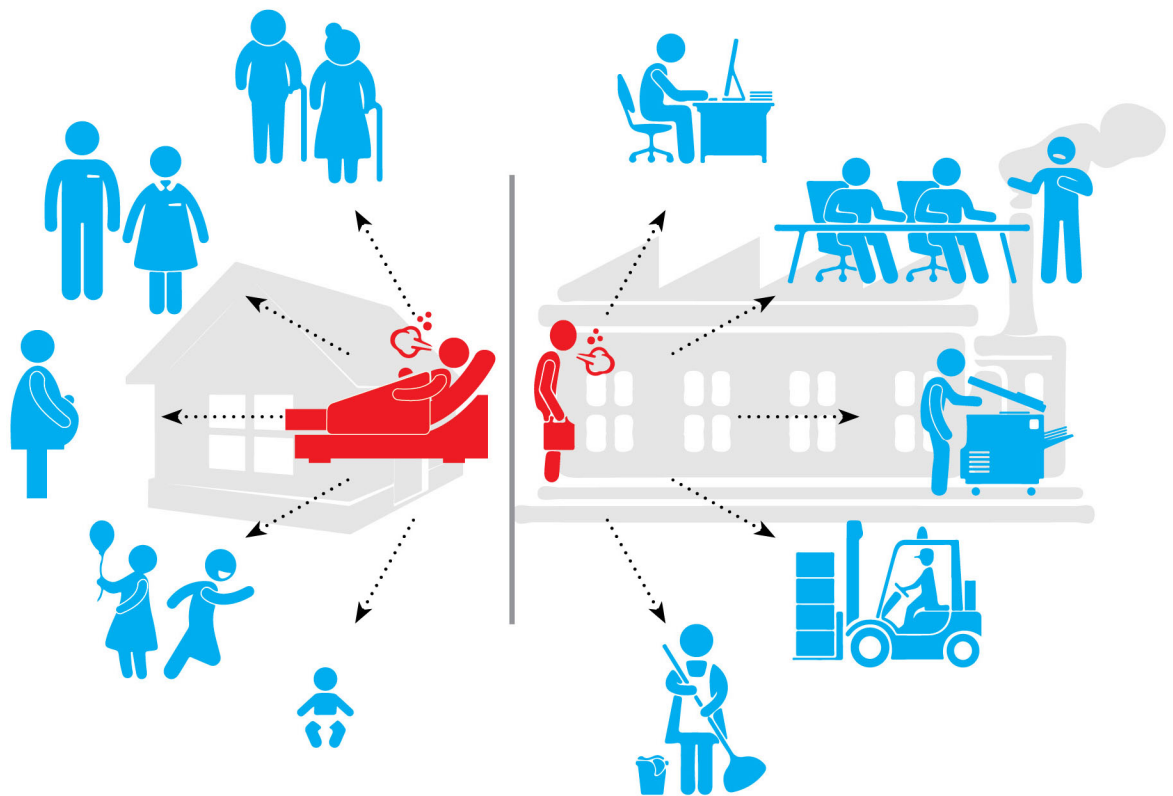




STANDARD OPERATING PROCEDURE FOR TB CONTACT INVESTIGATION



**National TB Programme
Department of Public Health
Ministry of Health and Sports
The Republic of the Union of Myanmar**



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CHALLENGE TB

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Foreword

The National TB Programme, Department of Public Health, Ministry of Health and Sports, Myanmar would like to express its sincere thanks to partner organizations (WHO, FHI 360, MSF-H, PSI, The Union and MMA) for their technical support and time in writing this SOP. The development of this SOP was undertaken in 2017 and 2018 with the support from the USAID-funded Challenge TB Project, FHI 360.

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List of Abbreviations

BHS	Basic Health Staff
CI	Contact Investigation
DR-TB	Drugs Resistance Tuberculosis
HIV	Human Immunodeficiency Virus
IPT	Isoniazid Preventive Therapy
LTBI	Latent Tuberculosis Infection
MDR-TB	Multidrug-Resistant Tuberculosis
MO	Medical Officer
NTP	National Tuberculosis Programme
PLHIV	People Living with Human Immunodeficiency Virus
PTB	Pulmonary Tuberculosis
RHC	Rural Health Centre
RR-TB	Rifampicin Resistant Tuberculosis
SC	Sub-centre
SOP	Standard Operating Procedure
TB	Tuberculosis
TMO	Township Medical Officer
WHO	World Health Organization
XDR-TB	Extensively Drug Resistant Tuberculosis

Definitions

- **Index patient:** The initially identified case of new or recurrent TB in a person of any age in a specific household or comparable congregate setting in which others may have been exposed. An index patient is the person around whom a contact investigation is centred. The index patient is generally the case identified initially, although s/he may not be the source case.
- **Household contact:** A person who shared the same enclosed living space for one or more nights or for frequent or extended periods during the day with the index patient during the 3 months before commencement of the current treatment episode.
- **Close contact:** A person who shared an enclosed space, such as a social gathering place, workplace or congregate setting, more than 8 hours per one week with the index patient during the 3 months before commencement of the current treatment episode.
- **Contact Investigation:** A systematic process intended to identify previously undiagnosed TB patients among the contacts of an index patient. Then, it is also intended to identify eligible persons for IPT.

I. Introduction

Myanmar is one of 30 high burden countries for TB, MDR-TB and TB/HIV coinfection according to WHO Global Tuberculosis report 2016. Estimated TB incidence rate was 361/100,000 population in 2016 and National TB Programme notified 139,625 TB cases in 2016 and 132,025 TB cases in 2017. Regarding with MDR-TB, the latest drug resistance survey in 2013 estimated MDR-TB prevalence of 5% among new TB cases and 27.1% among retreatment TB cases. Regarding TB/HIV co-nfection, 8.5% of total TB cases were co-infected with HIV.

In order to reduce TB/MDR-TB burden in Myanmar, National Tuberculosis Programme (NTP) is accelerating TB/MDR-TB control activities together with partner organizations in line with the National TB Strategic Plan (2016-2020).

Among the TB/MDR-TB control activities of NTP, TB case finding is a crucial component. Among the TB case finding activities, investigating the contacts of infectious TB/MDR-TB patients have been found to be cost effective and important. It contributes to early identification of active TB, thus decreasing its severity and reducing transmission to others and identification of latent TB infection. WHO also strongly recommended that contact investigation should be conducted when the index TB patient is bacteriologically confirmed PTB, DR-TB, PLHIV and less than 5 years old of age. Normally, children do not have highly infectious form of TB. However, childhood TB cases less than 5 years old of age is in the list of index TB patient. The reason is to find the source of the infection, not to find secondary cases from the child as the infection is more possible from a person in the same household. Moreover, TB patient with HIV also contains in the list of index TB patient as there is higher likelihood that people staying in the same household also have HIV infection and are at high risk for the development active TB if infected.

Regarding with the risk for developing active TB disease, contacts have higher risk to develop active TB disease than the general population. Then, the risk is much higher if the contacts are under 5 years of age and HIV positive. According to systematic review and meta-analysis that was done by Fox G et al in 2012, prevalence of active TB disease is 3.1% among all contacts and it is 3.6% in household contacts. Prevalence of active TB disease in contacts is increased up to 4.5 – 5.5% if index patient is sputum smear positive PTB and MDR-TB. Then, prevalence of active TB disease reaches to 9.6% if contacts are < 5-year children and it reaches to 28.4% if contacts are HIV infected. Therefore, WHO also recommended that TB-CI should be conducted in low and middle income countries.

Furthermore, contact investigations also provide preventive benefit, especially for young children contacts < 5 year and HIV infected contacts who do not have active TB disease are eligible for Isoniazid Preventive Therapy (IPT). IPT could reduce the development of active TB disease from latent TB infection (LTBI) in those contacts.

TB contact investigation activity should be carried out in resource limited settings including Myanmar. Although the National TB Strategic Plan has mentioned to implement CI activities across the country, there is no detailed standard operating procedure (SOP) and guidelines for contact investigations yet. It leads to inconsistencies in quality and inability to quantify efforts and achievements of CI activities. Therefore, this SOP will address the gap of the current situation of CI activities in Myanmar. This SOP will focus not only on contact investigations of household contacts but also on close contacts. Then the SOP will provide operating procedure for both household contacts and close contacts investigation.

II. Objectives

- 1) To increase case detection of TB and MDR-TB via contact investigations
- 2) To provide access for children and HIV infected contacts to early diagnosis and treatment for TB
- 3) To provide IPT for contacts who are eligible for IPT as per national guidelines¹

III. Target Audience for SOP

- 1) Township Health Facilities and Basic Health Staff
- 2) Partner Organizations of National TB Programme

IV. Target Beneficiaries

Contact investigation among contacts must be conducted when the index TB patient has any of the following characteristics:

- 1) Bacteriologically Confirmed PTB
- 2) RR-TB, MDR-TB, XDR-TB
- 3) is a PLHIV
- 4) is a < 5 years old of age.

However, contact investigation should be conducted for all types of TB patient if resources are available.

¹ Revised National Guidelines on Management of TB in Children (2016)
Guidelines for the Clinical Management of TB/HIV in Myanmar (2017)

V. Standard Procedure

(1) Operating procedure for Household Contacts

This procedure will focus on household contacts of index TB patients and it will primarily provide a home-based approach.

- Medical Officer/TB Coordinator will provide information of Contact Investigation activity to every new registered TB/DR-TB patient who is eligible for CI.
- BHS will collect the information of the index TB patients list from MO/TB Coordinator. Otherwise, TB Coordinator can inform BHS by phone regarding the information of index TB cases for conducting contact investigation especially in hard to reach area.
- Then BHS will visit the house of the index patient within first 1 month of anti TB treatment. BHS has to use “Contact Investigation Register” to ask the contact (Annex: 1)
- After conducting investigation at the patient’s house, BHS must refer all presumptive TB contacts to the nearest township health facility for evaluation. BHS needs to provide the referral form to those contacts. Referral Form for TB Contact (Annex: 2) which includes carbonized 3 papers. One copy will be kept in BHS. One original paper and one copy will be provided to the contact for referral to the health facility.

If township health facility is far from the house especially in hard to reach area, BHS can arrange these presumptive TB contacts to send sputum to nearest sputum collection centre.

- When the index patient is bacteriologically confirmed DS-PTB patient, contacts who are children < 5 years old of age are needed to be referred to the nearest township health facility. Moreover, HIV positive contacts are also needed to be referred to the nearest township health facility if it is feasible. As they all are needed to be evaluated for IPT even if they don’t have any TB symptom. BHS needs to provide the referral form to those contacts. “Referral Form for TB Contact” (Annex: 2)
- Medical officer from the health facility will evaluate all presumptive TB contacts.

Then medical officer will also evaluate and assess the HIV positive contacts and children < 5 years old contacts of bacteriologically confirmed DS-TB patient for IPT as per national IPT guidelines. After evaluating the patient, TB Coordinator need to send result of evaluation to BHS by using “Referral Feedback Form for TB Contact” (Annex: 2). TB Coordinator will keep one copy paper and will send back the original paper to BHS.

- Then, BHS needs to update the contact investigation register according to the result of evaluation.
- BHS needs to report contact investigation activity to Township Medical Officer/Township TB Coordinator by using “Quarterly Contact Investigation Report of BHS” (Annex: 3).
- Township Medical Officer/Township TB Coordinator needs to report contact investigation activity to Regional/State TB Officer by using “Quarterly Contact Investigation Report from Township” (Annex: 4).
- Contact Investigation Roadmap will also show the process of the contact investigation clearly.

(2) Operating procedure for Close Contacts

This procedure will focus on close contacts of index TB patients.

- Index TB patient may be a person who is staying (or) working in a congregate setting such as public workplace, a private workplace, an organization and an internally displaced person camp (IDP Camp). If so, close contacts of the index TB patient will be from those places. When TB contact investigation is conducted in those places, it must conduct depending on size of workplace, organization and camp. There might be small, medium and large settings.
- **If the setting is large (close contacts are more than 200)**, negotiation in advance with supervisors from the workplace, organization and congregate setting is an important procedure. For conducting TB-CI activities in the large setting, it should be done by TB mobile team. Moreover, State/Regional TB officer, TMO, TB Coordinator, respective BHS and official from occupational health and social security board should include in the TB mobile team. Visit plan of the TB mobile team should be informed to Township Administrative Department in advance.
- **If the setting is small**, it should be conducted by TB-CI team that contacting Regional/State TB officer (or) TB team leader, TMO, TB Coordinator and respective BHS. The TB-CI team will visit the place for conducting investigation of close contacts and targeted health education (health education on signs and symptoms of TB, mode of transmission, means of prevention and risk of drug resistant). Before visiting for contact investigation activities in those places, it has to be conduct the negotiation with supervisors from the workplace, organization and congregate setting in advance. TB-CI team should visit to the place within 1 month of anti TB treatment on index TB patient and will use “Contact Investigation Register” (Annex: 1).

- After conducting investigation, the team will evaluate all presumptive TB contacts. Then, the team will refer the case to nearest township health facility if the contact is presumptive TB. It is needed to provide the referral form to those contacts. Referral Form for TB Contact (Annex: 2) which includes 3 carbonized papers. One copy will be kept in BHS. One original paper and one copy will be provided to the contact for referral to the health facility.
- When the index patient is bacteriologically confirmed DS-PTB patient, contacts who are children < 5 years old of age are needed to be referred to the nearest township health facility. Moreover, HIV positive contacts are also needed to be referred to the nearest township health facility if it is feasible. As they all are needed to be evaluated for IPT even if they don't have any TB symptom. BHS needs to provide the referral form to those contacts. "Referral Form for TB Contact" (Annex: 2)
- Medical officer from the health facility will evaluate all presumptive TB contacts. Then medical officer will also evaluate and assess the HIV positive contacts and children < 5 years old contacts of bacteriologically confirmed DS-TB patient for IPT as per national IPT guidelines. After evaluating the patient, TB Coordinator need to send result of evaluation to BHS by using "Referral Feedback Form for TB Contact" (Annex: 2). TB Coordinator will keep one copy paper and will send back the original paper to BHS.
- Then, BHS needs to update the contact investigation register according to the result of clinical evaluation.
- BHS needs to report contact investigation activity to Township Medical Officer (TB) by using "Quarterly Contact Investigation Report of BHS" (Annex: 3).
- Township Medical Officer/Township TB Coordinator needs to report contact investigation activity to Regional/State TB Officer by using "Quarterly Contact Investigation Report from Township" (Annex: 4).

(3) Contact Investigation Frequency

(A) Drugs Sensitive TB Index patient

If the index patient is DS-TB, contact investigation should be carried out at least 1 time and it should be within first 1 month of anti TB treatment. Then, all contacts should be educated and counselled to come to health facility for evaluation if they start having any TB symptoms.

BHS must use "Contact Investigation Register" (Annex: 1) for index patient who is DS-TB. An example is described in Annex: (5/A).

(B) Drugs Resistance TB Index patient

If the index patient is RR-TB/MDR-TB/XDR-TB, contact investigation should be carried out by 6 monthly schedules during conventional MDR-TB/XDR-TB treatment. First time contact investigation should be within first 1 month of MDR-TB treatment and next time will be 6 monthly from 1st time. Therefore, a contact must be investigated 4 times during conventional (20 month) MDR-TB treatment. However, BHS could assess the contacts whenever he/she goes to patient's house for daily DOT. All contacts should be educated and counselled to come to health facility for evaluation if they start having any TB symptoms.

If the index DR-TB patient is on shorter MDR-TB treatment, contact investigation should be carried out by 3 monthly schedules during the treatment. First time contact investigation should be within first 1 month of the shorter treatment and next time will be 3 monthly from 1st time. Therefore, a contact must be investigated 4 times during the shorter MDR-TB treatment.

BHS must use same "Contact Investigation Register" (Annex: 1) for index patient who is MDR-TB. However, the investigation schedule will be 6 monthly. An example is described in Annex: (5/B).

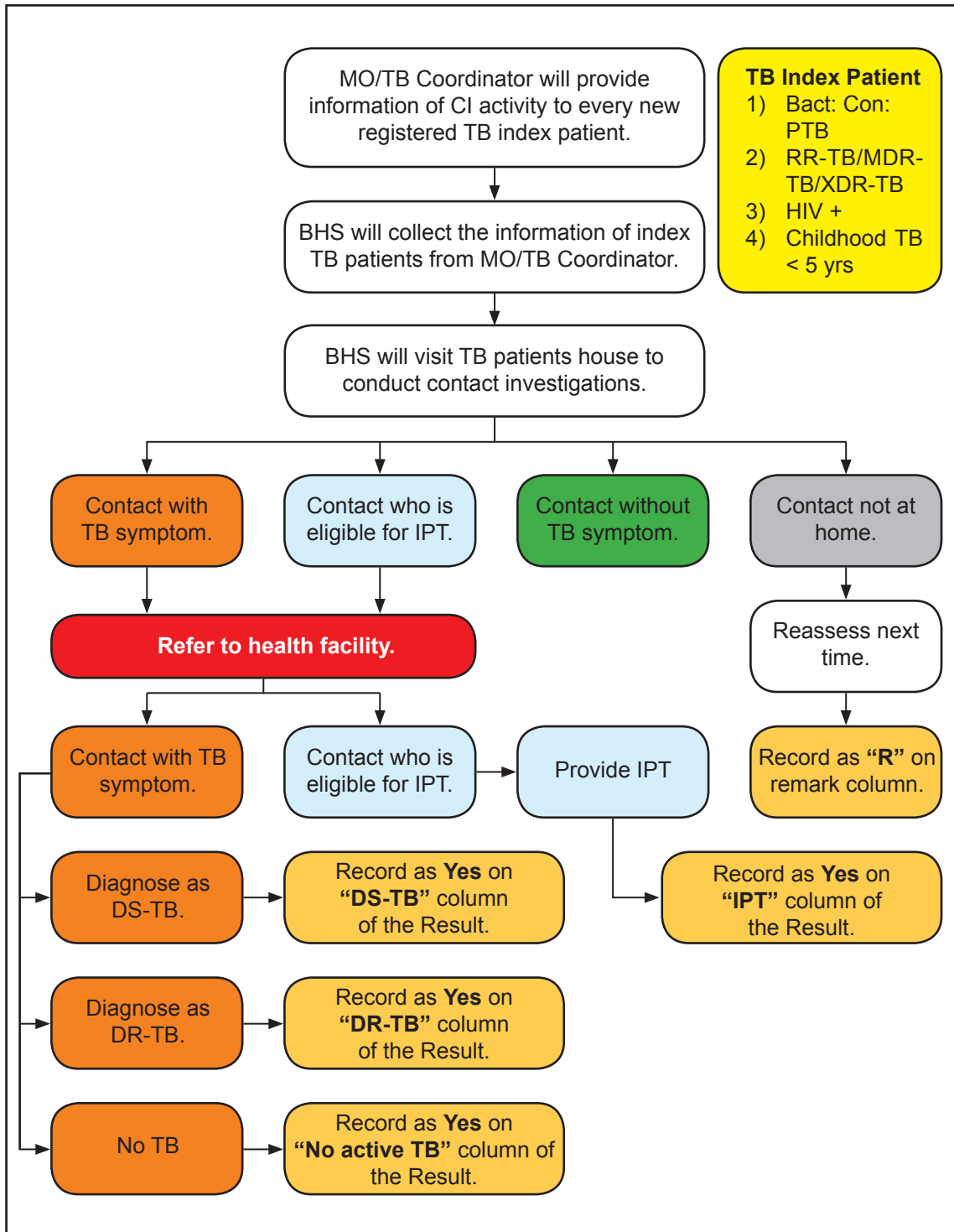
(4) Operating procedure for Community Volunteers

Partner organizations of NTP are also implementing contact investigation activity in the country by using community volunteers. According to the SOP, volunteers from partner organizations are also needed to follow the standard operating procedures like BHS from government. Then, forms and reporting template are also needed to be used by the volunteers and all NTP partner organizations.

VI. Monitoring and Supervision

Monitoring and supervision of the performance of BHS is crucial for contact investigation activity. TMO (or) TB Coordinator will be focal person for monthly monitoring and supervision of contact investigation activity in the respective township. Regional/State TB Officer will be focal person for quarterly monitoring and supervision of contact investigation activity in the respective Region/State.

VII. Contact Investigation SOP Roadmap for Household Contacts



Annexes
Annex (1/A)

CONTACT INVESTIGATION REGISTER (DS-TB)

() Month, () Year

#	Date of visit	Name of Index patient & TB REG NO:	Age	Address (Add Phone No:)	Category of Index patient				Name of Contact	Sex	Age	TB Symptoms (Yes/No)					Refer for evaluation (Y/N)	Result (Yes)				Remark R = Reassess																			
					Bact: Con: PTB	Child TB < 5 yrs	TB/HIV	Other				Cough ≥2wk	Fever	Weight Loss	Night Sweat	Other		DS-TB	DR-TB	No active TB	IPT																				

Note: Children < 5 years old who are contacts of bacteriological confirmed PTB index patient should be referred to clinic although they don't have any TB symptoms as they need to take IPT.

Annex (1/B)

CONTACT INVESTIGATION REGISTER (DR-TB)

() Month, () Year

#	Date of visit	Name of Index patient & TB REG NO:	Age	Address (Add Phone No.:	Category of Index patient					Name of Contact	Sex	Age	TB Symptoms (Yes/No)						Refer for evaluation (Y/N)				Result (Yes)	Remark R = Reassess												
					DR-TB (20 M)	DR-TB (11 M)	Child TB < 5 yrs	TB/HIV	Other				Cough \geq 2wk	Fever	Weight Loss	Night Sweat	Other	DS-TB	DR-TB	No active TB	IP-T															

Note: DR-TB = RR-TB, MDR-TB, XDR-TB

Annex (2)

Referral Form for TB Contact

Date ____ / ____ / ____

Name of Index patient _____ Age _____

Type of index patient _____ TB Registration No: _____

Name of Contact _____ Age _____ Male Female

Reason for Referral: Presumptive TB IPT

Address _____

From/

Signature _____

Name of Health Care Worker _____

SC/RHC _____

Township/Organization _____

.....

Referral Feedback Form for TB Contact

Date ____ / ____ / ____

Name of Contact _____ Age _____ Male Female

Reason for Referral: Presumptive TB IPT

Result of Evaluation: DS-TB DR-TB No active TB IPT

From/

Signature _____

Name _____

Designation _____

Township/Organization _____

Annex (3)

Quarterly Contact Investigation Report of BHS

Date ____ / ____ / ____

Quarterly Report For _____ Quarter/ _____ Year

Name of BHS: _____, Designation: _____

SC/RHC: _____

Township: _____

Region/State: _____

Sr.	Description	Drugs Sensitive TB Index patient	Drugs Resistance TB Index patient
1	# of index patient receiving contact investigation		
2	# Bacteriological confirmed PTB index patients receiving contact investigation		
3	# of contacts identified		
4	# of contacts investigated for TB symptoms		
5	# of contacts referred for evaluation		
6	# of contacts diagnosed as DS-TB		
7	# of contacts diagnosed as DR-TB		
8	# of contacts started on IPT who are less than 5 years' old		

Annex (4)

Quarterly Contact Investigation Report from Township

Date ____ / ____ / ____

Quarterly Report For _____ Quarter/ _____ Year

Name of Responsible Person: _____, Designation: _____

Township: _____, Region/State: _____

Sr.	Description	Drugs Sensitive TB Index patient	Drugs Resistance TB Index patient
1	# of registered TB patients (All)		
2	# of eligible registered index TB patients		
3	# index patients receiving Contact Investigations		
4	# of registered Bacteriological confirmed PTB index patients		
5	# Bacteriological confirmed PTB index patients receiving Contact Investigations		
6	# of contacts identified		
7	# of contacts investigated for TB symptoms		
8	# of contacts referred for evaluation		
9	# of referred contacts who took evaluation at Health Facility		
10	# of contacts diagnosed as DS-TB		
11	# of contacts diagnosed as DR-TB		
12	# of contacts put on anti TB treatment (DS-TB treatment)		
13	# of contacts put on anti TB treatment (DR-TB treatment)		
14	# of contacts started on IPT who are less than 5 years' old		

Annex (5/A)

CONTACT INVESTIGATION REGISTER (DS-TB)

() Month, () Year

#	Date of visit	Name of index patient & TB REG NO:	Age	Address (Add Phone No:)	Category of index patient				Name of Contact	Sex	Age	TB Symptoms (Yes/No)					Refer for evaluation (Y/N)	Result (Yes)				Remark R = Reassess																	
					Bact: Con: PTB	Child TB < 5 yrs	TB/HIV	Other				Cough ≥2wk	Fever	Weight Loss	Night Sweat	Other		DS-TB	DR-TB	No active TB	IPT																		
1	5. 5. 2018	U Zar Ni ISN 07	55	No 1, Ward 1, ISN	Y				Daw Su	F	40	N	N	N	N	N	N																						
									Ko Phyto	M	20																								R				
									Ko Soe	M	18	Y	N	N	N	Y																							
									Mg Thuang	M	4	N	N	N	N	N																							
2	8.5.2018	Ma Khay ISN 08	3	No 2, War 1, ISN		Y			U Phone	M	55	Y	Y	N	N	N	N	Y																					
									Daw Aye Mya	F	50	N	N	N	N	N	N	N																					
									Ko Kyaw	M	28	Y	N	N	N	N	N	Y																					

Note: Children < 5 years old who are contacts of bacteriological confirmed PTB index patient should be referred to clinic although they don't have any TB symptoms as they need to take IPT.

Annex (5/B)

CONTACT INVESTIGATION REGISTER (DR-TB)

() Month, () Year

#	Date of visit	Name of Index patient & TB REG NO:	Age	Address (Add Phone No.:	Category of Index patient				Name of Contact	Sex	Age	TB Symptoms (Yes/No)						Refer for evaluation (Y/N)				Result (Yes)				Remark R = Reassess											
					DR-TB (20 M)	DR-TB (11 M)	Child TB < 5 yrs	TB/HIV				Other	Cough ≥2wk	Fever	Weight Loss	Night Sweat	Other	Z	DR-TB	No active TB	IPT																
1	5. 5, 2018	U Ba 18/01	55	No 1, Ward 1, ISN	Y				Daw Aye	F	40	N	N	N	N	N	N	N	N	Z																	
									Ko Mya	M	20																		R								
									Ko Hla	M	18	Y	Y	N	N	N	N	Y		Y																	
									Mg Mg	M	4	N	N	N	N	N	N	N	N	N																	
2	5, 11, 2018	U Ba 18/01							Daw Aye																												
									Ko Mya																												
									Ko Hla																												
									Mg Mg																												
3	5, 5, 2019	U Ba 18/01							Daw Aye																												
									Ko Mya																												
									Ko Hla																												
									Mg Mg																												
									Daw Aye																												
									Ko Mya																												
									Ko Hla																												
									Mg Mg																												

Note: DR-TB = RR-TB, MDR-TB, XDR-TB

) Month, () Year

() Year

) Month, () Year

CONTACT INVESTIGATION REGISTER (DR-TB)

#	Date of visit	Name of Index patient & TB REG NO:	Age	Address (Add Phone No.)	Category of Index patient					Name of Contact	Sex	Age	TB Symptoms (Yes/No)					Refer for evaluation (Y/N)	Result (Yes)				Remark R = Reassess			
					DR-TB (20 M)	DR-TB (11 M)	Child TB < 5 yrs	TB/HIV	Other				Cough ≥2wk	Fever	Weight Loss	Night Sweat	Other		DS-TB	DR-TB	No active TB	IPT				
4	5, 11, 2019	U Ba 18/01							Daw Aye																	
									Ko Mya																	
									Ko Hla																	
									Mg Mg																	

Note: DR-TB = RR-TB, MDR-TB, XDR-TB

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