CONTENTS

Preface

1. Training Workshops

2. Completed Studies
   1) Impact Assessment of ICDS Food Fortification in the states of Madhya Pradesh and Uttar Pradesh.
   2) Survey of Immunization Coverage in the State of Delhi.
   4) Health Sector Policy Reform Option Database (HS-PROD) of India.

3. Ongoing Studies
   1) Assessment of the Impact of Food Fortification of Child Health in Uttaranchal
   2) Data Management and Analysis of NACO’s HIV Sentinel Surveillance & HIV Estimation 2006
   3) Capacity Building of the Regional Institutes on Model Based HIV Estimation
   4) Infrastructure and Capacity Building for Clinical Trial Registry
   5) Estimation of AIDS Related Mortality
   6) Estimation of Number of Orphans and Vulnerable Children in India due to HIV/AIDS and Children Requiring ART
   7) Statistical Modeling of HIV/AIDS Epidemic
   8) Integrated Biological and Behavioral Assessment on National Highway
   9) Impact of the First Phase of RCH Programme : Analysis of Data of India’s District Level Survey
  10) Integrated Disease Surveillance Project – NCD Risk Factor Surveillance
  11) A Study on the Prevalence, Epidemiology and Consequences of Obstetric Fistulas in India
  12) Adolescent Friendly Health Services in India – An Evaluation of Quality and Access to Services
  13) Evaluation of Kishori Shakti Yojna

Annual Report 2006-2007
14) Primary Health Centre Facility Survey of Demographically Weak Districts of India
15) Behavioral Surveillance Survey (BSS-II) – Youth Population
16) Evaluation of Viraemia in Health Volunteers after Single Dose Vaccination with JE 14-14-2 : Live Attenuated Vaccine – An open level Prospective Uncontrolled Single Centre Trial

4 Publications
5 Scientific Meetings/Conferences/Workshops Attended/ Lecture Delivered
6 Foreign Visits
7 Members of Scientific Advisory Committee
8 Members of the Ethics Committee
9 Officers of the Institute
PREFACE

This is the second annual report since the Institute was renamed as National Institute of Medical Statistics (NIMS) from IRMS. The Institute organized a number of training programs for the students of statistics and public health of different Universities and Institutes on various aspects of medical statistics. A national workshop on developing protocols for morbidity field surveys was conducted for examining the morbidity patterns in the community. The other capacity building program was for International Statistical Education center (ISEC) Kolkata, The Institute also organized a training program for the WHO fellow from Myanmar.

During the year under report, this Institute handled sixteen scientific projects of which four were reported as complete. There were twelve ongoing programs. The scientific projects have been supported by the organizations like ICMR, NACO, UNAIDS, WHO, UNICEF, WFP, BMGM/FHI etc.

One of the studies by the Institute has assessed the impact of ICDS food fortification on child health in Madhya Pradesh and Uttar Pradesh and has shown considerable improvement in the hemoglobin level among children. Institute has carried out data management and analysis of NACO’s HIV sentinel surveillance & HIV estimation for the year 2005 and appraisal of the methodology for estimation of HIV burden providing epidemiological analysis and HIV estimate annually. Development of “Health Sector Policy Reform Options Database” was taken up by the Institute in collaboration and financial support with CBHI MoHFW and the European Commission Technical Assistance wherein more than 200 entries relating to health sector reforms have been compiled into a report and have been hosted on the website of the Ministry of Health and Family Welfare www.hsprodindia.nic.in.

Having been identified as the national nodal agency, the Institute has initiated the first phase survey of IDSP-NCD Risk Factor Survey under the Ministry of Health and Family Welfare. In the evaluation of Kishore Shakti Yojna of Ministry of Women and Child Development is another responsibility of the Institute. We are also involved in the statistical designing and data management of clinical trial of vaccine for the Japanese Enchalinpsis being held in Pune.
The scientists represented the Institute in various National and International Conference and presented scientific activities. The scientists as well as administrative staff were deputed to various training programs as a part of capacity building measure. The results of the studies carried out by this Institute have found a place in various books and journals of repute. The Institute has good infrastructure facilities for training, and scientific activities with excellent internet facilities.

Arvind Pandey
DIRECTOR
**TRAININGS/WORKSHOPS**

**June 5–July 6 2006**

Summer Training was organized for the students of M.Sc. (Statistics) from BHU during 5 June–6 July 2006 to acquaint them with the practical aspects of Medical Statistics. NIMS/ICMR faculty addressed the students. The training is a regular activity of the Institute.

No of Participants: 6

*Director and scientist NIMS with student from BHU.*

**November 8, 2006**

Training Programme for International Statistical Education Center (ISEC) Kolkata

16 participants from several countries (viz. Sri Lanka, Thailand, Myanmar, Bangladesh, Indonesia, Bhutan, Tonga, Ivory Coast, The Colombia) attended this training Programme.

January 9, 2007
23–24 November 2006

National Workshop on Developing Protocols for Morbidity Field Surveys, at NIMS, New Delhi

This workshop was organized with the following objectives:

1. To prepare a protocol for morbidity surveys for some common major diseases;
2. To share with researchers their experiences and information on disease prevalence based both on field surveys and other sources.

No. of Participants: 27

Training Programme for 2nd semester students of Master in Public Health (FE) National Institute of Communication Diseases, Directorate General of Health Services, 22 Sham Nath Marg, Delhi -110054.

9 January 2007

Training programme for Dr. Maung Maung Toe, Director (Research), Ministry of Health, WHO fellow from Government of MYANMAR at NIMS, Delhi.
Training workshop on Medical Statistics was organized for the Post-Graduates (Statistics) students of Kurukshetra University at the Institute. The training is a regular activity of the Institute.

No of Participants: 16

A two day seminar on “Theoretical and Applied Bayesian Methodologies” was held in the Department of Statistics, Udai Pratap College, Varanasi, during 17–18 March 2007. Prof. Arvind Pandey, Director, National Institute of Medical Statistics inaugurated the conference and delivered a key note address. Dr. Atul Juneja from NIMS also delivered a lecture on Bayesian methods in medical research. The meeting was attended by more than 75 participants from different parts of the country.
22 May 2006

Training to the scientists and technical staff of the Institute on Health Research Information system at NIMS.

26–30 June 06

Training programme on SPSS at NIMS.

July 11–15, 2006

Training of the Trainer for Pre-survey Assessment PSA-2 of the IBBA project at ICSSR, New Delhi

August 7–8, 2006

Training of the Trainer Pre-survey Assessment PSA-3 of the IBBA project at NIMS, New Delhi
August 17–21, 2006

Training of the Trainer of Main Questionnaire of the IBBA project at NIMS, New Delhi

13–14 Sept 06

Training programme on Accounting Software Teller4Gold at NIMS.

February 19–21, 2007

Workshop on “Model based HIV estimation for East and North East states of India” organized by NIMS, New Delhi at NICED, Kolkata.

March 14–16, 2007

Workshop on “Model based HIV estimation for Western states of India” organized by NIMS, New Delhi at IIPS, Mumbai.

March 21–23, 2007

Workshop on “Model based HIV estimation for Southern states of India” organized by NIMS, New Delhi at NIE, Chennai.

March 23, 2007

A national dissemination workshop on the compiled entries related with health sector reforms in India was held at National Institute of Health and Family Welfare. The workshop was attended by the participant all over the country involved in the process of health sector reforms. The workshop was inaugurated by Mr. Naresh Dayal, Hon. Secretary, MIHOFW. Dr. Srivastava, Director General DGHS and Dr. Shiv Lal, Director NICD were also in chair. Dr. Arvind Pandey and Dr. Ahosk Kumar, Director CBHI also shared their scientific experiences in this important collaborative venture of CBHI, NIMS and ECTA.
Secretary releasing the HS-PROD report
C1. IMPACT OF ICDS FOOD FORTIFICATION ON CHILD HEALTH IN MADHYA PRADESH AND UTTAR PRADESH

Date of commencement: March 2002 (U.P) February 2003 (M.P)
Date of Completion: January 2006 (U.P), July 2005 (M.P)
Funding Agency: World Food Programme

Objectives

1. To determine the baseline prevalence of iron and Vitamin-A deficiencies among children 12-59 months;
2. To monitor the supplementation of fortified food; and
3. To undertake end line evaluation for evaluating the impact of supplementation.

Sample Design and Data Collection

The districts(blocks) selected for the studies were those where fortified food were to be supplied in phases. Thirty villages were selected by Probability Proportion to Size (PPS) from each of these blocks. From each selected village, 25 children were selected for the feeding practices, anthropometrics measurements, nutritional deficiency disorders and dietary intake. In addition, 10 children were also selected from each village for the Bio-chemical examinations for evaluating the prevalence of anemia on the basis of hemoglobin, Vitamin A deficiency on the basis of serum retinol and worm presence through stool examination. The sample size covered works out as 750 children from the district. The sample size was worked out by assuming $\mu = .05$, 80% of power of test $p_1 = 0.15$, $p_2 = 0.10$ and taking into account the design effect as 1.5. The prevalence of severe anemia was around $p_1 = 15\%$ and it was expected that it will be reduced to the 10% by the fortified ICDS supplementation.
Survey Findings:

Madhya Pradesh

There is considerable improvement in the prevalence of any anemia in both the blocks, i.e., intervention and control blocks. Though, there has been significant decline in anemia levels in both the blocks, the decline is significantly higher in the intervention block – Sanchi in comparison to control block – Gyaraspur. In Sanchi, the decline was 23.5 percentage points (from 96 per cent at baseline to 73 per cent at the end line) while in Gyaraspur, the decline in any anemia was 15.9 percentage points, from 99.5- 83.6 per cent. The values of ‘t’ for decline in any anemia levels in Sanchi and Gyaraspur are 8.4 and 7.1 respectively. The value of ‘t’ for difference in the decline in any anemia, in intervention and control block is 2.1. All these are statistically significant showing that there was a statistically significant decline in anemia in the intervention block compared to the control block.

Prevalence of severe malnutrition declined considerably in both the blocks. In the intervention block Sanchi, there was a reduction of 13.4% in the prevalence of severe malnutrition while in the control block Gyaraspur, there was a reduction of 19.5% in the prevalence of severe malnutrition. Consequently, the prevalence of moderate malnutrition registered an increase in both the blocks indicating a shift from severe to moderate in the intervention period. There was no significant difference in severe malnutrition by gender.

Uttar Pradesh

Considerable improvement in anemia has been observed among intervention and control blocks. In Maitha, the prevalence of any anemia declined from 86.7 percent at the baseline to 66 percent at endline; while in Rajpur, the decline was from 98.7 percent to 60.6 percent, and in Rajpur, any anemia declined somewhat moderately from 82.3 percent to 60.6 percent. Significant differences were observed in all the blocks. The value of ‘t’ for decline in any anemia levels in Maitha and Rajpur are 8.4 and 7.1 respectively. The value of ‘t’ for difference in the decline in any anemia, in intervention and control block is 2.1. All these are
statistically significant. This clearly shows that there was a statistically significant decline in anemia in the intervention block compared to the control block.

It is observed that there is significant improvement in Serum levels of children at the benchmark stage. The percentage of children below the cut-off 19.9 has gone down from 37.3 at the baseline stage to 13.3 at end line in Maitha, and from 57 to 14.9 in Rajpur. In Rasulabad, this decline, from benchmark to end line was from 24.9 percent to 10.2 percent. All these values are statistically significant reflecting that the decline in Vitamin A deficiency is statistically higher in the intervention blocks as compared to the control block.

C2. SURVEY ON IMMUNIZATION COVERAGE IN THE STATE OF DELHI

Date of commencement: January 2006
Date of Completion: July 2006
Funding Agency: Directorate of Health Services, Govt. of Delhi

Objectives

1. To estimate the immunization coverage level of children and mothers;
2. To estimate the level ANC coverage level among pregnant mothers in Delhi state.

Methodology

Modified WHO 30 cluster survey methodology was adopted for the survey. Delhi was divided into 9 districts and selection of 30 clusters with in each district was done by Probability Proportion to Size (PPS) after arranging them by size of cluster, SC/ST Population and Female literacy. From each cluster, 15 children and 15 mothers were selected. In the survey information has been collected for 4050 infants and equal number of pregnant women. Immunization Coverage and ANC Coverage has been estimated for each district and combined for Delhi state.
Findings

The survey revealed that the immunization Programme could touch about 96 percent of target children and about 93 percent of pregnant women. About 83 percent of children received all the vaccines (BCG, DPT, OPV, and Measles) and 93 percent of pregnant women received at least one ANC and 91 percent received TT2/Booster. About half of partially immunized children (6%) missed the complete immunization by only measles. Institutional deliveries were 69%. While comparing these figures with the NFHS-2, NFHS-3 as well as DLHS (02-04), the considerable improvement has been observed.

Though, coverage levels showed improvements however, coverage was lower among the children belonging to Muslims, Scheduled Caste/ tribes, Illiterate parents and with lower socio-economic status. Institutional deliveries were more in those households who belong to better socio economic conditions. The literacy of mother is the key to the success of the Universal Immunization Programme (UIP).

There is a need to improve IEC activities targeted to educate mothers. Improvement could also be achieved by better follow-up and reducing the drop out rate.

C3. DATA MANAGEMENT AND ANALYSIS OF NACO’S HIV SENTINEL SURVEILLANCE & HIV ESTIMATION 2005

Date of commencement: January 2006
Date of Completion: December 2006
Funding Agency: NACO/WHO

Background

This project is a recurring activity of the Institute every year. Country wide HIV sentinel surveillance was initiated in 1998. National AIDS Control Organization (NACO) invited the National Institute of Medical Statistics (NIMS), Indian Council
of Medical Research (ICMR), in the year 2002, to review the methodology of HIV estimation, validate the assumptions used for deriving the estimate and to carry out in depth epidemiological analysis of the sentinel surveillance data. NIMS is also working out the number of HIV infections in the country since 2003. This round of sentinel surveillance is the last surveillance programme under NACP II. The estimation methodologies also have been reviewed this year. Initial steps have been taken to review the assumptions involved in estimation methods and also to compare different estimation methodologies.

**Objectives**

- To appraise the methodology for estimation of HIV burden
- To provide epidemiological analysis
- To provide HIV estimate annually

The HIV sentinel surveillance (HSS) in India is carried out mainly to monitor the epidemic trend in specific risk groups and to study the extent of spread of infection to general population to formulate appropriate advocacy and policy measures to generate effective control programmes. Two major subpopulations monitored under surveillance programme are:

- STD Clinic attendees – Proxy for High risk behavior population and
- ANC Mothers – Proxy for Low Risk behavior (general) population

There are a few sites representing other high risk groups, intravenous drug users (IDU), male having sex with men (MSM), and female sex workers (FSW). Number of sentinel sites has been increasing every year to get more representative data on HIV prevalence. Table C4.1 shows the number of sentinel sites for each risk group since 1998 and Table C4.2 presents the number of HIV infections and prevalence/1000 population.
Table C3.1: Number of HIV sentinel sites for each risk group 1998–2005

<table>
<thead>
<tr>
<th>Year</th>
<th>ANC</th>
<th>STD</th>
<th>IDU</th>
<th>MSM</th>
<th>FSW</th>
<th>TB</th>
<th>ANC-R</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>94</td>
<td>77</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>180</td>
</tr>
<tr>
<td>1999</td>
<td>94</td>
<td>77</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>180</td>
</tr>
<tr>
<td>2000</td>
<td>118</td>
<td>104</td>
<td>8</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>232</td>
</tr>
<tr>
<td>2001</td>
<td>173</td>
<td>131</td>
<td>12</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>320</td>
</tr>
<tr>
<td>2002</td>
<td>200</td>
<td>166</td>
<td>13</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>384</td>
</tr>
<tr>
<td>2003</td>
<td>271</td>
<td>166</td>
<td>13</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>210</td>
<td>665</td>
</tr>
<tr>
<td>2004</td>
<td>271</td>
<td>166</td>
<td>24</td>
<td>15</td>
<td>42</td>
<td>6</td>
<td>122</td>
<td>646</td>
</tr>
<tr>
<td>2005</td>
<td>275</td>
<td>178</td>
<td>31</td>
<td>18</td>
<td>87</td>
<td>2</td>
<td>126</td>
<td>717</td>
</tr>
</tbody>
</table>

Table C3.2 Estimated number of HIV infections in India since 1998

<table>
<thead>
<tr>
<th>Year</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV infected (million)</td>
<td>3.47</td>
<td>3.68</td>
<td>3.86</td>
<td>3.97</td>
<td>4.58</td>
<td>5.106</td>
<td>5.134</td>
<td>5.206</td>
</tr>
<tr>
<td>Population (million)</td>
<td>496.9</td>
<td>506.9</td>
<td>517.0</td>
<td>528.3</td>
<td>537.9</td>
<td>549.1</td>
<td>560.3</td>
<td>571.8</td>
</tr>
<tr>
<td>Prevalence per 1000</td>
<td>7.0</td>
<td>7.26</td>
<td>7.46</td>
<td>7.51</td>
<td>8.51</td>
<td>9.30</td>
<td>9.16</td>
<td>9.11</td>
</tr>
</tbody>
</table>

The stabilizing trend of the number of infections observed during last three years may be a result of increase in number of sentinel sites in low prevalence states and the implementation of validated assumptions for estimation since 2003. However, there is a need to revisit the assumptions and calibrating the results with findings from other large scale surveys. In order to learn the impact of increase in number of sentinel sites trend analysis has been carried out using sites with consistency of varying length. The trend for consistent sites in high prevalence states for STD and ANC sites is presented in following charts.
Charts C3.1 and C3.2 respectively show the HIV prevalence trend among STD patients and ANC women respectively in Andhra Pradesh for consistent sites. While the level of prevalence has gone down as the number of sites increased initially later the level remains stable even with added number of sites. This shows that HIV prevalence is high only in a very few districts. Only one district, East Godavari in Andhra Pradesh had significantly decreasing trend.
Four other districts, Banaskanta, Vadodara and Rajkot in Gujarat and Ghaziabad in Uttar Pradesh had statistically significant decreasing trend. Decreasing trend was observed in STD sites except in Rajkot where the ANC site had statistically significant decreasing trend.

Statistically significant increasing trend was observed in eight districts (seven STD sites and one ANC sites). Increasing trend of HIV prevalence among general population was observed in Sagar district of Madhya Pradesh. However, there was no STD site in this district to compare the trend in high risk population. Seven districts with statistically significant increase of HIV prevalence among high risk population were Gulbarga in Karnataka, Pune and Chandrapur in Maharashtra, Raipur in Chhattisgarh, Central district of Delhi, Balasore in Orissa and Bardhaman in West Bengal. These districts with p-value for significance are presented in Table C3.3.

The current round of HIV sentinel surveillance being the last one under NACP II a report of the HIV epidemic trend since 1986 is under preparation and will include in-depth epidemiological analysis including trend analysis with standardized prevalence and consistent sites.
Table C3.3 Districts with Significant Changes in Prevalence

<table>
<thead>
<tr>
<th>State</th>
<th>District</th>
<th>Risk Group</th>
<th>Direction of Change</th>
<th>Length of consistency</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>East Godavari</td>
<td>STD</td>
<td>decreasing</td>
<td>4 Years</td>
<td>0.029</td>
</tr>
<tr>
<td>Karnataka</td>
<td>Gulbarga</td>
<td>STD</td>
<td>Increasing</td>
<td>8 Years</td>
<td>0.003</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>Pune</td>
<td>STD</td>
<td>Increasing</td>
<td>8 Years</td>
<td>0.017</td>
</tr>
<tr>
<td></td>
<td>Chandrapur</td>
<td>STD</td>
<td>Increasing</td>
<td>8 Years</td>
<td>0.010</td>
</tr>
<tr>
<td>Gujarat</td>
<td>Banas Kantha</td>
<td>STD</td>
<td>decreasing</td>
<td>5 Years</td>
<td>0.013</td>
</tr>
<tr>
<td></td>
<td>Vadodara</td>
<td>STD</td>
<td>decreasing</td>
<td>5 Years</td>
<td>0.009</td>
</tr>
<tr>
<td></td>
<td>Rajkot</td>
<td>ANC</td>
<td>decreasing</td>
<td>6 Years</td>
<td>0.021</td>
</tr>
<tr>
<td>Chhatrasgarh</td>
<td>Raipur</td>
<td>STD</td>
<td>Increasing</td>
<td>7 Years</td>
<td>0.035</td>
</tr>
<tr>
<td>Delhi</td>
<td>Central</td>
<td>STD</td>
<td>Increasing</td>
<td>5 Years</td>
<td>0.011</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>Sagar</td>
<td>ANC</td>
<td>Increasing</td>
<td>5 Years</td>
<td>0.047</td>
</tr>
<tr>
<td>Orissa</td>
<td>Balasore</td>
<td>STD</td>
<td>Increasing</td>
<td>5 Years</td>
<td>0.028</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>Ghaziabad</td>
<td>STD</td>
<td>decreasing</td>
<td>6 Years</td>
<td>0.033</td>
</tr>
<tr>
<td>West Bengal</td>
<td>Barddhaman</td>
<td>STD</td>
<td>Increasing</td>
<td>8 Years</td>
<td>0.048</td>
</tr>
</tbody>
</table>

C4. “HEALTH SECTOR POLICY REFORM OPTIONS DATABASE (HS-PROD) OF INDIA”

The project on developing “Health Sector Policy Reform Options Database” has been taken up by NIMS with the collaboration and financial grant provided by MoHFW and European Commission Technical Assistance. Health Sector Reform can be described as the sustained and purposeful process of change to improve the performance of health sector, motivated by the failure to deliver outcomes important to society. They are designed to improve functioning and performance of the health sector. Reforms are mainly focused on the needs of poor and under privileged.

The HS-PROD is an online database (www.hsprodindia.nic.in), which is being developed to provide information about Indian good practices and innovations.
in health services management. More than 200 entries or document on health sector reforms has been uploaded to the website after reviewed by PMG members (Experts). These entries are distributed across the states and 16 subject areas. This target has been achieved by the working team with their joint effort, proper planning and management of project. Three regional partnership workshops at New Delhi, Bangalore and Bhubaneswer were organized for sensitization of state level partners and stakeholders. The purpose of organizing the workshop is to disseminate about the website to state level programme implementers and policy makers, identify potential partners in the states and identify the resource person who can assist in gathering information about various initiatives started by the States to improve the quality of health care services. A brief summary of the few selected entries of website are presented below.

**Cheyutha: A helping hand for people living with HIV/AIDS, Andhra Pradesh [173]**

Leprosy Relief Association (LEPRA) Society, an international NGO, launched a programme called ‘Cheyutha’ (helping hand) in the twin cities of Hyderabad and Secunderabad. The project aims to address: quality treatment for opportunistic infections, create an enabling environment for and strengthen the network of People living with HIV/AIDS.
LEPRA Society joined hands with Network of People Positive (NPP+) Andhra Pradesh, a community based organization established by likeminded PLHA to strengthen the network. A PLHA support center (PLHASC) was set up from where counseling is given to PLHA and their families. Marriages between eligible PLHA have been promoted by Cheyutha.

Weekly clinics are organized for poor patients. LEPRA Society also contributes to the drugs distributed free by the government hospitals to below poverty line HIV patients in the State.

Medical camps are organized the first Saturday of every month to provide treatment against opportunistic infections. The health camps are a platform for PLHA networking and increasing Cheyutha membership so as to improve the outreach services.

For referral of PLHA, LEPRA Society established linkages with government and charitable hospitals, such as Tuberculosis Hospital, Freedom Foundation Hospital and Andhra Pradesh Chest Hospital.

**Yeshasvini Health Insurance, Karnataka [111]**

The bed occupancy rate in Karnataka’s hospitals and medical colleges was as low as 35% and a large number of people were dying without proper treatment because people could not afford hospitalization.

The Yeshasvini health insurance scheme, launched in June 2003, was developed by the Narayana Hrudayala Foundation in association with the Department of Cooperation, Government of Karnataka to cater health services for 17 lakhs farmers. The scheme is self-funded and does not have insurance cover from any insurance company.

The scheme offers free consultations, diagnostics at discounted rates and all types of operations for a yearly premium of INR 90 per person. The Government pays INR 30 per member. In 2005 the yearly premium has gone up to INR 120.

The farmers’ cooperatives collect the premiums - in most cases societies pay the annual premium for the members and deduct the amount from their
transactions over the year. The amount from the societies is deposited to the Yeshasvini Trust account.

The first year the scheme had 1.7 million people, which subsequently increased to 2.5 million in the second year. At the end of 18 months more than 22,000 farmers had undergone operations.

**Mitanin Programme, Chhattisgarh [49]**

With a view to organise and empower women in the community and at the same time, improve the health status of the rural population, a statewide Community Health Volunteer (CHV) programme was established.

The CHV is a married woman called a Mitanin (a special kind of friend in local tradition) belonging to a particular community, selected by her community and endorsed by the Panchayat. The Mitanin is trained and is to provide elementary health education, first aid help and over-the-counter drugs, treat minor ailments, provide prompt referral advice if necessary and play a central role in improving the health of her community by setting up women’s committees and helping the panchayats in its health initiatives.

The programme is run by a state-civil society partnership at the state, district and block levels. At the State level, the programme is managed and run by an
advisory committee with the help of technical support from the State Health Resource Centre (SHRC - a body formed in partnership with the government and Action Aid India, an NGO).

The evaluation of the programme showed enhanced health awareness within the community and improvement in some of the health related practices.

**Model of Out Door Patient Department, Himachal Pradesh [159]**

Noticing non-utilization of OPD services due to certain limitations of the existing infrastructure, the Government of Himachal Pradesh decided to develop model OPDs in the State.

One health facility was identified from each constituency and model OPDs were constructed by re-structuring the existing OPD. It included redesigning the facility by making minor changes such as providing shaded waiting areas to the patients, public toilet facilities and identifying spaces for the labour room in order to make the place more comfortable and convenient for patients.

This initiative helped raise service utilization rates by more than doubling the number of new patients visiting these facilities.
Sahiyya Movement, Jharkhand [153]

In order to provide quality healthcare services to the ‘last person in the last household of the last village’ the Government of Jharkhand initiated the Sahiyya Movement after a pilot in 2004 to encourage community participation in delivering quality health care to the needy and empowerment of women.

The programme aims to focus on women and children in marginalized sections of the community, particularly those in remote, unreachable areas. The key activity is formation of Village Health Committee (VHC) and the establishment of community health workers called Sahiyyas.

Sahiyya works to promote health education and is selected by the community and VHC. She is paid by the community in cash or kind. She facilitates integrated mother and child health care and provides family planning advice and first aid.

She is also the village depot holder for all family planning techniques and acts as a link between the community and service providers and works alongside the Anganwadi Worker and Auxiliary Nurse Midwife. Approximately 1,000 VHCs have been formed and 1,000 Sahiyyas chosen. Seven NGOs have joined the scheme and are working in 34 blocks supporting VHCs and Sahiyyas. There is already better convergence between the health, social welfare, public health education and rural development departments.

ONGOING STUDIES

O1. ASSESSMENT OF THE IMPACT OF FOOD FORTIFICATION OF CHILD HEALTH IN UTTARANCHAL

Date of commencement: November 2003
Expected Date of Completion: July 2007
Funding Agency: World Food Programme

Objectives

1. To determine the baseline prevalence of iron and Vitamin-A deficiencies among children 12-59 months;
2. To monitor the supplementation of fortified food; and
3. To undertake end line evaluation for evaluating the impact of supplementation.

**Sample Design and Data Collection**

The districts/blocks selected for the studies were those where fortified food were to be supplied in phases. Thirty villages were selected by Probability Proportion to Size (PPS) from each of these blocks. From each selected village, 25 children were selected for the feeding practices, anthropometrics measurements, nutritional deficiency disorders and dietary intake. In addition, 10 children were also selected from each village for the Bio-chemical examinations for evaluating the prevalence of anemia on the basis of hemoglobin, Vitamin A deficiency on the basis of serum retinol and worm presence through stool examination. The sample size covered works out as 750 children from the district. The sample size was worked out by assuming \( \mu = .05 \), 80% of power of test \( p_1 = 0.15 \), \( p_2 = 0.10 \) and taking into account the design effect as 1.5. The prevalence of severe anemia was around \( p_1 = 15\% \) and it was hoped that it will be reduced to the \( p_2 = 10\% \) by the fortified ICDS supplementation.

**Progress**

The study shows that at the baseline stage, over 90% of children had anemia and females had higher prevalence (97% in comparison to 86% in males). At the end line stage, there was marked improvement in any anemia, the levels coming down to near 60%. The baseline and end line prevalence were significantly different (\( t = 9.4 \)). At the baseline stage, the prevalence of Bitot’s spot was 1.2%, and was slightly higher in females, which shows that it is a public health issue. At the end line stage, no case of Bitot’s Spot was found. At the baseline, around 44% children were moderately underweight and around 13% were severely underweight as per standard deviation classification. There was not much change at the end line stage though moderate underweight showed some decline. The differences were, however, statistically non significant (\( t = 0.43 \)).
O2. DATA MANAGEMENT AND ANALYSIS OF NACO’S HIV SENTINEL SURVEILLANCE & HIV ESTIMATION 2006

Date of commencement: February 2007
Expected date of completion: July 2007
Funding Agency: NACO/WHO

Background

HIV sentinel surveillance 2006 is the first surveillance program under NACP III. Several steps were taken to strengthen the HIV surveillance system during NACP III. Major change related to data management and analysis is the inclusion at least one ANC site in each district leading increased volume of work both for data management and analysis.

Setting up a set of realistic assumptions for HIV estimation is the major challenge this year. Comparison of different estimation methodologies with various options of assumptions have revealed that some of the assumptions currently in use might be a source for over estimation of HIV burden in the country. Since results of three major population/community based surveys (NFHS-3, BSS 2 and IBBA) will be available this year they will be used to calibrate the HIV estimation results.

Objectives

• To appraise the methodology for estimation of HIV burden
• To provide epidemiological analysis
• To provide HIV estimate annually

Progress

The Estimation process and the assumptions had been discussed in several expert group meetings and the decisions will be finalized in a large group of expert group meeting. The data analysis will be initiated as soon as the data is received from NIHFW.
O3. CAPACITY BUILDING OF THE REGIONAL INSTITUTES ON MODEL BASED HIV ESTIMATION

Date of commencement: February 2007
Expected date of completion: July 2007
Funding Agency: NACO/WHO

Background

A meeting of the National Expert Committee on model based estimation and projection of HIV/AIDS burden in India was held on October 25, 2005 recommended strengthening the capacities of state level stakeholders to analyze the HIV sentinel surveillance data generated by them effectively promoting its ownership and consequently the quality. It was suggested that in view of the complexity of HIV epidemic (mixture of generalized and concentrated epidemics) in India and the known data gaps, the models need to be examined and deliberated for their advantages and disadvantages. Regarding the choice of methods the group considered it appropriate to compare the three methods, the workbook approach and Estimation and Projection Package (EPP) developed by WHO/UNAIDS and worksheet approach currently used by NACO.

The committee entrusted the National Institute of Medical Statistics (NIMS) to consolidate the estimates at the national level using all the models and provide comparative picture. It would also try to address some of the research issues identified such as estimates of incidence and mortality related to HIV/AIDS, extent of problem in children, utilization of data generated through surveillance etc. and coordinate capacity building of the institutions identified to apply these models based on the data available in the region and motivate the State AIDS Control Societies (SACS) to facilitate using additional data available with them. The institutions identified are: NIE, Chennai - Southern region, IIPS - Central and Western region, RMRC, Dibrugarh - North-East region, PGIMER, Chandigarh - Northern Region.

The organizations in turn will work out the estimates at state level in respective regions and make presentations before the expert group. In this meeting the
international experts from UNAIDS and WHO should also be requested to participate.

**Specific Objectives**

To consolidate the HIV estimates at the national level using three approaches (the workbook approach and Estimation and Projection Package (EPP) developed by WHO/UNAIDS and worksheet approach currently used by NACO) and provide comparative picture.

To capacitate the regional level organizations identified to apply these models based on the data available in the respective regions.

Strengthen the capacities of state level stakeholders to analyze the data effectively and promote the ownership of data and consequently its quality.

**O4. INFRASTRUCTURE AND CAPACITY BUILDING FOR CLINICAL TRIAL REGISTRY**

Date of commencement: April 2006

Expected date of completion: March 2009

Funding Agency: DST

**Goal and Objectives of Clinical Trial Registry**

The specific goal of setting up a clinical trial registry is to ensure that all clinical trials conducted in India are registered and publicly declared and identifiable and a minimum set of information of all clinical trials are freely available to physicians, health researchers, academicians, pharmaceutical industries as well as to the common man which will increase public trust in the conduct of clinical research.

The objectives of the project are to:

- To establish a search portal which will also serve as a public record system by registering all clinical trials on health products that are drugs, devices, vaccines, herbal drugs and made available to both public and healthcare professionals in an unbiased, scientific and timely manner.
• To create a more complete, authentic, and readily available data of all ongoing and completed clinical trials
• To provide a corrective system against “positive results bias” and “selective reporting” of research results to peer review publication..
• Increase awareness and accountability of all the participants of the clinical trials and also for public access.
• To promote training, assistance and advocacy for clinical trials by creating database and modules of study for various aspects of clinical trials and its registration

Current Status

The CTRI has been launched and registration of prospective trials has started.

The establishment of the CTRI would not only enhance accountability and transparency of clinical trials in our country but will also redefine the way clinical trials are being conducted here. Standard of clinical research is sure to be benefited. It will enable better practice of evidence based medicine as today many clinical trials with unequivocal or negative results are not published which can have a significant impact on treatment decisions.
The Key Features of CTRI:

• All clinical trials with drugs, biotech products, vaccines, biologicals and traditional medicines are expected to be registered with the CTRI.

• The CTRI will collect information on all prospective clinical trials to be undertaken in India through an internet linked online portal (Figure 5) and make this information available to the public.
The CTRI is a freely available and searchable Primary register which is linked to the WHO search portal, like other Primary Registers (Figure 3 and see box 1 for WHO requirements of a primary register).

**Future Plans**

- Put in place mechanism to encourage registration through discussion with ethics review board members to facilitate verification of trials and generate awareness regarding the need for clinical trial registration
- A meeting with the journal editors has been planned to work out the possibility of having a mechanism put in place by them to ensure trial registration in the lines of the ICMJE.
- To conduct workshops and training sessions at regional centers in India to sensitize those who are involved in clinical trials on the importance of registering with the CTRI.
Additional Activities

- Compilation and dissemination of CTRI Bulletin to generate awareness of the CTRI has been launched by WR-WHO on 20th July.
- Special Issue of CTRI Bulletin covering Launch of CTRI is under process.
- Flyer / Brochure of CTRI are under process.

**CTRI– Registration Process**

- **Receives Password**
- **Registrant enters data fields online**
  - Can save entry and return later
- **Registrant submits completed Registration form**
  - With Registrant not visible to Administrator
- **Verification by CTRI staff**
- **Incomplete Data Set**
  - Provisional Trial No.
  - (PROV No.)
- **Changes / corrections required**
  - Queried Status
  - Request on-line changes by registrant
  - Amended data re-checked
  - No changes required
  - Changes required
  - Registered Status
  - Trial Registered

*Booklet of CTRI with key features and SOP is under process.*
O5. ESTIMATION OF AIDS RELATED MORTALITY

Date of commencement: November 2005
Expected date of completion: December 2007
Funding Agency: UNAIDS

Background

In pursuit of the UNAIDS supported activity to facilitate the AIDS deaths estimation, a meeting of the National Expert Committee on estimation of AIDS Mortality was held on October 25, 2005 for consultation and consensus regarding the methodologies to be adopted for estimation under the chairmanship of Prof. Mari Bhatt, Director, International Institute for Population Sciences and in the presence of Additional Project Director, National AIDS Control Organization (NACO). The group unanimously agreed that such an exercise is essential to promote the ownership and utilization of the surveillance data in programme planning and monitoring. Regarding the choice of methods the group considered it appropriate to compare the different available methods (Spectrum method currently used by WHO/UNAIDS, Kink regression method using data from Sample Registration System and Causes of deaths data from the Civil Registration System). It was suggested that Kink regression method will be used to estimate AIDS deaths for all the states in India, civil registration system from two states, one city each from low and high HIV prevalence states by three different institutions.

The group tentatively identified the following Institutions for undertaking the estimation of AIDS deaths exercise under the overall coordination of National Institute of Medical Statistics (NIMS):

a. International Institute for Population Sciences (IIPS) and National Institute of Medical Statistics (NIMS) New Delhi for estimating AIDS mortality using the spectrum model.

b. National Institute of Health and Family Welfare (NIHFW), New Delhi, for estimating excess deaths by state level using SRS data, and using civil registration system in urban India.

c. The overall coordination will be with NIMS, New Delhi
**Objective**

1. Estimation of AIDS deaths using different methodologies dissemination of results

**Deliverables:**

1. AIDS deaths estimation using different methodologies will be completed and reports presented to the group in March 2006.
2. The results of the various methodologies will be disseminated through a medical journal supplement.

**Progress:**

The work related to estimating excess death using Kink regression is completed and submitted by the National Institute of Health and Family Welfare (NIHFW). The steps on using spectrum model to estimate AIDS related mortality are finalized wherein HIV prevalence is the basic input along with other epidemiological and demographic parameters. The preliminary findings indicated that the AIDS related deaths under the current methodology were coming to be very high and required further look into reasons for such overestimation.

**O6. ESTIMATION OF NUMBER OF ORPHANS AND VULNERABLE CHILDREN IN INDIA DUE TO HIV/AIDS AND CHILDREN REQUIRING ART**

Date of commencement: June 2006

Expected date of completion: December 2007

Funding Agency: UNAIDS

**Background**

The HIV/AIDS epidemic has increased adult and child mortality rates substantially in many countries. Adult deaths from AIDS often occur to men and women in their thirties and early forties. As a result many people who die from
AIDS leave behind young children as orphans. In India many more children are orphaned from other causes, than from AIDS. But AIDS orphans bear a special burden since they are more likely to lose both their parents than a child who loses a parent through an accident or childbirth. AIDS orphans may also be more likely to be clustered in extended families or communities than other orphans, making it harder for support to be mobilized. They may also face stigma as a result of their parent’s infection.

**Objective**

1. To estimate the number of HIV+ Children, Orphans, AIDS orphans, children need for treatment by state and specifically,
   - HIV+ children
   - AIDS and non-AIDS orphans
   - Maternal, paternal and double orphans
   - Orphans by age
   - New cases
   - Children need for treatment
2. To support strategic planning for support to orphans in need
3. Organize training program to capacitate at state level to generate state specific estimate

**Progress**

The problems faced with the estimation of AIDS related mortality remains a constraint for the estimation of children needing ART and orphans and vulnerable children.

**07. STATISTICAL MODELING OF HIV/AIDS EPIDEMIC**

Date of commencement: February 2006
Expected Date of Completion: July 2007
Funding Agency: ICMR
**Background**

This project has been taken up as a follow up of the earlier intramural project, ‘exploratory research on HIV/AIDS Epidemic’, where we explored some simple models to study some of the epidemiological characteristics of HIV/AIDS such as the probability distribution of time to develop AIDS (incubation distribution) since HIV infection, estimation of HIV intensities and projection of AIDS cases from reported AIDS cases, classification of progression of AIDS since HIV infection using simulated CD4+ count and viral load values at the time of seropositivity diagnosis and estimation of HIV transmission rate among different risk groups and project the number of HIV infections in various stages. ICMR Task Force on Statistics sanctioned a project on ‘Statistical Modeling of HIV/AIDS Epidemic’ with the following objectives:

1. To determine the appropriate distribution of incubation period (time to develop AIDS after sero-positivity detection)
2. To study the variation in incubation period in relation to biological variables like CD4 cell count and viral load
3. To estimate the mortality rate due to HIV infection using double decrement Life table techniques (the two forces of the decrement are mortality in the status of HIV and the probability of transition from HIV to AIDS) and
4. To compare the mortality rates due to HIV/AIDS and other causes
5. To study the disease burden due to opportunistic infection in AIDS patients and similar infections in non-AIDS patients.

The statistical modeling exercise has been initiated to study the spread of HIV infection within each risk group using published data on HIV/AIDS prevalence in the website (Epidemiological Fact Sheets on HIV/AIDS and sexually transmitted infection, UNAIDS, UNICEF and WHO). Though the website provides data sheet for all countries sufficient data to carry out analysis was available only from three countries, India, Thailand and Vietnam. Major source of HIV infection in three countries is presented in Table 1.
Table 1: Major source of HIV infection in India, Thailand and Vietnam

<table>
<thead>
<tr>
<th>Country</th>
<th>Major Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>FSW &amp; Clients (STI individuals)</td>
</tr>
<tr>
<td>Thailand</td>
<td>IDU, FSW and clients</td>
</tr>
<tr>
<td>Vietnam</td>
<td>IDU, FSW and clients</td>
</tr>
</tbody>
</table>

The Epidemic Growth

The HIV epidemic was initiated among the high risk behavior groups, i.e. sex workers and their clients and injecting drug users. It started growing among themselves initially because of their sexual interaction and sharing of needles. Slowly, the infection started spreading to low risk behaviour group, the spouses of the high risk behavior individuals.

Chart 1 Epidemic Growth within Risk Groups

Urban India
Therefore we need to study the growth of the epidemic within each risk group and the rate at which they are spreading between the risk groups. The growth of the epidemic within each risk group can be estimated from the HIV prevalence data available for each of the risk groups, FSW, STI (the clients of FSW), IDU and pregnant women (the low risk group). The growth function was estimated using linear curve. However, the observed prevalence was smoothed using moving average of three year lag and then normalized with log transformation.

HIV epidemic growth within each risk group during 1984 to 2004 in the urban and rural areas of India is presented in Charts 1-4. Though, in India, the first case of HIV was detected in 1986 it is assumed that the infection was prevailing some time before 1986 and hence the projection started from 1984.

The weibull distribution has also been tried to study the growth within and between risk groups and also the spread from urban to rural areas.
Chart 6 Probability distn of transmission of HIV infection from urban STD group to outside urban STD group in India

Chart 7 Probability distn of the HIV epidemic growth within urban STD and Sex Workers in India

Chart 8 Probability distn of transmission of HIV infection from Sex Worker to STD patients in urban areas of India
Study of Incubation Period and Disease Progression using Surveillance data

An attempt has also been made to estimate the annual new HIV infections and the number progressing AIDS which will be an estimate for number needing ART and also the estimate for AIDS deaths in the absence of ART. An example has been presented using Andhra Pradesh data.
Risk Groups and Prevalence Considered

<table>
<thead>
<tr>
<th>Risk Groups</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. STD Males</td>
<td>HIV prevalence among STD patients (i)</td>
</tr>
<tr>
<td>2. STD Females</td>
<td>(i)/1.2</td>
</tr>
<tr>
<td>3. FSW</td>
<td>HIV prevalence among FSW/(i)</td>
</tr>
<tr>
<td>4. MSM</td>
<td>HIV prevalence among MSM/ 60% of (i)</td>
</tr>
<tr>
<td>5. General Population Females</td>
<td>HIV prevalence among ANC women (ii)</td>
</tr>
<tr>
<td>6. General Population Males</td>
<td>1.2 ‘ (ii)</td>
</tr>
</tbody>
</table>

**Step 1:** Observed prevalence was smoothed using best regression fit.

**Step 2:** Growth probability $P_{gr(i)}$ distribution within $i$th risk group estimated using both Weibull and Gamma model.

- Gamma model fitted well for all populations in Andhra Pradesh
- $P_{gr(i)}$ represents the growth rate of prevalence within $i$th risk group

**Step 3:** Transmission force $P_{tr(ij)}$ between risk groups $i$ & $j$ is derived assuming the interaction (contacts) between two risk groups in large population is random and independent

$$P_{tr(ij)} = P_{gr(i)} \cdot P_{gr(j)}$$

Growth Probability STD Males - Weibull model
In the context of 6 risk groups assumed HIV infection is transmitted between
STD males & FSW
STD males & STD females
Between MSMs themselves
STDs (Bridge Popn) & general population (average of STD males & females –
average of GP males & females)
Mean transmission probability (Gamma Model)

Gamma transmission probability - Between MSMs

Gamma transmission probability - Bridge vs GP
Step 4: Mean transmission probability is applied to population over time to estimate the new infections every year.

Step 5: Applying Weibull survival probabilities with median survival 7, 9 and 11 years to the number contracted diseases every year, number progressing to AIDS and remaining as HIV positives have been calculated. Natural death rate also has been applied to each group.

Results for Andhra Pradesh

<table>
<thead>
<tr>
<th>Median incubation</th>
<th>Number of infections HIV/AIDS</th>
<th>ART Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 yr</td>
<td>514948</td>
<td>39552</td>
</tr>
<tr>
<td>9 yr</td>
<td>587783</td>
<td>38504</td>
</tr>
<tr>
<td>11 yr</td>
<td>647004</td>
<td>34555</td>
</tr>
</tbody>
</table>

The cases needing ART with 7 yr median survival (incubation) is expected to die in next two yrs in the absence of treatment. In other words, median survival period 7, 9 & 11 years can be assumed to be either time to develop AIDS or time to death.
**Option 2**

Under option 2 we consider only the population at risk to estimate the number of new infections.

**Risk Groups**

<table>
<thead>
<tr>
<th>Risk Group</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clients</td>
<td>60% of HIV prevalence among STD patients (Assuming all clients do not have STI, the observed HIV prevalence among STD patients is reduced to 60%, the ratio of HIV prevalence in sites located in medical colleges and other district hospitals.)</td>
</tr>
<tr>
<td>FSW</td>
<td>HIV prevalence among FSW/STD patients</td>
</tr>
<tr>
<td>MSM</td>
<td>HIV prevalence among MSM/60% of STD patients</td>
</tr>
<tr>
<td>IDU</td>
<td>HIV prevalence among IDU</td>
</tr>
<tr>
<td>General Population Partners of clients, MSM &amp; IDU</td>
<td></td>
</tr>
</tbody>
</table>

**Steps** 1-5 are carried out and the results for Option 2 is as below

**Results – Andhra Pradesh**

![Comparison of transmission force with two options](image)
<table>
<thead>
<tr>
<th>Median incubation</th>
<th>Option 1</th>
<th>Option 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>ART Needs</td>
</tr>
<tr>
<td></td>
<td>of infections</td>
<td>HIV/AIDS</td>
</tr>
<tr>
<td>7 yr</td>
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<tr>
<td>11 yr</td>
<td>647004</td>
<td>34555</td>
</tr>
</tbody>
</table>

**O8. INTEGRATED BIOLOGICAL AND BEHAVIOURAL ASSESSMENT ON NATIONAL HIGHWAY**

Date of commencement: June 2005  
Expected Date of Completion: 5 years  
Funding Agency: BMGF/ICMR/NARI

**Background**

In India, sentinel surveillance is used annually to estimate the prevalence of Human Immunodeficiency Virus (HIV) infection in the country and to monitor trends in the epidemic. Sentinel surveillance for HIV in India began in 1994, at 55 sentinel sites, under the National AIDS Control Program-I (1992–1999). The
population groups and sites for HIV sentinel surveillance are selected based on information about the risk behavior of various risk groups for HIV infection. The high-risk groups of the population include patients attending sexually transmitted disease (STD) clinics, female sex workers, injecting drug users (IDUs), and men who have sex with men (MSM); a low-risk group of the population includes women attending antenatal clinics. The rationale for selecting sentinel sites in the clinics attended by these subgroups of the population is that blood samples are collected from the people who attend the clinics for various purposes, and the samples can be tested for HIV in an unlinked anonymous manner. Since 1994, the number of sites in the sentinel surveillance system has been increasing. In 2002, sentinel surveillance was conducted at 384 sites and in 2003, at 455 sites.

Despite the HIV, Sexually Transmitted Infection (STI) and risk behavior surveillance activities currently underway in India, there are considerable gaps in the information available to understand both the course of the epidemic as well as the STI correlates and behavioral risks that fuel it. To measure the major outcomes and impacts of the interventions funded by the Bill & Melinda Gates Foundation (BMGF) under the Avahan India AIDS Initiative (Avahan), the existing surveillance system must be strengthened and expanded. A robust surveillance system will allow BMGF and its governmental and nongovernmental partners not only to follow key trends in HIV, STIs and risk behaviors, but also to use the data to project trends into the future.

The purpose of this assessment is to gather data for impact monitoring and evaluation of the Avahan India AIDS Initiative funded by the BMGF in 71 districts of 6 States and five highway sites. The proposed mapping, size estimation and integrated behavioral and biological assessment (IBBA) will provide some of the key data needed to assess major outcomes and impacts of the interventions funded by BMGF. This is the first independent impact-level evaluation of this scale of targeted interventions with sex workers and clients, high risk men and IDUs on HIV/AIDS. The project will be implemented in close collaboration with National AIDS Control Organization (NACO) and State AIDS Control Societies (SACS) and will provide valuable information to feed back into and strengthen the National AIDS Control Program in India.
The IBBA will be conducted three times during the five-year project period of Avahan. The baseline assessment will be undertaken in 2005, mid-line in 2007 and end-line in 2009. This protocol aims to cover the baseline, mid-line and end-line assessments.

**Objectives**

The overall objective of the IBBA is to collect necessary information for assessing the outcomes and the impact of HIV interventions in Avahan project districts in six high prevalence states and along National Highways. The survey will collect data in selected districts of the Avahan project states of Andhra Pradesh, Maharashtra, Tamil Nadu, Karnataka, Manipur and Nagaland and along the National Highways:

- To measure the major outcomes and impacts of the interventions funded by the Bill & Melinda Gates Foundation (BMGF) under the Avahan India AIDS Initiative by collecting behavioral and biological trend data in populations targeted by the interventions.
- To make available data that will be used for estimating sizes of populations targeted by the project.
- To make information available to a partner organization under Avahan for modeling the impact of the intervention.

In addition, conduct of the IBBA will strengthen the capacity of national and state level institutes including ICMR’s National AIDS Research Initiative (NARI), National Institute of Epidemiology (NIE), National Institute of Nutrition (NIN), Regional Medical Research Council (RMRC), and National Institute of Medical Statistics (NIMS).

**Methods**

**IBBA populations**

The populations that will be included for mapping, size estimation and IBBA in five Avahan States namely Tamil Nadu, Andhra Pradesh, Maharashtra, Nagaland, Manipur are female sex workers that are brothel based (FSW-BB),
female sex workers non-brothel based (FSW-NBB), male who have sex with men (MSM)/male sex workers (MSW), male clients of female sex workers and male injecting drug users (IDU); and those on the national highway, i.e. truckers drivers and helper (TD/H) and female sex workers highway-based (FSW-HB).

**States in India where the IBBA will take place**

- Maharashtra (6 districts)
- Andhra Pradesh (8 districts)
- Tamil Nadu (5 districts)
- Nagaland (3 districts)
- Manipur (2 districts)

**O9. IMPACT OF THE FIRST PHASE OF RCH PROGRAMME: ANALYSIS OF DATA OF INDIA’S DISTRICT LEVEL SURVEY**

**Objectives**

* To undertake a comprehensive review of the RCH Programme and find out the impact of the first phase of RCH Programme.

**Methodology**

Following specific tasks are set to be carried out in order to meet the aforesaid objective:

1. To analyses the primary data collected in DLHS in the two phases in 1998-1999 and 2002.
2. To identify the common districts covered in the two phases.

3. To make an analysis of Health Status of the Country in these two periods.

4. To make out the Indicators as contained in the annexure to the Project Agreement Document (PAD) of RCH-1.

**Progress**

- Having organized consultative meetings among a group of experts to finalize indicators contained in the Project Agreement Document (PAD) of RCH-1, analyzed the contents of RCH Project Agreement and the RCH programme inputs.

- RCH-1 and RCH-2 (Phase I) data has been collected from International Institute for Population Sciences (IIPS), Mumbai. In consultation with IIPS, data validation, consistency and scrutiny has been completed and necessary correction has been done.

- Districts of RCH-1, RCH-2 and Census are compared.

- Tabulation plan in respect of linking various inputs with the output indicators has been done.

- Under the budget and expenditure analysis in RCH-1, the financial analysis of RCH-1 has been reported for three categories of states separately. The first category consists of larger states, numbering 20, second category is composed of eight smaller states/Union Territories (except north-eastern states) and the third is seven North-eastern states.
The allocation of the states to construction and renovation activities of the buildings was much higher than what could be spent. There is need to understand why expenditure on the construction categories was low when most of the states have been citing poor infrastructure for poor programme performance.

One important factor for less than allocation expenditure was a slow start of the project activities. There is need of initiating some pre-project activities so that the process of implementation could be accelerated. Close monitoring of the progress of the project by technical persons.

The allocation to the RCH activities is Rs. 23 per person in about eight years of the project life. The expenditure was only Rs. 13 person (or about one-half of the allocation).

Most of the states spent somewhere between 50 to 60 percent of their allocation.

There is need to assess whether the states do not have capacity to spend this large money or they overestimate the cost of the activities which they propose. Such assessment will help in better budgeting in the next such projects.

Most of the states spent somewhere between 50 to 60 percent of their allocation.

Summary Findings and Recommendations

Fig. 1: Improve performance of health indicators, surveyed in 1998–99 and 2002–03
## Improve performance of health indicators by districts, surveyed in 1998-99 and 2002-03

<table>
<thead>
<tr>
<th>State/Union territory</th>
<th>Number of Districts</th>
<th>Home delivery Increase</th>
<th>Home delivery Decrease</th>
<th>Safe delivery Increase</th>
<th>Safe delivery Decrease</th>
<th>Birth order 3+ Increase</th>
<th>Birth order 3+ Decrease</th>
<th>Girl married &lt;18 Increase</th>
<th>Girl married &lt;18 Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andhra Pradesh</td>
<td>23</td>
<td>2</td>
<td>21</td>
<td>2</td>
<td>2</td>
<td>21</td>
<td>12</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Assam</td>
<td>23</td>
<td>5</td>
<td>18</td>
<td>14</td>
<td>9</td>
<td>6</td>
<td>17</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>Bihar</td>
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<td>Jammu &amp; Kashmir</td>
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<td>11</td>
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<td>2</td>
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<td>Karnataka</td>
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</tr>
<tr>
<td>Punjab</td>
<td>17</td>
<td>1</td>
<td>16</td>
<td>17</td>
<td>1</td>
<td>4</td>
<td>13</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Rajasthan</td>
<td>32</td>
<td>1</td>
<td>31</td>
<td>31</td>
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<td>6</td>
<td>26</td>
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<td>Sikkim</td>
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<td>Tamil Nadu</td>
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<td>29</td>
<td>1</td>
<td>8</td>
<td>22</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td>Tripura</td>
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<td>1</td>
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<td>1</td>
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<tr>
<td>Uttar Pradesh</td>
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<td>9</td>
<td>61</td>
<td>59</td>
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<td>13</td>
<td>57</td>
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<td>Uttaranchal</td>
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<td>4</td>
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<td>4</td>
<td>3</td>
<td>15</td>
<td>7</td>
<td>11</td>
</tr>
</tbody>
</table>

### Fig.2: Improve performance of health indicators – safe delivery
Fig. 3: Improve performance of health indicators – Girls marrying before 18 years of age

Fig. 4: Improve performance of health indicators – Birth order 3+
O10. INTEGRATED DISEASE SURVEILLANCE PROJECT - NCD RISK FACTOR SURVEILLANCE

Date of commencement: March 2006
Funding Agency: NICD/ICMR/World Bank
Period of study: March 2009 (3 years)

The Government of India, with the assistance of the World Bank is implementing the Integrated Disease Surveillance Project (IDSP) to develop a system of decentralized state-level surveillance of selected risk factors of non-communicable diseases throughout the country. The surveillance of risk factors of non-communicable diseases (NCD) is an important component of the project. Periodic community based surveys would form an integral part of the surveillance.

Objectives

- Estimate the prevalence and distribution of risk factors in different strata in various States of India;
- Establish a data base of NCD risk factors and monitor trends of important risk factors over a period of time
- Support evolving strategies and interventions of identified risk factors to reduce the burden of diseases due to non-communicable diseases;

The NCD Risk factors identified for inclusion in NCD survey are behavioral (Tobacco and Alcohol use, Dietary habits), physical activity (levels of physical activity) and physical measurements (Height, Weight, Pulse rate, Blood pressure and Waist circumference) including the biochemical assessments (Blood sugar and Blood cholesterol).

The NIMS has been identified as National Nodal Agency (NNA) for implementation of this project in the country. The survey methodology, survey instruments and training materials for conducting the survey has been prepared. The survey instruments has been piloted and modified.

In the first phase, survey will be conducted in eight selected States. The survey in randomly selected 50 rural PSUs and 50 urban CEB of wards will be conducted by the State Survey Agency by using the uniform survey methodology.
Progress

- Survey methodology for Phase-I states has been finalized;
- List of randomly selected rural PSUs and Urban wards (CEB) has been finalized;
- Trainer’s Guide and Survey Manual have been prepared;
- Survey Instruments are prepared and pre-tested.
- TOT has been conducted at NIMS, Delhi
- Data Management module is ready
- Data entry training is being planned.

O11. A STUDY ON THE PREVALENCE, EPIDEMIOLOGY AND CONSEQUENCES OF OBSTETRIC FISTULAS IN INDIA

Date of Commencement: Sept 2006
Expected date of completion: May 2007
Funding Agency: UNFPA

Background

In India the prevailing maternal morbidity and mortality is a cause of concern. Chronic obstetric morbidity is a much ignored aspect of woman’s health. There is hardly any information on community based estimates of obstetric morbidities. One of the chronic obstetric morbidities, obstetric fistula is most severe disability. In terms of numbers involved, fistula may not be regarded by many a priority but it has devastating effects on woman’s personal, sexual and social life. In India, apart from few hospital based studies, there is little epidemiological data. Given high maternal mortality ratio and high adolescent fertility rate we expect it to be a significant problem in numbers. Seven percent of maternal deaths are due to obstructed labour, a lot more women who survive would develop obstetric fistula. Of women who developed complications in pregnancy 18 percent developed obstructed labour (RCH-RHS, 1998). Obstructed labour, obstetric fistulas are indices which reflect the antenatal and intra-natal care in a community.
WHO estimates 50,000 to 100,000 new cases annually, with over 2 million women in developing countries living with fistula untreated. Bhatia et al conducted a community based study to assess gynecological morbidity in Karnataka state, the prevalence of fistula was 0.3% in 385 women included in the study. Between 1989-1993, some community bases studies were conducted in selected sites in four states in India to assess the extent of obstetric fistula. In 650, 385, 803, 3600 women surveyed in four surveys the prevalence was 0.5%, 0.5%, 7.6% and 0.3% respectively. These surveys employed varying definitions and methodologies. As far as social morbidity is concerned, these women are ostracized by family and society, as many as 70-90 percent is either divorced or separated. They live a life of shame and poverty. Its is a pity because the condition is preventable with good antenatal and intra-natal care, early diagnosis of prolonged/obstructed labour, prompt referral to a centre with facility for cesarean section. Surgery can cure up to 90% of fistulas, but requires an experienced and trained surgeon. Until recently fistulas have been a low-priority issue on national agenda. Its time policy makers gave it more importance.

**Objectives**

**Short term**

1. To document the first effort to collect national prevalence data on vaginal fistulas (community based survey).

2. To develop and administer proper tools to record the prevalence, for more reliable data, previous studies have used varying definitions and methodologies.

3. To establish the burden of disease, its epidemiology and consequences both social and economic.

**Long term**

1. To consider needs and opportunities for translating data to policy, in specific need based approach depending on the prevalence in different part of the country. Prevention by improving ante and intra-natal services, transport facility. Provide treatment by trained personal, establish centres of excellence for training.
2. To prioritize research with respect to treatment and rehabilitation, service provision and outcomes.

Methods

In the first phase, meeting of researchers and programme managers to develop the methodology and tool for community based survey to study prevalence, epidemiology and consequences of obstetric fistulas, after extensive literature search. Develop the manual of operations.

In the second phase community based survey will be carried out, results analyzed and conveyed to policy makers.

O12. ADOLESCENT FRIENDLY HEALTH SERVICES IN INDIA – AN EVALUATION OF QUALITY AND ACCESS TO SERVICES

Date of commencement : April 2006
Expected date of completion : Sept 2007
Funding Agency: WHO

Objectives

1. Role of adolescent friendly health services vis-à-vis RCH-II ARSH strategy and their feasibility and sustainability
2. Whether the establishment of adolescent friendly centres has increased the quality and access to health services.
3. The effects of school based outreach activities on the school environment and access to adolescent friendly health services.

Methods and Approaches to be Used

Site selection

It is proposed to select only 3 sites from the 14 sites included in the project that are tertiary care hospitals located in medical colleges and have been functional
without interruption for the last over 3 years. The sites have established a centre and trained health providers in other departments of their hospital as well as beyond their sites and all three sites have run an outreach programme to schools.

**Design of the evaluation**

A qualitative assessment will be carried out to evaluate the role of the adolescent friendly clinics (AFCs) and their feasibility, sustainability through interviews with key stakeholder including but not limited to facility coordinators, hospital / institution chief, and review of relevant documents.

Since there is no baseline data on the quality of services for adolescents, the evaluation will assess levels of quality (using Standards Framework for determining quality of services) in the dedicated adolescent centres as well as in out patient departments (Obstetrics, Skin care etc) where health workers have not been oriented in adolescent friendly approaches (‘Control Group’)

To assess the influence of the outreach intervention on the schools and the level of access to information and health services of adolescents in the schools, students and teachers of selected schools will be a sampled. Student data will be compared with baseline data collected in the needs assessment carried out at the start of the project.

**Tools**

- The study will develop survey tools based on the objectives of the AFCs and adaptations of WHO tools used in India, Russia and Mongolia. Additional tools will be developed as needed.
- The methodology for assessing the quality of AFHS (Client, facility and provider checklist) developed by WHO will be used for the description of - the interventions in the AFHC; and - the quality of the organization of the AFHC, its procedures and preparedness of the staff
- An adaptation of the WHO client exit-interview tool will be used with the clients.
• Tools will be developed based on WHO community survey tools (created for coverage studies in Russia and Tanzania) in order to assess the health seeking behaviours of adolescents in the schools.

• In addition, a self administered tool for parents will be developed to obtain relevant information from adults accompanying adolescents to the clinic, and that will be administered while the adolescent will undergo the client exit interview.

Sample Size

The following sample sizes are being proposed for the intervention and control group. In each site:

<table>
<thead>
<tr>
<th>Target</th>
<th>Primary group</th>
<th>Secondary group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff</td>
<td>All AFHC staff (4)</td>
<td>Similar number in secondary OPD</td>
</tr>
<tr>
<td>Client exit Interview</td>
<td>25-50 AFHC</td>
<td>25 in secondary OPD</td>
</tr>
<tr>
<td>Parents</td>
<td>Max 25-50 AFHC</td>
<td>Max 25 in secondary OPD</td>
</tr>
<tr>
<td>Students</td>
<td>100-200</td>
<td></td>
</tr>
<tr>
<td>Teachers &amp; principals</td>
<td>2-3</td>
<td></td>
</tr>
</tbody>
</table>

It is projected that the client sample will be quite small based on the reported average daily attendance levels reported in existing sites (which vary from less than 3 clients on the lower end to approximately 5-8 clients in others). A suitable time period to collect the sample, including all clients, will be identified that may be at least five weeks.

Progress

Data has been analysed per site and report is being finalized. Salient findings are as under:
### Chandigarh

<table>
<thead>
<tr>
<th></th>
<th>Adolescent Friendly Clinic</th>
<th>Other OPD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction level of client with the service received</td>
<td>very much</td>
<td>90.0</td>
</tr>
<tr>
<td></td>
<td>not so much</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>no</td>
<td>2.9</td>
</tr>
<tr>
<td>Client liked the Best about service</td>
<td>physical environment</td>
<td>65.0</td>
</tr>
<tr>
<td></td>
<td>staff friendliness</td>
<td>45.0</td>
</tr>
<tr>
<td></td>
<td>staff attitude</td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>lack of confidentiality</td>
<td></td>
</tr>
<tr>
<td></td>
<td>long waiting hrs</td>
<td>55.0</td>
</tr>
<tr>
<td></td>
<td>other</td>
<td>5.0</td>
</tr>
<tr>
<td>Doctor talked to client separately</td>
<td></td>
<td>90.0</td>
</tr>
<tr>
<td>Health workers did something that the client would not prefer them to do in the future</td>
<td></td>
<td>90.0</td>
</tr>
<tr>
<td>Would come back in future for a health problem</td>
<td></td>
<td>100.0</td>
</tr>
<tr>
<td>The client think adolescent would be happy to come here for services</td>
<td></td>
<td>20.0</td>
</tr>
<tr>
<td>Client would encourage friends to use these services</td>
<td></td>
<td>100.0</td>
</tr>
<tr>
<td>Suggestions for creating awareness among adolescents health facility and the service</td>
<td>Advertise through media</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>Advertise through peers and friends</td>
<td>40.0</td>
</tr>
<tr>
<td></td>
<td>Publicize services to school / organizations</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>5.0</td>
</tr>
<tr>
<td>Clients perception of difficulties in availing the services</td>
<td>Nothing</td>
<td>35.0</td>
</tr>
<tr>
<td>-----------------------------------------------------------</td>
<td>---------</td>
<td>------</td>
</tr>
<tr>
<td></td>
<td>Location</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>Distance</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>Fees</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>Clinic hrs</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>Waiting time</td>
<td>10.0</td>
</tr>
<tr>
<td></td>
<td>Staff attitude</td>
<td>5.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clients suggestions to remove obstacles removed so adolescents to use the services more?</th>
<th>Service fees</th>
<th>25.0</th>
<th>34.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inconvenient working hrs</td>
<td>5.0</td>
<td>22.9</td>
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<tr>
<td></td>
<td>Judgmental staff attitude</td>
<td>5.0</td>
<td>5.7</td>
</tr>
<tr>
<td></td>
<td>Long waiting time</td>
<td>25.0</td>
<td>28.6</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>5.0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Things that were most important to client whilst he/she visiting that facility.</th>
<th>Cost of service</th>
<th>50.0</th>
<th>62.9</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Location of the facility</td>
<td>15.0</td>
<td>5.7</td>
</tr>
<tr>
<td></td>
<td>Clinic hrs</td>
<td>10.0</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>Appearance of facility</td>
<td></td>
<td>11.4</td>
</tr>
<tr>
<td></td>
<td>Friendly lines of staff</td>
<td>25.0</td>
<td>11.4</td>
</tr>
</tbody>
</table>

| Facility gives opportunity for making suggestion for improving the quality services | 90.0 | 65.7 |

**Delhi**

<table>
<thead>
<tr>
<th>Satisfaction level of client with the service received</th>
<th>Adolescent Friendly Clinic</th>
<th>Other OPD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Very much</td>
<td>88.9</td>
</tr>
<tr>
<td>Question</td>
<td>Percentage</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td>What did you like best about service?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical environment</td>
<td>11.1</td>
<td></td>
</tr>
<tr>
<td>Staff friendliness</td>
<td>88.9</td>
<td></td>
</tr>
<tr>
<td>Useful advice</td>
<td>38.9</td>
<td></td>
</tr>
<tr>
<td>Did the doctor talked to you separately?</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Was there any thing, the health workers did that you would not prefer them to do in the future?</td>
<td>33.3</td>
<td></td>
</tr>
<tr>
<td>Would you come back here again if you had a health problem?</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Do you think you would be happy to come here for services?</td>
<td>44.4</td>
<td></td>
</tr>
<tr>
<td>Would you encourage your friends to use these services?</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>What could be done to make your friends aware of the health facility and the service it provides?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advertise through media</td>
<td>33.3</td>
<td></td>
</tr>
<tr>
<td>Advertise through peers and friend</td>
<td>44.4</td>
<td></td>
</tr>
<tr>
<td>Publicize the services to school and other organizations</td>
<td>22.2</td>
<td></td>
</tr>
<tr>
<td>Advertise through peers and friend</td>
<td>11.1</td>
<td></td>
</tr>
<tr>
<td>Is there anything that makes it difficult to use these service?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nothing</td>
<td>33.3</td>
<td></td>
</tr>
<tr>
<td>Distance</td>
<td>11.1</td>
<td></td>
</tr>
<tr>
<td>Fees</td>
<td>11.1</td>
<td></td>
</tr>
<tr>
<td>Clinic hrs</td>
<td>11.1</td>
<td></td>
</tr>
<tr>
<td>Waiting time</td>
<td>22.2</td>
<td></td>
</tr>
<tr>
<td>Staff attitude</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>Lack of confidentiality</td>
<td>11.1</td>
<td></td>
</tr>
<tr>
<td>What obstacles should be removed so that Adolescents may use these services more?</td>
<td>Other (specify)</td>
<td>2.8</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>Waiting time</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>Lack of confidentiality</td>
<td>5.6</td>
</tr>
<tr>
<td>Please indicate (X) top three things that most important to you whilst you visited that facility.</td>
<td>cost of service</td>
<td>11.1</td>
</tr>
<tr>
<td></td>
<td>location of the facility</td>
<td>22.2</td>
</tr>
<tr>
<td></td>
<td>appearance of facility/waiting area</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td>friend lines of staff</td>
<td>33.3</td>
</tr>
<tr>
<td></td>
<td>motivation of staff</td>
<td>11.1</td>
</tr>
<tr>
<td></td>
<td>knowledge and skill of staff</td>
<td>22.2</td>
</tr>
<tr>
<td></td>
<td>information and advice given</td>
<td>5.6</td>
</tr>
<tr>
<td></td>
<td>location of the facility</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td>clinic hrs</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>friend lines of staff</td>
<td>22.2</td>
</tr>
</tbody>
</table>
motivation of staff | 22.2
knowledge and skill of staff | 22.2 | 27.8
information and advice given | 11.1 | 11.1

Does the facility provide you an opportunity to suggest what they can do to provide better quality services, if you wanted to? | 55.6 | 8.3

### Kolkata

<table>
<thead>
<tr>
<th>In general do you feel satisfied with the service you have just received?</th>
<th>OPD</th>
<th>AFHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very much</td>
<td>80.0</td>
<td>81.6</td>
</tr>
<tr>
<td>Not so much</td>
<td>12.0</td>
<td>14.3</td>
</tr>
<tr>
<td>Not at all</td>
<td>4.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What did you like best about service?</th>
<th>OPD</th>
<th>AFHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical environment</td>
<td>40.0</td>
<td>16.3</td>
</tr>
<tr>
<td>Staff friendliness</td>
<td>40.0</td>
<td>46.9</td>
</tr>
<tr>
<td>Useful advice</td>
<td>16.0</td>
<td>32.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What did you like least about service?</th>
<th>OPD</th>
<th>AFHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical environment</td>
<td>40.0</td>
<td>42.9</td>
</tr>
<tr>
<td>Staff attitude</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>Lack of confidentiality</td>
<td>6.1</td>
<td></td>
</tr>
<tr>
<td>Long waiting hrs</td>
<td>28.0</td>
<td>20.4</td>
</tr>
<tr>
<td>Other</td>
<td>16.0</td>
<td>18.4</td>
</tr>
</tbody>
</table>

Did the doctor talked to you separately? | 92.0 | 93.9 |

Was there any thing, HW did which you not prefer to do in future? | 96.0 | 91.8 |
<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would you come back here again if you had a health problem?</td>
<td>92.0</td>
<td>89.8</td>
</tr>
<tr>
<td>Do you think adolescent would be happy to come here for services?</td>
<td>56.0</td>
<td>63.3</td>
</tr>
<tr>
<td>Would you encourage your friends to use these services?</td>
<td>96.0</td>
<td>93.9</td>
</tr>
<tr>
<td>What could be done to make your friends aware of the health service it provides?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Advertise through media</td>
<td>32.0</td>
<td>30.6</td>
</tr>
<tr>
<td>Advertise through peers &amp; friend</td>
<td>44.0</td>
<td>32.7</td>
</tr>
<tr>
<td>Publicize the services to school</td>
<td>22.4</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td>20.0</td>
<td>8.2</td>
</tr>
<tr>
<td>Is there anything that makes it difficult to use these service?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nothing</td>
<td>44.0</td>
<td>36.7</td>
</tr>
<tr>
<td>Location</td>
<td>8.0</td>
<td>8.2</td>
</tr>
<tr>
<td>Distance</td>
<td>28.0</td>
<td>34.7</td>
</tr>
<tr>
<td>Fees</td>
<td>8.0</td>
<td>4.1</td>
</tr>
<tr>
<td>Clinic hrs</td>
<td>4.0</td>
<td>6.1</td>
</tr>
<tr>
<td>waiting time</td>
<td>4.0</td>
<td>2.0</td>
</tr>
<tr>
<td>lack of confidentiality</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>staff attitude</td>
<td>4.0</td>
<td>4.1</td>
</tr>
<tr>
<td>distance</td>
<td>8.0</td>
<td>2.0</td>
</tr>
<tr>
<td>fees</td>
<td>8.0</td>
<td>8.2</td>
</tr>
<tr>
<td>clinic hrs</td>
<td>4.0</td>
<td>2.0</td>
</tr>
<tr>
<td>waiting time</td>
<td>16.0</td>
<td>20.4</td>
</tr>
<tr>
<td>lack of confidentiality</td>
<td>4.0</td>
<td>4.1</td>
</tr>
<tr>
<td>What obstacles should be removed so that Adolescents may use these services more?</td>
<td>service fees</td>
<td>28.0</td>
</tr>
<tr>
<td>In convenient working hrs</td>
<td>24.0</td>
<td>20.4</td>
</tr>
<tr>
<td>lack of confidentiality</td>
<td>8.2</td>
<td></td>
</tr>
<tr>
<td>judgmental staff attitude</td>
<td>10.2</td>
<td></td>
</tr>
<tr>
<td>long waiting time</td>
<td>8.0</td>
<td>12.2</td>
</tr>
<tr>
<td>other</td>
<td>4.0</td>
<td>8.2</td>
</tr>
<tr>
<td>What obstacles should be removed so that Adolescents may use these services more?</td>
<td>in convenient working hrs</td>
<td>2.0</td>
</tr>
<tr>
<td>long waiting time</td>
<td>4.0</td>
<td>12.2</td>
</tr>
<tr>
<td>other</td>
<td>4.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Please indicate (X) top three cost of service things that most important to you whilst you visited that facility.</td>
<td>cost of service</td>
<td>48.0</td>
</tr>
<tr>
<td>location of the facility</td>
<td>12.2</td>
<td></td>
</tr>
<tr>
<td>clinic hrs</td>
<td>12.0</td>
<td>18.4</td>
</tr>
<tr>
<td>appearance of facility &amp; waiting area</td>
<td>28.6</td>
<td></td>
</tr>
<tr>
<td>friend lines of staff</td>
<td>28.0</td>
<td>10.2</td>
</tr>
<tr>
<td>information and advice given</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>friend lines of staff</td>
<td>20.0</td>
<td>2.0</td>
</tr>
<tr>
<td>motivation of staff</td>
<td>12.0</td>
<td>4.1</td>
</tr>
<tr>
<td>knowledge and skill of staff</td>
<td>24.0</td>
<td>8.2</td>
</tr>
<tr>
<td>knowledge and skill of staff</td>
<td>12.0</td>
<td>6.1</td>
</tr>
</tbody>
</table>
information and advice given |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>40.0</td>
<td>8.2</td>
<td></td>
</tr>
</tbody>
</table>

Does the facility provide you an opportunity to suggest what they can do to provide better quality services, if you wanted to? | 60.0 | 59.2 |

**Overall impressions and Suggestions About the Facility—Parents (%)**

<table>
<thead>
<tr>
<th>Requirement of your consent when ward got health services from doctor</th>
<th>Chandigarh</th>
<th>Delhi</th>
<th>Kolkatta</th>
</tr>
</thead>
<tbody>
<tr>
<td>96.4</td>
<td>85.0</td>
<td>93.5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Allowance of yours to be present at doctor’s chamber at the time of medical check-up / counseling</th>
<th>Chandigarh</th>
<th>Delhi</th>
<th>Kolkatta</th>
</tr>
</thead>
<tbody>
<tr>
<td>90.6</td>
<td>85.7</td>
<td>97.8</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If no, then your comfort ability with the fact that the provider wanted to see the adolescent alone</th>
<th>Chandigarh</th>
<th>Delhi</th>
<th>Kolkatta</th>
</tr>
</thead>
<tbody>
<tr>
<td>50.0</td>
<td>66.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Yours expectation</th>
<th>Chandigarh</th>
<th>Delhi</th>
<th>Kolkatta</th>
</tr>
</thead>
<tbody>
<tr>
<td>72.7</td>
<td>33.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Knowing the reasons</th>
<th>Chandigarh</th>
<th>Delhi</th>
<th>Kolkatta</th>
</tr>
</thead>
<tbody>
<tr>
<td>65.0</td>
<td>33.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The doctor should ask your consent for the advice</th>
<th>Chandigarh</th>
<th>Delhi</th>
<th>Kolkatta</th>
</tr>
</thead>
<tbody>
<tr>
<td>91.2</td>
<td>62.5</td>
<td>63.0</td>
<td></td>
</tr>
</tbody>
</table>

**O13. EVALUATION OF KISHORI SHAKTI YOJANA**

Date of commencement : Feb 2007
Expected date of completion : March 2008
Funding Agency: DWCD

**Background**

The Kishori Shakti Yojana (KSY) envisages to: (1) Improve the nutritional and health status of girls in the age group of 11-18 years; (2) Provide the required literacy and innumeracy skills through the non-formal stream of education; (3)
Train and equip the adolescent girls to improve upgrade home-based and vocational skills; (4) Promote awareness of health, hygiene, nutrition and family welfare, home management and child care; (5) Gain a better understanding of their environment related social issues and the impact on their lives.

The KSY is being implemented using ICDS infrastructure and is operationalised in 2000 projects throughout the country.

**Objectives**

In order to appraise the progress and achievement of the project as well as the impact of various inputs, it was felt necessary to examine the impact of the programme. As the baseline parameters of several process and impact indicators are not available, it is proposed to collect data on certain identifies processes and impact indicators, and also compare some indicators within the ICDS projects area among adolescent girls in the age group 11-18 years registered under KSY as well as non-registered under KSY.

**Process and impact indicators**

**From ICDS System**

- Profile of AGs, Educational status of AGs
- Main occupation of families of AGs and family income profile of mothers
- Time devoted by AGs at AWC
- Community support available to AWCs
- Nature of AGs contribution
- Enrolment of AGs
- Criteria for selection of AGs
- Services provided to AGs at AWC
- Organizing NHE under KSY
- Impact of NHE on AGs
- Nutrition & Health Practices after attending NHE session
• Knowledge and skill acquired by Age
• Option provided under the scheme being implemented
• IFA Supplementation, de-worming intervention etc.
• Convergence with health department and Health education department
• Reaction of the beneficiaries community towards the scheme
• Usefulness / drawback of the scheme
• Role-played by them & problems faced in the implementation of the scheme.

From the Beneficiaries/Non-beneficiaries

• Information on socio-economic profile & family composition of Adolescent girls.
• The utilization of services provided at the AWC such as non-formal education, nutrition & health education, IFA supplementation and de-worming, nutrition, by the adolescent girls.
• Motivation for training and coverage and utility of training.

Non-Beneficiaries

• To know the views of adolescent girls who were not attending the AWC
• Reasons for not attending AWC
• To know about their knowledge and awareness of the advantages likely to be accrued to beneficiaries of their age group.

From the Families

• To find out the mother’s perception of the programme.
• The awareness about the scheme
• Improvement in the activities at home of beneficiaries
• Involvement in the activities of the Anganwadi centres

The findings of the study would provide rationale for continuation expansion of project in the country.
Coverage

It is proposed to cover approximately 10% of the Projects sanctioned for the KSY in States. As such, a sample of 200 projects area selected from all the States may be drawn for the study.

The respondents

The respondents for the evaluation study include village level respondents & project level functionaries

a. Village level respondents
b. Beneficiaries
c. Mother of beneficiaries
d. Non-beneficiaries (a control group of adolescent girls from the same population residing in selected Anganwadi area but not availing the services under the scheme to be interview to draw a comparative picture of the advantages accrued to Adolescent girls under the scheme).
e. Local leaders

Project Level Functionaries

a. Anganwadi workers
b. Supervisors
c. CDPOs
d. Block / District level officer concerned with ICDS

Progress of the Study

Survey questionnaires have been modified and data collection work is in progress.

O14. PRIMARY HEALTH CENTRE FACILITY SURVEY OF DEMOGRAPHICALLY WEAK DISTRICTS IN INDIA

Date of commencement :
Expected date of completion :
Funding Agency : ICMR
Objectives

a. To take stock of the existing health facilities at the PHC level with regard to the available manpower, infrastructure, and family welfare services provided by them in the recent period.

b. Strengthening of PHCs under Social Safety Net Scheme - infrastructure, facilities, training, and equipments.

c. Improvement in the services due to strengthening.

d. To undertake survey on quality of care from beneficiaries on a sample basis for 5-10 percent of sites.

e. To collect information from the private sector including private clinic/nursing homes/NGO/voluntary organizations on RCH services provided by them for co-opting them in public-private partnership.

The study would cover 460 PHCs i.e., 15 per cent of the 3056 primary health centers from 83 districts (out of 90 demographically weak districts) from the states of U.P., Uttarakhand, M.P., Chhattisgarh, Bihar, Jharkhand and Rajasthan. The selection of these would be random sampling giving due representation to all regions in the state.

The following instruments are used.

1. PHC Schedule
2. Sub center Schedule
3. Exit interview Schedule
4. Private sector Schedule

Progress of the Study

Survey questionnaires have been modified and data collection work is in progress.

O15. BEHAVIOURAL SURVEILLANCE SURVEY (BSS-II) – YOUTH POPULATION

Date of commencement: June 2006
Expected date of completion: 2008
Funding Agency: NACO/UNICEF
Background

Undertaking Behavioral Surveillance Survey (BSS) is an important effort by the NACO to monitor changes in behavioral aspects of general population as well as specific population groups vulnerable to HIV infection. This is expected to help NACO to derive necessary implications from the resultant changes between the ‘recommended behavior’ and ‘reported behavior’ for strategizing appropriate programmatic solutions. In the above context NACO conducted the first BSS in the year 2001 as a part of the NACP II. Towards the end of the NACP II i.e. after a gap of five years since the first wave of BSS, NACO has commissioned the end line BSS to measure the changes in behavioral indicators. The end line BSS is being carried out among General populations as well as HRG (FSW, MSM, Client of FSW and IDU) following similar approach adopted in base line BSS. The aim of carrying out the second wave Behavioral Surveillance Survey is to assess current risk behavior in specific population in India and to develop a database so as to measure behavioral changes from Baseline BSS, 2001 (BSS-1) to end-line BSS 2006, (BSS-2). It aimed to measure changes in the key knowledge and behavioral indicators of general population, young population and key high-risk and bridge groups since the baseline BSS, which was carried out in 2006. This will also to an extent, assess the success of the NACP-II project and identify persistent problem areas. This basic objective can broadly be divided in to the following specific objectives:

- To estimate key knowledge and behavioral indicators of general population and important high-risk and bridge groups on HIV/AIDS and related areas;
- To measure changes in the key knowledge and behavioral indicators of all the above mentioned groups, based on the baseline estimates of the indicators;
- To highlight the possible impact of the project and identify persistent problem areas; and
- To provide data for cross-country and cross regional comparisons of behavioral risks.
Methodology

The survey work has been undertaken by ORG-MARG at all India level. The survey of the General Population would also cover about 30,000 respondents aged 15-24 years as a part of the same. In order to have adequate sample of youth population who are more vulnerable to HIV/AIDS, it was estimated that an additional sample of 48858 respondents need to be covered. With this number of respondents a detailed analysis could be provided.

After having considerable discussions in the TAG meetings, it was decided to conduct an independent survey among the population aged 15-24 years in the same PSUs sampled for BSS-2 Survey. UNICEF has provided funds for the additional sample. The rational behind the study is that the young people have an important role to play in fuelling the HIV/AIDS epidemic in India and therefore they need focused intervention that can result in changing risk behaviour. The study will be repeated periodically for trend analysis which will indicate the impact of the intervention as well as generate invaluable information about the behaviour and life style of adolescent and youth and people in the country.

A sample of 3220 young people in the age group of 15-24 is required in each states/groups of the states to provide the state level estimates. Thus the total sample size for 25 states /group states works out to be 80500. Out of 80500, 31642 have been covered during end-line BSS Survey and additional 48858 are proposed to be covered separately by the same organization, i.e., ORG MARG.

National Institute of Medical Statistics has been given task to provide the technical support and monitor the survey.

Activities

The team conducted two workshops at NIMS conference hall and carried out many meeting in the Institute to discuss the sampling and tabulation plan. They visited at different places to monitor the survey. The team members actively participated in review meetings organized at NACO and ORG offices. The draft report for Youth Survey has been received. The report has been reviewed. The comments have been sent to ORG for incorporating in the report.
O16. EVALUATION OF VIRAEMIA IN HEALTHY VOLUNTEERS AFTER SINGLE DOSE VACCINATION WITH JE SA 14-14-2: LIVE ATTENUATED VACCINE – AN OPEN LEVEL PROSPECTIVE UNCONTROLLED SINGLE CENTRE TRIAL

Date of commencement: Jan 2006
Expected date of completion: Dec 2008
Funding Agency: ICMR

Primary Objective

To determine levels of viraemia after administration of a single dose of live attenuated SA14-14-2 Japanese encephalitis vaccine in adult subjects between days 1-8 and day 15.

Secondary Objectives

1. To determine neutralizing antibody response at 30 days, 6 months and one year after administration of a single dose of live attenuated SA14-14-2 Japanese encephalitis vaccine in adult subjects.
2. To evaluate safety from the time of administration of a single dose of live attenuated SA14-14-2 Japanese encephalitis vaccine in adult subjects till one year.

NIMS is Involved in the Design, Monitoring and Data Management Activities

Data Management

• Development of Data Management Plan (completed)
• Develop database design in Visual Basic MS Access (completed)
• Consistency checks and Validation

Processing of Data

• CRF Tracking, Data Entry, Query Generation, Quality
• Generation, Quality Control, Final Database Lock
**Statistical Analysis**

- Develop Statistical Analysis Plan
- SPSS Programming
- Data listing and production of summary tables for demographic, efficacy and safety data

**Sponsor** – Chengdu Institute of Biological Products (CDIBP) Chengdu 610063, Sichuan, PR, CHINA.

**Funding Agency**

- Ministry of Health & Family Welfare, Government of India;
- Monitored by Indian Council of Medical Research,

**Monitoring Committee**

- Chaired by Dr. U.C Chaturvedi, Emeritus Scientist,
- Industrial Toxicology Research Center, Lucknow, INDIA

**Data Management/Statistical Analysis** –

National Institute for Medical Statistics, New Delhi, INDIA


SCIENTIFIC MEETINGS/CONFERENCES/WORKSHOPS ATTENDED

Dr. Arvind Pandey Director

Meetings of National/International Committees

3 April 2006 Health Sector Policy Reform Option Database (HS-PROD) at CBHI, Nirman Bhavan, New Delhi

7 April 2006 Meeting to discuss the format and forms of the National Family Health Survey (NFHS)-3 at Ministry of Health and Family Welfare, Nirman Bhavan, New Delhi.

9–12 April 06 National Conference on Research and HIV/AIDS at New Delhi.

13 April 2006 Meeting of Third Round Level Household Survey (DLHS-3) in Ministry of Health & Family Welfare, Nirman Bhavan, New Delhi.

17 April 2006 First Meeting of the Task Force on Health Information System under the Chairmanship of Dr. R. K. Srivastava, DGHS at Nirman Bhavan, New Delhi.

12 May 2006 Meeting of Technical Advisory Committee (TAC) of third Round of District Level Household Survey (DLHS-3) at Nirman Bhavan, New Delhi

18 May 2006 Second Meeting of the Task Force on Health Information System at Nirman Bhavan, New Delhi
<table>
<thead>
<tr>
<th>Date</th>
<th>Event and Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 May 2006</td>
<td>Meeting to discuss the tabulation plan of NFHS-3 at IIPS, Mumbai</td>
</tr>
<tr>
<td>25 May 2006</td>
<td>Seminar cum discussion regarding a community based study on HIV Prevalence undertaken by Dr. Lalit Dandona, ASCI, Hyderabad at National AIDS Control Organization (NACO), New Delhi.</td>
</tr>
<tr>
<td>20 June 06</td>
<td>End Line BSS - TAG Meeting to discuss the analysis plan for the GP survey and the sampling procedure to be followed for the HRG survey at National AIDS Control Organization (NACO), New Delhi.</td>
</tr>
<tr>
<td>26 June 2006</td>
<td>Third Meeting of TAC of NFHS-3 III at NIHFW, New Delhi.</td>
</tr>
<tr>
<td>27 June 2006</td>
<td>Press Conference indicating the issues relating to estimations as well as what action NACO is taking to address the HIV/AIDS at the Press Information Bureau.</td>
</tr>
<tr>
<td>28 June 2006</td>
<td>Capacity Building Workshop on Model based HIV estimation to discuss the progress made by the partner Institutions on model based HIV estimation at NIMS.</td>
</tr>
<tr>
<td>30 June 06</td>
<td>Review Meeting for Press Conference at Press Information Bureau to brief the media regarding HIV estimations in India following the release of the Report of UNAIDS-2006 on Global HIV/AIDS situation.</td>
</tr>
<tr>
<td>5 July 2006</td>
<td>First Meeting of the planning Commission Working Group on “Health Informatics including Telemedicine (WG-HIT m) for the 11th Five Year plan period (2007-12) under the</td>
</tr>
</tbody>
</table>
Chairmanship of Dr. R. K. Srivastava, DGHS/GOI- at Nirman Bhavan, New Delhi.

6 July 2006  First TAC for a study entitled “Assessing migration and mobility among female sex-workers and male migrants and links with HIV by Population Council at CSD, New Delhi

17 July 2006  Planning Commission Working Group on Health Informatics including Telemedicine (WG-HITm) for the 11th Five Year Plan period (2007-12) under the chairmanship of Dr. R. K. Srivastava, DGHS/GOI at NIMS.

28 July 2006  Drug Resistance Meeting at National AIDS Control Organization (NACO), New Delhi.

1 August 06  Second Meeting of Planning Commission Working Group on Health Informatics including Telemedicine (WG-HITm) for the 11th Five Year period (2007-12) at Nirman Bhavan, New Delhi.

7 August 06  Meeting to sensitize the programme managers towards the detailed methodology of Child Health Strategy of RCH-II at Nirman Bhavan, New Delhi

8 August 06  Meeting of Sub Group - I of Working Group on Health Informatics including Telemedicine at CBHI, Nirman Bhawan, New Delhi

17 August 06  Release of NFHS-3 provisional fact sheet of five states, Chattisgarh, Gujarat, Maharashtra, Orissa and Punjab by Shri P.K. Hota, Secretary, MOHFW at Vigyan Bhavan, New Delhi.

21 August 06  National HIV Drug Resistance Committee Meeting at National AIDS Control Organization (NACO), New Delhi

23 August 06  Expert Committee Meeting to discuss the End Line BSS report 2006- ALL India General Population Report with the support of NACO, M&E at UNAIDS, New Delhi.
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 Aug 06</td>
<td>Third &amp; Final Meeting of Task Force on Health Information System in Resource Centre, Nirman Bhavan, New Delhi.</td>
</tr>
<tr>
<td>13 Sept 06</td>
<td>Annual Sentinel Surveillance for HIV Infection 2006-Meeting to review Supervision and Monitoring Plans by Central Team &amp; Regional Institutes in the NDC at NIHFW, New Delhi.</td>
</tr>
<tr>
<td>26 Sept 06</td>
<td>National Dissemination Seminar for WHO-World Health Survey (India) findings at India Habitat Centre, New Delhi by IIPS, Mumbai.</td>
</tr>
<tr>
<td>29 Nov–1 Dec 06</td>
<td>Reference Group Meeting of UNAIDS/WHOI on Estimates Modelling and Projections in Prague, Czech Republic.</td>
</tr>
<tr>
<td>14 Nov 06</td>
<td>NFHS-3 Presentation - before HFM in the committee room, 3rd Floor, Nirman Bhawan, New Delhi.</td>
</tr>
<tr>
<td>1 Dec 06</td>
<td>To discuss and review the proposed dissemination on HIV/AIDS information in NFHS-III.</td>
</tr>
<tr>
<td>10 Jan 07</td>
<td>Presentation on “Health Check ups” made by Dr. Prabhat Jha, Director, Centre for Global Health Research, University of Toronto, at R.G, Office, New Delhi.</td>
</tr>
<tr>
<td>11 Jan 07</td>
<td>Meeting of HIV/AIDS estimation under NFHS-3 at Ministry of Health &amp; Family Welfare, Nirman Bhawan, New Delhi.</td>
</tr>
<tr>
<td>22 Jan 07</td>
<td>Workshop on Preparation of final report and Dissemination at CBHI, Nirman Bhawan, New Delhi.</td>
</tr>
<tr>
<td>8 Feb 07</td>
<td>First Meeting of Global fund for AIDS, TB and Malaria.</td>
</tr>
</tbody>
</table>
Programme of UNAIDS to support to provide ongoing guidance to the 5-year evaluation of the (GFATM).

8–9 Feb 2007 National Workshop on Adoption of New WHO Child Growth Standards at India Habitat Centre organized by Women & Child Development, Delhi

23 Feb 2007 Meeting of the Task Team to Provide ongoing guidance to the 5-year evaluation of the Global fund for AIDS, TB and Malaria (GFATM) at UNAID Country Office, New Delhi.

1–2 March 07 Expert Committee Meeting to discuss the Issues on HIV estimation and Compare the Estimation Methodologies at NACO, Chanderlok Building, Janpath, New Delhi.

23 March 07 National Dissemination Workshop on HS-PROD, in the Auditorium of NIHFW, Munirka, New Delhi.

**Meeting at ICMR & Its Institutes**

29–30 May 06 Project Review Group (PRG) Meeting for Maternal and Child Health to review the extramural research activities of the Division of RHN (Task force and ad hoc) on clinical and operational studies on Maternal and Child Health (MCH) at ICMR.

18 August 06 Meeting of Sub-group of ICMR Task force on “Quality Control of Various Laboratory Parameters - Setting up Indian Normative Values” for identifying and defining ethnic groups sub-groups including calculating sample size and systematizing the data collection at Kolkata.

24 August 06 Project Advisory Committee (PAC) to look into the various aspects of Bhopal gas Victims.

21–22 Sept 06 Workshop on Maternal and Early Childhood Infections Interplay Prevention and Management at ICMR.

23 Sept 06 Meeting of the Working Group on Health Systems Research, Biomedical Research & Development and Regulation of
<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>4 October 06</td>
<td>Scientific Advisory Committee Meeting at National AIDS Research Institute (NARI), Pune.</td>
</tr>
<tr>
<td>23–24 Dec 06</td>
<td>Director’s Conference at Desert Medicine Research Centre, Jodhpur.</td>
</tr>
<tr>
<td>15 Jan 2007</td>
<td>Expert Group Meeting of ICMR-CDC funded study on “Preparation of a field site for Malaria Vaccine Trial in and around Jabalpur, Madhya Pradesh” at MRC, New Delhi.</td>
</tr>
<tr>
<td>19 Jan 2007</td>
<td>I-HIND working group meeting of the National Knowledge Commission a Small Group Discussion with Anil Srivastava and his team from CTIS on collaboration in Health related databases</td>
</tr>
<tr>
<td>22 Jan 2007</td>
<td>Meeting to discuss the current status and the forward Path for NIV Lab validation and Adult Viraemia study.</td>
</tr>
<tr>
<td>31 Jan 2007</td>
<td>The First meeting of the Expert Group to discuss the sample size and sampling methodology for sero-surveillance under Yaws Eradication Programme (YEP)- at NICD, Delhi.</td>
</tr>
<tr>
<td>1 Feb 2007</td>
<td>Advisory Committee Meeting to provide technical oversight to the entire MTE process and Terms of reference of the study on Home Based Management of Young Infants</td>
</tr>
<tr>
<td>21 Feb 2007</td>
<td>Lecture in the Conference on “Recent Advances and Challenges in Reproductive Health Research” under the auspices of Indian Society for the study of Reproduction and Fertility (ISSRE) organized by ICMR at New Delhi</td>
</tr>
<tr>
<td>9 March 07</td>
<td>Hon’ble Supreme Court Advisory Committee on MIC Gas Victims Meeting organized by Office of the Chief Medical Officer, Gas Relief and Rehabilitation Department, Bhopal at ICMR Hqrs.</td>
</tr>
<tr>
<td>Date</td>
<td>Event</td>
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<tr>
<td>28 March 07</td>
<td>NCD Risk Factor surveillance Meeting of ICMR HQ at IOP Conference Room, Safdarjung Hospital Campus, New Delhi</td>
</tr>
</tbody>
</table>

**Meetings at NIMS**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>4 April 2006</td>
<td>Brain Storming Session on Exploring possibilities of an Evaluation Group in India organized by Management System International.</td>
</tr>
<tr>
<td>29–30 May 06</td>
<td>Project Review Group (PRG) Meeting for Maternal and Child Health to review the extramural research activities of the Division of Reproductive Health and Nutrition (Task force and Ad hoc) on clinical and operational studies on Maternal and Child Health (MCH).</td>
</tr>
<tr>
<td>22–24 June 06</td>
<td>Meeting of the First ICMR-INSERM Joint Working Group</td>
</tr>
<tr>
<td>28 June 2006</td>
<td>Capacity Building Workshop on Model based HIV estimation to discuss the progress made by the partner Institutions on model based HIV estimation.</td>
</tr>
<tr>
<td>17 July 2006</td>
<td>Planning Commission Working Group on Health Informatics including Telemedicine (WG-HITm) for the 11th Five Year Plan period (2007-12) under the chairmanship of Dr. R.K. Srivastava, DGHS.</td>
</tr>
<tr>
<td>23–24 Nov 06</td>
<td>National Workshop on Developing Protocols for Morbidity Field Studies.</td>
</tr>
</tbody>
</table>

**Meetings of Other Institutes**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>4 April 2006</td>
<td>Brain Storming Session on Exploring possibilities of an Evaluation group in India at NIMS organized by Management system International hosted by IOCE.</td>
</tr>
<tr>
<td>16 April 06</td>
<td>Inaugural function of XXI Annual Conference of Delhi Chapter of IAPM at Iscope Convention Centre organized by IOP, New Delhi.</td>
</tr>
<tr>
<td>6–8 June 06</td>
<td>Indian Association for the Study Population (IASP) meeting at Trivendrum.</td>
</tr>
<tr>
<td>Date</td>
<td>Event Description</td>
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<tr>
<td>26–30 Sep 06</td>
<td>CORT Training on “NGO Capacity Building to Enhance Effectiveness and Sustainability of NGOs” in Vododara, Gujarat.</td>
</tr>
<tr>
<td>28–29 Sept 06</td>
<td>Think Tank Meeting at King George’s Medical University Lucknow.</td>
</tr>
<tr>
<td>29 Sept 06</td>
<td>Meeting of International Center for Research on Women Unmarried Youth in India: Evidence of Effectiveness and Costs from Community-Based Interventions” at New Delhi.</td>
</tr>
<tr>
<td>20 Nov 2006</td>
<td>To discuss the Tabulation Plan under the project “Youth in India: Situation and Needs Study at IIPS, Mumbai.</td>
</tr>
<tr>
<td>4 Jan 2007</td>
<td>Chair the Session in Joint Statistical Meeting at International Indian Statistical Association (IISA) at Kochin.</td>
</tr>
<tr>
<td>19–21 Jan. 07</td>
<td>Invited as Penalist during the session on Estimation of HIV/AIDS burden in 51st All India Annual Conference of Indian Public Health Association and Concluding Golden Jubilee Conference in Kolkatta.</td>
</tr>
<tr>
<td>8 Feb.2007</td>
<td>2nd Programme Advisory Committee (PAC) Meeting of NSTMIS in Indian National Science Academy(INSA), New Delhi.</td>
</tr>
<tr>
<td>10–11 Mar 07</td>
<td>Eight Sir Dorabji Tata Symposium on Arthropod Borne Viral Infections organized by Sir Dorabji Centre for Research in Tropical Diseases at Bangalore.</td>
</tr>
</tbody>
</table>

**Workshop/Conferences/Seminars & Invited Talk and Lectures delivered:**

<table>
<thead>
<tr>
<th>Date</th>
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</tr>
</thead>
<tbody>
<tr>
<td>3 March 06</td>
<td>Resource Person for the short course of IIPS in collaboration with the London school of Hygiene and Tropical medicine (LSHTM) on Behavioral surveillance survey (BSS) on RTIs/STIs in India at IIPS, Mumbai.</td>
</tr>
</tbody>
</table>
13-14 Nov 06  WHO Supported workshop on “Stroke Surveillance”. Invitation for a talk on “Inter-sectoral partners in stroke surveillance” on November 15, 2006.

1-3 Dec 06  Invited Speakers in the Symposium on Maternal Mortality Estimation of 24th Indian Society of Medical Statistics (ISMS) Conference

**Viva Voce/Examiner/Doctoral Committee Meeting M.Phil./PhD.**

7 April 2006  Act as an Examiner for the Ph.D thesis entitled “Modelling Mortality Patterns in India - A Study in Regional Variations” of Ms. Saswata Ghosh, JNU

10 April 2006  Doctoral Committee meeting for Mr. Alok Kumar Dwivedi to review the progress his work at Deptt. of Biostatistics, AIIMS, New Delhi.

17 April 2006  Viva-voce of BITS Pilani Students.

26 May 2006  Act as an Examiner for the Ph.D thesis entitled “Review of Sample Size Determination in Clinical Trials Using Bayesian Approach” of Mr. Manoj Kumar Pandey of Delhi University

1 June 2006  External Expert in the Assessment Board for promotion of Scientist D (Biostatistics) to the next higher grader under the Chairmanship of Chairman RAC at DRDO, RAC, New Delhi.

21 July 2006  M.Phil Viva-Voce of Mr. Manoj Kumar Pandey at University of Delhi.

29 Aug 06  Viva Voce of Mr. Sashwat Ghosh at CSRD at JNU.

10–11 Sept. 06  Viva Voce of Mr. Nigatu Regassa for the award of Ph.D. at IIPS, Mumbai.


30 Dec 06  Ph.D. Viva voce Examination of Mr. Prem Chandra at Deptt. of Biostatistics, AIIMS, New Delhi.
10 Jan 07  3rd Doctoral Committee Meeting for Mr. Alok Kumar Dwivedi, Ph.D. Student in the Deptt. of Biostatistics, AIIMS.

2 Feb 07  Ph.D. Viva-Voce Examination of Mr. Onkar Shivraj Swamy for the thesis entitled “Disease progression and survival analysis of HIV/AIDS Patients in India” at University of Delhi.


Feb 07  Send Comment on the Promotion of Dr. (Mrs.) Sushma Tripathi, Reader in Mahila Maha Vidyalaya to the position of Professor under Carrier Advancement Scheme of BHU

March 07  Act as an Examiner in M.A. M.Sc. Semester II of BHU Students

March 07  Act as an Examiner for Ph.D of Mr. Rahul for the thesis entitled “Population Projection of India (2011-2051) Using MCMC Technique in Bayesian Theory.

**Current Member of National Research/Working Committees**

1. Chairman, Third National Family Health Survey (NFHS-3), Ministry of Health & Family Welfare, Govt. of India.

2. Technical Advisory Committee on District Level Household Survey on RCH, Ministry of Health & Family Welfare, Govt. of India.

3. Technical Advisory Committee on Final Evaluation of CARE-India’s RACHNA project, New Delhi.


5. Project Management Group of Health Sector Policy Reforms Options Database (HS-PROD) at the Central Bureau of Health Intelligence (CBHI), Ministry of Health & Family Welfare, Govt. of India.
6. Mapping and Size Estimation of IDUs in North-Easter States of India, Family Health International (FHI) & Indian Council of Medical Research.

7. Technical Advisory Group of Investigational New Drug Trial at Dabur Research Foundation, Dabur India.


13. Integrated Disease Surveillance Programme (IDSP) of Non-Communicable Diseases, Ministry of Health & Family Welfare, Govt. of India.


15. Working Group to Estimate the Excess Death on Account of HIV/AIDS, NACO, Ministry of Health & Family Welfare, Govt. of India.


18. Technical Advisory Committee of the WFP Evaluation of the Food Fortification Impact on Child Health through ICDS in India.

**Association with National and International Professional Bodies**

1. International Biometric Society (IBS).


4. Population Association of America (PAA).
5. Canadian Society for International Health (CSIH).
7. Indian Society for Medical Statistics (ISMS) (1994-98),
8. Indian Science Congress Association (ISCA).
10. The Royal Statistical Society (RSS)

**Dr. R.J. Yadav, DD(Sr.G.)**

May 9, 2006  

May 12, 2006  
*India’s health sector: Progress towards the MDGs* at ICMR HQ New Delhi.

May 17, 2006  
TAG of CES Delhi project for finalizing the results of CES, Dept. of Family Welfare, Directorate of Health, Govt. of Delhi.

June 29–30, 2006  
Project review Group meeting of division of RHN of ICMR.

June 29, 2006  
Ethical committee of NIMS.

July 1, 2006  
TAG of CES Delhi project for finalizing the draft report of CES.

July 17, 2006  
Working group on Health informatics, New Delhi.

July 26, 06  
Working group on operational Research on communicable and non-communicable diseases for 11th five year plan in relation to National Health Programmes at New Delhi.

July 27, 2006  
Meeting with delegation of Chinese with ICMR at New Delhi.
<table>
<thead>
<tr>
<th>Date</th>
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</tr>
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<tbody>
<tr>
<td>November 14–18, 2006</td>
<td>INDIACLEN Meeting 2006 jointly organized by Clinical Epidemiological Unit, B.P. Koirala Institute of Health sciences, Dharan, Nepal and Indian Epidemiology Network during at Nepal.</td>
</tr>
<tr>
<td>December 1–3, 2006</td>
<td>XXIV ISMS Conference at Coimbatore during.</td>
</tr>
<tr>
<td>December 17–18, 2006</td>
<td>Steering Committee at NIN, Hyderabad during.</td>
</tr>
<tr>
<td>December 23–24, 2006</td>
<td>ICMR Directors conference at Jaisalmer organized by DMRC, Jodhpur during.</td>
</tr>
<tr>
<td>January 10, 2007</td>
<td>Meeting on Study on Fistula at UNFPA, New Delhi</td>
</tr>
<tr>
<td>February 8–9, 2007</td>
<td>National workshop on adoption of New WHO child growth standards organized by Ministries of Women &amp; Child Development and Health &amp; family Welfare in collaboration with UNICEF at India Habitat Centre, New Delhi.</td>
</tr>
<tr>
<td>February 28, 2007</td>
<td>Adolescent Friendly Health services organized by WHO.</td>
</tr>
</tbody>
</table>
Dr. R.K. Gupta

June 14-17 2006  Presented paper entitled Health Status of Children of East Delhi In India at the ICSA 2006 Applied Statistics Symposium held at University of Connecticut, Storrs, Connecticut, USA.

Dec 1-3, 2006  Presented paper entitled Issues Related to Planning of Health Surveys at the XXIV Annual Conference of ISMS organized at the Department of Community Medicine, PSG Institute of Medical Sciences & Research, Coimbatore.

Dr. Anil Kumar

Nov. 23-24 2006  National Workshop on Developing Protocols for Morbidity Field Surveys organized by NIMS and supported by WHO.

Dec. 1-3 2006  Presented paper at XXIV ISMS Conference at PSG Medical College, Coimbatore, Tamil Nadu.

Dec. 4-5, 2006  Attended Workshop on Research Methodology at Central Council for Research in Unani Medicine and delivered expert talk on ‘Computer application on SPSS’.

June 1-15, 2006  Delivered 16 lectures on “Electronic Data Processing” to Medical Record Officers trainee of Safdurjung hospital New Delhi.


Dr. Abha Rani Aggarwal

Invited talks / lectures delivered

During the period under report the following Invited talks/lectures were delivered.

Dec 4 2006:  Lecture on Sample size determination in the workshop cum Reorientation Training Programme in Research Methodology-WHO Training Programme organized by CCRAS, New Delhi at ASSOCAM, Prithvi Raj Road, New Delhi.
Dec 5 2006  Presentation on Clinical Trial Registry in the workshop cum
Reorientation Training Programme in Research Methodology-
WHO Training Programme organized by CCRAS, New Delhi
at ASSOCAM, Prithvi Raj Road, New Delhi.

Training Courses/Workshops/Conferences Attended

Jan. 2–5th 2007  Attended and Presented a paper Risk Factors for Maternal
Mortality: A Community Base Case Control Study in Indian
Slums at the international conference “International Indian
Statistical Association (IISA) Joint Statistical Meeting and
International Conference on Statistics, Probability and
Related Areas held at Cochin.

April 4–6th 2006  INDO-US workshop on Clinical Trials and Clinical Research
at IITC Grand Central Sheraton & Towers at Mumbai.

October 10th 2006  Workshop on “Role of Systematic reviews in health care
and policy – South Asian Cochrane Network” held at ICMR.

Dec 1–3rd 2006  Attended and presented the papers on National Clinical
Trial Registry and House-to-House survey vs. snowball
technique for capturing maternal deaths: A pilot study on
estimation of Maternal mortality at 24th Annual National
Conference Indian Society for Medical Statistics on at PSG
Institute of Medical Sciences & Research, at Coimbatore

Dec 4, 2006  Meeting on Development of registry with Dr. Davina Gharsi,
Coordinator, ICTRP and Dr. Prathap, Member, IAB.

Nov. 29, 2006  Meeting of Technical Advisory Committee (TAC) on malaria
at Nirman Bhawan, New Delhi.

Oct. 28, 2006  Expert Group meeting for sensitization of Clinical Trial registry;

January 15, 2007  Meeting on “Preparation of a field site for malaria vaccine
trial in and around Jabalpur, Madhya Pradesh” at NIMR at
11.00 A.M.

January 22, 2007  Meeting on “A prospective open label, uncontrolled single
Centre study for the evaluation of viraemia in health adults
after single dose vaccination of JE SA 14-14-2 live alternated vaccine” at ICMR at 10.00 A.M.

January 31, 2007  Meeting on issues related to sample size and sample design for sero-surveillance under Yaws Eradication Programme (YEP).

Feb. 8, 2007  Programme Advisory Committee (PAC) meeting of NSTIMIS at Indian National Science Academy Building, New Delhi – 110002.

Feb 15, 2007  Steering committee meeting of National clinical Trial Registry. The meeting was chaired by DG, ICMR.

March 20, 2007  Attended a meeting on Project entitled “Operational research on drug use practice and prepackaged blister pack drugs’ at National Institute of Communicable Diseases, 22-Sham Nath Marg, Delhi at 2:30 P.M.

March 30–31st 2007  Attended a conference on medical writing JPGM Writecon at Mumbai organized by Seth GS Medical College and KEM Medical College.

Dr. H.K. Chaturvedi

Conference Attended

1–3 Dec, 2006  Attended and presented a paper in XVIII Annual Conference of Indian Society for Medical Statistics (ISMS) organized by PSG Institute of Medical Sciences & Research, Coimbatore during.

Scientific Meetings

April 18, 2006  PROD Management Group (PMG) meeting held at MoHFW, Nirman Bhawan, New Delhi and presented the technical overview of quarterly progress of HS-PROD project.

July 28, 2006  PROD Management Group (PMG) meeting held at MoHFW, Nirman Bhawan, New Delhi and presented the technical overview of quarterly progress of HS-PROD project.
Dec 5, 2006  PROD Management Group (PMG) meeting held at MoHFW, Nirman Bhawan, New Delhi and presented the technical overview of quarterly progress of HS-PROD project

March 28, 2007  Technical Advisory Committee meeting of IDSP-NCD Risk Factors Survey organized by ICMR and presented the Project plan, Survey Methodology, Survey Instruments etc.

**Lectures Delivered:**

January 13, 2007  Lectures delivered on Survival Analysis during statistical training programme organized by the Institute for research fellows and Final Year P.G. students of Statistics from University

October 10, 2006  Lecture on Study design and sampling at NICD for MPH Student’s

**Workshops Attended:**

March 23, 2007  National Dissemination Workshop on HS-PROD held at NIHFW, Munirka and jointly organized by CBHI, MoHFW and NIMS, ICMR, New Delhi.

**Dr. D.Sahu**


May 30–June 29, 2006  Training workshop on **From Analysis to Action: Advocating for Effective 2006 HIV response**, under the Thirty-Seven Summer Seminar on Population organized by East West Center, USA at East West Center, Honolulu, Hawaii, USA.

January 11, 2007  Invited to participate National Dissemination Event of CARE’s RACHNA Program at Essex Farms, New Delhi

March 2, 2007  Participated Expert group meeting the Issues on HIV Estimation and Compare the Estimation Methodologies at NACO, New Delhi

**Dr Tulsi Adhikari**

23–24 November 2006  National Workshop on Developing Protocols for Morbidity Field Surveys organized by NIMS and supported by WHO.

1–3 December 2006  Attended and presented paper at XXIV ISMS Conference at PSG Medical College, Coimbatore, Tamil Nadu.

4–5 December, 2006  Attended as resource person in Workshop on Research Methodology at Central Council for Research in Unani Medicine supported by WHO India Office.

**Dr Atul Juneja**

18 April 2006  Examiner for Ph.D. students of IOP registered with BITS Pilani

15 May 2006  Project Management Group Meeting of HS PROD at CBHI

26 June 06  Meeting of Adult Viremia study with PATH and ICMR

11 July 06  Inaugural session of the workshop for two day workshop for IBBA Project at New Delhi

12 July 06  Visited Sanjay Gandhi Transport Nagar for pre survey assessment of IBBA Project

14 July 06  In house meeting of Clinical Trial Registry at NIMS

25 August 06  HSPROD-Meeting with Deuty Directors of FSUs at CBHI New Delhi.

13 Sept 06  Attended the lecture on various issues on Prostate by Prof. Mohanty Head department of urology Safdarjung Hospital on the Hindi Day celebrations at ICMR Head qrts New Delhi.
<table>
<thead>
<tr>
<th>Date</th>
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</tr>
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<tbody>
<tr>
<td>23–24 Nov 06</td>
<td>Coordinated the organization of workshop for the development of protocol for morbidity field surveys.</td>
</tr>
<tr>
<td>1–3 Dec 06</td>
<td>Attended annual conference of ISMS held at PSG Medical College Coimbatore and presented a paper on Risk for development of cancer-probability approach in symposium.</td>
</tr>
<tr>
<td>4 Dec 06</td>
<td>Delivered a lecture on biostatistics in WHO workshop cum orientation program on research methodology organized by Central Council for Research in Unani Medicine.</td>
</tr>
<tr>
<td>15 Feb 07</td>
<td>Steering Committee meeting of National Clinical Trial Registry at NIMS</td>
</tr>
<tr>
<td>9–10 Feb 07</td>
<td>Invited to deliver a lecture on Health Research Methodology at National Level seminar on IT and Reliability at NC College of Engineering Israna Panipat.</td>
</tr>
<tr>
<td>3–7 January 07</td>
<td>Organised training program and delivered lectures for the final year students of M.Sc Statistics students of Kurukshetra University</td>
</tr>
<tr>
<td>17–18 March 07</td>
<td>Delivered a invited talk on behalf of Director at National seminar on theoretical and applied Bayesian statistics at Udai Pratap College Varanasi (topic of presentation Application of Bayesian Methods in Health Research)</td>
</tr>
<tr>
<td>23 March 07</td>
<td>Dissemination workshop for HSPROD at NIHFW New Delhi</td>
</tr>
</tbody>
</table>
FOREIGN VISITS

Dr RJ Yadav, Dr RK Gupta, Dr Anil Kumar, Dr Tulsi Adhikari and Dr Atul Juneja participated in the Applied Statistics Symposium of ICSA held at University of Connecticut, CT USA from 14-16 June 2006.

Dr D Sahu participated in the Training workshop on *From Analysis to Action: Advocating for Effective HIV response*, under the Thirty-Seven Summer Seminar on Population organized by East West Center, USA at East West Center, Honolulu, Hawaii, USA from May 30–June 29, 2006.
1. Prof. P.S.S. Sundar Rao Chairman  
Ex-Prof. & Head Dept. of  
Biostatistics, CMC, Vellore.

2. Prof. K. Srinivasan  
Emeritus Professor  
International Institute for  
Population Sciences  
Deonar, Mumbai 400 088.

3. Prof. P.P. Talwar  
Ex-Head, Dept. of Statistics,  
NIHFW, B-1/1027,  
Vashant Kunj, New Delhi.

4. Prof. Alok Dey  
Indian Statistical Institute  
New Delhi 110 016.

5. Prof. K. Ramachandran  
No.12, Bhakhthavatsalam Salai  
45, Old Warren Road,  
Mylapore, Chennai-600 004.

6. Prof. D.C.S. Reddy  
Ex-Head, Dept. of PSM, BHU  
WHO, Jor Bagh, New Delhi-03.

7. Dr. Padam Singh  
Ex-Additional DG, ICMR  
Head – Health Research EPOS,  
Hauz Khas, New Delhi 110 016.

8. Dr. S.K. Nath  
Director General  
CSO, Sardar Patel Bhavan,  
New Delhi.

9. Prof. P.N. Mari Bhat, Director  
International Institute for  
Population Sciences  
Deonar, Mumabai 400 088.

10. Dr. S.N. Dwivedi  
Additional Professor  
Dept. of Biostatistics,  
AIIMS, New Delhi 110 029.
11. Sh. Partho Chattopadhyay  
   Chief Director,  
   Dept. of Health & Family Welfare,  
   Nirman Bhawan,  
   New Delhi-110011

12. Dr. Ramesh Paranjape  
   Director,  
   National AIDS Research Institute  
   Pune.

13. Dr. D.K. Sikri,  
    Registrar General & Census  
    Commissioner, India

14. Dr. Digambar Laxman Ingole  
    (Special Invitee)  
    Medical Director,  
    Dr. D.Y. Patil Medical College,  
    Pimpri, Pune-411018

15. Chief, Division of ECD  
    ICMR, New Delhi, 110 029.

16. Dr. Arvind Pandey  
    Member Secretary  
    Director, NIMS,  
    Ansari Nagar,  
    New Delhi 110 029.
MEMBERS OF THE ETHICS COMMITTEE

1. Dr. S.D. Seth, Chairman
   Chair in Clinical Pharmacology,
   Indian Council of Medical Research,
   Ansari Nagar,
   New Delhi-110029.

2. Dr. Ravi Verma,
   Sr. Programme Associate,
   Population Council,
   53, Lodhi Estate,
   New Delhi-110003

3. Dr. (Ms.) Neerja Jayal,
   Chair Person,
   Law and Governance Division,
   Jawaharlal Nehru University,
   New Delhi – 110067.

4. Dr. Mala Ramanthan,
   Associate Professor,
   Deptt. of Biostatistics,
   Shri Chitra Institute of Health Sciences,
   Trivendram.

5. Dr. M. Bhattacharya,
   Prof. & Head,
   Department of Community Health Administration,
   NIHFW, Munirka
   New Delhi-110067.

6. Shri K.S. Bhati, (Special Invitee)
   Advocate,
   552, Ganpati Apartments,
   Sector-9, Dwarka,
   New Delhi 110 079.
7. Dr. R.N. Gupta (Special Invitee)  
   Ex. Dy. Director General (SG),  
   Indian Council of Medical Research,  
   Ansari Nagar, New Delhi.

8. Dr. Arvind Pandey,  
   Director,  
   Institute for Research in Medical Statistics,  
   Ansari Nagar,  
   New Delhi-29.

9. Dr. R.J. Yadav (Special Invitee)  
   Dy. Director  
   IRMS, New Delhi.
# Officers of the Institute

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
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<tbody>
<tr>
<td><strong>Director</strong></td>
<td>Prof. Arvind Pandey, M.Sc., Ph.D., FSMS, FRSS</td>
</tr>
<tr>
<td><strong>Deputy Director (SG)</strong></td>
<td>Dr. R.J. Yadav, M.Sc., Ph.D.</td>
</tr>
<tr>
<td></td>
<td>Dr. R.K. Gupta, M.Sc., Ph.D.</td>
</tr>
<tr>
<td><strong>Deputy Director(s)</strong></td>
<td>Dr. S.C. Mehta, M.Sc., Ph.D.</td>
</tr>
<tr>
<td></td>
<td>Dr. S.K. Benara, M.D.</td>
</tr>
<tr>
<td></td>
<td>Dr. Anil Kumar, M.Sc., Ph.D.</td>
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<tr>
<td></td>
<td>Dr. (Mrs.) M. Thomas, M.Sc., Ph.D.</td>
</tr>
<tr>
<td></td>
<td>Dr. (Mrs.) Abha Rani Aggarwal, M.Sc., Ph.D</td>
</tr>
<tr>
<td></td>
<td>Dr. H.K. Chaturvedi, M.Sc., Ph.D.</td>
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<td>Mr. Ashok Kumar, M.Sc. (Rtd. on Oct. 2006)</td>
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<td><strong>Personal Assistant</strong></td>
<td>Ms. Usha</td>
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<td><strong>Section Officer</strong></td>
<td>Mr. R.S. Chadha</td>
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<td>Mr. L.R. Chuttani</td>
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