HEALTH AND FAMILY WELFARE DEPARTMENT

NATIONAL PROGRAMME FOR PREVENTION AND CONTROL OF DISEASES

3.3 NATIONAL TUBERCULOSIS CONTROL PROGRAMME

HIGHLIGHTS[·]

National Tuberculosis Control Programme (NTCP) was implemented in the State since 1965 and Revised National Tuberculosis Control Programme (RNTCP) from 1999. Despite the implementation of the programme for 36 years sputum positive cases increased. Excess consumption/indiscriminate use of drugs created drug resistance. The programme implementation was marred by non-investigation of all suspects/symptomatics for TB, deficiency in sputum microscopy, shortage of microscopy centres, absence of proper health education, non-observance of dose medication, inadequate supervision and monitoring. Action plans were not prepared and supply of medicines was not regular; diagnostic facilities were inadequate. As a result target of new sputum smear positive patients remained largely unachieved. There were serious irregularities in purchase of medicines and issue of unnecessary medicines. Despite availability of funds, RNTCP was implemented late and all districts were not covered.

Of Rs 4.21 crore of GOI assistance, Rs 3.38 crore were spent. State share of Rs 1.50 crore was not released. In RNTCP utilisation of GOI fund was 59 *per cent* in 4 years.

(Paragraph 3.3.4(a) and (b))

Due to shortage in microscopy centres intended benefit of the programme was denied to 2.82 crore targeted population.

(Paragraph 3.3.5)

Implementation of RNTCP was delayed due to lack of advance planning. Benefit of the programme could not reach large population as detection rate was poor.

(Paragraphs 3.3.6 and 3.3.11)

Shortfall in sputum examination and identification of new smear positive cases ranged from 52 to 84 *per cent* and 39 to 64 *per cent* respectively during 1996-2001 in the State. High dropout rate aggravated spread of Tuberculosis while expenditure of Rs 8.02 crore on dropout cases was wasted.

(Paragraph 3.3.7 (a) and (b))

[·] *The Abbreviations used in this review have been listed in the Glossary in Appendix 60 (page 302)*

In 4 test-checked districts, excess consumption of Short Course Chemotherapy (SCC) drugs of Rs 3.13 crore was noticed due to their indiscriminate use. Excessive use of Capsule Rifampicin contributed to development of drug resistance. In Sub-divisional Hospital, Bolpur fictitious issue of Short Course Regimen medicine worth Rs 22.95 lakh was noticed.

(Paragraph 3.3.7 (e))

Capsule Rifampicin valued at Rs 4.15 crore was purchased by CMOH (Rs 2.01 crore) and DDHS, Equipment and Stores (Rs 2.14 crore) in excess of requirement.

(Paragraph 3.3.12 (a))

Irregular purchase of SCC drugs worth Rs 3.10 crore was made by DDHS, E&S (Rs 2.34 crore) and CMOH, Birbhum (Rs 0.76 crore) in violation of GOI guidelines. In Birbhum district SCC drugs valued at Rs 1.12 crore were consumed though the district was non-SCC one. Huge funds so wasted by the Department calls for investigation.

(Paragraph 3.3.12 (b))

Issue of injection Streptomycin (9.75 lakh vials) valued at Rs 46.01 lakh to patients without use of distilled water was doubtful.

(Paragraph 3.3.13)

Anti-Tuberculosis drugs (ATDs) valued at Rs 55.90 lakh were issued to patients in the RNTCP districts in violation of GOI guidelines.

(Paragraph 3.3.15)

ATDs worth Rs 25.21 lakh were diverted to Modified Leprosy Control Unit for indoor treatment while such drugs valuing Rs 3.97 crore were utilised under the NTCP without conducting quality control tests.

(Paragraphs 3.3.16 and 3.3.17)

ATDs worth Rs 24.64 lakh were not accounted for in Darjeeling district (Rs 21.26 lakh), Birbhum District Tuberculosis Centre (DTC) (Rs 2.67 lakh) and Malda DTC (Rs 0.71 lakh).

(Paragraph 3.3.18)

In RNTCP, Non-Government Organisations (NGOs) were not involved.

(Paragraph 3.3.22)

Due to inadequate training of Medical Officers and Paramedical staff and non-utilisation of media officers in Information, Education and Communication activities, effectiveness of the programme was reduced.

(Paragraphs 3.3.19 and 3.3.24)

3.3.1 Introduction

Tuberculosis (TB) continues to remain the most pressing health problem in India. To control the disease the National Tuberculosis Control Programme (NTCP) was launched by the Government of India (GOI) in 1962 and taken up by the State in 1965. A revised system of 'Directly Observed Therapy – Short Term (DOTS)' was introduced with World Bank assistance from March, 1997 under Revised National Tuberculosis Control Programme (RNTCP) which aimed at achieving cure rate of at least 85 *per cent* and detection rate of at least 70 *per cent* of the estimated cases. It was extended to 6 districts from 1999 in the first year.

It proposed to cover 7 more districts in the second year and the remaining 5 districts in the third year. The RNTCP programme was started in phases only from January 1999.

3.3.2 Organisational set up

The Additional Director of Health Services (Tuberculosis) West Bengal (ADHS-TB) is in overall charge of implementation of the programme in the State. Assistant Chief Medical Officer of Health - Public Health and Family Welfare (ACMOH—PH & FW) plans, organises, implements and supervises the programme in the districts. For implementation, monitoring, supervision and evaluation of the programme, State Tuberculosis Control Society under the Chairmanship of the Secretary Health and Family Welfare Department and the District Tuberculosis Control Society with the District Magistrate as its Chairman are functioning at the State/District level respectively. The programme is implemented at the districts through District Tuberculosis Centre (DTC), Tuberculosis Units (TU), Treatment Centre (TC), Microscopy Centre (MC), DOT Centres and DOT Workers.

3.3.3 Audit Coverage

The accounts and records for 1996-2001 of 5 districts namely Bardhaman, Birbhum, Darjeeling, Howrah and Malda as well as those of the Department and Directorate of Health and Family Welfare including Central Medical Stores (CMS) were test checked during December 2000 to June 2001. The findings of audit are given in the succeeding paragraphs.

3.3.4 Finance

(a) NTCP was a centrally sponsored scheme shared by Central and State Governments on 50:50 basis. GOI provided its share in kinds. From 1997-98 onwards GOI released its share in cash for purchase of drugs. During 1996-2001, Rs 36.54 crore was spent against Budget Provision of Rs 40.88 crore (Appendix 30) as shown below:

Year	Budget Provision	Expenditure	(-) Savings / (+) Excess
	(Rupees in crore)		
1996-97	5.41	4.00	(-) 1.41
1997-98	6.01	4.99	(-) 1.02
1998-99	8.18	9.32	(+) 1.14
1999-2000	10.92	10.13	(-) 0.79
2000-2001	10.36	8.10	(-) 2.26
Total	**40.88**	**36.54**	

***Source** : Budget Publication of the State Government.*

Reasons for excess/savings were not stated by the department though called for.

Against Central release of Rs 4.21 crore (1997-01), State release was only Rs 2.71 crore resulting in shortfall of Rs 1.50 crore in the State share as shown below:

Year	GOI release	State release	Shortfall in State share	Expenditure as per accounts
	(Rupees in crore)			
1997-98	1.34	1.09	0.25	Nil
1998-99	1.54	1.32	0.22	Nil
1999-00	0.66	0.30	0.36	1.41
2000-01	0.67	NIL	0.67	NA
Total	**4.21**	**2.71**	**1.50**	**1.41**

Source : Sanction Orders of Health & Family Welfare Department

Reasons for shortfall in State release were not stated by the department though called for.

Of Rs 4.21 crore of GOI assistance received (1997-2001), Rs 3.38 crore was utilised though only Rs 1.41 crore was booked in accounts. The entire fund of Rs 0.67 crore received in January 2001 remained unspent due to its allotment to the Drawing and Disbursing Officer on 29 March 2001. The department did not reconcile departmental expenditure with those booked in the accounts of the Principal Accountant General (Accounts & Entitlement).

GOI grant of Rs 18.40 lakh remained unspent

In the three test-checked districts (Bardhaman, Birbhum and Darjeeling), GOI grant of Rs 18.40 lakh received during 1999-2001 remained unspent for want of advance planning as of June 2001. In the State TB Control Society Rs 5.53 lakh were spent in excess due to delayed procurement of 10 four wheelers (Rs 35.53 lakh) in March 2001 though funds (Rs 30 lakh) were received in August 1999.

(b) RNTCP is a cent *per cent* Centrally sponsored scheme and the assistance both in cash and kind are being released to the societies direct by the GOI. The State TB Cell did not compile year-wise/ district-wise receipt and expenditure figures though copies of sanctions from GOI and quarterly statement of expenditure from districts were received by them. Thus Government was not aware of the position of funding for the State as a whole and control and monitoring by the ADHS (TB), West Bengal over the districts in this regard was very inadequate.

Out of Rs 3.77 crore available during 1997-2001 in 5 test-checked districts including State TB Control Society only Rs 2.22 crore (59 *per cent*) could be spent as would be evident from the table below :

(Rupees in crore)

Year	Opening balance	Amount received	Interest earned	Total	Expenditure incurred	Closing balance
1997-98	NIL	0.69	0.01	0.70	0.03	0.67
1998-99	0.67	Nil	0.03	0.70	0.18	0.52
1999-2000	0.52	2.16	0.04	2.72	0.30	2.42
2000-01	2.42	0.76	0.08	3.26	1.71	1.55
		3.61	**0.16**		**2.22**	

Source : *Compilation from the replies of the test-checked units.*

Rupees 3.01 crore of assistance given in kind by the GOI through Medical Store Depot, Kolkata during 1996-2000 was not adjusted in accounts of State Government, reasons of which were not stated by the ADHS (TB).

3.3.5 Microscopy centers (MCs)

282 MCs were not functioning depriving 2.82 crore people of the facility

The RNTCP envisaged expansion of the programme for Microscopy centers (MCs). As of March 2001 of 563 MCs targeted only 281 (50 *per cent*) were participating in the programme (Appendix 31). Shortfall of 282 (563-281) MCs deprived 2.82 crore targeted population of the benefits of the scheme.

In 4 test-checked districts (excepting Darjeeling), there were 69 non-functioning MCs thus depriving 0.69 crore people. In Malda there was shortfall in MC as the sites for setting up MCs were not identified as well as there was shortage of MOs. Reasons for the shortfall for the State as a whole were not stated by the ADHS (TB).

3.3.6 Programme implementation

Action plans were not prepared and requirement of ATDs never assessed

In none of the test-checked districts, Action Plans were prepared for implementation of either NTCP or RNTCP. Requirement of Anti-TB drugs (ATDs) under NTCP was never assessed. No advance planning was made for imparting training, identification of MCs, renovation thereof and for starting service delivery. Further, district-wise target for each component of work for the State as a whole was not prepared. As a result, the eligibility criteria for RNTCP were not fulfilled in time and the programme in the first phase started from first quarter of 1999 in place of December 1997 as fixed by GOI and in the second phase only 6 out of 7 districts started functioning between August 2000 and April 2001 barring Medinipur district (April 2001) as it failed to fulfill all eligibility criteria. The programme did not start in the third year districts as of April 2001. Thus out of 18 districts where the programme was to operate in the State as of March 2000, only 12 districts were covered.

3.3.7 Treatment

To detect maximum number of cases among the patients attending outdoor departments of different Government Health Institutions and to treat them effectively, NTCP was launched. Detection of TB was done through sputum examination and X-ray when the sputum is negative. Treatment is rendered under two Regimens namely, Standard (for both sputum positive and negative cases) and short course Regimen (for sputum positive cases only).

(a) Shortfall in sputum examination and identification of smear positive cases

Shortfall in Sputum examination and identification of smear positive cases ranged between 52 and 84 *per cent,* 39 and 64 *per cent* respectively

During 1996-2001 in the state, shortfall in targeted sputum examination increased from 52 to 84 *per cent* and in identification of new smear positive cases from 39 *per cent* to 64 *per cent* as shown below:

Year	T.B. suspects for sputum examination		Shortfall *(per cent)*	Identification of new smear positive cases		Shortfall *(per cent)*	Percentage of New Smear positive cases
	Target	Achievement		Target	Achievement		
1996-97	205000	99076	52	20500	12600	39	12.72
1997-98	113582	96678	15	37854	14936	61	15.45
1998-99	384460	98944	74	38446	17816	54	18
1999-2000	389860	85068	78	38990	15595	60	18.33
2000-2001	395040	62293	84	39500	14346	64	23.02

Source : *Reports of the ADHS (TB), West Bengal.*

No steps taken to curb increasing trend of sputum positive cases

Information regarding total detection of new TB cases was not furnished by the ADHS (TB). Due to such steep increase in shortfall of examinations, sputum positive cases increased from 13 *per cent* to 23 *per cent* over the estimated rate of 10 *per cent*. Thus the disease was spreading. No steps were taken to achieve the target as fixed by GOI. Possibility of a good number of suspected sputum positive cases remaining undetected also could not be ruled out.

In the 4 test-checked districts (Bardhaman, Birbhum, Darjeeling and Malda), shortfall in sputum examination and identification of new smear positive cases averaged 55 *per cent* and 40 *per cent* respectively during 1996-2001 as detailed in Appendix 32.

(b) Unfruitful expenditure on dropouts

In the State, 2.72 lakh patients (22 *per cent*) left (drop-outs) before completion of treatment thus increasing the scope of spreading the disease and rendering the expenditure of Rs 8.02 crore on their treatment unfruitful.

The Statewide position of treatment and drop outs was as follows:

Unfruitful expenditure of Rs 8.02 crore on 2.72 lakh dropout cases

Year	Number of patients at the beginning of the year	Number of new patients	Total	Number of patients completed treatment	Number of dropouts	Number of patients at the end of the year
1996-97	227742	77538	305280	34173	78907	192200
1997-98	192200	71593	263793	33174	65886	164733
1998-99	164733	81753	246486	39995	51490	155001
1999-2000	155001	78358	233359	48460	43459	141440
2000-2001	141440	49048	190488	29825	32012	128651
		358290	**1239406**	**185627**	**271754**	

Source : ***Status report of ongoing Public Health Programme and reports of the ADHS(TB), W.B.***

Dropouts aggravated spread of TB in the society

In 4 test-checked districts (Bardhaman, Birbhum, Darjeeling and Malda), 0.31 lakh out of 3.57 lakh patients completed full course of treatment and 0.50 lakh patients (14 *per cent*) received partial treatment. Expenditure of Rs 1.39 crore on the incomplete cases had become unfruitful. The drop outs attributed to irregular supply of ATDs by the implementing authorities of the units. It was, however, observed that lack of home visits by Health staff, motivation among patients and absence of health education, inadequate monitoring and supervision were the other factors contributing to such large dropouts.

Due to large number of drop out cases expenditure of Rs 8.02 crore[1] for the State became largely wasteful. Further the possibility of the patients becoming drug resistant could not be ruled out due to inadequate drug intake/discontinuation of treatment.

[1] *Working of Rs 8.02 crore: Rs 36.54 crore X 2.72 lakh ÷ 12.39 lakh*

(c) Inadequate Diagnostic Centre

Diagnostic centres not increased despite having infrastructural facilities

In 3 test-checked districts (Bardhaman, Birbhum and Malda) only 11 diagnostic centres were functioning as against at least 79 due to be available under NTCP. Further 68 Block Primary Health Centres (BPHCs) out of a total of 70 centres had no such facility due to failure of the ACMOH (PH&FW) to supply reagent, which costs only Rs 7 per patient. No target was fixed by the ACMOHs (PH&FW) for sputum examination though laboratory and technicians were available. Thus the patients were deprived of getting their sputum examined from a nearby centre while the staff and laboratory equipment were not utilised.

(d) Treatment without conducting tests

(i) In 4 test-checked districts (Bardhaman, Birbhum, Darjeeling and Malda), 0.84 lakh patients were registered during 1996-2001 (Appendix 33). In Darjeeling district 16507 patients were put under treatment against 18680 detected leaving 2173 patients. In Malda district 11223 patients were given treatment (total detection being 11291 and number put on treatment – 22514). All these treatments were given without conducting sputum examination.

(ii) In Manickchak TU of Malda district five patients were declared cured by the Medical Officer without examination of sputum at the completion of treatment. Again sputum negative cases were put on treatment under Category II meant for re-treatment (sputum positive relapsed cases) and not under Category-III (patients with negative smear) as required. A smear positive patient who had completed treatment and had not got his sputum examined at the end of treatment was declared as cured.

(e) Fictitious issue of medicines

As per guidelines of the National Tuberculosis Institute (NTI) Capsule Rifampicin-450 mg and Tablet Pyrazinamide–500 mg should be given to smear positive cases at the ratio of 1 : 3 daily for a period of sixty days (Intensive Phase) under Short Course Regimen. In Bolpur Sub Divisional Hospital no Treatment Card/ TB Patient Register was maintained. However, as per Laboratory records 428 TB cases (3 positive and 425 negative) were detected. For 3 positive cases 4.87 lakh Capsule Rifampicin-450mg and 0.56 lakh Tablet Pyrazinamide-500 mg were reportedly issued by the Hospital Authority instead of 180 capsules and 540 tablets respectively. In addition 0.91 lakh Injection Streptomycin, though not admissible under the above Short Course Regimen A were also shown as issued by the hospital. Genuineness of issue of so much excess medicine valuing Rs 22.95 lakh were doubtful and the matter calls for investigation.

Doubtful consumption of SCC drugs valuing Rs 3.13 crore

Further, drugs were reportedly issued beyond the intensive period of 60 days by the units even up to 18 months in some cases. Capsule Rifampicin and Tablet Pyrazinamide were reportedly issued in huge quantity by the Medical Officers. It was seen that ADHS (TB) or ACMOsH (PH&FW) did not issue NTI guidelines.

In Darjeeling district issue of excess capsule amounted to Rs 31.45 lakh. Such excessive issue of Capsule Rifampicin had no valid reason and possibility of these issues being fictitious cannot be ruled out. This involved excess expenditure of Rs 3.13 crore as shown below:

No. of patients put under SCC Regimen A during 1996-2001	Particulars	Capsule Rifampicin	Tablet Pyrazinamide
24288	Quantity issued	97,53,450	50,58,024
	Quantity required	14,57,280	43,71,840
	Excess quantity	**82,96,170**	**6,86,184**
	Value of excess quantity	Rs 301.98 lakh	Rs 11.32 lakh

Total value Rs 3.13 crore

Source : ***Figures compiled from replies of MOs of the test-checked districts***

3.3.8 Excess expenditure on treatment

Cost of treatment for each patient was Rs 2119 against Rs 392.65

In 4 test-checked districts (Birbhum, Bardhaman, Malda and Darjeeling) of 3.56 lakh patients, 30993 patients (9 per cent) were given complete treatment at Rs 9.86 crore. Thus, for each patient Rs 2119 were spent (cost of drugs only) against prescribed norm of Rs 392.65 while 0.50 lakh (14 *per cent*) patients received partial treatment rendering the expenditure of Rs 1.39 crore unfruitful.

3.3.9 Use of medicine without sputum examination

In 4 test-checked districts (Bardhaman, Birbhum, Darjeeling and Malda) SCC drugs were given by the attending physicians even to patients with negative smear and without examination of sputum to detect the cases as positive or negative.

In Asansol Sub-Divisional hospital where sputum examination was never done, Capsule Rifampicin and Tablet Pyrazinamide were issued by the attending Medical Officers to the extent of 2.26 lakh (Rs 8.24 lakh) and 2.29 lakh (Rs 3.77 lakh) respectively to 23988 patients during 1996-2001.

3.3.10 Periodical review of treatment not conducted by Medical Officers

As per guidelines of NTI, patients treated under Standard Regimen are required to be reviewed by the attending physicians after 6 and 12 months and those under Short Course Regimen, after 3 and 6 months from the initiation of treatment. In the test-checked districts efficacy of treatment of the patients were never reviewed by the Medical Officers for follow up treatment. As the treatment Cards/TB Patient Register showing the date of starting treatment, particulars of ATDs issued, etc. were not maintained by the units, no periodical review was conducted.

3.3.11 Activities under RNTCP

Performance in implementation of RNTCP (phase III) in 8[2] districts, including 3 Pilot Projects at Tangra Ward of Calcutta Municipality (1994), Sagardighi Block of Murshidabad district (1994 Phase-I) and Chandannagar Sub-Division of Hooghly district (1995- Phase-II) were as under :

[2] *Bankura, Hooghly, Howrah, Jalpaiguri, Kolkata, Malda, Murshidabad and Nadia.*

Poor detection rate under RNTCP

	Expected level	1996	1997	1998	1999	2000
Population covered (In lakh)	-	10	17	70	254.30	317.30
Performance Indicators						
Total detection rate per lakh population	135	215.8	125	36.4	73.8	92
Detection rate of new smear positive cases per lakh population	50	92.8	56	16	28	33
Conversion rate at 2(3) months of treatment of new smear positive cases, relapses and failure	90 *per cent*	80.3	83.1	86.3	75.2	73.8
Cure rate of new smear positive cases	85 *per cent*	85.2	87.2	88.2	80.6	Not due
Default rate	5 *per cent*	3.2	4.4	3.6	7.9	Not due

Source : ***"RNTCP in West Bengal" published by the STDC, W.B.***

In Howrah and Malda RNTCP was operative from the first quarter of 1999 and 0.11 lakh patients stood registered during 1999 and 2000 (Appendix 34). Performance of 2 test-checked districts[3] (Malda and Howrah) were as follows :

Achievement under RNTCP were far below the target

	Expected level	1999		2000	
		Malda	Howrah	Malda	Howrah
Population covered (in lakh)	-	30	42.3	32.90	42.3
Performance indicators					
Total detection rate per lakh population	135	39.46	41.65	94.74	63.23
Detection rate of new smear positive cases per lakh population	50	13.77	17.11	32.82	25.15
[4]Conversion rate at 2(3) months of treatment of new smear positive cases, relapses and failure	90 *per cent*	80.78	71.80	73.22	77.70
[5] Cure rate of new smear positive cases	85 *per cent*	71.9	73	Not due	Not due
Default rate	5 *per cent*	18.54	18.06	Not due	Not due

Source : ***Compiled from replies of the test-checked districts***

Total detection rate and detection rate of smear positive cases were far below the expected level of 135 and 50 respectively from 1998 onwards. Default rate was also high in 1999. Conversion rate also decreased from 1999 onwards. Though cure rate was at the expected level, poor detection rate indicated that the programme could not cover all the targeted population. In the 2 test-checked districts the default rate was always higher and achievement in the remaining components were much less than the expected level. The number of Relapse cases increased from 140 in 1999 to 218 in 2000 in 2 test-checked districts. Cure rate of Relapse cases was 62 *per cent* whereas default rate was 16 *per cent* in case of new smear positive cases in 1999.

As seen during audit, poor implementation and monitoring viz. non-investigation of all suspects/symptomatics for TB, deficiencies and shortfall in sputum microscopy, absence of health education, non-observance of dose medication, poor health service, non-utilisation of the laboratory technicians, shortage of staff and inadequate monitoring/supervision were the main reasons for such poor performance though adequate funds and medicines were available.

[3] *In Bardhaman and Birbhum service delivery started from March 24 and April 02, 2001 respectively. In Darjeeling district the DTCS was formed only on December 05, 2000.*
[4] *Data furnished in Appendix 35*
[5] *Data furnished in Appendix 36.*

3.3.12 Short Course Chemotherapy (SCC) drugs

(a) Excess purchase

Purchase of medicine valued at Rs 4.15 crore in excess of requirement

As per guidelines prescribed by NTI, SCC drugs like Capsule Rifampicin (450 mg) and Tablet Pyrazinamide (500 mg) should be given under Regimen A of SCC (treatment under Regimen B not being rendered) to smear positive and seriously ill extra-pulmonary TB cases during the intensive phase of 60 days in the ratio of 1:3. However, during 1996-2001 the norm was not followed by Chief Medical Officer of Health/Deputy Director of Health Services (Equipment & Stores) in the 5 test-checked districts and Central Medical Stores respectively. While 96.97 lakh Tablet Pyrazinamide (average cost Rs 1.65 each) needed 32.32 lakh Capsule Rifampicin (average cost Rs 3.64 each) 146.20 lakh Capsules were procured by them in defiance of guidelines resulting in procurement of 113.88 lakh excess quantity of capsules valued at Rs 4.15 crore during 1996-2001. In the Central Medical Store the excess procurement was for Rs 2.14 crore (83.92 lakh purchased against 25.21 lakh required) while in the districts it amounted to Rs 2.01 crore (62.28 lakh for 7.11 lakh required). Reasons for purchase of such excess huge quantity of Capsule Rifampicin were not stated by concerned DDOs. The matter calls for investigation.

(b) Huge purchase of unnecessary medicines

Irregular purchase of SCC drug valuing Rs 3.10 crore

GOI released cash assistance only for purchase of non-SCC drugs, required for sputum negative cases, in non-RNTCP districts. In 25 cases Deputy Director of Health Services (Equipment & Stores) of Central Medical Stores (CMS), Kolkata procured SCC drugs (Capsule Rifampicin and Tablet Pyrazinamide) valued at Rs 2.34 crore during 1998-2000 though not permissible. Of this purchase medicines worth Rs 1.18 crore were issued to 7 non SCC districts in violation of guidelines. ADHS (TB) did not review the procurement periodically. The Deputy Director could not state how the requirement of the SCC drugs was assessed and purchased. In the sanctions issued by the PHP Branch of Health and Family Welfare Department in March 1999, drugs to be purchased were not indicated though the GOI instruction was received in February 1999.

Further, Chief Medical Officer of Health, Birbhum purchased SCC drugs for Rs 0.76 crore during 1996-2001 irregularly though the district was a non-SCC one and was not authorised to render treatment with drugs like Capsule Rifampicin and Tablet Pyrazinamide. SCC drugs valued Rs 1.12 crore were also stated to have been consumed in the above non-SCC district, genuineness of which was not evident. In the process huge amount of funds were wasted by senior officers of the department which calls for investigation.

Irregular purchase of Rs 3.37 lakh

In Malda, sputum containers, laboratory consumables involving Rs 1.43 lakh was purchased by the Dy. CMOH-II in 11 cases without obtaining approval of the purchase committee. Forms and printed materials valued at Rs 1.94 lakh were not accounted for.

3.3.13 Doubtful consumption of Injection Streptomycin

Doubtful consumption of Injection Streptomycin valuing Rs 46.01 lakh

Streptomycin injections are required to be pushed dissolving in distilled water. As per guidelines of the NTI, the injections are to be administered daily only at the Peripheral Health Institutes. In the 5 test-checked districts 9.75 lakh vial injections valuing Rs 46.01 lakh were reportedly issued to the patients by test-checked centres without distilled water in violation of the prescribed norms. Use of such drugs was doubtful and the possibility of malpractice in the matter could not be ruled out.

3.3.14 Drug resistance

Drug resistant cases were not yet surveyed for treatment

Due to irregular supply of ATDs the TB patients did not get regular treatment according to MOs of test-checked units, and the patients were likely to become drug resistant posing great public health problems by spreading the disease. The high drop out rate, discontinuance of treatment, lack of awareness among the patients, indiscriminate use of Capsule Rifampicin were the major reasons for the drug resistant cases. In the State, no survey of the status of drug resistant cases was undertaken.

3.3.15 Issue of Anti-TB drugs to RNTCP districts

Inadmissible issue of ATDs worth Rs 55.90 lakh to RNTCP districts

In violation of GOI guidelines which stipulated purchase of drugs only for non-RNTCP districts, anti-TB drugs worth Rs 55.90 lakh, as detailed below, were issued by Central Medical Stores (CMS) to the RNTCP districts.

Name of the drug	Quantity issued during 1999-2000	Value (Rs in lakh)
Inj. Streptomycin	116500	5.83
Cap. Rifampicin	804600	28.12
Tab INH	962000	1.88
Tab Ethambutol	906500	7.42
Tab Pyrazinamide	683000	11.27
Tab INH + Thiactazone	502000	1.38
		55.90

Source : ***Statement furnished by the Central Medical Store.***

Reasons for allowing CMS by ADHS (TB), WB to issue these drugs were not stated.

3.3.16 Diversion of anti-TB drugs (ATDs)/time barred medicines

Diversion of ATDs valuing Rs 25.21 lakh

In Bardhaman, Capsule Rifampicin (450 mg) valuing Rs 2.47 lakh under Tuberculosis Control Programme was issued to the Modified Leprosy Control Unit (MLCU), Katwa during 1996-2000 for treatment of Leprosy patients in deviation of the norms. As confirmed by the MLCU, Katwa, the capsules received at the fag end of their validity period could not be utilised as there was sufficient stock of Blister Pack meant for treatment of Leprosy. In consequence, these capsules lost their shelf life and were damaged every year raising serious doubts of fraud. While accepting audit observations the unit had stated that Capsule Rifampicin (300 mg) was only required for treatment of leprosy. This needs investigation.

In Birbhum Capsule Rifampicin and Tablet Pyrazinamide worth Rs 1.13 lakh meant for domiciliary treatment were used in indoor department of Suri Sadar Hospital. Detection of TB was also not done there. ATDs valued at Rs 6.17 lakh in Malda and Rs 15.44 lakh in Darjeeling were issued to the Indoor department of different hospitals in violation of guidelines.

In Darjeeling district Tuberculosis centre 2080 pouch of 7 blister combipack valued at Rs 1.92 lakh received in July 2000 lost their shelf life in December 2000 as these could not be put to use in time.

3.3.17 Lack of quality control

Utilisation of ATDs worth Rs 3.97 crore without testing of potency

During 1996-2001 the Chief Medical Officers of Health (CMOH) of 5 test-checked districts utilised ATDs valued at Rs 3.97 crore without getting their potency and efficacy tested by the Assistant Director, Drug Control. Possibilities of drug reaction could not be ruled out in those cases.

3.3.18 Non-accountal of ATDs

ATDs worth Rs 24.64 lakh accounted for

In Darjeeling, district-wide difference between the quantity issued by the CMS and received by 3 units namely District Reserve Stores, District Tuberculosis Centre and the Dy. Assistant Director of Health (E&S) Siliguri was noticed as indicated below :

	1996-97	1998-99	1998-99	1999-00	1999-00	1999-00	1999-00
	Cap. Rifampicin (450 mg)	Tab Pyrazina-mide	Tab Ethambutol	Tab INH	Tab Ethambutol	Cap Rifampicin (450 mg)	Tab Pyrazina-mide
Quantity issued by CMS	53090	67100	38400	930000	857600	1005000	786000
Quantity received by the district units	50000	25000	25000	600000	527600	675000	456000
Difference	3090	42100	13400	330000	330000	330000	330000
Value (in lakh)	Rs 0.11	Rs 0.70	Rs 0.12	Rs 0.63	Rs 2.71	Rs 11.55	Rs 5.44
							Total : Rs 21.26 lakh

Source ***: Compiled from the data collected from Darjeeling district.***

Besides, the following ATDs were not found recorded in the stock ledger of 2 District Tuberculosis Centres :

Name of the DTC	Particulars of ATDS	Value	Remarks
Birbhum	Inj. Streptomycin 48940 vials	Rs 2.67 lakh	48940 vials arising out incorrect balancing
Malda	Tab Pyrazinamide 10000 Tab INH 50000 Tab INH + Thiacitazone 10000 Cap Rifampicin 10000 Tab INH 40000	Rs 0.71 lakh	Quantity received against indents dated 01.11.99 and 22.07.99 not accounted for.
		Rs 3.38 lakh	

Source : ***Compiled from replies of Birbhum and Malda districts***

Whereabouts of the above ATDs valued at Rs 24.64 lakh could not be traced out in Audit raising doubts about their utilisation.

3.3.19 Shortfall in training programme

Shortfall in training ranged between 16 and 82 *per cent*

Training of the key staff is an essential pre-requisite for effective implementation of a programme. Due to lack of advance planning there was a shortfall of 60 *per cent* and 82 *per cent* in respect of training of Medical Officers (MO) and Para-Medical Staff (PMS) in Bardhaman district. In Birbhum, it was 31 *per cent* and 16 *per cent* respectively. In Malda only 79 *per cent* of MOs were trained up as of March 2001.

3.3.20 State TB Demonstration cum Training Centre (STDC)

No advance planning for training center

In the STDC set up in 1960 in Kolkata Medical College and Hospitals for conducting training course in BCG vaccination and Sputum Microscopy no advance planning was made for training to be imparted with target specifying the category and number of staff to be trained.

3.3.21 Expenditure on Defunct Clinic/Idle Establishment

In Birbhum district Rs 3.24 lakh was spent during 1999-2001 towards maintenance of a defunct chest clinic. In Bardhaman and Howrah districts Deputy CMOH II incurred an expenditure of Rs 4.40 lakh towards salaries of two drivers remaining idle during July 1998 and March 2001.

3.3.22 Non-involvement of Non-Government Organisation (NGO)

Involvement of NGO in implementation of the programme was insignificant. In Bardhaman, Birbhum and Malda no involvement of NGO and Anganwadi workers were noticed. In Howrah 2 NGOs could be involved only in February 2001.

3.3.23 Manpower

Shortfall in manpower

In the 5 test-checked districts there was shortage of 28 Tuberculosis Health Visitors, 31 Medical Technologists (MT Lab), 1 MT (X-Ray), 1 Pharmacist, 1 Senior Treatment Supervisor (STS) and 20 Microscopists affecting implementation of the programme.

The overall position for the State was not furnished by the ADHS (TB).

3.3.24 Information, Education and Communication (IEC) activities

Inadequate IEC activities

Successful implementation of RNTCP depended to a large extent on the knowledge and awareness of different aspects of tuberculosis and its control measures to the providers, users and the community at large. In the State, the State Media Officer was not involved in Planning, organising, monitoring and co-ordinating IEC activities. No IEC officer was appointed and the fund for remuneration of the officer (Rs 0.80 lakh received in March 1999) remained unutilised as of January 2001.

No Medical Officer, Information, Education and Communication (IEC) officer, etc. was also appointed on contract basis for strengthening of State TB Cell though Rs 18.20 lakh was available for the purpose.

IEC activities were not taken up (March 2001) in Bardhaman district and the fund received remained unspent. In Birbhum district only 4 per cent of the fund (Rs 0.17 lakh against Rs 3.62 lakh) was utilised. In Malda where RNTCP was in operation from 1999, only 65 *per cent* of fund (Rs 3.27 lakh) was utilised against Rs 5.06 lakh.

3.3.25 Other points

(i) During 1999-2000, in Malda under DOTs, 28122 vials of Injection Streptomycin valuing Rs 1.41 lakh were handed over to the patients of category II for getting them administered from outside.

(ii) There are large number of street dwellers in Kolkata Municipal Corporation (KMC) area. Possibility of some of these dwellers suffering from TB and even dying of the disease cannot be ruled out. Pavement dwellers who pull rickshaws, work in home, at roadside shops, etc. have ample scope of spreading the disease. As per RNTCP guidelines patients requiring registration must have specific address. As the footpath dwellers do not have any ration cards and fixed addresses they were not yet covered under the programme for treatment. Thus spread of disease from them had remained unchecked.

(iii) In KMC a sum of Rs 1.16 lakh (Rs 0.95 lakh as *ex-gratia* for 1998 and 1999, Rs 0.21 lakh as leave salary for Maternity and Medical leave) was paid to the contractual staff in violation of norms.

(iv) Of 6 lakh Tab Ethambutal (400 mg) received in August 2000 from CMS, 3.66 lakh tablets were issued between August and November 2000 by the ACMOH (PH&FW), Bardhaman. Complaints of reaction like weakness, headache, giddiness, etc. were received and 128463 tablets (Rs 1.05 lakh) were received back by the ACMOH (PH&FW). The matter was not investigated into. Again of 500 Patient Wise Box (PWB) medicines of category I worth Rs 2.11 lakh supplied by GOI between June 2001 and July 2001 for consumption and further issue was stopped on receipt of report from the Medical Store Depot of GOI that the medicines were of substandard quality. Reasons for supply of such substandard medicines were not stated.

(v) In Howrah 23 cartons of 7 blister combipack worth Rs 1.70 lakh was lost (June 1997) due to theft. FIR was lodged but final reports were awaited as of July 2001.

Reports on visits not maintained

(vi) No means were adopted to identify the gap, if any, between chest symptomatics identified during routine visit of the Tuberculosis Health Visitors and the number put under treatment as the relevant reports were not obtained and compiled by the ACMOsH (PH&FW).

3.3.26 Monitoring and Supervision

Monitoring and supervision are of great importance for successful implementation of any programme.

Officers of State Tuberculosis Cell are required to supervise the DTCs once in a month and check the activities of District Tuberculosis Programme rotationally. District Tuberculosis Officer (ACMOH – PH & FW) was to visit every quarter all TUs and Block Primary Health Centres in the District. No State Level Officer paid any visit for the purpose excepting in September and December 2000 as reported by the District Level Officers of Bardhaman and Darjeeling (Appendices 37 and 38). ACMOH (PH & FW) had never paid any visit to the Peripheral Health Institutes to assess implementation of NTCP. Regarding RNTCP except in Howrah nothing regarding monitoring and supervision made by the ACOMH (PH & FW), of the remaining test-checked districts were on records. As per resolution adopted in the meeting of the State TB Control Society on December 1, 1999 and June 14, 2000, 4 State Level Officers were asked to monitor and supervise the TB Control Programme. Of these, reports of one officer were produced but corrective measures, if any, were not communicated to the Districts concerned for taking necessary action. Inadequate monitoring and supervision failed to detect deficiencies, weakness of the Programme, if any and to suggest corrective measures for improvement the working of the Scheme.

The matter was referred to Government in October 2001; reply had not been received (January 2002).

APPENDIX 30

(Refer paragraph 3.3.4 (a), page 75)

FINANCE (INVERSE) TREE

Size of the task		**Total fund (Budget)**		
There was no dearth of fund in relation to the total size of the task		Rs 40.88 crore		
	Expenditure Rs 36.54 crore		**Unspent amount** Nil	
PLA/PD/Banks/PSUs (lying idle)	**Advances to IMPL agencies – not utilised**	**Diversion for other works programme**	**Misuse/Unauthorised use**	**Actual expenditure on the programme**
Nil	Nil	Rs 0.25 crore	Nil	Rs 36.29 crore
			Correlate to the actual requirement /target	**Correlate to physical performance**
			There was no dearth of fund	Physical achievement was not appreciable as default rate was as high as 22 *per cent*.

APPENDIX 31

(Refer Paragraph 3.3.5, page 77)

Statement showing information relating to establishment of Tuberculosis Units (TU) and Microscopy Centres in respect of RNTCP districts as on 31.03.2001

Sl. No.	Name of the Districts	Total population of the District (In lakh)	No. of TU planned in the District	No. of TU operational	No. of Microscopy Centres planned in the District	No. of Microscopy Centres operational in the District
1.	KOLKATA	50	10	10	40	33
2.	HOWRAH	42.31	10	10	48	36
3.	HOOGHLY	47.3	10	10	47	47
4.	NADIA	45	9	9	37	20
5.	MURSHIDABAD	52	10	10	53	53
6.	MALDA	30	7	7	22	22
7.	SOUTH 24-PARGANAS	67.2	14	-	52	-
8.	NORTH 24-PARGANAS	86.3	20	-	100	-
9.	BIRBHUM	28.8	6	-	28	-
10.	BANKURA	31.03	8	8	35	35
11.	BARDHAMAN	64.4	13	-	66	-
12.	JALPAIGURI	32.3	7	7	35	35

Note : There was no provision of TU and MC in NTCP.

APPENDIX 32

(Refer Paragraph 3.3.7 (a), page 78)

Statement showing year-wise details of Sputum examination and Identification of new smear positive cases

Year	TB suspects for sputum examination		Percentage of shortfall	Identification of new smear positive cases		Percentage of shortfall
	Target	Achievement		Target	Achievement	
1996-97	37000	15888	57	3700	3595	3
1997-98	20958	20526	2	6986	3649	48
1998-99	71100	25771	64	7110	4278	40
1999-2000	72040	22417	69	7205	4250	41
20002001	88834	13311	85	7300	2263	69
Average shortfall			**55**	**Average shortfall**		**40**

APPENDIX 33

(Refer Paragraph 3.3.7 (d)(i), page 79)

Statement showing year-wise details of identification and treatment for NTCP Districts

Year	Population covered (In lakh)	Number of TB cases registered								
		New				Re-treatment cases				
		Sputum Positive	Sputum Negative	Extra Pulmonary	Total	Relapse cases	Failure cases	Default	Other	Total
1996-97	132.49	3595	14513	710	18818					
1997-98	134.49	3649	12963	1023	17635					
1998-99	136.49	4278	12984	907	18169	Not furnished by any district				
1999-2000	143.49	4250	11618	891	16759					
2000-2001	157.11	2263	9125	1125	12513					
Total		**18035**	**61203**	**4656**	**83894**					

APPENDIX 34

(Refer Paragraph 3.3.11, page 81)

Statement showing year-wise details of identification and treatment for RNTCP Districts

Year	Population covered (In lakh)	Number of TB cases registered								
		New				Re-treatment cases				
		Sputum Positive	Sputum Negative	Extra Pulmonary	Total	Relapse cases	Failure cases	Default	Other	Total
1999	72.3	1137	1605	204	2946	140	33	243	295	711
2000	75.2	2144	3184	464	5792	218	86	378	635	1317
				8738						2028

APPENDIX 35

(Refer Paragraph 3.3.11 (footnote 4), page 81)

Statement showing Sputum conversion of new, relapse and failure cases

(i)	Year	Total No. of New Sputum positive patients	Sputum at 2 months			Sputum at 3 months		
			Positive	Negative	NA	Positive	Negative	NA
	1999	941	88	710	143	23	48	17
	2000	2096	193	1671	232	33	107	53

(ii)	Year	Total No. of Smear Positive relapse cases	Sputum at 3 months		
			Positive	Negative	NA
	1999	92	9	62	21
	2000	229	25	148	56

(iii)	Year	Total No. of Smear Positive failure cases	Sputum at 3 months		
			Positive	Negative	NA
	1999	19	3	1	5
	2000	76	10	45	19

APPENDIX 36

(Refer Paragraph 3.3.11 (Footnote 5), page 81)

Statement showing results of treatment of new and retreatment cases (Treatment of patients registered 12-15 months earlier) (RNTCP)

Year	No. of cases registered (Type of patients)	Cured	Treatment completed	Died	Failure	Defaulted	Transferred to another district	Total number evaluated (sum of columns 1 to 6)
		1	2	3	4	5	6	
1999	**(i) NEW CASES**							
	Smear positive	828	15	58	36	182	18	1137
	Smear negative	-	1247	54	12	274	18	1605
	Extra Pulmonary	-	153	4	1	44	02	204
	Total	**828**	**1415**	**116**	**49**	**500**	**38**	**2946**
	(ii) RE-TREATMENT CASES							
	Smear Positive relapses	87	5	7	5	36	0	140
	Smear positive failure	16	2	3	2	10	0	33
	Smear positive treatment and default	136	16	11	9	71	0	243
	Other	-	222	18	3	51	1	295
	Total	**239**	**245**	**39**	**19**	**168**	**1**	**711**

APPENDIX 37

(Refer Paragraph 3.3.26 page 87)

Statement showing number of visits made by the State Tuberculosis Officer quarterly

Year	Total No. of RNTCP District	Total No. of visits to Districts undertaken by STO
1998-99	6	Not on records.
1999-2000	Nil	Not on records.
2000-01	11	September 2000 (Burdwan district)

APPENDIX 38

(Refer Paragraph 3.3.26 page 87)

Statement showing number of visits to Microscopy Centre by the District TB Officer quarterly

Year	Total No. of Microscopy Centre in RNTCP District	Total No. of visits to Microscopy Centres undertaken
1998-99	36	Among test-checked districts all the units of Howrah were visited. In respect of other districts test-checked nothing was on records.
1999-2000	42	
2000-01	102	