‘Oral Health Care Providers
Critical Role Players in the HIV /AIDS Epidemic’

A Report on
Building the HIV/AIDS Capacity of
Oral Health Care Providers
India

Lead technical support agency
AVNI Health Foundation
Mumbai, India

In collaboration with
The University of the West Indies (UWI), St. Augustine
Campus, School of Dentistry, UWI, Trinidad and Tobago,
Department of Comprehensive Dentistry, School of Dentistry
University of Alabama at Birmingham, USA
Subharti Dental College, Meerut
U.P Dental College & Research Center, Lucknow
M.M. College of Dental Sciences & Research, Mullana
M.P. Dental College & Hospital, Vadodara

Supported by
Colgate & GoAir
“Building the HIV/AIDS Capacity of Oral Health Care Providers in India”

~Training of Trainers Workshops~

Meerut, Lucknow, Mullana, Vadodara

March 1st – 14th 2007

Project Report prepared by AVNI Health Foundation Team

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Acknowledgements

The journey from the conceptualization of the initiative for Oral Health Care and HIV/AIDS in India to the development of partnerships, materials, and implementation in the form of workshops for Oral Health Care Providers began in 2005, since then we have conducted 11 workshops spread across 7 states including the workshops in 2007 in Uttar Pradesh (2), Haryana and Gujarat. While conducting the workshops has been challenging, it has been fulfilling and rewarding one at the same time. Training almost 1300+ Oral Healthcare providers in the 3 years has truly been a learning experience for our team at AVNI Health Foundation.

On behalf of the team, I would like to take this opportunity to attempt to thank and extend our deepest appreciation to all those who went that extra mile to help us and make this initiative successful.

The need for building capacity in the field of Oral Health Care and HIV/AIDS in India was felt after a similar experience in the Caribbean in 2004. We wish to thank all members of the University of the West Indies HIV/AIDS Response Programme (UWIHARP), namely, Prof Brendan Bain, Dr Sanjana Bhardwaj and Mrs. Hope Ramsay, who spearheaded the initiative in the Caribbean and shared their experiences for India.

However, to continue with the work, one needs support in so many different ways, in terms of funding, material development, venue and facilities for hosting the workshops, support for travel to the different proposed sites and of course all the logistical and administrative work that goes into such a large scale activity.

We would like to specially acknowledge the unstinting support and commitment of our two international resource persons who have been tirelessly working for this project. Our sincere gratitude and thanks to Prof. S R Prabhu, Professor of Oral Medicine and Head of Oral Disease Unit, School of Dentistry, Associate Dean, Faculty of Medical Sciences, The University of the West Indies, Trinidad and Tobago who was instrumental in linking us with several partners in India and who has significantly contributed to the design of the workshop, including materials.

Our sincere thanks and appreciation to Dr Jeffrey Hill, Assistant Professor, Dept. of Comprehensive Dentistry, University of Alabama School of Dentistry, University of Alabama School of Medicine, Birmingham, USA, who has contributed to the workshop materials, facilitated the certification of the current workshop by the Department of Continuing Medical Credits, University of Alabama at Birmingham, USA.
Both these persons have been committed to conducting these workshops in India, and they have spent their valuable time & traveled across several thousands of miles to do so, we are grateful to them!

I would like to specially acknowledge and extend my heartfelt thanks and appreciation to the proactive managements lead by Mr Aggarwal at Mullana and Dr Atul Narayan at Meerut of our host colleges, who provided administrative and funding support without which it would be challenging to complete the workshops successfully.

Our deepest appreciation to the Chief guest and Guest of Honor at the 4 venues… for their motivating remarks, time and commitment to the cause of HIV/AIDS.

Dr. I.S Gilada, President – IHO and Dr. Rajendrasinh Rathod, Chairman – MPDCH at Vadodara.
Dr Mukti Narayan, Vice President – SIMS and Dr V B Sahai, Director SIMS at Meerut,
Dr. L C Gupta, - Ex Vice Chancellor – Kurushetra University and Dr S K Khindaria, Principal, MM College of Dental Sciences and Research at Mullana,
Dr. C P Govila, Vice Chancellor – KG Dental University and Dr V.P Sinha, Secretary – BBD Educational Trust at Lucknow

The below mentioned persons have patiently responded to all our queries and comments, helped in facilitating every little detail of the workshop, provided full logistic, technical and administrative support and have played a stellar role in the success of the workshops. I sincerely thank;
Dr. Ravi Kapur and Dr. G.M.Sogi from M.M.College of Dental Sciences and Research, Mullana, Haryana.
Dr. R. Pradhan, Dr. H. Gupta and Dr Mrs Gupta from .U.P Dental College & Research Center, Lucknow (UP)
Dr. N K Ahuja and Dr. Sanjeev Kumar from Subharti Dental College, Meerut (UP)
Dr. Rajendrasinh Rathod and Dr. Mrs. M. Bodhanwala from M.P. Dental College & Hospital, Vadodara

A special mention and thanks to all the teams at the respective colleges who worked tirelessly both in front and behind the scenes to make the program a success.

I would like to acknowledge all the local resource persons Dr. Rahul Bansal, Dr. Umesh Lamba (HDACS), Dr. K. Sawlani, Dr. Anuj Maheshwari, Dr. Shefali Nandwani, Dr. G.M.Sogi, Dr. A. K. Tripathi, Dr. Sushmita Saxena, Dr. Soheyil Sheikh, Dr. Ajay Khera (NACO) and Dr.Sushma Yogesh who ensured that the workshop foundation was well laid by covering India
specific topics. This enabled the International faculty to build the tempo of the workshop.

I would like to thank Colgate Palmolive India Ltd for their support towards developing the working tool folder for the workshop. This folder contains all relevant information pertaining to the two days workshop.

We also wish to thank and acknowledge our Travel Partners, GoAir whose support ensured that travel of the Resource Persons was taken care of and was pleasurable.

Last but not the least, I would like to gratefully acknowledge the support from the entire AVNI Team, our printers Hariom and our secretarial services.

AJEY BHARDWAJ
AVNI HEALTH FOUNDATION
The mouth is a mirror, reflecting the health of the rest of the body.

The oral cavity is an important and frequently undervalued source of diagnostic and prognostic information in patients with HIV disease.

Oral healthcare providers (dentists) form the 1\textsuperscript{st} source of healthcare contact to many HIV/AIDS patients for complaints of oral and dental lesions.

AVNI Health Foundation and its collaborative partners addressed the issue of capacity building of Oral Health Care Providers and of stigma and discrimination against PLWHAs.

4 Workshops held between 1-14\textsuperscript{th} March 2007 in cities of Mullana, Meerut, Lucknow & Vadodara present in States with Medium Prevalence and High Vulnerability of HIV/AIDS.

A total of 362 Oral Healthcare providers representing 8 Dental Schools and Private Practitioners participated in the workshops.

Implementation of the Project in a Phase wise manner was to train the Trainers.


An attempt was made to assess the participants feedback on the content of the workshop, Resource Materials provided, Methodology of the workshop and their confidence levels as a trainer.

The report concludes with challenges faced, the highlights of Phase I, and recommendations.

Photographs and Media Coverage of the Workshop have been included.
The HIV/AIDS epidemic is one of the most serious to affect humanity. About 40 million people were infected with HIV in 2001, and millions have already died of AIDS.\footnote{1}

**HIV/AIDS in India:** India has a population of one billion, around half of whom are adults in the sexually active age group. The first AIDS case in India was detected in 1986; since then HIV infection has been reported in all States and Union Territories.

The spread of HIV in India has been diverse, with much of India having a low rate of infection and the epidemic being most extreme in the southern half of the country and in the far north-east. The highest HIV prevalence rates are found in Maharashtra in the west; Andhra Pradesh and Karnataka in the south; and Manipur and Nagaland in the north-east.\footnote{2}

In 2006 UNAIDS estimated that there were 5.6 million people living with HIV in India, which indicated that there were more people with HIV in India than in any other country in the world.\footnote{3} However, NACO disputed this estimate, and claimed that the actual figure was lower.\footnote{4}

Minister for Health & Family Welfare, Dr. Anbumani Ramadoss launched the third Phase of the National AIDS Control Programme (NACP) on 6th July 2007. Speaking on the occasion, he said that there are an estimated 2 million to 3.1 million people infected with HIV/AIDS with a prevalence level of about 0.36%.

**National AIDS Control Organization (NACO)** went through several steps in order to produce the revised AIDS estimates. These included a lengthy process of data collection, revising the estimation methodology to accommodate the improved data, and applying this methodology to derive new estimates of the number of people living with HIV and related indicators.

NACO was supported by several national and international organisations and experts, including the Joint United Nations Programme on HIV/AIDS (UNAIDS), the World Health Organization (WHO), the US Centers for Disease Control (CDC), Family Health International (FHI), the Bill & Melinda Gates Foundation, and USAID.
Why are the figures given above, apparently lower than those published previously by NACO?

This is because the…

- Indian government, together with key stakeholders has been working to improve monitoring systems to arrive at a more accurate understanding of India’s AIDS epidemic.

Wide range (3.4-9.4 million) in the previous estimates which indicates a level of uncertainty in the accuracy of measuring India’s epidemic. The new and much smaller range shows that we are much more confident that we have a more accurate understanding of the epidemic in India due to the improvement in data collection and methodology.

- Surveillance system in recent years has expanded and improved, and increased the population groups covered. More data sources are now considered, including population size estimation data, special studies and behavioural surveillance, as well as the national survey.

Given the above information can we conclude that the India’s epidemic on a decline?

- If the new estimate is lower, it does not mean that the epidemic is decreasing, but that the previous estimation was too high. We have been able to get a more accurate understanding owing to data from the sentinel surveillance system, the population-based survey, the behavioural and biological assessments, and other sources to arrive at a new estimate for the prevalence and other indicators in the country.

- It is important to note that looking at the sentinel sites that have regularly measured prevalence levels over the past several years. When a decrease is found in the data from the same sentinel sites over time this is an indication that the epidemic is decreasing in the areas covered by the sentinel site. For example, some data for these sites through 2006 indicates a decrease among women in antenatal clinics and female sex workers in southern states, like Tamilnadu.

Does this mean that AIDS is no longer a threat in India?

- An overall lower prevalence does not mean that prevention and treatment efforts can be scaled down as this could have serious consequences in a country with a population of over one billion people.

- The improved data show a lower estimate of HIV prevalence than previously thought. However, India still has a severe epidemic which requires a serious response and the emphasis placed by the Indian Government on prevention is more pertinent than ever.
The states highlighted in the Map of India, have recorded the highest levels of HIV prevalence at antenatal and sexually transmitted disease (STD) clinics over recent years. As per the nationwide sentinel surveillance, States have been divided into high prevalence and highly vulnerable (low prevalence) categories.

In Phase I, AVNI Health Foundation conducted workshops on Oral Healthcare & HIV/AIDS: Capacity building of Oral healthcare providers in India, in those states of India that had a high to Moderate prevalence or high to moderate vulnerability of HIV/AIDS.

In the current session of March 2007, the workshops were conducted in States having MODERATE PREVALENCE and HIGH VULNERABILITY of HIV/AIDS:

- Uttar Pradesh - Lucknow and Meerut
- Haryana – Mullana
- Gujarat – Vadodara
The Oral environment

The mouth is a mirror, reflecting the health of the rest of the body. Associations between the mouth and diseases elsewhere in the body – in the heart and lungs, for example – are well-documented. Still, people don’t always recognize oral health as a key measure of overall health.¹

Significance of Oral lesions in HIV infection

The oral cavity is an important and frequently undervalued source of diagnostic and prognostic information in patients with HIV disease.²

Oral lesions in HIV-infected individuals are frequent and varied and are among the first symptoms of infection. Moreover, the presence of pseudo membranous oral candidiasis and oral hairy leukoplakia indicate a strong likelihood that the HIV infection is progressing towards AIDS.

It is not surprising that the early indicators of immunodeficiency occur in the oral cavity: concurrent immune suppression allows normally non-pathogenic microbes to proliferate, resulting in characteristic oral lesions.³

Oral lesions are usually clearly visible and can be diagnosed reliably from the clinical features alone. The lesions parallel the decline in the numbers of CD4 cells and an increase in the viral load, and are independent indicators of disease progression. In cases where a person’s HIV status is unknown, the lesions provide a strong indication of the presence of HIV infection. For this reason the presence and development of oral lesions are used as entry criteria and end-points for prophylaxis and therapy which, explains the weight given to these lesions in HIV prevention and in interventions programs.⁴
Rationale: the Need for Capacity building of Oral Healthcare Providers

The mouth has historically been disconnected from the rest of the body in health sciences, education and practice.\(^8\)

HIV/AIDS is the fastest growing threat to development today and National programmes, international organizations, civil society, communities and individuals have responded to the epidemic.

The WHO Oral Health Programme recommends key activities\(^1\) to encourage oral health personnel and public health practitioners to make oral health status an integral part of optimum case management and of surveillance activities of the diseases associated with HIV infection.

Two of the important areas of focus are:

- **Training of other health professionals** on how to screen for oral lesions and extra-oral manifestations. Using the "Train the trainer" - approach to reach health care workers at community or village level.
- **Dissemination of information** on the disease and its prevention through every possible means of communication.

The Phuket Declaration on Oral Health in HIV/AIDS – 2004\(^{11}\)

The participating countries affirmed their commitment to oral health and general health as a basic human right and resolved to support the work carried out by national and international health authorities, research institutions, non-governmental organizations and civil society for the effective control of HIV/AIDS related oral disease.

Oral Healthcare & HIV/AIDS, the Indian Scenario

Likewise much of the work in Capacity Building and training in HIV/AIDS in India has been focused on Healthcare providers namely, the doctors, nurses, social workers and counselors. The Oral healthcare providers namely, dentists, dental assistants and nursing assistants have been to a large extent marginalized.

The need to expose dentists to information on HIV/AIDS through workshops (as conducted by AVNI Health Foundation) is further emphasized by the fact that many of the oral healthcare providers (dentists) form the 1st source of healthcare contact to many HIV/AIDS patients for complaints of oral and dental lesions, with absolutely no knowledge of their patients HIV status.
As stated before oral lesions not only provide information on the patients HIV status but also indicate the progress of the infection towards AIDS disease along with a number of opportunistic infections (OI).

It has also been well recognized the world over that stigma and discrimination are major challenges to access to care and support for people living with HIV /AIDS (PLWHAs). This is true for India too where stigma against the HIV positive person is a major barrier to access to treatment and care. Medical care providers have been seen to exhibit discriminatory behaviors, namely, avoidance, derogatory comments, refusal to treat PLWHAs, and failure to protect confidentiality globally.

There is a lack of data regarding oral health care providers in India. Much of the above behaviors stem from:

- A lack of complete understanding of the disease and its various aspects,
- A lack of an HIV /AIDS workplace-policy tailored to oral health care providers,
- A lack of skills to work with PLWHAs and
- A lack of a collaborative and referral network system.

The importance of tackling these issues cannot be overemphasized especially in view of the rising number of HIV /AIDS cases in India. As stated earlier, there is a lack of data on oral health care providers and HIV /AIDS in India and through this initiative we hope to address this issue and collect data that can prove invaluable in designing future programs and policies.

**The Response**

In order to meet the challenge of HIV /AIDS in India, it is imperative to build capacity in our public health system. The public health care delivery, health reforms, health policies all need to be reviewed critically if we are to have success with public health challenges such as AIDS.

The inadequacies in the public health delivery system came under scrutiny when the previous government announced a laudable initiative to dispense free antiretroviral drugs to people living with AIDS.

Issues that came to the fore as problems that demanded urgent resolution:
- such as physician training,
- diagnostic facilities and technical capacity to identify and treat patients, &
- Facilities to monitor their progress.
With over three million people in line for antiretroviral treatment if not immediately, but eventually, there is a growing need for large scale training and up-gradation of our public health delivery system so that it can help play an effective role in responding to HIV and the host of opportunistic infections (OI’s) it brings in its wake.

**AVNI Health Foundation and its collaborative partners** addressed the issue of capacity building of oral health care providers and of stigma and discrimination against PLWHAs by:

a. **Building the capacity of oral health care providers** – through training addressing the whole continuum of recognition, diagnosis, treatment, care and support of people living with HIV /AIDS.

b. **Addressing discriminatory behaviors and attitudes** of oral health care providers and staff in dental clinic settings through role models, leadership training and creating a network of providers.

Thus, the PLWHAs and others in the community will benefit by seeking, and receiving more appropriate oral health care services. The oral health care providers will benefit through improved knowledge in infection prevention, HIV case management with special reference to oral lesions, improved attitudes and behaviors of the dental clinic staff with reference to HIV /AIDS.

The country’s HIV /AIDS program will benefit with capacity and skill building of human resource, as well as building a model of team approach to HIV prevention, treatment, care and support.

Lessons learned during the project implementation are in the process of being documented and shared with key stakeholders. The current report is part of this process.

**The Dental colleges also plan to use the experiences / lessons learned** to make recommendations for curriculum review and development in the dental schools and in including questions in exams for dental certification.

The **Resource manual** developed for the program shall also contribute towards this process. At the end of the project, namely, the phases, a comprehensive report and documentation will be disseminated to key stakeholders for program planning and policy implementation.
AVNI Health Foundation in collaboration with International partners and our local hosts, conducted these workshops to build capacity of Oral healthcare providers in various aspects related to HIV/AIDS in India from March 1st to 14th, 2007.

- Department of Comprehensive Dentistry, School of Dentistry, University of Alabama at Birmingham, USA
- The School of Dentistry, The University of the West Indies, St Augustine, Trinidad and Tobago
- M.M. College of Dental Sciences & Research, Mullana 1-2 March 2007
- U.P Dental College & Research Center, Lucknow 6-7 March 2007
- M.P. Dental College, Vadodara 9-10 March 2007
- Subharti Dental College, Meerut 12-13 March 2007

This is one of the steps in the larger initiative to build public health capacity in India by working towards developing and teaching an indigenous public health degree course tailored to the country's needs. (This would translate into certificate, diploma and degree, Masters in Public Health degree courses).
The project has been planned in two phases for each State or geographical area. Phase I is the creation of the Master trainers through Train the Trainer approach, in Phase II the Master trainers will roll out the workshop amongst their colleagues and Students in the colleges and amongst practicing Dentists. In 2007 Phase I was carried out in Mullana, Lucknow, Meerut and Vadodara.

**Needs Assessment**
Prior to the TOT course in the year 2005, a Needs assessment was conducted amongst the dentists in various States. This was done with the help of the then participating dental colleges and the State Dental Associations. The training curriculum was then finalized based on inputs from the needs assessments and experiences of the persons involved, nationally and internationally. The curriculum was made more robust by including feedback form our workshops held in 2005 and 2006.

**Phase I**
AVNI along with a core team of two international experts in the field of oral HIV medicine and national experts in the field of HIV/AIDS conducted training of all the dentists identified in the 3 medium prevalence and high vulnerable states, namely, Gujarat, Uttar Pradesh and Haryana. A select sample of 362 oral health care providers affiliated to 08 Dental schools, IDA societies, and Private practicing dentists in the three States were reached through the two days residential Training of Trainers (TOT) workshop (a total of 4 workshops). The dentists were carefully selected from the dental colleges based on their willingness to give time and commitment to the project.

**Phase II**
Following the TOT, the trainers will conduct Phase II training workshops with their dental colleagues in their respective colleges and State Dental associations over a six-month period.

Each trainer has volunteered to conduct workshops for their dental colleagues. It is proposed that they will cover at least 5 Dentists in their college/IDA CME’s. A network system was devised at the TOT, which will enable trainers to work with one another for these phase II training workshops and in the future. AVNI will provide technical support during the phase I and II training workshops.

Further, linkages with the medical providers, social workers, and nurses will also be explored especially in the Dental school setting. Once again, the team approach to the management of HIV/AIDS will be stressed. A dissemination workshop has been planned for early next year (subject to funds availability) with all key stakeholders to share the entire process.
Training of Trainers - PHASE I

This phase was further divided into:

1. Identifying host colleges
2. Confirmation of funding for the workshops
3. Conducting a needs assessment
4. Developing and finalizing the training agenda
5. Developing and printing the resource manual
6. Finalization of all resource persons and training materials for the workshops
7. TOT workshops conducted at 4 places
8. Workshop certificates and CME credits
9. Pre and Post test results
10. Workshop evaluation

Host colleges

The response: October 2006 to February 2007 – Pre Workshop Planning

The first step in Phase I was to identify host colleges where the workshops would be conducted. AVNI received an overwhelming response from all the colleges that were contacted for this purpose.

Below is the list of the colleges at the different places:

**Uttar Pradesh**
   a. Subharti Dental College, Meerut
   b. U.P Dental College & Research Center, Lucknow

**Haryana**
   M.M. College of Dental Sciences & Research, Mullana

**Gujarat**
   M.P. Dental College & Hospital, Vadodara

Funding agencies

Host colleges – All the colleges were the back bone of the workshop, they supported the workshop by providing complete logistics support, manpower, registrations, arranging local resource persons, managing the inaugural function, inviting the Guest of Honor and the Chief Guest, local hospitality and travel of International resource persons and all local expenses related to the TOT workshop.
Colgate – Contributed towards the resource manual design and development.

Go Air – Contributed towards the Travel of the faculty on sectors where they had flights.


Synopsis of the Needs assessment

Needs assessment was done amongst Dentists during the months of September - November 2005. In all about 120 Dentists from all across Maharashtra and Karnataka participated in providing information in the needs assessment questionnaire. 58% of the respondents were from Karnataka and the balance was from Maharashtra.

Given that HIV/AIDS is such a VAST subject it was important that the workshop was tailored according to the NEEDS and INTEREST LEVELS of the INDIAN Dentist. Furthermore, it was important that the priority of the topics to be addressed also emerged out of the needs assessment.

A mix of Dentists who were attached to the HOST colleges as teaching faculty and had private practices filled in the needs assessment questionnaire.

- All the Dentists were in practice for an average of 3 years and by qualification 60% of them were BDS and the rest were MDS.
- Interestingly none of the Dentists had undergone training on HIV/AIDS for the last ONE year.
- The top 10 Priority topics that emerged post the needs assessment were HIV Virology/pathogenesis, Basic HIV science and Epidemiology, Women with HIV/Pregnancy, Diagnostic Testing (CD4, Viral Load), HIV Prevention, HIV Testing and Counseling, HIV Nutrition, Oral Manifestations in HIV/AIDS, New Therapies, Post Exposure Prophylaxis.
Training agenda

The workshop agenda was designed based on the inputs that we got from the needs assessments. It was modified and made more realistic based on the feedback we received during the workshops conducted in 2005 and 2006. We also got inputs from our National & International partners so that we were able to address the priority areas and at the same time give a Dentist a holistic outlook to HIV/AIDS.

We also included topics related to Myths & HIV, How to minimize Stigma and Discrimination against PLWHA, Basics of counseling skills. Sufficient time was also set aside for group discussion and case presentations that only added to an increase in knowledge base.

The focus was on ‘participatory’ techniques and a conscious attempt was made to keep the sessions as interactive as possible

‘Condom demonstration’ – was a lively session and much appreciated by all. We had sessions conducted by Persons Living with AIDS (PLWHA) at 1 center i.e. Vadodara and we had a HIV/AIDS person walk through the a session at 1 center ie Meerut.


A resource manual tailored to oral health care providers specific to India was developed and updated as part of the project. The core group of national and international trainers also served on the resource manual committee along with AVNI and other key stakeholders. The manual keeps getting updated based experiences and recommendations from the feedback we get from the workshops.

Resource persons and Workshop materials

The International and National Faculty for the workshop was:

International:
- Dr S R Prabhu (arrived in India for the Workshop, but had to leave back for home urgently due to personal reasons) The University of the West Indies. Trinidad and Tobago
- Dr Jeffery Hill, University of Alabama at Birmingham, USA

National:
- Mr. Ajey Bhardwaj, AVNI Health Foundation, Mumbai India
Table 1: (National Faculty at the 4 Workshops)

<table>
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<tr>
<th>Abbreviated Topics</th>
<th>Meerut</th>
<th>Mullana</th>
<th>Lucknow</th>
<th>Vadodara</th>
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<td><strong>Day 1</strong></td>
<td></td>
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<tr>
<td>Epidemiology &amp; Impact</td>
<td>Dr. Rahul Bansal</td>
<td>Dr. Umesh Lamba (HDACS)</td>
<td>Dr. K. Sawlani Dr. Anuj Maheshwari</td>
<td>Local Speakers</td>
</tr>
<tr>
<td>Myths &amp; HIV</td>
<td>Dr. Shefali Nandwani</td>
<td>Dr. G. M. Sogi</td>
<td>Dr. A. K. Tripathi</td>
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<tr>
<td>Modes of Transmission</td>
<td>Dr. Sushmita Saxena</td>
<td>Dr. Soheyl Sheikh</td>
<td>Dr. K. Sawlani Dr. Anuj Maheshwari</td>
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<tr>
<td><strong>Day 2</strong></td>
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<tr>
<td>VCTC &amp; Referral services</td>
<td>Dr. Ajay Khera</td>
<td>-</td>
<td>Dr. Sushma Yogesh</td>
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<tr>
<td>HIV/Treatment</td>
<td>-</td>
<td>-</td>
<td>Dr. Sushma Yogesh</td>
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<td>Sessions by People Living with HIV/AIDS</td>
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**Workshop materials:**

Specially tailored and developed for the workshop, namely:

- Resource manual
- CDs with soft copies of all presentation
- HIVWEB STUDY- an interactive CD

**Resource manual**

A resource manual with details of HIV/AIDS, testing, counseling, services, anti-retroviral treatment, oral lesions was specially developed and printed for the workshops. See Appendix 2 for the table of contents of the manual. For copies and more details please contact the AVNI Health Foundation.
CDs with presentations

All participants were given soft copies of all the presentations made by the Resource persons on a CD.

HIVWEB STUDY

A case-based, interactive module related to clinical care of an HIV patients was given to the participant. Copyright for this CD was waived. We are really thankful to Dr D.H Spach.
Training of Trainers Workshop

Venues and time schedules

Table II

<table>
<thead>
<tr>
<th>Name of College Hosting the Workshop</th>
<th>Venue</th>
<th>Dates March 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>M.M Dental College</td>
<td>Mullana</td>
<td>1-2nd</td>
</tr>
<tr>
<td>U.P Dental College</td>
<td>Lucknow</td>
<td>6-7th</td>
</tr>
<tr>
<td>M.P. Dental College</td>
<td>Vadodara</td>
<td>9-10th</td>
</tr>
<tr>
<td>Subharti Dental College</td>
<td>Meerut</td>
<td>12-13th</td>
</tr>
</tbody>
</table>

Participant profiles

A total of 362 Oral Healthcare providers were trained through the Workshops. The Oral Healthcare providers represented a total of 8 Dental colleges, IDA societies and practicing dentists spread across Mullana, Meerut, Lucknow & Vadodara.

Qualifications
BDS = 56%
MDS=30%
PhD=1%
No response= 11%
Others = 2%

Practicing for Number of Years as Oral Healthcare Provider:
20% were Interns
43% practiced up to 1 year
19% 1-5years
15% 5-10 years
Workshop Objectives

Overall Objectives of the workshop:

- To train and prepare Oral Health Care Providers to deal with essential aspects of dental management and infection control measures that are necessary in an oral health care setting
- To sensitize faculty from dental schools to the importance of inclusion of relevant aspects of HIV/AIDS in the Dental Curriculum

Specific Objectives of the workshop:

- To briefly review and discuss the current state of knowledge of epidemiological/ etiological/ immunological / clinical and management aspects of HIV/AIDS
- To discuss in detail the oral manifestations of HIV/AIDS and their diagnosis and management
- To discuss various issues related to dental management of HIV/AIDS patients
- To discuss infection control issues in dental practice with special reference to HIV/AIDS and co-morbidities such as Hepatitis B (HBV) and Tuberculosis (TB / Koch’s)
- To review and discuss occupational exposure risk in dental practice and management of post exposure prophylaxis
- To present and discuss some useful HIV/AIDS (Dental) case studies
- To sensitize dentists to the issues of stigma and discrimination around HIV/AIDS
Inaugural Function

Dr. I.S Gilada, President – IHO Chief Guest and Dr Rajendrasinh Rathod at Vadodara.

Dr Mukti Narayan, Vice President – SIMS and Dr V B Sahai, Director SIMS Chief Guest and Guest of Honor at Meerut

Dr L C Gupta, - Ex Vice Chancellor – Kurushetra University and Dr S K Khindria, Principal, MM College of Dental Sciences and Research Chief Guest and Guest of Honor at Mullana

Dr C P Govila, Vice Chancellor – KG Dental University and Dr V.P Sinha, Secretary – BBD Educational Trust-Chief Guest and Guest of Honor at Lucknow

At all the Inaugural functions The Guest of Honor/ Chief Guest released the Resource Manual, which was specially developed for the Oral Healthcare Provider.

Workshop certificates and UAB CME credits

Since this was a TOT workshop participants were informed about the need to attend all the four sessions spread over 2 days of the workshop. Incase they failed do so they were not be entitled to receive the workshop completion certificates. Since a condition like this was implemented for the first time it took the participants some time to adjust to the idea.

The attendance of the participants was taken in the morning and the evening. Only participants who attended all the 4 sessions were given workshop participation certificate. The certificate was jointly given by AVNI Health Foundation and the Host College.

Further, a participant was eligible for a UAB CME credit certificate for 8 hours. A nominal fee was charged for the CME credit, this amount was to be given to UAB CME Department for recognizing the workshop. (Annexure III &IV)
AVNI Health Foundation and its Collaborative partners conduct the Oral Healthcare & HIV/AIDS Workshop every year since 2005.

This year the workshop was conducted from 1-14th March 2007 in 4 cities in various states of India. These cities were Mullana, Lucknow, Vadodara and Meerut. A total of Participants were trained in this workshop with almost 31% being from Vadodara, 26% from Meerut, 22% from Lucknow and 21% from Mullana.

55% of the participants were female dentists while the rest, 45% were males.
The age wise distribution of the participants was as follows: Almost 88% of the participants were between the ages of 18-30 years, while 8% were between the age of 31-40 years and the rest 3% and 1% were between the ages of 41-50 years and 51-60 years respectively.

At the initiation of the workshop, all participants were administered a 10 item Pre-test questionnaire at each of the 4 sites. An identical 10 item Post – Test questionnaire was administered at the conclusion of the workshop. The questionnaire addresses the Workshop objectives.

The Test results were analyzed to measure Knowledge, Attitude, Behaviour and Practices (KABP) of the Dentists towards “People living with HIV/AIDS” (PLWHA).

The data was entered into Microsoft Excel Sheet and analyzed by using Statistical Package for Social Sciences, version 10.0 (SPSS).

There were a total of 300 pre and post test responses which were submitted. The results are illustrated with the assistance of Charts/Graphs using Microsoft Excel Software with the relevant discussion.
1. Documented means of HIV Transmission (Annexure V)
The participants were asked to enumerate the three most documented means of HIV transmission (open-ended question).

The pre and post test responses were found to be very similar with 73% and 76% participants saying that the “Sexual route” was the most documented means of HIV transmission respectively. The second most documented means remained constant with 52% participants mentioning “Blood and blood related products”
both in pre and post test questionnaires. An increase in post test response from 44% (pre test) to 50% was seen while assessing the third most documented means i.e. **Mother to Child Transmission of HIV (MTCT)**

2. **Most common mode of transmission of HIV/AIDS in India**

![Fig 2 a: Pre Test Responses: Most common mode of transmission of HIV/AIDS in India](image)

On analyzing the data for the responses to the most common mode of transmission of HIV/AIDS in India, the Pretest analysis showed 66% of responses mentioning the Heterosexual route which increased to 83% in the posttest responses.

![Fig 2 b: Post Test Responses: Most common mode of transmission of HIV/AIDS in India](image)

The post test responses to Mother to child transmission (MTCT) of HIV as a common mode of transmission were nil probably as the workshop emphasized the importance of sexual transmission of HIV, especially the heterosexual route.
3. A person with HIV can look healthy The prevailing misconception of being able to identify an HIV positive person by just looking at him/her needs to be eliminated. But the study group being Health Professionals, the pretest responses (93%) confirmed that Dentists were well aware of the fact that an HIV positive person can “look healthy”.

The post test responses cemented this fact and hence 99% responded in the affirmative. The objective for future workshops would be to achieve a 100% post test response rate to this item.

On analyzing the City wise distribution of data, it was seen that this objective had been partly achieved in this session itself. The post test response to this item was 100% in the sessions conducted at Mullana, Lucknow and Meerut. Only Vadodara cited a 97% post test response compared to 91% pre-test-score.
4. Oral Lesions are often 1st manifestations of AIDS

Oral Lesions are an important component of the spectrum of disease seen in HIV infection. There are almost 40 different lesions reported in association with HIV disease. Presence of a number of these lesions may be an early diagnostic indicator of immunodeficiency and HIV infection. Some oral lesions are also indicators of the progression of disease. 10,12

On analyzing the data, only 66% posttest, compared to 70% pretest responses affirmed that oral lesions are often the 1st manifestations of AIDS disease.

A decrease in post test Knowledge levels was therefore observed. This could be probably explained by the fact that the workshop exposed the participants to the various manifestations of HIV/AIDS disease. Hence the results could be affected by a “Recall Bias”.

The importance of oral lesions as an early manifestation needs to be emphasized as the WHO case definition for AIDS surveillance includes Oropharyngeal candidiasis. 13
5. It is important to know the HIV status of Dental patients

An alarmingly high, **90% (pre-test)** of the respondents, answered that it was important to know the HIV status of dental patients attending the OPD’s. The workshop endeavored to dispel this mis-conception by emphasizing the pitfalls related to diagnosing HIV infection during the “window period”. A negative test, during the window period, would therefore lead to a laxity in practicing Universal safety precautions (USP) and Infection control practices, hence exposing the Health professionals to an even greater occupational risk of contracting HIV infection. On analysis of the post test data, only 65% of the respondents replied in affirmation i.e. a **25% decrease was observed**.

On analyzing the City wise distribution of data, a similar trend was observed. The **Vadodara session was notable** as it registered a **23% decrease** in the post test responses to know the HIV status i.e. 85% pre test and 42% post test responses.
1. “HIV + persons should be treated differently”

Fig 6: Pre & Post Test Responses:
HIV + persons should be treated differently

A high pre test response rate of 63% was observed to this item, which decreased to 19% in the post test assessment. Similarly respondents who stated that the statement was false was only 34% (pretest) which showed a favorable increase to almost double, that is an 80% response rate on post test assessment.

The City wise analysis showed a similar favorable increase in post test response rate stating that the statement was “False”.

The City wise distribution

- Mullana: 64% True, 15% False, 4% No reply
- Lucknow: 85% True, 11% False, 3% No reply
- Vadodara: 68% True, 30% False, 2% No reply
- Meerut: 70% True, 38% False, 3% No reply
- City wise response rate stating that the statement was “False”.

The City wise analysis showed a similar favorable increase in post test response rate stating that the statement was “False”.

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The item was further analyzed with regards to the reasons as to why & whether the HIV + patients should be treated differently or not, based on the “True” and “False” responses given by the respondents.

**True:** the reasons given were,

- To prevent cross-infection
- Treatment modalities for HIV + patients vary.
- Specific precautions/Care/Counseling to be given only to HIV + persons
- Such patients should be taken in last and instruments sterilized afterwards

**False:** The reasons stated were,

- USP should be followed for all patients irrespective of their HIV status
- Aseptic precautions should be procedure specific, not patient specific
- PLWHA should be treated with dignity without subjecting them to stigma & discrimination.

**Confidence Levels:**

2. “I am Confident to manage HIV + patients”

![Fig 7: Pre & Post Test Responses: Levels of Confidence to manage HIV + patients](image)

This item is evaluated by using a 5-point Likert Scale with a positive response being “Very Confident” to a negative response of “Not Confident”.

It was observed that the **Confidence levels of pretest response went up from 10% to 30% in the “Very confident” category and 35% to 53% in the “Confident” category.**
It was also striking to note that only 1% of the respondents stated that they were “Not Confident” to manage HIV + patients during the post test assessment compared to an astounding 99% of the respondents who expressed some level of confidence to manage HIV + patients.

On analyzing the City wise distribution of data, a similar increase in the post test levels of confidence was observed, especially “Very Confident” and “Confident”. Also notable was the almost nil levels of “Not Confident” in the post test responses.

The workshop had extensively covered the following subjects:

- Modes of Occupational exposure
- Infection Control measures with a focus on Dental setting
- Universal Safety Precautions (USP)
- Post Exposure Prophylaxis (PEP)

Hence enabling the respondents to express increased Confidence Levels, to manage HIV + patients, in the post test sessions.

Awareness Levels:

8.1 I am Aware about Post Exposure Prophylaxis (PEP)

![Fig 8.1: Pre & Post Test Responses: Levels of Awareness about Post Exposure Prophylaxis (PEP)](image)

On analyzing the pre test responses to this item, it was observed that 39% of the respondents were unaware compared to 56% respondents who were aware about Post Exposure Prophylaxis (PEP) guidelines. The Awareness levels of the respondents increased to 93% in the post test session compared to only 2% of the respondents who stated that they were not aware.
On analyzing the City wise distribution of data, a similar trend was observed with an increase in the post test awareness levels with respect to Post Exposure Prophylaxis (PEP).

The workshop had extensive coverage on the “Modes of Occupational exposure in a Dental setting”. The fact that most occupational exposures do not lead to HIV infection and the various types of exposure to which PEP is recommended was explained to the participants. The recommended guidelines were explained with the assistance of flowcharts to determine the Exposure code and HIV status code. The drugs recommended, course of drugs to be taken and the facts known regarding the safety and adverse reactions to the drugs were also explained.

The increase in Awareness levels, from 56% to 93% can thus be attributed to the workshop emphasizing the participants with the need to know the guidelines regarding Post Exposure Prophylaxis (PEP). It is critical for Health Professionals, who have an occupational risk of exposure to HIV, to be aware of PEP.

**Awareness Levels**

8.2 I am Aware about Universal Safety Precautions (USP)

"Universal precautions," as defined by CDC, are a set of precautions designed to prevent transmission of human immunodeficiency virus (HIV), hepatitis B virus (HBV), and other bloodborne pathogens when providing first aid or health care. Under universal precautions, blood and certain body fluids of all patients are considered potentially infectious for HIV, HBV and other bloodborne pathogens.5

CDC also cites “Precautions for Dentistry”, that blood, saliva, and gingival fluid from ALL dental patients should be considered infective.6
The pre test and post test **levels of awareness** about Universal Safety Precautions (USP) were both found to be **very high**, i.e. **89% and 94%** respectively. This indicates that the Dentist community is aware about the Universal Safety Precautions (USP) to be used in oral healthcare settings.

The City wise analysis of data also indicated a similar trend in high pre and post test levels of awareness regarding Universal Safety Precautions.

The workshop emphasized the role of an **Oral Healthcare - Infection Control Program** in providing a safe working environment to reduce the risk of healthcare associated infections among patients and occupational exposures among Dental Healthcare Personnel.

**Use of Personal protective equipment (PPE)** was also advocated with special reference to surgical masks, protective eyewear, clothing and gloves.

**Awareness Levels**

8.3 I am Aware about Referral Services for HIV/AIDS patients

![Fig 8.3: Pre & Post Test Responses: Levels of Awareness about Referral services for HIV/AIDS patients](image)

This item assessed the awareness levels of the Oral Healthcare Providers to the existing referral services available for those at risk for contracting HIV/AIDS. E.g. **Drop in centers, Voluntary Counseling & Testing Centers (VCTC)**.

The pre test awareness level of the respondents was observed to be only **35%** which **increased to 89% in the post workshop test evaluation** hence enhancing the ability of the oral healthcare provider to recommend PLWHA to a wide range of referral services.
In contrast to 59% respondents during the pretest session, who were not aware about Referral Services for HIV/AIDS patients, only 2% respondents in the post test session stated that they were not aware of these services.

On analyzing the City wise distribution of data, a similar trend was observed in the increase in Levels of Awareness about Referral Services for HIV/AIDS.

**Confidence Levels:** This item is evaluated by using a 5-point Likert Scale with a positive response being “Strongly agree” to a negative response of “Strongly disagree”. The bias of “Forced option” has been eliminated by keeping the option of “Neutrality” i.e. neither agree nor disagree. This item consists of 7 sub-sections i.e. A – G, and assesses the Confidence Levels of the Oral Healthcare Providers with respect to deliverance of oral healthcare in the setting of HIV/AIDS and related co-morbidities, hence also addressing the workshop objectives.

Only 8% “strongly agreed” and 38% “agreed” in the pre test responses, compared to which an increased response rate of 19% (strongly agreed) and 58% (agreed) was observed in the post – workshop test evaluation. A total
“agreement” response rate of 77% was hence observed in the post test analysis.

A 26% “agree” and 7% “strongly agree” pre test response rate was observed compared to an increased post test response rate of 53% agreed and 14% strongly agreed i.e. almost double the pre test response rate.

The workshop included a number of sessions with expert resource persons appraising the participants with identification of the oral manifestations of HIV/AIDS, treatment component and follow up protocols of HIV/AIDS infected patients with oral infections.

Almost 51% of the respondents “agreed” and 12% “strongly agreed” to be confident to identify and treat gingival and periodontal lesions in HIV/AIDS in the pretest evaluation. An increase was observed in the post test evaluation of up to 64% “agreed” and 23% “strongly agreed”.

Fig 9.B. I am Confident to Identify & treat Oral malignancies in HIV/AIDS

Fig 9.C. I am confident to Identify & treat gingival & periodontal lesions in HIV/AIDS
This item addresses the workshop objective of emphasizing the need for Infection Control Practices in Oral Healthcare (Dental Practice) with special reference to blood borne infections such as HIV/AIDS and co-morbidities such as Hepatitis B. An increased trend was observed while assessing the Levels of Confidence to treat HIV/AIDS Patients using Universal Safety Precautions (USP). 52% (posttest) compared to 42% (pretest) “agreed” and 42% (posttest) compared to a 28% (pretest) respondents “strongly agreed” to be confident to treat HIV/AIDS patients using USP.

The workshop objectives targeted issues such as:

- Infection Control measures to combat blood borne infections (HIV/AIDS)
- To review the risk of occupational exposure in Dental practice and its management with Post Exposure Prophylaxis (PEP) and
It was striking to observe 47% of the respondents “strongly agree” to be confident to use infection control measures in their Dental setup in the post test evaluation compared to a 33% pre test score.

48% “agree” and 45% “strongly agree” to be confident to recommend PEP in dental practice in the post test evaluation compared to 40% “agree” and 22% “strongly agree” during the pre test evaluation. It was also observed that the percentage of “disagree” came down from 14% (pretest) to 1% (post test).

HIV infection is a chronic and progressive disease process. The primary healthcare provider i.e. general practitioner/dental practitioner (Dentist) are usually the only healthcare resources that PLWHA have, particularly during the long asymptomatic stage of the infection.
The ultimate “Gold Standard” of assessing the Confidence Levels of the Oral Health care provider is therefore the ability to provide routine dental care to PLWHA. High confidence levels of 50% “agree” and 41% “strongly agree” were observed in the post test evaluation.

Comfort Levels

It is critical for the Oral Healthcare Provider (Dentist) to feel a sense of comfort while dispensing oral healthcare to patients having HIV/AIDS. The presence of a high level of Knowledge, Awareness/ Attitude and Skills may not be of any help if the Oral healthcare provider does not feel comfortable to implement his skills. This item has therefore been included to assess the comfort levels of the oral health care provider while treating PLWHA.

This item is evaluated by using a 5 - point Likert Scale with a positive response being “Comfortable” to a negative response of “Uncomfortable”. The bias of “Forced option” has been eliminated by keeping the option of “Neutrality” i.e. neither agree nor disagree. The item consists of 5 sub-sections A - E which assess the comfort levels of the respondents with respect to delivering Oral Healthcare to patients at risk of contracting HIV/AIDS.

Since most of the answers were either Uncomfortable or Comfortable, the positive and negative options have been clubbed together.

Comfort Levels

10. A. To treat a person with HIV not AIDS

Only 51% of the respondents stated that they were comfortable to treat a person with HIV Infection not AIDS in the pre test evaluation. This response rate increased to 84% in the post test evaluation. Of the 19% (pretest) respondents who stated that they were uncomfortable to treat a person with HIV infection, only 5% stated to be uncomfortable in the post test evaluation.
10. B. To treat a person with AIDS

The pre test response rate to this item was observed to be only 32% compared to almost doubling of the post test response rate of 65%. A higher percentage of respondents stated that they were comfortable to treat a patient having AIDS in the post workshop assessment.

The most common mode of transmission of HIV/AIDS in India is the heterosexual route. But the other groups known to be at a risk to contracting HIV/AIDS are Homosexuals especially Men having sex with Men (MSM) and Injectable Drug Users (IDU).

The following sub-sections assessed the comfort levels of the respondents to deliver oral healthcare to groups at risk of contracting HIV/AIDS.

10. C. To treat a person having sexual relations with persons of the same sex

The pre test response rate to this item was observed to be only 32% compared to almost doubling of the post test response rate of 65%. A higher percentage of respondents stated that they were comfortable to treat a patient having AIDS in the post workshop assessment.

The most common mode of transmission of HIV/AIDS in India is the heterosexual route. But the other groups known to be at a risk to contracting HIV/AIDS are Homosexuals especially Men having sex with Men (MSM) and Injectable Drug Users (IDU).

The following sub-sections assessed the comfort levels of the respondents to deliver oral healthcare to groups at risk of contracting HIV/AIDS.
A 44% response rate was observed to this item in the pre test assessment, which **increased to a 68% of post test** response rate. Also the level of “uncomfortable” decreased from 25% (pretest) to 12% (post test) after the workshop.

10. **D. To treat a person with Drug Dependency**

![Graph showing comfort levels for treating a person with Drug Dependency]

A **similar increase of 67%** was observed in the post test response rate to this item compared to a 44% pre test response. The level of ‘uncomfortable’ was also decreased by half i.e. from 18% to 9% (post test).

10. **E. To treat a person whose HIV status is not known**

![Graph showing comfort levels for treating a person whose HIV status is not known]

In **item 5, 90% (pre-test)** of the respondents (Ref Pg No.14) answered that it was important to know the HIV status of dental patients attending the OPD’s. But a 25% decrease was observed in the post workshop evaluation.
This was similarly reflected in the comfort levels of the respondents when 76% (post test) stated that they were comfortable to treat a person whose HIV status is not known compared to only 51% (pre test) i.e. **A 25% increase in “comfort levels” was observed in the post workshop assessment.**

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**Oral Healthcare and HIV/AIDS March 2007**  
**Feedback**

The Workshop concluded with the participants being asked to complete a 2 page Feedback form. *(Annexure VI)*

This item was evaluated by using a **5-point Likert Scale** with a positive response being “Strongly agree” to a negative response of “Strongly disagree”.

The participants were asked to comment on the various aspects of the workshop:

A. Well organized  
B. Informative  
C. Met expectations.  
D. Learned new things  
E. Got a chance to participate fully  
F. Material provided was adequate  
G. Main issues on Dental care and HIV/AIDS were covered  
H. Resource Manual was helpful  
I. Logistical arrangements (food/conference room/ ventilation) were satisfactory

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![Feedback Chart](image)

**Fig 1. Feedback from the Participants about the Workshop~March 2007**
All items scored positively for “strongly agree” and “agree”, especially a 60% response rate was observed for “Main issues on Dental care & HIV/AIDS”, “Learned new things” 60% and “Workshop was informative” 59%
The respondents were asked to list three areas which they thought the workshop had covered best and the topics which the workshop had omitted, in a descending order giving it a numeric value from 1, 2 and 3.

**Fig 2: List Three areas that the Workshop covered best.**

<table>
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<th>1</th>
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<th>3</th>
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<td>USP</td>
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20% of the respondents stated that the session on Post exposure Prophylaxis (PEP) was covered best followed by 22% stating session on Universal Safety Precautions (USP) and third best was stated to be “Modes of Transmission” 17%, 18% USP and 17% PEP.

**Fig 3: List three areas which the Workshop omitted**

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<th>Topic</th>
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<tr>
<td>Each Topic should be covered in depth</td>
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<td>25</td>
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<td>Role of Society/Ethics</td>
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<td>9</td>
<td></td>
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<tr>
<td>Psychosocial/Pre marriage counseling</td>
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<td>16</td>
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<tr>
<td>Demo of Infection Control Practices</td>
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<tr>
<td>Skills in history taking of HIV/AIDS patients</td>
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<tr>
<td>Others</td>
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<td>No response</td>
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25% Participants felt that the topics should have been covered in depth, 16% again felt the same and 9% felt that the role of society/ethical considerations was not taken.
Confidence Levels as a Trainer

The feedback form included items with regards to assessing the Participants confidence to impart the knowledge and skills to his/her other colleagues and also to be a Resource person in future workshops.

Fig 4 & 5: Feedback: Confidence Levels

To train colleagues in Oral health & HIV/AIDS

A strikingly high, 90% of the respondents stated that they felt confident to train their colleagues in Oral Health and HIV/AIDS. Only 9% respondents said “No” and the rest 1% did not reply.

To participate in future workshops as a Resource Person

Again a notable high, 92% responded that they were confident to participate as a Resource person in future workshops compared to 7% who stated “No” and 1% who did not reply.

It is of utmost importance to have a cadre of competent and confident Trainers to disseminate information on HIV/AIDS and Oral Healthcare. They have an important role to play in the feasibility and sustainability of similar future workshops at the regional level.
It was observed that 17% of the respondents stated that AVNI should conduct regular workshops/CME and 10% stated that it should provide for regular “Updates” on HIV/AIDS and Oral healthcare.

14% respondents stated that “AVNI was doing a great job already!”

The other suggestions included establishing an AIDS cell which could provide for 24/7 information on their queries regarding HIV/AIDS. It was also suggested to provide information and assistance on conducting research in the field of Oral healthcare and HIV/AIDS.
Participants were asked to give their valuable suggestions to improve the sessions. 33% felt that the emphasis should be more on “Patient care”.

**23% stated “Thanks AVNI- well organized”**.

The other suggestions were to “announce the workshop dates in advance” and “take attendance in every session”.

An important suggestion of involving the General practitioners was also made.
Fig 8: Participants Feedback on Refresher Workshops to be conducted

The participants were asked to give their suggestions as to how frequently the workshop should be conducted.

40% stated that it should be conducted annually; whereas 23% stated that it should be conducted bi-annually.

ARE DENTISTS TREATING & GETTING EXPOSED TO HIV/AIDS PATIENTS IN THEIR PRACTICE?

- **Number of HIV + patients treated in last 1 year:**
  33% Dentists had treated atleast 1 patient in the last 1 year, 35% had treated upto 5 patients and 3% had treated 6 HIV+ patients in the last 1 year.
  28% did not respond to this question.

- **Number of HIV+ patients with Oral complaints:**
  14% had treated atleast 1 patient with oral complaints, 49% had treated upto 5 patients and 3% more than 5 patients in the last 1 year.
  34% did not respond to this question.

- **Number of the HIV +patients referred:**
  47% dentists had referred upto 5 HIV+ patients in the past 1 year, while 20% had referred atleast 1 HIV + patient.
  33% did not respond to this question.
**Challenges & Highlights**

**Challenges faced in Phase I**

- Lack of Data in India on HIV/AIDS and Oral healthcare made it challenging as we had a clean slate to start writing chapters for this discipline.
- Convincing several agencies and key stakeholders on the need for giving funds, resources, manpower for the proposal
- Funding Travel of International Resource team

**Highlights of Phase I – 2007**

- Dental Council of India (DCI), through the initiative of Dr Anil Kohli joined hands with us to move the program forward in all the dental colleges of India.
- DCI and AVNI jointly met with National AIDS Control Organization (NACO). NACO was happy with the work done so far and showed interest in taking part and in supporting the program nationally.
It was an excellent opportunity for us at AVNI to have conducted this much-needed workshop amongst Oral health care providers.

The workshop met the objectives that we set out to achieve as is evident from all the Pre & Post Test results and also the feedback we received from the participants.

We will be following up on the **PHASE II implementation** in these states so as to ensure continuity and will also commence planning to roll the workshop in few more states from where we have already received high interest levels.
2. UNAIDS, 2006 Report on the global AIDS epidemic; cited: 2/08/07
4. UNAIDS (2007, July 6th), '25 million people in India living with HIV, according to new estimates', press release
5. Media Sources, NACO and AVERT.
9. Iain L C Chapple, John Hamburger, available on url
   http://sti.bmj.com/cgi/content/extract/76/4/236 cited: 1st Aug 2007
   A Commitment to action. cited: 4/08/07

   Principles of Internal Medicine. 15th Edition, Volume I, Chapter 205, Pg

   5, Pg 291. K.Park. Bhanot Publisher’s, Jabalpur 2007.

14. Universal Precautions for Prevention of Transmission of HIV and Other
   Bloodborne Infections, Fact Sheet.
   http://www.cdc.gov/ncidod/dhqp/bp_universal_precautions.html cited:
   3/08/07

15. Centers for Disease Control. Recommendations for prevention of HIV
   transmission in health-care settings. Precautions in Dentistry. MMWR
   1987; 36 (suppl no. 2S).
<table>
<thead>
<tr>
<th>DAY</th>
<th>Topic</th>
<th>Presenter/Person in charge</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 – 9:30 am</td>
<td>Welcome and Introductions Ice Breaker Review of workshop objectives / schedule Pre test evaluation</td>
<td>Ajey Bhardwaj</td>
<td>AVNI</td>
</tr>
<tr>
<td>9:30 – 10:30 am</td>
<td>HIV /AIDS: Epidemiology/Impact of HIV Disease on the individual/society/country</td>
<td>Local Resource person</td>
<td>Host college</td>
</tr>
<tr>
<td>10:30-11:00 am</td>
<td>Myths and HIV</td>
<td>Local Resource person</td>
<td>AVNI</td>
</tr>
<tr>
<td>11:00 – 11:30 am</td>
<td>TEA BREAK AND GROUP PHOTOGRAPH</td>
<td>Local Workshop Coordinator</td>
<td>Host college</td>
</tr>
<tr>
<td>11:30- 1.00 pm</td>
<td>Mode of Transmission/Natural History /Clinical Manifestations of HIV/AIDS</td>
<td>Local Person</td>
<td>Host college</td>
</tr>
<tr>
<td>1.00-2.00 pm</td>
<td>LUNCH BREAK</td>
<td>Local Workshop Coordinator</td>
<td>Host college</td>
</tr>
<tr>
<td>2:00 – 2.45 pm</td>
<td>Oral Manifestations in Persons Living with HIV /AIDS-I</td>
<td>Dr.Jeffery Hill</td>
<td>UAB</td>
</tr>
<tr>
<td>2:45 – 3:15 pm</td>
<td>Tea break</td>
<td>Local Workshop Coordinator</td>
<td>Host college</td>
</tr>
<tr>
<td>3:15-4:00 pm</td>
<td>Oral Manifestations in Persons Living with HIV/AIDS-II</td>
<td>Dr.Jeffery Hill</td>
<td>UAB</td>
</tr>
<tr>
<td>4:00- 5:00 pm</td>
<td>Dental Treatment Protocol for HIV infected Patients</td>
<td>Dr Jeffery Hill</td>
<td>UAB</td>
</tr>
<tr>
<td>5:00 – 5:45 pm</td>
<td>Sharing Experiences and Group Assignments – groups can sit together at the workshop venue and complete discussions</td>
<td>Ajey Bhardwaj Dr Jeffery Hill</td>
<td>AVNI UAB</td>
</tr>
<tr>
<td>DAY 2</td>
<td>TOPIC</td>
<td>Presenter/Person in charge</td>
<td>Comment</td>
</tr>
<tr>
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</tr>
<tr>
<td>9.00 –10.00am</td>
<td>Overview of Voluntary Counseling and Testing, Referral Services And HIV / AIDS Treatment Overview – focus on India</td>
<td>Local person</td>
<td>Host College</td>
</tr>
<tr>
<td>10.00 – 11.00am</td>
<td>Infection Control: Focus on dental setting</td>
<td>Dr Jeffery Hill</td>
<td>UAB</td>
</tr>
<tr>
<td>11:00 – 11.30 am</td>
<td>TEA BREAK</td>
<td>Local Workshop Coordinator</td>
<td>Host college</td>
</tr>
<tr>
<td>11.30 – 1:00 pm</td>
<td>Occupational Risk: Management of Post Exposure Prophylaxis</td>
<td>Dr Jeffery Hill</td>
<td>UAB</td>
</tr>
<tr>
<td>1:00 –2:00pm</td>
<td>Lunch</td>
<td>Local Workshop Coordinator</td>
<td>Host college</td>
</tr>
<tr>
<td>2:00 – 3:00 pm</td>
<td>Case Studies and Discussion</td>
<td>Dr Jeffery Hill and participants</td>
<td>UAB</td>
</tr>
<tr>
<td>3:00 – 3:30 pm</td>
<td>Tea Break</td>
<td>Local Workshop Coordinator</td>
<td>Host college</td>
</tr>
<tr>
<td>3:30- 4.30 pm</td>
<td>Sharing of experiences and Discussions on group assignments of Day 1</td>
<td>All resource persons/participants</td>
<td></td>
</tr>
<tr>
<td>4.30 – 5:00pm</td>
<td>Next steps and Plan of Action</td>
<td>All resource personnel</td>
<td></td>
</tr>
<tr>
<td>5:00 to 6:00pm</td>
<td>Post test evaluation Feedback and any other business Vote of Thanks</td>
<td>All resource personnel</td>
<td>AVNI Host College</td>
</tr>
<tr>
<td>TITLE</td>
<td>Page Numbers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>--------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Basic facts on HIV /AIDS – Definition, Modes of Spread, Myths</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Epidemiology of HIV /AIDS – Global, Regional, India</td>
<td>6</td>
<td></td>
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</tr>
<tr>
<td>3. India’s response to the AIDS epidemic (NACO)</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Virology</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Testing of HIV /AIDS</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Clinical signs and symptoms</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Oral manifestations of HIV /AIDS</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Antiretroviral Treatment options</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Infection control measures with a focus on the dental setting</td>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Post Exposure Prophylaxis Guidelines</td>
<td>57</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Psychosocial aspects of the disease</td>
<td>63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Counseling in HIV/AIDS</td>
<td>70</td>
<td></td>
<td></td>
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<tr>
<td>13. Prevention aspects of HIV /AIDS</td>
<td>72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Resources - websites, contact info</td>
<td>78</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. References</td>
<td>79</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annexure III & IV- Certificates

(INserted in Hard copies)
Annexure V
Training of Trainers workshop on ‘Oral Health and HIV /AIDS’
Pre and Post Questionnaire

Date: ____________  Place: ____________

Dear Participant,

We appreciate you taking the time to fill out the questionnaire. This form shall help the AVNI Health Foundation in understanding needs and improving our training programs.

1. List the three most consistently documented means of HIV transmission:
   ➢ __________________
   ➢ __________________
   ➢ __________________

2. The most common mode of transmission of HIV /AIDS in India is
   ➢ Hetero sexual transmission
   ➢ Homo sexual transmission
   ➢ Injection drug use
   ➢ Mother to child transmission
   ➢ Blood transfusion

3. A person with HIV can look healthy.  1. True  2. False

4. Oral lesions are often the first manifestations of AIDS disease.
   1. True                 2. False

5. It is important to know the HIV status of all patients attending the dental clinic
   1. True                 2. False

6. HIV positive persons should be treated differently in the dental clinic.
   1. True                 2. False
   Please explain your answer
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

7. How confident are you in working with a HIV positive person in the dental clinic?
   4. Not confident

59
8. Are you aware of:
   1. Post exposure Prophylaxis 1. Yes 2. No
   2. Universal precaution 1. Yes 2. No
   3. Referral services for HIV /AIDS patients 1. Yes 2. No

A: please put a tick (✓) below the appropriate answer:

<table>
<thead>
<tr>
<th>I am confident to</th>
<th>Strongly Agree</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify, diagnose, treat and follow up HIV/ AIDS patients with oral opportunistic infections</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify and treat oral malignancies in HIV /AIDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify and treat gingival and periodontal lesions in HIV /AIDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treat HIV /AIDS patients using all Universal / Standard precautions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use all/ most of infection control measures in my dental office</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recommend Post exposure prophylaxis (PEP) in dental practice</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Carry out routine dental treatment to persons living with HIV /AIDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

B: Please put your score next to each question as follows:
Very Uncomfortable = 1, Uncomfortable = 2, Neutral = 3, Comfortable = 4, Very comfortable = 5

<table>
<thead>
<tr>
<th>I am comfortable to treat</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A person with HIV infection (but not with AIDS)</td>
<td></td>
</tr>
<tr>
<td>A person with AIDS</td>
<td></td>
</tr>
<tr>
<td>A person who has sexual relations with someone of the same sex</td>
<td></td>
</tr>
<tr>
<td>A person with a drug dependency</td>
<td></td>
</tr>
<tr>
<td>A person whose HIV status is not known</td>
<td></td>
</tr>
</tbody>
</table>

Thank you for your participation!
Annexure VI
Feedback Form

Date: _____________________        Place: ________________ ____________

AVNI Health Foundation is seeking your opinion about the workshop. By answering the following questions you will help us in the planning of future skill building sessions.

1. The following are statements that ask for your opinions about the structure and content of the workshop. Please circle the most appropriate answer for EACH item below.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>No opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) The workshop was well organized</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>b) The workshop was very informative</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>c) The workshop met my expectations</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>d) I learned something new at the workshop</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>e) I got a chance to participate fully at the workshop</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>f) The materials distributed were adequate</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>g) The workshop covered the main issues on dental care and HIV /AIDS</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>h) The resource manual was helpful and required</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>i) The logistical arrangements re: venue, stay and food were satisfactory.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

2. Please list three or more areas that you feel the workshop covered best.
   ______________________________________________________________________

3. Please list three or more areas that you felt were omitted at the workshop
   ______________________________________________________________________

4. I feel confident to participate and be a resource person in other such workshops in the future: Yes / No
5. I feel confident to train my colleagues in my dental college / setting on issues pertaining to infection control and HIV/AIDS and Oral Health care: Yes / No

6. In this space provided below, please indicate how you think AVNI Health Foundation could address your needs and those of others in future workshops or other activities.

__________________________________________________________________________________

7. If you would like a review / refresher seminar / workshop, please indicate below as well as how often do you feel such refresher workshops should be held.

__________________________________________________________________________________

8. Please tell us where are you working as of now. (Please tick mark) Government Hospital, Private Hospital, Charity/Community Hospital, Teaching Institution, Private practice, PG Student, House Surgeon/Intern, any other _________

9. What is your Gender?  
   ( ) Male    ( ) Female

10. What is your age? ( ) 18-30 ( ) 31-40 ( ) 41-50 ( ) 51-60 ( ) over 60

11. What is your Qualification? ___________________

12. Number of years as a practicing dentist in the field? ____________________________

13. How many patients do you see on an average per week? ____________

14. How many patients with HIV/AIDS have you seen in your practice? (Say in a period of one year) ____________

15. How many HIV/AIDS patients with oral complaints you have treated? ____________

16. How many HIV/AIDS patients with oral complaints you have referred elsewhere? ________

17. YES I would like to be a Master Trainer with AVNI for taking this initiative forward.
Photographs & Media Coverage of the Workshop

Mullana, Lucknow, Vadodara, Meerut
1st – 14th March 2007
A Collage of Photographs capturing the Workshop

1. A Workshop Banner on display at Lucknow

2. Registration of Participants at Lucknow Workshop

4. Inauguration of the workshop by the Chief Guest & Guest of Honor at Meerut workshop.
5. Workshop Folder given to the Participants at Mullana

6. Dr. I.S. Gilada, Chief Guest at M.P. Dental College, Vadodara
7. Dr. A. Khera, NACO addressing the participants at Meerut

8. Participants at Mullana
9. Team of Organizer’s at Lucknow Workshop

10. Faculty and Participants at Meerut – Group Photo
11. Faculty and Participants at Vadodara – Group Photo

12. Faculty and Participants at Lucknow – Group Photo
HINDUSTAN, MEERUT, 13/03/2007
दंत चिकित्सकों को प्रशिक्षण देंगे 120 सुपर ट्रेनर

* देशभर में ट्रेनिंग देंगे मेरठ के दंत चिकित्सक
* एड्स पीड़ित की सुई लगने पर 24 घंटे में उपचार से बचाव संभव

मेरठ, उत्तर प्रदेश: सुभाषी देटल की टीम ने 120 सुपर ट्रेनर की प्रशिक्षण समाप्त की है। इसके साथ-साथ अन्य अलग-अलग विषयों पर ट्रेनिंग भी है।

एड्स कंट्रोल श्रमन्त्री जे. जयचंद्र ने कहा कि एड्स पीड़ित के लिए प्रायः 7 दिनों में उपचार किया जाता है। इस रेटिंग में दंत चिकित्सक की भूमिका महत्वपूर्ण है।

सुभाषी देटल कलेज के दंत चिकित्सक का प्रशिक्षण 24 घंटे में पूरा किया गया है। इनमें अन्य विषयों का भी शामिल रखा गया है।

एड्स कंट्रोल श्रमन्त्री जे. जयचंद्र ने कहा कि एड्स पीड़ित का उपचार कुछ समय लेता है। इसलिए दंत चिकित्सक की प्रशिक्षण में उचित रीति-रिच्छ का अनुसार कार्य किया जाना चाहिए।