

Table 5 Details of the number of cases detected in each health facilities

\* Abian Governorate

	Pulmonary			EP	Total
	S-P	S-N	Total		
New	16	42	58	9	67
Relapse	0	1	1	1	2
T/I	0	0	0	0	0
after Default	0	0	0	0	0
Others	0	0	0	0	0
unknown			0		0
Total	16	43	59	10	69

\* Shabwa Governorate(Ataq HC)

	Pulmonary			EP	Total
	S-P	S-N	Total		
New	1	19	20	0	20
Relapse	0	0	0	0	0
T/I	0	0	0	0	0
after Default	0	0	0	0	0
Others	0	0	0	0	0
unknown			0		0
Total	1	19	20	0	20

\* Shabwa Governorate (Azan HC)

	Pulmonary			EP	Total
	S-P	S-N	Total		
New	1	61	62	1	63
Relapse		12	12		12
T/I			0	1	1
after Default			0		0
Others			0		0
unknown			0		0
Total	1	73	74	2	76

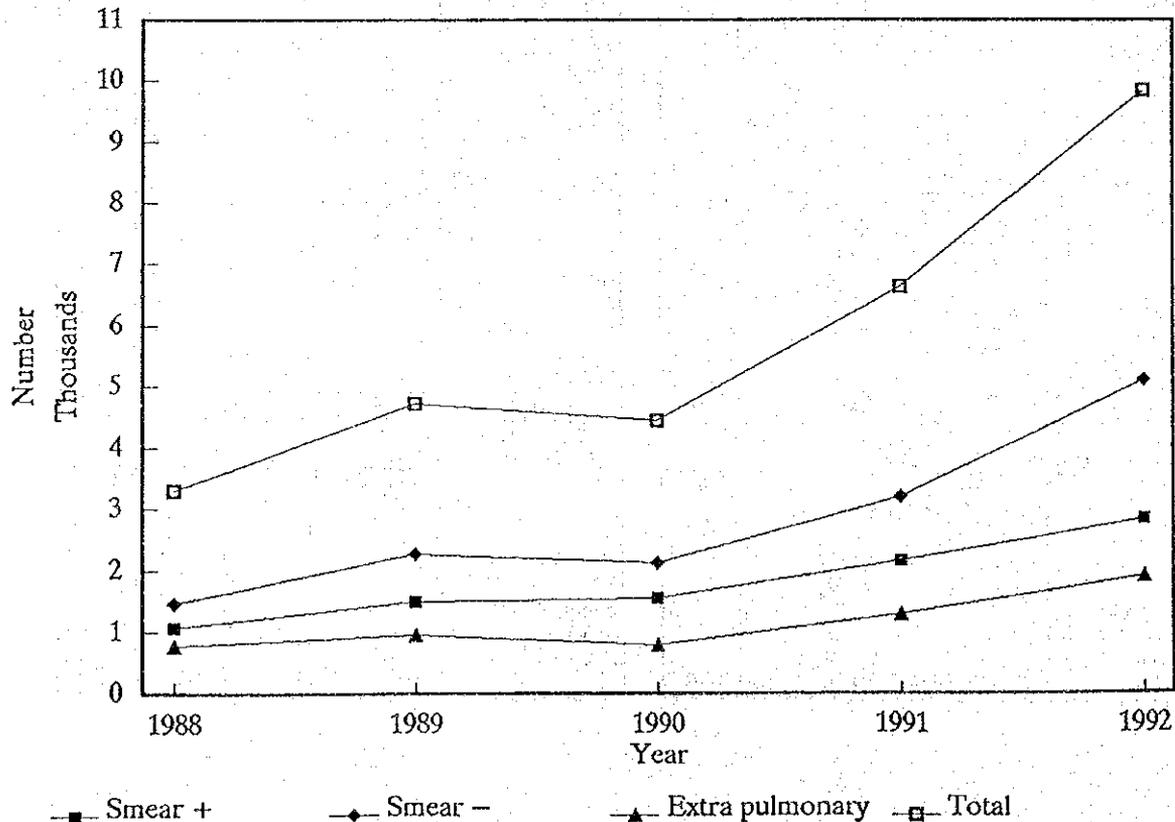
\* Hadramaut Governorate(Mukalla HC)

	Pulmonary			EP	Total
	S-P	S-N	Total		
New	81	124	205	20	225
Relapse	7	3	10		10
T/I	1	1	2		2
after Default	9	8	17		17
Others			0		0
unknown			0		0
Total	98	136	234	20	254

Mahra Governorate

	Pulmonary			EP	Total
	S-P	S-N	Total		
New	0	82	82	3	85
Relapse	0	6	6	0	6
T/I			0		0
after Default		44	44		44
Others		4	4		4
unknown			0		0
Total	0	136	136	3	139

## Trend of the number of registered New Cases



## Laboratory Activities of TB Centers

( NTI )

	Monthly Number of Specimen for smear examination												TOTAL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
TOTAL	943	1186	948	1133	1136	1090	1381	1724	1226	1268	1233	1250	14518
NEW	739	953	742	926	826	817	1167	1438	1016	1030	994	1044	11692
OLD	204	233	206	207	310	273	214	286	210	238	239	206	2826
	Monthly Number of Poitive slides												TOTAL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
TOTAL	60	79	68	88	71	91	97	88	72	75	76	76	941
NEW	44	58	54	75	54	73	78	73	58	61	62	58	748
OLD	16	21	14	13	17	18	19	15	14	14	14	18	193
	Monthly Positive rate %												TOTAL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
TOTAL	6.4	6.7	7.2	7.8	6.3	8.3	7.0	5.1	5.9	5.9	6.2	6.1	6.5
NEW	6.0	6.1	7.3	8.1	6.5	8.9	6.7	5.1	5.7	5.9	6.2	5.6	6.4
OLD	7.8	9.0	6.8	6.3	5.5	6.6	8.9	5.2	6.7	5.9	5.9	8.7	6.8

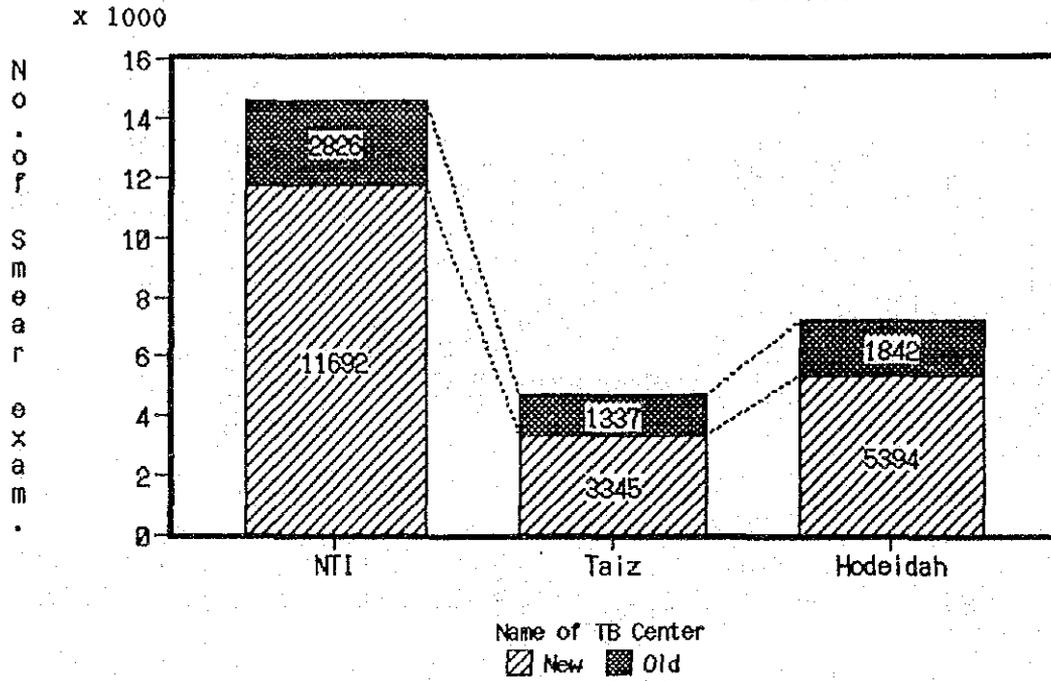
( Taiz TB Center )

	Monthly Number of Specimen for smear examination												TOTAL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
TOTAL	380	413	337	331	408	304	462	460	397	383	457	350	4682
NEW	279	315	231	244	329	251	383	255	282	247	305	224	3345
OLD	101	98	106	87	79	53	79	205	115	136	152	126	1337
	Monthly Number of Poitive slides												TOTAL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
TOTAL	41	56	33	36	50	49	57	33	64	47	51	53	570
NEW	31	47	27	34	46	43	52	25	54	37	42	42	480
OLD	10	9	6	2	4	6	5	8	10	10	9	11	90
	Monthly Positive rate %												TOTAL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
TOTAL	10.8	13.6	9.8	10.9	12.3	16.1	12.3	7.2	16.1	12.3	11.2	15.1	12.2
NEW	11.1	14.9	11.7	13.9	14.0	17.1	13.6	9.8	19.1	15.0	13.8	18.8	14.3
OLD	9.9	9.2	5.7	2.3	5.1	11.3	6.3	3.9	8.7	7.4	5.9	8.7	6.7

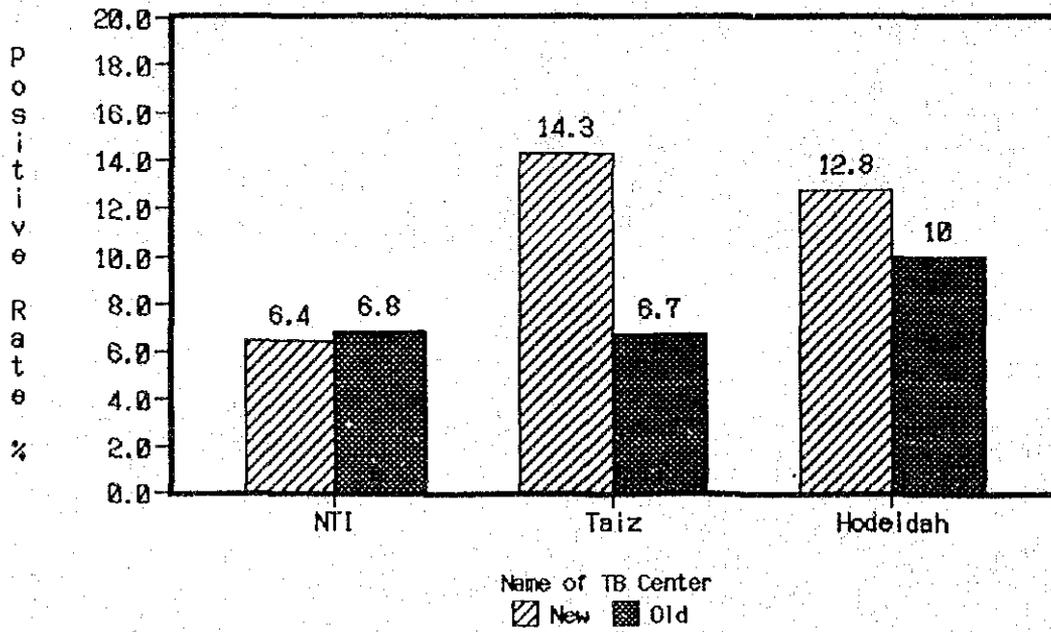
( Hodeidah TB Center )

	Monthly Number of Specimen for smear examination												TOTAL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
TOTAL	531	679	460	728	609	478	616	594	610	635	609	687	7236
NEW	425	479	341	601	450	328	454	414	532	426	451	493	5394
OLD	106	200	119	127	159	150	162	180	78	209	158	194	1842
	Monthly Number of Poitive slides												TOTAL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
TOTAL	56	89	51	80	74	83	81	80	54	72	67	86	873
NEW	38	71	38	69	61	61	66	64	46	56	53	66	689
OLD	18	18	13	11	13	22	15	16	8	16	14	20	184
	Monthly Positive rate %												TOTAL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
TOTAL	10.5	13.1	11.1	11.0	12.2	17.4	13.1	13.5	8.9	11.3	11.0	12.5	12.1
NEW	8.9	14.8	11.1	11.5	13.6	18.6	14.5	15.5	8.6	13.1	11.8	13.4	12.8
OLD	17.0	9.0	10.9	8.7	8.2	14.7	9.3	8.9	10.3	7.7	8.9	10.3	10.0

Number of Smear examinations (1992)



Positive Rate of Smear examinations (1992)



Jan.9,1993

**RESULT OF SENSITIVITY TEST (O/R)**  
**June - August 1992**  
**National Tuberculosis Institute, Sana'a, Yemen**

		New	Old	Total
No.of patients tested		36 (100%)	34 (100%)	70 (100%)
Resistant to	SM	1 ( 3%)	11 ( 32%)	12 ( 17%)
	INH	4 ( 11%)	19 ( 56%)	23 ( 33%)
	RFP	2 ( 6%)	16 ( 47%)	18 ( 26%)
Resistant to one drug	SM	1 ( 3%)	0 ( 0%)	1 (1.4%)
	INH	3 ( 8%)	4 ( 12%)	7 ( 10%)
	RFP	1 ( 3%)	2 ( 6%)	3 ( 4%)
two drugs	INH+RFP	1 ( 3%)	4 ( 12%)	5 ( 7%)
	RFP+SM	0 ( 0%)	0 ( 0%)	0 ( 0%)
	INH+SM	0 ( 0%)	1 ( 3%)	1 (1.4%)
three drugs	RFP+INH+SM	0 ( 0%)	10 ( 29%)	10 ( 14%)

## CRITERIA OF DRUG SENSITIVITY TESTS

National Tuberculosis Institute, Sana'a  
Yemen Tuberculosis Control Programme

### 1. Reading of cultures:

- Mycobacterial growth observed on culture media is quantified following the below scale

Code	Amount of growth
-	No growth
+(actual number)	1-20 colonies
+	1/4 of the medium is covered with growth
++	1/2 of the medium is covered with growth
+++	3/4 of the medium is covered with growth
++++	all of the medium is covered with growth

- Result of sensitivity tests is reported with these codes.

### 2. Criteria of Epidemiological purpose

- Resistance and sensitivity are determined comparing the growth on the drug containing media of the definable concentrations (shown in Table 1) with the growth on the control medium (Table 2).

Table 1: Concentration of Drugs

Drug	Tested Concentration	Definable Concentration
Streptomycin (SM)	20, 200 mg/l	20 mg/l
Isoniazid (INH)	0.1, 1, 5	0.1
Rifampicin (RFP)	10, 50	50

Table 2: Definition of resistance and sensitivity

		Growth on the drug containing medium					
		-	+(1-20)	+	++	+++	++++
Growth on the control medium	-	*	*	*	*	*	*
	+(1-20)	*	*	*	*	*	*
	+	s	s	r	*	*	*
	++	s	s	r	r	*	*
	+++	s	s	r	r	r	*
	++++	s	s	r	r	r	r

( s:sensitive, r:resistant, \*:exclude from the data)

O/R: Sensitivity Tests, JRIT vs NTI (1992)

SM 20	JRIT					Total	SM 20	JRIT		Total	%
	-	+	++	+++	++++			Res.	Sen.		
NTI	49	0	1	0	0	51	Res.	9	1	10	81.8
+	1	0	0	0	0	1	Sen.	2	49	51	98.0
++	0	0	1	0	0	1	Total	11	50		90.0
+++	0	0	0	5	0	5					96.1
++++	0	0	1	2	0	3					
Total	50	0	3	8	0	61					

SM 20	JRIT					Total	SM 20	JRIT		Total	%
	-	+	++	+++	++++			Res.	Sen.		
NTI	37	1	0	3	0	41	Res.	16	4	20	80.0
+	1	0	0	1	0	2	Sen.	4	37	41	90.2
++	2	0	1	1	0	4	Total	20	41		80.0
+++	0	0	0	9	0	9					90.2
++++	1	0	1	2	1	5					
Total	41	1	2	16	1	61					

SM 20	JRIT					Total	SM 20	JRIT		Total	%
	-	+	++	+++	++++			Res.	Sen.		
NTI	45	0	0	1	0	46	Res.	14	1	15	93.3
+	0	0	0	1	0	1	Sen.	1	45	46	97.8
++	0	0	0	1	0	1	Total	15	46		93.3
+++	1	0	0	9	0	10					97.8
++++	0	0	0	3	0	3					
Total	46	0	0	15	0	61					

### 結核菌薬剤感受性試験の判定基準

1) 記録台帳と患者レポート : 対照培地と薬剤含有培地での菌の発育程度を次の基準に従って記す。

菌の発育	判定
発育を認めない	—
1— 20mm <sup>2</sup>	+ (実数)
培地面の 1/4	+
培地面の 1/2	++
培地面の 3/4	+++
培地全面	++++

#### 2) 疫学統計のための判定要領

- a. 薬剤感受性を判断する培地の薬剤濃度 (本邦と同じ)  
INH 0.1 mcg/ml, SM 20 mcg/ml, RFP 50 mcg/ml
- b. 対照培地での発育が(+)以上の場合、薬剤含有培地での発育が(+)以上であればすべて耐性とする (不完全耐性は設けない)。
- c. 対照培地での発育が(+20)以下の場合や、薬剤含有培地での発育が対照のそれより良好な場合は、再検またはデータより除外する。



JICA

