

Tobacco cessation within TB programmes: A 'real world' solution for countries with dual burden of disease.

Report on Work Package 1 Activities and Findings, Years 1-2

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14th November 2017

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1 Work Package 1 Aims, Objectives, and Methods

This report outlines the work undertaken under Work Package 1 (WP1) over the first two years of the project 'Tobacco cessation within TB programmes: A 'real world' solution for countries with dual burden of diseases' (TB Tobacco), and considers research findings with an eye to future research and project development under Work Package 6 (WP6).

1.1 Aims and Objectives

During the initial phase of the TB Tobacco project, research was conducted through WP1 to meet the following project objectives:

- (h) To adapt the delivery of tobacco cessation strategies to the local context in order to optimise their effect, acceptability, adoption and feasibility within tuberculosis control programmes.
- (i) To identify resources and competencies required for health professionals to deliver tobacco cessation strategies.
- (j) To identify organisational capacity required within respective tuberculosis control programmes to deliver tobacco cessation strategies.

In addressing these objectives, the aim of the research was to produce (i) a set of behavioural support (BS) materials that simple, effective and appropriate to the local context in each of the three countries where the trial was to take place (Pakistan, Bangladesh and Nepal), and (ii) a training programme and training materials for health workers in each country on how to use the materials to deliver BS under the larger TB Tobacco trial.

1.2 Methods

Over eighteen months (January 2016 to June 2017), data was collected and analysed in collaboration with local country partners The Initiative (Pakistan), ARK Foundation (Bangladesh), and HERD International (Nepal), and members of the TB Tobacco Consortium at the University of York, Heinrich Heine University – Dusseldorf, and the General University Hospital, Prague.

Detailed information on data collection and analysis methods is provided in the sections below. As depicted in Figure 1, the primary process of data collection and analysis under WP1 can broadly be divided into three stages consisting of (i) developing material prototypes, (ii) obtaining feedback from health workers and patients, and (iii) finalising materials and training plans.

Under this process, information was collected through holding expert group meetings (EGM) with policy makers and practitioners (see sections 2.1.2, **Error! Reference source not found.**); holding

a prototype development workshop (see section 2.1.3); conducting semi-structured interviews (SSIs) and focus group discussions (FGDs) with patients, health workers, and National Tuberculosis Control Programme (NTP) staff (see section 2.2.1); and administering a questionnaire to health workers on delivering tobacco cessation assistance (see section 3.1). This data was analysed in two rounds. The first round of analysis focussed on adapting the BSI materials to the national context (see section 2.2) and developing the training programme and materials (see section 3.1). A second round of analysis of the FGDs and SSIs focused on contextual issues affecting delivery of BS, particularly the capacity health workers and organisations in the various country contexts (see section 4.2). Parallel to this process, was the collection and analysis of information on the policy context in each country surrounding TB and Tobacco (see section 4.1). A detailed outline on WP1 activities, data collection, and analysis can be found in Appendix 1.

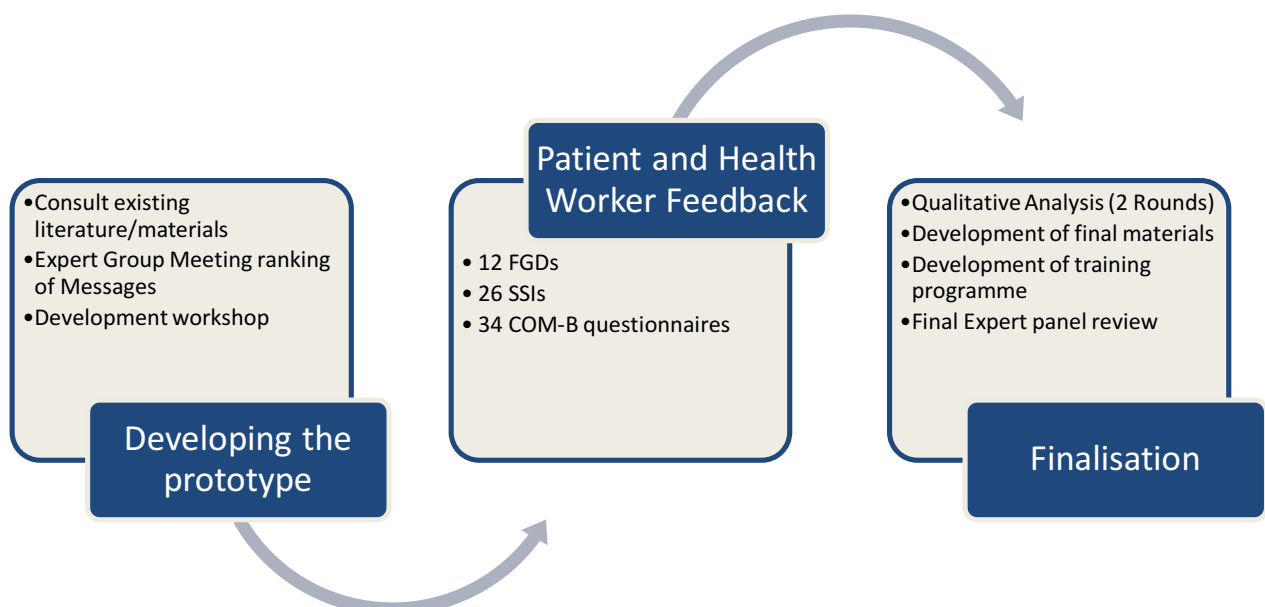


Figure 1: WP1 Research Process, Year 1

2 Behavioural Support Development and Adaptation

WP1 activities worked toward meeting the objective of adapting BS materials to country contexts and including them in NTP practice (objective h) over the first year of the project. The following BS materials were developed in each country: A men's and women's version of a flipbook with identical TB and Tobacco cessation messages, a leaflet with additional information on TB and tobacco to be given to all patients, and posters for facilities included in the wider trial that advertised the importance of tobacco cessation for TB patients and provided information on tobacco cessation services. The sections below outline the methods and findings on developing the material prototypes and adapting them to the various country contexts.

2.1 Prototype Development

2.1.1 Background

A TB Tobacco project workshop held by the University of York on 25-27 November, 2015 served as a platform to obtain stakeholder feedback from consortium partners and local NTP officials to inform the initial planning of the BS method and materials.

Workshop participants were provided with findings of previous studies by consortium members on tobacco cessation in the region. These included the didactic nature of patient-health worker interactions, social stigma to admitting tobacco use especially for women, a lack of awareness around the damage of smokeless tobacco (SLT) use, an absence of means to record or report patient tobacco use or health worker supervision on the issue, a lack of health worker training on tobacco cessation, and a gendered aspect of tobacco cessation efforts where women's tobacco use was not sufficiently identified or addressed (Dogar et al., 2016, Dogar et al., 2014, Elsey et al., 2016).

Participants were also presented with the findings of the ASSIST trial, and the flipbook used in the trial to deliver tobacco cessation behavioural support to TB patients (Siddiqi et al., 2013). The flipbook consisted of a series of messages employing behaviour change techniques (BCTs) most likely to be effective in tobacco cessation (Bartlett et al., 2014, West et al., 2010), and was developed to be provided over a 30-minute behavioural support session by a trained health worker. Based on the evidence and materials provided, the primary comment offered by workshop participants was that to successfully incorporate the BS method into current NTP practice, the flipbook method developed under ASSIST would need to be shortened to a session that could be provided within 5-8 minutes.

2.1.2 EGM Round 1: Identifying Tobacco Cessation Messages

Based on the directive to shorten the BS counselling session to 5-8 minutes, a series of Expert Group Meetings (EGMs) were held in the three countries and the UK (see Table 1 below). First, three EGMs were held at the national level to identify the key tobacco cessation

messages to include in the behavioural support package. These meetings were followed by a UK EGM to finalize the key tobacco cessation messages for developing the BS material prototypes.

The EGMs were held in each country at the national level with TB health workers, researchers, and NTP district and central level staff. The objectives of these EGMs was to identify the key tobacco cessation messages from the ASSIST flipbook to include in the materials and training, which to include in just the training, and which to exclude completely. Led by a local research partner, a participatory ranking exercise was used where EGM participants were presented with a list of 15 key messages linked to the identified BCTs. For every message, each EGM member voted on how acceptable it was to patients and health workers, how effective it would be in supporting tobacco cessation in the local context, and how feasible it would be to deliver. Members then voted on which messages to include. The messages were then ranked in order of highest to lowest votes and selected for inclusion or exclusion in the BS provided to patients.

Specific prioritisations of tobacco cessation messages differed across countries, but all national-level EGMs prioritised the following areas as necessary for inclusion in the BS provided directly to patients:

- benefits of quitting and health effects,
- planning and preparation to quit tobacco use, and
- information on withdrawal symptoms and coping methods.

EGM results further suggested including additional information on harmful ingredients and addressing misconceptions and myths in additional information given to patients, and it was decided to include this information in the form of leaflets and posters for patients. A consistent comment across all EGMs was to provide health workers with the evidence base of TB tobacco interaction via trainings.

There was consistency across the three countries, with regard to messages to exclude from the BS materials. All EGMs indicated that messages on environmental restructuring and messages that used a scale to assess motivation and readiness to quit were of least value. The exercise also identified challenges in wording, such as establishing a ‘commitment’ to quit. This word has much stronger connotations in Urdu, Bangla and Nepali.

The comparative ranking of national-level EGM results (see Appendix 2) was presented at the UK EGM with international TB Tobacco partners. The primary outcome on BS materials from the UK EGM was a directive by participants that in order to ensure integration into routine NTP practice, and further to shortening the BS session, the BS flipbook should include general messages on TB self-management in addition to tobacco cessation messages.

Table 1: EGM Round 1 Participants

Country	Bangladesh	Nepal	Pakistan	UK
Date	14/02/2016	25/02/2016	08/02/2016	29/02/2016
Participant Role (Number of People)	<ul style="list-style-type: none"> • NTP Central Level Managers (2) • NTP District Level Managers (2) • NTP Doctors (3) • DOTS Providers (2) 	<ul style="list-style-type: none"> • NTC (2) • NHEICC (1) • GENETUP DOTS Provider (1) • Helping Hands DOTS Provider (1) 	<ul style="list-style-type: none"> • NTP Research Head (1) • NTP Technical Officer (1) • NTP Trial Coordinator (1) • Pakistan Institute of Medical Sciences (PIMS) Clinician (1) • PIMS DOTS Facilitator (2) 	<ul style="list-style-type: none"> • TB Tobacco Consortium Researchers

2.1.3 Developing BS Prototypes

Following the EGM recommendations to (1) develop a flipbook that could be delivered to patients in 5-8 minutes, and which (2) contained both general TB and tobacco cessation messages, researchers from the University of Leeds and University of York held a workshop in March 2016 to develop prototypes of BS materials and the BS delivery method.

In the absence of a standardised directive on general TB messages to provide newly diagnosed patients from the WHO or the national NTPs in the countries participating in the trial, researchers at the University of York identified thirteen items in the form of leaflets, flyers, or handbooks provided to patients from the following sources:

- Australian Respiratory Council
- Massachusetts Department of Public Health
- Rutgers Global Tuberculosis Institute, New Jersey Medical School
- Stop TB Partnership (WHO, UNOPS)
- UK National Health Services
- US Department of Health and Human Services Center for Disease Control and Prevention (CDC)

A University of Leeds researcher analysed these materials and manually thematically organised the messages and images contained in them. The materials' content was divided into four broad categories: TB and transmission, medication adherence, motivation, and healthy lifestyle.

At the meeting, researchers first reviewed the ranking exercise results from the national EGMs, reviewed the ASSIST flipbook tobacco cessation messages, and thematically organised general TB messages and images. The group then determined the number of slides to be included in the BS flipbook. Based on experience of the ASSIST trial, the University of York researchers suggested no more than 8 slides should be included in the BS flipbook, to allow shorter delivery time. Through a process of visually arranging messages onto different slides, a list of slides with individual messages were developed for the BS flipbook as outlined in Table 2 below.

Table 2: Flipbook Slides and Messages

Slide	Messages
Cover Page	Smiling patient (Message: TB can be cured)
Slide 1	How TB is transmitted and cured (Reassure patient, emphasise adherence, and explain transmission)
Slide 2	How to take medication continuously for six months (When and how to take TB medication along national guidelines, emphasize adherence, do not take a double dose, what to do if you forget.)
Slide 3	The importance of adhering to medication and dealing with side effects (Dealing with side effects, attending health centres, preparing for challenges like festivals)
Slide 4	The need for getting support from family and friends (Overcome myths of TB transmission, maintain support networks)
Slide 5	How to maintain a healthy lifestyle (Eat well, rest well, don't drink alcohol, and don't smoke)
Slide 6	The benefits of quitting tobacco and consequences of not quitting (Increase chances of recovering from TB, prompts to think of non-medical benefits)
Slide 7	Things to help quitting and things that don't help (Abrupt cessation, don't switch to SLT, set a quit date)
Slide 8	Information on withdrawal symptoms and coping strategies (Eliciting thinking on side effects and prompting to develop of ways to address them)

Following guidance from the first round of EGMs, it was decided to include these messages in the leaflet with additional messages on harmful ingredients in tobacco products. The messages for posters, it was decided, would be on (i) informing patients of the availability of tobacco cessation support in the facility, and (ii) the benefits of quitting tobacco for TB patients as identified by the WHO and US CDC.

A group brainstorming technique was used to develop the format and suggestion for images for each flipbook slide, leaflet panel, and poster. Multiple formats were suggested for slides 3 and 6 that either (i) provided information on how to perform the action, (ii) provided information on how to perform and not to perform the action, or (iii) presented two story lines of patients performing or not performing the action with subsequent positive and negative outcomes. Texts for health workers to use during the counselling sessions were also developed to be included in the flipbook on the back of each slide.

A preliminary patient flow-diagram was also developed at the workshop to indicate how patients would be provided the BS. This is detailed below in figure 2.

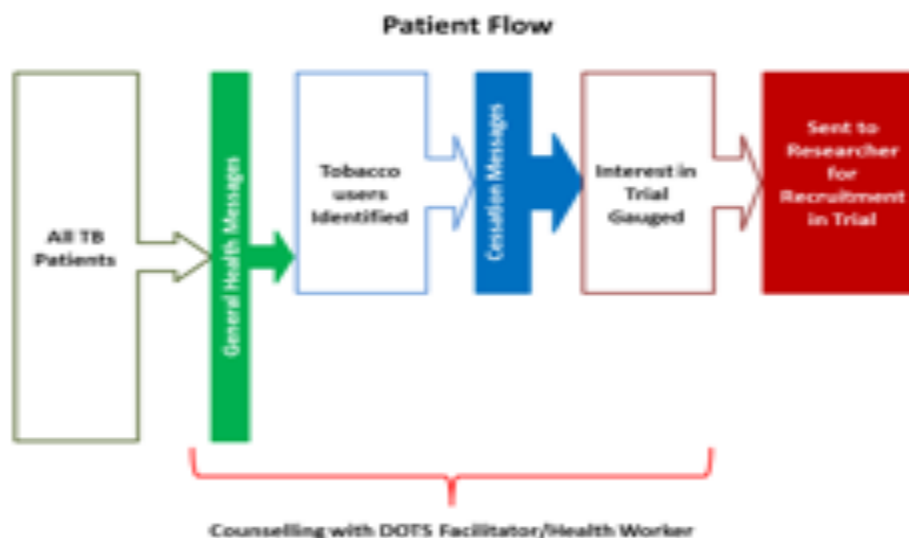


Figure 2: Preliminary Patient Flow Diagram

Templates of all materials were prepared in either Microsoft Word or PowerPoint, and shared with national partner teams in Bangladesh, Nepal, and Pakistan. The materials were translated into Bengali, Nepali, and Urdu, and then back translated into English to check for correspondence with prototypes.

Local national teams engaged photographers to develop images with which TB patients could identify for the men and women’s flipbooks, leaflets, and posters. Actors were used to pose in the photos. The exception to this was in Pakistan where models for both the men’s and women’s flipbooks were patients who were particularly keen to be photographed. Their written consent to use their photos in the Pakistani version of the flipbook was taken. The University of Leeds and national research collaboratively decided on which images to include in each slide by considering (i) whether the image reflected the message clearly, and (ii) if the image was realistic and relevant to low-income patients. Attention was paid to ensure the same pictures were used across all three BS materials to ensure coherence. These materials were then tested with patients and health workers for feedback.

2.2 Adapting Prototypes to Country Context

2.2.1 Qualitative Data Collection Method

Feedback on material prototypes was gathered through an iterative process of conducting FGDs with patients or SSIs with health workers, analysing results, adapting materials, and undertaking follow-up FGDs or interviews as needed. Data collection and analysis were initially planned for a period of 6 months (January to June 2016), but were actually conducted over a shortened period of 3.5 months (June to September 2016) following the extension of the development process described above. Field-site observation was also scheduled for the two case study sites (described below) in each country. This was carried out in a limited fashion, restricted solely to

photographing of registers, storage facilities and documenting key characteristics of the site. More detailed observations will be conducted as part of WP4 and WP5.

FGD and SSI participants were selected from two case study sites in each country that had been identified by national research teams to form the setting for detailed qualitative work throughout WP1 and subsequently WP4, WP5, and WP6. The case studies were selected purposively to illustrate different key characteristics among the trial sites. In Bangladesh, the case studies were chosen to include one urban NGO-run clinic and one rural, government centre supported by the BRAC NGO. In Nepal, the case study sites were both urban, but one was an NGO-run national referral centre and the other a smaller government-run clinic. In Pakistan, one site was a large government tertiary hospital in an urban area and the other a rural government hospital. The selection of the case study sites was also influenced by the practical issues of the level of enthusiasm and support from that centre and the location relative to country partners' offices.

In each country, at least one men and women patients' FGD was conducted, with extra FGDs held as needed to cover items not addressed or in cases where patient availability was limited. Only consenting TB patients were recruited for FGDs, and efforts were made to ensure participants were tobacco users. Due to the stigma around admitting tobacco use, particularly among women, it was often difficult to determine at recruitment if participants were tobacco users. SSIs were conducted in each country with at least three health workers who provide Directly Observed Treatment Short Course (DOTS) and who would provide BS during the subsequent trial, two hospital In-Charges at the same facilities, district NTP staff, and, where possible, national-level stakeholders. 12 FGDs and 26 SSIs were conducted across the three countries, as outlined in Table 3 below.

All SSIs and FGDs were conducted in participants' local languages by experienced qualitative researchers from national partners' teams who were, in turn, provided training and support from the University of Leeds team. SSI and FGD guides were developed collaboratively by qualitative researchers across the consortium, led by the Leeds team. The guides and purposive sampling strategies were then adapted where necessary in response to national idiosyncrasies. Informed consent was obtained from all participants, and all SSIs and FGDs were audio-recorded, transcribed, and translated into English by the national partner teams.

Table 3: FGDs and SSIs Held in Each Country

		Bangladesh	Nepal	Pakistan
SSIs	Central Level Stakeholders and NTPs	1	--	2
	District Level NTP	1	2	2
	Facility In-charge	2	3	2
	Facility Level NTP Staff	4	3	3
	Interview – Patient	--	1	--
FGDs	Men Patients	1	1	1
	Women Patients	2	1	1
	Men and Women Patients	--	2	2
	Facility Level Providers	1	--	--

FGD and SSI participant feedback was obtained on the visual format of materials and the clarity and comprehensibility of messages provided through them. Responses were solicited from participants on each flipbook page, leaflet panel, and poster. Participants were asked to describe the message they thought was depicted and what images on each page signified. After being given the intended message, they were asked to comment on the appropriateness and clarity of the pictorial content and message. SSIs also incorporated questions on contextual issues relating to TB health workers' capacity, motivation, and training needs, as well as opportunities and challenges to incorporate tobacco cessation into routine care.

2.2.2 Qualitative Data Analysis Method: BS Materials

Before beginning analysis, transcription methods were discussed with all country partners. As Nvivo had been identified as the data analysis tool, a method of transcription formatting was developed to allow for automatic coding of participant names in Nvivo. Initial transcripts were shared with the University of Leeds team for comments and feedback, after which transcription was carried out by country partners.

A coding framework for materials was developed by the University of Leeds team in conjunction with country partners. In addition to coding participant responses, participants were given attributes to identify their gender, age group, and level of analysis to which their responses pertained (patient/facility, district NTP staff, national NTP staff, and national level stakeholder).

Initial coding attempts were shared with Leeds by each national research team for comments and feedback, after which coding was carried out by country partners.

Transcripts of FGDs and of SSIs with health facility level and district level NTP staff were first coded for feedback on the BS materials. Codes were developed for each flipbook slide, leaflet section, and poster on (i) positive reactions by participants (ii) negative reactions, (iii) suggestions, and (iv) preferred option for flipbook slides 3 and 6 (See Appendix 3 for thematic codes). Framework matrices were populated in NVivo under these codes. A finalization worksheet was developed in MS Excel to summarize the findings under each code and decide on specific adaptation of the BS materials. These finalization sheets were completed by local national teams and shared with researchers at the University of Leeds to finalize any adaptations to materials. Any suggestion contravening the theoretical basis of the BSI was discarded, and those deemed feasible and likely to increase acceptability and comprehensibility of BSI materials were adopted.

Transcripts were then coded again for a different set of codes relating to different contexts of (i) the intervention, (ii) TB patient tobacco cessation, and (iii) Health Worker cessation support delivery (See Appendix 3). These were primarily used for developing the health worker training programme (See section 3.1.2), however some findings were relevant to the patient flow and delivery method development as indicated in section 2.2.3 below.

2.2.3 Qualitative Research Findings on BS Materials

Poster

Two posters were tested in each country. One poster, with a picture of smiling health worker, encourages patients to enquire about tobacco cessation BS services at the facility. This was easily understood by patients in all countries. The second poster encourages patients to quit tobacco, informing them on the benefits to lung and general health over the long-term. The initial format of milestones along a road was only understood by patients in Bangladesh where such imagery has been used in previous public health campaigns.

The second poster was not understandable for many participants in Pakistan and Nepal. Given that many patients were illiterate, the winding pathway did not make sense “it is not clear what this pathway is,” explained a man in Pakistan, suggesting it would be better to show steps or a mountain. The Pakistani and Nepali versions of the second poster were changed based on patient and health worker suggestions. In Pakistan, the milestones are instead depicted as steps on a ladder to becoming TB free, and in Nepal the steps are listed in chronological order alongside an image of a patient walking away from a pile of discarded cigarettes.

Leaflet

Feedback on the leaflet was limited, with the one main criticism being that there was too much text. Health workers, however, believed the messages were necessary, and FGD participants in each country related that friends or relatives who can read, would read out the information on the leaflet to patients. Ultimately, the text and layout were adapted in each country to cover all

the original points in the prototype using simpler language. In Bangladesh and Nepal health workers suggested a more drastic reduction of text, which is reflected in the final Nepali and Bengali leaflets.

Flipbook slides

Across the three countries and between the two genders, an initial reluctance to respond was noted, as was a tendency to agree with an initial response offered by a more confident or talkative respondent. In such cases, facilitators were instructed to reiterate a point made at the beginning of each FGD that there were no right or wrong answers, but that the participants were already 'experts' on their experience of TB and that any advice or ideas they offered were useful. In this way, all participants were encouraged to speak freely and voice their opinions.

FGD participants' responses consistently showed that while photos alone might not be self-explanatory, patients found them understandable when paired with a verbal explanation of the message conveyed. Across the three countries, FGD participants thus mostly understood the messages conveyed through the pictures and slides. The sequence and messages of each slide thus remained unchanged. Patients did offer suggestions on making individual images more relatable, such as using images of food consumed by lower income patients, e.g. vegetables rather than chicken. One image that generated discussion among patients was that of a graveyard (Bangladesh, Pakistan) or funeral pyre (Nepal) on Slide 6 (Benefits of quitting tobacco) to indicate consequences of not quitting tobacco. Participants were divided on whether the image was effective or disquieting. It was thus decided to replace the image in each country with an image of a sick TB patient approved by patients on Slide 3 (adherence to medication).

Another finding across the three countries was that, when given an option, participants grasped slides more easily that demonstrated a timeline with alternative positive and negative consequences. This was the case for both Slide 3 (adherence to medication) and Slide 6 (Benefits of quitting tobacco). Participants felt that presenting a timeline made messages "easy and straight forward" as a male FGD participant in Pakistan indicated, describing the clear outcomes presented.

Two slides in particular were difficult for patients in all countries to understand: Slide 2 (How to take medication) and Slide 7 (Things that do and do not help with tobacco cessation). In both cases, participants in all three countries had difficulty identifying the meaning of the picture of a calendar. A male participant in a mixed FGD participant in Pakistan indicated how

"The photograph of the calendar is not clear here... [it is] not clear what should be done or what should not be done," and a middle aged female participant added that "some people are educated and some are not... non-educated people will only understand photographs not the calendars."

Despite this statement, there was no observed correlation with literacy or gender across the countries with regard to whether participants understood the calendar or not. Based on participant feedback, the calendar was removed from Slide 2. A clock showing the duration of one hour was added instead, which patients found more understandable in each country, and it

was decided the health worker would explain that medicine should be taken for six months. The calendar was left in Slide 7 to indicate choosing a quit date. In [Pakistan](#), some participants understood the message because of the no smoking sign; in Bangladesh the calendar was changed to a Bengali calendar; and in Nepal a picture of the TB treatment card was taken, as this is laid out by day, with the no smoking sign representing the quit date.

Patient Flow

FGD participants' responses across all countries pointed to social stigma toward tobacco use, particularly young people and women's tobacco use. This issue is discussed more in section 4.2. However, based on this finding, it was felt that the patient flow would need to be changed as many patients might not initially admit tobacco use given the social stigma. A new patient flowchart was thus developed to ensure all patients would receive minimal tobacco cessation counselling.

It was decided Slide 5 (Maintaining a Healthy Lifestyle) would be used by health workers to discuss tobacco and alcohol and ask patients about tobacco use. Based on the readiness of patients to quit tobacco, patients would be provided a series of either 1, 2, or 3 tobacco cessation messages in the remaining three slides. All patients would be provided a leaflet before finishing the BS session. The new patient flow chart is presented in Figure 3 below. This new patient flow had the additional advantage that only those ready to set a quit date stayed for the full 8 slides of the flip book. This meant less health worker time would be taken with patient unmotivated to quit and is in line with Transtheoretical Model which identifies the stages of change a smoker goes through before a successful quit is maintained (Prochaska et al., 2002).

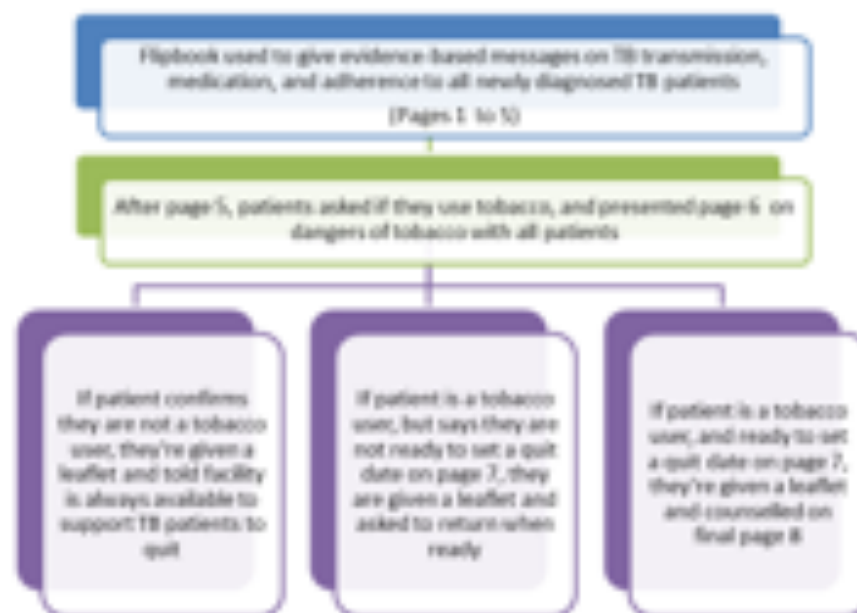


Figure 3: Adapted Patient Flow Diagram

2.2.4 EGM Round 2: Final Feedback

A second, final round of EGMs was held in each country with health workers and with NTP staff to provide final feedback on the revised materials, the training programme, and give advice on implementation (see Table 4 below). EGM meetings were recorded and transcribed by national research teams, and the main points were summarised in communication with the University of Leeds team. No further changes were made to the BS materials presented in the EGMs. The final Bengali, Nepali, and Urdu versions of the BS materials and their English back translations are available on the TB Tobacco shared google drive.

While no amendments were made to the BS materials, this second round of EGMS had the primary outcome of getting NTP agreement in each country to have their logos put on the materials and to provide logistical support in undertaking health worker trainings, with an eye to incorporating trainings into regular practice (trainings are discussed further in section 0 below)

Table 4: EGM Round 2 Participants

Country	Date	Participant Role (Number of People)
Bangladesh	24/11/2016 (Health Workers)	<ul style="list-style-type: none"> • KMSS Mirpur In Charge (1) • KMSS Mirpur DOTS Provider (1) • KMSS Old Dhaka DOTS Provider (2)
	10/01/2017 (NTP)	<ul style="list-style-type: none"> • Deputy Director, NTP (1) • Programme Manager, NTP • Deputy Programme Managers, NTP (3) • Monitoring and Evaluation (M&E) Expert, NTP • Medical Officer (MO), NTP (3) • Statistical Officer, NTP
Nepal	16/12/2016 (Health Workers and NTP)	<ul style="list-style-type: none"> • Acting Director (Planning Chief), NTP (1) • District Public Health Officer (Kathmandu), DOH (1) • Public Health In-Charge of Primary Health Care Revitalisation Division (PHCRD), DOH (1) • Senior Public Health Administrator, PHCRD (DOH) (1) • Public Health Officer, District Health Office Kathmandu (DOH) (1) • Public Health In-Charge of DHO Kathmandu (DOH) (1) • Municipality Public Health Officer, Kathmandu Metropolitan City (2) • DOTS Facilitator, Urban Health Centres (6) • DOTS Facilitator, Genetup (1) • DOTS Facilitator, Friends of Shanta Bhavan (1)
	31/12/2016 (NTP)	<ul style="list-style-type: none"> • Director, NTP (1) • Planning Chief, NTP (1)
Pakistan	17/11/2016 (Health Workers)	<ul style="list-style-type: none"> • Government TB Sanatorium Hospital (2) • Pakistan Institute of Medical Sciences (3)
	14/12/2016 (NTP)	<ul style="list-style-type: none"> • National Monitoring/Evaluation Officer (1) • Research Associate (1)

3 Training Program Development

As part of meeting objective h, a training programme for health workers was developed in each country that consisted of a set of training slides and a health worker guide on using the BS materials. To develop this training programme, and to meet objective i (identifying resources and competencies of health workers to deliver tobacco cessation), information was gathered via analysis of the qualitative data collected (see section 2.2.1 above for methods) and of results of a questionnaire delivered to health workers in each country on their confidence in delivering tobacco cessation support. Analysis of this data was carried out with attention to Michie et al's (2014) theory of capability, opportunity, and motivation for behaviour change (COM-B), as this was also the theoretical framework for the tobacco cessation messages included in the BS materials.

3.1 Identifying Competencies and Training Needs

3.1.1 NCSCT Questionnaire

A UK National Centre for Smoking Cessation and Training's (NCSCT) questionnaire to assess health worker confidence in delivering tobacco cessation support to patients, grounded in the COM-B theory, was adapted for each country context. The questionnaire was translated, back translated into English to check for concordance, and pre-tested with 3 health workers from the two case study sites in each country. Feedback from each health worker was recorded in an MS Excel spreadsheet on the clarity, acceptability, and relevance of each question as well as suggestions for alternate wording or phrasing, suggestions for additional questions, or any additional observations.

As a result of this process, the questionnaire was adapted for all countries to include fourteen questions (See Appendix 4). Questions on long-term follow-up were excised, as they were not part of the planned intervention, due to feasibility constraints. Questions added on building rapport with men and with women patients. Responses to the questionnaire are given on a scale of 1 to 5 where 1 is 'not confident' and 5 is 'very confident'. The questionnaire was administered to 34 health workers across the three countries, as outlined in Table 5 below.

Table 5: Administration of the NCSCT Questionnaire

	Number of sites	Number/type of health professionals	Gender breakdown
Bangladesh	9/14 sites	10 (all DOTS facilitators)	8 men and 2 women
Nepal	14/15 sites	14 (10 DOTS facilitators, 2 In-Charge)	3 men and 11 women
Pakistan	8 /9 sites	10 (all DOTS facilitators)	5 men and 5 women

Results of the NCSCT questionnaire were inputted into an MS Excel worksheet for each country. The mean of health worker responses to each question were analysed for each country and across the three countries by respondent's sex and for all respondents.

All three countries consistently indicated that both men and women health workers felt less confident in engaging with patients of the opposite sex. Across all three countries confidence in assisting clients to set a quit date and explaining, emphasising the 'not a puff' rule, and explaining cessation medication was relatively lower, perhaps indicating the current lack of training. The exception were the five Pakistani female health workers, who indicated confidence in describing the use of cessation medication (See Appendix 5 for individual country results).

Responses to the NCSCT questionnaire were, however, generally optimistic across all countries, falling mostly within the moderately- to highly-confident range (See figure 4 below), with no area scoring below 3. Given the lack of health worker training in and knowledge of cessation found in the qualitative analysis, these results were surprising, and suggest the need to develop more sensitive approaches to understand and gauge health worker confidence in future research.

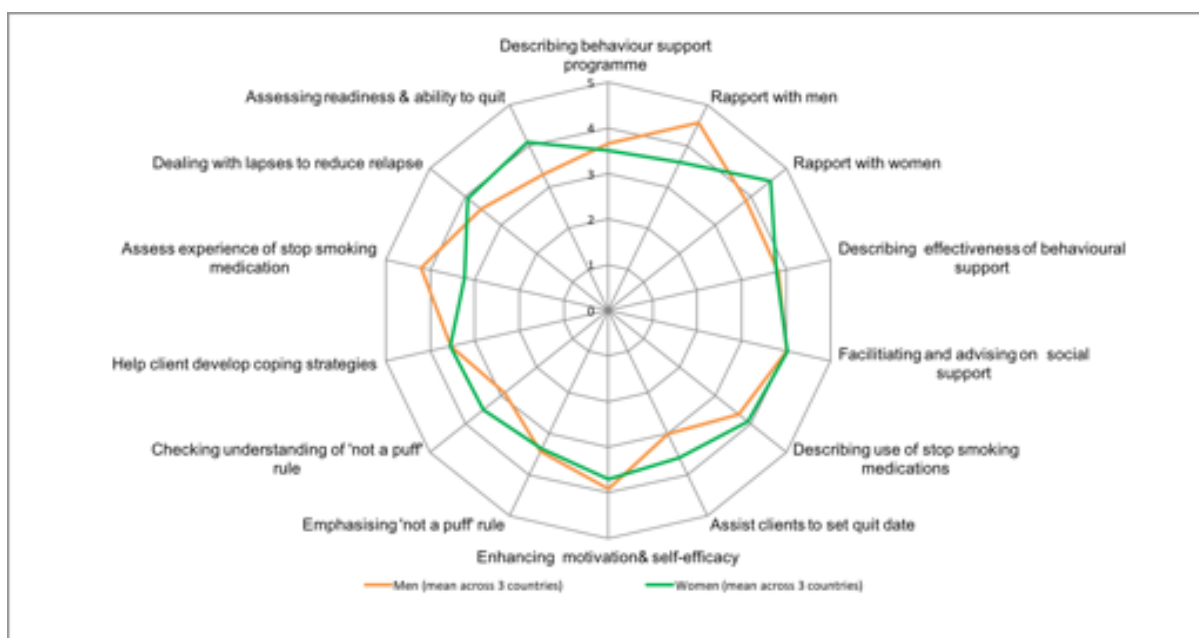


Figure 4 NCSCT Questionnaire Results: Mean scores across three countries

3.1.2 Qualitative Data Analysis: Training Programme

After coding for feedback on BS materials, the qualitative data collected was analysed using the method outlined in section 2.2.2 above for a separate set of codes relating to different contexts of (i) the intervention, (ii) TB patient tobacco cessation, and (iii) Health Worker cessation support delivery (See Appendix 3). Again, framework matrices were populated using the coded transcripts and a summary MS Excel worksheet was distributed to partners to summarize the findings under

each code. These were shared with researchers at the University of Leeds, who analysed them to extract information to guide the development of the training programme in each country.

Given the shortened period for data collection and analysis, this round of analysis was done under a tight timeframe in order to produce a training package ahead of the planned beginning of the TB Tobacco trial. A further round of analysis, presented in section 4.2, was conducted on the same material using the COM-B framework. An overview of the initial findings that guided development of the training program is thus presented below, with more detailed analysis of health worker COM-B for tobacco cessation presented in section 4.2.

Health Worker Knowledge: Health workers across all countries displayed an understanding of the harms of tobacco use for TB patients. Recording of TB patient tobacco use or delivery of tobacco cessation messages to patients was not done regularly if at all. In concordance with results of the first EGM round, health workers indicated the need for more knowledge on the evidence base of TB and tobacco interaction and skills in building rapport with patients. A health worker in Nepal explained that many patients ask about how to quit tobacco, but “We also don’t know much about it. There should be materials for counselling... Training is needed. I don’t think there is much training regarding counselling on smoking.”

Identifying smokers and Rapport Building: Across the three countries there was evidence that patients found it difficult to open up about their tobacco use. For example, in Pakistan one health worker commented, “We don’t ask about tobacco history and whenever we ask, patients find it difficult to talk”. In Nepal, health workers explained that often they would only find out whether a patient smoked from the smell on their clothes and belongings, or from a family member. A further constraint to people being open about their tobacco use was a feeling of guilt from the belief that smoking causes TB.

Lack of Resources: Health worker responses indicated that they were often performing DOTS facilitation in excess of other duties. Recommendations were made for additional staff, so that one dedicated staff member could provide cessation services. NTP also mentioned a desire for training and certification, and performance appraisals to help motivate health workers.

The limited observations of the health facilities highlighted that many settings were overcrowded, with no quiet, private room available for delivery of the flip-book session. If a room was available, it was frequently too small and would become full of other patients crowding in to hear any advice given.

3.2 The Training Programme

Building on recommendations from the EGMs and results of the qualitative research, a training programme was developed that consisted of two-day training programme and a health worker guide.

3.2.1 Two-Day Training Programme

Taking into account the EGM results and qualitative research findings, a two-day training programme for health workers was developed with the following objectives:

1. Understand the purpose and processes of the TB Tobacco cytisine trial.
2. Understand the interactions between TB and tobacco.
3. Agree the most appropriate process (patient-flow) for TB patients to receive the BS intervention in the context of health workers' own facilities.
4. Feel confident to build rapport with people with TB (both men and women) to effectively deliver the BS intervention, including identifying tobacco users.
5. Have the knowledge and skill to support people with TB to maximise their chances of recovering from TB and stopping tobacco use.
6. Recommend actions across the health system to support the BS intervention (recording/reporting, monitoring/supervision, refresher training).

The first day of training was delivered via a set of PowerPoint slides (see Appendix 8) that covered evidence and current best practice with regard to TB and tobacco, information on the TB tobacco trial, an overview of the behavioural support materials and delivery method, and tips on rapport building with patients. Interactive activities were developed to get participants to reiterate the knowledge being presented, give feedback based on their experience and context of their facilities, and undertake role-plays to develop rapport building skills (see Appendix 7). The second day of training consisted of three sets of role-plays by participants, in which each participant was given a role-play identity as a particular kind of patient (See Appendix 7). Each participant would get to practice deliver and receive the general TB messages, the Tobacco cessation messages, and the entire flipbook and provide or get feedback from their peers on facilitating BS delivery. Participants were given time at the end of each day to reflect and feed-back to facilitators on what they learned and what suggestions they had for future trainings. The complete training programme outline is provided in Appendix 6.

The training programmes were facilitated jointly by national research team members and NTP representatives (see Table 6 below). This was an important strategy to encourage ownership of the intervention by NTPs. All three countries were able to engage between two and four NTP staff to deliver components of the training. This proved particularly useful in the aspects of the training covering general TB messages, as senior staff could clarify any questions regarding routine TB care. During WP6 these links will prove invaluable in the adaptation and inclusions of the training within routine NTP training activities.

Despite the considerable condensing of the training within the two-day time frame; two days out of routine practice was found to be too long in Bangladesh and the training was separated into one full day training, with provision of refresher training at each facility.

National research teams provided reflections on the trainings that highlighted a set of similar issues. Across the three countries, it was found that patient flow varied between each facility, and the training programme provided an arena for different health workers to reflect on patient flow in their facility and receive suggestions from others on how to incorporate BS into their

particular facility. In every country health workers feedback indicated an appreciation for the evidence base on TB and tobacco – echoing qualitative analysis findings – and a suggestion that such training be expanded to include other colleagues and be provided on a regular basis. Following these recommendations, preliminary discussions with research partners in Pakistan and Bangladesh were held on the possibility of developing video trainings that could be used within routine NTP training of all DOTS facilitators nationwide. This would provide a less resource-heavy trainer-facilitated approach that would also maintain a level of quality and fidelity to the original intervention. The development of this video training approach will be pursued as part of WP6 along with any other strategies identified to increase scale-up and sustainability.

Table 6: Training Participants and Facilitators

	Date	Health Workers	NTP Facilitators	National Team Facilitators
Bangladesh	26/04/2017	19	4	3
Nepal	13-14/06/2017	9	4	4
Pakistan	15-16/03/2017	11	2	3

3.2.2 Health Worker Guide

The EGM and SSI results highlighted high turn-over of health worker staff, presenting a need to provide guidance on BS material use through several media rather than rely on training alone. A health worker guide was thus developed and provided to all training programme participants for use in their facilities (see Appendix 9).

The health worker guides built on two primary recommendations from the qualitative data: (i) that health workers required evidence based knowledge on TB and Tobacco to provide effective tobacco cessation support, and (ii) that health workers would need assistance on rapport building skills with patients. To this end, the health worker guide was developed with the following sections:

1. Introduction – explaining the BS materials (flipbook, leaflet, posters) and how to use them
2. Global facts on tobacco
3. Evidence base on TB and tobacco interaction
4. Information on nicotine and why it is hard to quit tobacco
5. Slide-by-Slide information on how to deliver the flipbook, with supplemental evidence-based information on the dangers of SLT for Slide 7 (What helps and doesn't help in quitting tobacco)
6. Rapport building skills with different kinds of patients
7. How to undertake follow-up with patients on tobacco cessation efforts

Rather than reproducing the health worker text for each slide, the guide provides health workers with the main points on what to cover with patients on each slide, what questions to ask or actions to undertake (e.g. giving a leaflet or asking about quit dates), and tips on how to build rapport with patients in a way that will make them comfortable and encourage them to engage with the material.

4 Considering Context

During the first two years, WP1 activities also worked toward meeting objective j to identify the organisational capacity to delivery tobacco cessation in the different country contexts. This was done through (i) a review of the TB and tobacco policy context in each country, and (ii) analysis of SSIs conducted with health workers, patients, and district and national level NTP staff.

4.1 Policy Context Review

To fully understand the health system context, policy documents for each country were collated and summarised to identify policy areas, aims, and strategies for TB control and tobacco control. To align with five-year planning cycles in the three countries, we searched for documents over the last 6 years (2000 to 2016). These were reviewed and analysed by a WP1 intern into individual country summary reports (see Appendix 10), with input from WP1 and WP5 researchers in the analysis.

The primary finding of the policy review was that while Tobacco control policy and TB control policy is well-developed across all countries, there is little linkage between the two, indicating a lack of attention to TB and tobacco interaction at the policy level. The emphasis of TB control policies is more on Multi-Drug Resistant TB (MDR) and TB and Human Immunodeficiency Virus (HIV).

Documents from Nepal presented the most robust policies on tobacco control. However, a policy gap was identified in the 2013 Needs Assessment on WHO Framework Convention on Tobacco Control in Nepal indicating a lack of training and information provided to health workers on tobacco cessation. This gap was part of a wider range of problems grounded in the discrepancy between policy and implementation affected by a lack of resources, political will, and governmental bureaucratic complexity. An example of the lack of importance given to tobacco and TB interaction, might be reflected in the fact it was not possible to conduct SSIs with national NTP staff in Nepal on this issue.

SSIs conducted at the national level in Pakistan and Bangladesh reiterated one of the findings mentioned in the Nepal Needs Assessment report: that tobacco was currently not an NTP priority, even though the need to address TB tobacco interaction was recognised. National NTP staff in both countries indicated a need for additional funding to undertake efforts to address TB-tobacco interaction, with the Pakistani central NTP SSI respondent suggesting future collaborations could follow the model of developing TB-HIV programming in the country.

In Pakistan, researchers also undertook an SSI with a national level stakeholder in the national tobacco control (NTC) programme. The national level stakeholder's responses illustrated that tobacco cessation was not an NTC priority. Rather, the NTC was focussed on legislative reform and enforcement and public awareness on tobacco control. When asked about collaborating with

the NTP on tobacco cessation, the SSI participant obliquely suggested that while the NTC would approve of such efforts, a lack of funding, personnel, and prioritisation would impede such coordination.

4.2 Institutional, Health Worker, and Individual Level Context

To understand the institutional and health worker capacity to delivery tobacco cessation in the different country contexts, the qualitative data collected in Year 1 of the project was reconsidered in a second round of analysis. This analysis sought to identify factors relating to the capability, opportunity, and motivation of (i) health workers to provide behavioural support (BS) on tobacco cessation to TB patients, and (ii) patients to accept and adhere to BS on tobacco cessation. These concepts have been derived from the work to understand the components needed to facilitate behaviour change (Michie et al., 2011). A set of codes were developed by the University of Leeds researcher to look at these aspects of COM-B of health workers and patients that were either self-reported by the participants, or perceived by other participants. A list of the codes is provided in Appendix 11, and explanations of how capability, opportunity, and motivation were considered is provided in Table 7 below.

Table 7: Definitions of COM-B Components for Coding

COM-B Model Component		Definition	Example
Capability	Physical	Physical skill	Having the ability to deliver tobacco cessation support with a flipbook
	Psychological	Capacity to engage in necessary thought processes – comprehension/reasoning	Having knowledge of TB or tobacco to provide cessation support
Motivation	Reflective	Reflective processes involving evaluations and plans	Deciding to quit tobacco because it is injurious to health
	Automatic	Automatic processes involving emotions and impulses arising from associative learning and/or innate dispositions	Wanting to deliver tobacco cessation support because one should help people become healthy
Opportunity	Physical	Opportunity afforded by environment	Being able to switch to SLT because it's more affordable
	Social	Opportunity afforded by the cultural milieu dictating how one thinks about things, e.g. the words/concepts that make up language	Being able to smoke as a man but not as a woman because it's socially frowned upon

Adapted from (Atkins, 2013)

Before proceeding with coding of all transcripts, the codes developed by the University of Leeds were agreed upon and used three coders from the University of Leeds, The Initiative, or

University of Dusseldorf to jointly code three transcripts: a Nepali Patient, a Bangladeshi Health Worker, and a Pakistani District NTP staff SSI. Only minor differences were found in how each coder had coded for 'myths' and 'stigmas', it was decided that both of these issues could fall under motivation, opportunity, or capability depending on the context and that it would be up to individual coders to assign multiple codes for these issues. It was also agreed to code text surrounding a statement to provide context during analysis. Each SSI and FGD transcript was coded by one of the three researchers and then checked and re-coded by another coder from among these three.

All coded transcripts were combined in a single NVivo file. Analysis was conducted by creating a framework matrix for each country exploring the above codes by respondent. The matrices were analysed first by country, and then any similarities or differences were considered across the countries. No major differences or distinctions were found across the three countries. Rather, participant responses across the three countries echoed one another in the themes and issues they presented. These cross-cutting themes are outlined below.

4.2.1 Health Workers (Institutional/Facility Context)

Across all countries, health workers and others highlighted several issues affecting the capability, opportunity, and motivation of health workers to deliver behavioural support training on tobacco cessation to TB patients.

Capability

From the health worker responses, it was clear that health workers themselves had an understanding that tobacco use was harmful for TB patients. In each country several health workers reported providing patients with information or counselling on quitting tobacco. Though details of what kind of information was provided was not specified, it was clear that health workers were aware of TB and tobacco interaction in a general sense, but that there is no standardised information provided to all TB patients in any of the three countries. Additionally, it was clear from at least one of the Pakistani health workers' responses, that there was not an understanding of sudden cessation.

"Normally we guide patient to keep his diet good and healthy, if you are smoking then quit it, means quit slowly but do quit as it is not good for health, and we tell them that you should stop smoking slowly." (Pakistan, DF1)

In this vein, health workers across all three countries indicated they would like training on tobacco and TB since (i) some patients to ask about tobacco cessation assistance, and (ii) they would like to have more concrete understanding about the issue. As a health worker in Nepal stated:

"We also don't know much about it. There should be materials for counselling... Training is needed. I don't think there is much training regarding counselling on smoking... The main thing [recommendations] is training only. We can say we have not taken training related to counselling. The first thing is we just gave counsel, we don't know how to give

counselling. If we [Health worker] special counselling training, then only we will know.”
(Nepal, DOTS In-Charge 1)

The fact TB health workers would need specific training on TB and tobacco was also a perception shared by facility in-charges, district level staff, and central level staff. In Pakistan and Bangladesh, a facility in-charge and a patient respectively, brought up the issue of communication skills. The Pakistani facility in-charge stated that in order for proper behavioural support (BS) to be provided, health workers would need to have good communication skills in addition to sufficient knowledge. While not related directly, we know that not all health workers possess adequate patient communication skills. As a young, semi-literate male patient in Bangladesh expressed:

“Yes, some doctors are really good. They listen to your problems. But some doctors do not even look at you. They only ask to do lots of tests, and ask you to visit him every week.”
(Bangladesh, P5-1)

A final, and interesting point regarding health worker capacity relates to the ability to gauge tobacco use. As discussed below with regards to patient opportunity, there appeared across all countries a general consensus that patients are loathe to talk about their tobacco use – especially women and young people. However, in each country some health workers indicated that they could tell tobacco users by gauging the appearance, smell, or other characteristics of patients. As a health worker in Nepal stated: “When they come near, by their lips colour, gums, smell I know that they smoke or not.” (Nepal, Dots In-Charge 2) Such skills will be useful in health workers being able to probe tobacco use and suggesting cessation.

Opportunity

A major obstacle in the opportunity for health workers to provide effective BS along the lines envisioned by the project related to resources. In each country SSI participants across the macro, meso, and facility level related (i.e. both health workers and others in the health system) reported an inter-related set of issues that would make it difficult to provide effective BS. The issues are a general lack of resources, time, adequate space, and high patient load. As observed across all countries, information on patients is recorded and kept manually, and quantitative information is inputted electronically for reports at different levels. It is the health workers who are primarily responsible for recording this data, which is time consuming. A health worker in Pakistan reported:

“I have already told you we don’t have many facilities. We have issue of follow-ups, record maintain, everything is done manually, there are five registers for one year: one is only for registration, so already it is difficult for us to maintain, if it is added to our work it is difficult for us to manage.” (Pakistan, DOTS Facilitator 1)

The lack of time was also connected across the board to high patient load, i.e. given the high number of patients, health workers often do not have much time to spend with each patient. A Bangladeshi health worker explained how

“generally, we do not face any other problem except time pressure. Sometime due to high workload or pressure, daily work ends at 5 pm or at 6 pm instead of 4 pm.” (Bangladesh, DOTS Provider 1)

While, in Pakistan and Bangladesh, health workers framed the problem of patient load as relating to there being too many patients, a health worker in Nepal expressed it as an issue of not having enough health workers. “We need manpower,” she explained, “In some places, there are manpower, but not managed but somewhere there is no manpower but managed. You have to consider these.” (Nepal, DOTS In-Charge 1)

This problem was seen as having consequences for providing BS to all TB patients in all countries. Pakistani and Bangladeshi research participants gave a concrete idea of how it would affect them:

“we have around 250 patients in our current load, and if we have to provide tobacco cessation support to around 100 patients along with the DOTs support to all patients then it will be an extra work load for us.” (Bangladesh, In-Charge 1)

“We take maximum 5 minutes in TB counselling with a patient... [with tobacco cessation] we will require 30 minutes per patient.” (Pakistan, DOTS Facilitator 2)

While not directly mentioned by staff with regard to opportunities, another issue connected to health worker time (and addressed more in the motivation section below) related to TB health workers’ overall workload, where TB health workers are often performing their role in addition to other non-TB related duties.

At a structural level, an issue that was apparent across all three countries was the lack of support to and oversight of TB health workers through monitoring and supervision. In each country, interview participants related that there was no monitoring or supervision on TB health workers, outside of the collection of statistics on TB patients and outcomes. A Pakistani District level NTP staff summarised the situation in here statement that:

“There is no one for monitoring... we check [DOTS Facilitators’] register and records... [to see] recordkeeping is going fine and we take feedback from the medical superintendent...” (Pakistan District Staff 1)

Another shared issue across all countries was the lack of NTP prioritisation of tobacco. The central and district level NTP staff interviewed presented various priorities including TB outcomes, HIV, and MDR, but indicated tobacco was not at the moment on the agenda. Research participants were, however, aware that tobacco is a problem and that it should be addressed within TB control programs. A Nepali district level staff stated:

“Priority should be given [to tobacco]. But it is not been done at present. Under National Tuberculosis Program, “PAL” program was introduced but that could not be implemented effectively .Now, it is in the verse of extinction. PAL has phased out. National Tuberculosis Program should take TB program and tobacco control program together.” (Nepal, District Staff 2)

Motivation

Participant responses to motivation of health workers across the three countries centred around two issues: professional support to health workers and financial (or other) incentives.

District and Facility level staff in Bangladesh and Nepal spoke obliquely about providing financial incentives, whereas in Pakistan participants at all levels directly stated that financial incentives should be provided to health workers as their work load will increase with increased reporting on tobacco and providing standardised BS. Responses also suggested that health workers could also be provided some kind of incentive through giving them a respected status through providing adequate and specified space for TB counselling, fixed hours, and designated roles (i.e. no extra duties).

A health worker in Nepal suggested:

“We need record reporting registers or some cards. If we have such cards, we can do accordingly. If there is recording and reporting, properly work will be done then ... We also need trainings. Next, there should be supervision and monitoring. There should be proper management. [Laughing] Things related to paying also need to be done.” (Nepal, DOTS In-Charge1)

Relatedly, in Pakistan, a district level NTP staff explained that:

“[A]ll our DOTS facilitators are not limited to TB program only. They are nursing staff and their duties are rotational... If you release him from other duties he will be just focused on TB and tobacco cessation only, it will be motivational for them that they will not do extra evening and morning duties they will just have fixed morning duty hours...

If you are adding this tobacco cessation job in his duty, first facilitate him, strengthen him. He should have his office, his designation should be mentioned outside his office. If he is not feeling good, his self-esteem will not be boosted up and he won't be able to perform his tasks. Monetary Incentive can be helpful for motivation or proper conducive environment and proper system can also be motivating. Along with this he should have specific duty.” (Pakistan, District Staff 1)

The need for training as a motivation to provide tobacco cessation BS was mentioned by health workers in all countries. Only one health worker in Pakistan suggested the need for financial assistance. She did so alongside an indication that some kind of official certification should be provided:

“So for proper and smooth work financial assistance and certificates should be awarded. That is moral and financial support... because then work will be done with interest. It will be done in the proper way and [a health worker] will be answerable ... [to] do this work properly...” (Pakistan, DOTS Facilitator 1)

4.2.2 Patients (Individual/Inter-Personal Context)

Similar to health workers, there were large similarities in patient responses across the three countries. There were some differences with regard to tobacco use mentioned by patients, with hookah and naswar (snuff) use reported in Pakistan and paan (betel leaf) and gutka (flavoured

preparation of a mix including areca nut and tobacco among other ingredients) reported by patients and others in Bangladesh and Nepal.

In contrast to health workers, comparatively less information on patient attitudes/perceptions was available in the research conducted, as the primary emphasis of the research with patients was to get feedback on the BS materials.

Capability

Aside from patients' ability to understand the BS materials, one of the main themes across all three countries was the lack of awareness of the harms of smokeless tobacco (SLT) among patients. Most patients expressed an awareness to the harms of tobacco, likely as a result of anti-smoking campaigns or advertising. As a health worker in Nepal indicated, however, awareness that tobacco should not be used might not indicate an understanding of why, she described how "Most of the patients know that smoking should not be done but they don't know the effects of smoking" (Nepal, DOTS In-Charge 2).

While several patients also indicated an understanding that any kind of tobacco was bad, in each FGD there patients whose responses either explicitly revealed a lack of knowledge of SLT harms or did indirectly suggested they did not know about it. In Bangladesh in particular, women FGD participants indicated they thought not ingesting SLT products would evade its harms. A Bangladeshi DOTS provider explained that she had difficulty in convincing patients about quitting SLT as "they say they don't swallow it, and gargle with water and rinse it out." (Bangladesh, DOTS Provider P4-2). A Pakistani DOTS facilitator expressed a similar problem, where patients would find it hard to quit tobacco and would instead "go to the alternate addiction, meaning they left cigarettes but they started using *naswar* [instead]" (Pakistan, DOTS Facilitator 1).

When asked about how patients might receive TB support, health workers across all countries were optimistic, indicating that even if there were difficulties in admitting tobacco use (discussed in opportunity section below), patients did wish to quit tobacco. "TB patients wish to refrain from smoking, but don't know how to," a Nepali health worker explained (DOTS In-Charge 1). Health workers in Bangladesh and Nepal also indicated that it is possible adherence to tobacco cessation medication might be difficult as there were already problems with patients finding it difficult to attend clinics every day to take their TB medication and complaining about side effects.

"Those [patients] who work, she is a professional. Those who do not, she is also a professional for her household. So, coming every day to the centre they often feel irritated and ask for medicine for two days or three days or four days... the patients seems to be irritated and we ourselves become upset." (Bangladesh, DOTS Provider1)

Opportunity and Motivation

Several of the items coded as opportunities (i.e. social contexts or personal situations that allow for uptake of behavioural change) and motivations (i.e. psychological or instrumental factors that would encourage behavioural change) were connected in the coding. It thus makes sense to describe the context here that both provides and/or limits opportunities to patients to use tobacco and contemplate and pursue tobacco cessation, or not.

As related above, within the healthcare context, health workers indicated across all countries that patients are currently not routinely asked about tobacco use in TB care, and no materials are available to do so. While not directly mentioned with regard to patients' tobacco cessation, health workers in all countries related that doctors and others in health facilities did smoke (despite no smoking policies). In Pakistan and Bangladesh, this was not stated directly. However, in Nepal, a health worker explained how along with patients a staff member "suffered from TB and he wished but is unable to refrain from smoking. He smokes a lot... he goes upstairs and smokes. He also wants to refrain from smoking" (Nepal, DOTS In-Charge 1).

Patient responses indicated that there was a high degree of social awareness of the ills of tobacco use, and some stigma attached to it. Patients across all countries spoke disparagingly of tobacco use and tobacco users, especially with regard to women and young people. Unsurprisingly, there was a general view among research participants that women did use tobacco, but that tobacco use was not as prevalent among women as it is among men. A woman DOTS facilitator in Nepal, however, "[acceptance of tobacco use is] the same [among men and women] but women do hesitate a little [in admitting it]" (Nepal, DOTS In-Charge 1).

It is also interesting to note that in the Bangladesh patient FGDs, very few men believed there was high smoking prevalence among women, with an idea that mostly "bad women smoke cigarettes" (Bangladesh, Male Patient P5-1). However, all women FGD participants accepted that women do use tobacco. The degree to which tobacco use, especially for women, is seen as something unacceptable might be gauged in how all FGD participants indicated that women from their communities didn't use tobacco, rather women tobacco users were ascribed belonging to other social groups from the respondents either as wealthy people, poorer people, younger people, older people, rural people, educated people, or illiterate people. In Nepal, similar categories were ascribed to smokers, along with belonging to different ethnic or religious groups.

The response of a Bangladeshi health worker also betrayed a similar sense of restrained disdain at women's tobacco use, suggesting it was something 'new' or unnatural for women. She suggested women might use tobacco because

"of availability or maybe they consider this as style—I don't understand. It may be the case that many boys and girls are considering [smoking cigarettes] as fashion; a male friend is smoking, so I [as a woman] can smoke too – we are equal, this can be the reason... I joined a training programme on tobacco with [an NGO working on Tobacco]... In that training, I used to talk to some women, and found that some have frustration and they smoke because of frustration. Some are smoking just to test – my male friend is smoking, let's see how it tastes?" (Bangladesh, In-Charge 1)

The negative attitude toward smoking, including social attitudes, anti-tobacco campaigns, or smoking fines, might be partially responsible for creating a social climate in which admitting tobacco use becomes difficult for patients. A Pakistani DOTS facilitator, while explaining how young men were reluctant to admit to using tobacco, described how a young man she was counselling defaulted on taking medication and did not return because of questioning on tobacco

use. A Nepali DOTS facilitator additionally suggested that women might be more reluctant to admit tobacco use because it's socially less acceptable for women to smoke and "it might be... [women TB patients] are scared that we might shout at them or their secrets will be revealed" (Nepal, DOTS In-Charge 1). Considering a similar situation, a young Pakistani male patient suggested that

"...when we take [women] to visit the doctor, we should leave them alone with the doctor so they can easily and openly discuss [tobacco use]... otherwise it will be very difficult for them to discuss anything in front of men." (Pakistan, Male FGD participant P2-2)

While this suggestion might not be feasible, given the discussion above with regard to resources and time, it relates to an issue mentioned by health workers across the three countries with regard to engaging patients on tobacco use. Patients, health workers related, might not feel comfortable discussing tobacco use initially, but do open up after developing a relationship with the health worker through repeated interaction every day to receive DOTS. A Nepali health worker described this process as follows:

"Initially, [patients] don't talk. Later on, when you go on talking to them daily, asking how they are daily, then they communicate with us, share with us." (Nepal, DOTS In-Charge 1)

While social stigma against tobacco might obstruct patients from being forthcoming in their use, research participants also suggested that the stigma of TB might instill fear and a desire to get better that would encourage them to admit tobacco use and want to quit. A Pakistani health in-charge felt that tobacco cessation BS

"will help tobacco users TB patients in a two ways, first patient will quit smoking due to the fear of TB or his TB will be prolonged and he has to take medicine for a long time, secondly patient will be serious for his TB treatment because he knows he is using tobacco that's is why he has to take proper treatment in order to get rid of TB." (Pakistan, Health In-Charge 2)

Patient research participant responses to the BS materials indicated a high level of stigma toward TB, with many believing TB patients should be kept away from society and that they should always wear masks. This was corroborated by health workers. A Bangladeshi health worker in particular described how an educated medical colleague who was a doctor had been diagnosed with TB but had requested it be kept a secret from her family for fear of being shunned and had sought treatment at a facility further away where nobody from her professional or personal circle would know about her TB status. A research participant in Nepal further added that

"I have found that in some schools, if a child has TB, that child is thrown out... my landlord, my mother, and father do not know I have [TB] till now." (Nepal, Women's FGD Participant P3-1)

Despite the stigma of TB, research participants across the three countries described how social tobacco use placed pressure on individuals. A Nepali FGD participant described how he started using tobacco in the following way:

"My father and mother used to wake me up and tell me to take surti and go to work. At first, they used to make bidi and give to me. In evening, I was asked to fill tobacco in the

hookah. I used to fill tobacco in the hookah and I use to take it until smoke appeared.”
(Nepal, Male FGD participant P6-4)

A Pakistani participant additionally described the difficulty in rejecting tobacco in a social situation:

“We cannot live without friends but can live without [smoking]. Now let me tell you people something. These friends will take out cigarettes and then they will offer it to you. Then you cannot say no... No I am telling you something. There are some young people who force you.” (Pakistan, Male FGD participant P6-2)

Despite the social pressure, friends and family could also be used to urge TB patients to quit. Many health workers described how they could not ensure patients would actually quit, but that attendants who came with TB patients would often interject if the patient denied tobacco use but was in fact using tobacco. A Nepali health worker described how “we ask the relatives or visitor of the patients who come here. Some relatives come by themselves and say that their patient is still continuing smoking. They ask us to tell their patient to quit smoking. So I guess it is reliable when we ask the family members” (Nepal, DOTS In-Charge 2).

Patients across all three countries maintained generally positive attitudes toward tobacco cessation, citing the need to get better as a paramount reason for quitting tobacco. Recovering from TB was important for patients not just for personal health reasons, but also to overcome TB stigma and maintain a livelihood. Some patients also mentioned cost-savings from quitting tobacco; in Bangladesh it was only women who mentioned this.

In all three countries, patients generally spoke of tobacco cessation as a responsibility of the individual. That is, it is a decision and ability that can only come from one’s self. This was presented in both a positive and as well as a fatalistic light by different people. In response to a respondent who described the difficulty in overcoming peer pressure, a younger Pakistani male FGD participant stated that

“You can say no. When you don’t want to smoke you don’t smoke... a person should think about his own sufferings that what [he has] been through. When you will think of you suffering you will naturally quit.” (Pakistan, Male FGD Participant P2-2)

A participant in Nepal said it a little more strongly:

“The person should quit smoking himself. One should not quit with the help of others. A person has leg, so he has to walk by himself. Similarly, one should quit this [referring to cigarette] by himself. A person should have confidence to quit it.”

Countervailing such attitudes, many participants from all three countries suggested that tobacco addiction – or any addiction, including alcohol – was not something that could be overcome, especially if it had gotten past a certain level. As a Nepali patient stated: “The main thing is the soul. When the soul asks for it [smoking], we have to have it. Despite various attempts, I could not leave smoking” (Nepal, Male FGD Participant P1-2). A woman participant in Bangladesh related a similar feeling toward alcohol addiction. However, using the idea of the importance of the soul in addiction, a Nepali health worker stated that “If [TB patients] think ‘what we should

do after hearing message’ then, if they commit to refrain from inner soul then they can refrain smoking” (Nepal, Facility In-Charge 1).

4.3 Context Overview

Through the data collection and analysis presented above, a set of issues to be addressed were found at the macro, meso, and individual levels.

- **Macro/Policy Level:** Tobacco is currently not a priority among NTPs in any of the three countries, though the importance of the tobacco epidemic is recognized. Future efforts to address this will need to take into account the lack of funding for such work, the discrepancy between policy promulgation and implementation or enforcement, and impediments such as lack of political will. Models for addressing the lack of prioritization might be efforts on MDR and TB and HIV.
- **Institutional/Facility Level:** TB patient tobacco use is not systematically recorded across any of the NTPs, nor are patients provided regular or standardised tobacco cessation information or support. There are also no mechanisms for health worker monitoring or supervision. The emphasis placed on TB outcome numbers might be an avenue to address these issues. Health workers are keen to be trained in delivering tobacco cessation support, but efforts to this end will need to address issues such as high patient-load, lack of adequate resources or space for counselling, and the need to incentivise health workers to provide counselling.
- **Individual/Inter-Personal Level:** Health workers will need training on developing rapport with patients. Stigma against tobacco might impede patients’ confidence to admit tobacco use, especially with women and young patients, however contextual data from the project suggests prevalence is high among these groups. Though TB stigma is a strong tool to encourage quitting tobacco, patients’ reasons for using tobacco are multiple and it is important to understand what they believe in order to engage with them.

Table 8 below summarises a set of primary issues identified through the qualitative research under WP1 as well as previous research done by consortium members.

Table 8: Issues Affecting Tobacco Cessation in Tobacco Control Programmes

Socio-Cultural	Institutional	Facility	Inter-Personal
<ul style="list-style-type: none"> • Men's smoking is an accepted norm. • Women's tobacco use is generally frowned upon, especially for younger women. Older or rural women's tobacco use, particularly of chewing tobacco or hookah, is more accepted. Women patients indicate a prevalence of smoking and smokeless tobacco use across gender and class. • Stigma and impact on livelihoods associated with TB are strong. • Some patients are aware of the link between smoking and TB, but there is relatively no awareness of harms of smokeless tobacco use. 	<ul style="list-style-type: none"> • TB outcomes are primary institutional goal. • Minimal inclusion of Tobacco within national TB policies • Tobacco cessation is not a current priority in any of the national TB programmes. • Tobacco cessation is not currently part of training delivered in any of the three countries. • Limited monitoring and supervision of DOTS facilitators • Limited use of previous intervention materials • TB treatment centres are not seen by patients as somewhere to receive cessation counselling 	<ul style="list-style-type: none"> • Many centres have high numbers of TB patients, leaving little time for individual counselling. • There is usually no quiet, private space for counselling. • DOTS facilitators express willingness to counsel patients, but lack training and incentives to do so, e.g. low pay, multiple duties in addition to DOTS facilitation, high patient load. • Changing personnel, and high patient load means untrained personnel might provide DOTS • No simple guide for DOTS facilitators on counselling patients on TB management • DOTS facilitators may provide information on tobacco cessation if they know it personally, but no routine system or training to do so. • Limited or no recording of TB patient tobacco use or cessation. 	<ul style="list-style-type: none"> • DOTS facilitators can often gauge tobacco use by sight/smell but are not trained in communication skills and struggle with low literacy patients and in building rapport with patients of the opposite sex • Patients and DOTS facilitators lack knowledge of TB and tobacco interaction and techniques for tobacco cessation. • Patients are eager to get better and protect family and friends. • Patients' lifestyle as labourers or industry workers might prevent them from sticking to routines/medications. • Women and younger patients are often unlikely to disclose tobacco use, especially if accompanied by family members.

5 Behavioural Support Intervention and Theoretical Frameworks

5.1 Theory of Change

The steps described above can be understood in light of Wight et al.'s (2016) guidance on intervention development, where multiple data sources can be used to identify potentially 'malleable' problems that could be addressed feasibly within an intervention. In the process of developing the intervention the expected behavioural outcomes for both patients and health workers were clarified, and mechanisms of change, triggered by the intervention activities, that would theoretically lead to these behavioural outcomes were identified. The underlying theory of change for the BS intervention is summarised in Figure 5 below, which again draws on Wight et al.'s framework.

	Malleable problems	Intervention principles	Activities	Mechanisms	Behavioural outcomes	Long-term outcomes
Institutional/facility	TB is priority TB clinics not associated with cessation Limited supervision /recording Lack of HW time Many patients	BS must start with key messages on TB that HW will deliver to all. Advertise cessation counselling to patients Involve NTP managers in BS development and provision of training Advocate for cessation inclusion in routine training Reduced counselling session with patients unmotivated to quit, but with leaflet to motivate to return and set quit date.	2 day training and refresher using role play and scenarios Health worker guide Instructions for health workers on back of flip-book Continuous NTP engagement NTP director as co-applicant in Pakistan Advocate tobacco recording / reporting	HWs practice skills and improve tobacco knowledge and communication: rapport, solicit answers and views, reassure, explain programme Managers support health workers to provide and record tobacco messages within general TB education session for all patients	HWs see tobacco cessation support as an integral part of TB care and deliver on a routine basis Managers and policy-makers include tobacco in policy, regular training, supervision and job roles.	People with TB quit tobacco use Health workers provide support for cessation as routine TB outcomes improve
Interpersonal/ Socio-Cultural	HWs struggle to build rapport with patients Low patient literacy Gender differences Fear of TB/infecting others Unwilling to admit tobacco use SLT the norm	Design training to include soft-skill development Limited use of text in materials Use photos that resonate with both men and women, especially poorest patients TB diagnosis is a 'teachable moment' – link cessation messages to TB. Start by talking about TB, then tobacco once rapport is built. Include SLT in training and patient materials	10 min TB/tobacco counselling using M/F flipbook with follow-up for those motivated to quit Shorter counselling TB/tobacco information for all. All: Leaflet All: Posters in TB clinic advertising cessation services	BCTs in materials: goal setting, action planning, information on health/emotional consequences, habit formation, performing behaviour, social support, avoid behaviour cues, imagining outcomes	Maximise patients' understanding of how to successfully treat their TB Minimise motivation to use tobacco Maximise motivation not to use tobacco Maximising the patients' skills and capacity for self-control	TB infection rates reduce

Figure 5: TB and Tobacco Behaviour Support Intervention Theory of Change

5.2 BS Material Behaviour Change Technique Coding

Through the WP1 research, the following materials were produced to support BS delivery across the three countries:

- BS materials adapted to each country context in the local language, consisting of
 - A women and men's dual-version BS flipbook with general TB and tobacco cessation messages to be used by health workers in providing BS to patients
 - A leaflet to be provided to all patients with evidence-based information on tobacco and TB interaction, tobacco cessation, and support services
 - Two posters advertising tobacco cessation for TB patients to be displayed in the facilities participating in the TB Tobacco trial.
- A training programme for health workers to be incorporated into routine NTP training in the three countries,
- A health worker guide on how to use the BS materials to deliver tobacco cessation support to patients, adapted to the country context in Pakistan and Bangladesh.

As discussed in section 2.1.1, the behavioural support materials were developed in light of the evidence base supporting the use of BCTs within tobacco cessation interventions (West et al., 2010). Following finalisation of materials, the University of Leeds researcher compiled the English prototypes of the BS and training materials into a single document and provided these to two University of Leeds behaviour change researchers trained in BCT coding techniques (UCL Centre for Behaviour Change, 2014). These researchers coded the flip book, leaflet, and poster to identify the BCTs within the materials.

The coders initially coded materials independently, then met to discuss and resolve any discrepancies. The researchers then met with the University of Leeds WP1 researchers to discuss the coded BCTs and it was identified that there might be discrepancies between the various language materials in terms of the wording that could affect the BCT coding. In conjunction with the University of Dusseldorf WP4 researcher, the University of Leeds WP1 researcher then compiled a document highlighting differences between the English prototype and final Bengali, Nepali, and Urdu versions of the flipbook, leaflet, and poster. This was done with reference to both the original language documents and English back translations. The BCTs identified in the materials, along with their coding number from the BCT coding manual, were:

- Goal setting (1.1),
- Reducing negative emotions (1.2),
- Action planning (1.4),
- Prompting social support (3.1, 3.2, 3.3),
- Instructions on performing behaviours (4.1),
- Information on health and emotional consequences (5.1, 5.6),
- Habit formation (8.3),
- Comparative imagining of future outcomes (9.3),
- Reducing negative emotions (11.2),
- Reducing exposure to cues for behaviour (12.3)

6 Research Learning

One of the main learnings from undertaking WP1 research relates to the involvement of all stakeholders in research process. The stakeholder groups identified in WP1 research were TB patients and tobacco users, NTP managers, health workers and the national research teams. Involving all stake-holders throughout the development process, allowed for early detection of issues at multiple levels of the social system, health system, institution, facility, and individual, which shaped the development of BS materials and method. It also allowed for more ownership by those involved in the process, facilitating uptake of the BS training by the NTPs in each country.

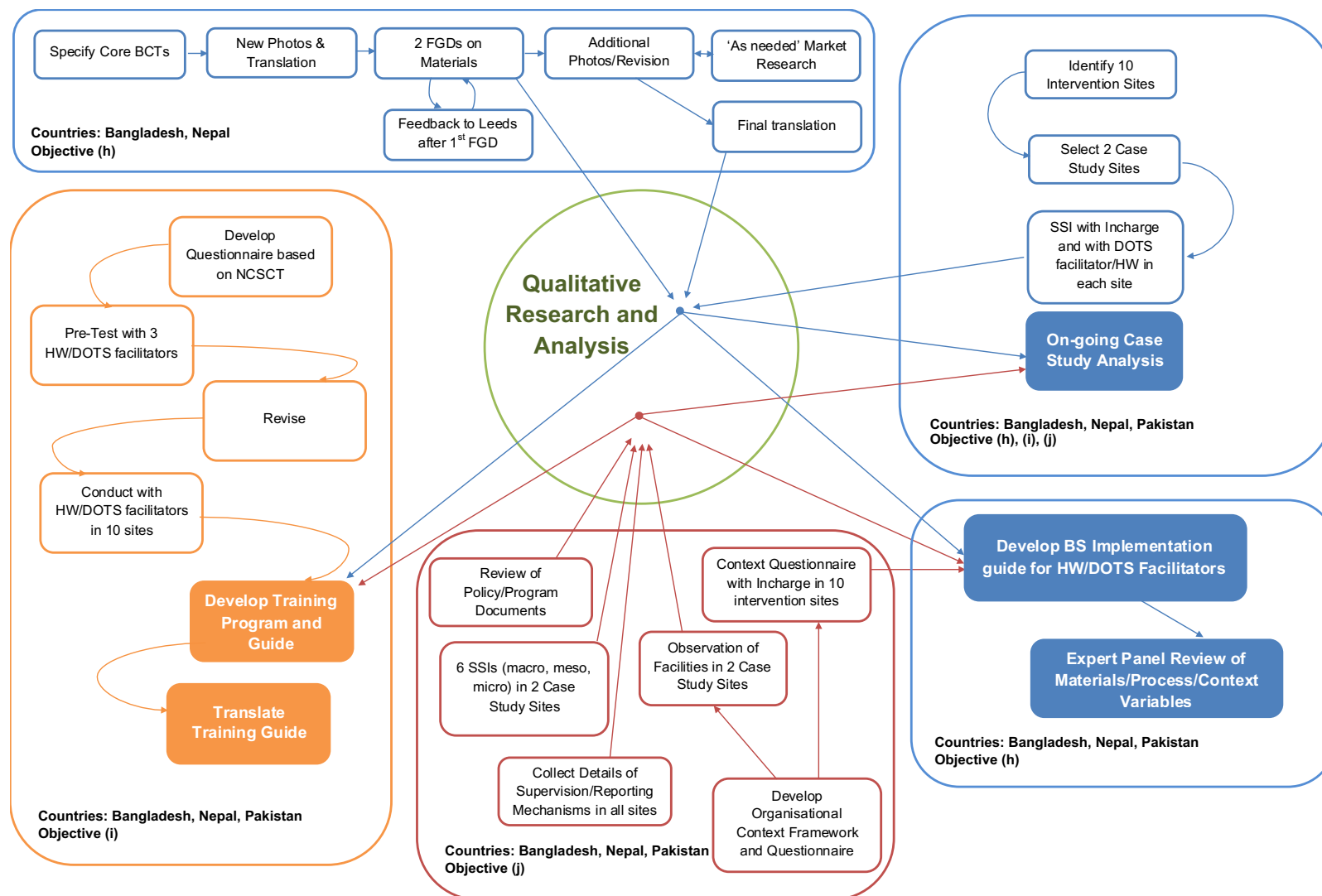
Involving all stakeholders also required considering the various tensions and relationships across these levels and how to manage them, echoing other research on how public health interventions can be understood as social processes that work through complex social dynamics, which in turn affect research and findings (Bonell, 2002, Oakley et al., 2006, Rod et al., 2014). An example of managing such tensions was the development of the men and women's dual version flipbooks. NTP staff in all countries were initially reluctant to develop the two versions, grounded in their orientation toward and belief about illiterate patients' social attitudes. Central NTP staff and policy makers presented social stigma against women's tobacco use as an impediment to developing BS materials acceptable to patients. Building on findings in the preliminary stages of research, it was decided to move forward with prototyping the two versions. Eventually, subsequent positive feedback from FGDs, where women participants were encouraged by the photos of women using tobacco and indicated it helped them to relate to the intervention, convinced stakeholders of the utility of the dual-version flipbooks.

Another learning from research was the need to ensure adequate time for qualitative research. Involving all stakeholders in the research process is time-intensive. While beneficial for research design, it did mean a truncating of time for undertaking the data collection and analysis, as mentioned in section 2.2.2 above. The credit in executing the research lies in the efforts of national research teams who invested more heavily in time to undertake the data collection and analysis with limited research personnel. One effect of the diminished time-frame for research was that instead of an iterative process of data collection and analysis, data collection was undertaken in bulk and analysed retrospectively. While this does not affect the validity of the data collected or analysed, it does affect the depth of inquiry possible, and subsequently the ability to answer broader questions more effectively. In undertaking future research, it will be important to ensure sufficient time is available to adequately undertake such qualitative research.

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Appendix 1: WP1 Flow Chart



Appendix 2: EGM 1 Results: Comparative Ranking of BS Messages

1st  2nd  3rd  4th  5th  Ranked bottom (last 2) 

	Key Message	Specific message and actions	Bangladesh		Pakistan		Nepal		Relevant Participant Comments
			Votes/ 108	Ranki ng	Votes/ 72	Ranki ng	Votes/ 84	Ranki ng	
1	What do you use?	Identify whether the client uses cigarettes, chewing tobacco, hookah or other form of smokeless tobacco	108	1 st joint	71	2 nd joint	74	1 st	Patients might not be forthcoming, so will need to ask this after establishing some kind of rapport (Nepal)
2	Harmful ingredients	Explain the harmful chemicals contained in cigarettes, chewing tobacco and water pipe.	40	8 th	72	1 st	35	14 th	Patients do not need to know about names of chemicals, but the harmful health effects (Bangladesh) Not relevant to patient to know what each chemical does to the body (Nepal) Need to talk at patient's level (Nepal)
3	Health effects	Using tobacco reduces your chances of recovery from TB.	90	5 th	71	2 nd joint	70	2 nd	Need evidence/references (Bangladesh)
		Even if you are cured now, continuing smoking increases your chances of a TB relapse.	95	4 th	71	2 nd joint	62	7 TH Joint	This might scare patients (Nepal) Instead of "chance", we should use "risk" (Bangladesh)
		In the long term, using any form of tobacco can increase your chances of heart disease and cancers.	108	1 st joint	71	2 nd joint	61	8 th	This might not be graspable by less educated patients (Nepal) Instead of "chance", we should use "risk" (Bangladesh)
		Impacts on the health of those around you – if your family are exposed to your smoke in the home this can make it more likely that they are infected with TB and other diseases, quitting tobacco use will protect your family.	108	1 st joint	71	2 nd joint	69	3 rd	This might change smoking habits at home, but not lead to quitting (Nepal) Need evidence/references (Bangladesh)

4	Benefits of quitting	In the short term quitting tobacco can help you to recover from your TB.	72	7th joint	71	2nd joint	0	17 th	<p>“This is false” (Nepal)</p> <p>Scepticism whether this will be meaningful for patients (Nepal)</p> <p>Need evidence/references (Bangladesh)</p> <p>Exclude “short term” as this creates confusion (Bangladesh)</p>
		It can save you money, and this means more money to buy healthy foods to improve your nutrition which will help you recover from your TB	108	1st joint	71	2nd joint	67	5 th	Scepticism, “food costs more than cigarettes” (Nepal)
		In the medium term, once you are cured of TB, quitting tobacco will help to reduce your chances of getting it again. Smoking cigarettes and Hookah also causes other diseases of the lungs such as COPD and cancer.	108	1st joint	71	2nd joint	66	6 th	Need to do away with “medium term” as it is confusing (Nepal)
		In the long run, quitting tobacco reduces you chances of getting heart disease and cancer, meaning that you can live a healthy, active and productive life for your family.	108	1 st Joint	71	2nd joint	68	4 th	Important, but patients will not believe this (Nepal)
5	Misconceptions/ myths	Identify and challenge any myths the patient may have about tobacco. E.g. that using smokeless tobacco is a good way to help you quit; explain that it can lead to heart disease and cancers.	30	9th	69	3rd	57	9 th Joint	It will be important to explain the link between smokeless tobacco and TB from a patients perspective (Pakistan)
6	Importance to quit scale	Ask the patient on a scale of 1 – 4, if 1 is not important at all to quit, and 4 is very important to quit, what score they would give themselves. If the score is low, ask what would take them to a higher score and change emphasis of advice if level is low (2 or less) and focus more on beliefs, knowledge of harm and consequences rather than continuing towards setting a quit date.	9	11th	56	10th	46	14 th	<p>This is too complex, not readily understandable by patients, and will be difficult for DOTS facilitators to explain (Bangladesh)</p> <p>This will be too time consuming and too difficult for patients to understand (Nepal)</p> <p>Illiteracy rates can affect patients’ comprehension of this (Pakistan)</p>

7	Pros and cons of continuing tobacco use	<p>Possible advantages of continuing to smoke: satisfy craving, stress relief, relief from indigestion, mood elevation etc. Inform client that these are not real advantages these are only symptoms of relieving their nicotine dependence. Getting rid of this dependence will automatically provide them relief.</p> <p>Possible disadvantages of quitting smoking: withdrawal symptoms, social isolation. Remind them of the harms of second hand smoke and how this increases the chance of spreading TB, as well as other respiratory conditions.</p>	105	3rd	62	7th	51	13 th Joint	This can be merged with misconceptions/myths (Bangladesh)
8	Triggers and coping strategies	<p>Identify general barriers (e.g. susceptibility to stress) that might make it harder to stay off tobacco and help them to suggest ways of coping with these.</p> <p>They may be reducing their social interactions because of their TB, so this can be a good time to quit as they won't be tempted by friends who smoke.</p>	72	7th	60	8th	53	10 th Joint	<p>This is useful (Nepal)</p> <p>Suggestions for coping strategies should come from patients (Pakistan)</p>
9	Planning and preparation	<p>Explain to the patient that if you set a date to quit and decide never to have a single puff again then you are more likely to succeed in quitting. Get commitment from the client about the not a puff rule.</p> <p>Ask the patient to identify friends and family who can help them and to agree to no tobacco in the home.</p>	0	12th	51	12th	34	15th	<p>Scale is too difficult to explain to patients for DOTS facilitators, and "oath" can't be taken. This may scare patients from coming back to the DOTS centre (Bangladesh)</p> <p>Will be too time consuming to conduct and too difficult for patients to accept; they might rather "quit the medication than the cigarettes" This will be too time consuming (Nepal)</p> <p>Should be rephrased as asking patients to commit might feel like forcing them to make a decision (Pakistan)</p>

10	Environmental restructuring	Check if they grow tobacco at home and if so discuss growing vegetables instead to help nutrition (depending on physical health of patients/carer)	29	10th	15	14th	7	16th	<p>Most people live in rented rooms. It might make sense if there were some financial incentive, otherwise it is not relevant (Nepal)</p> <p>It's only applicable to areas where tobacco is grown, otherwise it's not relevant (Bangladesh)</p> <p>This is not suitable for individual counselling (Pakistan)</p>
11	Readiness to quit	Ask the patient to give themselves a score on a scale of 1 – 4, if 1 is you are not ready to quit yet, and 4 is you are very ready to quit as soon as possible. If their score is low, ask what they think would help them reach a higher score?	0	12th	59	9th	52	11th	<p>Patients might exhibit willingness in front of a health worker but will not put it into practice (Nepal)</p> <p>This will be too difficult for DOTS facilitators to explain and for patients to understand (Bangladesh)</p> <p>Reservations against having patients make a commitment (Pakistan)</p>
		Change emphasis of advice if the importance level is low (2 or less) and focus more on beliefs, knowledge of harm and consequences particularly in relation to their TB. Ask the person to use an "I will" statement to affirm or reaffirm a strong commitment e.g. ask them to say "I will stop using tobacco"	0	12th	53	11th	62	7 th Joint	
12	Withdrawal symptoms	General reassurance to the smoker that their experiences are normal (e.g. withdrawal symptoms) and time limited, and provide positive expectations of success. Explain what symptoms to experience and ask the patient to go through the coping strategies they will use. Emphasise that they shouldn't start chewing as this leads to cancers and heart disease.	106	2nd	63	6th	51	13 th Joint	<p>This might scare patients and lead them not to quit (Nepal)</p>
13	Addressing patients expectation of cessation medication	We know it is difficult to quit as tobacco is so addictive, and that's why it can be helpful to have a medicine. While the medicine is helpful, you may still find it hard to get over this addiction, so remember your triggers and coping strategies,	108	1 st joint	40	13th	57	9 th Joint	<p>Important to explain this (Bangladesh)</p> <p>Only dosing instructions should be included and it should not be mentioned that it will be difficult to quit and effort will be needed to overcome addiction (Pakistan)</p>

		and always stick to the not a puff rule. Explain the dosing for cytisine and how this fits with TB treatment.							
14	Building rapport	Reassure that anyone can catch TB, tobacco users and non-users; that quitting tobacco use is another thing they can do to help themselves get better, just like taking their TB drugs and eating and living healthily; that being open and talking about their tobacco use is the first step in being able to quit.	108	1 st joint	66	4th	53	10 th Joint	Need to delete the first part that anyone can catch TB as it decreases the importance of the rest of the message (Bangladesh)
15	Use of CO	Explanation of the breathalyser and what it shows	75	6th	64	5th	62	7 TH Joint	

Appendix 3: Thematic Codes for Round 1 of NVivo Coding

Thematic Codes for BS Materials

Flipbook (Example)

Code	Description
F-1.1	Slide 1 – Positive Reaction
F-1.2	Slide 1 – Negative Reaction
F-1.3	Slide 1 – Suggestion
F-2.1	Slide 2 – Positive Reaction
F-2.2	Slide 2 – Negative Reaction
F-2.3	Slide 2 – Suggestion
F-3a.1	Slide 3a – Positive Reaction
F-3a.2	Slide 3a – Negative Reaction
F-3a.3	Slide 3a – Suggestion
F-3a.4	Slide 3a – Preferred Option
F-3b.1	Slide 3b – Positive Reaction
F-3b.2	Slide 3b – Negative Reaction
F-3b.3	Slide 3b – Suggestion
F-3b.4	Slide 3b – Preferred Option

Leaflet

Code	Description
L-1.1a	Front Page – Positive Comments
L-1.1b	Front Page – Negative Comments
L-1.2	Front Page – Suggestions
L-2.1a	Harmful Ingredients – Positive Comments
L-2.1b	Harmful Ingredients – Negative Comments
L-2.2	Harmful Ingredients – Suggestions
L-3.1a	What is TB – Positive Comments
L-3.1b	What is TB – Negative Comments
L-3.2	What is TB – Suggestions
L-4.1a	Side Effects – Positive Comments
L-4.1b	Side Effects – Negative Comments
L-4.2	Side Effects – Suggestions
L-5.1a	Withdrawal Symptoms – Positive Comments
L-5.1b	Withdrawal Symptoms – Negative Comments
L-5.2	Withdrawal Symptoms – Suggestions
L-6.1a	Back Panel – Positive Comments
L-6.1b	Back Panel – Negative Comments
L-6.2	Back Panel – Suggestions
L-7.1a	General Positive Comments
L-7.1b	General Negative Comments
L-7.2	General Suggestions

Poster

Code	Description
P-1.1a	Poster Positive Comments
P-1.1b	Poster Negative Comments
P-1.2	Poster Suggestions

Thematic Codes for Training Materials

Codes	Description
Health Workers/DOTS Facilitators/DOTS Provider	
H-1	Capacity
H-2	Motivation
H-3	TB/Tobacco Knowledge (anything they know or don't know)
H-4	Current Training Available
H-5	Training Needs/Suggestions
Intervention Context	
C-1	TB Patient Pathway
C-2	Context – Challenges to Tobacco Cessation
C-3	Context – Opportunities to Tobacco Cessation
C-4	Myths (both about TB or Tobacco)
C-5	Stigma (TB)
C-6	Social Perceptions of Tobacco
C-7	Tobacco Use in Facilities
C-8	Resources available to Health Workers
C-9	Health Worker and Patient Communication
Patients	
T-1	TB/Tobacco Understanding/Knowledge (Anything they do or don't know)
T-2	Patient Tobacco Use
T-3	Patient Motivation for Tobacco Cessation
T-4	Patient Barriers to Tobacco Cessation
Emerging Themes	
E-1	Save these in Emerging Themes folder. Label as E-1, E-2, etc. Once discussed with Leeds, they can be moved/added to other folders.

Appendix 4: Adapted NCSCT Questionnaire (English Prototype)

**** Questionnaire for Health Professionals/DOTS facilitators to assess Motivation, Capability, Opportunity for Cessation****

Respondent ID: PK_____

Course Location: _____

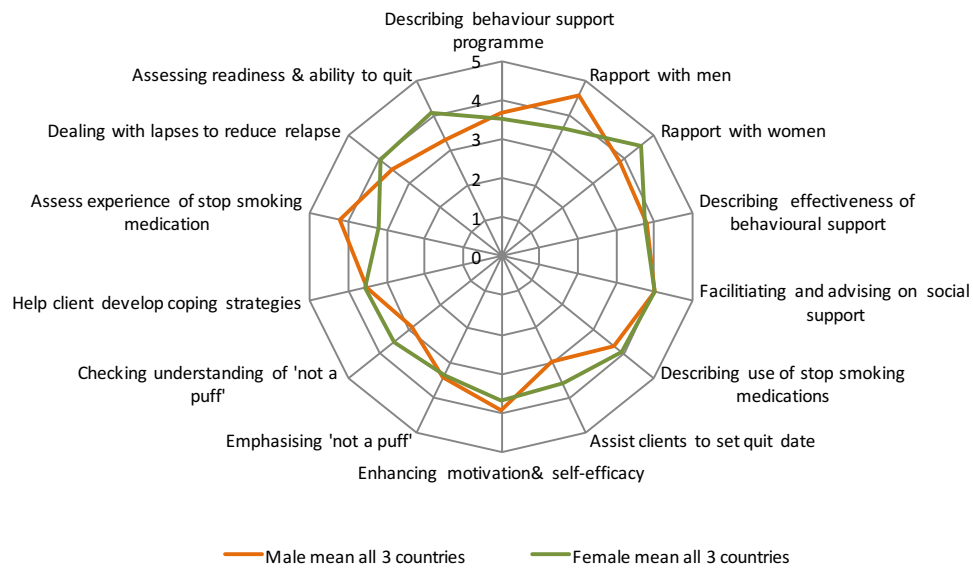
In order to help us evaluate the effectiveness of this training course we would be grateful if you could complete this short questionnaire. For each of the following statements, on the scale from 1 'not confident' to 5 'highly confident', please circle the number that corresponds with how confident you feel. Your responses will be treated as confidential.

How confident are you in doing each of the following?	Not confident		Moderately confident		Highly confident
1. Describing what to expect from the treatment programme, including length, content and what it requires	1	2	3	4	5
2. Building rapport and asking male patients about tobacco use.	1	2	3	4	5
3. Building rapport and asking female patients about tobacco use.	1	2	3	4	5
4. Describing the principles and effectiveness of typical behavioural support	1	2	3	4	5
5. Facilitating and advising on use of social support (from friends, relatives, colleagues or 'buddies')	1	2	3	4	5
6. Describing the stop smoking medications that can support a quit attempt	1	2	3	4	5
7. Assisting clients to set a quit date	1	2	3	4	5
8. Enhancing clients' motivation and self-efficacy	1	2	3	4	5
9. Emphasising the importance of the 'not a puff' rule	1	2	3	4	5
10. Securing commitment to the 'not a puff' rule following the quit date	1	2	3	4	5
11. Helping clients to develop strategies to cope with barriers, cues to smoke and relapse triggers	1	2	3	4	5
12. Assessing clients' experience of stop smoking medications, including usage, side effects and perceived benefits	1	2	3	4	5
13. Dealing with lapses to minimise the likelihood that they will lead to full 'relapse'	1	2	3	4	5
14. Assessing commitment, readiness and ability to quit	1	2	3	4	5

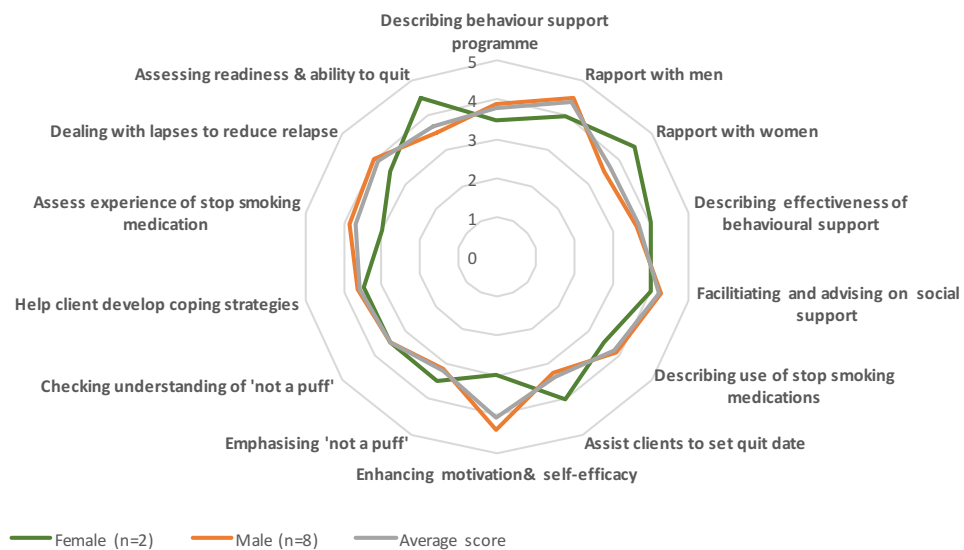
Please check that you have answered **all** of the questions. Thank you for completing this questionnaire. Please return it to the trainers.

Appendix 5: Adapted NCSCT Questionnaire Results

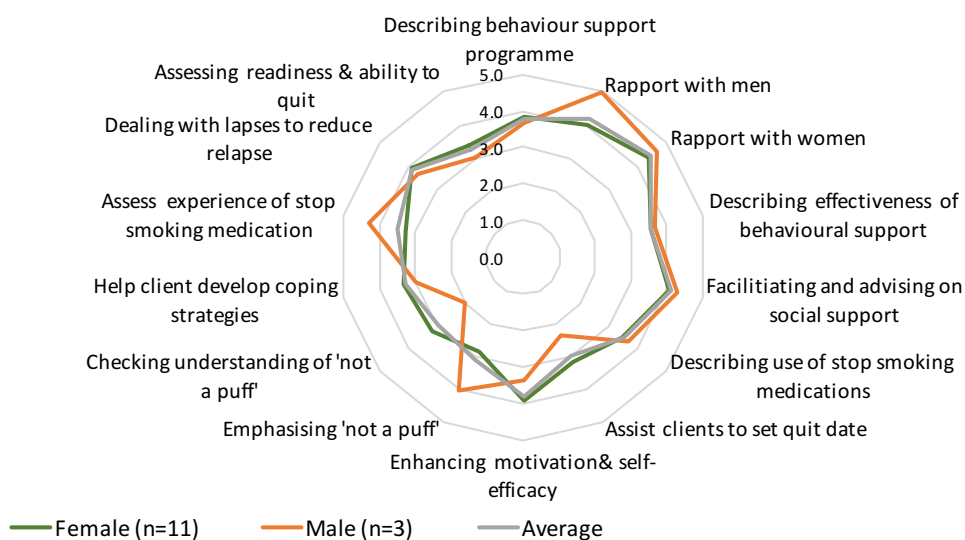
Health Worker Confidence to Provide Tobacco Cessation (Aggregated Country Results)



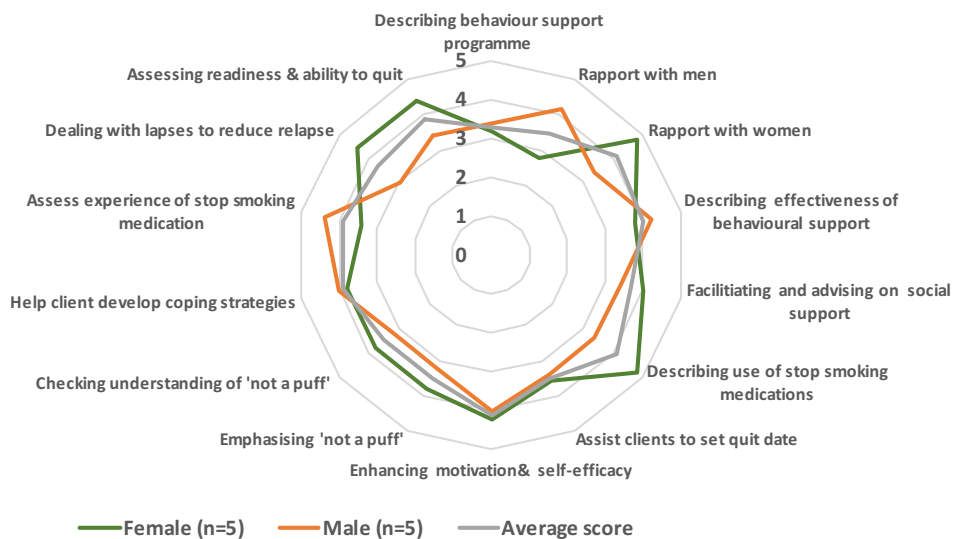
Health Worker Confidence to Provide Tobacco Cessation (Bangladesh)



Health Worker Confidence to Provide Tobacco Cessation (Nepal)



Health Worker Confidence to Provide Tobacco Cessation (Pakistan)



Appendix 6: Training Programme

Training Programme for DOTS facilitators to deliver TB&Tobacco Behaviour Support Intervention

2 day training October 2016

Participants: All those delivering DOTS in the trial sites (n=?) and Researchers (approx. 10) to sit in.

Learning Outcomes:

By the end of the two day training, the DOTS facilitators from the trial sites will be competent, confident and motivated to deliver the TB&Tobacco behaviour support intervention, in particular, participants will:

1. Understand the purpose and processes of the TB&Tobacco cytisine trial.
2. Understand the interactions between TB and tobacco
3. Agree the most appropriate process (patient-flow) for TB patients to receive the BS intervention in the context of their own facility.
4. Feel confident to build rapport with people with TB (both male and female) to effectively deliver the BS intervention, including identifying tobacco users.
5. Have the knowledge and skill to support people with TB to maximise their chances of recovering from TB and stopping tobacco use.
6. Recommend actions across the health system to support the BS intervention (recording/reporting, monitoring/supervision, refresher training).

Materials needed:

- name badges,
- projector, computer/powerpoint,
- masking tape/blu-tak,
- flip chart paper,
- pens,
- 2 copies of COM-B questionnaire per participant (pre and post training),
- 4 packs of post-it notes for feedback
- Role play cards
- ID numbers for COM-B

Note takers: 2 (or more if possible) researchers to record the points from the main discussions and then to visit groups during group work to note down any key points from group discussions. NB if appropriate, and participants agree, we can record the training and transcribe.

Facilitators: at least 2

Day One

9:00 – 9:30 (Powerpoint slides 1 and 2)

- Introductions
- Fill in COM-B questionnaire (*NB – ID numbers! – we need to be able to match the questionnaire to those already done and those that will be done later in the trial*)
- Present objectives of the training and an ice breaker
- Ground rules: no such thing as a silly question, confidentiality, supportive feedback, any others they want to add.
- Concept of 'training a trainer'

9.30 – 10:15 TB and Tobacco: Evidence and current practice

- Overview of the evidence on TB/Tobacco interactions (Powerpoint slides 3-12) (25 mins)
- Discussion of current practice and confidence to provide BS for good TB management including tobacco cessation (e.g. current knowledge, training, BS, recording/reporting, supervision) (10 mins discussions and then quick feedback, i.e ask for one point per group, note any major differences between facilities) (Powerpoint slide 13)

10:15– 10:45 The Trial

- Present the trial and how the BS intervention fits, and cytisine (Trial coordinator) (Powerpoint slide 14) Keep this short and simple.

10:45 –11:00 Break

11:00 –12:30 The Behaviour Support intervention:

- Present the patient flow diagram, materials (flipbook, leaflet and posters) (presentation: 15mins) (Powerpoint slides: 15 – 23)
 - Group work (Powerpoint slide 24) to identify the context of each facility and adapt the patient - flow for that context. Get into groups by facility (2 or more DOTS facilitators from each facility). Draw the current patient-flow route for people newly diagnosed with TB (e.g. step 1: see in-charge for diagnosis in consultation room for 2 mins, 2: go to DOTS facilitator to discuss medicines for 5 mins in corner of waiting room, etc). Encourage as much detail as possible.
 - Ask them to discuss who, when, where and how the BS intervention would best be delivered in their own facility. Each group draws the patient flow on a flip chart and then stick this up on the wall (45 mins)
- Gallery walk (30 mins) first 15 mins, half the groups stand by their flipchart and the other half walk around and comment/discuss as 'critical friends'. Swap over for the second 15 mins, so other half stand beside flip charts while the others do the gallery walk commenting/discussing as critical friends.

12:30 –13:30	Lunch
13:30 – 15:00	<p>Building rapport with the patient</p> <p>(Powerpoint slide 25) Mix participants so they get a chance to work with others not in their own facility, and divide into 3 groups.</p> <p>Ask each group to get one of the patient flow flip chart from the wall. Each group should consider and discuss how they think the patient will be feeling at each point of the patient route on their flipchart. (15 mins)</p> <p>Each group then develops a short 5 minute role-play to present to all participants, based on a scenario given by the moderators. The group can have the option to think of presenting a good way or poor way of building rapport with the patient. (20 mins)</p> <p>Present the 3 role plays to others (20 mins)</p> <p>Moderate a group discussion on the scenarios, getting input from all on key points including facility/structural barriers to building rapport (e.g. desk behind screen/loudspeaker, other patients in ear-shot etc), phrases/expressions that could help build rapport with different types of patients (e.g. illiterate, male/female)(35 mins)</p> <p>At the end of the group discussion, you can show them Powerpoint slide 26 which gives some tips on being an 'active-listener'. These tips are also in the Health Worker Guide.</p>
15:00 –15:20	Break
15:20 – 16:50	<p>Slides on TB and Tobacco messages (Cover and pages 1-8) Presentation</p> <p>For each page of the flip book use the powerpoint slide 27-54 or the flipbook itself to explain the picture and text. Go through the powerpoint slide that covers the important things to remember with each slide. For each slide explain the evidence behind it and the behaviour change technique that we are using, these are included in the 'important things about this page' slide. Discussion</p>
16:50 – 17:00	<p>Feedback</p> <p>Put two flip charts up, one says 'Things I liked or learnt' and the other says 'Things I would like to be clarified or improved' (NB prepare these before hand in a break)</p> <p>Hand out two post-it/sticky notes to each participant. Ask them to write something they liked/learned on one, and something to be improved/clarified on the other. Then they stick on the appropriate flip chart. Facilitators review for day two. Note-takers keep and type up.</p>

Day Two

9:00 – 10:00	<p>Refresh on key messages from yesterday, reiterate evidence behind messages, and go over any points of clarification from post-its from yesterday.</p> <p>Knowledge quiz on TB and Tobacco</p>
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10:00 – 10:45	<p>TB Messages Role Play: All participants will be given a ‘patient role’ on a piece of paper. They will practice delivering the first five slides in pairs, with one person acting as a patient and the other as the DOTS facilitator (10 min)</p> <p>Moderator will indicate time is up and the ‘patient’ will give feedback on how it felt and what could be improved (5 min)</p> <p>The pair will then switch roles so the other person has a chance to deliver the messages (10 min)</p> <p>Moderator will indicate time is up and the ‘patient’ will give feedback on how it felt and what could be improved (5 min)</p> <p>Each pair will be given a paper to write reflections/observations on using the flipbook and delivering the messages. (15 min)</p>
10:45 – 11:00 Break	
11:00 – 11:30	<p>Plenary: discussion on how to improve delivery, identify useful phrases to use. Moderators will take notes on good examples, suggestions, etc.</p>
11:30 – 12:00	<p>Tobacco slides Role play</p> <p>All participants will switch partners, keeping their ‘patient role’ paper with them. They will practice delivering the last three slides, with one person acting as a patient and the other as the DOTS facilitator (5 min)</p> <p>Moderator will indicate time is up and the ‘patient’ will give feedback on how it felt and what could be improved (5 min)</p> <p>The pair will then switch roles so the other person has a chance to deliver the messages (5 min)</p> <p>Moderator will indicate time is up and the ‘patient’ will give feedback on how it felt and what could be improved (5 min)</p> <p>Each pair will be given a paper to write reflections/observations on using the flipbook and delivering the messages. (10 min)</p>
12:00 – 12:30	<p>Plenary: discussion on how to improve delivery, identify useful phrases to use. Moderators will take notes on good examples, suggestions, etc.</p>
12:30 – 13:30 Lunch	
13:30 – 14:15	<p>Role play of all slides: All participants will switch partners, keeping their ‘patient role’ paper with them. They will practice delivering all the slides, with one person acting as a patient and the other as the DOTS facilitator (10 min)</p> <p>Moderator will indicate time is up and the ‘patient’ will give feedback on how it felt and what could be improved (5 min)</p>

	<p>The pair will then switch roles so the other person has a chance to deliver the messages (10 min)</p> <p>Moderator will indicate time is up and the 'patient' will give feedback on how it felt and what could be improved (5 min)</p> <p>Each pair will be given a paper to write reflections/observations on using the flipbook and delivering the messages. (15 min)</p>
14:15 – 15:00	<p>Plenary: discussion on how to improve delivery, identify useful phrases to use. Moderators will take notes on good examples, suggestions, etc.</p> <p>Remind participants about being an 'active-listener', go back to slide 25 if needed.</p>
15.00 – 15:15	Break
15:15 – 15:45	<p>Second Role play of all slides: Explain that this last round is for participants to incorporate the discussion from the last three plenaries and there will be no discussion after this round.</p> <p>All participants will switch partners, keeping their 'patient role' paper with them. They will practice delivering the all slides, with one person acting as a patient and the other as the DOTS facilitator (10 min)</p> <p>Moderator will indicate time is up and the 'patient' will give feedback on how it felt and what could be improved (5 min)</p> <p>The pair will then switch roles so the other person has a chance to deliver the messages (10 min)</p> <p>Moderator will indicate time is up and the 'patient' will give feedback on how it felt and what could be improved (5 min)</p>
15:45 – 16:50	<p>Review and Planning: Run through algorithm again, discuss any other practical constraints to overcome and come up with solutions (make sure these are documented).</p> <p>Clarify/revisit routine procedures for recording and reporting tobacco use and cessation support</p> <p>Identify the role of district/central officers in supporting the delivery of cessation behaviour support</p> <p>Identify how best we can support future/continued training e.g. best medium on-line videos, apps, refresher training.</p>
16:50-17:00	Repeat feedback exercise from day one with the two flip charts ('Things I liked or learnt' and 'Things I would like to be clarified or improved') , but asking to reflect on the whole workshop.

Appendix 7: Role-Play Scenarios on Rapport Building

Building Rapport Scenarios [Day 1 of Training]

Give each of the three groups a scenario from below. They will need to prepare a short (5 min) sketch on the scenario. They can choose to show a DOTS facilitator building good rapport or not building good rapport.

Scenario 1 (Shy/Quiet Patient)

The patient is a single, young man. He is silent and only answers questions with a 'yes' or 'no'. He feels that his life is over, that everyone will abandon him and that he will die alone. He doesn't know what to do and is planning to go to his village far away so that his family and friends do not get infected. He smells of cigarettes, but when asked if he smokes, he says "No, I don't do anything unhealthy like that."

Scenario 2 (Aggressive Attendant with Patient)

The woman patient comes with her husband. The husband is very aggressive and irritable. The wife is listening, but keeps quiet. The husband keeps saying "Are you listening to the doctor? Please tell her doctor, she is so stupid she doesn't listen to me. This is why she is sick!" Slowly, the husband starts to get irritated with the DOTS facilitator and shout at him/her also.

Scenario 3 (Worried and Talkative Patient)

An older woman comes in and is very worried about the diagnosis, but is trying to comfort herself by turning to religion and folk knowledge. She keeps talking over the DOTS facilitator and saying "I know many people with TB – only God can cure me if it is written for me." When the DOTS facilitator tries to talk about harms of tobacco, she says that she doesn't believe it because they also said she can eat anything, but her nephew could not eat any beef or milk. She says that hookah is her only relaxation and gets angry and wants to leave

Patient Roles for Roleplays [Given on Day 2]

Sex	Age	Description
M	36	Over confident that he knows everything about TB and keeps talking over DOTS facilitator. Doesn't think tobacco use is so serious. Agrees to quit date with difficulty
F	73	Illiterate woman who thinks that she is ready to die and it is the will of God. Doesn't talk very much and paan is only thing that makes her happy. Starts crying whenever she thinks about her diagnosis.
M	47	Man who is scared of dying and so readily admits to smoking three cigarettes a day, but is convinced he cannot eat any milk or beef and is not willing to accept that he can interact with his family/friends without infecting them.
F	19	Very quiet girl who has come with her parents and only wants them to talk. When asked about smoking she looks at her parents, but doesn't want to say she smokes.
M	26	College student who doesn't use tobacco, but wants to ask for more details about every point and keeps interrupting DOTS facilitator.
F	56	Teacher who is very depressed after getting diagnosis and not feeling like she wants to talk. In the beginning, just answering with yes/no. Takes some time to become comfortable
M	23	Illiterate young man with a lot of stigma toward TB. He can't believe he has TB and thinks that his life is over.
F	58	Illiterate and has helped her daughter and mother in law recover from TB. Understands that tobacco use is bad and keeps trying to show the DOTS facilitator that she already knows everything by talking over him/her.
M	70	Angry old man who comes with his son. He is angry that he went to the doctor and says that only God will save him. He doesn't want to listen to the tobacco messages but it is clear that he smokes hookah.
F	42	Illiterate mother of three. She is very worried about her children and if they will get TB and if she can be around them or give them food. She says that she doesn't use tobacco, but she uses paan and doesn't understand that it has tobacco that is harmful.
M	50	A local shop owner who sells tobacco. He doesn't smoke regularly, but sometimes he does if he is drinking with some friends. It is clear that he is a little drunk when he comes - he was drinking to forget his diagnosis - but he doesn't want to admit in front of other patients that he drinks or occasionally smokes.
F	41	Very shy, illiterate lady who comes with her husband. She keeps saying "he can tell you" to the DOTS facilitator.
M	44	School teacher whose mother died of TB. He is convinced that he can only eat lentils and rice and has to stay in the village until he gets better.
F	67	Illiterate lady who drinks and smokes hookah and is not afraid to admit it. She says that 'everyone has to die one day, so I should at least enjoy life while I have it!'
M	58	Illiterate man who drinks and smokes hookah and is not afraid to admit it. He says that 'everyone has to die one day, so I should at least enjoy life while I have it!'
F	38	School teacher whose mother had died of TB. She is convinced that he can only eat lentils and rice and has to stay in the village until he gets better.
M	34	Illiterate and has helped his uncle recover from TB. Understands that tobacco use is bad and keeps trying to show the DOTS facilitator that he already knows everything by talking over him/her.
F	78	Old woman who keeps interrupting to tell the DOTS facilitator she cannot read so maybe she won't understand the messages. She is worried she won't remember anything.
M	50	Rickshaw driver who is very depressed after getting diagnosis and not feeling like he wants to talk. In the beginning, just answering with yes/no. Takes some time to become comfortable
F	27	College student who doesn't use tobacco, but wants to ask for more details about every point and keeps interrupting the DOTS facilitator.
M	49	An illiterate man who says he only smokes sometimes, but not regularly. He listens and answers all questions.
F	75	An illiterate woman who says she only uses paan sometimes, but not regularly. She listens and answers all questions.
M	18	Young illiterate boy who comes with his parents. He is so afraid and starts crying that he can't talk. He needs to be calmed down before he starts to listen to the DOTS facilitator.

Appendix 8: Training Slides (English Prototype)

TB & Tobacco

Training Programme

 TB & Tobacco

Welcome!

By the end of the two days, you will:

1. Understand the purpose and processes of the TB & Tobacco systems trial.
2. Understand the interactions between TB and tobacco.
3. Agree the most appropriate process (patient flow) for TB patients to receive support to quit tobacco in your own health facility.
4. Feel confident to build rapport with people with TB, whatever their age, gender, level of literacy and to identifying tobacco users and effectively deliver the behaviour support (BS).
5. Have the knowledge and skill to support people with TB to maximise their chances of recovering from TB and stopping tobacco use.
6. Recommend actions across the health system to support the BS intervention.

Tobacco: Global Facts

- Globally, 25% of TB disease can be attributed to tobacco use.
- The number of daily smokers increased from 723 million in 1980 to 863 million in 2012
- Over the next 25 years, total cigarette consumption will rise by 100% in low-income countries.
- Tobacco use is highest amongst the poorest

Half of all long-term smokers die early from smoking-related diseases, including heart disease, TB, lung cancer and chronic bronchitis, that's 4.8 million deaths each year.

Images from Flipbook: Assorted, locally available tobacco products

How Tobacco Use Interacts with TB



What We Know About Quitting Tobacco

Why Is It So Hard To Quit?

Images from Flipbook: Marc Newman with headache, surrounded by individual images of a variety of tobacco products



Why Is It So Hard To Quit?

- Cigarettes contain nicotine, which is highly addictive.
- Even if you want to quit smoking, you may find it difficult because you're addicted to the effects of nicotine.
- Nicotine alters the balance of two chemicals, called dopamine and noradrenaline, in your brain. This can lead to immediate feelings of relaxation.
- But, the more you smoke, the more your brain becomes used to the nicotine. This means you have to smoke more to get the same effect.
- When you stop smoking, the loss of nicotine changes the levels of dopamine and noradrenaline. This can make you feel anxious, depressed and irritable. Once you get over the withdrawal symptoms, stopping smoking actually makes people feel less stressed and anxious.
- It's normal to crave nicotine when you quit, as smoking provides an immediate fix to these unpleasant feelings.

What Works?

- **Medicines:** e.g. Nicotine Replacement Therapy (NRT), tobacco users were 58% more likely to quit than with placebo or no treatment - e.g. anti-depressants (bupropion) tobacco users are 69% more likely to quit than placebo or other drug.
- **Behaviour support (BS):** individual counselling, tobacco users are 30% more likely to quit. In Pakistan, a study found that 43% of patients with suspected TB were able to quit tobacco when followed up 6 months after the BS.
- **Try on your own:** Only about 5% of unaided quit attempts result in smokers giving up for good – it's much more effective to get help.

Things People Say Instead of Quitting

"The damage is already done!"

In fact... Studies show lung capacity improves by up to 10% within 9 months, so people breathe more easily and cough less when they give up smoking.

Within 2 to 12 weeks of stopping smoking, blood circulation improves. This makes all physical activity, including walking and running, much easier.

11

Things People Say Instead of Quitting

"I have to keep smoking to stop me feeling stressed"

In fact... studies show people's stress levels are lower after they stop smoking – once they get beyond withdrawal symptoms.

"Smoking makes me look cool and attractive to the opposite sex"

In fact... studies have found that non-smokers are three times more appealing to prospective partners than smokers.

Stopping smoking has been found to slow facial ageing and delay the appearance of wrinkles.

Non-smokers find it easier to get pregnant. Quitting smoking improves the living of the world and can make men's sperm more potent.

12

The Benefits of Quitting

Scientific studies show:

One year after stopping, the risk of a heart attack falls to about half that of a smoker. Within 15 years the risk falls to a level similar to that of a person who has never smoked.

If smokers quit before the age of 30 they can avoid almost all of the risk of lung cancer attributable to smoking.

Quitting smoking by the age of 30 adds 10 years to life. Quitting at 60 adds three years to their life.

13

Benefits to Others

A smoke-free home protects your family:

Breathing in second-hand smoke increases the risk of lung cancer, heart disease and stroke.

In children it doubles the risk of getting chest illnesses, including TB, pneumonia, ear infections, wheezing and asthma.

Children exposed to second-hand smoke have 3 times the risk of getting lung cancer in later life, compared with children who live with non-smokers.

10

With Colleagues from Your Clinic

What is your current practice in terms of talking about tobacco use with TB patients in your clinic?

Is there any where in the region where you would tobacco use or tobacco related to any experience that talk about this with you?

How confident do you feel to provide the full range of management including tobacco cessation?

(3 minutes)

Image: Picture of a TB clinic or a group discussion.

11

Delivering Behaviour Support to Help Patients Follow Their TB Treatment and Quit Tobacco Use

12

Behavioural Support

The aims of behaviour support (BS):

- Maximise patients' understanding of how they can successfully treat their TB- adhering to medicines and living healthily and protecting those around them.
- Minimise the motivation to use tobacco, e.g. by challenging the patient's beliefs about the benefits they get from smoking.
- Maximise motivation not to use tobacco, e.g. by asking the patient to come up with the possible benefits of quitting that are meaningful to them, i.e. to save money to support their family.
- Maximising the patients' skills and capacity for self control, e.g. by identifying and avoiding tempting situations.
- If medications are available, then the BS can support patients to use this properly.

10

Patient Flow



11

The Materials

Images of materials:	
(Flipbook)	Flipbook to guide counselling: TB messages and tobacco. 8 pages - time: 10 mins
(Posters)	<ul style="list-style-type: none"> • Male and female versions to the flip book • Tool for health workers on the back of each page • First 3 pages are to help TB patients successfully treat their TB; last 2 pages are to help tobacco users to quit. All patients get page 4 on tobacco so that they are all aware of the dangers of tobacco use, even if they don't use tobacco.
(Leaflet First Page)	<p>Leaflet: Tobacco only to reinforce counselling messages and to increase motivation to quit among those not able to admit or quit.</p> <p>Poster: To advertise the cessation service.</p> <p>Health worker guide to support you to deliver the behaviour support intervention for TB and tobacco.</p>
	Images: Partner Logos

12

Flipbook: TB Messages

-  **Cover Page**
 - Positive image of healthy and get on top, recovered from drug TB
-  **Q11: How you got TB and how you can be tested**
 - Reasons patient feel comfortable by reporting TB to enable it stay silent to treatment
 - Support transmission
-  **Q12: How to take your medicines**
 - When – time of day, before, after food
 - Keep taking till medicines daily at six months – what to do if you take a double dose

10

Flipbook: TB Messages

-  **Q13: Adherence**
 - Working with an officer
 - Missing the health centre
 - Preparing for challenges – failure
-  **Q14: Feeling Supported**
 - Understand types of medicines
 - Monitor your support network – family and friends
-  **Q15: Stay healthy**
 - Eat well
 - Rest and sleep well
 - Don't drink alcohol and don't smoke

11

Flipbook: Tobacco Cessation Messages

-  **T11: Benefits of quitting and consequences of not**
 - Working with an officer
 - Missing the health centre
 - Preparing for challenges – failure
-  **T12: Things that help you quit and things that don't**
 - What you can and can't do
 - Explaining the "cut off" rate
 - Don't listen to smokers
-  **T13: Withdrawal and coping**
 - How withdrawal symptoms feel (nausea, irritability) and managing the symptoms
 - How to deal with them
 - Supporting you with your symptoms – the most you by listening, being you and working it through

12

Leaflet

Image of leaflet
front page

What: One page, not too much text and pictures from the flip book

Why: To reinforce messages given in the BS, and to encourage those not able to say they use tobacco or are able to quit yet, to come back to the clinic

Who: Give this to all patients, even those that say they don't use tobacco - they may do and the leaflet will encourage them to come back for BS

10

Posters

Images of both posters

What: There are 2 posters to be displayed in your clinic waiting room and any other appropriate space in your facility.

Why: One poster advertises the tobacco cessation service that you are now providing. The other reinforces the benefits of quitting for TB patients.

Who: All patients should be able to see this, so put them somewhere they can easily be spotted.

11

In Your Clinic Groups: How Can This Work in Your Facility?

- Think about the context of your facility. Take another look at the patient flow diagram and think how this could work in your facility. Start by drawing the current patient flow route for people newly diagnosed with TB (e.g. step 1- see in charge for diagnosis in consultation room for 2 mins, 2- then go to CDT1/facilitator to discuss medicines for 5 mins in corner of waiting room etc).
- Discuss who, when, where and how the BS intervention would best be delivered in their own facility.
- Draw the patient flow for the BS intervention in your facility on a flip chart. Make sure it is clear which staff see the patients, where they sit etc.
- Stick the flip chart up on the wall.
- Time for group work: 45 mins
- Gallery walk (30 mins): For the first 15 mins, half the groups stand by their flipchart and the other half walk around and comment/discuss as 'critical friends'.
- Swap over for the second 15 mins, so other half of participants stand beside flip charts in their groups while the other groups do the gallery walk, commenting/discussing as critical friends.

12

Building Rapport

Establishing a positive, friendly and professional relationship with the patient and making them feel their experiences have been understood is vital to helping patients to stick to their TB treatment and to quit tobacco.

- In your new groups, each go to one of the patient-flow flip charts. Consider each point of the patient's route – how do you think they are feeling at each stage from arrival at the clinic through to the consultation? (15 mins)
- Each group develops a 5 minute role-play based on a scenario given to the group. You can choose to show good or bad methods of developing rapport. (20 mins)
- Each group presents role plays to others, followed by group discussion on key points including facility/structural barriers to building rapport (e.g. desk behind screen/face-to-face, other patients, in-ear-chat etc.) and phrases/expressions that could help build rapport with different types of patients (e.g. illiterate, male/female). (55 mins)

10

Building Rapport: Be an 'Active Listener')

1. Pay Attention

- Look at the speaker directly
- Put aside distracting thoughts
- Avoid being distracted by other things and conversations going on in the facility

2. Show That You're Listening

- Nod occasionally
- Smile and use other facial expressions
- Note your posture and make sure it is open and inviting
- Encourage the speaker to continue with small verbal comments like "yes" and "uh-huh"

3. Provide Feedback

- Reflect what has been said by paraphrasing. "What I'm hearing is..." and "Sounds like you are saying..." are great ways to show you have heard what someone said
- Ask questions to clarify certain points. "What do you mean when you say...?" "Is this what you mean...?" Summarise the speaker's comments periodically

4. Respond Appropriately

- Allow the speaker to finish each point before asking questions
- Don't interrupt with counter arguments
- Be candid, open, and honest in your responses
- Respect your opinions respectfully
- Treat the other person in a way that you think he or she would want to be treated

Using the Flipbook

11

Turn to Your Neighbour

Image from Flipbook:

Positive image of health worker meeting with patient

1. Describe how you would feel if you had just been diagnosed with TB?
2. How can you calm a patient and begin to build rapport when they have just been diagnosed?

20

Cover Page: Male and Female

Images of front cover from men's and women's Flipbook

- TB is curable – we all know this, but patients are likely to be scared once they have been diagnosed – this smiling picture aims to reassure them.
- We know from our previous research that women relate better to pictures of women, and men to pictures of men.
- Women may be more embarrassed of their tobacco use than men, so photos of women using tobacco are needed to encourage them to admit and address this problem.

21

Flipbook Page 1: TB is Curable

Images of page 1 from men's and women's flipbook



22

Page 1 Text: TB is Curable

Make the patient feel comfortable and begin by explaining that TB is curable. If you take your medicines regularly for the full six months then your TB can be cured.

Explain to the patient:

- TB is caused by germs that spread through the air.
- When a person with TB coughs or sneezes without covering their mouth, others can breathe in these germs.
- Extra-pulmonary TB is a type of TB that is not transmitted through breathing.

Ask the patient:

- Do you think TB is curable?

Explain to the patient:

- **Do not worry.**
- TB is curable.
- You will need to take TB medicine correctly for at least 6 months to be cured.
- You must continue taking TB medicines even when you feel better.
- You must continue taking TB medicines even if you feel sick or have other side effects.
- I will explain how to do this now.

10

The Important Things on Page 1

- Chance to build rapport
- Explain the treatment programme
- Check the patient has understood and help them remember by asking them to repeat key messages
- Provide reassurance

11

Flipbook Page 2: How to Take Your Medicines

Images of page 2 from men's and women's flipbook



12

Page 2 Text: How to Take Your Medicines

Explain to the patient:

- To get better you will need to take these medicines as per doctor's advice
- Medicine will need to be taken every day (describe when and how to take medication according to national TB programme guidelines)
- **Please do not forget to take your medicines** if you miss or forget to take one dose, don't worry, just take the next dose as per routine at the same time but do not take a double dose and do not discontinue taking medicine
- You will need to keep taking these medicines for (time frame as recommended by national TB programme) to be completely cured of TB

Ask the patient:

- Can you tell me how long you will need to take the medication for? And when you should take the medicines each day?
- What will happen to you and your family if you don't take these medicines?

Make sure the patient has the correct understanding

10

The Important Things on Page 2

- Helping the patient to understand how to take their medicine – this is your chance to explain clearly the NTP guidance on taking medicines
- You can explain to patients what to do if they forget a dose
- It's a chance to let them know that you are here to support them even if they forget a dose – you can help them deal with problems
- By asking the patients questions, you can check they have understood and it helps them to remember
- Once again you can make the point that TB is curable if they take their medicines for 6 months – you should say this as often as possible. When a patient is upset because of their diagnosis, they are unlikely to take in everything you say, so repeating it is a good strategy
- You can continually provide reassurance, strengthening the rapport you have built

11

Flipbook Page 3: Keep Taking Your Medicines

Images of page 3 from men's and women's flipbook



12

Page 3 Text: Keeping Taking Your Medicines

Explain to the patient:

- Over the next six months there will be many things that might make you forget or not want to take your TB medicines.
- **Keep taking the medicines no matter what.**
- Even after starting your medicines, you may begin to feel better but you are not completely cured. You must keep taking the medicines daily for the full six months.
- Sometimes the medicines might have some side-effects that make you want to stop. In general, symptoms will subside. If they don't, talk to your health professional at the next opportunity, or the meantime, keep taking the medicines.
- If you are about to finish your supply of medicines, see your health professional before you run out.
- Ask family members or friends to remind you to take your medicines.
- During breaks such as appropriate Ramadan, illness, funeral or other big events, it is easy to forget taking medicines. Ask your friends or family members to remind you to take your medicines.
- Remember to keep coming to see the health professional for your routine appointments or if you have any problems.

Ask the patient:

- How will you remind yourself to keep taking your medicines? If you miss a dose what will you do?
- You will normally be completely cured of TB if you keep taking your medicines daily for the full six months.

10

The Important Things on Page 3

- This page is your chance to explain issues with side effects so the patient is prepared and knows that symptoms will go.
- Reassure them that they can always come to you to discuss.
- You can help the patient to think through when it may be difficult for them to take their medicines – and come up with a solution to remember to keep taking them whatever the situation. Studies have shown that planning how you will deal with difficult situations before they happen will help people stick to the behaviour needed – i.e. taking medicines.

11

Flipbook Page 4: Getting Support

Images of page 4 from men's and women's flipbook



12

Page 4 Text: Get Support from Friends and Family

Explain to the patient:

- Remember – you can be cured if you continue to take the medication.
- It is important to get the support of your family and friends during your treatment.
- After taking TB medicines continuously for 15-20 days, the risk of spreading TB through breathing reduces significantly or is stopped completely. Once your doctor tells you that you are no longer passing TB germs to others you will be able to share food and utensils with your family and friends with no worry of infecting them.

Ask the patient:

- When do you think you can turn to for support?

Explain to the patient:

- It is important to tell your family and close friends that you have TB so they can offer you support and help you to get better. Remember, after 2 weeks on treatment, you will no longer be transmitting TB, so you can be intimate with your friends and family and share food and utensils.

10

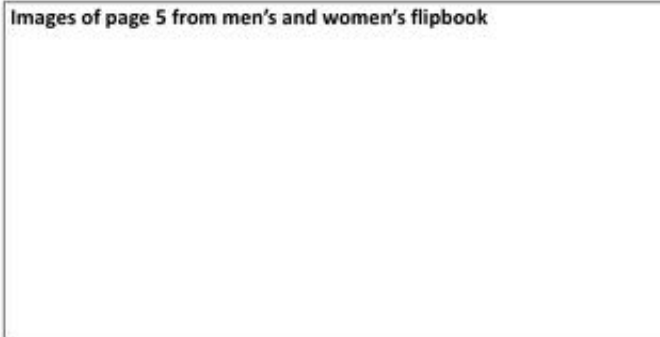
Important Things on Page 4

- Family support is crucial for TB patients – studies have shown that when TB patients have a “treatment supporter” they are more likely to successfully finish their treatment.
- As TB is spread by breathing in the bacteria, TB is NOT spread by shaking someone’s hand, sharing food or drink, touching bed linen or hugging someone. Patients and their family members need to be reassured about the risks of infection so that the patient does not worry unnecessarily about infecting their loved ones and TB does not stop family and friends offering the support that will help to keep the patient well.
- Studies have shown that there is very little chance of transmission of TB infection after a patient has been on TB treatment for 2 weeks. However, health professionals must consider each patient’s situation, particularly if there may be a chance they have drug resistant TB. Contact tracing among household members is vital.

11

Flipbook Page 5: Have a Healthy Lifestyle

Images of page 5 from men’s and women’s flipbook



12

Page 5 Text: Have a Healthy Lifestyle

Explain to the patient:

- To be sure you must remember to keep taking your medicines.
- In addition, having a healthy lifestyle will also help alongside your treatment. I will explain what a healthy lifestyle means.
- It is important to eat good and nutritious food frequently and in sufficient quantities, such as fresh fruits and vegetables, (other examples depending on context).
- Make sure you get plenty of rest.
- Refrain from consuming alcohol.
- Breathe clean fresh air and keep it free of tobacco smoke or smoke from cooking stoves. Not people say to smoke indoors. Smoking increases the risk of TB disease by more than ten and a half times.
- Refrain from using any kind of tobacco such as (short examples of smoking and smokeless tobacco). Continuing to smoke means you are less likely to be cured of your TB.
- Please add in foods that are nutritious but also likely to be affordable for even the poorest patients.

Ask the patient:

- We can help you to stop using tobacco. Do you use any tobacco?

10

Important Things on Page 5

- Here you can give the patient all the information they need about eating well, not using alcohol, getting rest, not using any form of tobacco.
- Patients with poor nutrition are more likely to die from their TB, and to relapse. Furthermore, TB can lead to worsening malnutrition.
- Explain that eating healthily means getting a balance of fruit, vegetables, carbohydrate (e.g. rice), protein (lentils, beans, meat, fish), carbohydrate and fat (e.g. ghee, milk). You can adapt what you say to each patient, as you don't recommend expensive foods to poorer patients, but think of a cheaper alternative.
- While there is not as much evidence yet on the dangers of using some forms of tobacco – chewing or hukkah – as TB as there is for cigarettes, we must explain to patients that all these forms of tobacco are damaging to health. We need to make sure our patients do not take up smokeless tobacco when they quit cigarettes.

11

Do You Use Tobacco?

After slide 5, Ask if the patient uses tobacco. Even if they say they don't, continue with slide 6, but can change the wording so it is general and not just pointed at that individual, i.e. 'If someone uses tobacco, do you know if you stop their recovery from TB?'



12

Flipbook Page 6: The Dangers of Tobacco and Benefits of Quitting

Images of page 6 from men's and women's flipbook



Page 6 Text : Benefits of Quitting Tobacco

Ask the patient:

- Do you know that smoking tobacco can stop your recovery from TB?

Explain to the patient:

- Quitting tobacco will help with your recovery. The benefits of quitting will start within days and will continue during and after treatment.
- Within a month of quitting, your coughing and your mucus production will decrease and you will be able to breathe more easily. If you do not quit, it could get worse. People who do not quit are more likely to die of TB.
- Quitting tobacco will help in being cured from TB. If you don't quit, your chances will be reduced and you will have a higher chance of getting TB again.
- If you quit tobacco, you will have a longer and happier life. People who do not stop tobacco use are more likely to die from diseases, such as heart disease and cancer.

Ask the patient:

- I've told you some medical benefits of quitting. Do you think of any other benefits?
- Remind the patient that they can save money if they quit tobacco and use the money to buy healthy food or help their children from their TB and to support their family.

Ask the patient:

- How can you spend another few minutes to help you make a plan to stop using tobacco. Would you like to make a plan to stop using tobacco now?
- Encourage the patient to stop and make a plan to quit. If they refuse and are uncomfortable to quit, give them the TB and tobacco leaflet and ask them to come back soon to plan to quit tobacco. If they are motivated to quit, they should be the next one to get a quit day.

Important Things on Page 6

- Here you can make sure the patient understands that tobacco reduces their chances of getting better and increases the chance their TB will relapse.
- Helping the patient to see the benefits of quitting will motivate them to quit. Encourage the patient to come up with their own list of benefits – these could be financial, they could spend the money they save on their family, and benefits to their man and their family's health.
- It may be that when you go through this slide with someone who previously said they didn't smoke, they decide to open up about their smoking and get your help to quit.
- Try to encourage all tobacco users to stay and set a quit date. If they are absolutely firm that they don't want to, then give them a leaflet and be sure to tell them to come back to you once they are ready to quit.

Flipbook Page 7: What Helps and What Doesn't in Quitting Tobacco

Image of page 7 from men's and women's flipbook



19

Page 7 Text: What Helps and What Doesn't in Quitting Tobacco

Explain to the patient:

- The best way to quit tobacco use is to stop immediately.
- To help you do this, you should decide on a date after which you will stop using tobacco completely.
- From then onwards, you should not accept or use any tobacco. Not having even a single puff after this day will help you to quit.
- It will not be helpful if you:
 - slowly decrease smoking,
 - occasionally smoke or use tobacco now and then,
 - or replace smoking with other kinds of tobacco such as [snus/tobacco]

Ask the patient to agree to a day within the next week when they will quit tobacco use and then from this day onwards not use tobacco at all.

20

Important Things on Page 7

Here you need to emphasise the 'Not a puff rule'

This is really important because studies have shown that between 75% and 95% of quitters who have a single cigarette resume regular smoking. One study found that 94% of those that had a single cigarette during their 'quit attempt' had a second cigarette and that half of these did so within 24 hours.

Even a single puff on a cigarette triggers the mind and body to remember what they are missing by not smoking.

You should clarify to the patient that having one or two cigarettes will not get rid of withdrawal symptoms after their Quit Date. The only way to do this is to give up completely.

21

Flipbook Page 8: Effects After Quitting

Images of page 8 from men's and women's flipbook



20

Page 8 Text: Some Effects After Quitting Tobacco Use

Explain to the patient:

- When you quit tobacco, there may be some side effects.
- These may include: coughing, sore throat, dry mouth, loss of taste and smell, or loss of weight. Quitting is worth it, and these side effects will go away in a few days. If you are having trouble with any of these, let us know so we can help you.

Ask the patient:

- Are there any side effects of quitting tobacco that you are concerned about?

Explain to the patient:

- Sometimes you will see some side effects when you quit.

- There are things you can do to help with these effects.

Ask the patient:

- What are some side effects you are worried about?

Explain to the patient:

- Sometimes you may notice side effects, but they will go away in a few days.
- The side effects you may notice are: cough, sore throat, dry mouth, loss of taste and smell, or loss of weight. These are all things you can do to help with. If you are having trouble with any of these, let us know so we can help you.
- If you are having trouble with any of these, let us know so we can help you. If you are having trouble with any of these, let us know so we can help you.
- If you are having trouble with any of these, let us know so we can help you. If you are having trouble with any of these, let us know so we can help you.

21

Important Things on Page 8

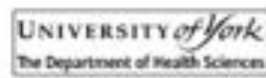
- In this slide you can explain the side effects and provide lots of reassurance that these will go.
- Ask the patient to explain any side effects they are particularly worried about, reassure them and help them to think of ways they can deal with this.
- Make sure you congratulate the patient for taking this really positive step that will help them to get better from their TB, and reduce health problems in the future. Positive encouragement and congratulations can help to boost the patients' commitment to quitting tobacco.

22

Appendix 9: Health Worker Guide (Pakistan English Version)

Delivering TB & Tobacco Behavioural Support

Guide for DOTS Facilitators



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Introduction

This guide has been developed to help you support people with TB to manage their TB treatment and to live healthily. The guide has a special focus on helping people with TB to stop using tobacco. This is because tobacco use makes it harder to get better from TB and tobacco users are more than twice as likely to die from TB as non-users.

This guide will help you deliver messages on TB, living healthily and on how to quit tobacco to all TB patients. Research shows that just telling patients what to do is not very effective in changing their behaviour. This guide will help you to use a set of materials – a flipbook, leaflet, and posters – to help patients change their behaviour to successfully complete TB treatment and lead healthier lives. All materials have been specially designed based on research evidence and with feedback from patients and health professionals like you. In this guide we present the research base and tips for using the materials.

The materials

The behavioural support will be carried out using three main materials – a flipbook, leaflet and posters.

1. Flipbook

DOTS facilitators like yourself will deliver TB messages and tobacco cessation messages using a **flipbook** to guide the 10 minute behaviour support counselling session with your patients. The flip book has 5 pages with general TB messages and 3 with tobacco cessation messages. The TB messages cover all those that you would normally explain to patients recently diagnosed with TB. The flipbook has two sections: one for use with men and the other for use with women. Both sections have identical messages. Research has shown that women are more likely to relate to pictures of women, and men to pictures of men. This is why we designed the flipbook in this way and we recommend that you use the appropriate pictures depending whether your patient is male or female.



2. Leaflet

All patients - including those who do not use tobacco - will also be given a **leaflet** with text and pictures from the flipbook. This will reinforce the flipbook messages and will encourage people to come back to the clinic if they're not ready to quit just yet. It is best to give out the leaflet during the behaviour support counselling session while you are using the flipbook. We will explain in the guide when it is best for you to give out the leaflet.



There are also two posters that have been developed to be displayed in your clinic waiting room and any other appropriate space in your facility. One poster advertises the tobacco cessation service that is now available in your clinic. The other reinforces the benefits of quitting for TB patients.

When and How to Use the Behavioural Support Materials

We recommend that all patients receive the behavioural support counselling session as soon as possible after their diagnosis. If a patients' relatives or friends are with them, they should also sit in and hear the TB and tobacco messages. This will allow them to support the patient through treatment and to remind the patient of anything said during the counselling session. The session should take about 10 minutes.

Each flipbook page has text on the back for the health professional to use while the patient is looking at the picture. We recommend that you cover all the points in the text, but you may want to add points based on your expertise and tailor messages to individual patients' needs. The materials are designed to cover all key issues in TB treatment management that patients need to know and are in line with NTP guidance. The diagram below shows how to use the flipbook and leaflet in delivering behaviour support.



Tobacco: Global Facts



- Globally, 15% of TB disease can be attributed to tobacco use.

van Zyl-Smit RN, Brunet L, Pai M, Yew WW. The convergence of the global smoking, COPD, tuberculosis, HIV, and respiratory infection epidemics. *Infect Dis Clin North Am* 2010 Sep; 24(3): 693-703.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2914695/>



- The number of daily smokers increased from 721 million in 1980 to 967 million in 2012.

Ng M, Freeman MK, Fleming TD, Robinson M, Dwyer-Lindgren L, Thomson S, Wollum A, Sanman E, Wulf S, Lopez AD, Murray CJL, Gakidou E. Smoking Prevalence and Cigarette Consumption in 187 Countries, 1980-2012. *Journal of the American Medical Association* 2014; 311(2):183-192. doi:10.1001/jama.2013.284692.

<https://www.ncbi.nlm.nih.gov/pubmed/24399557>



- Over the next 25 years, total cigarette consumption will rise by 100% in low income countries.
- Tobacco use is highest amongst the poorest.
- 4.9 million deaths per year
- Half of all long-term smokers die early from smoking-related diseases, including heart disease, TB, lung cancer and chronic bronchitis

Esson K, Leeder S. The Millennium Development Goals and tobacco control: An opportunity for global partnership. Geneva: World Health Organization; 2004.

http://www.who.int/tobacco/publications/mdg_final_for_web.pdf



How Tobacco Interacts with TB



Getting TB

Combined results of several robust studies show tobacco smoking almost doubles the risk of acquiring TB infection. Tobacco smokers have 1.8 times the odds of TB infection (Odds Ratio [OR] 1.8; 95%CI: 1.5 to 2.2). Studies reveal that compared to non-smokers infected with TB, smokers infected with TB have 2.6 (OR 2.6; 95%CI 2.1 to 3.4) to 3.7 (OR 3.7; 95%CI 1.5 to 9.2) times the odds of developing active TB disease. This shows smoking induces progression or reactivation of disease in those infected with TB.

Alcaide J, Altet M, Plans P, et al. Cigarette smoking as a risk factor for tuberculosis in young adults: a case control study.

Tubercle and Lung Disease 1996; 77(2): 112-6

Bates MN, Khalakdina A, Pai M, Chang L, Lessa F, Smith KR. Risk of tuberculosis from exposure to tobacco smoke: a systematic review and meta-analysis. Archives of Internal Medicine 2007; 167(4): 335

Lin HH, Ezzati M, Murray M. Tobacco smoke, indoor air pollution and tuberculosis: a systematic review and meta-analysis. PLoS medicine 2007; 4(1): e20.

Silama K, Chiang CY, Enarson DA, et al. Tobacco and tuberculosis: a qualitative systematic review and meta-analysis. The International Journal of Tuberculosis and Lung Disease 2007; 11(10): 1049-61.

TB Disease

Smoking affects how TB disease progresses in individuals. Smokers suffer from faster and more severe progression of pulmonary TB disease. They have almost double odds of cavity lesions (OR 1.9; 95%CI: 1.6 to 2.3) and greater likelihood of hospitalisation (OR 1.8; 95%CI: 1.5 to 2.2).

Altet-Gomez M, Alcaide J, Godoy P, Romero M, Hernandez RI. Clinical and epidemiological aspects of smoking and tuberculosis: a study of 13038 cases. The International Journal of Tuberculosis and Lung Disease 2005; 9(4): 430-6.

A randomised control trial has found that smoking increases the length of treatment needed to convert from positive sputum culture to a negative culture (Hazard Ratio 0.6; 95%CI: 0.4 to 0.8) in TB patients.

Oryebujoh P, Levin J, Fourie F, et al. Immunotherapy with Mycobacterium vaccae in patients with newly diagnosed pulmonary tuberculosis: a randomised controlled trial. Lancet 1999; 354(9173): 116-9

TB Outcome

Combined results from several studies show that regardless of patients' socioeconomic status, smokers have 2.6 times the odds of dying from TB compared to non-smokers (OR 2.6; 95%CI: 1.8 to 3.6).

Lin HH, Ezzati M, Murray M. Tobacco smoke, indoor air pollution and tuberculosis: a systematic review and meta-analysis. PLoS medicine 2007; 4(1): e20.

Several studies have also found that default or poor drug compliance among TB patients to be associated with smoking (OR 1.6; 95%CI: 1.3-2.0).

Salami A, Oluiboye P. Management outcome of pulmonary tuberculosis: a nine year review in Ilorin. West African Journal of Medicine 2004; 22(2): 114-9.

Wang J, Shen H. Review of cigarette smoking and tuberculosis in China: intervention is needed for smoking cessation among tuberculosis patients. BMC public health 2009; 9(1): 292.

Why Is It So Hard to Quit?

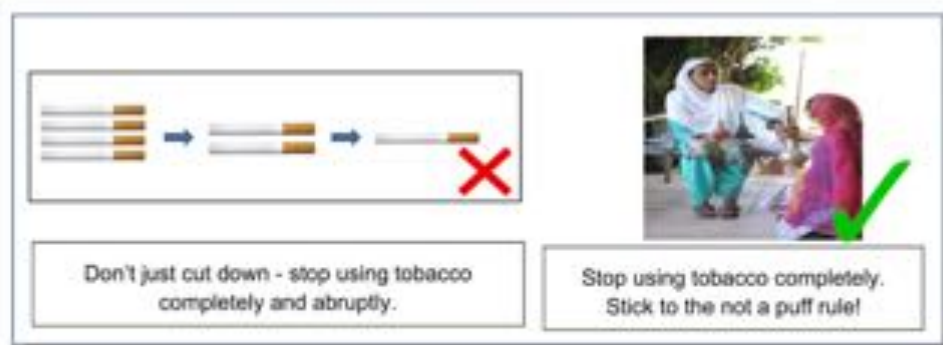


Your patients are likely to find it hard to quit tobacco use, and many people may need several attempts before they are able to quit. This is because:

- Cigarettes contain nicotine, which is highly addictive.
- Nicotine alters the balance of two chemicals, called dopamine and noradrenaline, in the brain. This can lead to immediate feelings of relaxation.
- But, the more someone uses tobacco, the more the brain becomes used to the nicotine. This means the tobacco-users must smoke more and more to get the same effect.
- When someone stops using tobacco, the loss of nicotine changes the levels of dopamine and noradrenaline. This can make you feel anxious, depressed and irritable. However, once over these withdrawal symptoms, stopping smoking actually makes people feel less stressed and anxious.
- It's normal for tobacco-users to crave nicotine when they quit, as smoking provides an immediate fix to these unpleasant feelings.
- This is why health workers need to use the behaviour support methods and advice in the flipbook and materials to help patients find ways to overcome the addictive natures of tobacco.



Evidence of What Works in Tobacco Cessation



You may have heard of different ways to stop tobacco use. Below is a summary of some of the key findings from the research evidence:

- **Medicines (e.g. Nicotine Replacement Therapy or anti-depressants (bupropion)):** Tobacco users were more likely to quit when given cessation medicines (58%) or anti-depressants were (43%) than with placebo or no treatment. (Stead et al 2008; Hughes et al 2007)

Stead LF, Perera R, Bullen C, Mant D, Lancaster T. Nicotine replacement therapy for smoking cessation. Cochrane Database of Systematic Reviews 2008, Issue 1. Art. No.: CD000146. DOI: 10.1002/14651858.CD000146.pub3.

Hughes JR, Stead LF, Lancaster T. Antidepressants for smoking cessation. Cochrane Database of Systematic Reviews 2007, Issue 1. Art. No.: CD000031. DOI: 10.1002/14651858.CD000031.pub3.

- **Behaviour support (individual counselling):** Tobacco users are 39% more likely to quit. In Pakistan, a study found that 41% of patients with suspected TB were able to quit tobacco when followed up 6 months after the behavioural support. (Siddiqi et al 2013)

Siddiqi K, Khan A, Ahmad M, Dogar O, Kanaan M, Newell JN, Thomson H. Action to stop smoking in suspected tuberculosis (ASSIST) in Pakistan: a cluster randomized, controlled trial. *Ann Intern Med.* 2013 May 7;158(9):667-75. doi: 10.7326/0003-4819-158-9-201305070-00006

- **Try on your own:** Only about 5% of unaided quit attempts result in smokers giving up for good – it's much more effective to get help. (Hughes et al 2007; ASH)

Hughes JR, Stead LF, Lancaster T. Antidepressants for smoking cessation. Cochrane Database of Systematic Reviews 2007, Issue 1. Art. No.: CD000031. DOI: 10.1002/14651858.CD000031.pub3.

ASH: Action on Smoking and Health. "Smoking Cessation & Treatment". <http://ash.org.uk/category/information-and-resources/smoking-cessation-treatment/>

- **Abrupt Cessation:** Research indicates that 75-95% of quitters who have a single cigarette resume regular smoking. One study found that 94% of people who lapsed by having one cigarette, went on to have a second cigarette and that half of these did so within 24 hours. Even a single puff on a cigarette reminds the mind and body what is missed by not smoking. Withdrawal symptoms are not going to ease if smoking is resumed even a little after a quit date. (McEwen 2014)

McEwen A., 2014. Standard Treatment Programme – A guide to providing behavioural support for smoking cessation. NCSC. 2014. http://www.ncsc.co.uk/user/pub/standard_treatment_programme.pdf

Reasons People Give for Not Quitting

Quitting tobacco can be hard and patients might give you several reasons why they don't want to quit. Below are some common reasons people give and the information you can use to respond to them with.

Reason: "The damage is already done"

Response: Studies show lung capacity improves by up to 10% within 9 months, so people breathe more easily and cough less when they give up smoking.

Within 2 to 12 weeks of stopping smoking, blood circulation improves. This makes all physical activity, including walking and running, much easier.

http://www.cdc.gov/tobacco/data_statistics/tar/2004/posters/30mins/



Reason: "I have to keep smoking to stop me feeling stressed"

Response: Studies show people's stress levels are lower after they stop smoking – once they get beyond withdrawal symptoms.

Centers for Disease Control and Prevention. Cigarette smoking among adults and trends in smoking cessation – United States, 2008. Morbidity and Mortality Weekly Report, 2009; 58 (44): 1227–32.

Reason: "Smoking makes me look cool and attractive to the opposite sex"

Response: Studies have found that non-smokers are three times more appealing to prospective partners than smokers. Stopping smoking has been found to slow facial ageing and delay the appearance of wrinkles. Non-smokers find it easier to get pregnant. Quitting smoking improves the lining of the womb and can make men's sperm more potent.

<http://mentalhealth.nhs.uk/386/corporate-content/health-and-wellbeing/1355-smoking>
 Ortiz A, Grando SA. Smoking and the skin. Int J Dermatol. 2012 Mar;51(3):250-62.
 Lahmann C et al. Matrix metalloproteinase-1 and skin ageing in smokers. Lancet. 2001 Mar 24;357(9260):935-6.
 Shiverick KT. Chapter 24 – Cigarette smoking and reproductive and developmental toxicity. In: Gupta RC, editor. Reproductive and Developmental Toxicology (Burlington, MA: Elsevier) 2013. ISBN: 978-0-12-382032-7.
 Soares SR et al. Cigarette smoking affects uterine receptiveness. Human Reproduction. 2007 22(2):543-547; doi:10.1093/humrep/del384
 Ramleau-Hansen CH et al. Is smoking a risk factor for decreased semen quality? A cross-sectional analysis. Hum Reprod. 2007 Jan;22(1):188-96
 Sofikitis N et al. Effects of nicotine on sperm motility, membrane function and fertilizing capacity in vitro. Urol Res. 2000 Dec;28(6):370-5.



Benefits of Quitting Tobacco



It is good to ask your patient to think of some of the benefits that quitting will have for them and their families. If they come up with their own reasons, then they are more likely to remember these and this will motivate them to stick with their quit attempt even when they get tobacco cravings.

Here are some benefits of quitting that have been found in research:

A smoke-free home protects the family Breathing-in second-hand smoke increases the risk of lung cancer, heart disease and stroke. In children it doubles the risk of getting chest illnesses, including TB, pneumonia, ear infections, wheezing and asthma. Children exposed to second-hand smoke have 3 times the risk of getting lung cancer in later life, compared with children who live with non-smokers.

Lim, Stephen S, et al. 2012. 'A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010'. *The Lancet*, 380(9859): 2224 - 2260.

Leung CC, Lam TH, Ho KS, et al. 2010. 'Passive Smoking and Tuberculosis'. *Arch Intern Med*, 170(3):287-292.

One year after stopping, the **risk of a heart attack falls** to about half that of a smoker. Within 15 years the risk falls to a level similar to that of a person who has never smoked.

Centers for Disease Control and Prevention (CDC). The 2004 Surgeon General's Report, The Health Consequences of Smoking: What it means to you. www.cdc.gov/tobacco/data_statistics/tar/2004/sgr/whattimeanstopyou.pdf

If smokers quit before the age of 30 they can **avoid almost all of the risk of lung cancer** attributable to smoking. Quitting smoking by the age of 30 **adds 10 years to life**. Quitting at 60 **adds three years to their life**.

Doll R et al. Mortality in relation to smoking: 50 years' observations on male British doctors. *British Medical Journal*, 2004; 328: 1519.



Delivering the Flipbook Messages

Before You Begin

When a Patient Comes to You:

- They might be scared after just receiving a diagnosis.
- Because of this they might be silent, frustrated, or in another emotional state. They may find it hard to concentrate and remember what you tell them. If they have a friend or family member with them, they can support the patient.
- You might have seen many patients before this person and tired after a long day. This is why the flipbook can help to remind you of the key messages to convey to the patient.

Building Rapport and Being an 'Active Listener'

Building rapport with your patient is vital. A good, open, trusting relationship between you and your patient will help them to understand how best to get better from their TB. It will also mean they are more likely to tell you honestly about their tobacco use, and you can then help them to quit. Being an 'active listener' is key to building rapport with your patient. Here are some tips:

1. Pay Attention

- Look at the speaker directly.
- Put aside distracting thoughts.
- Avoid being distracted by other things and conversations going on in the facility.

2. Show That You're Listening

- Nod occasionally.
- Smile and use other facial expressions.
- Note your posture and make sure it is open and inviting.
- Encourage the speaker to continue with small verbal comments like "yes" and "uh huh".

3. Provide Feedback

- Reflect what has been said by paraphrasing. "What I'm hearing is.....," and "Sounds like you are saying.....," are great ways to show you have heard what someone said.

Ask questions to clarify certain points. "What do you mean when you say.....?" "Is this what you mean.....?" Summarize the speaker's comments periodically.

4. Respond Appropriately

- Allow the speaker to finish each point before asking questions.
- Don't interrupt with counter arguments.
 - Be candid, open, and honest in your response.
 - Assert your opinions respectfully.
 - Treat the other person in a way that you think he or she would want to be treated

These tips have been adapted from <https://www.mindtools.com>. Click on the link if you would like to find further tips on interacting with patients and colleagues

How to Use the Cover Page:



- Show them the cover picture of the healthy patients who are real patients treated for TB. Explaining that people with TB can start to look healthy when they take their medicines and look after their health can help to reassure them.
- Explain to them there is nothing to be afraid of. They can get better with medication.
- Tell them you will describe how they can get better.

Tips:

- Make rapport with patients by introducing yourself. Ask the patient how they would like to be addressed. Make sure you're seated at the same level.
- Put patients at ease and make them feel respected by looking them in the eye while speaking to them, physically using an open and welcoming posture, speaking in a compassionate tone of voice, and smiling.
- Calm worried patients before counselling by asking them a relevant question that requires them to say more than 'yes' or 'no' and speak a little bit.
- Remember to be patient if the patient is having difficulties or being slow.
- Use the 'active listening' tips above, they will help to let your patient know that you are really listening to them and this will help to build trust and openness.

Flipbook Page 1: How TB spreads



What to cover:

You will have a script to read on the back of the slide.
The main messages to get across to patients are:

- How does TB spread.
- You can be cured of TB with medication.

Explain the treatment programme

Check the patient understands and help them remember by asking them to explain the key messages to you.

Reassure the patient that they can get better.



Tips:

- Use this opportunity to calm and encourage patients by getting them to say out loud that they can get better if they take medication.
- Remember to continue maintaining eye contact and to listen to patient responses. You can show you are listening by repeating back a summary of the points the patient makes.
- If a patient starts to talk a lot, you can calmly reassure them and again explain that you will describe to them how they will get better.

Flipbook Page 2: How to take your TB medicines



What to cover:

The script on the back of the slide will help you to get across these messages:

- Keep taking medicines regularly, even if you forget.
- Never to take a double dose.
- Taking medicines can cure you of TB.

Explain what medicines to take

Describe NTP guidance on taking medicine

Reassure the patient that they can get better if they make sure to continue taking medication.



Tips:

- Check with the patient that they have understood by asking them to describe the guidance to you.
- Emphasise that you are there to help even if they forget.
- Repeating that they can get better if they take medication will help them to remember this fact could make them feel more confident.

Flipbook Page 3: Take your medicines regularly



What to cover:

The main messages to convey on this slide are:

- Keep taking medicines even if they have positive or negative effects.
- Get help from friends/family to not forget to take medicines.
- Keep coming to scheduled appointments and contact health worker if they run out of medicine.

Explain the course of medication the patient will take.

Emphasize that positive effects of medicine do not mean you are cured. You are cured only after completion of the course.

Reassure the patient that any negative side effects will subside, and they should contact the doctor if they don't.

Tips:

- Use the opportunity to ask the patient whom they can seek help from to remind them. Try not to tell the patient specific people (e.g. parents, children, neighbours). If the patient doesn't respond, ask a general question like "who do you speak with the most?" or "Who are the people you see every day?"

Flipbook Page 4: Take help from family and friends

What to cover:

Follow the text to cover these main messages:

- Having TB is not shameful. It is important to participate in society and not separate yourself from people.
- After several weeks of continuously taking medicine, your doctor will be able to tell you if you are no longer contagious and can share food/utensils.
- You will need support of family and friends to get better



Address any stigma the patient might feel or think others have. Assure them this social stigma is not right.

Emphasize the importance of family and friends in getting better alongside taking medicines regularly.

Make sure the patient has identified someone to help them. Remember, if the patient comes up with their own idea of who can support them, they will be more likely to ask that person for help.

Tips:

It is possible patients will be concerned about infecting friends and family. Reassure them that there are measures they can take to prevent this:

- Emphasise it is important to take medicines as directed regularly for the entire period and after several weeks the medicines will have ensured that they are no long infectious. With the doctor's agreement they can go back to their regular schedule. [NICE Guidance is that after 2 weeks, people should be non-contagious
<https://www.nice.org.uk/guidance/ng33/chapter/Recommendations#infection-control>]
- Always cover your mouth when coughing or sneezing and wash hands or handkerchiefs thoroughly with soap. Throw away all tissues immediately.
- TB spreads in places without air circulation, so open doors/windows as much as possible to let fresh air in.
- Remind them: You cannot get TB through shaking hands or sharing dishes/utensils, and it is important to have close support of family and friends who can help them feel good and get better.

Flipbook Page 5: Adopt a healthy lifestyle



What to Cover:

Using the script, cover the following:

- In addition to regular medicine, encourage the patient to adopt a healthy lifestyle
- Part of a healthy lifestyle is to abstain from all tobacco products
- Healthy and nutritious foods (what is possible)
- Getting lots of rest (as much as possible)
- Getting fresh air (indoors and outdoors)
- Abstaining from alcohol and tobacco (smoking and smokeless)
- Check if patient uses any tobacco.

Tips:

- Ask the patient to suggest what kind of foods would be good and how they can make sure to rest or get fresh air.
- Consider the patient and their background when you are advising on healthy eating. In particular consider the kind of food they are likely to be able to afford. If a patient is struggling with money, they are unlikely to be able to afford to buy meat regularly, you can advise other protein sources such as beans, lentils and eggs.
- Instead of asking the patient directly "do you use any kind of tobacco," first make the patient feel you are not judging tobacco users. Maybe explain you might know tobacco users and that it is normal practice, but unhealthy. Ask the patient "what kind of tobacco products there are?" then mention the tobacco cessation service is provided in the clinic.

Flipbook Page 6: Benefits of quitting tobacco



What to Cover:

Following the script on the back of the pictures, cover the following:

- Positive effects of quitting tobacco on TB and negative effects of not quitting. Tobacco use can delay or stop recovery from TB.
- Quitting Tobacco improves health, but also saves money, which can be used to get better care to recover from TB
- Effects of tobacco on general health and the benefits of quitting.

Ask about patient's tobacco use and interest in cessation services, and **mention the availability of tobacco cessation services to all patients**. Even if they say they don't use tobacco, it may be that they are just not ready to admit this to you. Make sure they know they can come back to the facility at a later date to get help to quit tobacco.

Give the patient a copy of the leaflet. Even if the patient says that they don't use tobacco, still give them the leaflet. They may not feel comfortable admitting they use tobacco. Reading the leaflet may be enough to encourage the patient to return at a later date to get your help to quit. If they really don't use tobacco the leaflet can still be useful for any friends or family they have who are tobacco-users.

If the patient says they use tobacco, explain that you will now help them to create a plan to quit tobacco. If they are not interested for any reason, give them a leaflet. The messages in the leaflet may be enough to motivate them to return for your support to quit at a later date. Mention that it can be a difficult decision to take but that this services is provided at the clinic and they can come back whenever they like.

Tips:

- Ask the patient to suggest any additional benefits of quitting tobacco. Getting patients to think of benefits that are important to them will increase their motivation to quit. If you see them at a future appointment and they are struggling to quit, you can remind them of the reasons they came up with.

Flipbook Page 7: What will help you and what will not help you in quitting tobacco



What to cover:

Follow the script to emphasize the main message that:

- Gradual cessation is proven to not be effective in tobacco cessation. It will not help to stop gradually, use tobacco occasionally, or to replace current use with other forms of tobacco (see information on dangers of hookah and chewing tobacco below).
- The best way to stop smoking is to choose a day and stop smoking completely (abrupt cessation). The patient must set a 'quit day'. After this day they will not use any tobacco. Help them to identify a day that will be their 'quit day'. Check they have understood that this means no tobacco of any form after this day.

Make sure the patient does not consider switching to or using hookah or chewing tobacco instead of cigarettes.

Discuss with the patient to choose a day in the next week to stop tobacco use completely.

Tips:

- Use language that gives confidence to the patient by explaining that we can all be the kinds of people who make a decision to stop tobacco use.
- Encourage the patient that they should try to choose a date and be confident that they will quit. If something happens, they can start over again. Do not make them feel bad that they might not succeed.
- Once the patient settles on a date, ask them to say out loud that "I can stop using tobacco and will stop on [day and date they have selected]." Studies show that saying it out loud gives people more confidence.

The dangers of hookah smoking

Using a hookah to smoke tobacco poses serious health risks to those using the hookah and others exposed to the smoke from the hookah.

Charcoal used to heat tobacco in the hookah increases the health risks by producing smoke that contains high levels of carbon monoxide, metals, and cancer-causing chemicals.

A typical 1-hour-long hookah smoking session involves 200 puffs, while an average cigarette is 20 puffs.

The volume of smoke inhaled during a typical hookah session is about 90,000 milliliters, compared with 500 to 600 milliliters inhaled when smoking a cigarette. The smoke is just as toxic as that of cigarettes, even after it has passed through water.

Hookah smokers are at risk of the same diseases as cigarette smokers.

Source: Akl EA, Gaddam S, Gunukula SK, Honeine R, Jaoude PA, Irani J. The Effects of Waterpipe Tobacco Smoking on Health Outcomes: A Systematic Review. *International Journal of Epidemiology* 2010;39:834–57

Adapted from: <https://www.cdc.gov/features/hookahsmoking/>

The dangers of chewing tobacco

- Can lead to nicotine addiction
- Causes cancer of the mouth, esophagus and pancreas
- Is associated with diseases of the mouth
- Can increase risks for early delivery and stillbirth when used during pregnancy
- Can cause nicotine poisoning in children
- May increase the risk for death from heart disease and stroke

WHO IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Volume 89: Smokeless Tobacco and Some Tobacco-Specific N-Nitrosamines.

U.S. Department of Health and Human Services. The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General. Atlanta: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014

Piano MR, Benowitz NL, Fitzgerald GA, Corbridge S, Heath J, Hahn E, et al. Impact of Smokeless Tobacco Products on Cardiovascular Disease: Implications for Policy, Prevention, and Treatment: A Policy Statement from the American Heart Association. *Circulation* 2010;122(15):1520–44

Connolly GN, Richter P, Aleguas A Jr, Pechacek TF, Stanfil SB, Alpert HR. Unintentional Child Poisonings Through Ingestion of Conventional and Novel Tobacco Products. *Pediatrics* 2010;125(5):896–9

Adapted from: https://www.cdc.gov/tobacco/data_statistics/fact_sheets/smokeless/health_effects/

Flipbook Page 8: Some effects after quitting tobacco use

What to cover:

The main messages to convey on this slide are:

- The patient might experience some withdrawal symptoms after quitting tobacco, but these will subside

Tell the patient that they may still have the urge to smoke and may feel a little restless, irritable, frustrated or tired. Some people also find that they have difficulty sleeping or concentrating. Reassure them that these symptoms will pass.

Emphasise that there are coping strategies and get the patient to consider their own strategies.

Explain how withdrawal symptoms can be part of quitting and discuss possible side effects and coping strategies with the patient.

Reassure and encourage the patient that they have taken a positive step in getting better from TB and having better general health through quitting smoking.



Tips:

- Ask the patient if they have tried quitting tobacco before, or leave it for a period like fasting and experience any withdrawal symptoms. Ask them how they dealt with these symptoms and if these could be useful this time
- If the patient really struggles to come up with activities to do when they crave tobacco, here are some distractions they could try:
- Talk to someone – see a friend or relative to get some support.
- Go for a brisk walk - this can help clear the head and lungs.
- Stay busy – find something distracting to do.
- Drink a glass of water - keep occupied for those crucial few minutes.
- Change the scene - just moving around can help, or step outside and get some fresh air.
- Respond appropriately to any concerns and remind client that withdrawal symptoms are all normal and will pass with time as long as they do not smoke.
- Remind the patient that they are changing their life by quitting and they will save money, improve their health and help those closest to them to be healthy as well.
- Make sure to congratulate the patient for taking this step to cure their TB and become a healthier person. Positive encouragement can help to boost their commitment to quitting tobacco.



Many of these tips have been adapted from advice from the UK's Stop Smoking Service. For more ideas that you can adapt to your context click here: <https://quitnow.smokefree.nhs.uk/>

How to Interact with Different Kinds of Patients

Patients will have different reactions to diagnosis and treatment and come to you in different emotional states. Below are examples of what to do and not do in different situations. These are guidelines you should use along with your own experience of working with patients.

	Patients	What You Can Do
Aggressive:	Some patients and their friends/family might respond to diagnosis with anger or they might react negatively to messages on TB or tobacco use.	Remain calm and speak comfortably to the patient and family or friends. Give reassurance that you are there to help and that you are listening and they need to listen to you as well. If needed, get help from somebody else.
Unaware:	Due to a lack of knowledge, a lack of education, or other factors such as stigma, some patients might not be aware of issues and believe in myths about TB or tobacco use.	Speak kindly to the patient and use correct information to help them understand the knowledge they have is not correct. Treat them with patience and give them time to ask questions and understand.
Shy/Nervous:	Maybe because of being sad, having a shy nature, or not understanding what to do, some patients – especially women patients – might not speak much. Patients might not respond to questions, try to think for themselves, or want to give information about themselves.	Clarify that everything you discuss is in confidence. Use language and tone to make the patient comfortable and remind them that they can get better and you are there to help them. Be patient and explain you need to hear from them about their feelings/actions in order to help them in the best way. Remember to use your active listening skills.
Rushed:	Patients might be rushed to leave. Or you might have many patients you need to attend in a short amount of time.	Ask the patient to take a breath and relax, or do so yourself. If patient is rushed, explain you will be done quickly and ask them to be patient. If you are rushed, go at a steady pace and remain calm and friendly with patients and give each patient your full attention. Try practicing active listening skills, rather than worrying about all the other things you need to do.



Further Support

Quitting tobacco is difficult and patients need as much support as possible. As you will be seeing the patient regularly, you can ask them about their cessation attempt and encourage them to continue trying. Here are some tips:

- 1. Repeating the importance of Abrupt Cessation:** At following meetings, greet the patient in a positive and happy way to make them comfortable and ask them casually "Have you used any tobacco since our last appointment?" Do not let them feel that you are testing them.
If they are not congratulate them and praise and encourage them for their efforts and mention again the importance of abrupt cessation.
If they have used tobacco again, still use a gentle and encouraging voice and
 - Acknowledge it is a big thing to even try and that it is normal to make several quit attempts before succeeding.
 - Emphasise the importance of abrupt cessation, and explain that every instance of tobacco use will put them back and make withdrawal worse. Explain again that it will be easier to quit at once altogether.
 - If they say they are using hookah or chewing tobacco instead of cigarettes, remind them that these forms of tobacco are just as dangerous of cigarettes and they need to stop using them abruptly as well. See the boxes in the section above for more information.
 - Remind them of the benefits of quitting. Try to remember some of the benefits they identified themselves.
- 2. Asking about Withdrawal Symptoms:** Using the same pleasant and encouraging voice, ask them if it has been difficult over the last week or weeks to not use tobacco and if they have any symptoms they would like to discuss? Respond appropriately and remind them that it is always harder in the first few days, but that it gets better over time. If the patient is continuing to use tobacco, remind them that symptoms will not get better unless they quit completely.
- 3. Encouraging Coping Strategies:** Ask the patient about their coping strategies – maybe those they identified in the last session. Have they found them useful? Did they find any new strategies?
 - Praise the strategies used, and remind patients that they are doing very well and continue working toward their goal of quitting.
 - If they are not finding them useful, ask how they think strategies could be changed or new strategies adopted.
 - If a patient has a relapse, explain it is normal and encourage setting a new quit date. Ask what situations make them want to use tobacco and discuss how to avoid them.



Appendix 10: Policy Review Summary Reports

Pakistan TB Policies

Policy	Policy Gaps	Recommendations	References	Comments
Structure and Function				
The National TB Control program (NTP) is responsible for the overall coordination of TB control. Responsibilities includes; policy formation, strategic planning, technical support, monitoring, evaluating and coordination and communication with partners	Lack of data integration	Implement PAL	National Strategic page 35, 152	
Provincial Tuberculosis Control Programs (PTPs) are responsible for coordinating the planning, implementing, managing and financing of TB control activities in their regions. Support the implementation of DOTS in their regions		Formal arrangement is needed to monitor and evaluate TB activities at these levels	National Strategic page 35, 146	
District Authorities are responsible for advocating, planning, financing, implementing and monitoring TB care services				
Drug management unit in charge of all anti-TB drug management related issues			National Strategic page 106	

Implementation of TB DOTS in tertiary care hospitals in collaboration with Pakistan Chest Society and Pakistan Paediatric Association	Weak linkages with tertiary staff with a rapid turnover of trained staff. No collaboration with any medical associations has yet been initiated	Legislation to make TB a notifiable disease and improve staff motivation	National Strategic page 122, 144	
TB Control Service and Delivery				
BMU screens people with respiratory symptoms, maintains patient records and provides patient and family education	Limited access to TB services in overcrowded downtown and suburban/slum areas		National Strategic page 52, 137	Screening patients for respiratory symptoms provides opportunity to collect data on tobacco use in the area and thus provide appropriate tobacco intervention programme for the district
Lady health workers, community health workers, family members and community volunteers are recommended treatment supporters	A large number of Lady Health Workers are still not being involved in patient support (more than 80,000)		National Strategic page 57	Lady health workers - can reduce the gender gap and stigma surrounding female tobacco users. Behavioural support packages (BS) can be included within the treatment support. Community involvement also provides opportunity to educate and encourage community on tobacco and tobacco cessation

Public sector organisations provide free health care to their entitled employees and families			National Strategic page 103	Creating national 'one for all' tobacco training material that's available online could make training more accessible and ensure all health providers are teaching the same standard
Reduce TB/HIV Burden				
National TB/HIV board coordinates work for TB/HIV co-infection and MDR-TB	Lack of coordination between HIV and TB programs with a low national coverage	Engagement of private sector and updating of training material	National Strategic page 62	
Existing HIV centres have been strengthened through the Global Fund to manage TB screening and care				Opportunity to 'piggy back' on TB/HIV program when developing TB/Tobacco
Addressing TB, Other Chronic Ailments and Tobacco Use				
"Programmatic interventions are required to address these issues"	No current interventions or policies have been developed		National Strategic page 63	Opportunity to develop the TB/Tobacco programme alongside the proposed TB-Diabetes strategic plan
TB-Diabetes joint management strategies to be developed	Currently limited experience is available regarding joint management		National Strategic page 64	
Contact tracing an integral aspect of the program- screening of close contacts of all infectious TB cases recommended			National Strategic page 65	
Advocacy, Communication and Social Mobilisation (ACSM)				

NTP is responsible for advocacy and awareness at a national level	High dependence on Global Funds and public-sector support is negligible			
Behaviour Change Strategy developed in selected districts as part of an ACSM program			National Strategic page 111	Enrol across all districts?
ACSM strategy included; public awareness of signs and symptoms through mass media, availability of management services, development of the TB brand, engaging celebrities as ambassadors, installation of billboards, patient empowerment and establishment of NTP resource centre		Implement focussed ACSM intervention for TB patients. Use mobile phones for raising awareness and ensuring adherence of the TB patients to treatment	National Strategic page 112, 158, 165	Introduction of tobacco awareness into media campaigns and billboards. Engaging celebrities as 'anti-tobacco' ambassadors? Develop Mobile phone tobacco cessation programs i.e. texts of encouragement
Stop TB partnership	No action has yet to be undertaken by this partnership	Effort to raise funds within the country needed	National Strategic page 113, 147	
Commemoration of World TB Day			National Strategic page 113	
Socioeconomic Support to MDR-TB Patient				
NTP provides a social support package to patient and treatment supporter on a monthly basis	Lack of public funding for such support	Involve high school students and community volunteers	National Strategic page 94, 156	Include patient and family education within this support package (similar to Bangladesh support package policy), including smoking cessation, BS

				and tobacco awareness.
Bridging the Gap Between Public and Private Health Sectors				
Monitored and supervised by District/Agency level management	Large number of private GPs and laboratories are not in partnership with the NTP			
Engagement of pharmacies in TB control	A pilot policy in only four large urban cities, no strategy in place for expansion	Development throughout the country. NTP can benefit from engaging private pharmacies for rationale use of drugs (good prescribing habits), screening and referrals, treatment, counselling and educational and awareness	National Strategic page 97, 117	Smoking cessation posters/ education for the pharmacists/intervention techniques on sale in pharmacies
NTP case management guidelines and training modules for private providers is supplied			National Strategic page 98	Include modules on tobacco
Four NGOs offer TB services under NTP/PTP partnership e/g private sector hospitals and Pakistan Anti-TB Association			National Strategic page 100	
Training				
District/Agency level train critical mass of human resources	Limited number of master trainers at all levels, there is no electronic data base and	Improve trainer access to computers and create a national online learning		

Medical schools and post-graduate training institutions contribute in the under-graduate and post-graduate training of doctors and chest specialists as well as TB relate research	supervisory modules have not been updated	platform. A bottom-up training approach needed	National Strategic page 53	Tobacco awareness modules and empathy training can be included within the medical school curriculum
Paediatricians involved in childhood TB case management receive a three-day training on NTP childhood TB materials			National Strategic page 61	Education of tobacco use to younger children and also an opportunity to educate the families on second hand smoking
Master trainers from national and provincial programs and partners are initially trained and are then responsible for scale-up trainings			National Strategic page 95	Target training at this level to introduce new tobacco interventions and BS techniques - information can then trickle down to the smaller practices via regular updated training days within the different districts
Refresher courses available			National Strategic page 118	Inclusion of new tobacco materials in refresher courses
Curriculum development of nurses and paramedics to include TB management			National Strategic page 123	Opportunity to include tobacco in the new training materials - can make tobacco awareness and intervention techniques part of their new courses from the beginning
References				

Pakistan Tobacco Policies

Policies	References	Comment
Smoke Free Zones		
Smoking is prohibited in all places of public work or use, and on all public transport	Tobaccocontrollaws.org	Smoking is permitted in hotel rooms
Smoking is prohibited in outdoor waiting areas for buses and trains		
Sub-national jurisdictions may enact smoke free laws that are more stringent than the national law		
Tobacco Advertising, Promotion and Sponsorship		
Advertising on domestic TV, radio, billboards and print media is prohibited	Tobaccocontrollaws.org	Most other forms of advertising is allowed such as promotion of tobacco products with non-tobacco names, internet advertising, outdoor and point-of-sale advertising and non-tobacco products with tobacco names
There are some restrictions on tobacco sponsorship and publicity of such sponsorship		
Prohibition of storage, sale and distribution of cigarettes, etc., in the immediate vicinity of educational institutions	Prohibition of Smoking 2002 page 3	
Prohibition of sale of cigarettes, etc., to minors		
Tobacco Packaging and Labelling		

One warning containing both a picture and text must be placed on all cigarette packs and must occupy 40% of the pack in Urdu and English	Tobaccocontrollaws.org	Health warnings are not required on smokeless tobacco products and the law does not provide for the rotation of the health warnings
As of June 2015, picture and text warnings were to cover 85% of the front and back of all cigarette packs		Implementation has been delayed
Tobacco Taxation and Prices		
The WHO recommends raising tobacco excise taxes so that they account for at least 70% of retail prices.	Tobaccocontrollaws.org	Excise taxes in Pakistan are well below these recommendations at 46% of retail prices
References		
Tobacco Control Laws. <i>Country Details for Pakistan: Summary</i> . http://www.tobaccocontrollaws.org/legislation/country/pakistan/summary [Accessed 6th September, 2016]		
Tobacco Control Laws. <i>Pakistan Tobacco Control Policies</i> . http://www.tobaccocontrollaws.org/legislation/factsheet/policy_status/pakistan [Accessed 6th September, 2016]		
Ministry of Health, Government of Pakistan. <i>Prohibition of Smoking and Protection of Non-Smokers Health Ordinance, 2002</i> . Tobacco Control Cell. http://www.tcc.gov.pk/Downloads/Prohibition%20of%20Smoking%20and%20Protection%20of%20Non-Smokers%20Ordinance%20%202002.pdf [Accessed 6th September, 2016]		

Nepal TB Policies

Policy	Reference	Comments
NTP Development and Progress		
National Tuberculosis Centre (NTC) is the central unit of the NTP and is responsible for establishment of programme policies, strategy and planning. The NTC also carries out the functions of the national referral clinic	Annual Report page 16	
Evaluation of the NTP progress through four monthly cohort analysis		

(case finding, treatment outcome and others)		
NTP regularly conducts orientation and training for concerned health personnel within military, police hospitals, prisons, public schools, public media, municipalities, village dependent committees and private pharmacists	Annual Report page 17	Tobacco cessation programmes in prisons and such institutions?
Regional Level - TB Leprosy Officers are responsible for programme implementation, training and monitoring and evaluation		Tobacco training to this level to feed down into the smaller communities
District Level - District Health Office is responsible for planning and implementation		
NGO and International Collaboration		
Close coordination and cooperation with NGOs/INGOs and external development partners	Annual Report page 16	
Collaboration with National Aids Programme is in progress and the National TB HIV Collaboration Strategy is finalised with a National TB HIV Coordination Committee	Annual Report page 12	
Extensive collaboration with several international partners supporting the NTP and the national health services, by providing training and decentralising supervision and activities, including; LHL International Tuberculosis Foundation, Naya Goreto and WHO	Annual Report page 36-66	
Pursue High Quality DOTS Expansion		

All medical colleges are providing NTP recommended DOTS services in designated centres	Annual Report page 12	
Establishment of DOTS committee in each DOTS centre and sub centres		
Private nursing homes, polyclinics and industries have established DOTS centres		
Political commitment with increases and sustained financing	Annual Report page 15	
Improved monitoring and evaluating system		
Aimed expansion up to the community level	Annual Report page 16	
Aggressive plan developed for establishing DOT centres in urban health clinics	Annual Report page 27	
Practical Approach to Lung Health (PAL)		
WHO Tobacco Free Initiative (TFI) and WHO Stop TB (STB) initiated collaboration to integrate TB and tobacco control activities within the district health system	Annual Report page 32	
Peak flow meters, reporting format and smoking cessation registers are supplied to every health facility		Increased training on how to use such registers and increase staff motivation to use them
Smoking cessation module is included for health workers with a smoking cessation recording register for outpatient departments to record respiratory cases along with smoking status and smoking cessation progress	Annual Report page 33	PAL coverage only in 14 districts as of 2012
Ongoing coordination among NTP and Health Management Information		

System (HMIS) or integrate PAL recording and reporting system		
Treatment Policies		
National TB Program Policy provides free diagnostic and treatment services to all TB patients registered in the programme	Annual Report page 20	Provide behavioural support too
NTP now offers fixed-dose combination ~(FDC) tablets to prevent monotherapy, reduce the emergence of drug resistant TB, to simplify treatment and minimise prescription error, and to increase patient and provider compliance		
NTP provides drugs and other supplies on a regular four monthly basis with a four-month buffer stock	Annual Report page 24	
Training		
Training and orientation of new staff, refresher training and on-the-job training during the supervision, monitoring and review meetings are key ongoing functions	Annual Report page 22	
Quarterly reporting of activities is carried out at trimesterly planning and reporting workshop at all levels of the programme	Annual Report page 24	
Address TB/HIV, DR-TB and other challenges		
Provision of TB HIV collaborative services at selected sites through close partnership with National AIDS programme		
Engage public and private health providers to ensure wider provision of	Annual Report page 27	

standardized diagnosis, treatment and follow-up in line with national protocol		
Joint TB-HIV planning with co-morbidity management and monitoring	Annual Report page 29	Same planning framework can be used for joint TB-Tobacco planning to develop operational guidelines, training manuals and information, education and communication (IEC) materials
Regular TB/HIV basic training, refresher training and orientation	Annual Report page 30	Inclusion of dangers of tobacco and smoking cessation techniques into the same training
Managing the Anti-TB Drug Market		
Anti-TB drug markets are commonly available at the local markets at a price but there is no mechanism in place to ensure complete treatment of patients	Annual Report page 27	Regulation of available anti-TB drugs necessary
Advocacy, Communication and Social Mobilisation (ACSM)		
Focusing on improving ase detection and treatment adherence, combating stigma and discrimination, empowering people affected by TB and mobilizing political commitment	Annual Report page 34	
Special focus on high risk populations e.g. slum dwellers, prisoners and congregate settings e.g. factories		
Observe World TB Day and advocate to policy makers and community people		
Increase the capacity of healthcare providers/volunteers with increased training for female community health volunteers		Increased training for female volunteers provides an opportunity to reduce the gender gap and breakdown the stigma surrounding female tobacco users - increased support could be provided in family planning clinics, similar to Bangladesh
Train/orient health workers and peer educators (community volunteers) on effective communication with patients for improving interpersonal communication		Opportunity to incorporate behavioural support training into these communication sessions - introducing role play into teaching methods

Conduct meetings for peer education to teachers, students and self-help groups		Self-help groups could be set up for smoking cessation?
Conduct patient empowering activities to reduce discrimination and stigma		
Aggressive and innovative awareness activities on TB and it's services	Annual Report page 28	Update the current public information available on the new smoking cessation and support services provided
Encourage people to seek their own quality care		An opportunity to change social norms and encourage people to become more involved in their treatment rather than the 'doctor knows best' ideology
Orientation in school health programmes	Annual Report page 35	
TB messages in newspapers and broadcasting messages through radio and TV		Include risks of tobacco or similar media activities solely on tobacco and cessation techniques - an effort to normalise the idea of quitting
References		
Ministry of Health and Population and the Department of Health Services. <i>National Tuberculosis Programme. Annual Report FY 2068/69 (2011/12)</i> . Government of Nepal; Thimi, Bhaktapur		

Nepal Tobacco Policies

Policy	Policy Gaps	Recommendations	Reference	Comments
Smoke Free Zones				
Smoking is banned in most public places, workplaces, public transport, private homes and vehicles	The law allows managers of airports, prisons and hotels to designate smoking areas which generally these should be outside, however they can be inside if no outside space is available.	Regulations need to explicitly state the designated smoking area must be outdoors to ensure 100% smoke free workplaces	Needs Assessment page 4	
Outdoor Areas: Pilgrimage and religious places, stadiums, outdoor areas of industries and factories, and children's parks and clubs must be smoke free			tobaccocontrolaws.org	

Government of Nepal has the right to deem any place public by publishing a notice in the Nepal Gazette thus requiring the area to be smoke free			Needs Assessment page 21	
Ministry of Science, Technology and Environment (MOSTE) measure the content of second-hand tobacco smoke in the air of workplaces and public places		Further collaboration with MOSTE and Ministry of Health and Population (MOHP) to assess the impact of smoke-free interventions	Needs Assessment page 22	
Tobacco advertising, promotion and sponsorship				
There is a ban on most forms of tobacco advertising in media, outdoors and point of sale	Tobacco products are still displayed on shelves at points of sale and youth exposure to tobacco advertising remains high		Needs assessment page 31-32	
Ministry of Information and Communication's Censor Board has begun including health warnings in films and television programmes in which tobacco products appear	Brand stretching and promotions with tobacco product purchases are permitted		Needs Assessment page31, tobaccocontrollaws.org	Health warnings of tobacco could further stretch to health warnings of associated diseases i.e. TB and the associated risk of tobacco
There are some restrictions on tobacco sponsorship and publicity of such sponsorship	Challenges enforcing the laws so socially responsible activities by the tobacco industry still take place			
Laws include the prohibition of cross-border advertising, promotion and sponsorship			Needs Assessment page 33	

Tobacco Packaging and Labelling				
Health warnings must be composed of both pictures and text and cover 90% of smoked and smokeless tobacco product packaging (Beginning May 15, 2015)	Progress implementing the law has been halted due to cases filed by the tobacco industry against provisions on packaging and labelling	Destination of tobacco products and disclosure of ingredients on products advised	Tobaccocontrollaws.org Needs Assessment page 5	
Nepali law specifies the ministry may change the required four pictorial health warnings within a year	Nepal has not established standards to regulate the ingredients of tobacco products and does not have testing guidelines or the facilities		Needs Assessment page 26	
Misleading packaging and labelling, including terms such as 'less tar' and 'light' and other signs, is prohibited			tobaccocontrollaws.org	
NGO and International Collaboration				
The Tobacco Products Control and Regulatory Committee (the committee) will be comprised of two persons, including one woman, to be nominated by the Ministry from among the NGOs working within the field		Ministry of Health and Population works more closely with existing NGOs to see how they can collaboratively scale up activities	Needs Assessment page 11	A woman on the committee provides opportunities to target the female smokers demographic
In coordination with the National Tuberculosis Centre, the Health Research and Social Development Forum has begun integrating tobacco control into the primary health care setting through the PAL as a pilot project				A greater continued coordination effort needed between NGOs associated with lung health and tuberculosis,
To develop the Tobacco Product (Control and Regulatory) Act 2010, (the Act), Nepal cooperated with			Needs Assessment page 17	

the International Union against Tuberculosis and Lung Disease				and the committee
Education and Training				
Tobacco control content is included in the curriculum from grades 3-10	There is a lack of teaching materials and lack of specific knowledge and skills so effectiveness of teaching is unknown	The NHEICC rigorously research and evaluate the impact of interventions and activities with international cooperation to achieve better outcomes The NHEICC work together with the ministry of education to strengthen training for health professionals and individuals	Needs Assessment page 29-30	Opportunity to include dangers of TB and the associated smoking risks - a flip book similar to WP1?
Anti-tobacco awareness campaigns and co-curricular activities have been conducted	There is a lack of pre-service and in-service tobacco control and cessation training for health professionals and for educators			
National Health Education, Information and Communication Centre (NHEICC) organized orientation programmes to educate health workers and the public on the negative effects of smoking and tobacco use	Lack of training and information on the harms of smokeless tobacco provided			
Tobacco cessation training conducted in three districts (Kathmandu, Pokhara and Biratnagar)	Due to lack of funding, tobacco cessation training for health workers could not be expanded to cover the whole country			
Tobacco Dependence and Cessation				
Under the WHO Tobacco Free Initiative and Global TB Programme's Practical approach to Lung Health pilot project 2007-8, 25 health facilities have been trained to carry out tobacco cessation counselling	Nepal has not developed national guidelines to promote cessation of tobacco use and has no comprehensive and integrated program. Curricula at medical, dental, nursing and pharmacy school is inadequate Pharmaceutical products for the treatment of tobacco dependence	Nepal needs to develop its own comprehensive guidelines concerning tobacco dependence and cessation, taking into account national circumstances and priorities Scale up of PAL services	Needs Assessment page 33-34	As they have yet to be developed the guidelines can include the links to tuberculosis and the focus on education associating both

Smoking status is asked by professionals in an ad hoc manner and brief advice is delivered	are not registered and are therefore not available for public service	Community based counselling advised Make recording of tobacco use in notes mandatory		Information and counselling could be provided alongside TB awareness campaigns
Nepal Cancer Relief Society, an NGO, runs a quit line and provides telephonic counselling to support people wishing to quit. Provided at a cost.	There is no national toll-free quit line for tobacco cessation			
Public Awareness				
NHEICC has developed, pretested and disseminated information, education and communication materials to health institutions, schools, colleges and other public places			Needs Assessment page 28-30	
World No Tobacco Day observed every year				World TB Day can be observed?
Health messages are broadcast on four radio and four television programmes	No free air time is allocated to the broadcasting of tobacco control campaign messages			Can include health messages on TB
Public rallies organised alongside interactive activities and orientation workshops				
MOHP will not hire smokers and tobacco users in an attempt to change behavior and social norms				
Price and Tax Measures				

Health Tax Fund is used to control tobacco consumption and the prevent and control tobacco-related diseases 'at least 25% of the total amount raised from the revenue levied from the excise tax upon smoking and tobacco products by the Government of Nepal as per the financial Act shall be deposited in the Health Tax Fund'	The fund is allocated primarily to curative activities (75% to government owned hospitals for diagnosis, treatment and investigation of diseases caused by tobacco	Increased allocation of the fund to prevention techniques	Needs Assessment page 14	Allocation of funds to initiatives such as PAL and towards education on TB and TB management - smoking cessation.
Taxes are levied on all types of cigarettes, cigars, bidis, pipe tobacco, smokeless tobacco products, and on imported cigarettes. Ad valorem and specific excise duties, import tax and value added tax are imposed on different types of tobacco products - monitored by Inland Revenue Department (IRD)	Current taxation structure is complex with too many rates. This makes tax increases less effective since smokers can switch to cheaper tobacco products	Simplified Taxation Structure	Needs Assessment page 18-19	
Illicit Trade				
All tobacco products are required to have an excise stamp - enables IRD to monitor illicit trade	No tracking or tracing system in place	To require that all products include the statement "Sales only allowed in Nepal"	Health Needs Assessment page 35-38	
Cooperation with South Asian Association for Regional Cooperation (SAARC) countries to tackle illicit trade over open borders				
A license, with a fee of 5000 rupees per document, is required for importing tobacco issued by the				

Department of Commerce and Supply Management				
Sales to and by Minors				
The Act prohibits sale, distribution or provision of tobacco products for free to a person below the age of 18 years and to pregnant women	Implementation and enforcement of the law remains a challenge		Health Needs Assessment page 38-40	
Illegal to sell tobacco products within 100 meters of educational and health institutions, child welfare homes, child-care centers, old people's homes and other public places designated by the government in the Nepal Gazette				
No decoration is permitted at points of sale to attract people to tobacco products or displays of such products				
The Act prohibits any logo, mark, picture or word that could appeal to minors from appearing on tobacco products and no products can use the same brand name or trademark as other industry or products				
References				
Convention Secretariat. Needs Assessment for Implementation of the WHO Framework Convention on Tobacco Control in Nepal. June 2013				
Tobacco Control Laws. Country Details for Nepal: Summary. Available on: http://tobaccocontrollaws.org/legislation/country/nepal/summary [Accessed 24th August 2016]				
Tobacco Control Laws. Nepal Tobacco Control Policies. Available on: http://tobaccocontrollaws.org/legislation/factsheet/policy_status/nepal [Accessed 24th August 2016]				

Bangladesh TB Policies

Policy	Reference	Comment
Greater Laboratory Capacity		
Identified as a need to support MDR-TB management and the planned National drug-resistance survey	Five-year Plan Page 8	
To increase the case detection rate of new smear positive cases to 80% and improve diagnosis of new smear negative, extra-pulmonary cases and children TB by 2015	Five Year Plan page 25	
To maintain treatment success rate to over 90% till 2015	Five Year Plan page 27	
To reduce mortality, morbidity and transmission of MDR-TB through effective management	Five Year Plan page 31	
Decreasing the Burden of TB/HIV		
By ensuring effective collaboration between TB and HIV programs through effective coordination and delivery of collaborative services	Five Year Plan page 30	Collaboration of TB and HIV already existing provides potential to adapt a TB/Smoking collaboration using similar framework
A nation-wide representative TB/HIV survey among TB patients will be carried out within this Strategic Plan every two to three years to explore real TB/HIV co infection and its trend	Five Year Plan Page 30	
Technical working groups have been set up under NTP to coordinate strategies and activities on public-private mix (PPM) and TB/HIV	Five Year Plan Page 18	
NTP NGO and International Collaboration		
Collaboration with a number of national and international health and development agencies to implement the Stop TB strategy including the Bangladesh Medical Association (BMA) and the Bangladesh Lung Foundation	Five Year Plan page 18	Links with the BMA, Bangladesh Private Medical Practitioners Association, Asthma Association and other bodies provides an opportunity to involve the top professionals in the development of national cessation programs

Regular coordination meetings held under the NGO steering committee for TB to avoid fragmentation and duplication of efforts and to ensure best use of comparative advantages and monthly district level meetings evaluating activities	Monitoring and Evaluation Plan page 6	
NTP will engage Bangladesh Medical and Dental Council to include Stop TB Strategy components in the medical curricula. This will also require development of curricula, orientation and consensus of concerned authorities	Five Year Plan page 29	Can also include dangers of smoking/ smoking cessation techniques into curricula?
NGOs will support with the provision of appropriate patient education, including information regarding the regimen duration and possible treatment outcomes, provided repeatedly by well trained and considerate staff	Five Year Plan page 29	
NTP will maintain and improve the knowledge and skills of health workers through continuous training and supervision, including quarterly workshops – Existing training materials will be periodically revised in line with the changing policies and WHO recommendations	Five Year Plan page 28-29	
International training and study tours will continue for NTP and partners	Five Year Plan page 29	Increase importance of the International Standards of Tuberculosis care.
A patient referral system between private sector and DOTS centers will be established with a standardized Memorandum of Understanding (MoU)	Five Year Plan page 40	Opportunities to strengthen ties with the private sector – ‘Many patients attend the private health care providers and linkage with this sector needs strengthening’
In partnership with BRAC, who are focused on community level education and engagement and are one of the principal recipients of the Global Fund.	Annual Report 2015 page 28	BRACs uptake on smoking cessation techniques and behavioral support could greatly benefit the smaller communities where their involvement is felt the most.
Practical Approach to Lung Health (PAL)		

Implementation of initiative alongside a comprehensive chest disease management	Five Year Plan page 35	Inclusion of behavioral support and smoking cessation techniques could be included within the new management model
Dissemination of Information in Communities		
DGHS Health Assistants and DFP Family Welfare Assistants serve a population of 6000-7000 people performing home visits, working from community clinics, family planning, maternal and child health and symptomatic curative care	Five Year Plan page 9	Family planning staff work closely with women and building trust – opportunity to aim smoking cessation at women in an environment they are comfortable in
Female community health volunteers, cured patients, community leaders and teachers are involved in provision of TB information.	Five Year Plan page 17	Inclusion of tobacco cessation and behavioral support methods when updating training of these community members
Intensification of involvement of private practitioners, village doctors and shastho shebikas will need a close follow up in order to institutionalize this approach.	Five Year Plan page 29	
Mass events and community level activities are undertaken to raise awareness	Five Year Plan page 20	
Socioeconomic Support to MDR TB Patient		
Transportation, food and hygiene packages for patients and families provided alongside patient education	Five Year plan page 33	<ul style="list-style-type: none">• Smoking cessation can be included within patient education.• Concept of second hand smoke inhalation could be introduced to family members?• Ideal would be to enroll this family support program (minus the economic provision) across all TB patients
The NTP will further expand the use of cured and treatment completed patient and peer support groups to promote adherence to treatment	Five Year plan page 27	
Addressing the Needs of the Poor		
Addressing the nutritional status, living conditions and standards of hygiene can help prevent transmission of infection to disease	Five Year Plan page 34	Good nutrition and health ultimately involves smoking cessation - an intervention should be included within the NNP
Links with the National Nutrition Program (NNP) under the Ministry of Health and Family Welfare		
Enhance advocacy for good nutrition and health, addressing non-infectious diseases.		
Maintaining Treatment Success Rate		

Increased awareness at all levels via improved community involvement	Five Year Plan page 41	KEY TARGET AREA! Commitment to public awareness of risk factors, symptoms and treatment processes can include information on the effects of smoking, with increase number of adverts, inclusion on the TB fact sheets, newspaper messages and posters to encourage smoking cessation
Increased social mobilization and community involvement.		
To combat stigma and discrimination, and to institutionalize social change		
Advocacy to gain/maintain political commitment e.g. TV talk shows, radio, theatre and billboard displays		
Continued commitment to World TB Day – Published a TB fact sheet in 2014	Annual Report 2015 page 7	
Training		
Junior Consultants in CDCs are qualified chest specialists; their expertise is being utilized for further strengthening NTP activities, particularly for training, supervision and monitoring. A significant number of them participated in national and international trainings courses, congresses or meetings on TB Control. These consultants often take the lead in all the training activities at district level and support NGOs in implementation of TB services.	Five Year Plan page 21-22	Targeting this level to implement smoking cessation techniques and behavioural support techniques would be the most efficient - utilizing their new knowledge to influence NGOs and training at district levels
Medical officers to be trained in reading x-ray films to increase detection rate with an increase in functional x-ray facilities and provision of supplies	Five Year Plan page 17	Signs of smoking? Check every x-ray - an opportunity to drill medical officers to look not just for signs of TB and other diseases but to also look for clues as to the patients smoking history
References		
Directorate General of Health Services, Ministry of Health and Welfare. <i>Five Year National Strategic Plan for Tuberculosis Control 2011-15</i> , Draft ed. National Tuberculosis Control Programme.		
Directorate General of Health Services, Ministry of Health and Welfare. <i>Tuberculosis Control in Bangladesh. Annual Report 2015</i> . National Tuberculosis Programme: Mohakhali, Dhaka; November 2015		
Directorate General of Health Services, Ministry of Health and Welfare. <i>National Monitoring and Evaluation Plan for Tuberculosis Control Bangladesh 2011-2015</i> . National Tuberculosis Programme: Mohakhali, Dhaka.		
Directorate General of Health Services, Ministry of Health and Welfare. <i>National Guidelines and Operational Manual for Tuberculosis Control</i> , 5th ed. National Tuberculosis Control Programme: Mohakhali, Dhaka		

Bangladesh Tobacco Policies

Policies	Comment	
Smoke Free Zones		
Smoking is prohibited in the majority of indoor public places and workplaces e.g healthcare facilities, schools, universities, government facilities, bars and pubs and private offices	Smoking is not prohibited in restaurants with fewer than four walls	Sub-national jurisdictions may enact smoke free laws that are more stringent than the national law
Certain outdoor places may have outdoor designated smoking zones	Healthcare and educational facilities shall not have such zones	
Smoking is prohibited in one room means of public transport	Public transport with two or more rooms may have designated smoking zones	
Children's parks, fairs and queues of passengers riding public vehicles are smoke free		
Tobacco advertising, promotion and sponsorship		
Tobacco advertising is prohibited in all print and electronic media, including at the point of sale	Internet tobacco sales and tobacco products bearing non-tobacco brand names are allowed	
Free and discounted products are prohibited		
Sponsorship publicity is prohibited	However sponsorship by the tobacco industry is not completely inhibited i.e financial sponsorship, including corporate socail responsibility	
Tobacco Packaging and Labelling		
The law requires graphic health warnings to cover at least the top 50 percent f the main display areas of all tobacco products	This law includes graphic and written warnings in the principal language(s)	

One of nine warnings (seven warnings for smoked products and two warnings for smokeless products) must be rotated every three months	
Misleading terms such as "light" and "low tar" are prohibited on tobacco packaging	Other misleading packaging e.g. colours, numbers and symbols, is not banned
Tobacco Taxation and Prices	
The WHO recommends raising tobacco excise taxes so that they account for at least 70% of retail prices.	Tobacco excise taxes in Bangladesh are well below these recommendations at 61% of retail prices
References	
Tobacco Control Laws. <i>Country Details for Bangladesh, Summary</i> . Available on: http://tobaccocontrolaws.org/legislation/country/bangladesh/summary [Accessed 23rd August 2016]	
Tobacco Control Laws. <i>Bangladesh Tobacco Control Policies</i> . Available on: http://tobaccocontrolaws.org/legislation/factsheet/policy_status/bangladesh [Accessed 23rd August 2016]	

Appendix 11: Codes for Second Round of Qualitative Data Analysis

<u>Code</u>	<u>COM Aspect</u>	<u>Subject</u>	<u>Source</u>
1.A.1	Capability	Health Workers	Self-Reported
1.A.2	Capability	Health Workers	Perceived
1.B.1	Capability	Patients	Self-Reported
1.B.2	Capability	Patients	Perceived
2.A.1	Opportunity	Health Workers	Self-Reported
2.A.2	Opportunity	Health Workers	Perceived
2.B.1	Opportunity	Patients	Self-Reported
2.B.2	Opportunity	Patients	Perceived
3.A.1	Motivation	Health Workers	Self-Reported
3.A.2	Motivation	Health Workers	Perceived
3.B.1	Motivation	Patients	Self-Reported
3.B.2	Motivation	Patients	Perceived