A Report

Health Information Needs Assessment

The Survey Results From Pilot Sites Of the Health InterNetwork (HIN) Project

By

Foundation for Research in Health Systems,
6, Gurukrupa 183 Azad Society,
Ahmedabad,
India

Tel: +91-79-674 0437, 5589, 6279
Fax: +91-79-674 0437
Email: frhsahdad1@sancharnet.in

Recd from Mr Ranjan Dwivedi
- for HIN project
- To RKN / AP
JN 17/9/02

List of contributors

Expert committee members

Dr Nirmala Murthy, FRHS, Bangalore

Dr D K Srinivas, Rajiv Gandhi University of Health Sciences, Bangalore;

Dr CAK Yesudian, Tata Institute of Social Research, Mumbai;

Dr Shanthadevi Tottikamat, Tuberculosis Research Centre, Chennai

Data collection team

From NTI , Bangalore:

Dr Lalita Suryanarayana,

Mr Hemant Kumar,

Mr Mallikarjuniah,

Mr B A Eswar,

From NIHARD, Cuttak:

Dr B N Mukhi,

Mr A Baral

Dr E Venkat Rao,

Mr. S. Mohanty

From FRHS:

Ms Akhila Vasan,

Mr. Prashanth C.

Mr Dinesh S.,

Ms. Madhavilata G,

Mr Deepak Dhongde,

Dr Vikas Aggarwal

Abbreviations

DHO	District Health Officer
DOTS	Directly Observed Treatment- Short Course
FRHS	Foundation for Research in Health System
GOI	Government of India
HIN	Health InterNetwork
IT	Information Technology
KVA	Kilovolt Ampere
LAN	Local Area Network
NTI	National Tuberculosis Institute, Bangalore
PHC	Primary Health Centre
RGUHS	Rajiv Gandhi University of Health Sciences
RNTCP	Revised National Tuberculosis Control Program
TRC	Tuberculosis Research Centre, Chennai
UPS	Uninterrupted Power Supply
WHO	World Health Organization

Executive summary

This report presents data from the Health Information Needs Assessment survey carried out in two districts, Rural Bangalore in Karanataka and Deogarh in Orissa, which have been selected as the pilot sites for implementing the Health InterNetwork (HIN) project. The objective of this survey was to assess information needs of health professionals involved in the TB and Tobacco Control Programs. They included health researchers, administrators, and healthcare service providers from government and private sectors.

Since the aim of the HIN-India project is to increase health professionals' access and use of research information by 75 % and 50% respectively, this survey attempted to gather the baseline information about the access and use of research information. The survey also gathered information on how health professionals in the pilot areas rated their current access to information in terms of ease, speed, and usefulness as well as it found out their "real" need for health information. Considering the fact that the HIN project involves making Web-based information available at selected health institution, this survey also assessed the E-readiness of the existing health facilities in the project districts in terms of availability of hardware, space, electricity, connectivity, and human expertise.

A total of 303 interviews were conducted from five categories of health professionals namely researchers, administrators, government doctors, private doctors and paramedical staff. This sample was drawn from health practitioners at primary health centers from the two pilot districts, health administrators at district, state and national level as also researchers from medical colleges and research institutions.

A total of eight survey instruments were administered to collect information from different categories of respondents. This report presents data on access, use and need for health research information separately for the five beneficiary groups namely, Researcher (30), Administrator (35), Government Doctor (50), Private Doctor (66) and Paramedical staffs (122).

This survey highlighted the fact that private doctors treated significant proportion of TB patients but their awareness about the size and nature of TB threat as well as about its treatment regimen were much lower as compared to those of government doctors. Therefore HIN must try to increase access to health information among government as well as private doctors.

This survey showed varying degree of awareness among the five respondent groups. For example, awareness that TB is still a "killer" disease in India varied from over 80% among administrators to 55% among paramedical. The five most frequently reasons mentioned for 'TB to be a killer disease' were: patients not regular in taking treatment, patients lack awareness, patients cannot afford the time to go to doctor, drugs not available in sufficient quantity, and resistant bacteria. But very few

respondents mentioned causes such as social stigma and preference for traditional practitioner, which often delay the treatment.

Knowledge about RNTCP guidelines for diagnosing and treating TB was near 100 percent among government doctors but below 50 percent among private doctors and paramedical staff. Yet, 1/3rd of government doctors mentioned that they preferred individualized case management rather than the RNTCP regimen for their private patients. This gap between their knowledge, attitude and practice suggests that though government doctors received knowledge in the RNTCP training programs, something more is needed to influence their attitudes and practices. Therefore, HIN cannot focus only on creating knowledge content while ignoring the issues of influencing perceptions and attitudes that finally change practices.

With respect to the Tobacco threat, almost all respondents said it was a major health problem. But their knowledge about different products that contain tobacco, as well as about various diseases or health conditions that are attributed to tobacco-use, seemed limited to the level of general knowledge.

All health practitioners said that they could play an important role in reducing tobacco use because they have credibility in community provided they themselves do not use tobacco. Different categories of respondents emphasized different measures for reducing tobacco use. Administrators most frequently recommended ban on tobacco advertisement. Government doctors and paramedical staff recommended health education through mass campaign, while private doctors recommended patient counseling. They did not make these recommendations based on any research studies or technical information because less than 20 percent administrators / researchers and less than 5 percent in other practitioners reported access to such information.

However, with regard to TB, about 1/3rd of Government doctors and ½ of Private doctors reported having access to technical information. Access to medical Journal, mainly Indian Journals, was higher among private doctors (67%) than among government doctors (17%), while 40 percent of government doctors and 25 percent private doctors reported "no access" to medical journals.

Government doctors' main sources of health information were training programs and meetings. Similarly for paramedical staff, the main information sources were Training/meetings and IEC. Library was the least frequently mentioned source (10 %) while Internet was mentioned by about 17 percent of doctors.

Health practitioners in government set-up did not seem to actively seek information. They received information during training programs or during monthly meetings, which they thought was adequate.

They paid most attention to program guidelines and government circulars, which they received usually during district level meetings. Administrators on the other hand, reported receiving a lot of information for which they had no time. Yet 2/3rd of all respondents wanted further information on TB and practically all wanted information on tobacco-use.

Different categories of respondents however, wanted different types of information. Researchers and administrators wanted information on new developments in TB treatment (40%). Doctors and paramedical staff wanted information on how to prevent spread of TB (68 %) and how to motivate patients to continue TB treatment (55%). Sizable number of doctors also wanted information about etiology of TB in the context of HIV/AID.

In case of Tobacco, the three most frequently mentioned information needs, which were uniform in all categories of respondents were: (i) health effects of different types of tobacco use (81%), (ii) advise about cessation (61 %), and (iii) types of tobacco use (60 %).

The survey data also indicated the need to create greater awareness among service providers about why patients discontinue TB treatment and their typical characteristics, which would help service providers, so that they could give special attention on counseling them. The survey also identified the need for quick transfer of patients' information to doctors in case of referrals or transfer of patient from one doctor to another.

In addition to TB and Tobacco, respondents listed other important public health topics for their work. Government doctors' list was the longest, followed by that of paramedical staff and private doctors. Those lists suggest that practitioners' information needs go much beyond TB and Tobacco. Therefore HIN project, which focuses only on TB and Tobacco, might not receive their attention to the desired extent.

For gaining knowledge in their areas of expertise, most doctors mentioned using journals and scientific publications, while paramedical staff mentioned meetings and books, as their sources of information. But their preferred sources of information were different in the five groups. It was the Internet among administrators and researchers; scientific journals and Internet among government and private doctors; and Audio-Visual media and Experts' lectures among paramedical staff. Health professionals preferred getting technical information in English while paramedical staff wanted that information in their local languages.

Most respondents reported difficulties in accessing information related to their area of work. The three most frequently mentioned difficulties were "information difficult to get", "Expensive" and "irregular".

Data on the current pattern of information use and the need for communication showed that all respondents, except administrators, primarily wanted new information for diagnosing and treating complicated cases. Their need to communicate with outside experts was much less compared to their need to communicate with persons within organization. Even among administrators and researchers, less than half reported communicating with experts outside organization.

Access to the Internet varied greatly among the respondent groups. It was 75 percent among researchers / administrators, 25 percent among doctors and 5 percent among paramedical staff. The common and most frequently mentioned barriers in using the Internet were, lack of time, lack of skills and slow access. Notwithstanding these barriers, most respondents (89%) said that access to Internet would help them in their work.

However none of the 26 district-level health institutions, 21 in Rural Bangalore and 5 in Orissa, had any signs of e-readiness. None of these institutions had computer or Internet facility. In 13 of them had one or two persons each, who had some computer skills. But the remaining 13 institution had no staff that could use computer though they all showed willingness to learn. All 26 sites were also deficient on several parameters of the e-readiness such as availability of regular electricity supply, telephone lines, Internet access, training facility etc.

This survey was particularly useful in identifying specific knowledge areas that HIN needs to focus on, in order to improve quality of TB care. Some of the major recommendations that came out of this survey were:

- Since the survey had showed that doctors preferred individualized case-management to any particular regimen, HIN should provide doctors authentic information about various drugs used in TB treatment. That might reduce their dependence on drug salesmen for information. HIN could also provide doctors opportunity to discuss their objections to the RNTCP drug regimen, with experts, to increase their conviction in the treatment.

- Since awareness about the link between tobacco-use and health problems other than oro-respiratory problems, was found to be not high, by providing that information HIN might help increase health practitioners ability to dissuade many more patients from using tobacco.

- Since different categories of respondents need different types of information, and they also prefer different types of media --from the Internet to AV media, HIN needs to take those preferences into considerations while designing the content and deciding the modes of communication.

- Since respondents from all categories reported low use of information for policy and program related decision, HIN project might have to develop / adopt a training module for guiding and promoting information use among HIN beneficiaries for program planning and implementation decisions.

- Since government doctors and paramedical staff deal with many health programs other than TB and tobacco, their information needs go far beyond the TB and Tobacco programs. The survey identified many other health topics about which they would need information. Restricting HIN website only to TB and Tobacco might not motivate them enough to want to invest time and effort in this project.

- Since government doctors and paramedical staff might not have the time and inclination to seek web-based information, the HIN should consider providing health information also in media such as Newsletters, meetings, and Audio-Visual media and addition to helping them to use the Internet.

- Since all categories of respondents mentioned "insufficient computer skills" as a barrier to accessing the Internet, HIN should not only provide training but also ensure that they have online help available for trouble shooting as well as continuing support and encouragement for using the computer system.

- Since the survey data suggests that beneficiaries of HIN would find facilities like e-mail. Chat rooms, discussion-board etc. very useful. HIN should promote use of those facilities, which would also help increase their interactions with outside experts, especially with research institutions. That would mean ensuring that there would be someone responding to queries sent by users as well as encouraging users to reach out to experts for information.

- E- readiness assessment indicated that only 50% Institutions have potential users with some skills in using computers but none have the required physical facilities such as computers, Internet connectivity, telephone lines etc. The first step in HIN implementation therefore is to provide those facilities and then undertake intensive training. That would help them in receiving the content being prepared based on the Needs Assessment Survey.

Background

In September 2000, the UN Secretary General launched a public-private initiative to bridge the digital divide in health Information. *Health InterNetwork* (HIN) Project is a part of that initiative, led by the WHO. This initiative brings together international agencies, the private sector, foundations, non-governmental organizations and country partners to ensure *equitable access to health information*. The project aims at establishing a network among health service providers, researchers and policy makers to ensure that they get equitable, reliable and rapid access to health information, using Internet technologies.

India has been selected as the first HIN pilot country from 6 to 8 HIN pilots planned worldwide, because India has several priority public health programs as well as valuable skills and resources, which could contribute to the development of the global Health InterNetwork. The aim of this project is to improve Internet-based communication and networking among health professionals. It plans to achieve 75 % increase in access and 50% increase in use of health research information by its primary beneficiaries. The primary beneficiaries of the HIN-India pilot project are researchers, policy makers and health service providers.

HIN-India plans to focus on Tuberculosis (TB) and Tobacco Control Programs because significant research on Tuberculosis control was first carried out in India but India was one of the last countries to use this research into its health program. Similarly, studies from Eastern India were the first in the world to link palate cancer to chewing of tobacco but India's program to reduce tobacco use is still in a nascent stage. HIN aims to correct such anomalies by increasing use of Indian health research into the country's health policy and program planning.

The pilot phase of the HIN-India is being implemented in Deogarh district in Orissa and Bangalore Rural district in Karnataka. The core elements of this phase are creating *content*, establishing *connectivity* and *capacity building*.

1. Content

During the pilot phase, an Internet portal will be developed to provide a shortcut to high-quality, relevant and current information related to TB and Tobacco-use. Through this portal, users will be able to access statistical data, scientific publications and information related to health policy and practices. In addition, the portal will make available information related to technology, epidemiological tools, distance learning modules and a host of local and regional public health information that is currently not available, electronically.

II. Connectivity

In this phase, 10-12 pilot sites will be equipped with the essential hardware, software, Internet connectivity and the necessary training to potential beneficiaries of the HIN Internet portal.

III. Capacity building

This phase will focus on building skills among beneficiaries that will include: 1) information use in daily work, 2) basic computer and Internet skills, and 3) hands-on training in using specialized public health tools.

Through these activities, the project aims to address "information gaps" that exist between researchers, policy-makers and practitioners because research information is either not easily available or is not available in the form that can be easily understood and used by different types of beneficiaries. Since very few people other than researchers read through and understand research papers and protocols, appropriate formatting of this information is crucial for increasing use of research by policy-makers and practitioners. This project will also attempt to present research information in an easy-to-use format by using various Information and Communication Technology solutions.

In addition, the HIN Internet portal will improve access to Indian research on TB and Tobacco through E-publishing. Though India's contribution to the published research on TB is only 5-6 percent and that on Tobacco even less, a huge amount of valuable unpublished information lies in her research institutions as raw or partially analyzed data. HIN plans to make this information available through e-publishing. Also it will address the issue of Indian researchers finding access to international databases expensive and difficult.

Major project activities included in this pilot are:

- Networking of key research institutions in Tuberculosis and Tobacco, and selected medical college libraries in Karanataka and Orissa with the National Medical Library, New Delhi
- Supporting electronic publishing of key medical journals, health research reports and policy documents related to Tuberculosis and Tobacco Control programs
- Developing interfaces to allow integrated access to various health data sources
- Establishing Internet connectivity at selected sites and conducting training for participants at those sites
- Providing need-based health research information in forms that are useful to different stakeholders

- Testing technologies such as Simputer, solar power, health kiosks, Wireless in Local Loop, radio-based connectivity etc. for their appropriateness and affordability at the community level
- Establishing benchmarks to measure the impact of the pilot

Since the HIN plans to develop need-based content, the Project Advisory Committee commissioned a survey of potential main beneficiaries in the pilot states of Karnataka and Orissa, to understand their information needs. Findings from this survey, which was carried out in January 2002, are presented in this report.

Information Needs Assessment Survey

Foundation for Research in Health Systems (FRHS), a non-governmental research organization located in Bangalore, carried out the Health Information Needs Assessment Survey in the two project states, Karnataka and Orissa, under the guidance of the Expert Advisory Committee of the project. The objective of the survey was to assess the information needs of health professionals namely: researchers, administrators, and service providers involved in the TB and Tobacco Control Programs.

Types of Information gathered

As the overall aim of the HIN-India project is to achieve 75 % increase in access to health research information and 50% increase in the use of research information in designing health policies and programs, the survey gathered information on the current levels of access and use of health research information. Specifically, the survey gathered information on:

- Existing levels of health information among beneficiary groups with respect to TB and Tobacco-use
- Beneficiaries' ratings of access to health research information, in terms of ease and speed, and usefulness
- Beneficiaries' perception about types of information they needed
- E-readiness of health facility in terms of availability of hardware, space, electricity, connectivity, and human expertise

Survey Area:

The survey was carried out in three blocks of Rural Bangalore district - Doddaballapur, Kanakapura, and Ramanagar and in three blocks of Deogarh district - Barkote, Riyamal and Tileibani.

Display Number 1: Survey Area

Rural Bangalore district -	**Deogarh district of Orissa -**
• **Doddaballapur,**	• **Barkote,**
• **Kanakapura,**	• **Riyamal,**
• **Ramanaga**	• **Tileibani**

Beneficiaries surveyed

The survey was carried out at three levels- District, State and National. District level respondents included government and private doctors; health administrators and supervisors; laboratory technicians and paramedical staff at Primary Health Centres. State level respondents included state health officers, faculty of medical colleges and hospital administrators from public and private hospitals. National level respondents were policy makers and program administrators of TB and Tobacco control programs, representatives of selected NGOs, International agencies, and Practitioner's Association.

Sampling procedure and Sample Size:

At the outset, the expert committee decided on a sample size of around 300, of which 20 interviews to be conducted at the national level and the remaining in the two project-states, in 2:1 proportion since Bangalore Rural is much larger a district than Deogarh district of Orissa.

In the final tally, a total of 303 interviews were conducted from among different categories of respondents as shown in Table 1.

Table 1: Sample Size of the Different Categories of Respondents

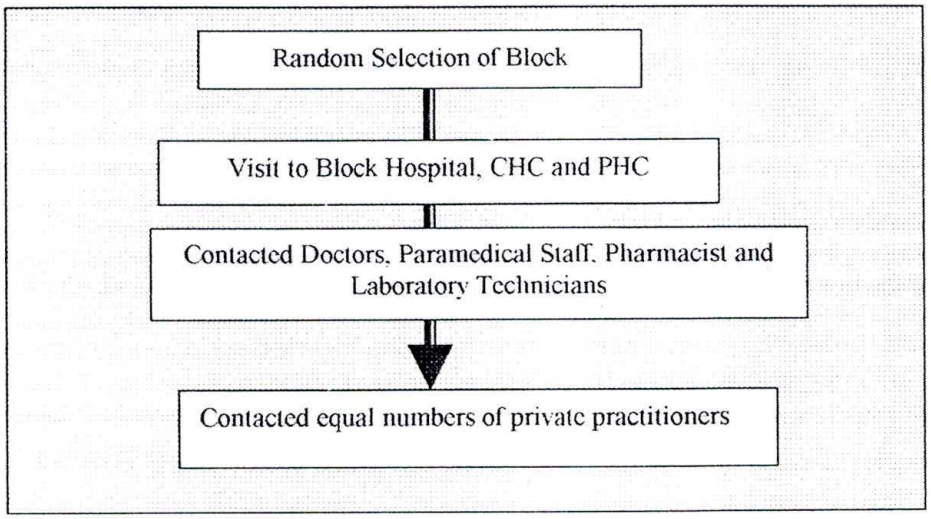
Category		**Bangalore**	**Orissa**	**National**	**Total**
Service providers:	Medical	73	40	3	116
	Paramedical	82	40	0	122
Researchers / Teachers		13	10	7	30
Policy makers / Administrators		10	15	10	35
Total No. of Respondents		**178**	**105**	**20**	**303**

This sample size was adequate to conclude that 5 percentage-point difference between any two categories of respondents, on any indicator would be statistically significant with 95 percent probability. For example, we could conclude that administrators were significantly older than

government doctors, because 74 % among administrators and 48 % among government doctors were over age 40. But age distribution of private and government doctors was statistically not different because percentage of over age 40 in these two groups, were 48 % and 44% respectively.

Selection of respondents was done using the following procedure. In each district we randomly selected three blocks. In these blocks, interviewers visited the Block Hospital, Community Health Center and all Primary Health Centers, which were 4-5 per block. In each of these health institutions they interviewed all available doctors, 2 paramedical persons, and laboratory technician or pharmacists, if available. They then contacted equal number of private doctors practicing nearby the government institutions.

Figure 1: Sampling Procedure



Data Collection technique:

A total of eight survey instruments were developed to collect information from different categories of respondents - seven schedules for seven categories of respondents and one for assessing the e-readiness.

Display Number 2: Eight Data Collection Tools

- Seven for Different Categories of respondents-

  1. Administrators,
  2. Researchers and Faculty Members,
  3. Government Medical Officers,
  4. Private Practitioners,
  5. Multipurpose Health workers,
  6. Pharmacists,
  7. Laboratory Technicians

- 8. E-readiness schedule

The expert committee had debated various options of data collection such as focus group discussion, structure instrument, and in-depth interview and finally decided to carry out individual interviews using structured instruments that would have as many open-ended questions as possible. Some experts wanted to limit the open-ended questions to facilitate data analysis but finally it was agreed that open-ended questions would be very useful for capturing respondents' real information needs. Each interview schedule took about 30-40 minutes to complete (Appendix A). Doctor's schedule was the longest and took the longest time to complete. Paramedical schedule was short but it also took long time because most of the questions in section VI (dealing with other public health topics and current Internet use) needed to be translated and explained to them before they could respond.

In spite of the length of the schedule, respondents at the district level, including private doctors willingly gave time for the interview. They liked this survey, they said, because this topic was new. The fact that this was a WHO sponsored project also helped to evoke positive response from them. However, interviewing respondents at state and national levels was problematic because most respondents were too busy. "In the time you take for this interview, I rather process 20 files" one administrator told. One officer said, "Lack of information was not my problem; lack of time is". Some officers preferred schedules to be left with them, so that they can fill of their own rather than giving interview. Interviewers had to make repeat visits to collect those schedules. Officers dealing with TB program did not want to answer questions related to Tobacco, and visa versa.

The entire survey was completed in 2 weeks, using nine interviewers in Bangalore, four in Orissa and one in Delhi. All interviewers were highly skilled in interview techniques. Four were from National Tuberculosis Institute (NTI) and the remaining were NGO staff, from FRHS in Bangalore and from National Institute of Applied Human Research and Development (NIAHRD) in Cuttuck, Orissa. They underwent a three-day training that included a field visit and pilot-testing of survey instruments. This pilot testing helped to rephrase and change sequence of certain questions to ensure smooth flow of interview.

Data Analysis

The survey data was computerized and analyzed using SPSS package. To retain the richness of information gathered in the open-ended questions, extensive code lists were prepared so that all distinct answers could be entered in the computer. Data was analyzed separately for five beneficiary groups namely, Researcher (30), Administrator (35), Government Doctor (50), Private Doctor (66) and Paramedical staff (122).

Findings from this analysis are presented in this report, in 5 sections. Section 1 describes characteristics of respondents. Section 2 presents data on awareness among respondents about TB and Tobacco Control program. Section 3 presents data on respondents' access to and use of information.

Section 4 deals with respondents' information needs and preferred media for information. And section 5 presents findings on e-readiness of the project sites.

Section 1: Characteristics of Respondents

In this survey, about half of the respondents (56%) were over 40 years of age. Among administrators and researchers, this proportion was much higher (over 80 percent). Most of our respondents were males (80%) except in the paramedical category where half of them were females. Most administrators and researchers were specialists in their areas while most of private and government doctors were non-specialists (Table 2 A & B).

Over 75 percent of our respondents were working at the district level and below. They were mainly government and private doctors and paramedical staff. Remaining 25 percent reported working at international, national or state levels. Though respondents were asked to select only one option for "level at which they worked", at least 30 percent administrators and researchers reported working at more than one level. For example, those working at the national level with an international agency reported working at both levels. Similarly, researchers from national institutions located at state capital reported working at both national and state levels.

Table 2 A: Demographic Characteristics of the Respondents (in %)

Characteristics	Researchers	Administrators	Govt. Doctors	Private Doctors	Paramedical Staff
Over age 40	87	74	48	44	54
Male	73	91	80	79	51
Specialist	87	74	48	41	0

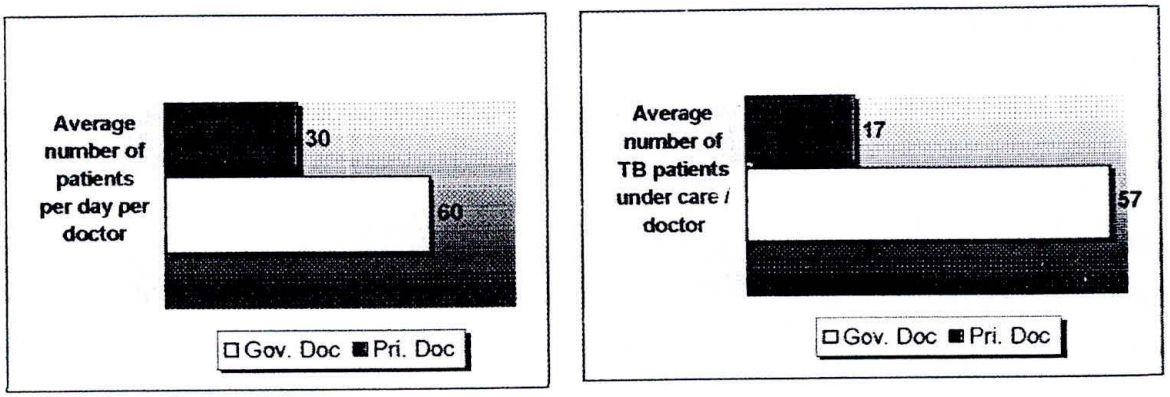
Table 2 B: Demographic Characteristics of the Respondents (in %)

Level at which they work	Researchers	Administrators	Govt. Doctors	Private Doctors	Paramedical Staff
International	13	11	2	0	0
National	70	34	4	15	0
State	53	37	8	15	0
District	20	37	88	73	100
Total Sample Size (N)	**30**	**35**	**50**	**66**	**122**

In terms of actual workload, government doctors were treating about 60 patients per day while private doctors were treating 30 patients per day. Majority of patients treated by government doctors reportedly belonged to the "poor" socio-economic class (64%) while private doctors also reported that half of their patients were poor. However, these data were based on perceptions and not derived from

actual data either on patient load or about economic status of patients. All most all doctors, both government and private, reported treating TB patients (90%); government doctors treating 3 times more TB patients than private doctors (Figure 2). That was because government doctors reported the number TB patients treated in their institutions while private doctors reported cases being treated in their single doctor clinic.

Figure 2: Patient Statistics Comparison of the Government and Private Doctors



This data however confirmed that in TB treatment, private doctors had a significant role. Therefore their knowledge and practices related to TB treatment need as much attention as those of government doctors.

Section 2: Awareness and Perceptions about TB and Tobacco related diseases

In this section we present data on awareness of TB and Tobacco related diseases in each category of respondents. Respondents' awareness was assessed in terms of how well they understood the TB threat (disease burden and people dying due to TB in India) and Tobacco problem (Tobacco related diseases and mortality due to them).

Awareness about the Burden

The survey data showed that over 80 percent of all respondents except paramedical staff viewed TB as a serious public health problem. But less than 25 percent of them could correctly answer the question on India's share in global TB burden or on number of deaths due to TB. Awareness about "deaths due to TB" was relatively high among government doctors (38%) because they had recently attended a RNTCP training program. Administrators came next (27%), followed by researchers (20%). Hardly 5 percent private doctors and paramedical staff knew these statistics.

In fact, among paramedical staff only 43 % viewed TB to be a serious problem while remaining (57%) viewed it as a "problem under control or a minor health problem" (Table 4).

Table 4: Awareness about the TB burden Among Respondent Groups (in %)

Characteristics	Researchers	Administrators	Govt. Doctors	Private Doctors	Paramedical staff
Sample Size (N)	*30*	*35*	*50*	*66*	*122*
% Perceived TB a major public health problem	90	83	92	80	43
% Knew India's share in global TB burden	27	46	20	17	7
% Thought TB to be a "killer disease"	63	80	84	77	55
% Knew number of people dying due to TB in India	20	29	38	3	6

Reasons for the Burden

To the question, "Is TB still a killer disease and why?" over 80% of administrators and doctors said "yes". Fewer researchers thought it was a killer disease (63%) and even fewer paramedical staff believed it to be a "killer" disease (55%). In response to an open ended question, "Why is it a "killer" disease?" respondents came with a long list of reasons (Box 1).

Box 1: Why is TB Still a killer disease?	# Said
Irregular treatment	80
Lack of awareness / Health education	31
Poverty / Illiteracy	24
Spread of resistant bacteria	22
Non-availability of drugs	15
Patients go to quacks	02
It is not being properly Controlled	01
RNTCP is not yet covering the whole country	03
Health workers not properly trained	02
Patients have no rest	01
High infectivity	02

	# Said
Superiors, doctors mistake	02
Patients when visiting doctors, hide details	01
Lack of personal hygiene	02
Treatment long duration	02
Social stigma	03
Superstitious beliefs	02
In India TB is the king of the diseases	01
Because of combinations with other diseases like HIV/ diabetes	04
Because it affects all systems of the body	03
Lack of detection / not diagnosed early	04

The five most frequently mentioned reasons were:

- Patients not regular in taking treatment
- Patients lack awareness
- Patients are too poor; cannot afford the time to go to doctor

- Drugs not available in sufficient quantity, and
- Resistant bacteria

Table 5: Top Five Reasons why TB is a "Killer Disease" (expressed in %)

	Researchers	Administrators	Govt. Doctors	Private Doctors	Paramedical staff
Number perceiving TB as a killer disease	*19*	*28*	*42*	*51*	*67*
Irregular treatment	26	14	29	53	48
Lack of awareness among TB patients	21	18	29	2	13
Patients are poor / Illiterate, cannot afford the time	11	32	12	12	3
Drugs not available in sufficient quantity	5	11	5	18	0
Resistant bacteria	26	7	15	6	7

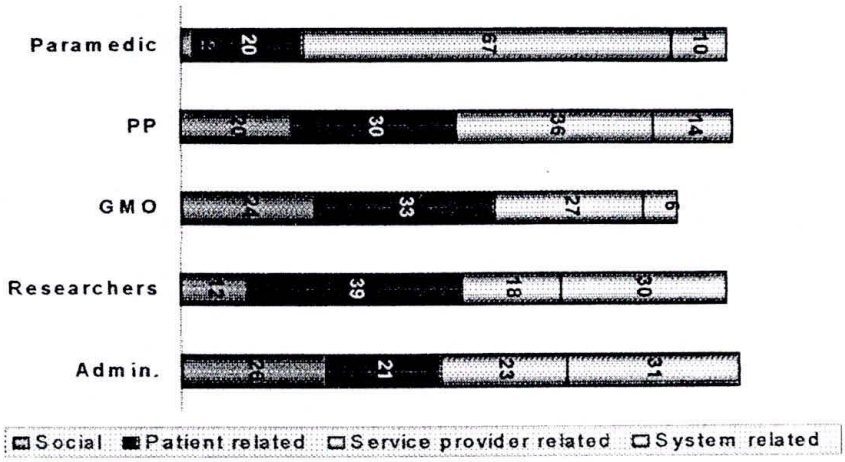
Researchers often mentioned "irregular treatment" and "resistant bacteria" as the reasons for making TB a "killer" disease while administrators gave prominence to patients being illiterate and poor and that do not have time to continue treatment. Government doctors blamed lack of awareness among patients and irregular treatment while both private doctors and paramedical staff mainly blamed irregular treatment. By irregular treatment they meant, patients stopping treatment when they feel slightly better or they change doctors for convenience. The new doctors also change the drug regimen either because they do not know the TB regime or prefer their own regime, they said.

We then classified these reasons in to four groups (Figure 3). "Social" reason, which included illiteracy, poverty, poor nutrition, social stigma, superstition, constituted 17 percent of all reasons. "Patient" related reasons were 29% (poor compliance, lack of hygiene, patients going to quacks, association with HIV/AIDS). "Service provider" related reasons were 36% (irregular treatment, mistake in diagnosis, improper counseling); while 18 % were "health system" reasons (non-availability of drugs, resistant bacteria, expense, long-duration treatment, poor follow-up, workers not trained).

There were significant differences in the types of reasons suggested by different respondent groups. For example, administrators emphasized the "system related" reasons while researchers emphasized both patient and system related reasons. Government and private doctors infrequently mentioned "system related" reasons while paramedical staff practically made no mention of "social" reasons.

Figure 3: Reasons why TB is a killer disease?

In fact, paramedical group seemed to be least knowledgeable about why patients do not continue TB treatment. About half of them gave no answer to this question and most did not mention any "social"



reasons, which they must be encountering in the field. This data provided useful clues as to what kind of knowledge strengthening is needed among different respondent groups.

Knowledge of RNTCP Guidelines

Next we tried to find out how well respondents knew the revised guidelines of the Revised National Tuberculosis Control Program (RNTCP) and whether they subscribed to them. Their knowledge was assessed using a series of questions. First we asked the service providers an open ended question - "When do you suspect TB?" (This question was not asked to researchers and administrators). If their answers contained the criteria mentioned in the RNTCP guidelines, we assumed that they were using RNTCP criteria for suspecting TB. Answers to this question showed that more than 3/4th of government and private doctors were using RNTCP criteria for suspecting TB (fever, cough for more than 2 weeks and loss of weight).

Then we asked them a series of questions related to salient features of RNTCP such as method of diagnosis, mode of treatment, follow-up of patients and when to stop treatment. In each case, we had listed options from which they could choose any or all options. Only one among those options was the "correct" answer and those who selected that option were assumed to have the knowledge of RNTCP guidelines.

About half the private doctors had not heard about RNTCP or DOTS (Table 6). Therefore, on all RNTCP knowledge questions private doctors scored low compared to government doctors. Even half of paramedical staff did not mention that under RNTCP, each dose is to be given under direct observation. This might be because some of them had not received training as yet.

Table 6: Knowledge about the RNTCP Guidelines (DOTS)

	Govt. Doctors	Private Doctors	Paramedical staff
Number of Respondents	*50*	*66*	*122*
% Used RNTCP guidelines for suspecting TB	84	77	87
% Had heard of DOTS	94	58	76
% Mentioned Sputum microscopy for diagnosis	94	56	76
% Mentioned each dose to be given under direct observation	88	40	57
% Mentioned sputum microscopy as the follow-up procedure	96	77	89
% Mentioned sputum conversion at the end of treatment as criteria for stopping treatment	70	48	NA*
% Approved of DOTS	96	53	NA*
% Willing to adopt DOTS for private practice	66	47	NA*

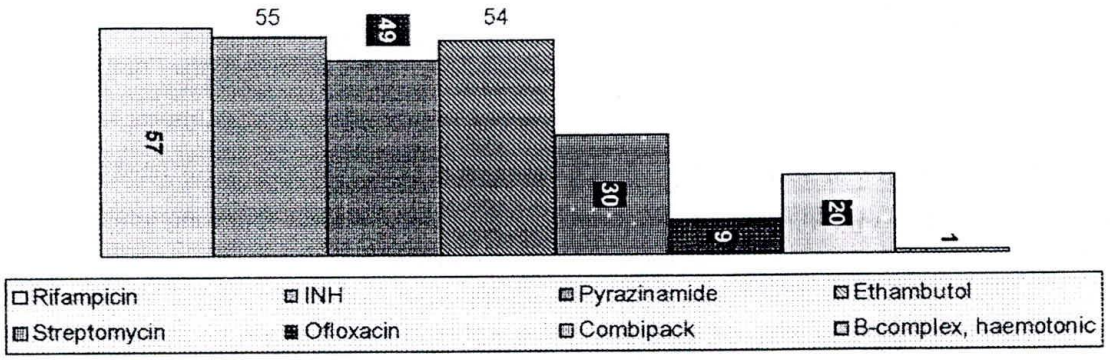
While the data presented in Table 6 gives baseline status of RNTCP knowledge, the "not-so-correct" answers give us pointers for deciding information content for the HIN. For example, to the open-ended question "when do you suspect TB?" they mentioned several non-specific symptoms (Box 2). Practitioners may have to be educated on importance of diagnosing patient following guidelines, as it will reduce the chances of misdiagnosis by them.

Box 2: When did respondents suspect TB?	# Said
Fever	167
Cough for more than 2 weeks / Cough with expectoration	199
Loss of weight	139
Weakness	33
Loss of appetite / Anorexia / not feeling hunger	83
Sweating	05
Blood in sputum	87
Chest pain	31
Recurrent respiratory tract infections	04
Non-specific enlargement of Lymph nodes	05
2 sputum positive	01
Raised ESR	02
Antibiotics fail	03
Based on X-ray findings	02
Clinical features	02
Dry lips	01
Sunken eyes	01
Restless	01
Loose motion	01
Headache	01
Indigestion	02
Exposure to KOCH'S	02

For example, they may have to be informed why the diagnosis, based on the reading of X-rays, could be incorrect. Patients might still have TB symptoms in spite of their negative tests.

But the most interesting finding in this section was that though practically all government doctors said that they approved of DOTS, 34% of them did not want to use the DOTS in private practice. In private practice, they preferred individualized case management. Among private doctors 53 percent said they would not use DOTS; they preferred individualized case management. When asked what drugs they normally prescribe, they listed seven different drugs, as shown below:

Display Number 3: Drugs Private Doctors Normally Prescribe



Though we did not ask administrators and researchers if they knew about the RNTCP guidelines, we had asked them whether they knew the basis for developing those guidelines. While 1/3rd of them did not answer this question, 1/3rd attributed them to the results of pilot studies conducted by NTI, Bangalore and Tuberculosis Research Centre (TRC), Chennai in the 1960s. The remaining 1/3rd said that failure of the earlier National Tuberculosis Control Program prompted the government to revise the guidelines.

Awareness about Tobacco Related Diseases

To the question, "How serious is the tobacco-use problem?" the overwhelming response from all categories of respondents was, "it is a major public health problem".

Table 7: Respondents' perception about seriousness of the tobacco-use problem in India

	Researchers	Administrators	Govt. Doctors	Private Doctors	Paramedical staff
Sample Size (N)	*30*	*35*	*50*	*66*	*122*
% Perceived Tobacco use to be a major public health problem	93	91	98	100	85

We then asked them questions about types of tobacco use, health consequences of tobacco use, and what can health professional do to prevent tobacco use in the community.

Most respondents knew about tobacco use in the form of cigarettes and *Beedi*, also tobacco with betel leaves (83%), Guthka (80%), and pan masala (78%).

Box 3: Awareness of Tobacco Products	Total N=303
Gutkha	243
Pan masala	234
Snuff	165
Khaini	155
Betel leaf with tobacco	253
Cigarette	275
Beedi	274
Others (chutta, ganja, hukka)	73
Mava	57
Areca nut with tobacco	75

But many did not know several other products that also contain tobacco (Box 3). The top five diseases attributed to tobacco use by all four respondent groups were Oral cancer (49%), Cancer of lungs (43%), Pulmonary TB (43 %), Respiratory tract infection (41%) and Diseases related to heart and circulatory system (35%). Very few mentioned diseases such as gum problems, liver problem and birth defects to smoking (Box 4).

Box 4: Diseases attributed to tobacco use by number of respondents	Total N=303
Respiratory tract infections	124
Pulmonary TB / Pleural effusion	130
Cancer of lungs /Lung disorders	131
Oral cancer	148
Diseases related to heart and Circulatory system	106
Ulcers (mouth, gastric)	72
Sub-muco fibrosis	05
Teeth / gum problems	09
Birth deficiencies	03
Liver problems	03
Nerves weakness	04

We had expected higher frequency of cancer being mentioned in relation to tobacco-use than what we found. We suspect that this indicates respondents' lack of seriousness in answering these questions than their lack of knowledge. Firstly, tobacco related questions came after answering too many questions about TB. Compared to questions on TB, Tobacco related questions were of non-technical nature. Also, there is no Tobacco-Control Program as yet; therefore respondents were not sure why

we were asking those questions. Some administrators dealing with the TB program were reluctant to answer Tobacco-related questions.

Notwithstanding these constraints, all health practitioners said that they could play important role in reducing Tobacco use. Nearly 70 percent of doctors and paramedical staff reported that when they come across patients who smoke, they regularly advise them about ill effects of smoking on health. Remaining 30 percent said that they did so, occasionally. When asked what actions could health professions take for reducing Tobacco use, they mentioned mainly two - (i) Advising patients about consequence of smoking and motivating them to give-up, (ii) Organizing health education through mass campaign (Table 8). Some also suggested other actions that government must take such as banning Tobacco advertisement, no smoking in public places and stronger warning on Tobacco products.

Table 8: Top Five Actions recommended for Tobacco control (figures in %)

	Researchers	**Administrators**	**Govt. Doctors**	**Private Doctors**	**Paramedic Staff**
Respondents (N)	*30*	*35*	*50*	*66*	*122*
Health Education through mass campaign	47	60	80	55	87
Counseling and motivating patients	53	31	72	71	66
Ban on smoking in public places	53	57	56	67	43
Ban on Tobacco Advertisement	23	66	52	55	34
Stronger warning on tobacco products	37	37	40	42	27

There were some interesting differences in the recommended actions by the four respondent groups. Researchers most frequently recommended ban on smoking in public places. Administrators recommended ban on tobacco advertisement. Government doctors and paramedical staff frequently recommended health education while private doctors recommended patient counseling. These differences perhaps reflect the actions they could take themselves or knew how to do. Most respondents have quite a few suggestions on what actions health professional could take to reduce tobacco use (Box 5).

We then tried to find out respondents' perception about the age at which people start using tobacco. Nearly 2/3rd reported that people normally start smoking before the age of 15. When asked to what extent parents can help prevent children from using Tobacco, over 80 percent across all categories

said that parents could help to a large extent while the remaining 20 percent said that parents could help to some extent or not at all.

Box 5: Role health professional could play in reducing tobacco use	# Said
Health education through mass campaigns	217
Counsel patients about consequences and motivate them to give up	190
Scare people by showing pictures of terminal stage cancers	04
Be a role model by not using tobacco	06
Explain patients about environmental pollution	01
Organize Cancer detection camps	02
Celebrate Anti tobacco day	02
Sensitize policy makers	01
Write articles	01
Give Lectures in selective groups	01

Next we asked them, what they could do to prevent children from using tobacco. This question was asked only to service providers and administrators, and not to researchers. The action they most frequently mentioned was giving health education in schools. A distant second runner action was counseling parents to be a role model by not smoking or using tobacco in front of children and not asking children to buy tobacco for them (Table 9).

Table 9: Perceptions about how tobacco use could be prevented (figures in %)

	Administrators	Govt. Doctors	Private Doctors	Paramedical Staff*
N (Number of Respondents)	*35*	*50*	*66*	*122*
Give health education in schools about bad-effects of tobacco	94	100	53	87
Ensure schooling for children	6	6	15	9
Counsel parents or family members to become role models	5	30	14	20
Divert their attention from Tobacco	5	2	3	1
Use interesting media like films, exhibitions to communicate with children	11	2	6	6
Control pocket money	00	00	00	5

These data suggested that perception among respondents about tobacco related health problems and what could health professionals do to reduce tobacco-use, was rather uniform among all respondent categories. Except researchers, all four respondent groups favored government policy of restricting

tobacco advertisement (over 67%) and thought that it would have the desired impact on tobacco use. Only 20 percent researchers favored this policy or thought that it would have the desired effect. It was not the policy but government's ability to enforce that policy, was a suspect.

To an open-ended question, "What in your opinion would have impact on tobacco use in this country?" we received 15-16 different suggestions from all respondents (Box 6).

Box 6: What would have impact on Tobacco use in this country?	# Said
Vigorously implement No smoking in public places	160
Increase taxes on tobacco products	76
Issue stronger warnings on tobacco products	107
Ban on sale near schools	107
Put total ban on production and sale of Tobacco	53
Make people conscious about health hazards	02
Provide information about alternative crops that farmers could grow	04
Fix minimum age for smoking	01
Make Tobacco companies pay for the tobacco related diseases	02
Counsel patients at individual level	02
Give health education through different communication media	09
Don't allow Tobacco companies to sponsor sports events	01
Develop Ferocious ads to scare people away from tobacco	03
Do not show film actors in tobacco ads or smoking in films	02
Give prizes, or incentives to those who give up tobacco use	01
Advise people to handle mental worries	02

These suggestions reflected a fair amount of interest and concern about tobacco problem. But they did not know whether these suggestions would work and or did not know about any study that had shown how to reduce tobacco use in a community.

Section 3: Access and Use of information

Having collected information on current levels of knowledge and awareness of TB and Tobacco program, we proceeded to find out respondents' health information needs. With respect to TB program we asked doctors and paramedical staff "Do you have access to research / clinical information related to TB treatment?" About 1/3rd of government doctors and ½ of private doctors reported that they had access to such information. We did not ask this question to administrators and researchers because we assumed (perhaps wrongly on hindsight) that they would have access or would know where to get information if they needed one.

However in case of Tobacco, we asked all respondents "Do you know any study on how to reduce tobacco-use in a community?" To that question, less than 20 percent administrators and researchers

responded "yes" while less than 5 percent responded "yes" in the other three categories of respondents (Table 10A).

Table 10 (A) Access to Research Information by Respondent categories

	Researchers	Administrators	Govt. Doctors	Private Doctors	Paramedical staff
N (Number of Respondents)	*30*	*35*	*50*	*66*	*122*
% Reported access to research and clinical information related to TB	Not Asked	Not Asked	36	48	34
% Reported knowing any study related to reducing tobacco-use in the community.	17	20	4	5	2

To those who reported having access to TB related research/clinical information, we further asked to specify the sources of information. Medical Journal was the source of information for 67 % private doctors (67%); it was so only for 17% government doctors. Over 40 percent government doctors and 25 percent private doctors reported having no access to medical journals.

Government doctors mentioned training and meetings as their main sources of information. Similarly information sources for paramedical staff were training/meetings and IEC (Table 10B). Library was the least frequently mentioned source (10%) while Internet was mentioned by about 17 percent of doctors but not at all by paramedical staff.

Table 10 (B): Sources of Technical information for those reported having access to Technical information in TB (figures in percent)

	Government Doctor	Private Doctor	Paramedical staff
N (Number of Respondents)	*18*	*32*	*42*
Medical Journal	17	63	0
Training, meetings, seminar, conferences	33	28	52
IEC, Mass media	0	3	60
Libraries, Books etc.	11	9	7
Internet, Websites, etc.	17	19	0

The journals they mentioned, which were not too many, consisted mainly of Indian Journals (Box 7) The most frequently mentioned medical journals were Journal of Indian Medical Association (JIMA), Indian Medical Journal and British Medical Journal, in that order.

Next we explored the pattern of information use by respondents by asking them the question "How do you use new information?" We had listed 15 options of "use" including one that said "other, specify"

and read out to them those options to chose from. These options could be grouped into four broad categories (Table 11). Researchers reported that they most frequently used information for diagnosis and treatment (37%), followed by for lectures and writing articles (33%). Administrators most frequently used information for policy and program decisions (36%) followed by for diagnosing and treatment (27%), since most administrators were also practitioners. The other three groups of practitioners mainly used information for treatment of patients (about 50 %).

Box 7: Which Medical Journals Doctors have access to:	**N=116 # Said**
Journal of IMA (JIMA)	31
Indian Medical Journal	15
British Medical Journal	22
Pediatric Journal /Indian Pediatrics	04
IAP	02
Lancet	09
NEJM	09
Indian Journal of TB & Chest Diseases	11
CHEST	06
Homeopathy	04
JAPI	01
Annual of Intern medicine	01
JAMA	01
AIDS Journal	01
Lung India	01
International Journal of TB & Lung diseases	01
Physician's digest	01
Applied medicine	01
Karnataka Medical Journal	01
Indian Chest Society Journal	01
American Medical Journal	01
Journal of American Dental Association	01

About 20 percent of doctors reported using information for developing educational material but very few reported using it for program decisions. This is one area where HIN needs to contribute.

Table 11: Use Pattern of New Information by Respondent Type (in %)

	Researchers	Administrators	Govt. Doctors	Private Doctors	Paramedical Staff
N (Number of respondents)	*30*	*35*	*50*	*66*	*122*
For diagnosis, treatment, dealing with medical emergencies	37	27	44	53	51
For policy and program decisions	18	36	16	11	7
For use in lectures, articles, press release	33	20	20	20	13
For local use, for developing educational material	12	17	20	16	29

But in in-depth interviews, some of the respondents except researchers said that they usually did not seek information, actively. Administrators mentioned that a lot of information was thrust upon them. Some reported suffering from information overload.

Government doctors and paramedical staff received program related information during training programs or during monthly meetings. Training modules, they thought, provided adequate information. "*Usually we get these modules towards the end of the program. We keep them as reference material but rarely feel the need to look at them*", some doctors said. They paid most attention to government circulars, which they received usually during district level meeting. Those circulars were also the main source of information for paramedical staff. Government doctors usually read out circulars in health workers' meetings but each worker did not get a copy for herself or himself. Some workers said that they would like to have copies of all circulars, which they could carry with them during village visits and share information with patients and community members. "At present we are sending more information than we are receiving" they said. They were referring to the monthly reports they sent to districts but received no feedback in return.

Though most doctors said that they used information for diagnosis and treatment, only one private doctor in Rural Bangalore actually described a case, which he had treated after receiving information from a doctor in Australia via the Internet (Box 8).

Box 8:

"This young boy of about age 14 was brought to my clinic in a semi- conscious state. I examined the boy and referred him to NIMHANS. But the parents brought the boy back a couple of days later saying the hospital asked them to take the boy home. The parents were desperate. They begged me to do whatever is possible. I just thought of taking a chance to see if some expert would be available online. I went to Aptech in Kanakapura to use one of the chat rooms and to see if any doctor was available. There was one Dr. _____ from Australia. He was a neurosurgeon. After I described to him the symptoms, he thought the boy most probably needed a surgery. He asked me to get a MRI done and then consult a local specialist. I took the boy to Ragav's in Jayanagar and arranged for a MRI in lieu of my commission. I then consulted the neurosurgeon attached to this lab. He did the surgery and now the boy is well".

Section 4: Information needs and preferred Mode of Communication

After assessing the current information access and pattern of information use by respondents, we explored their need for information with respect to TB, Tobacco use and other public health areas.

Information Needs

To assess respondents' Information need we asked two direct questions: (1)"Do you require further information on TB?" and (2) "Would you like to get information on how to reduce tobacco use in a community?" In case of Tobacco, the response was overwhelmingly "yes" in all the categories of respondents. In case of TB, the need for "further TB information" was relatively low among government doctors, administrators and researchers probably because of RNTCP training programs. but it was reportedly high among private doctors and paramedical staff (Table 12).

Table 12: Respondents' reporting need for TB and Tobacco Information

	Researchers	Administrators	Govt. Doctors	Private Doctors	Paramedical staff
N (Number of Respondents)	*30*	*35*	*50*	*66*	*122*
% Reported need for TB information	43	74	68	98	97
% Reported need for information related to Tobacco use	90	83	98	100	84

In response to an open-ended question, "What further TB information you need?" many researchers and administrators needed information on new development in TB treatment (40%). Doctors and paramedical staff needed information on how to prevent TB spread (68 %) and how to motivate patients to continue TB treatment (55%). Surprisingly 35 % private doctors and 18 % government doctors also wanted information on etiology of TB, which we thought, medical students learn in

medical colleges. Some doctors then explained that they expected to see different manifestations of TB because of HIV/AID and hence the need for information (Table 13, section A).

To the question "what information you would like to have about effects of Tobacco use?" we had provided seven options (Table 13, section B) and asked respondents to rank them in order of their preference. Most respondents found that task very difficult. They instead, answered it as a multiple-choice question, ticking as many options as they liked.

Table 13: Types of Information Needed in TB and Tobacco by Respondent Type (in %)

	Researchers	Administrators	Govt. Doctors	Private Doctors	Paramedical Staff
13A: Type of TB Information Needed (%)					
How to prevent spread of TB	0	0	42	68	44
How to motivate patients	0	0	54	61	50
Etiology of TB	10	6	18	35	44
New developments in TB (success stories)	43	40	6	11	1
13B: Type of Tobacco Information needed (%)					
Health effects of tobacco Use	56	83	84	85	83
Advice about cessation	56	41	57	67	65
Types of tobacco use	30	66	63	71	58
Effects of Passive Smoking	44	45	59	58	51
Effect on women and Children	48	38	53	59	61
Effect of advertisement	41	41	41	48	47
Effect on agriculture and employment	44	31	45	39	41

The three most frequently mentioned Tobacco information needs overall were (i) health effects of different types of tobacco use (81%), (ii) advice about cessation (61 %), and (iii) types of tobacco use (60 %). We observe no significant differences in information needs by type of respondents because this was a multiple-choice question, which they could answer without much thought. Therefore we also suspect that these answers do not reflect their "real" information needs, as in the case of TB.

In addition to TB and Tobacco, we asked respondents to indicate important public health topics for their work by giving them a list of all possible topics to choose from. Since this list was in English, investigators had to translate it for paramedical personnel, which demanded a long time and a lot of patience of both, interviewer's and of respondent's. Respondents were asked to select as many topics as they liked. We then selected topics that were selected by more than 50 percent of respondents and

presented in Table 14 separately for each group, by ranking them based on how frequently the topic was mentioned.

Table 14: Public Health Problems that Respondents selected as Important for their work, by Respondent Type

Researchers	Administrators	Government Doctors	Private Doctors	Paramedical staff
Emergency response in health	Tuberculosis	Tuberculosis	Tuberculosis	Tuberculosis
Tuberculosis	Primary and community health	Maternal and infant health	HIV/AIDS	Malaria
Acute respiratory infections	HIV/AIDS	Diarrheal diseases	Acute respiratory infections	HIV/AIDS
Tobacco use	Malaria	Tobacco use	Maternal and infant health	Maternal and Infant health
	Maternal and infant health	Acute respiratory infections	Malaria	Child and adolescent health
	Prevention and control of disease	Malaria	Tobacco use	Acute respiratory infections
		HIV/AIDS	Infectious diseases	Dairrheal diseases
		Reproductive health	Diarrheal diseases	Reproductive health
		Child and adolescent health	Reproductive health	Tobacco use
		Infectious diseases		Infectious diseases
		Eye diseases and blindness		Eye diseases and blindness
		Nutrition and food safety		Vector borne tropical diseases
		Water and sanitation		Nutrition and food safety

Tuberculosis and Tobacco came very high on all lists perhaps because the interview was being conducted in the context of TB and Tobacco. Interestingly, government doctors' list was the longest, followed by that of paramedical staff. This was because government doctors and paramedical staff were involved in many health programs compared to other three categories of respondents. Private Doctors' list was relatively short, containing 9 topics while Administrators' and Researchers' lists were the shortest because of focused nature of their work. We also suspect that since this exercise came towards the end of a long interview, administrators who were too pressed for time perhaps did not spend much time on this list.

We then asked respondents to select one most useful source of information from a list of 9 items, to get:

(i) General information outside area of expertise;

(ii) General information in the area of expertise;

(iii) In-depth information in the areas of expertise and

(iv) In-depth information outside the areas of expertise.

For all four categories of respondents, TV & Radio were the useful sources for general information. For general as well as in-depth information in the areas of expertise, they all mentioned journals and scientific publications as being useful sources, except paramedical staff who mentioned meetings and books, instead. However, most respondents could not understand why they would need in-depth information outside their areas of expertise. Therefore we deleted that data in the final analysis.

Table 15: Useful Sources of Information and preferred Languages, for different types of *Information*

Type of Information	**Researchers**	**Administrators**	**Govt. Doctors**	**Private Doctors**	**Paramedical staff**
General knowledge	TV & Radio	TV & Radio	TV & Radio	TV & Radio	TV & Radio
General knowledge in the area of expertise	Journals and scientific publications	Journals and scientific publications	Journals and scientific publications	Journals scientific publications	Meeting
In-depth knowledge in the area of expertise	Journals and scientific publications	Journals and scientific publications	Journals and scientific publications	Journals and scientific publications	Books
Preferred language	English	English	English	English	Local languages

All health professionals except paramedical staff, preferred English language for technical information while paramedical staff wanted information in their respective local languages.

We then tried to find out difficulties they encountered in accessing information related to their area of work. About 30 percent reported "no difficulty". Among those who reported difficulties, the three most frequently mentioned difficulties were "information difficult to get", "expensive" and "irregular" (Table 16).

Table 16: Difficulties reported by Respondents in accessing information in their areas of expertise (multiple responses)

	Researchers	Administrators	Govt. Doctors	Private Doctors	Paramedical staff
"No difficulty"	50%	37%	42%	36%	26%
Three frequently *mentioned* difficulties	Difficult to get (13%), Not up-to-date, (10%) Expensive (10%)	Difficult to get (25%), Not up-to-date (25%) Irregular (25%)	Irregular (24%), Difficult to get (22%), Expensive (18%)	Difficult to get (23%), Expensive (18%), Irregular (15%)	Difficult to get (74%), Expensive (8%), Irregular (8%)

Interestingly, these difficulties were identical for all respondent groups, though their severity varied. While only 13 percent researchers mentioned "information difficult to get", this difficulty was mentioned by 74% paramedical staff. When we tried to find out what they meant by, "Information was difficult to get" most respondents said that they were too busy and had no time to go to library. They preferred getting information on their desk, may be as a newsletter.

Modes of Communication

In this section, we present data on respondents' preferred modes of communication, based on their answers to the following five questions:

(1) With whom you need to communicate in course of your work?
(2) What is your preferred mode of communication for information?
(3) Do you have access to Internet and web-sites?
(4) What type of barriers you face in accessing Internet?
(5) Do you think access to Internet will benefit you and how?

Data on ***need to communicate in course work*** showed that all categories of respondents needed to communicate more with persons within organization as well as with patients and less with expert outside organizations (Table 17).

Table 17: With whom they need to communicate in the course of their work (in %)

	Researchers	Administrators	Govt. Doctors	Private Doctors	Paramedical Staff
N (Number of respondents)	*30*	*35*	*50*	*66*	*122*
Superior in the organization	57	57	46	30	74
Experts within organization	77	83	66	52	70
Experts outside organization	53	49	10	35	25
With patients	53	46	72	65	47
With general public	33	43	56	38	44
Funding / donor agencies	43	37	6	11	0
Mass media /advocacy groups	30	46	26	17	7

The most preferred mode of communication for administrators and researchers was the Internet/e-mail (82%). For government and private doctors it was scientific journals (82%) and the Internet (78%). For paramedical staff it was AV media (80%) (Table18). Verbal presentation by experts was the least preferred mode, except for paramedical staff.

Table 18: Preferred mode of communication by category of respondents (in %)

	Researchers	Administrators	Govt. Doctors	Private Doctors	Paramedical Staff
N (Number of respondents)	*30*	*35*	*50*	*66*	*122*
Internet and email	87	77	78	82	52
Newsletters or fact sheets	77	60	68	77	69
Verbally from experts	37	46	62	67	75
Scientific journals	77	74	82	94	53
AV media such as CD, DVD	47	74	74	76	80
Magazines and newspapers	50	83	78	88	77

Respondents' preference for Internet however, did not reflect their current access to the Internet but perhaps reflected their awareness that this project was about providing Internet connectivity to health institutions.

Present access to Internet ranged from 75 percent among researchers / administrators to 25 percent among government doctors and to 5 percent among paramedical staff (Table 19).

Table 19: Access to Internet and Web Sites as Reported by Respondents (in %)

Access to Internet	Researchers	Administrators	Govt. Doctors	Private Doctors	Paramedical Staff
N (Number of Respondents)	*30*	*35*	*50*	*66*	*122*
% Reported Access to Internet	73	74	24	53	5
% Having Internet access at home	57	60	10	23	1
% Reported access to web-sites	53	60	16	38	2
%Reported accessing website related to work	43	54	10	23	0

Most of those reporting access to Internet also reported accessing Web-sites, mainly related to their work. Some of them mentioned visiting web-sites like Jama.com, IMA, WHO, TBINDIA, BMJ.com, and Google Search Engines, but infrequently.

We then asked all respondents to list up to three barriers they faced in using the Internet. This question was asked to all respondents, irrespective of their access to Internet. Therefore, some of these barriers were "perceived" and not "actual" barriers. For example, 17 paramedical staff reported "slow Internet connection" as a barrier though only 7 had access to the Internet. Other had heard that this was a barrier.

Table 20: Top 4 Barriers to Internet Use mentioned by Type of Respondents

Researchers N=30	Administrators N=35	Govt. Doctors N=50	Private Doctors N=66	Paramedical Staff N=122
Telephone line problems	Don't have the time	Insufficient skills in computer use	Don't have the time	Insufficient skills in computer use
Don't have the time	Uneven quality of information	Insufficient skills for Internet use	Insufficient skills in computer use	Insufficient skills for Internet use
Insufficient skills for computer use	Slow Internet connection	Don't have the time	Slow Internet connection	Slow Internet connection
Very costly	Insufficient skills for computer use	Not in preferred language	Very costly	No access to computer

The common and most frequently mentioned barriers across all respondent groups were lack of time, lack of skills and slow access. Notwithstanding these barriers, most respondents (89%) said that access to Internet would help them in their work. Even paramedical staff, who had not heard about the Internet and did not know how it worked, also listed its benefits after hearing about it from investigators.

Table 19: Top three Internet Benefits mentioned by respondents (in %)

	Researchers	Administrators	Govt. Doctors	Private Doctors	Paramedical Staff
N (Number of Respondents)	*30*	*35*	*50*	*66*	*122*
Can get new information about drugs/ diagnosis/ management/ technology/ statistics/ rare diseases	70	71	94	88	64
Can get more information on any topic	50	34	56	41	37
Can interact with colleagues/patients/ superiors about treatment	13	31	18	3	15

The three most frequently mentioned Internet benefits were (i) getting new information about drugs and diagnosis (ii) getting more information on any topic and (iii) interacting with colleagues and patients. These expectations of respondents from the Internet are consistent with their current use of new information, which was primarily for diagnosing and treating of complicated cases. Also it is consistent with their current pattern of communication, which is high with colleagues / patients and low with outside experts.

Section 5: Assessment of E-readiness

In this section we present data on e-readiness of the 29 health institutions. 22 in Rural Bangalore and 7 in Orissa, which we visited as potential sites for the HIN. Of these, 26 were district level institutions (PHCs and Taluk hospitals) and 3 state level institutions.

None of the 26 district-level health-centers that we visited had computer or Internet facility. In 13 institutions, 1-2 persons had some computer skills. Of them, 65 % had basic skills in operating a computer, 30 percent had experience of using MS-Office applications, while 9 percent had experience of using the Internet (Table 22). In the remaining 13 institutions there was nobody with computer skills though they showed willingness to learn.

Table 22: Computer Skills among the Potential users of the HIN facility (in numbers)

	Doctors	Admin. Staff	Paramedical staff	Others	Total
Potential users	12	8	1	2	23
Basic skills	9	5	0	1	15
Experienced user of MS-Office	3	3	1	0	7
Experienced user of Internet	2	0	0	0	2
Advanced computer skills	0	0	0	1	1

At all 26 sites we also assessed physical conditions such as availability of physical space, electricity, telephone, Internet access etc. This assessment showed that except for physical space, all sites were deficient on all other conditions (Table 23).

Table 23: Assessment of HIN Potential sites in terms of E-readiness parameters

Physical Conditions	Yes	No
Adequate physical space for hardware	23	3
Appropriate site temperature (Moderate-21; Low-5)	17	9
Dust-free Environment	17	9
Frequent electricity fluctuations	7	19
Frequent electricity outages	13*	13
Generator available	1	25
Earthing for electricity connection available	26	0
Fixed telephone lines available	7	19
Internet Access available	1	25
Computer training facility in the vicinity	3	23

**Scheduled load shedding for 6 hours a day*

At the state level, e-readiness was assessed at three places - National Tuberculosis Institute (NTI), Bangalore, and two medical colleges in Orissa. At the NTI there were 14 users from Statistics/monitoring section. The institute had acquired Office Software. It had the Internet connection, available only at the Library on 2 machines. Staff was given limited access to Internet by maintaining a log in the register.

The budget for the procurement and maintenance of the hardware came from the government of India. It had not entered into maintenance contract because the equipment was still in the warranty period.

The other two state level institutions that we assessed were Cuttack Medical College and Sambhalpur Medical College. Cuttack Medical College had access to Personal Computers and peripherals such as Scanner 7400C, HP Ext CD writer, 56 KPPC, Win 98, HIG XP, Norton anti virus etc. The physical facility was ample. The present source of funding involved 6 lakh from the Government of India for one year and Rs.10 lakh per year from OHSD Project, up to 2002.

Sambhalpur Medical College had computer facility only to be used by library staff. In terms of peripherals, it had CD ROM, modem and UPS but no scanners, digital cameras or DVD. It reported load shedding of 3-4 hours per day. Also it had no fixed telephone lines but had applied for one.

Summary and Recommendations

The Health Information Needs Assessment Survey carried out in the two HIN-India Pilot areas, Bangalore Rural and Deogarh, showed that majority of respondents considered TB and tobacco-use as serious public health problems in India. Nearly three-fourths of them (72%) perceived TB to be a killer disease. However, very few respondents knew the size of the diseases burden or knew about studies that were carried out on various clinical and behavioral aspects of TB treatment. They however knew that in spite of treatment being available, TB is a killer disease, because patients are irregular in taking treatment. They ascribed irregularity of treatment mainly to patients not being educated or too poor to complete the treatment. Patients stop treatment when they feel slightly better or instead of completing the full course at government centers they go to private doctors nearby, for convenience. Private Doctors often start them on new regimen either because patients do not bring their treatment records or doctors have their preferred regimen that they like to follow.

This survey helped identify areas such as why patients discontinue services, characteristics of patients likely to discontinue services, social causes affecting TB treatment etc. about which service providers must know more. Only then would they be expected to provide special attention to counseling such patients. Also there must be a system to transfer patient information to wherever they go so that they get continue to get the same treatment.

Though practically all government doctors knew about RNTCP and also approved of those guidelines. 1/3rd of them were not willing to use those guidelines in their private practice. Among private doctors nearly half of them had not even heard about RNTCP, though all of them reported treating TB patients.

This is one information gap that the HIN could help address. In the survey, many respondents reported that they preferred individualized case-management and not any particular regimen. They also listed variety of drugs they prescribed for TB patients. HIN should provide doctors authentic information about various drugs used in TB treatment. It could also provide opportunity for doctors to discuss their objections to the RNTCP drug regimen with experts. That may reduce their resistance to the recommended drug regimen as well as dependence on drug salesmen for information.

Awareness about the link between tobacco use and diseases such as oral cancer, lung cancer and pulmonary TB was high, as one would have expected. In addition, the survey produced a list of 21 other health conditions attributed to tobacco-use, about which awareness was not as high. Providing information on those diseases and their link with Tobacco use might also help increase health practitioners ability to dissuade many more patients from using tobacco.

The survey data also revealed that respondents across categories held similar views about the effect of tobacco use, how to prevent its use and what role health professionals could play in reducing tobacco. While practically all respondents admitted not having access to technical information regarding tobacco-use, they reported need for scientific information on how to stop tobacco use in community. Most of them were also keen on getting information on how to bring about behavioral changes with respect to tobacco use and finding effective educational material especially for use with children. HIN can help in meeting both those needs.

In case of TB, practitioners wanted information on etiology of TB in the context of HIV/AIDS, as well as on how to prevent its spread of TB and how to motivate patients to continue treatment. Researchers and administrators wanted information on new developments in TB research and success stories from the field. Information items thus identified by respondents should be used in designing the HIN content.

A majority of service providers reported using new information for diagnosis, treatment, and for dealing with emergency medical cases. Among researchers 1/3rd of information use was for patient treatment and 1/3rd was for preparing articles and lectures for researchers. Also among administrators only 1/3rd of use was for policy and program decision- making, which seemed rather low. In other respondent groups, the use of information for program decision-making was also found to be very low. Therefore, in the HIN, this area might needs special attention. Project beneficiaries need to be trained and guided on how to use information for program planning and implementation. This could be achieved through specially designed modules or through distance learning program, on use of research information in program planning and management.

Though HIN is mainly focused on TB and Tobacco, the survey made it amply clear that health practitioners' information needs go much beyond those two areas. When asked to select public health topics important to their work, government doctors and paramedical staff selected a long list of topics because they deal with a large number of health programs on a day-to-day basis. Therefore, their information need on many of those topics might even be greater than their need for TB and Tobacco information. This is because TB is a well-structured program, which provides a lot of information to them in the form of guidelines and teaching material and Tobacco program is still on drawing board. At the same time, health topics such as HIV/AIDS, malaria, non-communicable / chronic diseases, mental health are of current interest to them. They might also need information about consumer protection law, medical ethics, patient rights etc., which were not even explored in this survey. Therefore for a doctor, restricting HIN website only to TB and Tobacco might mean too much investment of their time and effort for too little gain. HIN must facilitate doctors' access to information in other areas of their interest, if they wished to do so.

Though this survey indicated overwhelming need for information among respondents, one could ask, was this really their felt need? Or people reported "need" because this was a WHO sponsored survey dealing with health information need. If they really need information why do they especially government doctors, not read medical journals to any significant extent? One answer to that question was, doctors do not have time to seek or even read journals. They expected most of relevant information to come them as government circulars and guidelines, or provided to them through training. Therefore, very few government doctors actively sought information through journals or through the Internet. Significantly more Private Doctors reported reading journals and accessing Internet for information than government doctors, because they had no other recourse like the government.

This survey seemed to suggest that all doctors need information but government doctors feel no need to actively seek information. For them time is also a constraint as they are responsible for many health programs as well as for administration of health centers having 30-40 functionaries. Besides, many of them undertake private practice after office hours. Given this busy schedule of theirs how is it possible to motivate government doctors and paramedical staff to seek web-based information? This is a challenge for the HIN.

One option that the HIN should consider is providing health information to them through their preferred mode such as Newsletters, training and Audio-Visual media. Creating their interests in the Internet, making information easily accessible and in a form that is appealing to them are other challenges that the HIN needs to carefully address.

Access to Internet was highest among administrators and researchers (75%) followed by private doctors (53%), government doctors (24%) and paramedical staff (5%). All categories of respondents mentioned "insufficient computer skills" as a barrier to accessing the Internet. That information indicated the need for training and for online help in troubleshooting. Some of the problems like files getting corrupted, Virus attacks, hardware problems, which they are likely to face in the initial stages would discourage them from using computers. In addition respondents would face other problems like "no time", "poor connectivity", "information being of quality" etc. which would be their other reasons for not accessing the Internet.

The HIN would be able to address the issue of connectivity and content quality. But how will it address the issue of doctors being able allocate some time to seek information? For government doctors, accessing information might have to be built into their regular duties, like attending meetings and sending reports, if it has to get any attention in their busy schedule.

To the question "whether the Internet will benefit in their work", the response was overwhelmingly positive (89%). Benefits listed were common across all categories of respondents, which were getting new information, more information and being able to interact with colleagues and experts mainly in the context of diagnosis and treatment. This data suggests that beneficiaries of HIN might find facilities like e-mail, Chat rooms, and discussion-boards, very useful. Currently most of their interaction is within their organization – with supervisors, patients and colleagues. Their interaction with outside experts is rather low, expect in case of administrators. With HIN they should expect to increase interaction with outside experts, especially with research institutions. Initially, HIN might have to make special efforts to structure such interactions. These could include visits to research institutions, visits by researchers, researchers answering questions posed by practitioners, as well as promoting interaction between researchers, administrators and practitioners through email and bulletin board. The last suggestion of course assumes beneficiaries' e-readiness and comfort in accessing information, sending queries and participating in e-discussion.

Our e-readiness assessment however, indicated that only 50% Institutions have potential users with some skills in using computers but almost no skill in using internet. The other 50 percent have no staff with any computer skill at all. This finding implies that the project must have an intensive training component as well as capacity to provide on-line help to users to solve problems as and when they arise.

Considering various site conditions and interest shown by staff at various sites, we selected six health institutions in Bangalore rural district and five in Deogarh district as potential HIN Pilot sites. Their current status in terms of physical infrastructure, skills and availability of equipment as shown below would help HIN managers to identify physical input that the project needs to provide to initiate the Pilot phase.

Table B: E-readiness parameters by category of proposed sites

	Physical space	Temperature	Dust-free environment	Electricity fluctuations	Electricity outages	Generator	Earthing	# Of fixed phone lines	Dedicated phone line for Internet access	Computer training facility in
Kanakapura taluk hospital	✓	H	Y	Frequent	Frequent	Y	Y	2	×	✓
Doddamaral awa[illegible]HC	✓	M	N	Occasional	Frequent	N	Y	0	×	No response
Sathnur PHC	✓	H	Y	Rare	Frequent	N	Y	0	×	×
Bidadi CHC	✓	M	N	Never	Frequent	N	Y	0	×	No response
Tubagere PHC	✓	H	Y	Never	Frequent	N	Y	0	×	×
Doddahejjaj i PHC	✓	M	N	Frequent	Occasional	N	Y	0	×	×
District health office, Deogarh	✓	L	Y	Rare	Rare	N	Y	2	✓	×
Barkote CHC	✓	L	Y	Occasional	Occasional	N	Y	0	×	×
Bamparda PHC	✓	L	Y	Rare	Rare	N	Y	0	×	×
Tileibani PHC	✓	L	Y	Occasional	Occasional	N	Y	1	×	×
Chttabar PHC	✓	L	Y	Occasional	Occasional	N	Y	0	×	×

Though 5 out of 12 sites have no "dust free" environment and all sites reported moderate to high temperature, none of the sites need physical alterations to control dust and reduce heat. Instead hand-held vacuum cleaner should be provided at each site to keep computers clean. Air conditioners are also not necessary since currently available do not need air conditioners except for keeping the equipment dust free. That role could be played by dust covers, equally well and cheaply.

Our e-readiness assessment also showed that all sites were having electricity problem. Especially in Bangalore rural, electricity outage is a common occurrence. That would affect the access time for Internet and would frequently corrupt drivers. That problem could be solved by installing UPS (Uninterrupted Power Supply) system at each site with a 2-3 hours backup supply of power using

truck batteries. This whole equipment may cost around Rs.10000/- and would be much cheaper to operate than having generators.

At most sites, telephone lines needs to be installed since only 3 out of 12 sites presently have telephones. Getting telephone connections in Bangalore rural might not be difficult and could be done quickly with the help of state government. However, at the five sites in Orissa, we understand that telephone lines might not be possible and therefore would need VSAT links.

What is VSAT

VSAT (Very Small Aperture Terminal) refers to receive/transmit terminals installed at dispersed sites connected to a central hub via satellite using small diameter antenna dishes (0.6 to 3.8 meter). VSAT technology represents a cost-effective solution for users seeking an independent communications network connecting a large number of geographically dispersed sites. VSAT networks offer value-added satellite-based services capable of supporting the Internet, data, LAN, voice/fax communications, and can provide powerful, dependable private and public network communications solutions

All sites in Bangalore rural should be provided with 100-hour TCP/IP connection for a period of 1 year. So that unnecessary usage of Internet connection will be restricted. All these sites can dial Internet provider's number locally. But in case of Deogarh district there is no Internet service provider company at the moment, except in Sambhalpur, which is around 100 Km away from Deogarh. Therefore one would have to dial a STD code to connect to Internet. For this reason also, health institutions in Deogarh district need to be provided with VSAT links.

Only 2 sites (Kanakapura taluk hospital and District Tuberculosis Office) situated in Bangalore city, have training facility in the vicinity. One is a small private training institute and the other is a branch of Aptech Computer Education. They charge about Rs.1000 per person for basic training in computer but would provide no support afterwards. Therefore, training contract might be given to NIC, which *is a GOI department and has presence in all districts. NIC could provide support services after the* training.

Basic training course should include Windows OS, Use of MS-Word and Internet, Email. This training would require about 40 hours or one week. Since PHC staff cannot afford to give one full week for this training, the training period may have to spread over 2-3 weeks.

Of the 12 sites selected for HIN implementation, only two (District Tuberculosis Office in Karnataka and Deogarh) have computers. The remaining ten need to be provided with new computers as a first step in developing their e-readiness. Computer Training should ideally take place after installing these computes so that the staffs get hand-on training on their own systems and there would not long gaps between training and actual use of the system.

APPENDIX A: Interview Schedules

(1) Program Administrators

Health Information Needs assessment for Health Inter-Network

Interview schedule for Program Administrators

WHO is initiating a survey to assess information needs related to TB, tobacco-related diseases and other public health problems among government health care providers, policy makers as well as private health care providers. Findings from this survey will be used to develop an interactive website (portal) on a pilot- basis in an attempt to address information needs of health care providers.

We would be grateful if you can kindly give your consent to be interviewed as part of the survey. Information you give will be kept confidential and used only for research purpose.

I. General Information

Name (in capitals): _____

Age (in years): _____ Sex (Male=M; Female=F): _____

(Ref. Appendix B – Table 2) (Ref. Appendix B – Table 2.1)

Office address: _____ Phone: _____
_____ Pager/Mobile: _____
_____ Fax: _____
_____ Email: _____

Residence address: _____ Phone: _____
(Optional) _____ Pager/Mobile: _____
_____ Fax: _____
_____ Email: _____

II. Employment

1. a. Qualification: _____ b. Designation: _____

   (Ref. Appendix B – Table 2.2)

2. Which of the following categories best describes your main area of work? (Mention as many)

Health service provision (patient care & services)	1
Research (including academics)	2
Policy-making (including administration and management)	3
Others (specify) _____	4

(Ref. Appendix B – Table 3)

3. What is the level at which you mainly work? (Mention as many)

International	1
National	2
Regional	3
State	4
District/community	5

(Ref. Appendix B – Table 2.3)

4. How many years have you been in Government service? _____

(Ref. Appendix B – Table 4)

5. How many years have you been working in the present capacity? _____

(Ref. Appendix B – Table 5)

III. About Tuberculosis

6. How do you perceive tuberculosis as a problem? (Multiple response)

A problem under control	1
A major public health problem	2
A minor health problem	3
A resurgent problem	4
Don't know	9

(Ref. Appendix B – Table 7)

7. How much do you think India contributes to the total global tuberculosis burden? _____

(Ref. Appendix B – Table 7.1, 7.2)

8. Is TB still a killer disease and why? (Yes=Y; No=N; Don't know=D) _____

(Ref. Appendix B – Table 7.1, 8, 8.1, 8.2)

9. About how many patients die in a year of TB in India? _____

(Ref. Appendix B – Table 7.3)

10. How many TB patients are on treatment in your institution / jurisdiction? _____

(Ref. Appendix B – Table 6.3)

11. What guidelines are being followed to manage T. B. cases? _____

NTCP	1
RNTCP	2
Text-book guidelines	3
Others (specify) _____	4
Don't know	9

(Ref. Appendix B – Table 10)

12. Have you heard of Directly Observed Treatment Short-course (DOTS)? (Yes=Y; No=N)

_____

(Ref. Appendix B – Table 11)

13. If yes, from where did you hear about it? (You may select more than one source listed below).

Medical text books	A
Medical journals	B
Colleagues	C
Training/ orientation programme	D
Mass media	E
Internet	F
Any others (specify) _____	G

(Ref. Appendix B – Table 11)

14. What are the salient features of DOTS? (Multiple response)

a. Diagnosis by

X-ray	1
Sputum microscopy	2
Clinical	3
Mantoux test	4
Others (specify) _____	5
Don't know	9

(Ref. Appendix B – Table 11.1)

b. Mode of treatment

Drugs are supplied once a month	1
Drugs are supplied once a week	2
Each dose given under direct observation	3
Don't know	9

(Ref. Appendix B – Table 11.2)

c. Follow up T. B. patient's progress by

Clinical progress	1
X ray progress	2
Sputum microscopy	3
Don't know	9

(Ref. Appendix B – Table 11.4)

15. Does this program face any problems? (Yes=Y; No=N) _____

a. If yes, mention them.

Drugs	1
Reagents for sputum examination	2
X-ray plates	3
Staff availability	4
Patient cooperation	5
Others (specify) _____	6
Can't say	9

(Ref. Appendix B – Table 12)

16. Do you know on what basis the ***guidelines*** for T. B. control program have been developed?

(Ref. Appendix B – Table 37, 37.1)

17. How is the progress of T. B. control program monitored?

No. of new sputum positive patients on treatment	1
No. of patients on treatment	2
Sputum negative at the end of intensive phase (IP)	3
Smear positive : smear negative ratio	4
Cure at the end of treatment	5
Number of defaulters	6
Others (specify) _____	7
Don't know	9

(Ref. Appendix B – Table 13)

18. Do you feel the current Government policy for TB management (DOTS) will be effective in controlling TB? (Yes=Y; No=N; Don't know=D) _____

(Ref. Appendix B – Table 11.6)

a. If no, why? Give your opinion.

(Ref. Appendix B – Table 15, 15.1)

19. What would be your suggestion to improve the policy of TB management?

Use x-ray for all patients	1
Use daily treatment	2
Individualized case management	3
Others (specify) _____	4
Can't say	9

(Ref. Appendix B – Table 15, 15.1)

20. Would you like to have more information on TB? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.1)

a. If yes, what information do you need? Specify.

(Ref. Appendix B – Table 18, 18.1)

21. Do you use tobacco in any form? Yes No

(Ref. Appendix B – Table 20)

22. If no, have you ever used in the past? Yes No

(Ref. Appendix B – Table 20)

23. Have you or anyone in your close family ever suffered from TB? Yes No

(Ref. Appendix B – Table 20)

IV. About Tobacco Related Diseases

24. Do you think Tobacco use is a major public health problem in India? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 21)

25. Do you know how many people die globally due to Tobacco related illnesses? (Yes=Y; No=N) _____

a. If yes, how many? _____

(Ref. Appendix B – Table 21.1)

26. Are you aware of different forms of Tobacco use in India? (Yes=Y; No=N) _____

a. If yes, what are they?

Gutkha	1
Pan Masala	2
Mava	3
Snuff	4
Khaini	5
Betal leaf with Tobacco	6
Areca nut	7
Cigarette	8
Beedi	9
Others (specify) _____	10

(Ref. Appendix B – Table 22)

27. What are the diseases attributed to Tobacco use? Mention 5 most important diseases.

(Ref. Appendix B – Table 23, 23.1)

28. Do you feel doctors could play an important role in reducing Tobacco use? (Yes=Y; No=N) _____

29. What role do you think they are playing or could play?

(Ref. Appendix B – Table 26, 26.1)

30. What information you would like to have about tobacco-use?

Types of tobacco use
Health effects of different types of tobacco use
Advice about cessation
Passive smoking
Effect on women and children
Effect of advertisement
Problem of agriculture and employment

(Ref. Appendix B – Table 18.2)

31. What can government do to combat the Tobacco-use problem?

Ban on advertisements
No smoking in public places
Increased taxes on tobacco products
Stronger warnings on tobacco products
Ban on sale near schools
Others (Specify) _____

32. Do you think government policy of restricting Tobacco advertisement would have impact on use of Tobacco in the country? (Yes=Y; No=N) _____

a. What do you think will have impact on tobacco use in this country?

(Ref. Appendix B – Table 26.2, 26.3)

33. Have you received / issued any Government letter regarding use of tobacco? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

34. Do you think providing people more information regarding ill effects of Tobacco-use will help reduce Tobacco-use in community? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

35. In your opinion, at what age people start using Tobacco?

a. Male _____

b. Female _____

(Ref. Appendix B – Table 27, 27.1)

36. To what extent parents can help in preventing children using Tobacco?

To a large extent	1
To some extent	2
Not at all	3
Don't know / Can't say	9

(Ref. Appendix B – Table 27.2)

37. What can you do to prevent children from using Tobacco?

(Ref. Appendix B – Table 27.3, 27.4)

38. Do you know of any study on how to reduce tobacco use in a community? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.2)

a. If yes, please give details.

(Ref. Appendix B – Table 27.7)

39. Would you like to get such information? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.3)

V. Other Public health Problems

40. What are the most important public health topics for your work?

- Maternal & infant health
- Child & adolescent health
- Reproductive health
- Adult health
- Gender & health
- Health & the elderly
- Migrant & refugee health
- Acute respiratory infections/ Pneumonia
- Diarrhoeal diseases
- HIV / AIDS
- Malaria
- Mental health
- Tobacco use
- Tuberculosis
- Infectious disease
- Vector-borne, parasitic & tropical disease
- Non-communicable / chronic disease
- Disabilities
- Eye diseases & blindness
- Oral health
- Substance abuse
- Blood safety
- Violence & injuries
- Health information systems & tools
- Medical & laboratory technology
- Pharmaceuticals, vaccines, & biologicals
- Intersectoral public health topics
- Development & health
- Environment & health
- Ethics & health
- Globalization & health
- Health economics & financing
- Human rights & health
- Information sciences and health
- Nutrition & food safety
- Occupational health
- Public / media relations & health
- Travel & health
- Water resources & sanitation
- Zoonoses & veterinary health
- Primary & community health
- Prevention & control of disease

- Surveillance & reporting
- Epidemiology & statistics
- Treatment & healthcare
- Diagnostics
- Drug information
- Surgery & anesthesia
- Rehabilitation
- Emergency response in health
- Traditional / alternative medicine
- Research methods
- Evidence-based policy & practice
- Health policy & legislation
- Health systems
- Capacity building & sustainability
- Management and administration
- Program planning & evaluation
- Medical sciences
- Nursing and midwifery
- Allied health disciplines
- Professional/continuing education
- Others (specify) _____

41. What do you find to be the most useful source of information in the following categories?

Source of information	Awareness in general	Awareness in your area of expertise	In depth information in your area of expertise	In depth information outside your area of expertise
Books (manuals, text & reference)	☐	☐	☐	☐
Databases & indexes	☐	☐	☐	☐
Journals & scientific publications	☐	☐	☐	☐
Meetings and meeting proceedings	☐	☐	☐	☐
Print news services (papers, magazines)	☐	☐	☐	☐
Regular reporting and briefings	☐	☐	☐	☐
Technical guidelines & fact sheets	☐	☐	☐	☐
Television & radio	☐	☐	☐	☐
Librarians and reference services	☐	☐	☐	☐
Colleagues/ experts *in* your organization	☐	☐	☐	☐
Colleagues/ experts *outside* your organization	☐	☐	☐	☐
If any other, specify: _____	☐	☐	☐	☐

(Ref. Appendix B – Table 29, 29.1, 29.2, 29.3)

42. What is your preferred language for the following categories of information?

Awareness in general _____

Awareness in your area of expertise _____

In depth information in your area of expertise _____

In depth information outside your area of expertise _____

(Ref. Appendix B – Table 29.4, 29.5, 29.6, 29.7)

43. What are the main difficulties you experience related to information in the following categories? (Check as many)

	Awareness information in *general*	Awareness information in your area of expertise	In depth information in your area of expertise	In depth information <u>outside</u> your area of expertise
No difficulty	☐	☐	☐	☐
Difficult to get	☐	☐	☐	☐
Don't know where to find	☐	☐	☐	☐
Difficult to use	☐	☐	☐	☐
Expensive	☐	☐	☐	☐
Poor quality	☐	☐	☐	☐
Irregular	☐	☐	☐	☐
Not up to date	☐	☐	☐	☐
Not relevant to local situation	☐	☐	☐	☐
Not in prefered langueage	☐	☐	☐	☐
If any other, specify: _____	☐	☐	☐	☐

(Ref. Appendix B – Table 30, 30.1, 30.2, 30.3)

44. With whom is communication important for your work? (Mention as many)

Superior	1
Colleagues or experts <u>within</u> your organization	2
Experts <u>outside</u> your organization	3
Directly with patients	4
Directly with general public	5
Funding / donor agencies	6
Press / mass media / advocacy groups	7
Others (specify) _____	8

(Ref. Appendix B – Table 31)

45. Do you need new information related to your work? (Yes=Y; No=N) _____

a. If yes, in what form would you like to have such information?

Electronic media such as Internet, email
Newsletters or fact sheets
Verbally from colleagues and experts
Scientific journals
AV media such as CD, DVD
Magazines and newspapers
Others (specify) _____

(Ref. Appendix B – Table 32)

46. Are you aware of any website giving health information? (Yes=Y; No=N) _____

a. If yes, please mention.

(Ref. Appendix B – Table 34.2, 34.3)

47. How do you most commonly use new information?

Support diagnosis and treatment	1	Include in articles / books	9
Make policy / program decisions	2	Adapt and distribute for local use	10
Advise decision / policy makers	3	Develop health education material	11
Modify treatment protocol	4	Circulate to colleagues	12
Respond to emergencies	5	Find more information on the topic	13
Prepare grant / funding proposals	6	File for later reference	14
Issue press releases	7	Others (specify) _____	15
Use in lectures / presentations	8		

(Ref. Appendix B – Table 33)

VI. Access to Internet

48. Do you have access to the Internet?

No	1
Yes - at home	2
Yes - at an Internet cafe	3
Yes - at work	4
Yes - at home and work	5
Yes - others (specify) _____	6

(Ref. Appendix B – Table 34)

49. a. During the last one-month, how many times did you access the Internet?

0	1
1-2	2
3-4	3
5-6	4
7-8	5
9-10	6
11+	7

(Ref. Appendix B – Table 34.1)

b. What kinds of sites / information do you access on the Internet?

None	1
Information related to the present work	2
Non-work related information	3
General knowledge	4
New information	5
Entertainment matters	6
Others (specify) _____	7

(Ref. Appendix B – Table 34.4)

50. What barriers do you face in using the Internet? (Mention up to 3 in total from the following lists)

Resource / skill barriers

Don't have the time	1
Insufficient skills for computer use	2
Insufficient skills for Internet use	3
Very costly	4

Barriers related to Internet content

Local censorship issues	5
Not in preferred language	6
Too much information	7
Uneven quality of information	8

Physical barriers

Electricity outages / interruptions	10
Internet connection in inconvenient location	11
Slow Internet connection	12
Telephone line problems	13
No barriers at all	14
Others (specify) _____	15

(Ref. Appendix B – Table 35)

51. a. Do you think having access to the Internet will help you in your work?

Yes	1
No	0
Not sure	9

b. If yes, list up to 3 key ways in which you think access to the Internet would help your work.

(i)

(ii)

(iii)

(Ref. Appendix B – Table 36, 36.1)

Name of investigator
Date

Signature of investigator

(2) Researchers – Faculty members

Health Information Needs assessment for Health Inter-Network

Interview schedule for Researchers – Faculty members

WHO is initiating a survey to assess information needs related to TB, tobacco-related diseases and other public health problems among government health care providers, policy makers as well as private health care providers. Findings from this survey will be used to develop an interactive website (portal) on a pilot- basis in an attempt to address information needs of health care providers.

We would be grateful if you can kindly give your consent to be interviewed as part of the survey. Information you give will be kept confidential and used only for research purpose.

I. General Information

Name (in capitals): _____

Age (in years): _____ Sex (Male=M; Female=F): _____

(Ref. Appendix B – Table 2) (Ref. Appendix B – Table 2.1)

Office address: _____
_____
_____
_____

Phone: _____
Pager/Mobile: _____
Fax: _____
Email: _____

Residence address: _____
(Optional) _____
_____
_____

Phone: _____
Pager/Mobile: _____
Fax: _____
Email: _____

II. Employment

1. a. Qualification: _____ b. Designation: _____

   (Ref. Appendix B – Table 2.2)

2. Which of the following categories best describes your main area of work? (Mention as many)

Health service provision (patient care & services)	1
Research (including academics)	2
Policy-making (including administration and management)	3
Others (specify) _____	4

(Ref. Appendix B – Table 3)

3. What is the level at which you mainly work? (Mention as many)

International	1
National	2
Regional	3
State	4
District/community	5

(Ref. Appendix B – Table 2.3)

4. How many years have you been in service? _____

(Ref. Appendix B – Table 4)

5. How many years have you been working in the present capacity? _____

(Ref. Appendix B – Table 5)

III. About Tuberculosis

6. How do you perceive tuberculosis as a problem? (Multiple response)

A problem under control	1
A major public health problem	2
A minor health problem	3
A Resurgent problem	4
Don't know	9

(Ref. Appendix B – Table 7)

7. How much do you think India contributes to the total global tuberculosis burden? _____

(Ref. Appendix B – Table 7.1, 7.2)

8. Is TB still a killer disease and why? (Yes=Y; No=N; Don't know=D) _____

(Ref. Appendix B – Table 7.1, 8, 8.1, 8.2)

9. About how many patients die in a year of TB in India? _____

(Ref. Appendix B – Table 7.1, 7.3)

10. How many TB patients are on treatment in your institution? _____

(Ref. Appendix B – Table 6.3)

11. What guidelines do you think your hospital is following to manage T. B. cases? _____

NTCP	1
RNTCP	2
Text-book guidelines	3
Others (specify) _____	4
Don't know	9

(Ref. Appendix B – Table 10)

12. Have you heard of Directly Observed Treatment Short-course (DOTS)? (Yes=Y; No=N)

_____

(Ref. Appendix B – Table 11)

13. If yes, from where did you hear about it? (You may select more than one source listed below).

Medical text books	A
Medical journals	B
Colleagues	C
Training/ orientation program	D
Mass media	E
Internet	F
Any others (specify) _____	G

(Ref. Appendix B – Table 11)

14. What are the salient features of DOTS? (Multiple response)

a. Diagnosis by

X-ray	1
Sputum microscopy	2
Clinical	3
Mantoux test	4
Others (specify) _____	5
Don't know	9

(Ref. Appendix B – Table 11.1)

b. Mode of treatment is that

Drugs are supplied once a month	1
Drugs are supplied once a week	2
Each dose given under direct observation	3
Don't know	9

(Ref. Appendix B – Table 11.2)

c. Follow-up of patient's progress

Clinical progress	1
X ray progress	2
Sputum microscopy	3

(Ref. Appendix B – Table 11.4)

15. What is the basis on which ***guidelines*** for T. B. control program have been developed?

(Ref. Appendix B – Table 37, 37.1)

16. How T. B. control program is being monitored?

No. of new sputum positive patients on treatment	1
No. of patients on treatment	2
Sputum negative at the end of intensive phase (IP)	3
Smear positive : smear negative ratio	4
Cure at the end of treatment	5
Number of defaulters	6
Others (specify) _____	7
Don't know	9

(Ref. Appendix B – Table 13)

17. Do you feel the current Government policy for TB management (DOTS) would be effective in controlling TB? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 11.6)

a. What is your suggestion to improve that policy?

Use x-ray for all patients	1
Use daily treatment	2
Individualized case management	3
Others (specify) _____	4
Can't say	9

(Ref. Appendix B – Table 15, 15.1)

b. On what basis are you making these suggestions?

(Ref. Appendix B – Table 15.2)

18. Would you like to have more information on TB? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.1)

a. If yes, what information do you need?

(Ref. Appendix B – Table 18, 18.1)

19. Which medical journal do you have access to?

(Ref. Appendix B – Table 19, 19.1)

20. Do you use tobacco in any form? Yes No

(Ref. Appendix B – Table 20)

21. If no, have you ever used in the past? Yes No

(Ref. Appendix B – Table 20)

22. Have you or anyone in your close family ever suffered from TB? Yes No

(Ref. Appendix B – Table 20)

IV. About Tobacco Related Diseases

23. Do you think Tobacco use is a major public health problem in India? (Yes=Y; No=N) ____

(Ref. Appendix B – Table 21)

24. Do you know how many people die globally due to Tobacco related illnesses? (Yes=Y; No=N) _____

a. If yes, how many? _____

(Ref. Appendix B – Table 21.1)

25. Are you aware of different forms of Tobacco use in India? (Yes=Y; No=N) _____

a. If yes, what are they?

Gutkha	1
Pan Masala	2
Mava	3
Snuff	4
Khaini	5
Betal leaf with Tobacco	6
Areca nut	7
Cigarette	8
Beedi	9
Others (specify) _____	10

(Ref. Appendix B – Table 22)

26. What are the diseases attributed to Tobacco use? Mention 5 most important diseases.

(Ref. Appendix B – Table 23, 23.1)

27. Do you feel doctors could play an important role in reducing Tobacco use? (Yes=Y; No=N)

28. What role do you think they are playing or could play?

(Ref. Appendix B – Table 26, 26.1)

29. What information you would like to have about tobacco-use?

Types of tobacco use
Health effects of different types of tobacco use
Advice about cessation
Passive smoking
Effect on women and children
Effect of advertisement
Problem of agriculture and employment

(Ref. Appendix B – Table 18.2)

30. What can government do to combat the Tobacco-use problem?

Ban on advertisements
No smoking in public places
Increased taxes on tobacco products
Stronger warnings on tobacco products
Ban on sale near schools
Others (Specify) _____

31. Do you think government policy of restricting Tobacco advertisement would have impact on use of Tobacco in the country? (Yes=Y; No=N) _____

a. What in your opinion will have impact on tobacco use in this country?

(Ref. Appendix B – Table 26.2, 26.3)

32. Do you think providing people more information regarding ill effects of Tobacco-use will help reduce Tobacco-use in community? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

33. In your opinion, at what age people start using Tobacco?

a. Male _____

b. Female _____

(Ref. Appendix B – Table 27, 27.1)

34. To what extent parents can help in preventing children using Tobacco?

To a large extent	1
To some extent	2
Not at all	3
Don't know / Can't say	9

(Ref. Appendix B – Table 27.2)

35. Do you know about any study on how to reduce tobacco use in a community? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.2)

a. If yes, please give details.

(Ref. Appendix B – Table 27.7)

36. Would you like to get such information? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.3)

V. Other Public health Problems

37. What are the most important public health topics for your work?

- Maternal & infant health
- Child & adolescent health
- Reproductive health
- Adult health
- Gender & health
- Health & the elderly
- Migrant & refugee health
- Acute respiratory infections/ Pneumonia
- Diarrhoeal diseases
- HIV / AIDS
- Malaria
- Mental health
- Tobacco use
- Tuberculosis
- Infectious disease
- Vector-borne, parasitic & tropical disease
- Non-communicable / chronic disease
- Disabilities
- Eye diseases & blindness
- Oral health
- Substance abuse
- Blood safety
- Violence & injuries
- Health information systems & tools
- Medical & laboratory technology
- Pharmaceuticals, vaccines, & biologicals
- Intersectoral public health topics
- Development & health
- Environment & health
- Ethics & health
- Globalization & health
- Health economics & financing
- Human rights & health
- Information sciences and health
- Nutrition & food safety
- Occupational health
- Public / media relations & health
- Travel & health
- Water resources & sanitation
- Zoonoses & veterinary health
- Primary & community health
- Prevention & control of disease
- Surveillance & reporting
- Epidemiology & statistics
- Treatment & healthcare
- Diagnostics
- Drug information
- Surgery & anesthesia
- Rehabilitation
- Emergency response in health
- Traditional / alternative medicine
- Research methods
- Evidence-based policy & practice
- Health policy & legislation
- Health systems
- Capacity building & sustainability
- Management and administration
- Program planning & evaluation
- Medical sciences
- Nursing and midwifery
- Allied health disciplines
- Professional/continuing education
- Others (specify) _____

(Ref. Appendix B – Table 28)

38. What do you find to be the most useful source of information in the following categories?

Source of information	Awareness in general	Awareness in your area of expertise	In depth information in your area of expertise	In depth information outside your area of expertise
Books (manuals, text & reference)	☐	☐	☐	☐
Databases & indexes	☐	☐	☐	☐
Journals & scientific publications	☐	☐	☐	☐
Meetings and meeting proceedings	☐	☐	☐	☐
Print news services (papers, magazines)	☐	☐	☐	☐
Regular reporting and briefings	☐	☐	☐	☐
Technical guidelines & fact sheets	☐	☐	☐	☐
Television & radio	☐	☐	☐	☐
Librarians and reference services	☐	☐	☐	☐
Colleagues/ experts *in* your organization	☐	☐	☐	☐
Colleagues/ experts *outside* your organization	☐	☐	☐	☐
If any other, specify: _____	☐	☐	☐	☐

(Ref. Appendix B – Table 29, 29.1, 29.2, 29.3)

39. What is your preferred language for the following categories of information?

Awareness in general _____

Awareness in your area of expertise _____

In depth information in your area of expertise _____

In depth information outside your area of expertise _____

(Ref. Appendix B – Table 29.4, 29.5, 29.6, 29.7)

40. What are the main difficulties you experience related to information in the following categories? (Check as many)

	Awareness information in *general*	Awareness information in *your area of* expertise	In depth information in *your area of* expertise	In depth information *outside* your area of expertise
No difficulty	☐	☐	☐	☐
Difficult to get	☐	☐	☐	☐
Don't know where to find	☐	☐	☐	☐
Difficult to use	☐	☐	☐	☐
Expensive	☐	☐	☐	☐
Poor quality	☐	☐	☐	☐
Irregular	☐	☐	☐	☐
Not up to date	☐	☐	☐	☐
Not relevant to local situation	☐	☐	☐	☐
Not in prefered langueage	☐	☐	☐	☐
If any other, specify: _____	☐	☐	☐	☐

(Ref. Appendix B – Table 30, 30.1, 30.2, 30.3)

41. With whom is communication important for your work? (Mention as many)

Superior	1
Colleagues or experts within your organization	2
Experts outside your organization	3
Directly with patients	4
Directly with general public	5
Funding / donor agencies	6
Press / mass media / advocacy groups	7
Others (specify) _____	8

(Ref. Appendix B – Table 31)

42. Do you need new information related to your work? (Yes=Y; No=N) _____

a. If yes, in what form would you like to have such information?

Electronic media such as Internet, email
Newsletters or fact sheets
Verbally from colleagues and experts
Scientific journals
AV media such as CD, DVD
Magazines and newspapers
Others (specify) _____

(Ref. Appendix B – Table 32)

43. Are you aware of any website giving health information? (Yes=Y; No=N) _____

a. If yes, please mention.

(Ref. Appendix B – Table 34.2, 34.3)

44. How do you most commonly use new information?

Support diagnosis and treatment	1	Include in articles / books	9
Make policy / program decisions	2	Adapt and distribute for local use	10
Advise decision / policy makers	3	Develop health education material	11
Modify treatment protocol	4	Circulate to colleagues	12
Respond to emergencies	5	Find more information on the topic	13
Prepare grant / funding proposals	6	File for later reference	14
Issue press releases	7	Others (specify) _____	15
Use in lectures / presentations	8		

(Ref. Appendix B – Table 33)

VI. Access to Internet

45. Do you have access to the Internet?

No	1
Yes - at home	2
Yes - at an Internet cafe	3
Yes - at work	4
Yes - at home and work	5
Yes - others (specify) _____	6

(Ref. Appendix B – Table 34)

46. a. During the last one-month, how many times did you access the Internet?

0	1
1-2	2
3-4	3
5-6	4
7-8	5
9-10	6
11+	7

(Ref. Appendix B – Table 34.1)

b. What kinds of sites / information do you access on the Internet?

None	1
Information related to the present work	2
Non-work related information	3
General knowledge	4
New information	5
Entertainment matters	6
Others (specify) _____	7

(Ref. Appendix B – Table 34.4)

47. What barriers do you face in using the Internet? (Mention up to 3 in total from the following lists)

Resource / skill barriers

Don't have the time	1
Insufficient skills for computer use	2
Insufficient skills for Internet use	3
Very costly	4

Barriers related to Internet content

Local censorship issues	5
Not in preferred language	6
Too much information	7
Uneven quality of information	8

Physical barriers

Electricity outages / interruptions	10
Internet connection in inconvenient location	11
Slow Internet connection	12
Telephone line problems	13
No barriers at all	14
Others (specify) _____	15

(Ref. Appendix B – Table 35)

48. a. Do you think having access to the Internet will help you in your work?

Yes	1
No	0
Not sure	9

b. If yes, list up to 3 key ways in which you think access to the Internet would help your work.

(i)

(ii)

(iii)

(Ref. Appendix B – Table 36, 36.1)

Name of investigator
Date

Signature of investigator

(3) Government Medical Officers

Health Information Needs assessment for Health Inter-Network

Interview schedule for Government Medical Officers

WHO is initiating a survey to assess information needs related to TB, tobacco-related diseases and other public health problems among government health care providers, policy makers as well as private health care providers. Findings from this survey will be used to develop an interactive website (portal) on a pilot- basis in an attempt to address information needs of health care providers.

We would be grateful if you can kindly give your consent to be interviewed as part of the survey. Information you give will be kept confidential and used only for research purpose.

I. General Information

Name (in capitals): _____

Age (in years): _____ Sex (Male=M; Female=F): _____

(Ref. Appendix B – Table 2) (Ref. Appendix B – Table 2.1)

Office address: _____ Phone: _____
_____ Pager/Mobile: _____
_____ Fax: _____
_____ Email: _____

Residence address: _____ Phone: _____
(Optional) _____ Pager/Mobile: _____
_____ Fax: _____
_____ Email: _____

II. Employment

1. a. Qualification: _____ b. Designation: _____

(Ref. Appendix B – Table 2.2)

2. Which of the following categories best describes your main area of work? (Mention as many)

Health service provision (patient care & services)	1
Research (including academics)	2
Policy-making (including administration and management)	3
Others (specify) _____	4

(Ref. Appendix B – Table 3)

3. What is the level at which you mainly work? (Mention as many)

International	1
National	2
Regional	3
State	4
District/community	5

(Ref. Appendix B – Table 2.3)

4. How many years have you been in Government service? _____

(Ref. Appendix B – Table 4)

5. Do you practice outside the working hours? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 38)

6. If so, since how many years? _____

(Ref. Appendix B – Table 38)

7. How many patients do you see on an average, per day?

(Ref. Appendix B – Table 6)

8. What percent of your patients belong to

Lower SE class	_____
Middle class	_____
Upper class	_____

(Ref. Appendix B – Table 6.1)

III. About Tuberculosis

9. How do you perceive tuberculosis as a problem? (Multiple response)

A problem under control	1
A major public health problem	2
A minor health problem	3
A Resurgent problem	4
Don't know	9

(Ref. Appendix B – Table 7)

10. How much do you think India contributes to the total global tuberculosis burden?_____

(Ref. Appendix B – Table 7.1, 7.2)

11. Is TB still a killer disease and why? (Yes=Y; No=N; Don't know=D) _____

(Ref. Appendix B – Table 7.1, 8, 8.1, 8.2)

12. About how many patients die in a year of TB in India? _____

(Ref. Appendix B – Table 7.1, 7.3)

13. Do you treat any Tuberculosis patients? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 6.2)

14. How many TB patients are under your care now? _____

(Ref. Appendix B – Table 6.3)

15. When do you suspect TB?

(Ref. Appendix B – Table 9, 9.1)

16. What guidelines are you following to treat these patients? _____

National (NTCP /RNTCP) guidelines	1
Text-book guidelines	2
Own regimen	3

(Ref. Appendix B – Table 10)

17. Have you heard of Directly Observed Treatment Short-course (DOTS)? (Yes=Y; No=N)

(Ref. Appendix B – Table 11)

18. If yes, from where did you hear about it? (You may select more than one source listed below).

Medical text books	A
Medical journals	B
Medical representative	C
Colleagues	D
CME programmes	E
RNTCP training/ orientation programme	F
Mass media	G
Internet	H
Any others (specify) _____	I

(Ref. Appendix B – Table 11)

19. What are the salient features of DOTS? (Multiple response)

a. Diagnosis by

X-ray	1
Sputum microscopy	2
Clinical	3
Mantoux test	4
Others (specify) _____	5
Don't know	9

(Ref. Appendix B – Table 11.1)

b. Mode of treatment

Drugs are supplied once a month	1
Drugs are supplied once a week	2
Each dose given under direct observation	3
Don't know	9

(Ref. Appendix B – Table 11.2)

20. How do you follow up T. B. patient's progress? (Multiple response)

Clinical progress	1
X ray progress	2
Sputum microscopy	3

(Ref. Appendix B – Table 11.4)

21. Do you face any problems with

a. Availability of drugs? (Yes=Y; No=N) _____

b. Availability of reagents for sputum examination? (Yes=Y; No=N) _____

c. X-ray referral? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 12)

22. When do you stop treatment for the patient?

2 months after sputum conversion	1
3 months after sputum conversion	2
4 months after sputum conversion	3
5 months after sputum conversion	4
Sputum conversion at the end of the treatment	5
Clearance on chest X-ray	6
Don't know	9

(Ref. Appendix B – Table 11.5)

23. How do you monitor T. B. program in your PHC? Select indicators that you use (Multiple response)

No. of new sputum positive patients on treatment	1
No. of patients on treatment	2
Sputum negative at the end of intensive phase (IP)	3
Smear positive : smear negative ratio	4
Cure at the end of treatment	5
Number of defaulters	6
Others (specify) _____	7

(Ref. Appendix B – Table 13)

24. How do you think, regular reporting by you helps in program management?

(Ref. Appendix B – Table 38.1)

25. How frequently you are required to send your report?

Every month	1
Every quarter	2
Half yearly	3
Annually	4

(Ref. Appendix B – Table 14)

26. Do you feel the current Government policy for TB management (DOTS) will be effective in controlling TB? (Yes=Y; No=N; Don't know=D) _____

(Ref. Appendix B – Table 11.6)

a. If yes, would you be happy to use the same in your private practice? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 11.6)

b. What is your suggestion to improve the policy?

Use x-ray for all patients	1
Use daily treatment	2
Individualized case management	3
Others (specify) _____	4
Can't say	9

(Ref. Appendix B – Table 15, 15.1)

27. Do you have access to research / clinical information related to T. B. treatment? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16)

28. If yes, specify the sources.

(Ref. Appendix B – Table 17, 17.1)

29. Do you require further information on TB? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.1)

a. If yes, what information do you need?

Etiology of T. B.	1
How to prevent spread of T. B.?	2
How to motivate patients?	3
Others (specify) _____	4

(Ref. Appendix B – Table 18, 18.1)

30. Which medical journal do you have access to?

(Ref. Appendix B – Table 19, 19.1)

31. Do you use tobacco in any form? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 20)

32. If no, have you ever used in the past? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 20)

33. Have you or anyone in your close family ever suffered from TB? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 20)

IV. About Tobacco Related Diseases

34. Do you think Tobacco use is a major public health problem in India? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 21)

35. Do you know how many people die globally due to Tobacco related illnesses? (Yes=Y; No=N) _____

a. If yes, how many? _____

(Ref. Appendix B – Table 21.1)

36. Are you aware of different forms of Tobacco use in India? (Yes=Y; No=N) _____

a. If yes, what are they?

Gutkha	1
Pan Masala	2
Mava	3
Snuff	4
Khaini	5
Betal leaf with Tobacco	6
Areca nut	7
Cigarette	8
Beedi	9
Others (specify) _____	10

(Ref. Appendix B – Table 22)

37. What are the diseases attributed to Tobacco use? Mention 5 most important diseases.

(Ref. Appendix B – Table 23, 23.1)

38. What is the component in Tobacco that is responsible for ill effects on health? (Multiple response)

Nicotine	1
Tar	2
Smoke	3
Others (specify) _____	4
Don't know / Can't remember	9

(Ref. Appendix B – Table 24)

39. When you come across a patient smoking, do you tell him about ill-effects of smoking?

Sometimes	1
Regularly	2
Rarely	3
Never	4

(Ref. Appendix B – Table 25)

40. Do you feel doctors could play an important role in reducing Tobacco use? (Yes=Y; No=N) _____

41. What role do you think they are playing or could play?

(Ref. Appendix B – Table 26, 26.1)

42. What information you would like to have about effects of tobacco-use on health?

Types of tobacco use
Health effects of different types of tobacco use
Advice about cessation
Passive smoking
Effect on women and children
Effect of advertisement
Problem of agriculture and employment

(Ref. Appendix B – Table 18.2)

43. How would you like the government to support you to deal with Tobacco abuse?

Ban on advertisements
No smoking in public places
Increased taxes on tobacco products
Stronger warnings on tobacco products
Ban on sale near schools
Others (Specify) _____

44. Do you think government policy of restricting Tobacco advertisement would have impact on use of Tobacco in the country? (Yes=Y; No=N) _____

a. What in your opinion will have impact on tobacco use in this country?

(Ref. Appendix B – Table 26.2, 26.3)

45. Have you received any Government letter regarding use of tobacco? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

46. Do you have health education material related to anti-Tobacco use? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

If yes,

a. List the materials.

(Ref. Appendix B – Table 27.6)

b. Have you ever used these health education materials in the community? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

47. Do you think giving information about bad effects of Tobacco will help community to reduce use of Tobacco? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

48. At what age, do you think, people start using Tobacco?

a. Male _____

b. Female _____

(Ref. Appendix B – Table 27, 27.1)

49. To what extent parents can help in preventing children using Tobacco?

To a large extent	1
To some extent	2
Not at all	3
Don't know / Can't say	9

(Ref. Appendix B – Table 27.2)

50. What can you do to prevent children from using Tobacco?

(Ref. Appendix B – Table 27.3, 27.4)

51. Do you know any study on how to reduce tobacco use in a community? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.2)

a. If yes, please give details.

(Ref. Appendix B – Table 27.7)

52. Would you like to get such information? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.3)

V. Other Public health Problems

53. What are the most important public health topics for your work?

- Maternal & infant health
- Child & adolescent health
- Reproductive health
- Adult health
- Gender & health
- Health & the elderly
- Migrant & refugee health
- Acute respiratory infections/ Pneumonia
- Diarrhoeal diseases
- HIV / AIDS
- Malaria
- Mental health
- Tobacco use
- Tuberculosis
- Infectious disease
- Vector-borne, parasitic & tropical disease
- Non-communicable / chronic disease
- Disabilities
- Eye diseases & blindness
- Oral health
- Substance abuse
- Blood safety
- Violence & injuries
- Health information systems & tools
- Medical & laboratory technology
- Pharmaceuticals, vaccines, & biologicals
- Intersectoral public health topics
- Development & health
- Environment & health
- Ethics & health
- Globalization & health
- Health economics & financing
- Human rights & health
- Information sciences and health
- Nutrition & food safety
- Occupational health
- Public / media relations & health
- Travel & health
- Water resources & sanitation
- Zoonoses & veterinary health
- Primary & community health
- Prevention & control of disease
- Surveillance & reporting
- Epidemiology & statistics
- Treatment & healthcare
- Diagnostics
- Drug information
- Surgery & anesthesia
- Rehabilitation
- Emergency response in health
- Traditional / alternative medicine
- Research methods
- Evidence-based policy & practice
- Health policy & legislation
- Health systems
- Capacity building & sustainability
- Management and administration
- Program planning & evaluation
- Medical sciences
- Nursing and midwifery
- Allied health disciplines
- Professional/continuing education
- Others (specify) _____

(Ref. Appendix B – Table 28)

54. What do you find to be the most useful source of information in the following categories?

Source of information	Awareness in general	Awareness in your area of expertise	In depth information in your area of expertise	In depth information outside your area of expertise
Books (manuals, text & reference)	☐	☐	☐	☐
Databases & indexes	☐	☐	☐	☐
Journals & scientific publications	☐	☐	☐	☐
Meetings and meeting proceedings	☐	☐	☐	☐
Print news services (papers, magazines)	☐	☐	☐	☐
Regular reporting and briefings	☐	☐	☐	☐
Technical guidelines & fact sheets	☐	☐	☐	☐
Television & radio	☐	☐	☐	☐
Librarians and reference services	☐	☐	☐	☐
Colleagues/ experts *in* your organization	☐	☐	☐	☐
Colleagues/ experts *outside* your organization	☐	☐	☐	☐
If any other, specify: _____	☐	☐	☐	☐

(Ref. Appendix B – Table 29, 29.1, 29.2, 29.3)

55. What is your preferred language for the following categories of information?

Awareness in general _____

Awareness in your area of expertise _____

In depth information in your area of expertise _____

In depth information outside your area of expertise _____

(Ref. Appendix B – Table 29.4, 29.5, 29.6, 29.7)

56. What are the main difficulties you experience related to information in the following categories? (Check as many)

	Awareness information in *general*	Awareness information in your area of expertise	In depth information in your area of expertise	In depth information <u>outside</u> your area of expertise
No difficulty	☐	☐	☐	☐
Difficult to get	☐	☐	☐	☐
Don't know where to find	☐	☐	☐	☐
Difficult to use	☐	☐	☐	☐
Expensive	☐	☐	☐	☐
Poor quality	☐	☐	☐	☐
Irregular	☐	☐	☐	☐
Not up to date	☐	☐	☐	☐
Not relevant to local situation	☐	☐	☐	☐
Not in prefered langueage	☐	☐	☐	☐
If any other, specify: _____	☐	☐	☐	☐

(Ref. Appendix B – Table 30, 30.1, 30.2, 30.3)

57. With whom is communication important for your work? (Mention as many)

Superior	1
Colleagues or experts <u>within</u> your organization	2
Experts <u>outside</u> your organization	3
Directly with patients	4
Directly with general public	5
Funding / donor agencies	6
Press / mass media / advocacy groups	7
Others (specify) _____	8

(Ref. Appendix B – Table 31)

58. Do you need new information related to your work? (Yes=Y; No=N) _____

a. If yes, in what form would you like to have such information?

Electronic media such as Internet, email
Newsletters or fact sheets
Verbally from colleagues and experts
Scientific journals
AV media such as CD, DVD
Magazines and newspapers
Others (specify) _____

(Ref. Appendix B – Table 32)

59. Are you aware of any website giving health information? (Yes=Y; No=N) _____

a. If yes, please mention.

(Ref. Appendix B – Table 34.2, 34.3)

60. How do you most commonly use new information?

Support diagnosis and treatment	1	Include in articles / books	9
Make policy / program decisions	2	Adapt and distribute for local use	10
Advise decision / policy makers	3	Develop health education material	11
Modify treatment protocol	4	Circulate to colleagues	12
Respond to emergencies	5	Find more information on the topic	13
Prepare grant / funding proposals	6	File for later reference	14
Issue press releases	7	Others (specify) _____	15
Use in lectures / presentations	8		

(Ref. Appendix B – Table 33)

VI. Access to Internet

61. Do you have access to the Internet?

No	1
Yes - at home	2
Yes - at an Internet cafe	3
Yes - at work	4
Yes - at home and work	5
Yes - others (specify) _____	6

(Ref. Appendix B – Table 34)

62. a. During the last one-month, how many times did you access the Internet?

0	1
1-2	2
3-4	3
5-6	4
7-8	5
9-10	6
11+	7

(Ref. Appendix B – Table 34.1)

b. What kinds of sites / information do you access on the Internet?

None	1
Information related to the present work	2
Non-work related information	3
General knowledge	4
New information	5
Entertainment matters	6
Others (specify) _____	7

(Ref. Appendix B – Table 34.4)

63. What barriers do you face in using the Internet? (Mention up to 3 in total from the following lists)

Resource / skill barriers

Don't have the time	1
Insufficient skills for computer use	2
Insufficient skills for Internet use	3
Very costly	4

Barriers related to Internet content

Local censorship issues	5
Not in preferred language	6
Too much information	7
Uneven quality of information	8

Physical barriers

Electricity outages / interruptions	10
Internet connection in inconvenient location	11
Slow Internet connection	12
Telephone line problems	13
No barriers at all	14
Others (specify) _____	15

(Ref. Appendix B – Table 35)

64. a. Do you think having access to the Internet will help you in your work?

Yes	1
No	0
Not sure	9

b. If yes, list up to 3 key ways in which you think access to the Internet would help your work.

(i)

(ii)

(iii)

(Ref. Appendix B – Table 36, 36.1)

Name of investigator

Signature of investigator

Date

(4) Private Practitioners

Health Information Needs assessment for Health Inter-Network

Interview schedule for Private Practitioners

WHO is initiating a survey to assess information needs related to TB, tobacco-related diseases and other public health problems among government health care providers, policy makers as well as private health care providers. Findings from this survey will be used to develop an interactive website (portal) on a pilot- basis in an attempt to address information needs of health care providers.

We would be grateful if you can kindly give your consent to be interviewed as part of the survey. Information you give will be kept confidential and used only for research purpose.

I. General Information

Name (in capitals): _____

Age (in years): _____ Sex (Male=M; Female=F): _____

(Ref. Appendix B – Table 2) (Ref. Appendix B – Table 2.1)

Office address: _____ Phone: _____
_____ Pager/Mobile: _____
_____ Fax: _____
_____ Email: _____

Residence address: _____ Phone: _____
(Optional) _____ Pager/Mobile: _____
_____ Fax: _____
_____ Email: _____

II. Employment

1. a. Qualification:_____ b. Specialty: _____

(Ref. Appendix B – Table 2.2)

2. Which of the following categories best describes your main area of work? (Mention as many)

Health service provision (patient care & services)	1
Research (including academics)	2
Policy-making (including administration and management)	3
Others (specify) _____	4

(Ref. Appendix B – Table 3)

3. What is the level at which you mainly work? (Mention as many)

International	1
National	2
Regional	3
State	4
District/community	5

(Ref. Appendix B – Table 2.3)

4. How many years have you been practicing? _____

(Ref. Appendix B – Table 4)

5. How many patients do you see on an average, per day?

(Ref. Appendix B – Table 6)

6. What percent of your patients belong to

Lower SE class	_____
Middle class	_____
Upper class	_____

(Ref. Appendix B – Table 6.1)

III. About Tuberculosis

7. How do you perceive tuberculosis as a problem? (Multiple response)

A problem under control	1
A major public health problem	2
A minor health problem	3
A Resurgent problem	4
Don't know	9

(Ref. Appendix B – Table 7)

8. How much do you think India contributes to the total global tuberculosis burden?

_____

(Ref. Appendix B – Table 7.1, 7.2)

9. Is TB still a killer disease and why? (Yes=Y; No=N; Don't know=D) _____

(Ref. Appendix B – Table 7.1, 8, 8.1, 8.2)

10. About how many patients die in a year of TB in India? _____

(Ref. Appendix B – Table 7.1, 7.3)

11. Do you treat any Tuberculosis patients? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 6.2)

12. How many TB patients are under your care now? _____

(Ref. Appendix B – Table 6.3)

13. When do you suspect TB?

(Ref. Appendix B – Table 9, 9.1)

14. If you clinically suspect TB, what investigations do you order?

X-ray	1
Mantoux test	2
Sputum examination	3
Blood test	4
IgG,IgM, PCR etc.	5
Others (specify) _____	6
Don't know	9

(Ref. Appendix B – Table 39)

15. Where do you send the patients for X-ray?

Own X-ray	1
Government X-ray	2
Other private X-ray	3

(Ref. Appendix B – Table 40)

16. Where do you send the patients for lab investigation?

Own lab	1
Government lab	2
Other private lab	3

(Ref. Appendix B – Table 40)

17. What drugs do you normally prescribe?

Rifampicin	1
INH	2
Pyrazinamide	3
Ethambutol	4
Streptomycin	5
Ofloxacin	6
Combipack	7
Others (specify) _____	8
Don't know	9

(Ref. Appendix B – Table 41)

18. What duration you give each prescription?

One week	1
One month	2
Two months	3
Entire duration	4
Others (specify) _____	5
Don't know	9

(Ref. Appendix B – Table 42)

19. Is your treatment regimen individually tailored for the patient? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 43)

20. If yes, on what parameters do you decide treatment?

Clinical	1
Radiological extent	2
Associated other illness	3
Organ involved	4
Body weight	5
Others (specify) _____	6

(Ref. Appendix B – Table 43)

21. Have you heard of Directly Observed Treatment Short-course (DOTS)? (Yes=Y; No=N)

(Ref. Appendix B – Table 11)

22. If yes, from where did you hear about it? (You may select more than one source listed below).

Medical text books	A
Medical journals	B
Medical representative	C
Colleagues	D
CME programmes	E
Training / orientation programme	F
Mass media	G
Internet	H
Any others (specify) _____	I

(Ref. Appendix B – Table 11)

23. What are the salient features of DOTS? (Multiple response)

a. Diagnosis by

X-ray	1
Sputum microscopy	2
Clinical	3
Mantoux test	4
Others (specify) _____	5
Don't know	9

(Ref. Appendix B – Table 11.1)

b. Mode of treatment

(i) Rifampicin

Once a month	1
Once a week	2

(ii) INH

Once a month	1
Once a week	2

Each dose given under direct observation	3
Don't know	9

(Ref. Appendix B – Table 11.2,11.3)

24. How do you follow up T. B. patient's progress? (Multiple response)

Clinical progress	1
X ray progress	2
Sputum microscopy	3

(Ref. Appendix B – Table 11.4)

25. When do you stop treatment for the patient?

2 months after sputum conversion	1
3 months after sputum conversion	2
4 months after sputum conversion	3
5 months after sputum conversion	4
Sputum conversion at the end of the treatment	5
Clearance on chest X-ray	6
Don't know	9

(Ref. Appendix B – Table 11.5)

26. Do you feel that private practitioners play an important role in TB control? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 44)

27. What would be your role in government T. B. control program?

Referral of chest symptomatics	1
Referral for sputum examination	2
Contribute to surveillance	3
As DOTS center	4
Others (specify) _____	5
Can't say	9

(Ref. Appendix B – Table 44)

28. How would you like the government to support you?

Training	1
Providing diagnostic facilities	2
Providing drugs	3
Updating on government policy	4
Others (specify) _____	5
Can't say	9

(Ref. Appendix B – Table 45)

29. Do you feel the current Government policy for TB management (DOTS) will be effective in controlling TB? (Yes=Y; No=N; Don't know=D) _____

(Ref. Appendix B – Table 11.6)

a. If yes, would you be happy to use the same in your practice? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 11.6)

b. What is your suggestion to improve the policy?

Use x-ray for all patients	1
Use daily treatment	2
Individualized case management	3
Others (specify) _____	4
Can't say	9

(Ref. Appendix B – Table 15, 15.1)

30. Do you have access to research / clinical information related to T. B. treatment? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16)

31. If yes, specify the sources.

(Ref. Appendix B – Table 17, 17.1)

32. Do you require further information on TB? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.1)

a. If yes, what information do you need?

Etiology of T. B.	1
How to prevent spread of T. B.?	2
How to motivate patients?	3
Others (specify) _____	4

(Ref. Appendix B – Table 18, 18.1)

33. Which medical journal do you have access to?

(Ref. Appendix B – Table 19, 19.1)

34. Do you use tobacco in any form? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 20)

35. If no, have you ever used in the past? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 20)

36. Have you or anyone in your close family ever suffered from TB? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 20)

IV. About Tobacco Related Diseases

37. Do you think Tobacco use is a major public health problem in India? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 21)

38. Do you know how many people die globally due to Tobacco related illnesses? (Yes=Y; No=N) _____

a. If yes, how many? _____

(Ref. Appendix B – Table 21.1)

39. Are you aware of different forms of Tobacco use in India? (Yes=Y; No=N) _____

a. If yes, what are they?

Gutkha	1
Pan Masala	2
Mava	3
Snuff	4
Khaini	5
Betal leaf with Tobacco	6
Areca nut	7
Cigarette	8
Beedi	9
Others (specify) _____	10

(Ref. Appendix B – Table 22)

40. What are the diseases attributed to Tobacco use? Mention 5 most important diseases.

(Ref. Appendix B – Table 23, 23.1)

41. What is the component in Tobacco that is responsible for ill effects on health? (Multiple response)

Nicotine	1
Tar	2
Smoke	3
Others (specify) _____	4
Don't know / Can't remember	9

(Ref. Appendix B -- Table 24)

42. When you come across a patient smoking, do you tell him about ill-effects of smoking?

Sometimes	1
Regularly	2
Rarely	3
Never	4

(Ref. Appendix B – Table 25)

43. Do you think doctors could play an important role in reducing Tobacco use? (Yes=Y; No=N)

44. What role do you think they are playing or could play?

(Ref. Appendix B – Table 26, 26.1)

45. Which of the following types of information you would like to have about tobacco-use?

Types of tobacco use
Health effects of different types of tobacco use
Advice about cessation
Passive smoking
Effect on women and children
Effect of advertisement
Problem of agriculture and employment

(Ref. Appendix B – Table 18.2)

46. How would you like the government to support you to deal with Tobacco abuse?

Ban on advertisements
No smoking in public places
Increased taxes on tobacco products
Stronger warnings on tobacco products
Ban on sale near schools
Others (Specify) _____

47. Do you think government policy of restricting Tobacco advertisement would have impact on use of Tobacco in the country? (Yes=Y; No=N) _____

a. What in your opinion will have impact on tobacco use?

(Ref. Appendix B – Table 26.2, 26.3)

48. Have you received any Government letter regarding use of tobacco? (Yes=Y; No=N)
_____

(Ref. Appendix B – Table 27.5)

49. Do you have health education material related to anti-Tobacco use? (Yes=Y; No=N)
_____

(Ref. Appendix B – Table 27.5)

If yes,

a. List the materials.

(Ref. Appendix B – Table 27.6)

b. Have you ever used these health education materials in the community? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

50. Do you think giving information about bad effects of Tobacco will help community to reduce Tobacco-use? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

51. At what age, do you think, people start using Tobacco?

a. Male _____

b. Female _____

(Ref. Appendix B – Table 27, 27.1)

52. To what extent parents can help in preventing children using Tobacco?

To a large extent	1
To some extent	2
Not at all	3
Don't know / Can't say	9

(Ref. Appendix B – Table 27.2)

53. What can you do to prevent children from using Tobacco?

(Ref. Appendix B – Table 27.3, 27.4)

54. Do you know about any study on how to reduce tobacco use in a community? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.2)

a. If yes, please give details.

(Ref. Appendix B – Table 27.7)

55. Would you like to get such information? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.3)

V. Other Public health Problems

56. What are the most important public health topics for your work?

- Maternal & infant health
- Child & adolescent health
- Reproductive health
- Adult health
- Gender & health
- Health & the elderly
- Migrant & refugee health
- Acute respiratory infections/ Pneumonia
- Diarrhoeal diseases
- HIV / AIDS
- Malaria
- Mental health
- Tobacco use
- Tuberculosis
- Infectious disease
- Vector-borne, parasitic & tropical disease
- Non-communicable / chronic disease
- Disabilities
- Eye diseases & blindness
- Oral health
- Substance abuse
- Blood safety
- Violence & injuries
- Health information systems & tools
- Medical & laboratory technology
- Pharmaceuticals, vaccines, & biologicals
- Intersectoral public health topics
- Development & health
- Environment & health
- Ethics & health
- Globalization & health
- Health economics & financing
- Human rights & health
- Information sciences and health
- Nutrition & food safety
- Occupational health
- Public / media relations & health
- Travel & health
- Water resources & sanitation
- Zoonoses & veterinary health
- Primary & community health
- Prevention & control of disease
- Surveillance & reporting
- Epidemiology & statistics
- Treatment & healthcare
- Diagnostics
- Drug information
- Surgery & anesthesia
- Rehabilitation
- Emergency response in health
- Traditional / alternative medicine
- Research methods
- Evidence-based policy & practice
- Health policy & legislation
- Health systems
- Capacity building & sustainability
- Management and administration
- Program planning & evaluation
- Medical sciences
- Nursing and midwifery
- Allied health disciplines
- Professional/continuing education
- Others (specify) _____

(Ref. Appendix B – Table 28)

57. What do you find to be the most useful source of information in the following categories?

Source of information	Awareness in general	Awareness in your area of expertise	In depth information in your area of expertise	In depth information outside your area of expertise
Books (manuals, text & reference)	☐	☐	☐	☐
Databases & indexes	☐	☐	☐	☐
Journals & scientific publications	☐	☐	☐	☐
Meetings and meeting proceedings	☐	☐	☐	☐
Print news services (papers, magazines)	☐	☐	☐	☐
Regular reporting and briefings	☐	☐	☐	☐
Technical guidelines & fact sheets	☐	☐	☐	☐
Television & radio	☐	☐	☐	☐
Librarians and reference services	☐	☐	☐	☐
Colleagues/ experts *in* your organization	☐	☐	☐	☐
Colleagues/ experts *outside* your organization	☐	☐	☐	☐
If any other, specify: _____	☐	☐	☐	☐

(Ref. Appendix B – Table 29, 29.1, 29.2, 29.3)

58. What is your preferred language for the following categories of information?

Awareness in general _____

Awareness in your area of expertise _____

In depth information in your area of expertise _____

In depth information outside your area of expertise _____

(Ref. Appendix B – Table 29.4, 29.5, 29.6, 29.7)

59. What are the main difficulties you experience related to information in the following categories? (Check as many)

	Awareness information in general	Awareness information in your area of expertise	In depth information in your area of expertise	In depth information outside your area of expertise
No difficulty	☐	☐	☐	☐
Difficult to get	☐	☐	☐	☐
Don't know where to find	☐	☐	☐	☐
Difficult to use	☐	☐	☐	☐
Expensive	☐	☐	☐	☐
Poor quality	☐	☐	☐	☐
Irregular	☐	☐	☐	☐
Not up to date	☐	☐	☐	☐
Not relevant to local situation	☐	☐	☐	☐
Not in prefered langueage	☐	☐	☐	☐
If any other, specify: _____	☐	☐	☐	☐

(Ref. Appendix B – Table 30, 30.1, 30.2, 30.3)

60. With whom is communication important for your work? (Mention as many)

Superior	1
Colleagues or experts within your organization	2
Experts outside your organization	3
Directly with patients	4
Directly with general public	5
Funding / donor agencies	6
Press / mass media / advocacy groups	7
Others (specify) _____	8

(Ref. Appendix B – Table 31)

61. Do you need new information related to your work? (Yes=Y; No=N) _____

a. If yes, in what form would you like to have such information?

Electronic media such as Internet, email
Newsletters or fact sheets
Verbally from colleagues and experts
Scientific journals
AV media such as CD, DVD
Magazines and newspapers
Others (specify) _____

(Ref. Appendix B – Table 32)

62. Are you aware of any website giving health information? (Yes=Y; No=N) _____

a. If yes, please mention.

(Ref. Appendix B – Table 34.2, 34.3)

63. How do you most commonly use new information?

Support diagnosis and treatment	1	Include in articles / books	9
Make policy / program decisions	2	Adapt and distribute for local use	10
Advise decision / policy makers	3	Develop health education material	11
Modify treatment protocol	4	Circulate to colleagues	12
Respond to emergencies	5	Find more information on the topic	13
Prepare grant / funding proposals	6	File for later reference	14
Issue press releases	7	Others (specify) _____	15
Use in lectures / presentations	8		

(Ref. Appendix B – Table 33)

VI. Access to Internet

64. Do you have access to the Internet?

No	1
Yes - at home	2
Yes - at an Internet cafe	3
Yes - at work	4
Yes - at home and work	5
Yes - others (specify) _____	6

(Ref. Appendix B – Table 34)

65. a. During the last one-month, how many times did you access the Internet?

0	1
1-2	2
3-4	3
5-6	4
7-8	5
9-10	6
11+	7

(Ref. Appendix B – Table 34.1)

b. What kinds of sites / information do you access on the Internet?

None	1
Information related to the present work	2
Non-work related information	3
General knowledge	4
New information	5
Entertainment matters	6
Others (specify) _____	7

(Ref. Appendix B – Table 34.4)

66. What barriers do you face in using the Internet? (Mention up to 3 in total from the following lists)

Resource / skill barriers

Don't have the time	1
Insufficient skills for computer use	2
Insufficient skills for Internet use	3
Very costly	4

Barriers related to Internet content

Local censorship issues	5
Not in *preferred language*	6
Too much information	7
Uneven quality of information	8

Physical barriers

Electricity outages / interruptions	10
Internet connection in inconvenient location	11
Slow Internet connection	12
Telephone line problems	13
No barriers at all	14
Others (specify) _____	15

(Ref. Appendix B – Table 35)

67. a. Do you think having access to the Internet will help you in your work?

Yes	1
No	0
Not sure	9

b. If yes, list up to 3 key ways in which you think access to the Internet would help your work.

(i)

(ii)

(iii)

(Ref. Appendix B – Table 36, 36.1)

Name of investigator Signature of investigator
Date

(5) Multipurpose Health Workers

Health Information Needs assessment for Health Inter-Network

Interview schedule for Paramedical staff (Multipurpose health workers)

WHO is initiating a survey to assess information needs related to TB, tobacco-related diseases and other public health problems among government health care providers, policy makers as well as private health care providers. Findings from this survey will be used to develop an interactive website (portal) on a pilot- basis in an attempt to address information needs of health care providers.

We would be grateful if you can kindly give your consent to be interviewed as part of the survey. Information you give will be kept confidential and used only for research purpose.

I. General Information

Name (in capitals): _____

Age (in years): _____ Sex (Male=M; Female=F): _____

(Ref. Appendix B – Table 2) (Ref. Appendix B – Table 2.1)

Office address: _____ Phone: _____
_____ Pager/Mobile: _____
_____ Fax: _____
_____ Email: _____

Residence address: _____ Phone: _____
(optional) _____ Pager/Mobile: _____
_____ Fax: _____
_____ Email: _____

II. Employment

1. a. Qualification: _____ b. Designation: _____

(Ref. Appendix B – Table 54)

2. Which of the following categories best describes your main area of work? (Mention as many)

Health service provision (patient care & services)	1
Research (including academics)	2
Policy-making (including administration and management)	3
Others (specify) _____	4

(Ref. Appendix B – Table 3)

3. What is the level at which you mainly work? (Mention as many)

International	1
National	2
Regional	3
State	4
District/community	5

(Ref. Appendix B – Table 2.3)

4. How many years have you been in government service? _____

(Ref. Appendix B – Table 4)

5. How many years have you been working in the present position? _____

(Ref. Appendix B – Table 5)

III. About Tuberculosis

6. How do you perceive tuberculosis as a problem? (Multiple response)

A problem under control	1
A major public health problem	2
A minor health problem	3
A Resurgent problem	4
Don't know	9

(Ref. Appendix B – Table 7)

7. How much do you think India contributes to the total global tuberculosis burden? _____

(Ref. Appendix B – Table 7.1, 7.2)

8. Is TB still a killer disease and why? (Yes=Y; No=N; Don't know=D) _____

(Ref. Appendix B – Table 7.1, 8, 8.1, 8.2)

9. About how many patients die in a year of TB in India? _____

(Ref. Appendix B – Table 7.1, 7.3)

10. Have you undergone any TB training? (Yes=Y; No =N) _____

(Ref. Appendix B – Table 47)

a. If yes, please specify, when and what?

11. When do you suspect TB?

(Ref. Appendix B – Table 9, 9.1)

12. Have you heard of Directly Observed Treatment Short-course (DOTS)? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 11)

13. If yes, from where did you hear about it? (You may select more than one source listed below).

Medical text books	A
Medical journals	B
Colleagues	C
Training/ orientation program	D
Mass media	E
Internet	F
Any others (specify) _____	G

(Ref. Appendix B – Table 11)

14. What are the salient features of DOTS? (Multiple response)

a. Diagnosis by

X-ray	1
Sputum microscopy	2
Clinical	3
Mantoux test	4
Others (specify) _____	5
Don't know	9

(Ref. Appendix B – Table 11.1)

b. Mode of treatment

Drugs are supplied once a month	1
Drugs are supplied once a week	2
Each dose given under direct observation	3
Don't know	9

(Ref. Appendix B – Table 11.2)

15. How do you follow up T. B. patient's progress? (Multiple response)

Clinical progress	1
X ray progress	2
Sputum microscopy	3

(Ref. Appendix B – Table 11.4)

16. Why should the treatment be directly observed?

Correct treatment ensured	1
Take more care	2
Observe the improvement	3
Others (specify) _____	4
Don't know	9

(Ref. Appendix B – Table 48)

17. Why is it important to educate patient before starting treatment?

To ensure need for regular treatment	1
Need for DOT	2
Preventive aspects of TB	3
Know patient & family	4
Others (specify) _____	5
Don't know	9

(Ref. Appendix B – Table 49)

18. What is the importance of home visiting in case of patient default?

To cure patient	1
To build rapport with patient	2
To prevent disease from spreading	3
To prevent drug resistant TB	4
To prevent disease from recurring	5
Others (specify) _____	6
Don't know	9

(Ref. Appendix B – Table 50)

19. What is the importance of sputum examination?

Definite diagnosis	1
Easy to monitor progress	2
Easy to motivate patient	3
Others (specify) _____	4
Don't know	9

(Ref. Appendix B – Table 51)

20. What will happen if patient does not take treatment?

Patient will not get cured	1
Spread of disease to others	2
Drug resistant disease	3
Others (specify) _____	4
Don't know	9

(Ref. Appendix B – Table 52)

21. Do you maintain treatment card for each patient? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 53)

22. What is the objective of maintaining the treatment card regularly?

To check on regularity for treatment	1
Quick defaulter retrieval action	2
Easy for supervision	3
Others (specify) _____	4
Don't know	9

(Ref. Appendix B – Table 53)

23. Do you have access to research / clinical information related to T. B. treatment? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16)

24. If yes, specify the sources.

(Ref. Appendix B – Table 17, 17.1)

25. Do you require further information on TB? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.1)

a. If yes, what information do you need?

Etiology of T. B.	1
How to prevent spread of T. B.?	2
How to motivate patients?	3
Others (specify) _____	4

(Ref. Appendix B – Table 18, 18.1)

b. Here are a few methods of delivering information to you. Mention the useful methods.

Personal communication
Internet
AV media, CD, DVD
Government circulars
Orientation programs
Others (specify) _____

(Ref. Appendix B – Table 46)

26. Do you use tobacco in any form? Yes No

(Ref. Appendix B – Table 20)

27. If no, have you ever used in the past? Yes No

(Ref. Appendix B – Table 20)

28. Have you or anyone in your close family ever suffered from TB? Yes No

(Ref. Appendix B – Table 20)

IV. About Tobacco Related Diseases

29. Do you think Tobacco use is a major public health problem in India? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 21)

30. Do you know how many people die globally due to Tobacco related illnesses? (Yes=Y; No=N) _____

a. If yes, how many? _____

(Ref. Appendix B – Table 21.1)

31. Are you aware of different forms of Tobacco use in India? (Yes=Y; No=N) _____

a. If yes, what are they?

Gutkha	1
Pan Masala	2
Mava	3
Snuff	4
Khaini	5
Betal leaf with Tobacco	6
Areca nut	7
Cigarette	8
Beedi	9
Others (specify) _____	10

(Ref. Appendix B – Table 22)

32. What are the diseases attributed to Tobacco use? Mention 5 most important diseases.

(Ref. Appendix B – Table 23, 23.1)

33. What is the component in Tobacco that is responsible for ill effects on health? (Multiple response)

Nicotine	1
Tar	2
Smoke	3
Others (specify) _____	4
Don't know / Can't remember	9

(Ref. Appendix B – Table 24)

34. When you come across a patient smoking, do you tell him about ill-effects of smoking?

Regularly	1
Sometimes	2
Rarely	3
Never	4

(Ref. Appendix B – Table 25)

35. Do you feel health workers could play an important role in reducing Tobacco use? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 55)

36. Do you think health workers are well equipped to play this role?

(Ref. Appendix B – Table 55)

37. What information you would like to have about tobacco-use?

Types of tobacco use
Health effects of different types of tobacco use
Advice about cessation
Passive smoking
Effect on women and children
Effect of advertisement
Problem of agriculture and employment

(Ref. Appendix B – Table 18.2)

38. Here are a few methods of delivering information to you. Mention the useful methods.

Personal communication
Journals
Internet
AV media, CD, DVD
Government circulars
Orientation programs
Others (specify) _____

(Ref. Appendix B – Table 46)

39. How would you like the government to support you to deal with Tobacco abuse?

Ban on advertisements
No smoking in public places
Increased taxes on tobacco products
Stronger warnings on tobacco products
Ban on sale near schools
Others (Specify) _____

40. Do you think government policy of restricting Tobacco advertisement would have impact on use of Tobacco in the country? (Yes=Y; No=N) _____

a. What in your opinion will have impact on tobacco use in this country?

(Ref. Appendix B – Table 26.2, 26.3)

41. Have you received any Government letter regarding use of tobacco? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

42. Do you have health education material related to anti-Tobacco use? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

If yes,

a. List the materials.

(Ref. Appendix B – Table 27.6)

b. Have you ever used these health education materials in the community? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

43. Do you think giving information about bad effects of Tobacco will help community to reduce use of Tobacco? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

44. In your opinion, at what age people start using Tobacco?

a. Male _____

b. Female _____

(Ref. Appendix B – Table 27, 27.1)

45. To what extent parents can help in preventing children using Tobacco?

To a large extent	1
To some extent	2
Not at all	3
Don't know / Can't say	9

(Ref. Appendix B – Table 27.2)

46. What can you do to prevent children from using Tobacco?

(Ref. Appendix B – Table 27.3, 27.4)

47. Do you know about any study on how to reduce tobacco use in a community? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.2)

a. If yes, please give details.

(Ref. Appendix B – Table 27.7)

48. Would you like to get such information? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.3)

a. If yes, here are a few methods of delivering information to you. Mention the useful methods.

Personal communication
Journals
Internet
AV media, CD, DVD
Government circulars
Orientation programs
Others (specify) _____
(Ref. Appendix B – Table 46)

V. Other Public health Problems

49. What are the most important public health topics for your work?

- Maternal & infant health
- Child & adolescent health
- Reproductive health
- Adult health
- Gender & health
- Health & the elderly
- Migrant & refugee health
- Acute respiratory infections/ Pneumonia
- Diarrhoeal diseases
- HIV / AIDS
- Malaria
- Mental health
- Tobacco use
- Tuberculosis
- Infectious disease
- Vector-borne, parasitic & tropical disease
- Non-communicable / chronic disease
- Disabilities
- Eye diseases & blindness
- Oral health
- Substance abuse
- Blood safety
- Violence & injuries
- Health information systems & tools
- Medical & laboratory technology
- Pharmaceuticals, vaccines, & biologicals
- Intersectoral public health topics
- Development & health
- Environment & health
- Ethics & health
- Globalization & health
- Health economics & financing
- Human rights & health
- Information sciences and health
- Nutrition & food safety
- Occupational health
- Public / media relations & health
- Travel & health
- Water resources & sanitation
- Zoonoses & veterinary health
- Primary & community health
- Prevention & control of disease
- Surveillance & reporting
- Epidemiology & statistics
- Treatment & healthcare
- Diagnostics
- Drug information
- Surgery & anesthesia
- Rehabilitation
- Emergency response in health
- Traditional / alternative medicine
- Research methods
- Evidence-based policy & practice
- Health policy & legislation
- Health systems
- Capacity building & sustainability
- Management and administration
- Program planning & evaluation
- Medical sciences
- Nursing and midwifery
- Allied health disciplines
- Professional/continuing education
- Others (specify) _____

(Ref. Appendix B – Table 28)

50. What do you find to be the most useful source of information in the following categories?

Source of information	Awareness in general	Awareness in your area of expertise	In depth information in your area of expertise	In depth information outside your area of expertise
Books (manuals, text & reference)	☐	☐	☐	☐
Databases & indexes	☐	☐	☐	☐
Journals & scientific publications	☐	☐	☐	☐
Meetings and meeting proceedings	☐	☐	☐	☐
Print news services (papers, magazines)	☐	☐	☐	☐
Regular reporting and briefings	☐	☐	☐	☐
Technical guidelines & fact sheets	☐	☐	☐	☐
Television & radio	☐	☐	☐	☐
Librarians and reference services	☐	☐	☐	☐
Colleagues/ experts *in* your organization	☐	☐	☐	☐
Colleagues/ experts *outside* your organization	☐	☐	☐	☐
If any other, specify: _____	☐	☐	☐	☐

(Ref. Appendix B – Table 29, 29.1, 29.2, 29.3)

51. What is your preferred language for the following categories of information?

Awareness in general _____

Awareness in your area of expertise _____

In depth information in your area of expertise _____

In depth information outside your area of expertise _____

(Ref. Appendix B – Table 29.4, 29.5, 29.6, 29.7)

52. What are the main difficulties you experience related to information in the following categories? (Check as many)

	Awareness information in *general*	Awareness information in *your area of* expertise	In depth information in *your area of* expertise	In depth information <u>outside</u> your area of expertise
No difficulty	☐	☐	☐	☐
Difficult to get	☐	☐	☐	☐
Don't know where to find	☐	☐	☐	☐
Difficult to use	☐	☐	☐	☐
Expensive	☐	☐	☐	☐
Poor quality	☐	☐	☐	☐
Irregular	☐	☐	☐	☐
Not up to date	☐	☐	☐	☐
Not relevant to local situation	☐	☐	☐	☐
Not in prefered langueage	☐	☐	☐	☐
If any other, specify: _____	☐	☐	☐	☐

(Ref. Appendix B – Table 30, 30.1, 30.2, 30.3)

53. With whom is communication important for your work? (Mention as many)

Superior	1
Colleagues or experts <u>within</u> your organization	2
Experts <u>outside</u> your organization	3
Directly with patients	4
Directly with general public	5
Funding / donor agencies	6
Press / mass media / advocacy groups	7
Others (specify) _____	8

(Ref. Appendix B – Table 31)

54. Do you need new information related to your work? (Yes=Y; No=N) _____

a. If yes, in what form would you like to have such information?

Electronic media such as Internet, email
Newsletters or fact sheets
Verbally from colleagues and experts
Scientific journals
AV media such as CD, DVD
Magazines and newspapers
Others (specify) _____

(Ref. Appendix B – Table 32)

55. Are you aware of any website giving health information? (Yes=Y; No=N) _____

a. If yes, please mention.

(Ref. Appendix B – Table 34.2, 34.3)

56. How do you most commonly use new information?

Support diagnosis and treatment	1	Include in articles / books	9
Make policy / program decisions	2	Adapt and distribute for local use	10
Advise decision / policy makers	3	Develop health education material	11
Modify treatment protocol	4	Circulate to colleagues	12
Respond to emergencies	5	Find more information on the topic	13
Prepare grant / funding proposals	6	File for later reference	14
Issue press releases	7	Others (specify) _____	15
Use in lectures / presentations	8		

(Ref. Appendix B – Table 33)

VI. Access to Internet

57. Do you have access to the Internet?

No	1
Yes - at home	2
Yes - at an Internet cafe	3
Yes - at work	4
Yes - at home and work	5
Yes - others (specify) _____	6

(Ref. Appendix B – Table 34)

58. a. During the last one-month, how many times did you access the Internet?

0	1
1-2	2
3-4	3
5-6	4
7-8	5
9-10	6
11+	7

(Ref. Appendix B – Table 34.1)

b. What kinds of sites / information do you access on the Internet?

None	1
Information related to the present work	2
Non-work related information	3
General knowledge	4
New information	5
Entertainment matters	6
Others (specify) _____	7

(Ref. Appendix B – Table 34.4)

59. What barriers do you face in using the Internet? (Mention up to 3 in total from the following lists)

Resource / skill barriers

Don't have the time	1
Insufficient skills for computer use	2
Insufficient skills for Internet use	3
Very costly	4

Barriers related to Internet content

Local censorship issues	5
Not in *preferred language*	6
Too much information	7
Uneven quality of information	8

Physical barriers

Electricity outages / interruptions	10
Internet connection in inconvenient location	11
Slow Internet connection	12
Telephone line problems	13
No barriers at all	14
Others (specify) _____	15

(Ref. Appendix B – Table 35)

60. a. Do you think having access to the Internet will help you in your work?

Yes	1
No	0
Not sure	9

b. If yes, list up to 3 key ways in which you think access to the Internet would help your work.

(i)

(ii)

(iii)

(Ref. Appendix B – Table 36, 36.1)

Name of investigator
Date

Signature of investigator

(6) Pharmacists

Health Information Needs assessment for Health Inter-Network

Interview schedule for Pharmacists

WHO is initiating a survey to assess information needs related to TB, tobacco-related diseases and other public health problems among government health care providers, policy makers as well as private health care providers. Findings from this survey will be used to develop an interactive website (portal) on a pilot- basis in an attempt to address information needs of health care providers.

We would be grateful if you can kindly give your consent to be interviewed as part of the survey. Information you give will be kept confidential and used only for research purpose.

I. General Information

Name (in capitals): _____

Age (in years): _____ Sex (Male=M; Female=F): _____

(Ref. Appendix B – Table 2) (Ref. Appendix B – Table 2.1)

Office address: _____ Phone: _____
_____ Pager/Mobile: _____
_____ Fax: _____
_____ Email: _____

Residence address: _____ Phone: _____
(optional) _____ Pager/Mobile: _____
_____ Fax: _____
_____ Email: _____

II. Employment

1. Which of the following categories best describes your main area of work? (Mention as many)

Health service provision (patient care & services)	1
Research (including academics)	2
Policy-making (including administration and management)	3
Others (specify) _____	4

(Ref. Appendix B – Table 3)

2. What is the level at which you mainly work? (Mention as many)

International	1
National	2
Regional	3
State	4
District/community	5

(Ref. Appendix B – Table 2.3)

3. How many years of experience you have as a pharmacist? _____

(Ref. Appendix B – Table 4)

III. About Tuberculosis

4. How do you perceive tuberculosis as a problem? (Multiple response)

A problem under control	1
A major public health problem	2
A minor health problem	3
A Resurgent problem	4
Don't know	9

(Ref. Appendix B – Table 7)

5. How much do you think India contributes to the total global tuberculosis burden?
_____

(Ref. Appendix B – Table 7.1, 7.2)

6. Is TB still a killer disease and why? (Yes=Y; No=N; Don't know=D) _____

(Ref. Appendix B – Table 7.1, 8, 8.1, 8.2)

7. About how many patients die in a year of TB in India? _____

(Ref. Appendix B – Table 7.1, 7.3)

8. Have you undergone any TB training? (Yes=Y; No =N) _____

(Ref. Appendix B – Table 47)

a. If yes, please specify, when and what?

9. When do you suspect TB?

(Ref. Appendix B – Table 9, 9.1)

10. What are the drugs you give to T. B. patients?

Rifampicin	1
INH	2
Pyrazinamide	3
Ethambutol	4
Streptomycin	5
Ofloxacin	6
Combipack	7
Others (specify) _____	8
Don't know	9

(Ref. Appendix B – Table 56)

11. What do you tell the patients while giving them the drugs?

(Ref. Appendix B – Table 57)

12. Have you heard of Directly Observed Treatment Short-course (DOTS)? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 11)

13. If yes, from where did you hear about it? (You may select more than one source listed below).

Medical text books	A
Medical journals	B
Colleagues	C
Training/ orientation program	D
Mass media	E
Internet	F
Any others (specify) _____	G

(Ref. Appendix B – Table 11)

14. What are the salient features of DOTS? (Multiple response)

a. Diagnosis by

X-ray	1
Sputum microscopy	2
Clinical	3
Mantoux test	4
Others (specify) _____	5
Don't know	9

(Ref. Appendix B – Table 11.1)

b. Mode of treatment

Drugs are supplied once a month	1
Drugs are supplied once a week	2
Each dose given under direct observation	3
Don't know	9

(Ref. Appendix B – Table 11.2)

15. How do you follow up T. B. patient's progress? (Multiple response)

Clinical progress	1
X ray progress	2
Sputum microscopy	3

(Ref. Appendix B – Table 11.4)

16. Why should the treatment be directly observed?

Correct treatment ensured	1
Take more care	2
Observe the improvement	3
Others (specify) _____	4
Don't know	9

(Ref. Appendix B – Table 48)

17. Why is it important to educate patient before starting treatment?

To ensure need for regular treatment	1
Need for DOT	2
Preventive aspects of TB	3
Know patient & family	4
Others (specify) _____	5
Don't know	9

(Ref. Appendix B – Table 49)

18. What is the importance of home visiting in case of patient default?

To cure patient	1
To build rapport with patient	2
To prevent disease from spreading	3
To prevent drug resistant TB	4
To prevent disease from recurring	5
Others (specify) _____	6
Don't know	9

(Ref. Appendix B – Table 50)

19. What is the importance of sputum examination?

Definite diagnosis	1
Easy to monitor progress	2
Easy to motivate patient	3
Others (specify) _____	4
Don't know	9

(Ref. Appendix B – Table 51)

20. What will happen if patient does not take treatment?

Patient will not get cured	1
Spread of disease to others	2
Drug resistant disease	3
Others (specify) _____	4
Don't know	9

(Ref. Appendix B – Table 52)

21. Do you maintain treatment card for each patient? (Yes=Y; No =N) _____

(Ref. Appendix B – Table 53)

22. What is the objective of maintaining the treatment card regularly?

To check on regularity for treatment	1
Quick defaulter retrieval action	2
Easy for supervision	3
Others (specify) _____	4
Don't know	9

(Ref. Appendix B – Table 53)

23. Do you have access to research / clinical information related to T. B. treatment? (Yes=Y; No=N) _____
(Ref. Appendix B – Table 16)

24. If yes, specify the sources.
(Ref. Appendix B – Table 17, 17.1)

25. Do you require further information on TB? (Yes=Y; No=N) _____
(Ref. Appendix B – Table 16.1)

a. If yes, what information do you need?

Etiology of T. B.	1
How to prevent spread of T. B.?	2
How to motivate patients?	3
Others (specify) _____	4

(Ref. Appendix B – Table 18, 18.1)

b. Here are a few methods of delivering information to you. Mention the useful methods.

Personal communication
Journals
CME
Internet
AV media, CD, DVD
Government circulars
Orientation programs
Others (specify) _____

(Ref. Appendix B – Table 46)

26. Do you use tobacco in any form? Yes No

(Ref. Appendix B – Table 20)

27. If no, have you ever used in the past? Yes No

(Ref. Appendix B – Table 20)

28. Have you or anyone in your close family ever suffered from TB? Yes No

(Ref. Appendix B – Table 20)

IV. About Tobacco Related Diseases

29. Do you think Tobacco use is a major public health problem in India? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 21)

30. Do you know how many people die globally due to Tobacco related illnesses? (Yes=Y; No=N) _____

a. If yes, how many? _____

(Ref. Appendix B – Table 21.1)

31. Are you aware of different forms of Tobacco use in India? (Yes=Y; No=N) _____

a. If yes, what are they?

Gutkha	1
Pan Masala	2
Mava	3
Snuff	4
Khaini	5
Betal leaf with Tobacco	6
Areca nut	7
Cigarette	8
Beedi	9
Others (specify) _____	10

(Ref. Appendix B – Table 22)

32. What are the diseases attributed to Tobacco use? Mention 5 most important diseases.

(Ref. Appendix B – Table 23, 23.1)

33. What is the component in Tobacco that is responsible for ill effects on health? (Multiple response)

Nicotine	1
Tar	2
Smoke	3
Others (specify) _____	4
Don't know / Can't remember	9

(Ref. Appendix B – Table 24)

34. When you come across a patient smoking, do you tell him about ill-effects of smoking?

Regularly	1
Sometimes	2
Rarely	3
Never	4

(Ref. Appendix B – Table 25)

35. Which of the following types of information you would like to have about tobacco-use?

Types of tobacco use
Health effects of different types of tobacco use
Advice about cessation
Passive smoking
Effect on women and children
Effect of advertisement
Problem of agriculture and employment

(Ref. Appendix B – Table 18.2)

36. Here are a few methods of delivering information to you. Mention the useful methods.

Personal communication
Journals
CME
Internet
AV media, CD, DVD
Government circulars
Orientation programs
Others (specify) _____

(Ref. Appendix B – Table 46)

37. How would you like the government to support you to deal with Tobacco abuse?

Ban on advertisements
No smoking in public places
Increased taxes on tobacco products
Stronger warnings on tobacco products
Ban on sale near schools
Others (Specify) _____

38. Do you think government policy of restricting Tobacco advertisement would have impact on use of Tobacco in the country? (Yes=Y; No=N) _____

a. What in your opinion will have impact on tobacco use in this country?

(Ref. Appendix B – Table 26.2, 26.3)

39. Have you received any Government circular regarding use of tobacco? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

40. Do you have health education material related to anti-Tobacco use? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

If yes,

a. List the materials.

(Ref. Appendix B – Table 27.6)

b. Have you ever used these health education materials in the community? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

41. Do you think giving information about bad effects of Tobacco will help community to reduce use of Tobacco? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 27.5)

42. In your opinion, at what age people start using Tobacco?

a. Male _____

b. Female _____

(Ref. Appendix B – Table 27, 27.1)

43. To what extent parents can help in preventing children using Tobacco?

To a large extent	1
To some extent	2
Not at all	3
Don't know / Can't say	9

(Ref. Appendix B – Table 27.2)

44. What can you do to prevent children from using Tobacco?

(Ref. Appendix B – Table 27.3, 27.4)

45. Do you know about any study on how to reduce tobacco use in a community? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.2)

a. If yes, please give details.

(Ref. Appendix B – Table 27.7)

46. Would you like to get such information? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.3)

a. If yes, here are a few methods of delivering information to you. Mention the useful methods.

Personal communication
Journals
CME
Internet
AV media, CD, DVD
Government circulars
Orientation programs
Others (specify) _____

(Ref. Appendix B – Table 46)

V. Other Public health Problems

47. What are the most important public health topics for your work?

- Maternal & infant health
- Child & adolescent health
- Reproductive health
- Adult health
- Gender & health
- Health & the elderly
- Migrant & refugee health
- Acute respiratory infections/ Pneumonia
- Diarrhoeal diseases
- HIV / AIDS
- Malaria
- Mental health
- Tobacco use
- Tuberculosis
- Infectious disease
- Vector-borne, parasitic & tropical disease
- Non-communicable / chronic disease
- Disabilities
- Eye diseases & blindness
- Globalization & health
- Health economics & financing
- Human rights & health
- Information sciences and health
- Nutrition & food safety
- Occupational health
- Public / media relations & health
- Travel & health
- Oral health
- Substance abuse
- Blood safety
- Violence & injuries
- Health information systems & tools
- Medical & laboratory technology
- Pharmaceuticals, vaccines, & biologicals
- Intersectoral public health topics
- Development & health
- Environment & health
- Ethics & health

(Ref. Appendix B – Table 28)

- Water resources & sanitation
- Zoonoses & veterinary health
- Primary & community health
- Prevention & control of disease
- Surveillance & reporting
- Epidemiology & statistics
- Treatment & healthcare
- Diagnostics
- Drug information
- Surgery & anesthesia
- Rehabilitation
- Emergency response in health
- Traditional / alternative medicine
- Research methods
- Evidence-based policy & practice
- Health policy & legislation
- Health systems
- Capacity building & sustainability
- Management and administration
- Program planning & evaluation
- Medical sciences
- Nursing and midwifery
- Allied health disciplines
- Professional/continuing education
- Others (specify) _____

48. What do you find to be the most useful source of information in the following categories?

Source of information	Awareness in general	Awareness in your area of expertise	In depth information in your area of expertise	In depth information outside your area of expertise
Books (manuals, text & reference)	☐	☐	☐	☐
Databases & indexes	☐	☐	☐	☐
Journals & scientific publications	☐	☐	☐	☐
Meetings and meeting proceedings	☐	☐	☐	☐
Print news services (papers, magazines)	☐	☐	☐	☐
Regular reporting and briefings	☐	☐	☐	☐
Technical guidelines & fact sheets	☐	☐	☐	☐
Television & radio	☐	☐	☐	☐
Librarians and reference services	☐	☐	☐	☐
Colleagues/ experts *in* your organization	☐	☐	☐	☐
Colleagues/ experts *outside* your organization	☐	☐	☐	☐
If any other, specify: _____	☐	☐	☐	☐

(Ref. Appendix B – Table 29, 29.1, 29.2, 29.3)

49. What is your preferred language for the following categories of information?

Awareness in general _____

Awareness in your area of expertise _____

In depth information in your area of expertise _____

In depth information outside your area of expertise _____

(Ref. Appendix B – Table 29.4, 29.5, 29.6, 29.7)

50. What are the main difficulties you experience related to information in the following categories? (Check as many)

	Awareness information in general	Awareness information in your area of expertise	In depth information in your area of expertise	In depth information outside your area of expertise
No difficulty	☐	☐	☐	☐
Difficult to get	☐	☐	☐	☐
Don't know where to find	☐	☐	☐	☐
Difficult to use	☐	☐	☐	☐
Expensive	☐	☐	☐	☐
Poor quality	☐	☐	☐	☐
Irregular	☐	☐	☐	☐
Not up to date	☐	☐	☐	☐
Not relevant to local situation	☐	☐	☐	☐
Not in prefered langueage	☐	☐	☐	☐
If any other, specify: _____	☐	☐	☐	☐

(Ref. Appendix B – Table 30, 30.1, 30.2, 30.3)

51. With whom is communication important for your work? (Mention as many)

Superior	1
Colleagues or experts within your organization	2
Experts outside your organization	3
Directly with patients	4
Directly with general public	5
Funding / donor agencies	6
Press / mass media / advocacy groups	7
Others (specify) _____	8

(Ref. Appendix B – Table 31)

52. Do you need new information related to your work? (Yes=Y; No=N) _____

a. If yes, in what form would you like to have such information?

Electronic media such as Internet, email
Newsletters or fact sheets
Verbally from colleagues and experts
Scientific journals
AV media such as CD, DVD
Magazines and newspapers
Others (specify) _____

(Ref. Appendix B – Table 32)

53. Are you aware of any website giving health information? (Yes=Y; No=N) _____

a. If yes, please mention.

(Ref. Appendix B – Table 34.2, 34.3)

54. How do you most commonly use new information?

Support diagnosis and treatment	1	Include in articles / books	9
Make policy / program decisions	2	Adapt and distribute for local use	10
Advise decision / policy makers	3	Develop health education material	11
Modify treatment protocol	4	Circulate to colleagues	12
Respond to emergencies	5	Find more information on the topic	13
Prepare grant / funding proposals	6	File for later reference	14
Issue press releases	7	Others (specify) _____	15
Use in lectures / presentations	8		

(Ref. Appendix B – Table 33)

VI. Access to Internet

55. Do you have access to the Internet?

No	1
Yes - at home	2
Yes - at an Internet cafe	3
Yes - at work	4
Yes - at home and work	5
Yes - others (specify) _____	6

(Ref. Appendix B – Table 34)

56. a. During the last one-month, how many times did you access the Internet?

0	1
1-2	2
3-4	3
5-6	4
7-8	5
9-10	6
11+	7

(Ref. Appendix B – Table 34.1)

b. What kinds of sites / information do you access on the Internet?

None	1
Information related to the present work	2
Non-work related information	3
General knowledge	4
New information	5
Entertainment matters	6
Others (specify) _____	7

(Ref. Appendix B – Table 34.4)

57. What barriers do you face in using the Internet? (Mention up to 3 in total from the following lists)

Resource / skill barriers

Don't have the time	1
Insufficient skills for computer use	2
Insufficient skills for Internet use	3
Very costly	4

Barriers related to Internet content

Local censorship issues	5
Not in *preferred language*	6
Too much information	7
Uneven quality of information	8

Physical barriers

Electricity outages / interruptions	10
Internet connection in inconvenient location	11
Slow Internet connection	12
Telephone line problems	13
No barriers at all	14
Others (specify) _____	15

(Ref. Appendix B – Table 35)

58. a. Do you think having access to the Internet will help you in your work?

Yes	1
No	0
Not sure	9

b. If yes, list up to 3 key ways in which you think access to the Internet would help your work.

(i)

(ii)

(iii)

(Ref. Appendix B – Table 36, 36.1)

Name of investigator Signature of investigator
Date

(7) Lab Technicians

Health Information Needs assessment for Health Inter-Network

Interview schedule for Lab Technicians

WHO is initiating a survey to assess information needs related to TB, tobacco-related diseases and other public health problems among government health care providers, policy makers as well as private health care providers. Findings from this survey will be used to develop an interactive website (portal) on a pilot- basis in an attempt to address information needs of health care providers.

We would be grateful if you can kindly give your consent to be interviewed as part of the survey. Information you give will be kept confidential and used only for research purpose.

I. General Information

Name (in capitals): _____

Age (in years): _____ Sex (Male=M; Female=F): _____

(Ref. Appendix B – Table 2) (Ref. Appendix B – Table 2.1)

Office address: _____
_____
_____
_____

Phone: _____
Pager/Mobile: _____
Fax: _____
Email: _____

Residence address: _____
(Optional) _____
_____
_____

Phone: _____
Pager/Mobile: _____
Fax: _____
Email: _____

II. Employment

1. Which of the following categories best describes your main area of work? (Mention as many)

Health service provision (patient care & services)	1
Research (including academics)	2
Policy-making (including administration and management)	3
Others (specify) _____	4

(Ref. Appendix B – Table 3)

2. What is the level at which you mainly work? (Mention as many)

International	1
National	2
Regional	3
State	4
District/community	5

(Ref. Appendix B – Table 2.3)

3. How many years of experience you have as a lab technician? _____

(Ref. Appendix B – Table 4)

4. What is your nature of work?

Sputum examination	1
Blood examination	2
Others (specify) _____	3

(Ref. Appendix B – Table 58)

5. How many OPD patients attend this health facility per day on an average? _____

III. About Tuberculosis

6. What are the tests carried out at your center routinely?

X-ray	1
Sputum microscopy	2
Blood	3
Urine	4
Mantoux test	5
Others (specify) _____	6

(Ref. Appendix B – Table 59)

7. Do you do sputum microscopy for TB diagnosis? (Yes=Y; No=N)
_____

(Ref. Appendix B – Table 60)

8. If yes, how many sputa do you examine in a month? _____

(Ref. Appendix B – Table 61)

9. Before declaring a negative result, how many fields do you see under the microscope?

10
40
80
100

(Ref. Appendix B – Table 62)

10. What are the precautions one needs to take while examining a slide?

Wear a mask	1
Wear gloves	2
Any other (specify) _____	3
Don't Know	9

(Ref. Appendix B – Table 63)

11. Are you able to take those precautions? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 64)

a. If no, why?

(Ref. Appendix B – Table 65)

12. Have you heard of DOTS? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 11)

13. What are the salient features of DOTS?

a. Diagnosis by

X-ray	1
Sputum microscopy	2
Clinical	3
Mantoux test	4
Others (specify) _____	5

(Ref. Appendix B – Table 11.1)

b. Mode of treatment

Drugs are supplied once a week	1
Drugs are supplied once in 15 days	2
Drugs are supplied once a month	3
Each dose given under direct observation	4
Drugs are supplied thrice a week	5
Others (specify) _____	6
Don't know	9

(Ref. Appendix B – Table 11.2)

14. How do you follow up the patient's progress?

Clinical progress	1
X ray progress	2
Sputum microscopy	3

(Ref. Appendix B – Table 11.4)

15. Have you been trained in RNTCP for sputum microscopy? (Yes=Y; No=N)
_____

(Ref. Appendix B – Table 66)

16. Do you have difficulty

a. In preparing the smear? (Yes=Y; No=N) _____

If yes, what kind of difficulties?

b. In staining the slide? (Yes=Y; No=N) _____

If yes, what kind of difficulties?

c. In supply of lab consumables? (Yes=Y; No=N) _____

If yes, what kind of difficulties?

(Ref. Appendix B – Table 67)

17. At what time intervals do you do sputum examination for a patient under treatment?

Every month	1
Once in two months	2
Once in three months	3
Once in six months	4
Others (Specify)	5
Don't know	9

(Ref. Appendix B – Table 68)

18. Do you have access to research / clinical information related to TB treatment? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16)

19. If yes, specify the sources.

(Ref. Appendix B – Table 17, 17.1)

20. Do you require further information on TB? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 16.1)

a. If yes, what information do you need?

Etiology of T. B.	1
How to prevent spread of T. B.?	2
How to motivate patients?	3
Others (specify) _____	4

(Ref. Appendix B – Table 18, 18.1)

b. Here are a few methods of delivering information to you. Mention the useful methods.

Personal communication
Journals
Internet
AV media, CD, DVD
Government circulars
Orientation programs
Others (specify) _____
(Ref. Appendix B – Table 46)

21. Do you use tobacco in any form? Yes No

(Ref. Appendix B – Table 20)

22. If no, have you ever used in the past? Yes No

(Ref. Appendix B – Table 20)

23. Have you or anyone in your close family ever suffered from TB? Yes No

(Ref. Appendix B – Table 20)

IV. Other Public health Problems

24. What are the most important public health topics for your work?

- Maternal & infant health
- Child & adolescent health
- Reproductive health
- Adult health
- Gender & health
- Health & the elderly
- Migrant & refugee health
- Acute respiratory infections/ Pneumonia
- Diarrhoeal diseases
- HIV / AIDS
- Malaria
- Mental health
- Tobacco use
- Tuberculosis
- Infectious disease
- Vector-borne, parasitic & tropical disease
- Non-communicable / chronic disease
- Disabilities
- Eye diseases & blindness
- Oral health
- Substance abuse
- Blood safety
- Violence & injuries
- Health information systems & tools
- Medical & laboratory technology
- Pharmaceuticals, vaccines, & biologicals
- Intersectoral public health topics
- Development & health
- Environment & health
- Ethics & health

(Ref. Appendix B – Table 28)

27. What are the main difficulties you experience related to information in the following categories? (Check as many)

	Awareness information in *general*	Awareness information in *your area of* expertise	In depth information in *your area of* expertise	In depth information <u>outside</u> your area of *expertise*
No difficulty	☐	☐	☐	☐
Difficult to get	☐	☐	☐	☐
Don't know where to find	☐	☐	☐	☐
Difficult to use	☐	☐	☐	☐
Expensive	☐	☐	☐	☐
Poor quality	☐	☐	☐	☐
Irregular	☐	☐	☐	☐
Not up to date	☐	☐	☐	☐
Not relevant to local situation	☐	☐	☐	☐
Not in prefered langueage	☐	☐	☐	☐
If any other, specify: _____	☐	☐	☐	☐

(Ref. Appendix B – Table 30, 30.1, 30.2, 30.3)

28. With whom is communication important for your work? (Mention as many)

Superior	1
Colleagues or experts <u>within</u> your organization	2
Experts <u>outside</u> your organization	3
Directly with patients	4
Directly with general public	5
Funding / donor agencies	6
Press / mass media / advocacy groups	7
Others (specify) _____	8

(Ref. Appendix B – Table 31)

29. Do you need new information related to your work? (Yes=Y; No=N) _____

a. If yes, in what form would you like to have such information?

Electronic media such as Internet, email
Newsletters or fact sheets
Verbally from colleagues and experts
Scientific journals
AV media such as CD, DVD
Magazines and newspapers
Others (specify) _____

(Ref. Appendix B – Table 32)

30. Are you aware of any website giving health information? (Yes=Y; No=N) _____

a. If yes, please mention.

(Ref. Appendix B – Table 34.2, 34.3)

31. How do you most commonly use new information?

Support diagnosis and treatment	1	Include in articles / books	9
Make policy / program decisions	2	Adapt and distribute for local use	10
Advise decision / policy makers	3	Develop health education material	11
Modify treatment protocol	4	Circulate to colleagues	12
Respond to emergencies	5	Find more information on the topic	13
Prepare grant / funding proposals	6	File for later reference	14
Issue press releases	7	Others (specify) _____	15
Use in lectures / presentations	8		

(Ref. Appendix B – Table 33)

VI. Access to Internet

32. Do you have access to the Internet?

No	1
Yes - at home	2
Yes - at an Internet cafe	3
Yes - at work	4
Yes - at home and work	5
Yes - others (specify) _____	6

(Ref. Appendix B – Table 34)

33. a. During the last one-month, how many times did you access the Internet?

0	1
1-2	2
3-4	3
5-6	4
7-8	5
9-10	6
11+	7

(Ref. Appendix B – Table 34.1)

b. What kinds of sites / information do you access on the Internet?

None	1
Information related to the present work	2
Non-work related information	3
General knowledge	4
New information	5
Entertainment matters	6
Others (specify) _____	7

(Ref. Appendix B – Table 34.4)

34. What barriers do you face in using the Internet? (Mention up to 3 in total from the following lists)

Resource / skill barriers

Don't have the time	1
Insufficient skills for computer use	2
Insufficient skills for Internet use	3
Very costly	4

Barriers related to Internet content

Local censorship issues	5
Not in preferred language	6
Too much information	7
Uneven quality of information	8

Physical barriers

Electricity outages / interruptions	10
Internet connection in inconvenient location	11
Slow Internet connection	12
Telephone line problems	13
No barriers at all	14
Others (specify) _____	15

(Ref. Appendix B – Table 35)

35. a. Do you think having access to the Internet will help you in your work?

Yes	1
No	0
Not sure	9

b. If yes, list up to 3 key ways in which you think access to the Internet would help your work.

(i)

(ii)

(iii)

(Ref. Appendix B – Table 36, 36.1)

Name of investigator Signature of investigator
Date

(8) E-Readiness Assessment

E-readiness Assessment

Objectives of this assessment are to:

1. Identify the required level of IT hardware and connectivity needs at each pilot site.
2. Assess the actions and resources required for establishing the required IT hardware and connectivity for each pilot site.

Checklist

1. How many users will there be of the system? _____

   (Ref. Appendix B – Table 69)

2. Who are these users and what is their level of skills in using IT?

Users		No skills	Basic computer skills	Experienced user of common office applications	Experienced user of Internet	Advance computer skills
Doctors	1					
	2					
	3					
Administrators	1					
	2					
	3					
Paramedical staff	1					
	2					
	3					
	4					
	5					
Others (specify) _____						

   (Ref. Appendix B – Table 69)

3. Is adequate physical space available for the hardware? (Yes=Y; No=N) _____

   (Ref. Appendix B – Table 70)

4. Evaluate the site conditions in terms of:

a. Temperature

High	1
Low	2
Moderate	3

b. Is environment generally dust free? (Yes=Y; No=N) _____

c. Are air-conditioners available? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 70.1)

5. Assess availability of Electricity at the site in terms of

a. Number of supply hours per day _____

b. Fluctuations experienced

Frequently	1
Occasionally	2
Rarely	3
Never	4

c. Frequency of outages

Frequently	1
Occasionally	2
Rarely	3
Never	4

d. Is generator available? (Yes=Y; No=N) _____

e. Is earthing / grounding available for electrical connections? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 70.2)

6. Assess availability of telephone lines

a. Number of fixed phone lines _____

b. Availability of dedicated telephone line for Internet access _____

c. Number and type of connection

Dial-up	1
Leased lines	2
VSAT	3

d. Quality of transmission
Bandwidth/speed
Frequency of outages

(Ref. Appendix B – Table 70.3)

7. Installation fees, monthly fees and calling tariffs for the following types of connectivity:

- Dial-up telephone lines
- Lease-lines (specify cost for each transmission rate)
- Wireless-modem (if applicable)
- VSAT (specify bandwidth)

8. Assess availability of PCs and peripherals in terms of

- Number of computers
- Type of processors
- Speed
- RAM
- Hard disk memory space

9. Assess the area where the computers are located in terms of:

- Size _____
- Dust-free environment? (Yes=Y; No=N) _____
- Are air-conditioners available? (Yes=Y; No=N) _____

10. What is the average number of users per terminal (existing)? _____

(Ref. Appendix B – Table 71)

11. How many hours of access they have? _____

(Ref. Appendix B – Table 71)

12. Are computers connected to a LAN? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 72)

13. How many of them are connected to a modem? _____

(Ref. Appendix B – Table 72)

14. How many and what types of printers are available?

(Ref. Appendix B – Table 73)

15. Does the site have the following IT equipment/peripherals? (Yes=Y; No=N)

    Scanners _____

    Digital cameras _____

    CD-ROM _____

    DVD _____

    (Ref. Appendix B – Table 73)

16. If LAN is available, then specify

    a. Is NAT (anti-virus) in use? (Yes=Y; No=N) _____

    b. Is firewall installed? (Yes=Y; No=N) _____

    c. What is the availability of legal IP-addresses?

    d. Is there any network management? (Yes=Y; No=N) _____

    e. Load characteristics of the LAN.

    f. Are there any problems with reliability of the LAN? (Yes=Y; No=N)
    _____

    g. Is the LAN switched? (Yes=Y; No=N) _____
    If yes, specify models.

    h. What sorts of routers are used, if any?

    (Ref. Appendix B – Table 72)

17. List the available software / computer applications and indicate for each

    - Status of licensing
    - Is user using the current versions
    - What is the software update strategy
        - software distributed
        - central server
        - remote update
        - any other

18. What are the rules and procedures for accessing Internet, in terms of time and payment?

19. Present source of funding and amount of annual IT budget. Including:
    - Capital expenditure
    - Human resources (staffing and training)
    - Repair, maintenance and support

20. Assess availability of hardware / software support services in terms of

- Number of maintenance staff if any?
- Is there a support contract with a supplier?
- Are spare parts available?
- Quality of support services
- Distance from support service
- Cost of support services

(Ref. Appendix B – Table 74)

21. Is training facility available in the vicinity? (Yes=Y; No=N) _____

(Ref. Appendix B – Table 70.4)

Name of investigator
Date

Signature of investigator

APPENDIX B: Findings of the Survey

Data analyses by category of respondents

Table 1: Number of respondents by location and category of respondents

	National	Karnataka	Orissa	**Total**
Administrators	10	10	15	**35**
Researchers-Faculty members	07	13	10	**30**
Government Medical Officers (GMO)	02	33	15	**50**
Private Practitioners (PP)	01	40	25	**66**
Multipurpose Health Workers (MPHW)	00	62	30	**92**
Pharmacists	00	09	05	**14**
Lab Technicians	00	11	05	**16**
Total	**20**	**178**	**105**	**303**

Table 1.1: Number of respondents by category of respondents

	National	Karnataka	Orissa	**Total**
Administrators	10	10	15	**35**
Researchers-Faculty members	07	13	10	**30**
Government Medical Officers	02	33	15	**50**
Private Practitioners	01	40	25	**66**
Paramedical Staff (MPHW, Pharmacists, Lab Technicians)	00	82	40	**122**
Total	**20**	**178**	**105**	**303**

Table 2: Age-wise distribution by category of respondents

	Administrators	Researchers	GMO	PP	Paramedical Staff	**Total**
<=40	09	04	26	37	56	**132**
>40	26	26	24	29	66	**171**
Total	**35**	**30**	**50**	**66**	**122**	**303**

Table 2.1: Sex-wise distribution by category of respondents

	Administrators	Researchers	GMO	PP	Paramedical Staff	**Total**
Male	32	22	40	52	62	**208**
Female	03	08	10	14	60	**95**
Total	**35**	**30**	**50**	**66**	**122**	**303**

Table 2.2: Qualification by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
MBBS	02	01	26	30	NA
Specialists	26	26	24	27	NA
Non-MBBS	07	03	0	09	NA

Table 2.3: Level at which respondents work by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122	**Total N=303**
International	04	04	01	0	00	**9**
National	11	12	01	04	00	**28**
Regional	01	09	01	06	00	**17**
State	13	16	04	10	01	**44**
District/community	13	06	44	48	121	**232**

Table 3: Respondents' main area of work by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Health service provision	12	20	49	66	120
Research/Teaching	05	15	02	03	02
Policy-making	22	13	03	03	00

Table 4: Number of years in service by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
<=10 years	02	02	26	32	24
>10 years	29	27	24	34	62
Not mentioned	04	01	00	00	36

Table 5: Number of years in the present position by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122
<=5 years	23	18	NA	NA	16
> 5 years	11	11	NA	NA	46
Not mentioned	01	01	NA	NA	60

*Data corresponds only to health workers

Table 6: Average number of patients per day in the OPD by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
<=50	NA	NA	29	61	NA
>50 & <=100	NA	NA	13	04	NA
>100	NA	NA	08	00	NA
No response	NA	NA	00	01	NA

Table 6.1: Proportion of patients belonging to lower socio-economic class by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
<=25%	NA	NA	00	13	NA
>25% & <=50%	NA	NA	12	18	NA
>50%	NA	NA	29	27	NA
No response	NA	NA	09	08	NA

Table 6.2: Number of respondents treating Tuberculosis patients by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
# of respondents treating Tuberculosis patients	NA	NA	45	59	NA

Table 6.3: Number of TB patients currently under care by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
0	02	00	00	14	NA
>0 & <=50	02	03	35	38	NA
>50 & <=100	02	03	02	00	NA
>100 & <=150	01	01	00	01	NA
>150 & <=200	02	00	04	00	NA
>200	06	04	01	01	NA
No response	20	19	08	12	NA

Table 7: Perception about TB by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122
A problem under control	09	02	08	18	59
A major public health problem	29	27	46	53	52
A minor health problem	00	19	00	03	13
A resurgent problem	04	09	04	08	00
Don't know / No response	00	00	01	00	01

*Data corresponds only to health workers & pharmacists

Table 7.1: Perception about TB burden by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122
# who said India contributes one-third to global TB burden	16	08	10	11	09
# who think TB is a killer disease	28	19	42	51	67
# who knew how many people die in a year due to TB in India	10	06	19	02	07

*Data corresponds only to health workers & pharmacists

Table 7.2: Responses to the question "How much do you think India contributes to the total global tuberculosis burden?"

	# Said
One-third (30-40 %)	54
<=25 %	59
One per minute	01
350 millions	01
2 millions	01
>= 50 %	35
Majority / considerably / very significantly	16
Don't know	50

Table 7.3: Responses to the question "About how many patients die in a year of TB in India?"

	# Said
5 lacs / one per minute / one in ten deaths due to TB	44
1 lacs	03
1000 per day	02
10 lacs	07
1 per day	01
<= 1 %	02
25 lacs	04
4 lacs	03
About 5 lacs	02
250 lacs	01
50 lacs	02
About 365 patients	01
Nil	01
< 100	03
10 per minute	01
100s of thousands	01
<= 30 %	28
Quite a number	07
Don't know / no idea	92

Table 8: *Main* reasons why TB is a killer disease by category of respondents

	Administrators N=28	Researchers N=19	GMO N=42	PP N=51	Paramedical Staff* N=67
Irregular treatment	04	05	12	27	32
Lack of awareness / Health education	05	04	12	01	09
Non-availability of drugs	03	01	02	09	00
Poverty / Illiteracy	09	02	05	06	02
Spread of resistant bacteria	02	05	05	03	05
Not mentioned	08	07	11	09	26

*Data corresponds only to health workers & pharmacists

Table 8.1: Responses to the question "Why is TB still a killer disease?"

	# Said
Irregular treatment	80
Lack of awareness / Health education	31
Poverty / Illiteracy	24
Spread of resistant bacteria	22
Non-availability of drugs	15
Patients go to quacks	02
It is not being properly controlled	01
RNTCP is not yet covering the whole country	03
Health workers not properly trained	02
Patients have no rest	01
High infectivity	02
Superiors', doctors', officers' mistake	02
Patients when visiting doctors, hide details	01
Lack of personal hygiene	02
Treatment long duration	02
Social stigma	03
Superstitious beliefs	02
In India TB is the king of the diseases	01
Because of combinations with other diseases like HIV/diabetes	04
Because it affects all systems of the body	03
Lack of detection/not diagnosed early	04

Table 8.2: Distribution of reasons "Why is TB still a killer disease?" in broad categories by respondent type

	Administrators N=39	Researchers N=33	GMO N=55	PP N=86	Paramedical Staff* N= 49	**Total N=262**
Social	10	04	13	17	01	**45**
Patient related	08	13	18	26	10	**75**
Service provider related	09	06	15	31	33	**94**
System related	12	10	09	12	05	**48**

Table 9: Symptoms of TB by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122
Fever	NA	NA	34	46	87
Cough for more than 2 weeks / Co with expectoration	NA	NA	42	51	106
Loss of weight	NA	NA	31	42	66
Weakness	NA	NA	05	05	23
Loss of appetite / Anorexia	NA	NA	17	28	38
Sweating	NA	NA	04	01	00
Blood in sputum	NA	NA	21	21	45
Chest pain	NA	NA	12	05	14
Recurrent respiratory tract infectio	NA	NA	02	02	00
Non-specific enlargement of Lymph nodes	NA	NA	05	00	00
2 sputum positive	NA	NA	01	00	00
Raised ESR	NA	NA	00	00	02
Antibiotics fail	NA	NA	00	01	02

*Data corresponds only to health workers & pharmacists

Table 9.1: Responses to the question "When do you suspect TB?"

	# Said
Fever	167
Cough for more than 2 weeks / Cough with expectoration	199
Loss of weight	139
Weakness	33
Loss of appetite / Anorexia / not feeling hunger	83
Sweating	05
Blood in sputum	87
Chest pain	31
Recurrent respiratory tract infections	04
Non-specific enlargement of lymph nodes	05
2 sputum positive	01
Raised ESR	02
Antibiotics fail	03
Based on X-ray findings	02
Clinical features	02
Dry lips	01
Sunken eyes	01
Restlessness	01
Loose motion	01
Headache	01
Indigestion	02
Exposure to KOCH'S	02

Table 10: Guidelines for TB treatment by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
NTCP / RNTCP guidelines	35	28	48	NA	NA
Text-book guidelines	03	07	04	NA	NA
Own regimen	02	02	01	NA	NA

Table 11: Knowledge about DOTS and source of information on DOTS by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122
Heard of DOTS	32	30	47	38	93
Source of information on DOTS					
Medical text books	07	10	09	19	01
Medical journals	11	18	11	18	01
Medical representative	00	00	00	04	00
Colleagues	11	04	06	07	08
CME program	00	00	06	15	00
RNTCP training program	23	19	35	12	74
Mass media	07	05	09	04	07
Internet	04	02	01	04	00
No response	00	00	00	00	04

*Data corresponds only to health workers & pharmacists for source of information on DOTS

Table 11.1: Diagnosis under DOTS by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
X-ray	11	11	22	23	55
Sputum microscopy	31	28	47	37	93
Clinical	09	06	15	17	12
Mantoux test	05	02	05	10	07
Don't know	02	00	00	04	22

Table 11.2: Mode of treatment under DOTS by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Drugs supplied once a month	04	19	06	NA	15
Drugs supplied once a week	04	04	05	NA	04
Each dose given under direct observation	27	26	44	26	69
Don't know	02	01	00	23	34

Table 11.3: Mode of treatment under DOTS

	PP N=66
Rifampicin - once a month	07
Rifampicin - once a week	19
INH – once a month	05
INH – once a week	20
Each dose given under direct observation	26
Don't know	23

Table 11.4: TB patient's follow-up by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Clinical progress	10	09	18	55	32
X-ray progress	07	05	11	43	12
Sputum microscopy	32	26	48	51	108

Table 11.5: Stopping treatment for the TB patient by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
2 months after sputum conversion	NA	NA	02	04	NA
3 months after sputum conversion	NA	NA	02	07	NA
4 months after sputum conversion	NA	NA	09	08	NA
5 months after sputum conversion	NA	NA	05	04	NA
Sputum conversion at the end of the treatment	NA	NA	35	32	NA
Clearance on chest X-ray	NA	NA	01	32	NA
Don't know	NA	NA	01	03	NA

Table 11.6: Response to government policy (DOTS) by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
# who approve of DOTS	32	25	48	35	NA
# willing to use DOTS in private practice	NA	NA	33	31	NA

Table 12: Problems reported in TB control program by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Problems in drug availability	05	NA	09	NA	NA
Problems in availability of Reagents for sputum Examination	01	NA	07	NA	NA
Problems with X-ray referral	01	NA	11	NA	NA
Staff availability	11	NA	00	NA	NA
Patient co-operation	16	NA	00	NA	NA

Table 13: Monitoring indicators of TB program by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
# of new sputum positive patients on treatment	23	19	32	NA	NA
# of patients on treatment	13	10	17	NA	NA
Sputum negative at the end of intensive phase (IP)	23	17	29	NA	NA
Smear positive: smear negative ratio	14	11	15	NA	NA
Cure at the end of treatment	24	18	34	NA	NA
# of defaulters	11	10	13	NA	NA
# of health education sessions	07	01	01	NA	NA
Don't know	03	03	00	NA	NA

Table 14: Frequency of reporting under TB control program by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Every month	NA	NA	34	NA	NA
Every quarter	NA	NA	16	NA	NA
Half yearly	NA	NA	02	NA	NA
Annually	NA	NA	02	NA	NA

Table 15: Suggestions to improve government policy (DOTS) by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Use x-ray for all patients	08	00	01	03	NA
Use daily treatment	06	02	03	06	NA
Individualized case management	15	05	06	16	NA
Proper implementation of DOTS	06	03	01	02	NA
Involve private practitioners/ NGO	02	01	00	02	NA
Increase public awareness	01	02	00	02	NA
DOTS to cover whole country	00	02	00	00	NA
Community participation	01	00	00	02	NA
Can't say	00	00	23	00	NA

Table 15.1: Responses to the question "What is your suggestion to improve the current government policy for TB management (DOTS)?"

	# Said
Use x-ray for all patients	12
Use daily treatment	17
Individualized case management	42
Proper implementation of DOTS	12
Involve private practitioners / NGO	05
Increase public awareness	05
DOTS to cover whole country	02
Community participation	03
Give attention to implementation details (like making water available for the patients t swallow the tablet)	01
A lot of training to DOTS providers	01
The program should move away from technical aspects to ensure compliance	01
Personal involvement	01
Political and administrative commitment at all levels	01
Job assignment for each level of worker has to be spelt out clearly	01
Vertical program for TB control	01
Motivated and dedicated health care staff	01
Can't say	23

Table 15.2: Responses to the question "On what basis are you making these suggestions?"*

	# Said
Program does not have the infrastructure to deliver service to the doors of the patient to ensure DOTS	03
Program does not have the infrastructure for retrieval of dropouts	01
Patients are discharged before they complete treatment and are charged for medicines	01
A study/survey conducted in Kurnool / Anantapur districts	01
Practical experience in field	01
Case identification and follow-up in the field is not proper	01
A study in Vanivilas hospital on childhood TB	01
A study on HIV and TB	01
Though NTCP was good there was administration and managerial problem; should not repeat the same mistake	02
All segments / districts are not covered by DOTS program in India	01
Based on KHOJ project, encounters with villagers of cyclone affected Orissa. VHAI is going to train one girl in each village	01
Talking to TB workers in implementing the program	01
Unless the jobs are assigned clearly difficult to issue show cause notice if job is not done properly; unless there is fear of penalty, difficult to extract work	01
Proved success of leprosy control program in India	01
Results achieved by implementing RNTCP since 1993	01
Bulk of the patients go to private practitioners	01

*This question was asked only to researchers - faculty members

Table 16: Access to clinical information about TB by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
# of respondents having access to clinical information about TB	NA	NA	18	32	42

Table 16.1: Need for more information on TB by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122	**Total N=303**
# of respondents who need more information on TB	26	13	34	65	118	**256**

Table 16.2: Access to research information related to tobacco use by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122	**Total N=303**
# of respondents having access to research information about tobacco use	07	05	02	03	03	**20**

*Data corresponds only to health workers & pharmacists

Table 16.3: Need for more information related to tobacco use by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122	**Total N=303**
# of respondents who need more information related to tobacco use	29	27	49	66	103	**274**

*Data corresponds only to health workers & pharmacists

Table 17: Sources of information among those who reported access to TB information by category of respondents

	GMO N=18	PP N=32	Paramedical Staff N=42
Medical journals	03	20	00
RNTCP training	05	00	14
Internet, websites	03	06	00
Libraries / text-books, clinical material	02	03	03
Monthly meetings	01	00	05
CME	00	06	02
Seminars / conferences	00	03	01
Mass media	00	01	06
IEC material	00	00	19
Colleagues, supervisors	00	00	05

Table 17.1: Responses to the question "If you have access to information about TB treatment, specify the sources."

	# Said
Medical journals	23
RNTCP training	19
Internet, websites	09
Libraries / text-books, clinical material	08
Monthly meetings	06
CME	08
Seminars / conferences	04
Mass media	07
IEC material	19
Colleagues, supervisors	05
Through hospitals	04
Through NTI, District TB office, TB sanitarium, Central TB division, Bangalore Medical college, TB Association of India	08
WHO	03

Table 18: Type of TB information needed by category of respondents

	Administrators N=26	Researchers N=13	GMO N=34	PP N=65	Paramedical Staff N=118	**Total N=256**
Etiology of TB	02	03	09	23	54	**91**
How to prevent spread of TB?	00	00	21	45	81	**147**
How to motivate patients?	00	00	27	40	61	**128**
New developments / research on TB treatment (success stories)	14	13	03	07	01	**38**
Treatment of drug resistant cases	00	00	01	03	00	**04**
Guidelines for program Management / RNTCP training mate	08	00	01	02	02	**13**
IEC material / health education	03	02	01	01	01	**08**
TB drugs	00	00	00	00	07	**07**

Table 18.1: Responses to the question "What information do you need?"

	# Said
Etiology of TB	91
How to prevent spread of TB?	147
How to motivate patients?	128
New developments / research on TB treatment (success stories)	38
Treatment of drug resistant cases	04
Guidelines for program management / RNTCP training material	13
IEC material / health education	08
TB drugs	07
Complication due to HIV and diabetes	01
WHO guidelines	03
Administration management aspects (defaulter management, intervention of PP's and NGO's)	02
Epidemiological data	02
Funding agencies for research	01
Statistics	02
Pediatric TB	01
Recent WHO programs in South-East Asia countries	01
Other countries where TB is more epidemic	01
Treatment of MDR TB	02
Adequate literature	02
Special people who had TB and were cured	01
Sources of information on TB in district	01
Operational areas	02
Experiment from other countries	01
Operation research, studies	01
Recent information on success stories of DOTS strategy	01
Status of RNTCP and NTCP	01

Table 18.2: Type of tobacco information needed by category of respondents

	Administrators N=29	Researchers N=27	GMO N=49	PP N=66	Paramedical Staff* N=103	**Total N=274**
Types of tobacco use	19	08	31	47	60	**165**
Health effects of different types of Tobacco use	24	15	41	56	86	**222**
Advice about cessation	12	15	28	44	67	**166**
Passive smoking	13	12	29	38	53	**145**
Effect on women and children	11	13	26	39	63	**152**
Effect of advertisement	12	11	20	32	48	**123**
Problem of agriculture and employment	09	12	22	26	42	**111**

*Data corresponds only to health workers & pharmacists

Table 19: Access to journals by category of respondents

	Researchers N=27	GMO N=50	PP N=66	Paramedical Staff N=122
Journal of IMA (JIMA)	00	11	20	NA
Indian Medical Journal	00	06	09	NA
British Medical Journal	07	04	11	NA
Pediatric Journal / Indian Pediatrics	00	02	02	NA
IAP	00	01	01	NA
Lancet	09	00	00	NA
NEJM	05	00	04	NA
Indian Journal of TB & Chest Diseases	05	00	06	NA
CHEST	06	00	00	NA
Homeopathy	00	00	04	NA
No access to any journals	03	22	16	NA

Table 19.1: Responses to the question "Which medical journal do you have access to?"

	# Said
Journal of IMA (JIMA)	31
Indian Medical Journal	15
British Medical Journal	22
Pediatric Journal / Indian Pediatrics	04
IAP	02
Lancet	09
NEJM	09
Indian Journal of TB & Chest Diseases	11
CHEST	06
Homeopathy	04
JAPI	01
Annual of Intern medicine	01
JAMA	01
AIDS Journal	01
Lung India	01
International Journal of TB & Lung diseases	01
Physician's digest	01
Applied medicine	01
Karnataka Medical Journal	01
Indian Chest Society Journal	01
American Medical Journal	01
Journal of American Dental Association	01

Table 20: Use of tobacco by category of respondents*

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Current use	02	00	02	06	08
Ever used	04	02	05	04	07
Ever suffered from TB (self or close family member)	02	03	06	09	12

*No response to all the above questions in Orissa

Table 21: Perception about tobacco use

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122	**Total N=303**
Tobacco use is a major public health problem	32	28	49	66	104	**279**

*Data corresponds only to health workers & pharmacists

Table 21.1: Responses to the question "Do you know how many people die globally due to tobacco related illness?"

	# Said
<= 40 %	31
> 50 %	06
1 patient every minute	01
< 4 millions	09
Thousands	01
11000 per day	01
Every 10 seconds	01
300 per year	01
50 lacs	01
About 20 million	02
Huge number	07
Don't know / no idea / no response	148

Table 22: Awareness about types of tobacco use by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122	**Total N=303**
Gutkha	29	29	49	60	76	**243**
Pan masala	28	26	47	56	77	**234**
Mava	09	05	23	10	10	**57**
Snuff	27	27	37	42	32	**165**
Khaini	27	18	36	38	36	**155**
Betel leaf with tobacco	31	29	50	58	85	**253**
Areca nut with tobacco	16	12	24	21	02	**75**
Cigarette	32	28	50	66	99	**275**
Beedi	33	28	50	66	97	**274**
Others (chutta, ganja, hans hukka, chewing)	03	04	16	12	38	**73**

*Data corresponds only to health workers & pharmacists

Table 23: Awareness about diseases attributed to tobacco use by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122	**Total N=303**
Respiratory tract infections	21	07	34	34	28	**124**
Pulmonary TB / pleural effusion	09	02	26	37	56	**130**
Cancer of lungs / lung disorders	22	06	37	30	36	**131**
Oral cancer / mouth cancer	21	05	36	41	45	**148**
Diseases related to heart and Circulatory system	19	11	16	38	22	**106**
Ulcers (mouth, gastric)	05	03	13	22	29	**72**
Sub-muco fibrosis	00	00	05	00	00	**05**
Teeth / gum problems	01	00	03	02	03	**09**
Birth deficiencies	00	00	00	03	00	**03**
Liver problems	00	00	00	00	03	**03**
Nerves weakness	00	00	00	00	04	**04**

*Data corresponds only to health workers & pharmacists

Table 23.1: Responses to the question "What are the diseases attributed to tobacco use?"

	# Said
Respiratory tract infections	124
Pulmonary TB / pleural effusion	130
Cancer of lungs / lung disorders	131
Oral cancer / mouth cancer	148
Diseases related to heart and Circulatory system	106
Ulcers (mouth, gastric)	72
Sub-muco fibrosis	05
Teeth / gum problems	09
Birth deficiencies	03
Liver problems	03
Nerves weakness	04
Anemia	02
Industrial hazards	01
RTI / white discharge	02
Mental problems	01
Addiction	02
Burger's disease	01
Blindness	01
Stroke	02
Gastro intestinal diseases	01

Table 24: Tobacco component responsible for ill-effects by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122
Nicotine	NA	NA	47	64	80
Tar	NA	NA	22	35	12
Smoke	NA	NA	24	32	07
Others (599 toxic agents, tannin, hydrocarbons, benzpyrine, carbon Oxide, smell)	NA	NA	01	06	01
Don't know / can't remember	NA	NA	00	00	06

*Data corresponds only to health workers & pharmacists

Table 25: Frequency of advice about ill effects of smoking by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122
Regularly	NA	NA	36	47	80
Sometimes	NA	NA	14	17	23
Rarely	NA	NA	00	01	02
Never	NA	NA	00	01	01

*Data corresponds only to health workers & pharmacists

Table 26: Role in reducing tobacco use by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122	**Total N=303**
Health education through mass campaigns	21	14	40	36	106	**217**
Counsel patients about consequences and motivate them to give up	11	16	36	47	80	**190**

*Data corresponds only to health workers & pharmacists

Table 26.1: Responses to the question "What role do you think you could play in reducing tobacco use?"

	# Said
Health education through mass campaigns	217
Counsel patients about consequences and motivate them to give up	190
Scare people by showing pictures of terminal stage cancers	04
Be a role model by not using tobacco	06
Explain patients about environmental pollution	01
Governments role is more significant than ours	01
Cancer detection camps	02
Celebrating Anti tobacco day	02
Sensitizing the policy makers	01
Take stringent measures	03
Writing articles	01
Lectures in selective groups	01

Table 26.2: Suggestions for dealing with tobacco use by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122	**Total N=303**
Restrict tobacco ads	23	07	33	51	73	**187**
Ban advertisements	16	17	26	36	42	**137**
No smoking in public places / having smokers' zone	20	16	28	44	52	**160**
Increased taxes on tobacco product	00	00	18	26	32	**76**
Stronger warnings on tobacco Products	13	11	20	28	35	**107**
Ban on sale near schools	11	12	19	32	33	**107**
Total ban on production and sale of Tobacco	04	05	11	11	22	**53**

*Data corresponds only to health workers & pharmacists

Table 26.3: Responses to the question "What in your opinion will have impact on tobacco use in this country?"

	# Said
Restrict tobacco ads	187
Ban advertisements	137
No smoking in public places / having a smokers' zone	160
Increased taxes on tobacco products	76
Stronger warnings on tobacco products	107
Ban on sale near schools	107
Total ban on production and sale of tobacco	53
Individuals becoming conscious about health hazards	02
Provide information about alternative crops that farmers can grow	04
Fixing minimum age for smoking	01
Tobacco companies have to pay for the tobacco related diseases	02
Counseling patients on individual level	02
Health education to people through different communication media	09
Tobacco companies should not sponsor sports events	01
Ferocious ads	03
Not showing film actors in tobacco ads	02
Encourage, give prizes, provide government facilities to those who give up tobacco use	01
Advise people to handle mental worries	02

Table 27: Age at tobacco use for males by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122	**Total N=303**
<=15 years	18	20	35	42	84	**199**
> 15 years	16	10	15	20	22	**83**
Don't know / can't say	01	00	00	04	16	**21**

*Data corresponds only to health workers & pharmacists

Table 27.1: Age at tobacco use for females by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122	**Total N=303**
<=15 years	10	11	13	16	49	**99**
> 15 years	15	09	37	38	44	**143**
Don't know / can't say	10	10	00	12	29	**61**

*Data corresponds only to health workers & pharmacists

Table 27.2: Role of parents by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122	**Total N=303**
To a large extent	21	25	37	56	95	**234**
To some extent	11	04	13	09	09	**46**
Not at all	00	00	00	01	02	**03**
Don't know / can't say	03	01	00	00	00	**04**

*Data corresponds only to health workers & pharmacists

Table 27.3: Suggestions to prevent children from using tobacco by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122	**Total N=303**
Giving health education about bad-effects in schools / motivating	33	NA	50	35	106	**224**
Give them education / Schooling	02	NA	03	10	11	**26**
Parents should be role models / counsel parents or family members	03	NA	15	09	25	**52**
Divert their attention from Tobacco	03	NA	01	02	02	**08**
Use interesting methods like films, exhibitions to communicate them	04	NA	01	04	07	**16**
Control pocket money	00	NA	00	00	06	**06**

*Data corresponds only to health workers & pharmacists

Table 27.4: Responses to the question "What can you do to prevent children from using tobacco?"

	# Said
Giving health education about bad-effects in schools / motivating	224
Give them education / schooling	26
Parents should be role models / counsel parents or family members	52
Divert their attention from tobacco	08
Use interesting methods like films, exhibitions to communicate them	16
Control pocket money	06
Ban tobacco sale near schools	03
Reduce social acceptance of tobacco use	01
Not showing the actors smoking in TV serials / films	03
Advise them in a friendly way	04
Threaten them	03
Advise them about moral values	01
Punishment	02
Ban on tobacco products	03
Tobacco products should not reach the hands of children	01
Children should not be out free after 6.00 pm	01
Peer pressure works on them	02

Table 27.5: Access and use of information related to tobacco use by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff* N=122
# of respondents who issued / received government letter about tobacco use	17	NA	12	01	17
# of respondents with health education mater	NA	NA	18	08	32
# of respondents who used health education material in the community	NA	NA	16	06	28
# of respondents who think that giving information about bad effects of tobacco will help community to reduce tobacco use	28	28	47	59	96

*Data corresponds only to health workers & pharmacists

Table 27.6: Responses to the question "List the health education materials related to anti tobacco use you have."

	# Said
Poster / chart / photo / wall poster / pamphlet / sticker	18
Books	02
Flash cards	05
Smoke-quit	01

Table 27.7: Responses to the question "Details of any study you know on how to reduce tobacco use in the community."

	# Said
Health education campaigns	06
About how ads increase tobacco use (article in BMJ)	01
Survey by KIDWAI on tobacco use	02
On a visit to a cancer hospital	01
Studies given to public regarding the attack of TB	01
World bank publication – curbing the epidemic 1999	01
Recent introduction of anti abuse therapy to prevent smoking	01
Through CME'S	01
WHO publications	02
National study – economics of tobacco use	01
Parliamentary committee recommendation	01
ICMR and AIIMS studies	01
HRIDAY	01
Canadian Lung Association study 1990	01

Table 28: Information needs on other public health problems by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Maternal & infant health	18	08	43	47	86
Child & adolescent health	10	07	31	29	82
Reproductive health	14	07	35	34	80
Adult health	09	06	14	25	59
Gender & health	07	06	09	09	33
Health & the elderly	14	09	05	17	25
Migrant & refugee health	03	11	04	03	31
Acute respiratory infections / pneumonia	14	16	40	47	81
Diarrheal diseases	15	09	42	40	81
HIV / AIDS	23	11	38	48	95
Malaria	20	09	39	46	103
Mental health	10	05	23	22	43
Tobacco use	16	15	42	42	74
Tuberculosis	25	21	46	59	114
Infectious disease	14	11	28	41	74
Vector-borne, parasitic & tropical disease	11	08	24	17	64
Non-communicable / chronic disease	08	09	12	16	36
Disabilities	10	03	16	10	40
Eye diseases & blindness	10	05	26	22	74
Oral health	04	04	22	23	47
Substance abuse	08	05	06	11	20
Blood safety	11	05	14	19	40
Violence & injuries	06	03	14	16	23
Health information systems & tools	15	04	12	13	37
Medical & laboratory technology	08	03	09	10	29
Pharmaceuticals, vaccines & biologicals	08	03	17	14	38
Intersectoral public health topics	09	04	07	05	26
Development & health	09	04	15	08	31
Environment & health	12	03	16	23	52

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Ethics & health	10	07	10	18	17
Globalization & health	10	04	05	12	07
Health economics & financing	06	06	06	10	09
Human rights & health	10	04	09	15	22
Information sciences and health	06	01	13	15	12
Nutrition & food safety	13	04	29	31	63
Occupational health	11	09	21	19	21
Public / media relations & health	09	02	11	10	24
Travel & health	01	02	09	11	06
Water resources & sanitation	10	02	29	25	47
Zoonoses & veterinary health	03	02	10	08	09
Primary & community health	24	03	29	18	54
Prevention & control of disease	18	05	34	28	52
Surveillance & reporting	14	05	21	08	46
Epidemiology & statistics	11	10	19	11	35
Treatment & healthcare	10	07	24	25	42
Diagnostics	08	05	27	31	26
Drug information	08	07	24	29	34
Surgery & anesthesia	04	03	12	15	01
Rehabilitation	05	07	14	15	12
Emergency response in health	09	27	17	25	22
Traditional / alternative medicine	02	03	07	11	05
Research methods	06	08	08	18	05
Evidence-based policy & practice	07	05	05	12	02
Health policy & legislation	15	02	09	13	06
Health systems	10	05	06	14	18
Capacity building & sustainability	07	08	02	07	03
Management and administration	16	05	14	08	09
Program planning & evaluation	13	09	09	10	10
Medical sciences	09	04	12	13	08
Nursing and midwifery	06	02	12	07	38
Allied health disciplines	03	02	08	04	08
Professional/continuing education	09	11	18	26	21

Table 29: Most useful source of information for general awareness by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Books	06	04	16	20	17
Databases and indexes	03	04	00	04	00
Journals & scientific publications	06	05	04	06	00
Meetings	07	03	11	11	10
Print news services (papers, magazines)	13	07	06	19	35
Regular reporting	01	03	01	06	00
Technical guidelines	03	02	01	03	01
TV & radio	22	08	19	26	56
Librarians & reference services	02	03	01	05	00
Colleagues / experts	03	01	01	04	01

Table 29.1: Most useful source of information for awareness in area of expertise by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Books	09	03	09	16	14
Databases and indexes	06	05	05	03	03
Journals & scientific publications	14	09	13	24	08
Meetings	06	02	10	08	45
Print news services (papers, magazines)	04	00	02	08	10
Regular reporting	05	01	03	08	03
Technical guidelines	05	01	04	05	07
TV & radio	08	00	05	05	07
Librarians & reference services	03	04	01	04	00
Colleagues / experts	05	00	05	09	10
Training	00	00	00	00	32

Table 29.2: Most useful source of information for in-depth information in area of expertise by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Books	09	06	10	13	41
Databases and indexes	09	06	03	05	00
Journals & scientific publications	15	10	13	33	04
Meetings	04	01	03	04	19
Print news services (papers, magazines)	04	00	03	07	06
Regular reporting	07	02	03	01	05
Technical guidelines	11	02	06	08	07
TV & radio	04	00	04	04	13
Librarians & reference services	04	05	05	02	01
Colleagues / experts	04	00	05	05	08
Training	00	00	00	00	33

Table 29.3: Most useful source of information for in-depth information outside the area of expertise by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Books	09	03	06	10	23
Databases and indexes	03	06	04	04	01
Journals & scientific publications	05	03	07	08	03
Meetings	04	01	02	05	00
Print news services (papers, magazines)	05	02	08	04	18
Regular reporting	00	01	00	02	01
Technical guidelines	03	01	02	07	06
TV & radio	07	03	07	15	33
Librarians & reference services	03	03	03	07	03
Colleagues / experts	02	00	04	06	07

Table 29.4: Preferred language for general awareness by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Kannada / English	00	00	06	06	09
English	13	06	20	40	04
Kannada	01	00	10	10	66
Hindi	00	00	00	01	01
Telugu	00	00	00	00	00
Oriya	06	04	15	09	37
Bengali	00	00	00	00	01

Table 29.5: Preferred language for awareness in area of expertise by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Kannada / English	00	00	06	06	12
English	10	10	10	15	08
Kannada	00	00	07	03	61
Hindi	00	00	00	01	01
Telugu	00	00	00	00	00
Oriya	01	01	06	06	34
Bengali	00	00	00	00	01

Table 29.6: Preferred language for in-depth information in area of expertise by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Kannada / English	00	00	06	04	14
English	10	10	36	53	13
Kannada	00	00	06	03	59
Hindi	00	00	01	00	01
Telugu	00	00	00	00	00
Oriya	01	01	02	06	30
Bengali	00	00	00	00	01

Table 29.7: Preferred language for in-depth information outside area of expertise by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Kannada / English	00	00	08	03	15
English	10	09	34	58	11
Kannada	00	00	06	02	58
Hindi	00	00	00	01	02
Telugu	00	00	01	00	00
Oriya	01	01	02	04	31
Bengali	00	00	00	00	01

Table 30: Main difficulties related to information access in general awareness by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
No difficulty	17	12	31	33	96
Difficult to get	04	04	09	13	11
Don't know where to find	01	01	03	08	04
Difficult to use	00	21	03	02	02
Expensive	05	02	10	04	02
Poor quality	03	01	02	06	09
Irregular	06	02	10	07	08
Not up to date	07	03	06	07	02
Not relevant to local situation	03	02	05	05	01
Not in prefered language	02	00	03	05	05

Table 30.1: Main difficulties related to accessing general information within area of expertise by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
No difficulty	13	15	21	24	32
Difficult to get	09	04	11	15	90
Don't know where to find	01	01	03	09	04
Difficult to use	01	00	04	03	03
Expensive	05	03	09	12	10
Poor quality	03	01	03	04	03
Irregular	09	01	12	10	10
Not up to date	09	03	07	08	05
Not relevant to local situation	05	01	01	08	08
Not in prefered language	02	01	03	02	05

Table 30.2: Main difficulties related to accessing in-depth information within area of expertise by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
No difficulty	11	06	15	18	36
Difficult to get	10	06	20	15	27
Don't know where to find	01	01	06	07	09
Difficult to use	01	01	02	06	05
Expensive	07	03	18	20	11
Poor quality	02	01	03	04	03
Irregular	10	02	11	11	07
Not up to date	06	03	06	06	14
Not relevant to local situation	03	00	03	06	12
Not in prefered language	01	00	03	02	10

Table 30.3: Main difficulties related to accessing in- depth information outside area of expertise by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
No difficulty	08	09	17	21	70
Difficult to get	08	02	16	14	21
Don't know where to find	04	03	08	10	07
Difficult to use	02	01	04	06	03
Expensive	08	02	16	09	09
Poor quality	03	01	03	04	02
Irregular	08	02	09	11	08
Not up to date	04	00	05	05	02
Not relevant to local situation	04	00	05	07	06
Not in prefered language	03	00	08	04	02

Table 31: With whom it is most important to communicate by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122	**Total N=303**
Superior	20	17	23	20	90	**170**
Colleagues or experts within your organization	29	23	33	34	85	**204**
Colleagues or experts outside your organization	17	16	05	23	30	**91**
Directly with patients	16	16	36	43	57	**168**
Directly with general public	15	10	28	25	54	**132**
Funding / donor agencies	13	13	03	07	01	**37**
Press / mass media / advocacy groups	16	09	13	11	08	**57**

Table 32: Need for new information related to the work & preferred form to have such information by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
# of respondents who need more informatio	34	29	45	66	116
Preferred form to have such information					
Electronic media such as Internet, Email	27	26	39	54	64
Newsletters or fact sheets	21	23	34	51	84
Verbally from colleagues and experts	16	11	31	44	92
Scientific journals	26	23	41	62	65
AV media such as CD, DVD	26	14	37	50	98
Magazines and newspapers	29	15	39	58	94
CME / conference	01	00	01	00	00

Table 33: Use of new information by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Support diagnosis and treatment	14	18	39	47	56
Make policy / program decisions	18	08	13	09	04
Advise decision / policy makers	15	05	11	08	04
Modify treatment protocol	10	14	19	28	07
Respond to emergencies	09	07	16	19	10
Prepare grant / funding proposals	11	06	03	02	02
Issue press releases	05	01	00	02	01
Use in lectures / presentations	17	19	25	22	09
Include in articles / books	03	14	09	11	08
Adapt and distribute for local use	04	04	08	08	15
Develop health education material	17	08	26	20	26
Circulate to colleagues	18	07	20	23	69
Find more information on the topic	12	11	15	20	31
File for later reference	07	12	05	17	07

Table 34: Access to Internet by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
No	09	08	38	31	115
Yes - at home	07	08	05	11	01
Yes - at an Internet café	00	02	05	14	02
Yes - at work	05	03	02	04	00
Yes - at home and work	14	09	00	04	00
Yes - others (at relatives' or friends' house)	00	00	00	02	04

Table 34.1: Access to Internet in the last one month by category of respondents

	Administrators N=26	Researchers N=22	GMO N=12	PP N=35	Paramedical Staff N=07
0	05	02	05	05	02
1-2	03	03	01	06	03
3-4	03	01	01	09	00
5-6	02	00	01	02	00
7-8	00	01	01	04	00
9-10	02	00	01	03	00
11+	09	00	02	01	02
No response	06	11	00	05	00

Table 34.2: Awareness about web sites giving health information and those accessed by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
# of respondents aware about web sites givi health information	21	16	08	25	02
Web sites accessed					
Jama.com	02	00	01	03	00
IMA	02	00	00	04	00
WHO	04	01	00	00	00
Tbindia.org	03	00	00	00	00
Bmj.com	00	00	00	02	00
Search engines like googly etc.	02	01	00	00	00

Table 34.3: Responses to the question "Websites you know that are giving health information."

	# Said
Jama.com	06
IMA/IMA KSB (Karnataka State Branch)-	06
WHO	05
Tbindia.org	03
Bmj.com	02
Search engines like googly etc.	03
Academy of General Practitioners	01
Www.docasia.com	01
Gynecology site	01
Johns Hopkins	01
Cde.gov	01
www.doctorsking.com	01
Doctorsanywhere.com	01
Fogsi.org	01
Mediline.com	01
Livizi.com	01
www.harrisononline.com	01
Doctors.com	01
Medscape.com	01
Diabetes & AIDS related	01
Substance abuse related	01
www.stoptb.org	01
Amedeo.net	01
NTI	01
TRC	01
www.healthseva.com	01
www.indegene.com	01

Table 34.4: Kinds of sites / information accessed by category of respondents

	Administrators N=26	Researchers N=22	GMO N=12	PP N=35	Paramedical Staff N=07
None	08	09	03	09	02
Information related to the present work	19	13	05	15	00
Non-work related information	02	05	04	03	00
General knowledge	06	07	05	10	04
New information	10	06	05	06	01
Entertainment matters	02	03	01	04	03

Table 35: Types of barriers in using Internet by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122
Don't have the time	15	07	09	21	08
Insufficient skills for computer use	09	05	23	17	37
Insufficient skills for Internet use	06	04	15	08	22
Very costly	02	05	05	12	07
Local censorship issues	00	00	02	00	02
Not in preferred language	03	00	06	01	06
Too much information	05	00	02	05	00
Uneven quality of information	10	02	01	11	00
Electricity outages / interruptions	02	04	05	07	09
Internet connection in inconvenient Location	02	03	00	10	05
Slow Internet connection	10	02	02	17	16
Telephone line problems	04	08	03	05	03
No access to computer	00	00	00	00	13
No interest	00	00	00	00	02
No barriers at all	02	02	03	02	00

Table 36: Number of respondents who think access to the Internet will help them in their work and benefits mentioned by category of respondents

	Administrators N=35	Researchers N=30	GMO N=50	PP N=66	Paramedical Staff N=122	**Total N=303**
# of respondents who think that acc to the Internet will help them in their work	34	29	47	58	102	**270**
Benefits mentioned						
Can get more information	12	15	28	27	45	**127**
Can get new information about drug diagnosis / management / technology / statistics / rare diseas	25	21	47	58	78	**229**
Can interact with colleagues / patie superiors, networking	11	04	09	02	18	**44**
Get expert opinion for complicated cases / to modify progr	04	00	05	03	08	**20**
Easy and quick access	08	06	08	08	12	**42**
For research	00	01	00	03	00	**04**
For teaching	00	02	00	00	00	**02**

Table 36.1: Responses to the question "List up to three key ways in which you think access to the Internet would help your work."

	# Said
Can get more information	127
Can get new information about drugs / diagnosis / management / technology statistics / rare diseases	229
Can interact with colleagues / patients / Superiors, networking	44
Get expert opinion for complicated cases / to modify program	20
Easy and quick access	42
For research	04
For teaching	02
To get the reports	01
To continue medical education	01
Better private management	01
Online treatment facilities	01
Less cost	01
Society will be benefited indirectly	01
Better quality of information	01
Capacity building	01
Increases work capacity	01
User friendly	01
To write scientific articles / presentations	01
File for later references	01
Information about other interests like Astrophysics	01

Table 37: Basis for developing guidelines of TB control program

	Administrators N=35	Researchers N=30
RNTCP program	06	02
Failure in NTCP	03	06
NTI'S and TRC'S pilot study in 1960s	13	07
To control sputum positive cases thereby prevent spread	03	03
Based on the principle that TB patients can be treated in their homes	01	04
Resistance cases have been noticed in the society because of the insufficient drugging	01	01
Adequate maintenance, supply of drugs	01	01
No response	13	08

Table 37.1: Responses to the question "Do you know on what basis the guidelines for TB control program have been developed?"

	# Said
RNTCP program	08
Failure in NTCP	09
NTI's and TRC'S pilot study in 1960s	20
To control sputum positive cases thereby prevent spread	06
Based on the principle that TB patients can be treated in their homes	05
Resistance cases have been noticed in the society because of the insufficient drugging	02
Adequate maintenance, supply of drugs	02
Due to emergency of MDR-TB	01
Chest symptomatic	01
Sputum microscopy for diagnosis	01
Category of disease	01
Compliance was poor - result of a research	01
Epidemiology of TB	01
Small scale field based studies in South India	01
Findings of controlled clinical trials using DOTS	01

Table 38: Details of private practice

	N=50
Number of government medical officers with private practice	12
Number of government medical officers practicing since 5 years or less	08

Table 38.1: Responses to the question "How do you think regular reporting by you helps in program management?"

	# Said
Assessing the program at PHC level	03
To get adequate drugs / reagents	03
To implement and improve RNTCP	06
Follow up of patients	10
Regularity of treatment	03
Correct diagnosis of sputum positive cases	03
To know the effectiveness of the program and further planning	02
Continuous supervision	03
To monitor the program	03
Helps in eradicating the disease	02
To maintain vital statistics of RNTCP	01

Table 39: Investigations ordered on clinically suspecting TB

	N=66
X-ray	61
Mantoux test	36
Sputum examination	64
Blood test	40
IgG, IgM, PCR etc.	10
ESR	02
Csf, pleural / peritoneal fluid analysis in appropriate settings	01

Table 40: Sending the patients for X-ray and lab investigation

	N=66
Own X-ray	13
Government X-ray	20
Other Private X-ray	44
Own lab	17
Government lab	18
Other private lab	44

Table 41: Drugs normally prescribed

	N=66
Rifampicin	57
INH	55
Pyrazinamide	49
Ethambutol	54
Streptomycin	30
Ofloxacin	09
Combipack	20
B-complex, haemotonic	01

Table 42: Duration given for each prescription

	N=66
One week	05
Fifteen days	02
One month	27
Two months	13
Six months	06
Entire duration	14

Table 43: Number of private practitioners using individually tailored treatment regimen for the patient and parameters on which they decide treatment

	N=66
# of private practitioners who use treatment regimen individually tailored for the patient	58
Parameters on which they decide treatment	
Clinical	38
Radiological extent	33
Associated other illness	20
Organ involved	20
Body weight	36
Previous treatment status	01
Socio-economic condition	03
Sputum examination	01
ESR	01
Severity of the disease	02

Table 44: Number of private practitioners who feel that they play an important role in TB control and their role in government TB control programme

	N=66
# of private practitioners who feel that they play an important role in TB control	64
The roles they play	
Referral of chest symptomatics	29
Referral for sputum examination	26
Contribute to surveillance	35
As DOTS center	13
Tell patients about government medicines	01
Giving statistics	01
Referral of poor to sanitarium	01
Follow-up	01

Table 45: Government's support

	N=66
Training	33
Providing diagnostic facilities	30
Providing drugs / decrease prices of anti TB drugs	34
Updating on government policy, update private practitioners on recent developments in government programs	25
Government should show interest	02
Help in follow-up	01
Increase coordination between private and government	01
Register / regularize all private practitioners	01
Get the statistics from private practitioners	01

Table 46: Methods of delivering information

	N=122
Personal communication	96
Journals	21
CME	05
Internet	63
AV media. CD. DVD	99
Government circulars	88
Orientation programs	110
Pamphlets, news letters	03
Books	01
Doctors	02

Table 47: TB training

	N=106
Number undergone TB training / RNTCP training	87

Table 48: Importance of directly observing the treatment

	N=106
Correct treatment ensured	92
Take more care	24
Observe improvement	29
Prevent spread of TB	03
Prevent default	03
To cure disease	01
Observe side-effects	01
To prevent over-dose	01

Table 49: Importance of educating patients before starting treatment

	N=106
Ensure need for regular treatment	84
Need for DOT	14
Preventive aspects of TB	50
Know patient and family	04
Remove fear about disease	04
Self-confidence	05
Side-effects	01
Assure it is curable	01
Diet and hygiene	01

Table 50: Importance of home visits in case of patient default

	N=106
To cure patient	76
To build rapport with patient	18
Prevent disease from spreading	61
Prevent drug resistant TB	08
Prevent disease from recurring	08
To ensure correct treatment	07
To avoid default	02
To find out reason for default	01
To restart treatment	01

Table 51: Importance of sputum exam

	N=106
Definite diagnosis	103
Easy to monitor progress	22
Easy to motivate patient	11

Table 52: Results if patient does not take treatment

	N=106
Will not get cured	88
Spread of disease to others	88
Drug resistant disease	10
Death	13
Loss of weight	01
Will turn to AIDS	01

Table 53: Number of paramedical workers who maintain treatment card & objective of maintaining treatment card regularly

	N=106
# of paramedical workers maintaining treatment card	84
Objective of maintaining treatment card regularly	
Check on regularity of treatment	93
Quick defaulter retrieval action	35
Easy for supervision	45
Follow-up	04
Know drug reaction	01
Know history of patient	01
Need for drugs	02

Table 54: Qualification*

	N=92
SSLC or below	45
PUC	14
Graduation (B.Sc., B.Sc.-Nursing, B.A.)	04
Multipurpose workers training / junior health assistant training / LHV training / RCH training / basic health worker (BHW) training / pharmacist training/ health inspector training / continue education training	31
Condensed general nursing	02
Diploma in public health	03
Indian population project 9 (IPP 9)	01
TCH	01
No response	30

*No response to the above question in Orissa

Table 55: Role of paramedical workers in reducing tobacco use

	N=92
# of health workers who feel they can play an important role	90
# of health workers who feel they are well-equipped to play this role	31

Table 56: Drugs given to TB patients

	N=14
Rifampicin	14
INH	13
Pyrazinamide	14
Ethambutol	14
Streptomycin	08
Ofloxacin	01
Combipack	01

Table 57: Advices given to the patients while giving them the drugs

	N=14
Advise about treatment	04
Advise them to take medicines properly	14
As per doctors' prescription	02
In case of side effects advise them to contact the physician	01
Advise them to have sufficient / healthy food	01
Advise them to give up smoking / drinking	02

Table 58: Nature of work

	N=16
Sputum Examination	15
Blood Examination	14
Stool	09
Urine	09
Smear check-up	04
X-ray	01
Semen	01

Table 59: Tests carried out at the center routinely

	N=16
X-Ray	06
Sputum Microscopy	15
Blood	11
Urine	06
Mantoux test	05
Stool	01

Table 60: Sputum microscopy for TB diagnosis

	N=16
# of lab technicians doing sputum microscopy for TB diagnosis	15

Table 61: Number of sputa examined in a month

	N=16
<= 25	07
> 25	07
No response	01
Not applicable	01 X-ray technician

Table 62: Number of fields the technicians sees under the microscope before declaring a negative result

	N=16
10	01
40	09
80	00
100	05
Don't know	*01*

Table 63: Precautions one needs to take while examining a slide

	N=16
Wear a mask	09
Wear gloves	10
Apron	01
Wash hands and face	02
Wax cap	01
Clean bottle	01

Table 64: Number of technicians able to take those precautions

	N=16
# of lab technicians who are able to take those precautions	08
# of lab technicians who are not able to take those precautions	06
No response	02

Table 65: Problems facing in taking those precautions

	N=06
Wearing and removing mask during busy times	01
No supply of gloves and masks / not available	02
Not told in training	01
No practice	01
No specific reason	01

Table 66: Training

	N=16
# of lab technicians have been trained in RNTCP for sputum microscopy	10

Table 67: Difficulties faced by lab technicians

	N=16
# of lab technicians facing difficulty in preparing the smear	01 (patients won't cooperate)
# of lab technicians facing difficulty in staining the slide	00
# of lab technicians facing difficulty in supply of lab consumables	01 (improper supply)

Table 68: Time intervals at which the lab technicians do sputum examination for a patient under treatment

	N=16
Every month	01
Once in 2 months	07
Once in 3 months	04
Once in 6 months	01
12-14 months	01
Don't know	02

E-readiness assessment for Health Inter-Network

Data analyses by category of levels

Table 69: Number of potential computer users & their skills by category of levels

	District		State
	Bangalore Rural N=21	Deogarh N=05	N=03
# of potential computer users	16	07	3514
Doctors with basic computer skills	05	04	-
Doctors with experience of common Office applications	03	00	-
Doctors with experience of Internet	02	00	-
Doctors with advance computer skills	00	00	-
Administrative staff with basic computer skills	04	01	-
Administrative staff with experience of common Office applications	02	01	-
Administrative staff with experience of Internet	00	00	-
Administrative staff with advance computer skills	00	00	-
Paramedical Staff with basic computer skills	00	00	-
Paramedical Staff with experience of common Office applications	01	00	-
Paramedical Staff with experience of Internet	00	00	-
Paramedical Staff with advance computer skills	00	00	-
Others with basic computer skills	01 Treatment organizer	00	-
Others with experience of common Office applications	00	00	-
Others with experience of Internet	00	00	-
Others with advance computer skills	00	01 System administrator	-

Table 70: Availability of physical space by category of levels

	District		State	**Total**
	Bangalore Rural N=21	Deogarh N=05	N=03	**N=29**
Availability of adequate physical space for hardware	18	05	03	**26**

Table 68: Time intervals at which the lab technicians do sputum examination for a patient under treatment

	N=16
Every month	01
Once in 2 months	07
Once in 3 months	04
Once in 6 months	01
12-14 *months*	01
Don't know	02

E-readiness assessment for Health Inter-Network

Data analyses by category of levels

Table 69: Number of potential computer users & their skills by category of levels

	District		State
	Bangalore Rural N=21	Deogarh N=05	N=03
# of potential computer users	16	07	3514
Doctors with basic computer skills	05	04	-
Doctors with experience of common Office applications	03	00	-
Doctors with experience of Internet	02	00	-
Doctors with advance computer skills	00	00	-
Administrative staff with basic computer skills	04	01	-
Administrative staff with experience of common Office applications	02	01	-
Administrative staff with experience of Internet	00	00	-
Administrative staff with advance computer skills	00	00	-
Paramedical Staff with basic computer skills	00	00	-
Paramedical Staff with experience of common Office applications	01	00	-
Paramedical Staff with experience of Internet	00	00	-
Paramedical Staff with advance computer skills	00	00	-
Others with basic computer skills	01 Treatment organizer	00	-
Others with experience of common Office applications	00	00	-
Others with experience of Internet	00	00	-
Others with advance computer skills	00	01 System administrator	-

Table 70: Availability of physical space by category of levels

	District		State	**Total**
	Bangalore Rural N=21	Deogarh N=05	N=03	**N=29**
Availability of adequate physical space for hardware	18	05	03	**26**

Table 70.1: Site conditions by category of levels

	District		State	Total
	Bangalore Rural N=21	Deogarh N=05	N=03	N=29
Temperature				
Low	00	05	01	**06**
Moderate	21	00	00	**21**
Not mentioned	00	00	02	**02**
Environment				
Dust free	12	05	03	**20**
Air-conditioners				
Available	00	01	02	**03**

Table 70.2: Availability of electricity by category of levels

	District		State	Total
	Bangalore Rural N=21	Deogarh N=05	N=03	N=29
# of supply hours per day				
<=8 hours	20	05	00	**25**
24 hours	01	00	03	**04**
Fluctuations experienced				
Frequently	07	00	00	**07**
Occasionally	04	03	02	**09**
Rarely	07	02	01	**10**
Never	03	00	00	**03**
Frequency of outages				
Frequently	13	00	00	**13**
Occasionally	03	03	01	**07**
Rarely	05	02	02	**09**
Never	00	00	00	**00**
Generator				
Available	01	00	03	**04**
Earthing / grounding for electrical connections				
Available	21	05	03	**29**

Table 70.3: Availability of telephone lines by category of levels

	District		State	Total
	Bangalore Rural N=21	Deogarh N=05	N=03	N=29
Fixed telephone lines available	05	02	02	**09**
Dedicated telephone line for Internet access available	00	01	02	**03**
Dial-up connection	00	01	02	**03**

Table 70.4: Availability of training facility in the vicinity by category of levels

	District		State	Total
	Bangalore Rural N=21	Deogarh N=05	N=03	N=29
Availability of training facility in the vicinity	03	00	03	**06**
No response	06	00	00	**06**

Table 71: Average number of users per terminal (existing) & hours of access they have by category of levels

	District		State	Total
	Bangalore Rural N=21	Deogarh N=05	N=03	N=29
Average number of users per terminal (existing)				
1	00	01	01	**02**
2	01	00	01	**02**
3	00	00	01	**01**
Hours of access the users have				
8 hours	01	01	01	**03**
12 hours	00	00	01	**01**
14 hours	00	00	01	**01**

Table 72: LAN facility and number of computers connected to a modem by category of levels

	District		State	Total
	Bangalore Rural N=21	Deogarh N=05	N=03	N=29
Computers connected to a LAN	00	00	01	**01**
NAT (anti-virus) is in use	00	00	01	**01**
Firewall is installed	00	00	00	**00**
VSNL-ISP	00	00	01	**01**
Network management	00	00	01	**01**
Load characteristics of the LAN – 1 server & 5 nodes	00	00	01	**01**
Problems with reliability of the LAN	00	00	00	**00**
LAN is switched	00	00	00	**00**
Hub based LAN	00	00	01	**01**
# of computers connected to a modem				
1	00	00	01	**01**
3	00	00	01	**01**

Table 73: Availability of the IT equipments / peripherals by category of levels

	District		State	Total
	Bangalore Rural N=21	Deogarh N=05	N=03	N=29
Printers	01	01	03	**05**
Scanners	00	00	02	**02**
Digital cameras	00	00	00	**00**
CD-ROM	01	00	03	**04**
DVD	00	00	01	**01**

Table 74: Availability of hardware / software support services by category of levels

	District		State	Total
	Bangalore Rural N=21	Deogarh N=05	N=03	N=29
Maintenance staff available	00	00	00	**00**
Support contract with a supplier	01	01	01	**03**
Spare parts available	01	01	02	**04**

Table 75: E-readiness parameters by category of proposed sites

	Potential computer users	Physical space	Temperature	Dust-free	Electricity fluctuations	Electricity Outages	Generator	Earthing	Fixed phone lines	Phone line for Internet	Computer training facility in the vicinity
Bangalore Rural, Karnataka											
Kanakapura taluk hospital	2	Y	High	Y	Frequent	Frequent	Y	Y	2	N	Y
D. Maralawadi PHC	0	Y	Moderate	N	Occasional	Frequent	N	Y	0	N	NR
Sathnur PHC	1	Y	High	Y	Rare	Frequent	N	Y	0	N	N
Bidadi CHC	1	Y	Moderate	N	Never	Frequent	N	Y	0	N	NR
Tubagere PHC	0	Y	High	Y	Never	Frequent	N	Y	0	N	N
Doddahejjaji PHC	3	Y	Moderate	N	Frequent	Occasional	N	Y	0	N	N
Deogarh, Orissa											
District health office, Deogarh	6	Y	Low	Y	Rare	Rare	N	Y	2	Y	N
Barkote CHC	0	Y	Low	Y	Occasional	Occasional	N	Y	0	N	N
Bamparda PHC	0	Y	Low	Y	Rare	Rare	N	Y	0	N	N
Tileibani PHC	0	Y	Low	Y	Occasional	Occasional	N	Y	1	N	N
Chttabar PHC	1	Y	Low	Y	Occasional	Occasional	N	Y	0	N	N