
	%		100.0				0.0	0.0	0.0
	R3	45	27				17	0	1
	%		60.0				37.8	0.0	2.2
	R4	2	2				0	0	0
	%		100.0				0.0	0.0	0.0
	Total	63	45				17	0	1
	%		71.4				27.0	0.0	1.6

Pediatric TB

Place	Registered	complete	(cured)	(un-judged)	(failure)	lost	died	trans. out
NTC	41	27				14		
RTC	0							
KTM	1	1						
Kaski	2	2						
Chitawan	1	1						
Dhading	0							
Total	45	31				14		
%		68.9				31.1		

Type of TB

(1119 cases)



NTC BCG room

Tuberculin test results of family contact cases

(middle of April 1990 ~middle of August 1991)

	BCG scar (-)ve			BCG scar (+)ve			
	0~9mm	10~15	16~ mm	0~9mm	10~15	16~ mm	Total
2047- 1	1	1	5	2	1	1	11
2	1	0	2	2	3	3	11
3	2	1	9	9	4	12	37
4	0	2	2	6	1	5	16
5	1	0	1	2	2	2	8
6	1	0	0	1	0	0	2
7	0	3	6	2	0	3	14
8	6	0	5	2	1	1	15
9	3	2	5	5	1	4	20
10	2	1	3	9	5	4	24
11	3	3	5	4	5	13	33
12	8	3	8	8	8	14	49
2048- 1	6	8	4	15	6	7	46
2	2	11	6	13	10	3	45
3	12	4	8	21	7	11	63
4	13	20	3	25	10	3	74
Total	61	59	72	126	64	86	468
(%)	31.8 %	30.7 %	37.5 %	45.7%	23.2 %	31.2%	

BCG scar (-)ve: 192

BCG scar (+)ve: 276

LABORATORY INFORMATION

BY M. TAKAHASHI

SEPTEMBER 1991

CONTENTS

Result of smear examination at NTC

Month	No. of examination				No. of positive			
	New	Old	Ref.	Total	New (%)	Old (%)	Ref. (%)	Total (%)
046								
7	450	177	12	639	60 (13.3)	31 (17.5)	1 (8.3)	92 (14.4)
8	568	215	26	809	59 (10.4)	28 (13.0)	2 (7.7)	89 (11.0)
9	384	175	25	584	58 (15.1)	27 (15.4)	6 (24.0)	91 (15.6)
10	315	178	30	523	70 (22.2)	30 (16.9)	4 (13.3)	104 (19.9)
11	308	184	9	501	50 (16.2)	20 (10.9)	1 (11.1)	71 (14.2)
12	402	146	15	563	68 (16.9)	26 (17.8)	0 (0.0)	94 (16.7)
Total	2427	1075	117	3619	365 (15.0)	162 (15.1)	14 (12.0)	541 (15.0)
047								
1	511	207	40	758	92 (18.0)	31 (15.0)	4 (10.0)	127 (16.8)
2	708	243	36	987	116 (16.4)	34 (14.0)	6 (16.7)	156 (15.8)
3	734	338	40	1102	113 (15.4)	45 (13.3)	4 (10.0)	162 (14.6)
4	647	330	46	1023	94 (14.5)	51 (15.5)	8 (17.4)	153 (15.0)
5	497	330	33	860	88 (17.7)	44 (13.3)	4 (12.1)	136 (15.8)
6	341	374	4	719	66 (19.4)	54 (14.4)	0 (0.0)	120 (16.7)
7	362	362	1	725	62 (17.1)	54 (14.9)	0 (0.0)	116 (16.0)
8	409	411	20	840	72 (17.6)	73 (17.8)	2 (10.0)	147 (17.5)
9	415	433	19	877	80 (19.3)	83 (18.7)	3 (15.8)	166 (18.9)
10	334	427	12	773	67 (20.1)	69 (16.2)	2 (16.7)	138 (17.9)
11	387	527	24	938	91 (23.5)	75 (14.2)	3 (12.5)	169 (18.0)
12	543	534	21	1098	119 (21.9)	69 (12.9)	6 (28.6)	194 (17.7)
Total	5888	4516	296	10700	1060 (18.0)	682 (15.1)	42 (14.2)	1784 (16.7)
048								
1	644	438	69	1152	134 (20.8)	77 (17.6)	15 (21.7)	226 (19.6)
2	666	558	48	1272	132 (19.8)	88 (15.8)	15 (31.3)	235 (18.5)

Result of smear examination at RTC

Month	No. of examination				No. of positive			
	New	Old	Ref.	Total	New (%)	Old (%)	Ref. (%)	Total (%)
046								
8	103	0	0	103	6 (5.8)	0 (0.0)	0 (0.0)	6 (5.8)
9	148	6	0	154	13 (8.8)	0 (0.0)	0 (0.0)	13 (8.4)
10	229	34	0	263	25 (10.9)	1 (2.9)	0 (0.0)	26 (9.9)
11	267	37	0	304	27 (10.1)	1 (2.7)	0 (0.0)	28 (9.2)
12	265	63	0	328	24 (9.1)	11 (17.5)	0 (0.0)	35 (10.7)
Total	1012	140	0	1152	95 (9.4)	13 (9.3)	0 (0.0)	108 (9.4)
047								
1	256	34	0	290	20 (7.8)	1 (2.9)	0 (0.0)	21 (7.2)
2	187	100	0	287	22 (11.8)	13 (13.0)	0 (0.0)	35 (12.2)
3	227	111	0	338	39 (17.2)	12 (10.8)	0 (0.0)	51 (15.1)
4	287	161	0	448	44 (15.3)	21 (13.0)	0 (0.0)	65 (14.5)
5	301	83	0	384	39 (13.0)	12 (14.5)	0 (0.0)	51 (13.3)
6	220	129	0	349	31 (14.1)	10 (7.8)	0 (0.0)	41 (11.8)
7	213	86	0	299	18 (8.5)	9 (10.5)	0 (0.0)	27 (9.0)
8	221	97	0	318	24 (10.9)	5 (5.2)	0 (0.0)	29 (9.1)
9	221	76	0	297	16 (7.2)	4 (5.3)	0 (0.0)	20 (6.7)
10	236	88	0	324	18 (7.6)	10 (11.4)	0 (0.0)	28 (8.6)
11	210	103	0	313	28 (13.3)	8 (7.8)	0 (0.0)	36 (11.5)
12	226	99	0	325	17 (7.5)	8 (8.1)	0 (0.0)	25 (7.7)
Total	2805	1167	0	3972	316 (11.3)	113 (9.7)	0 (0.0)	429 (10.8)
048								
1	321	91	0	412	17 (5.3)	2 (2.2)	0 (0.0)	19 (4.6)

Comparison of smear examination results of NTC laboratory staff and a JICA expert in November 1989

Record of expert	Record of NTC lab.					Total
	-	+	++	+++	++++	
-	97	1	1	0	0	99
+	1	12	2	0	0	15
++	0	14	7	0	0	21
+++	0	7	13	6	0	26
++++	0	0	0	6	4	10
Total	98	34	23	12	4	171

Agreement of pos. and neg. : 98.3% (168/171)
False neg. : 1.4% (1/ 72)
False pos. : 2.0% (2/ 99)
Over reading : 1.8% (3/171)
Less reading : 24.0% (41/171)

Comparison of smear examination results of NTC laboratory staff and a JICA expert in June 1990

Record of expert	Record of NTC lab.					Total
	-	+	++	+++	++++	
-	109	0	0	0	0	109
+	2	23	1	0	0	26
++	0	15	15	1	1	32
+++	0	2	10	16	9	37
++++	0	0	2	2	21	25
Total	111	40	28	19	31	229

Agreement of pos. and neg. : 99.1% (227/229)
False neg. : 1.7% (2/120)
False pos. : 0.0% (0/109)
Over reading : 5.2% (12/229)
Less reading : 14.4% (33/229)

Comparison of smear and culture examination in May 1990

		Culture		Total
		+	−	
Smear	+	15 (11.9)	2 (1.6)	17 (13.5)
	−	15 (11.9)	94 (74.6)	109 (86.5)
Total		30 (23.8)	96 (76.2)	126 (100.0)

		Culture					Total
		-	+	++	+++	++++	
Smear	-	94	8	4	3	0	109
	+	0	0	1	1	2	4
	++	2	0	1	1	0	4
	+++	0	0	0	2	5	7
	++++	0	0	0	1	1	2
Total		96	8	6	8	8	126

Among new patients

		Culture		Total
		+	−	
Smear	+	9	1	10
	−	7	57	64
Total		16	58	74

Comparison of smear and culture examination in April 1991

		Culture		Total
		+	−	
Smear	+	25 (17.1)	0	25 (17.1)
	−	17 (11.6)	104 (71.2)	121 (82.9)
Total		42 (28.8)	104 (71.2)	146 (100.0)

		Culture					Total
		-	+	++	+++	++++	
Smear	-	104	14	1	2	0	121
	+	0	1	4	2	1	8
	++	0	1	5	3	1	10
	+++	0	0	1	2	1	4
	++++	0	0	0	0	3	3
Total		104	16	11	9	6	146

Among new patients

		Culture		Total
		+	−	
Smear	+	12	0	12
	−	12	53	65
Total		24	53	77

Result of cross-checking of smear slides examined at RTC in June 1991

		Result at RTC +	Result at RTC −	Total
Result at NTC	+	22 (16.8)	2 (1.5)	24 (18.3)
	−	1 (0.8)	106 (80.9)	107 (81.7)
Total		23 (17.6)	108 (82.4)	131 (100.0)

Agreement of pos. and neg. : 97.7% (128/131)
False neg. : 8.3% (2/ 24)
False pos. : 0.9% (1/107)

Number of examination reports which were not collected by patients at NTC

Month	No. of examination	No. of report not collected (%) Neg.	Pos.	Total
2047				
5	860	30	3	33 (3.8)
6	719	40	5	45 (6.3)
7	725	28	3	31 (4.3)
8	840	39	10	49 (5.8)
9	877	35	8	43 (4.9)
10	773	64	3	67 (8.7)
11	938	14	5	19 (2.0)
12	1098	66	5	71 (6.5)
2048				
1	1152	65	3	68 (5.9)
2	1272	34	4	38 (3.0)
Total	9254	415	49	464 (5.0)

Result of culture examination at NTC

Month	No. of examination			No. of positives		
	New	Old	Total	New	Old	Total
047						
3	13	7	20	3	5	8
4	18	14	32	3	2	5
5	10	15	25	0	1	1
6	7	5	12	1	1	2
7	1	1	2	0	0	0
8	0	8	8	0	0	0
9	5	16	21	0	6	6
10	2	4	6	0	3	3
11	3	9	12	0	3	3
12	8	15	23	0	3	3
Total	67	94	161	6	24	31
048						
1	2	19	21	0	8	8

Initial drug resistance to 5 drugs among new TB patients

		No.	%
Total examined		80	100
Total resistant		8	10.0
Resistant to one drug	INH	6	7.5
	SM	1	1.3
	RFP	0	
	EB	0	
	Tb_1	0	
Resistant to two drugs	HS	1	1.3
Total resistant to	INH	7	8.8
	SM	2	2.5
	RFP	0	
	EB	0	
	Tb_1	0	

Drug resistance among old TB patient

		No.	%
Total examination		13	100
Total resistant		12	92.3
Resistant to one drug	INH	1	7.7
	SM	1	7.7
	RFP	0	
	EB	0	
	Tbl	0	
Resistant to two drugs	HR	5	38.5
	SR	1	7.7
Resistant to three drugs	HSR	2	15.4
Resistant to four drugs	HSRE	2	15.4
Total resistant to	INH	10	76.9
	SM	6	46.2
	RFP	10	76.9
	EB	2	15.4
	Tbl	0	

Comparison of drug resistance with NTC and GENETUP

		NTC	GENETUP
No. of examination [1]		10	10
No. of resistant		2	2
Resistant to one drug	INH	2	0
	SM	0	0
	RFP	0	0
	EB	0	0
	Tbl	0	-
Resistant to two drugs	HS		2

1) Ten same strains of M. tuberculosis were examined at NTC and GENETUP

	NTC	GENETUP
Medium	Ogawa medium	L-J medium
Drugs	Drug concentration of resistance standard [1]	
INH	1 mcg/ml	0.25 mcg/ml
SM	20 mcg/ml	4.0 mcg/ml
RFP	50 mcg/ml	32.0 mcg/ml
EB	5 mcg/ml	1.0 mcg/ml
Tbl	10 mcg/ml	-

1) When the growth showed completely resistant to a given concentration, the judgment of "Resistant" was given.

Microscopist training at NTC

Period	For DPHO	For HP&NGO	Total
1) 1989.11.21-1989.11.27	0	2	2
2) 1989.12.20-1989.12.26	2	6	8
3) 1990. 1.21-1990. 1.26	0	3	3
4) 1990. 3. 3-1990. 3. 9	4	12	16
5) 1990. 5.13-1990. 5.18	1	5	6
6) 1990. 6. 3-1990. 6.15	14	1	15
7) 1990. 7. 9-1990. 7.22	11	0	11
8) 1990. 9. 2-1990. 9.14	4	0	4
9) 1990.10. 7-1990.10.12	0	3	3
10) 1990.10.23-1990.11. 4	13	2	15
11) 1990.12. 9-1990.12.14	0	1	1
12) 1991. 2.17-1991. 2.22	0	5	5
13) 1991. 6. 9-1991. 6.14	0	1	1
14) 1991. 7. 7-1991. 7.12	0	10	10
15) 1991. 8.11-1991. 8.16	2	14	16
16) 1991. 9. 2-1991. 9. 6	0	5	5
Total	51	70	121

Microscopist training at RTC

Period	For DPHO	For HP&NGO	Total
1) 1990. 1.21-1989. 1.26	19	3	22
2) 1990. 7.29-1990. 8.10	7	3	10
3) 1990. 8.12-1990. 8.24	8	0	8
4) 1990.11.18-1990.11.30	12	0	12
5) 1991. 2.24-1991. 3. 8	6	4	10
6) 1991. 6.26-1991. 7. 2	2	13	15
7) 1991. 8. 4-1991. 8. 9	0	5	5
Total	54	28	82

Result of quality control of 8 districts in central region in 1990

District	Agreement of pos. and neg. (%) n = 20	False pos. (%) n = 10	False neg. (%) n = 10	Over reading (%) n = 20	Less reading (%) n = 20
Rameehhap	100.0	0.0	0.0	0.0	45.0
Makawanpur	100.0	0.0	0.0	15.0	5.0
Dhading	100.0	0.0	0.0	20.0	20.0
Mahottari	90.0	0.0	20.0	0.0	35.0
Parsa	75.0	0.0	50.0	0.0	25.0
Nuwakot	70.0	0.0	60.0	0.0	55.0
Shindupalchok	90.0	0.0	20.0	10.0	50.0

Result of quality control of 7 districts
in western region in 1990

District	Agreement of pos. and neg. (%) n = 20	False pos. (%) n = 10	False neg. (%) n = 10
Nawalparasi	100.0	0.0	0.0
Kapilbastu	85.0	0.0	30.0
Rupandehi	95.0	0.0	10.0
Gorkha	95.0	0.0	10.0
Tanahu	80.0	30.0	10.0
Syanja	90.0	0.0	20.0
Kaski	90.0	10.0	10.0

Number of sputum specimens examined and positives found in each district from 16th July 1989 to 15th July 1990

District	No. of examination	No. of positive (%)
EASTERN		
Jhapa	2725	182 (6.7)
Morang	5234	965 (18.4)
Sunsari	3959	228 (5.8)
Saptari	193	84 (43.5)
Siraha	985	60 (6.1)
Udayapur	863	69 (8.0)
Sub-total	13959	1588 (11.4)
CENTRAL		
Dhanusha	1341	228 (17.0)
Sarlahi	1564	337 (21.6)
Rautahat	334	129 (38.6)
Bara	707	109 (15.4)
Parsa	272	43 (15.8)
Makawanpur	1131	144 (12.7)
Chitawan	2127	337 (15.8)
Ramechhap	457	27 (5.9)
Shindupalchok	970	37 (3.8)
Nuwakot	2001	71 (3.6)
Dhading	1564	136 (8.7)
Mahottari	830	100 (12.1)
Sub-total	13298	1698 (12.8)
WESTERN		
Nawalparasi	1315	209 (15.9)
Rupandehi	3097	348 (11.2)
Kapilbastu	1617	44 (2.7)
Arghakhachi	14	1 (7.1)
Tanahu	322	42 (13.0)
Syanja	651	50 (7.7)
Baglung	865	30 (3.5)
Gorkha	2734	150 (5.5)
Kaski	2340	108 (4.6)
Sub-total	12955	982 (7.6)
MID-WESTERN		
Banke	832	92 (11.1)
Bardiya	1139	147 (12.9)
Sub-total	1971	239 (12.1)
FAR-WESTERN		
Kailali	1389	156 (11.2)
Kanchanpur	1011	136 (13.5)
Doti	678	26 (3.8)
Dadeldhura	4	0 (0.0)
Baitadi	166	10 (6.0)
Sub-total	3248	328 (10.1)
Total	45431	4835 (10.6)

Number of new smear positive case found and rate of case finding in each district from 16th July 1989 to 15th July 1990

Geograghical reagion	District	Population (x100,000)	No. of new smear (+)	Rate of case finding (%) [1]
Mountain	1. Sindhupalchok	2.5	37	9.9
Sub-total		2.5	37	9.9
Hill	1. Udayapur	2.0	69	23.0
	2. Dhading	2.7	136	37.0
	3. Nuwakot	2.2	71	21.5
	4. Makawanpur	3.1	144	31.0
	5. Ramechhap	1.6	27	11.0
	6. Kaski [2]	2.7	108	26.7
	7. Arghakhachi	1.8	1	0.4
	8. Tanahu	2.7	42	10.4
	9. Gorkha	2.7	150	37.0
	10. Baglung	2.4	30	8.3
	11. Syanja	2.8	50	11.9
	12. Doti	1.7	26	10.2
	13. Baitadi	1.9	10	3.5
	14. Dadeldhura	1.1	0	0.0
Sub-total		31.4	864	18.0
Terai	1. Jhapa	7.0	182	17.3
	2. Sunsari	4.4	228	34.5
	3. Morang	7.7	965	83.6
	4. Saptari	4.5	84	12.4
	5. Siraha	4.4	60	9.1
	6. Sarlahi	5.0	129	17.2
	7. Dhanusha	5.2	228	29.2
	8. Rautahat	4.0	129	22.0
	9. Chitawan	3.4	337	66.1
	10. Parsa	3.6	43	8.0
	11. Bara	4.0	109	18.2
	12. Mahottari	4.2	100	15.9
	13. Nawalparasi	4.3	209	32.4
	14. Rupandehi	5.0	348	46.4
	15. Kapilbastu	3.2	44	9.2
	16. Bardiya	2.9	147	33.8
	17. Banke	2.8	92	21.9
	18. Kailali	3.8	156	27.4
	19. Kanchanpur	2.7	136	33.6
Sub-total		82.1	3726	30.0
Total		116.0	4627	26.6

1) Rate of case finding was estimated according to the incidence of smear positive case; 150 cases per 100,000 population (ARI = 2.5%).
2) The number of new smear positive found at RTC is not included.

Activity of case finding in each district in 1990/1991

District	No. of examination	No. of positive (%)
EASTERN		
Jhapa	844	150 (17.8)
Morang	684	35 (5.1)
Sunsari	1467	197 (13.4)
Saptari	51	16 (31.4)
Siraha	1447	180 (12.4)
Udayapur	399	37 (9.3)
Sub-total	4892	615 (12.6)
CENTRAL		
Dhanusha	758	207 (27.3)
Sarlahi	1269	302 (23.8)
Rautahat	432	89 (20.6)
Bara	655	88 (13.4)
Parsa	481	47 (9.8)
Makawanpur	1372	202 (14.7)
Chitawan	998	145 (14.5)
Ramechhap	168	18 (10.7)
Shindupalchok	451	25 (5.5)
Nuwakot	631	66 (10.5)
Dhading	653	45 (6.9)
Mahottari	565	117 (20.7)
Kavrepalchok	205	5 (2.4)
Shindhuli	514	61 (11.9)
Sub-total	9152	1417 (15.5)
WESTERN		
Nawalparasi	594	177 (29.8)
Rupandehi	3491	343 (9.8)
Kapilbastu	433	161 (37.2)
Arghakhachi	263	32 (12.2)
Tanahu	361	10 (2.8)
Syanja	177	22 (12.4)
Baglung	270	11 (4.1)
Gorkha	2043	107 (5.2)
Kaski	2419	99 (4.1)
Gulmi	1397	14 (1.0)
Palpa		
Sub-total	11448	976 (8.5)
MID-WESTERN		
Banke	1148	122 (10.6)
Bardiya	1400	56 (4.0)
Sub-total	2548	178 (7.0)
FAR-WESTERN		
Kailali	853	184 (21.6)
Kanchanpur	1426	101 (7.1)
Doti	152	25 (16.5)
Dadeldhura	288	10 (3.5)
Baitadi	538	21 (3.9)
Achham	59	8 (13.6)
Sub-total	3316	349 (10.5)
Total	30779	3596 (11.7)

Number of ilaka health post with microscope in each district

Geograghical Reagion	Name of District	No. of Health Post with Microscope
Mountain	1. Sindhupalchok	0
Sub-total		0
Hill	1. Udayapur	2
	2. Dhading	6
	3. Nuwakot	0
	4. Sindhuri	2
	5. Makawanpur	-
	6. Kavre	2
	7. Ramechhap	0
	8. Kaski	6
	9. Arghakhachi	1
	10. Palpa	4
	11. Tanahu	1
	12. Gorkha	2
	13. Gulumi	-
	14. Baglung	-
	15. Syanja	-
	16. Doti	0
	17. Achham	0
	18. Baitadi	2
	19. Dadeldhura	3
Sub-total		31
Terai	1. Jhapa	9
	2. Sunsari	7
	3. Morang	9
	4. Saptari	4
	5. Siraha	8
	6. Sarlahi	5
	7. Dhanusha	8
	8. Rautahat	4
	9. Chitawan	8
	10. Parsa	9
	11. Bara	5
	12. Mahottari	9
	13. Nawalparasi	3
	14. Rupandehi	4
	15. Kapilbastu	-
	16. Bardiya	4
	17. Banke	4
	18. Kailali	9
	19. Kanchanpur	-
Sub-total		109
Total		140

NTP

Along the present HMG's policy, all the factors concerning PHC are going to be integrated into the basic health network like DPHOs and healthposts. Tuberculosis being a major public problems of the people in this country is also one of the factors of PHC. Because TBCP used to have its activity as a vertical project, NTC faces to the difficulty to make TB control activity being integrated into a general health service network. This topic will be discussed in coming national workshop, and a definite policy of TB control must be declared by MOH and NTC. TB control manuals for healthworkers, doctors and trainers are now under preparation.

Coverage of NTP service

No. of districts covered with NTP		S(+) newly registered
1987/88	41	5096
88/89	47	6163
89/90	50	5945
90/91	55	4780
91/92	58(planned)	

TBCP-NTC has been making a effort to increase its covered area. Up to 1988, TBCP staff stayed in the districts and they organized TB clinic days, collected and examined sputum, provided medicine to the patients, and made reports as a vertical project. After the policy of integration was declared and NTC was established, the most of the staff withdrew from the districts and some of them ~~were~~ remained as microscopists or district supervisors of DPHOs. Then the case finding and case holding activities have been tried to transfer to healthposts and DPHO in each district. However this concept is hardly acceptable to healthposts and DPHOs in many districts. The numbers of smear positive cases newly registered in the districts declined 20% in this two years.

In this year, NTC provides medicines other materials and more or less supervising to 58 districts which has more than 90% of the population of Nepal. 17 non-serviced districts are all in mountainous regions where we can not access by car all through a year even to the DPHOs. Among the 58 serviced area, 19 districts programmes are officially suported by foreign aid, eight in Eastern by BNMT, two in Western by AMS, six in MIdwestern by INF, two in Central by JICA/NTC OR programme and UMN has just started a supporting programme in Gorkha district.

Training

The training is an essential element in the project, NTC, providing both inservice training and training for all the levels from Central governmental officers to Basic Health Staff(BHS) of HMG. The activities comprise the following;

1) National level

TB workshop weres held on Dec.1987 and Mar.1988.

Though a National workshop for NTP has been postponed since April 1990, it is already decided it will be held on 27-29 Nov. 1991.

A TB symposium for doctors was held at Biratnagar on 13 Feb. 1991.

2) Regional level

It is quite usefull to organize the seminers of this level with the collaboration of RHDs to get a fully participation of public health officers and medical doctors in NTP.

Region	Place	Date	sponcership
Eastern	Biratnager	17-18 Feb. 1991	BNMT
Central	NTC(Thimi)	Jan.1992	JICA
Western	RTC(Pokhara)	Jan.1992	JICA
Mid western	Birendranager	29-30 Sep. 1991	INF
Far western	not scheduled yet		

3) Training course for trainers of the integrated PHC training programme by HMG

Necessity of a training course for the trainers of Regional Training Centeres is recognized. It is already on the process of planning.

4) Orientation course for BHS staff

5) Refresher course for BHS staff

These courses should be organized through RHD, Regional Training Centres or DPHO. NTC are willing to provide technical assistance or trainers. By Sep. 1991, all those held were only in the districts with the collaboration of NGOs or JICA.

6) Laboratory based training in TB smear microscopy for DPHO labo and microscopic centres in healthposts

7) Theoretical lecture course and practice in TB for T.U.M.I. students

Some doctors have some lectures for medical and nursing school students. It should be included in the regular caliculams in each school for different

proffesionals all concerning health. NTC is willing to provide its training facilities and lecturers.

8) Training to expand SCC programme

To expand SCC programme smoothly, additional training in the district level is necessary other than the orientation and refresher courses by general training programme. NTC/JICA will provide this course in four districts around KTM valley and some in Terai within this fiscal year.

To conduct those trainings effectively and smoothly, some additional financial sources other than regular governmental budget are necessary for the convenience of the participants.

Supply materials for NTP

NTC provides anti-TB drugs, chemicals(solution) and equipments for smear examination and all kinds of forms for recording and reporting. Those are sent to DPHOs by NTC staff. DPHOs have responsibility to distribute them to healthposts and some other treatment centres.

Though the total ammount of the medicine NTC provided last year is quite enough to treat the reported case finding numbers of the patients, the shortage of the medicine were observed everywhere in the country. The present system of the distribution should be revised.

Chemicals and equipments for labo were prepared and sent by the budget of JICA.

Monitoring

I. The present system

Healthposts(treatment centres) submit monthly report to DPHO.

DPHOs submit monthly and quarterly reports to RHD and NTC.

RHDs and NTC submit an annual report to MOH. And NTC analyses the data and feeds back to each level.

Though it usually functions properly, it is rather difficult for DPHOs to collect all the reports from the treatment centeres monthly in time due to the difficulty of transportation in rural areas. And using the present forms of reporting, NTC cannot evaluate the result of the treatment properly. Some new system like quarterly reporting, cohort analysis will be introduced near future. NTC has started to analyse the data with parsonal computers provided by JICA.

2. Central Supervising System

Central Supervising Teams from NTC started to visit districts three or four times a year to assist DPHOs to conduct proper TB control services. They evaluate the activity and feed back to DPHOs and BHS staff.

Casefinding and treatment

No.of smear positive cases newly registred in NTP in 1990

Centres		1600
NTC	Patients from the valley	560
	out of the valley	740
RTC(Pokhara)		300
Districts programme		4500
NTC	37 districts	3000
JICA/NTC	2	450
BNMT/NTC	8	400
AMS/NTC	2	50
INF/NTC	6	600
Total		6100

<CASE FINDING> Around 6000 smear positive cases were registered in NTP in 1990 (Table).Those cases were not only found by NTP. Hospitals refer many cases to NTP. Especially UMNs'activities should be mentioned. Tansen hospital diagnosed more than 1200 smear positive cases last year, and more than 800 cases among them were refer to NTP programmes. Numbers of casefinding per population is higher in the districts in terai, the districts with NGOs collaboration, and the towns and near towns. In Chitawan, JICA/NTC programme found more than 100 cases/ 100000 population.

In NTP, casefinding and treatment of smear positive cases has a definite priority. Except the centres, NTC does not provide any service of X-ray facilities. However almost 6000, same numbers as smear positive cases, of smear negative cases were also registered last year. Even in rural areas, people would like to see doctors and to have taken X-ray. NTP cannot neglect a role of hospitals as case finding places. Training for proper diagnosis is an urgent need. Otherwise it will become a great financial burden on NTC.

<TREATMENT>

Still STH regimen is a national standard regimen in Nepal. However SCC is widely used in whole country. Not only private physicians and hospital doctors prescribe SCC, also TBCP-NTC has continued to provide a large amount of medicine for SCC to the districts, 200000 doses of RFP were bought and sent to the districts by NTC last year. Besides that, SCC has become a standard regimen in eight districts under the supervision by BNMT,INF,UMN and JICA. To make NTP more effective one, SCC should be introduced as a standard national regimen, but more strict management and supervision of the drugs are necessary.

Although NTC doesnot evaluate the districts programme with cohort analysis, some data shows that the treatment completion rate in healthposts is usually 20 -40%, and that in well trained healthposts is 50-70% with the standard STH regimen, however, with SCC, well-trained healthposts can achieve more than 80% of completion rate. And community participation, participation of the local NGOs, is one of the key factors to achieve a good completion rate.

NTC is planning to change a national standard regimen from STH regimen to SCC gradually with proper training and supervision.

資 料 7 (a)

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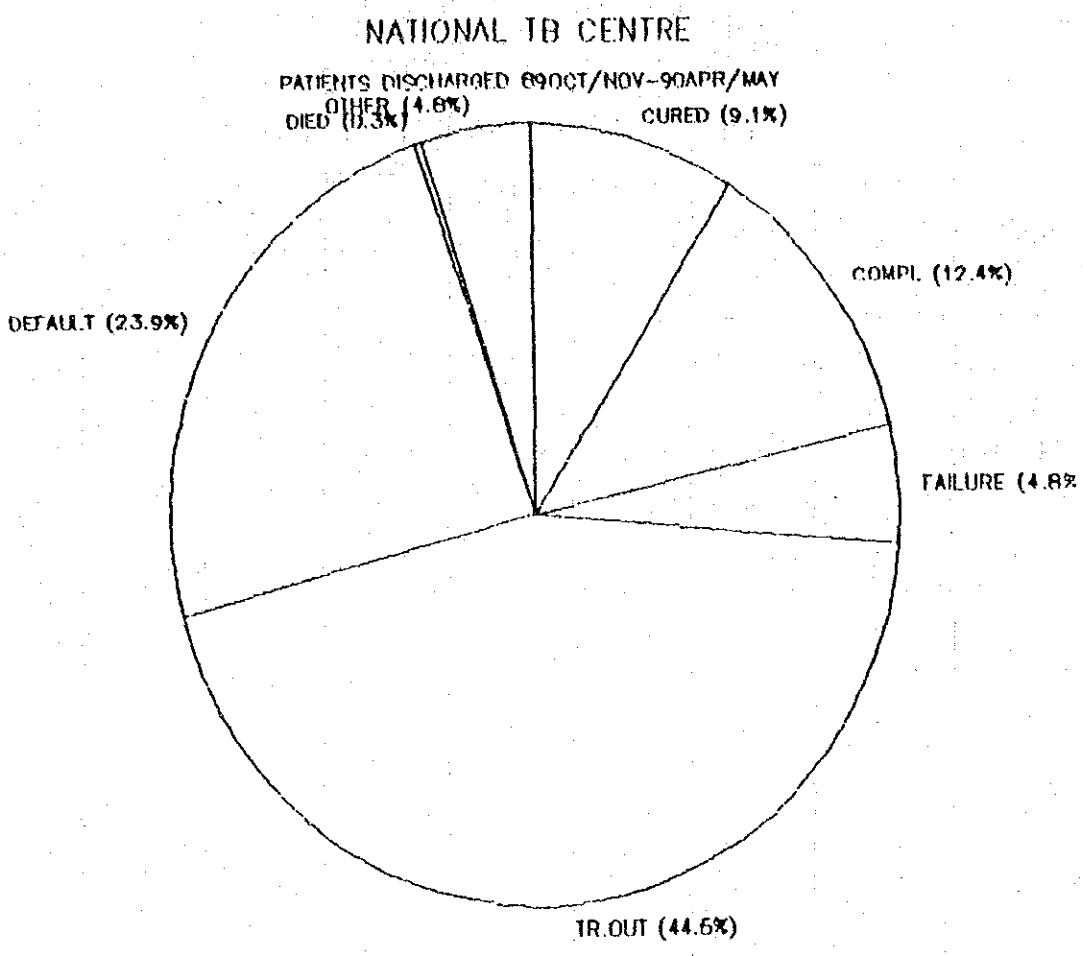
DISCHARGED PATIENTS FROM NATIONAL TB CENTER

2046-7 ~ 2046-12 (1989-Oct./Nov. ~ 1990-Apr./May)

MONTH	cured	compl.	failure	tr.-out	default	died	others	TOTAL
2046-7 KARTIK	6	7	1	16	16	0	2	48
2046-8 MANGSIR	5	4	1	27	11	0	2	50
2046-9 POUSH	4	6	0	32	10	0	3	55
2046-10 MARGH	4	8	2	36	11	0	1	62
2046-11 PHAGUN	6	3	4	17	12	1	3	46
2946-12 CHAITRA	5	13	8	19	19	0	5	69
TOTAL	30	41	16	147	79	1	16	330
%	9%	12%	5%	45%	24%	0%	5%	100%
#/183 (330-147)	16%	22%	9%	--	43%	1%	9%	100%


NATIONAL TB CENTRE
PATIENTS DISCHARGED 89OCT/NOV-90APR/MAY
OTHER (4.6%)
DIED (0.3%)
CURED (9.1%)
COMPL (12.4%)
FAILURE (4.8%
TR.OUT (44.6%)
DEFAULT (23.9%)

資 料 8

A F B(+) v c

DISCHARGED PATIENTS FROM NATIONAL TB CENTER

2046-07 ~ 2047-04 (1989-Oct./Nov. ~ 1990-JULY/AUG.)

MONTH	cured	compl.	failure	tr.-out	default	died	others	TOTAL
2046-7 KARTIK	6	7	1	16	16	0	2	48
2046-8 MANGSIR	5	4	1	27	11	0	2	50
2046-9 POUSH	4	6	0	32	10	0	3	55
2046-10 MAGH	4	8	2	36	11	0	1	62
2046-11 PHAGUN	6	3	4	17	12	1	3	46
2046-12 CHAITRA	5	13	8	19	19	0	5	69
2047-01 BAISAKU	13	14	0	29	29	0	3	88
2047-02 JETH	17	12	4	31	42	0	6	112

2047-03 ASAD	21	12	4	19	51	1	0	108
2047-04 SHRAWAN	13	4	1	16	66	0	0	100
TOTAL	94	83	25	242	267	2	25	738
%	13%	12%	3%	33%	36%	0%	3%	100%
#/496 (738-242)	19%	17%	5%	---	54%	0%	5%	100%

ネパール暦		西洋暦		
２０４６年	１９８９年４月中旬	－	１９９０年４月中旬
２０４７年	１９９０年４月中旬	－	１９９１年４月中旬
２０４８年	１９９１年４月中旬	－	１９９２年４月中旬
１月 (Baisak)	４月中旬	－	５月中旬
２月 (Jesta)	５月中旬	－	６月中旬
３月 (Ashar)	６月中旬	－	７月中旬
４月 (Srawan)	７月中旬	－	８月中旬
５月 (Bhadra)	８月中旬	－	９月中旬
６月 (Ashwin)	９月中旬	－	１０月中旬
７月 (Kartik)	１０月中旬	－	１１月中旬
８月 (Mangsir)	１１月中旬	－	１２月中旬
９月 (Poush)	１２月中旬	－	１月中旬
１０月 (Magh)	１月中旬	－	２月中旬
１１月 (Falgun)	２月中旬	－	３月中旬
１２月 (Chaitra)	３月中旬	－	４月中旬

会計年度はネパール暦の４月より

An Observation of Short Course of Chemotherapy

1. Regimen T3 2 (R + H + E) + 7 (R + H) New smear (+)ve
2 (R + H + E) + 6 (R + H) Relapsed smear (+)ve

Regis.Date / Tr.duration	Registered Pt. (outside KTM)		On treat.	Tr.out	Defaulted	Unknown	Case holding	Sputum conversion (-ve)	Sputum conversion (+)ve	Sputum conversion Unknown	Reg. Number in all	Smear +(ve) in all	Rate of T3 reg:
Jan-Feb '91	7		6	1	0	0	86 %	4	2	1	216	90	9
3m	(3)	43%						(57 %)	(29 %)	(14 %)			(10%)
Feb-March	29		21	0	8	0	72 %	12	5	12	376	113	44
7M	(15)	52%			(28 %)			(41 %)	(18 %)	(41 %)			(39%)
March-April	67		41	0	21	5	61 %	31	3	33	330	141	96
6m	(42)	63%			(31 %)			(46 %)	(5 %)	(149%)			(68%)
April-May	62		52	0	7	3	84 %	33	8	21	389	166	110
5m	(33)	53%			(11 %)			(53 %)	(13 %)	(34%)			(66%)
May-June	87		74	0	11	2	85 %	27	8	52	261	161	170
4m	(50)	57%		0	(13 %)			(31 %)	(9 %)	(160%)			(106%)
June-July	56		50	0	2	4	89 %	13	3	40	381	158	118
3m	(32)	57%			(4 %)			(23 %)	(6 %)	(71 %)			(75%)
July-Aug.	69		68	0	0	1	99 %				448	187	143
2m	(39)	57%											(76%)
Aug-Sept.	56		55	0	0	1	98 %				325	127	140
1m	(33)	59%											(110%)
Total	433												
	(247)	57%											

Patients number of X-R case of T3 regimen 298
Patients number of Extra pulmonary case of T3 regimen 111

2. Regimen T4 2 (R + H + Z) + 6 (R + H) Relapsed smear (+)ve
Patients number of smear (+)ve 45
Patients number of X-R case 10
Patients number of Extra pulmonary 6

REGIMENS TO BE FOLLOWED IN SPUTUM POSITIVE CASES OF DIFFERENT CATAGORIES

Catagory	Symbol	Regimens	
		Initial Intensive Phase	Continuation Phase
A. New sputum +ve with no history of treatment.	T1	2(S+H+T)	10(H+T)
	T2	2(R+H+T)	10(H+T)
	T3	2(R+H+E)	7(R+H)

(In case of T or S toxicity - replace it with E)

B. Relapsed (After complete treatment)	T4	2(R+H+Z)	6(R+H)
	T3	2(R+H+E)	6(R+H)
C. Resistant Cases	T5	3(S+H+R+Z+E)	9(R+H)
	T6	3(R+H+Z+E)	9(R+H)

Culture and Sensitivity tests
1. For every relapsed cases
2. For every resistant cases
3. Doubtful Negative cases (Culture)

REGIMENS TO BE FOLLOWED IN SPUTUM -VE PULMONARY TUBERCULOSIS

Catagory	Symbol	Regimens	
		Initial	Continuation
D. Sputum -ve	T7	(H+T)	12(H+T)
X-ray +ve	T2	2(R+H+T)	10(H+T)
E. Extra Pulmonary Cases	T7	12 (H+T)	
	T2	2 (R+H+T)	10 (H+T)

F. For defaulters:-
Same regimen to be instituted which was given previously unless and otherwise proved resistant to them.

Ⅱ. Health Educationの実践指導

Ⅱ－1. ＮＴＣにおける患者教育

我々はＮＴＣ開設時より、特に初回のMotivationが大切と考え、Health Education Roomを通過しなければ投薬をしないシステムとした。その後defaulter防止のため、旧患にも絶えず服薬継続の重要性を認識させることを目的に、彼等の投薬もH.E.Roomを経てのみ行なうこととした。それでもスタッフが常にH.E.Roomにいなかったり、患者が急ぐことを訴えたりで、当初の指導数は非常に少なかったが、月を経るにつれ旧患指導数は増加した。（別表参照）defaulter防止の効果がでるか否かは今後の統計結果に期待したい。

尚、ここではＥＭＤＣにより作成された教材を活用して教育を行なっている。

家族検診は、１９９０年２月中旬より検痰陽性の新患で、カトマンドゥ近郊に居住し、家族がＮＴＣに来所出来る者に勧めている。平均すると２５.７％の受診率であり、世帯でみると、勧奨した新患の３５.８％の世帯がHealth Educationに応じて受診している。この受診者の中からの要治療者発見率は３３.４％であった。１９９０年４月中旬からの202名の要治療者の内訳は、　検痰陽性者……１９

X－Rey陽性者　……７３

肺外結核……３

ツ反強陽性者……１０７　　であった。

ネパール暦２０４７年に登録された検痰陽性患者の家族で、１５才未満の者でＢＣＧscarの有無とツ反結果の判明している者５１名のツ反結果を表にした。ＢＣＧscar（－）の者では２０㎜以上の者が３名（約８％）で、ＢＣＧscar（－）の者では６名（約４３％）であった。家族検診用のformについては、記録を確実にするよう再三指導していたが十分でなくdataが少なく残念であった。

（２０４７年）

Age	Total	ＢＣＧscar（＋）			ＢＣＧscar（－）		
		0～9㎜	10～15㎜	16＜㎜	0～9㎜	10～15㎜	16＜㎜
0～4	14	5		4	1		4
5～9	20	4	4	8		1	3
10～14	17	1	2	9	1	1	3
Total	51	10	6	21	2	2	10
			37			14	

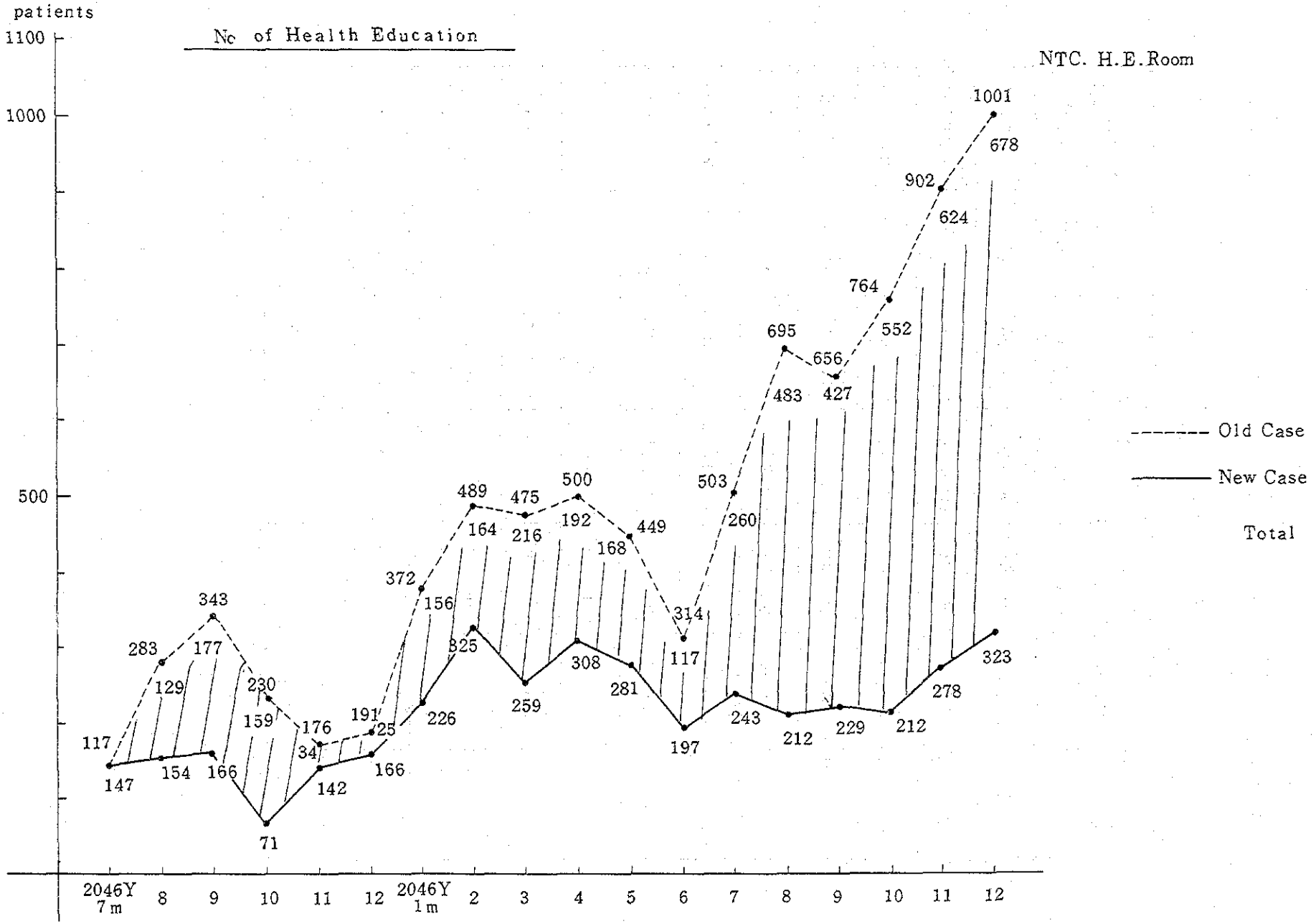
廊下待合ロビーでのビデオ映写はＮＴＣ開設時より行なっていたが、本年５月にビデオデッキ３台の盗難事件があったことをきっかけに、それまでデッキを管理をしていた受付けの者が再盗難及びその時の責任追及をおそれてstorageに返却してしまい映写していない。所長のDr. Amatyaに善処を求めているがそのままである。昨年度せっかくtelefilmを作成したことでもあるので、是非ビデオ映写を再開するよう働きかけなければならない。

Health Education Roomにおける患者教育により、Case holdingに差がでるか否か、ＮＴＣ開設当初月と６か月後の２０４７年１月の状況を調べてみた。Diedの記録はこの２月とも皆無であるが、これは情報収集が出来ていないため、Defaulterのなかには Diedのcaseが含まれていることが考えられる。また、ＮＴＣ来所者の約半数がKathmandu Vally外からの来訪のため、治療開始の最初の月にTransfer outとなる数が多く,Completion rateを下げることにつながっている。このTransfer outを除くと４９～５６％のCompletion rateになる。

今回カード整理をしてみて気付いたのは、検痰のFollow upがなされていなかったり、記録の不備も多く、Curedとされている人は数名でしかないということだった。ネパール側に、Research sectionもあるcenterでの業務であることを良く認識してもらい、今後良いdata収集が出来るよう指導していくことが大切と思った。

Health Education Room Report

	2046Y 7M	8	9	10	11	12	2047Y 1	2	3	4	5	6	7	8	9	10	11	12	1	2	Total
New Case	147	154	166	71	142	166	226	325	259	308	281	197	243	212	229	212	278	323	381	386	4,706
Old Case		129	177	159	34	25	156	164	216	192	168	117	260	483	427	552	624	678	838	1,137	6,536
家検 対象者数							195	272	388	293	125	130	189	119	117	57	72	67	121	213	2,358
家検 受診者数					13	7	55	43	78	73	56	22	40	34	39	17	31	37	40	40	625
要治療者 発見数					2	0	29	24	28	29	21	4	8	7	8	5	11	6	11	11	204
家検 対象世帯数							42	66	59	71	30	34	39	35	25	16	17	16	34	47	531
家検 受診世帯数							18	24	19	20	11	10	15	12	9	5	9	13	14	11	190


patients
No of Health Education
NTC. H.E.Room
1100
1000
500
2046Y 7m
8
9
10
11
12
2046Y 1m
2
3
4
5
6
7
8
9
10
11
12
Old Case
New Case
Total

2046年7月

登録者数 150　不明カード 7

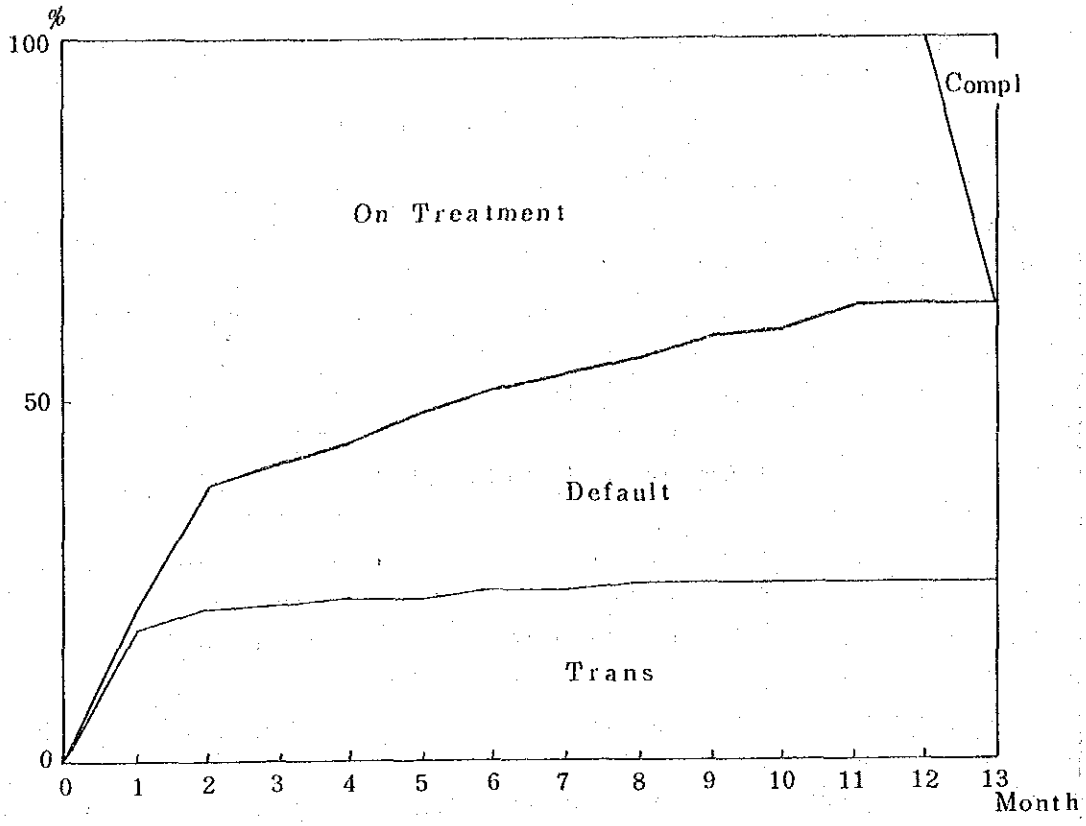
Montl	Total Cohort	Staltus				No on Tx at the end of Month
		Died	Trans	Default	Compl	
1	143	0(0.0%)	26(18.2%)	3(2.1%)	0(0.0%)	114(79.7%)
2	143	0(0.0)	30(21.0)	25(17.5)	0(0.0)	88(61.5)
3	143	0(0.0)	31(21.7)	28(19.6)	0(0.0)	84(58.7)
4	143	0(0.0)	32(22.4)	31(21.7)	0(0.0)	80(55.9)
5	143	0(0.0)	32(22.4)	37(25.9)	0(0.0)	74(51.7)
6	143	0(0.0)	34(23.8)	40(28.0)	0(0.0)	69(48.2)
7	143	0(0.0)	34(23.8)	43(30.1)	0(0.0)	66(46.1)
8	143	0(0.0)	35(24.5)	45(31.5)	0(0.0)	63(44.0)
9	143	0(0.0)	35(24.5)	49(34.3)	0(0.0)	59(41.2)
10	143	0(0.0)	35(24.5)	50(35.0)	0(0.0)	58(40.5)
11	143	0(0.0)	35(24.5)	55(38.4)	0(0.0)	53(37.1)
12	143	0(0.0)	35(24.5)	55(38.4)	0(0.0)	53(37.1)
13	143	0(0.0)	35(24.5)	55(38.4)	53(37.1)	0(0.0)

2047年1月

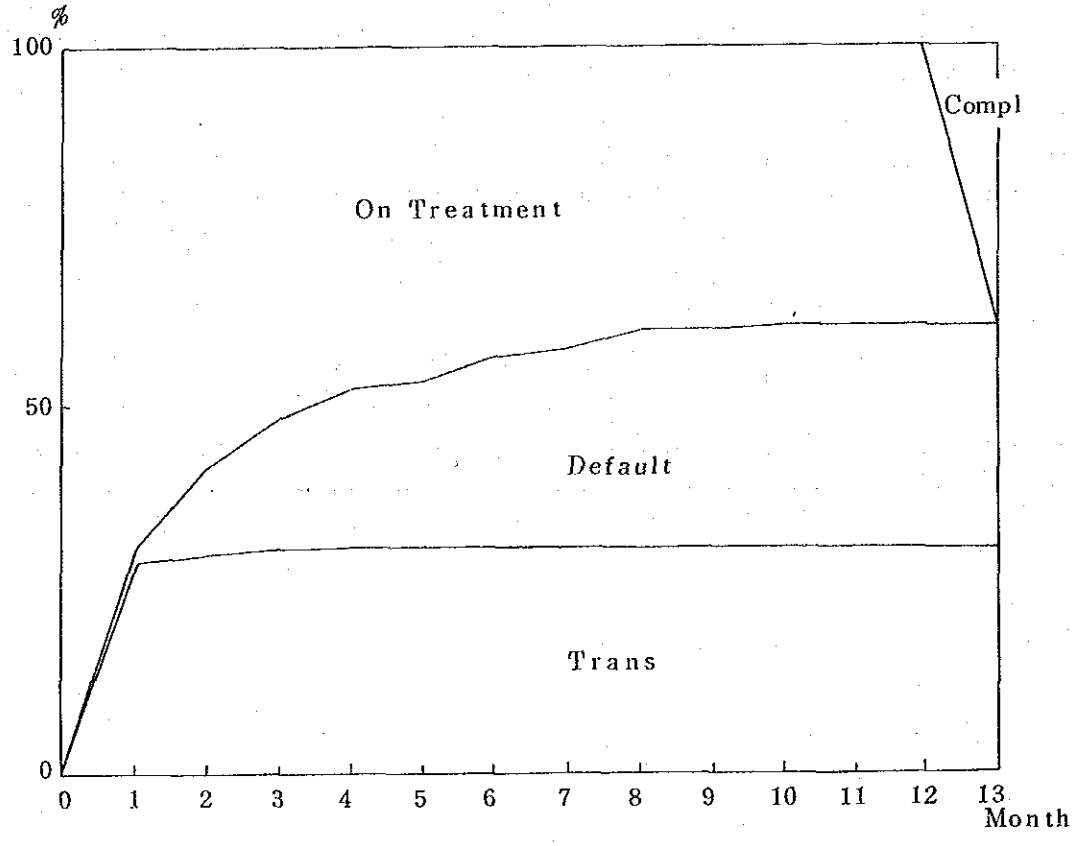
登録者数 226　不明カード 10

Month	Total Cohort	Status				No on Tx at the end of Month
		Died	Trans	Default	Compl	
1	216	0(0.0%)	62(28.7%)	4(1.9%)	0(0.0%)	150(69.4%)
2	216	0(0.0)	64(29.6)	25(11.6)	0(0.0)	127(58.8)
3	216	0(0.0)	65(30.1)	39(18.0)	0(0.0)	112(51.9)
4	216	0(0.0)	66(30.5)	47(21.8)	0(0.0)	103(47.7)
5	216	0(0.0)	66(30.5)	50(23.2)	0(0.0)	100(46.3)
6	216	0(0.0)	66(30.5)	57(26.4)	0(0.0)	93(43.1)
7	216	0(0.0)	66(30.5)	59(27.4)	0(0.0)	91(42.1)
8	216	0(0.0)	66(30.5)	64(29.7)	0(0.0)	86(39.8)
9	216	0(0.0)	66(30.5)	65(30.1)	0(0.0)	85(39.4)
10	216	0(0.0)	66(30.5)	66(30.5)	0(0.0)	84(39.0)
11	216	0(0.0)	66(30.5)	66(30.5)	0(0.0)	84(39.0)
12	216	0(0.0)	66(30.5)	66(30.5)	0(0.0)	84(39.0)
13	216	0(0.0)	66(30.5)	66(30.5)	84(39.0)	0(0.0)

2046年7月



2047年1月



Ⅱ－2. フィールドにおける患者教育

フィールドの末端で患者教育にあたるのは、ＨＰの staff である。彼らが最新の知識のもと、特に初回投薬時、服薬の継続・日常生活上の注意等を患者に指導することは、Case holding上重要なことである。彼らは毎日の診療に追われているので、少しでも使いやすく分りやすい教材を作成配布して、患者教育に供するよう考えてきたが、いまだ不十分である。

また、ＨＰ staff のみで患者教育が出来る状況ではないので、Community の Volunteer（特に有識者）の協力をあおいでいかなければと思う。ＥＰＩなど他のプログラムでＨＰ staff や、Community Volunteer 対象の training がある時などに結核に関する教育も含めて行なうようＤＰＨＯ、ＨＰ、Supervisor 等へ要請している。

Ⅱ－3. 住民教育

住民に対する保健教育を組織的に出来ないものか、とＯ／Ｒを通じて模索してみたが、特に Community Heath Volunteer という既存の組織が、揺れ動く政情の中でどう展開するか分らず、単発的にＯ／Ｒ Supervisor を通じて training を行なった程度であった。そこからさらに一般住民へとの発展には結付いていない。

学校教育への参加も、ＮＴＣの医師の話では組織化することは難しいとのことだった。しかし、各地の学校へ直接交渉して講義の時間をもらうことは可能なので、今後は学生を通じてCommunity の人々へ保健教育をすすめていくことを考えて良いと思う。

Ⅱ－4. 識字学級への援助

５月末ＮＡＴＡの Secretary のMr. Pradhan より、Patan地区の婦人を対象とした６か月間の識字学級にＪＡＴより１学級分の援助をしてもらえないかとの提案があった。６か月のうち３か月は識字教育、残りの３か月を保健教育の場とすると、金銭的援助（１クラス６か月で7,０００Rs）の要求のみでなく、我々も保健教育の場はＥＭＤＣで作成した教材の評価を得る場として活用できるだろうと思われるので了承した。

また将来、この婦人達が地域での保健教育活動をリードしていけるように育てられることと思う。保教衛生という面のみでなく、現在のネパールに大切な教育と組んで活動がすすめられるのであるから、是非地方へも広められると良いと思う。