

IRMS

ANNUAL REPORT



INSTITUTE FOR RESEARCH IN MEDICAL STATISTICS
INDIA

SCIENTIFIC PROGRAMMES

Foreign Visits

Dr Mariama Thomas attended "Integrated Analysis to Improve HIV Responses in Asia and the Pacific" at the XXXV Summer Programme on Population and Health of the East-West Centre Honolulu, Hawaii, USA, 1-30 June 2004

Dr. Tulsi Adhikari and Dr. Atul Juneja attended the VI Annual Conference of the International Chinese Statistical Association (ICSA) at National University of Singapore, Singapore, 21-23 July 2004.

Awards & Honors

Prof. Arvind Pandey awarded with Fellow of the Royal Statistical Society (FRSS).

Dr. Abha Aggarwal received Prof. P.V. Sukhatme award of the Indian Society for Medical Statistics (ISMS) during XXI Annual Conference of ISMS at Jodhpur, 20-22 January 2005 for her research paper entitled "Nutritional Status and Diet-Intake among Pre-School Children in Delhi".

Dr. Tulsi Adhikari received Prof. R.N. Srivastava award of the Indian Society for Medical Statistics (ISMS) conferred during XXI Annual Conference of ISMS at Jodhpur, 20-22 January 2005 for her paper entitled "Identification of Poor : Quality of Life Approach"

Training Programmes



On accounts and administration system in India to a WHO Fellow from Myanmar, 16-17 September 2004

On Statistical Methods in biomedical research for the scientists of National Institute of Biologicals, Ministry of Health & Family Welfare, 4- 8 October 2004



On Applied Statistics for the M. Sc. (Statistics) students from Kurukshetra University, 10-18 January 2005

Workshop on Bayesian Statistics and Evidence Based Medicine, 1-4 March 2005

was organized for the biomedical researchers and Statisticians. The resource persons of the workshop included Prof. Hari Dayal, Medical University of Texas, USA, Prof. A.K. Bansal, Department of Mathematical Statistics, University of Delhi, Delhi and Prof. S.K. Upadhyay, Department of Statistics Banaras Hindu University, Varanasi. Workshop had discussion on the theoretical issues of the subject as well as insights into the application of Bayesian Statistics in the field of medicine. Evidence Based Medicine was discussed with illustrative examples.



The central aim of the workshop was to convince the biomedical researchers to use Bayesian Statistics for deriving inferences from the limited data. It was the first workshop on the application of Bayesian Statistics in the field of medical sciences in India.



Prof N.K.Ganguli, DG ICMR, congratulated the Institute for successfully organizing

the workshop and encouraged to organize such programmes frequently.

COMPLETED STUDIES

1. STUDY ON ISM&H BENEFICIARIES COVERED UNDER CGHS AND SELECTED TEACHING HOSPITALS ATTACHED TO ISM&H COLLEGES

Study objectives

- To assess the reasons for acceptability/non-acceptability of ISM&H facilities under CGHS by the beneficiaries, Perception of CGHS beneficiaries towards ISM&H and their suggestions for improvements.
- To know the level of availability of facilities in the teaching hospitals attached to the ISM&H Colleges and perception of indoor/ outdoor patients of these hospitals towards ISM&H.

Coverage of Hospitals & Dispensaries

- Survey covered facilities available in the teaching hospitals of ISM&H colleges and dispensaries attached to CGHS.
- Exit interviews were conducted for 50 patients from out door and about 100 patients from Indoor.
- Comparative information was also collected from patients attending CGHS - Allopathic dispensaries.

Systems	Hospitals			Dispensaries
	Govt.	Non Govt.	Total	
Ayurveda	15	19	34	24
Homoeopath	8	18	26	22
Unani	7	6	13	7
Siddha	1	-	1	2
ISM&H	31	43	74	55
Allopath			-	80
Total			74	135

Findings:

Major diseases for which patients attended OPD & Indoor Patients

- **Ayurveda:** Gastro Intestinal disorder, Fever, Arthritis, Old age related problems, Cough & Cold
- **Homoeopathy:** Arthritis, Skin diseases, Gastro Intestinal disorder, Old age related problems, Respiratory diseases
- **Unani:** Gastro Intestinal disorder, Gynecological problems, Old age related problems, Skin diseases
- **Siddha:** Gynecological problems, Old age related problems, Arthritis

Facilities: ISM&H Dispensaries

- About one-third of the dispensaries are running in rented buildings. Unani and Siddha dispensaries are having their own building.
- Doctor's room, examination room for the patients, electricity supply and drinking water are available at all the places.
- Medical Officer, Pharmacist and Class IV staffs are available as per the sanctioned position at all the places.
- There is scope to improve efficiency of supply of medicines, publicity and separate financial/administrative autonomy in all ISM&H dispensaries.

Facilities: Non-government hospitals

- In Ayurveda hospitals, the diseases of adult males for indoor admissions are for Gastro Intestinal disorder and liver disorder in addition to old age related problems.
- In Homoeopathy hospitals, the diseases of adult males are Gastro Intestinal disorder, piles, liver disorder. Among adult females, the diseases are gastro intestinal disorder, liver disorder, gynecological problems.
- In Unani, the major problems for which adult males, adult females and children admitted are gastro intestinal disorder and liver disorder.
- There is scope to improve availability of medicines, publicity and financial position.

Indoor patients: Government & Non Government ISM&H Hospitals

- In case of common ailments, generally family members used the same system for which patients visited but for the serious ailments, almost all the family members are using Allopathic system.
- No relief is the reasons for shifting from ISM&H systems.
- Ayurveda and Homoeopathy were the choices for those who wanted to shift from Allopath system.
- Effectiveness and no side effect were reasons for preference of ISM&H.
- Adequate supply of medicine and proper publicity were suggestions for improvements.

Exit Interview- ISM&H Dispensaries, Allopath Dispensaries

- Data have been collected from 1200 patients from Government and 400 patients from Non-Government hospitals.
- Those who are admitted for long duration reported progressing satisfactorily.
- Family member of the patients who are admitted in ISM&H hospitals are using different system of ISM&H for common ailments.
- The use allopathic treatment is mostly in case of serious ailments.
- Almost all from Government as well as Non-Government hospitals are satisfied with the availability and behaviour of doctor and other staff.
- Half of the patients are of the view that cost of medicines is moderate for ISM&H.
- Long time and too far away are main reasons for the not visiting ISM&H dispensary.

Exit Interviews: Non- government Hospitals

- The ailment for which patients were attending private hospitals OPD are:
 - Gastro Intestinal disorder, Skin diseases, Gynecology problem, Arthritis, respiratory diseases and Old age related problem in Ayurveda;
 - Respiratory diseases, Gastro Intestinal disorder, Skin diseases and Old age related problems in Homoeopathy;
 - Gastro Intestinal disorder and old age related problems in Unani.
- Satisfaction level is reported to be high. The satisfaction level is also high for the availability of medicines and pathological laboratory. In most

cases, the medicines are easily available. Cost of medicines is reported to be moderate.

- Patients reported using the same systems for other family members.

2. Community Based Study on Prevalence of Sexually Transmitted Disease in Urban and Rural Areas of India

Study objectives:

- To examine the knowledge, risk and health seeking behaviour regarding STD for the population in 15-49 age group by epidemic zones.
- To determine the prevalence of STD by epidemic zones.

Salient findings:

- Among males, perceived complaints of genital ulcer and urethral discharge are clinically established in 90 and 96 percent cases respectively.
- Among other complaints, 83 percent of those complaining of bubo and 100 percent of those complaining of genital warts are clinically found to have scrotal swelling.
- Only 28 percent of genital ulcer disease is clinically confirmed in women whereas 93 percent of vaginal discharge and 66 percent of pelvic inflammatory disease is confirmed clinically.
- Fort-six percent of reported vaginal discharge is clinically diagnosed as cervical discharge.
- Pelvic infection is found in 31 percent of reported vaginal discharge cases.
- Clinical findings in cases of reported pelvic inflammatory diseases included vaginal discharge in 85 percent cases and cervical discharge in 59 percent cases.
- Though vaginal discharge, cervical discharge and pelvic infection are clinically established in cases reported of genital ulcer, bubo and genital warts, the numbers reported these symptoms are very small to establish any relationship.

- Considering the occupation status, most of the males with STI are unskilled workers whereas the infected females are mostly house wives/unemployed.
- Majority of infected males and females are married and living with their spouse except in the low epidemic zone where very few infected males are staying with their spouse.

Following is the table showing the laboratory results according to residential locality in High and Low/Moderate Epidemic zone

	Low-Moderate		High	
	Urban	Rural	Urban	Rural
Normal	83.9	86.0	84.8	82.0
Normal Excluding Candidiasis	88.5	89.8	90.4	88.3
Normal Excluding Cand. & Bact. Vag.	94.6	95.3	94.0	93.8
V S Trichomoniasis	2.7	1.8	1.5	1.3
Candidiasis	6.6	5.5	6.6	8.1
Bacterial Vaginosis	7.2	6.4	4.0	6.5
U S Trichomoniasis	.0	.1		.2
Chancroid		.1		.1
Herpes -2	.6	.7	1.6	1.9
Syphilis	.4	1.0	.8	1.2
HPV	1.6	.8	.4	.3
HIV+	.1	.3	1.4	1.1
Gonorrhea	.2	.1	.2	.6
Chlamydia	.1	.0	.4	.2
Multiple Infection	3.0	2.3	1.5	2.9
Multiple Infection excluding candidiasis	1.3	.8	.7	1.2
Multiple Infection excluding candidiasis & Bact. Vag.	.4	.2	.2	.3
STI Prevalence	5.4	4.7	6.0	6.2

3. Analytical Study of HIV Sentinel Surveillance Data 2003

The Institute for Research in Medical Statistics (ICMR) has been identified as one of the coordinating agencies for data management and epidemiological analysis of the National AIDS Control Organization's (NACO's) HIV/AIDS sentinel surveillance (HSS) since 2002.

Objectives of the Study :

- To analyze the HSS data and provide trend and estimate of HIV burden in the country.
- To organize meeting of the expert group consisting of epidemiologists, biostatisticians in the country and experts from international agencies like UNAIDS, WHO, UNICEF etc.

Findings :

Prevalence of Sexually Transmitted Infections

STI prevalence in urban and rural India' showed that the assumed prevalence of 10, 7 and 5 percent respectively in the urban areas of high, moderate and low epidemic zones has been changed to 6 percent irrespective of the epidemic level. The STI prevalence in the rural areas of high epidemic zone has increased to 7% from assumed 5% whereas it remains the same in the rural areas of moderate and low epidemic zone.

Urban-rural differential of HIV Infection

In 2003 round of HSS, 210 rural ANC sites are added with the objective of comparing the HIV infection in urban and rural areas. It is found that even rural sites that are primary health centre (PHC) are attended by mixture population, i.e. from rural and urban area because of the location of a PHC in mostly towns. The urban/rural ratio of HIV infection had been obtained from HSS-2003 data after adjusting for such compositional differences of population at risk that influence the prevalence. Further, the HIV prevalence has been adjusted for age using the age distribution of the rural and urban population from the sample registration system (SRS).

Male-female Ratio of HIV Infection

The observed male-female ratios for sero-prevalence is found to be same as those assumed in 1998, i.e., 1.2:1.0, 2.0:1.0 and 3.0:1.0 in high, moderate and low epidemic zones.

4. Base Line Study on Impact Assessment of ICDS Food Fortification In the Dehradun District of Uttaranchal

Objectives

- To determine the baseline prevalence of iron and Vitamin-A deficiencies among children 12-59 months in Kalsi block of Dehradun district in Uttaranchal.
- To monitor the supplementation of fortified food and
- To undertake end line evaluation for evaluating the impact of supplementation.

Sample Design and sample selection

The district selected for the study was Kalsi (where fortified food will be supplied). Probability Proportion to Size (PPS) selected thirty villages from these blocks. From the 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 $\alpha = .05$, 80% of power of test $\pi_1 = .15$, $\pi_2 = .10$ and taking into account the design effect as 1.5. The prevalence of severe anemia was around $\pi_1 = 15\%$ and it was hoped that it will be reduced to the $\pi_2 = 10\%$ by the fortified ICDS supplementation.

Profile of Children

The children were appropriately represented by gender. Children of both the sexes were also evenly distributed by age groups.

Distribution of children

Age (Yrs)	Baseline	
	Male	Female
1-2	49.0	51.0
2-3	48.7	51.3
3-4	51.3	48.7
4-5	52.7	47.3

Level of Anemia /Hb level among Children

Level of anemia has been defined as severe anemia (less than 7), moderate anemia (for Hb level between 7 to 9.9), mild anemia (for Hb level between 10 to 10.9) as per the WHO classification. All these types of anemia taken together have been defined as the *any type* of anemia. Nearly three fourth children had anemia and there was no differential by gender.

Anemia level (%) in children by age and sex

Age (Yrs)	Baseline					
	N	>=11 Normal	<11 Any Anemia	10-10.9 Mild	7-9.9 Moderate	<7 Severe
1-2	46	21.7	78.3	30.4	45.7	2.2
2-3	67	25.4	74.6	16.4	55.2	3.0
3-4	89	20.2	79.8	25.8	49.4	4.5
4-5	105	27.6	72.4	26.7	41.9	3.8
Sex						
Male	149	24.2	75.8	28.9	43.6	3.4
Female	158	24.1	75.9	20.9	51.3	3.8
Total	307	24.1	75.9	24.8	47.6	3.6

Presence of worm history

About 15.6% of the children had worm history. The problem seems to be more severe in female children than in male children covered.

Presence of worm history

Presence of worms (n=764)	Baseline
Male	13.5
Female	17.7
Overall	15.6

Presence of worms

Sixteen percent of children had presence of worms in their stools. The presence was higher among male children.

Presence of worms

Presence of worms (n=300)	Baseline
Male	18.4
Female	13.4
Overall	16.0

Level of Vitamin -A deficiency

Nearly one third of children had Serum levels below the cut-off level 19.9. Female children had much higher percentage (36.7 against 24.8% for male children) of Vitamin A deficiency. For children who had been administered Vitamin A syrup, the percentage below the cut-off point 19.9 of serum level was much lower (15.7).

Level of Vitamin A deficiency in children

Age (Yrs)	Serum level <19.9
	Baseline (n=307)
1-2	32.6
2-3	28.4
3-4	28.1
4-5	34.3
5-6	-
Sex	
Male	24.8
Female	36.7
Total	30.9

Presence of Clinical Signs

The prevalence of Bitot's spot was 1.2%, both in males and females, which shows that it is a public health issue.

Prevalence of Bitot's Spot (%)

Sex	Bitot's Spot (%)
Male	1.2
Female	1.2
Total	1.2

Among the children having Bitot's Spot, there is larger percentage of them having Serum level below the cut-off 19.9.

Bitot's Spot according to Serum level

Bitot's Spot	Serum level	
	<19.9	>=19.9
Yes	3.2	1.9
No	96.8	98.1

Nutritional Status

The **severe** and **moderate** grade of malnutrition (body weight less than 75% of standard) which constituted the high Risk group from health point of view was around 55% as per Gomez classification and around 50% as per standard deviation classification.

Nutritional status of children (2-6 Yrs) (%)
(Gomez' and standard deviation classifications)

Nutritional Status	Gomez Classification			Standard Deviation Classification		
	Male	Female	Overall	Male	Female	Overall
Severe	1.8	1.9	1.8	9.4	9.0	9.2
Moderate	53.2	50.0	51.6	39.7	36.2	38.0
Mild	30.9	34.7	32.8	34.3	38.9	36.6
Normal	14.0	13.5	13.8	16.6	15.9	16.3

5. Birth and Death Registration System in India: A Pilot Study

Study Objectives

- To review the existing systems of registration in the two states
- To suggest modifications for making registration system more effective

Research design and methodology

The study was conducted in two states:

- Uttar Pradesh that has poor registration and the other **and** Punjab having the high registration as estimated by the Civil Registration System (CRS), Office of the Registrar General, India.
- Two districts from each state and ten villages from each district were selected.
- Information was collected on Birth and Death events that occurred during the year 2002 and up to 31st March, 2003 in the selected villages.
- The study focused mainly on studying events. Snow Ball Sampling was used for identifying the events.
- Variables for data collection included awareness of the system, attitude towards the system, reasons for registration, reasons for non- registration, information on difficulties faced by the registration staff.
- Separate questionnaires were designed for each aspect.

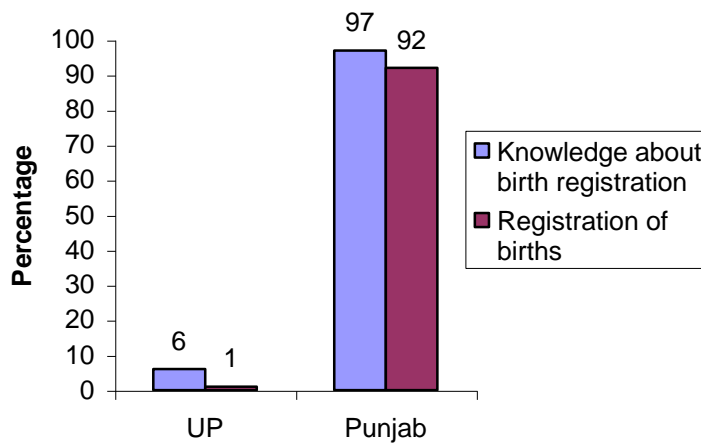
Salient Findings

Information is collected on 564 births and 136 deaths in the two districts of Uttar Pradesh and 328 births and 139 deaths in the two districts of Punjab.

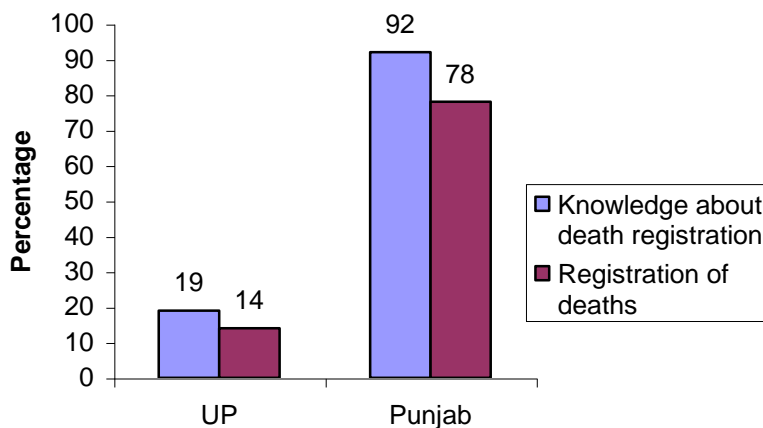
- In U.P., it is observed that registration of births and deaths is not a practice but a need based where the certificate is required.
- In Punjab, both birth and death registration is a practice but the families receive certificates when the same is needed.

- The system of registration is observed to be almost non-functional in U.P.
 - The reported causes included lack of funds, non-availability of the required stationery, lack of coordination among different functionaries and lack of interest among Gram-Panchayats, Vikas Adhikari in the registration work.
 - The families had no knowledge of registration as well as they do not feel necessity for the same in U.P. The notify system is not at all functional in U.P. whereas, the success of the system in Punjab is due to the Chowkidar working as notifier.
 - The functionaries at Registrar and Notifier level do not receive any formal training in birth and death registration.

Registration of Births (%)



Registration of Deaths (%)



6. Innovative Study Of Awareness About STD/HIV/AIDS Among Truck Drivers In India

Study Objectives:

- Create awareness on STD and HIV/AIDS and its preventive measures.
- Motivate for adoption of behaviour change.
- To examine the effectiveness of different components of intervention programme through a series of qualitative research methods
- To identify the priority areas for potential improvements in future. .

Awareness campaigns were carried out with the effective implementation of the following strategies:

- Regular distribution of leaflets containing pictorial information about STDs, HIV/AIDS
- Condom demonstration with the penis model
- One to one and one to group counseling
- Free medical check up camps



Health provider of the project



Group discussion among truckers

Project Impact

- Awareness/educational programmes by peer educators, role play, street play, etc. by outreach workers and counseling and clinical services by trained professionals have resulted into definite impact on the knowledge and also on the behaviour of truckers as well as community people in the villages included in the intervention programme.
- All the participants admitted that they now know the correct use of condoms and condoms are made available by the project staff in and around their transport offices. At present most of the truckers keep condoms in first aid box of their trucks since they are fully aware that using condom is the only way of preventing HIV/AIDS.

Areas for potential improvements

- Truckers are yet not mentally prepared to take charge of the project activities through chain system even after a concerted effort of more than three years of the project. There is a need for overhauling in strategies of any such intervention so that the impact of the project can remain visible for a longer duration.

7. Determination of Risk Factors Associated with Maternal Mortality in Municipal Corporation of Delhi: A Community Based Case Control Study

Study objectives:

- To identify maternal deaths and the risk factor associated with MMR in JJ colonies of Delhi.
- To discover the socio-economic, cultural and behavioral factors behind such maternal deaths.
- To estimate the relative risk of maternal deaths due various risk factors.

Methodology

- Retrospective case-control design has been taken in which a group of women who died due to pregnancy (maternal deaths) called cases

and a group of women who survived after childbirth called controls are taken for the case-control study.

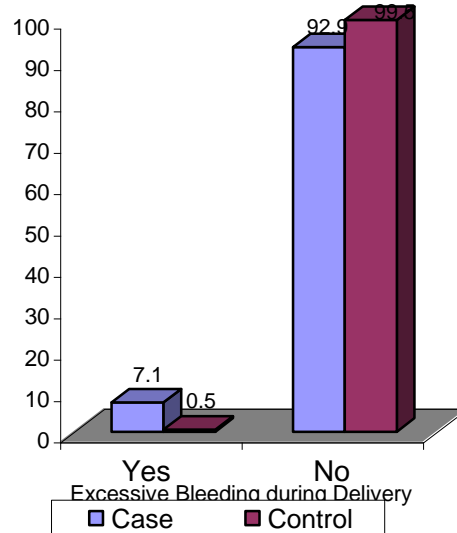
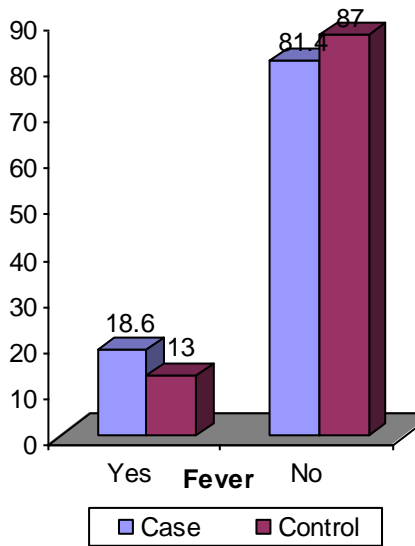
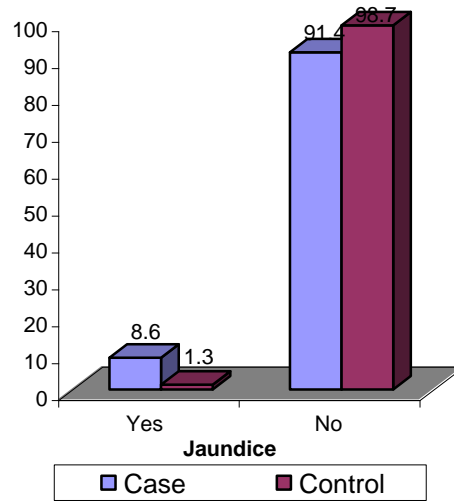
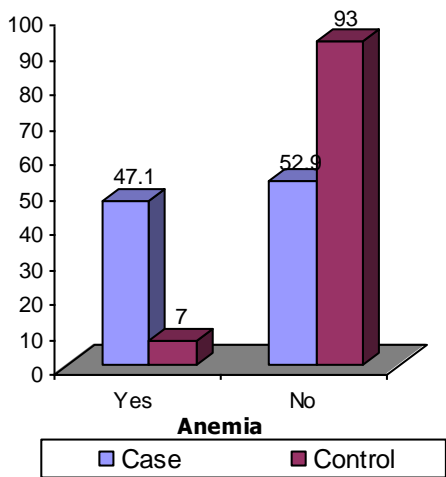
- The information on the maternal deaths which occurred during the last two years is collected from the locality, mentioned above, from the registers maintained at health centers under IPP-VIII. Snowball sampling is conducted to identify the maternal deaths through key informants including ANM and Basti Sevika of the IPP-VIII health centres.

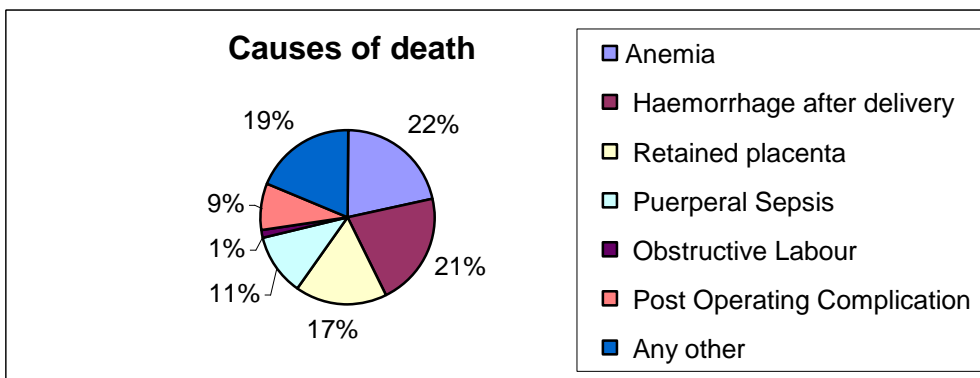
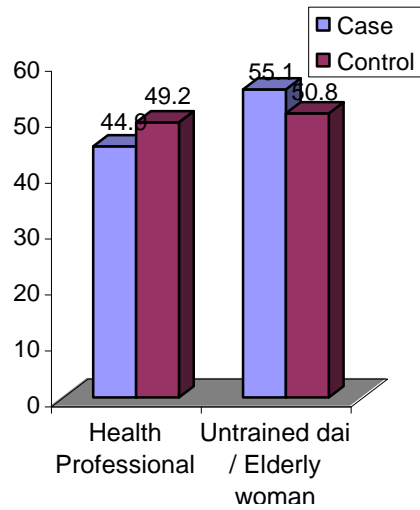
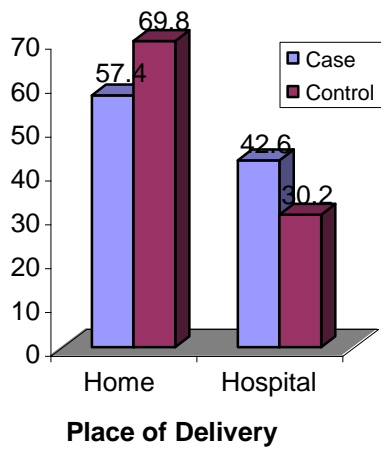
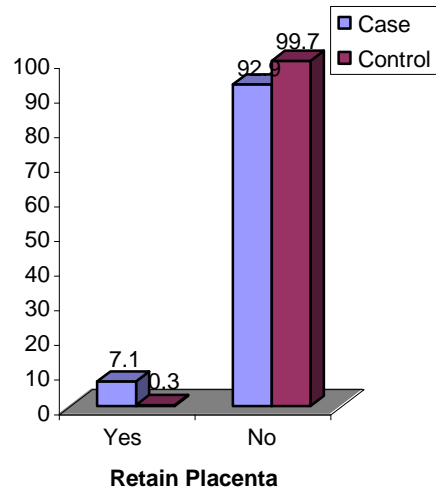
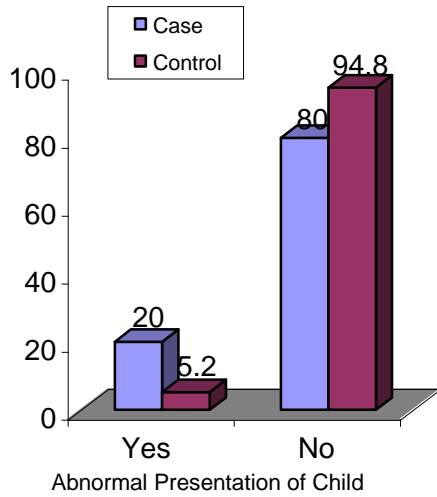
Coverage

All the health centres covered under the IPP-VIII has been covered. In addition, health centres list of maternal deaths from AIIMS, Safdarjung hospital and NDMC office have also been collected.

Findings

- The study found major causes of maternal death as anemia (21 percent), hemorrhage after delivery (21%) followed by retained placenta (17%) and puerperal sepsis (11%).
- About one-fifth of cases died with other reasons and of these non-obstetric cases includes 3 cases of jaundice which might have occurred due to unhygienic conditions of the house.
- Jaundice during pregnancy is found to be a risk factor (OR= 6.5 p=0.003, CI:1.9–22.5)





8. Examination of WHO guidelines for exclusive breast feeding in relation to child survival

Study Objectives:

- To revisit the findings of a recent research that has stated breastfeeding with supplements to be more beneficial than exclusive breastfeeding even for children at very young ages (below four months) for the survival of infant.

Methodology

- Utilizing the data of the National Family Health Survey, 1992-93 (NFHS-1), which was initiated by the Ministry of Health and Family Welfare, Government of India and coordinated by the International Institute of Population Sciences, Mumbai, it proposed to look into the definition of exclusive and supplementary breastfeeding and reanalyze the data.

Findings

- The study negates the findings of recent research by recommending breast feeding throughout first year of life. The study also confirms with the WHO recommendation of food supplements along with BF from six months.
- The research endeavor illustrates that introduction of plain water as early as one month after birth can reduce infant mortality in India.
- However, in tropical country like India, this needs to be further investigated with longitudinal data.

ONGOING STUDIES

1. Risk Factors Associated with cervical Cancer

Study objectives

- To study the risk factors associated with cervical cancer

Methodology

- To review work related with risk factors associated with cervical cancer and cytology screening approaches for the control of cervical cancer with reference to developing countries like India.
- To carry out research in collaboration Institute of Cytology and Preventive Oncology (ICMR)

Progress

Review of the Risk factors associated with cervical cancer

- The review process dealt with the risk factors associated with cervical cancer. The work is published in peer reviewed journal and the article is available online.
- Most of the data are available from the developed countries, which rely mainly on cytology screening on regular basis. This however may not be feasible in developing countries because of various constraints. The various articles are approached through Medline search including cross-references.
- The important life styles associated with cervical cancer and which are amenable to primary prevention strategies through health education, behavioral interventions, legislative approaches and modifying the health care seeking behavior are identified through the review process.
- These factors mainly pertain to early sexual debut, multiple sexual partners, menstrual hygiene and unprotected sex. Role of male partners has also been delineated in the process of cervical carcinogenesis.

- These factors are essentially conducive to the transmission of an etiological agent; the high-risk type human papilloma viruses, the more proximal cause in the web of causation. Barrier method of contraception and prophylactic vaccine in future could help to check the transmission of the virus.
- Role of smoking and oral contraceptives has also been discussed. Till the facilities for mass scale screening are developed in developing countries the primary prevention approaches could certainly help to check the incidence of the disease.

2. Estimation of HIV Burden Using Sentinel Surveillance Data 2004

Study objectives:

The National AIDS Control Organization (NACO) updates the HIV burden for the country every year since 1998 for monitoring the trends and pattern of HIV/AIDS epidemic in the country. The HIV burden is estimated on the basis of the HIV prevalence observed at designated sentinel surveillance sites for different risk groups. IRMS carries out analysis with the following objectives:

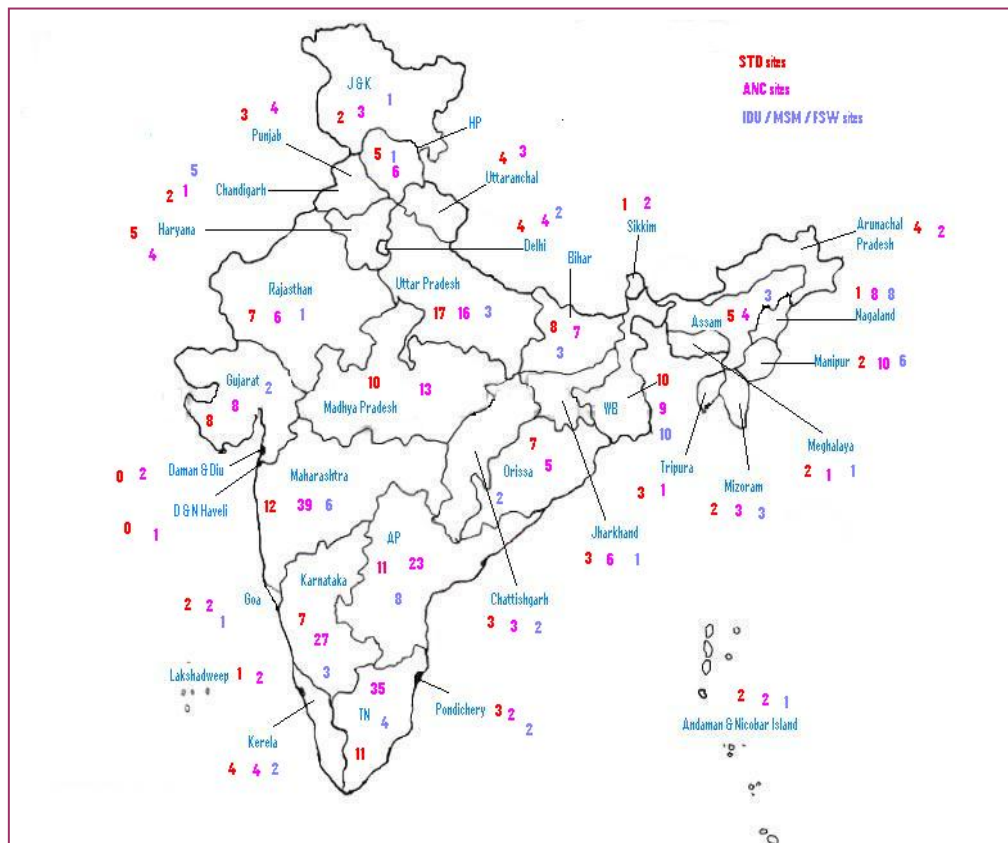
- To provide analytical report examining trend and estimate of HIV burden in the country.

Methodology

- Analysis is carried out for the prevalence of HIV among high risk and general population. ANC clinics attendees of designated sentinel sites are considered to be the representative of general population who catches infection from the bridge population of high risk behavior. The STD clinic attendees of sentinel sites are taken as the representative of high risk population. The population considered from all the risk groups includes only adult population age 15-49.
- The data collection is coordinated by the National Institute of Health & Family Welfare (NIHFW) wherein site-wise data is compiled through

website for the first time in 2004. The Data thus compiled is used for epidemiological analysis and estimation purpose.

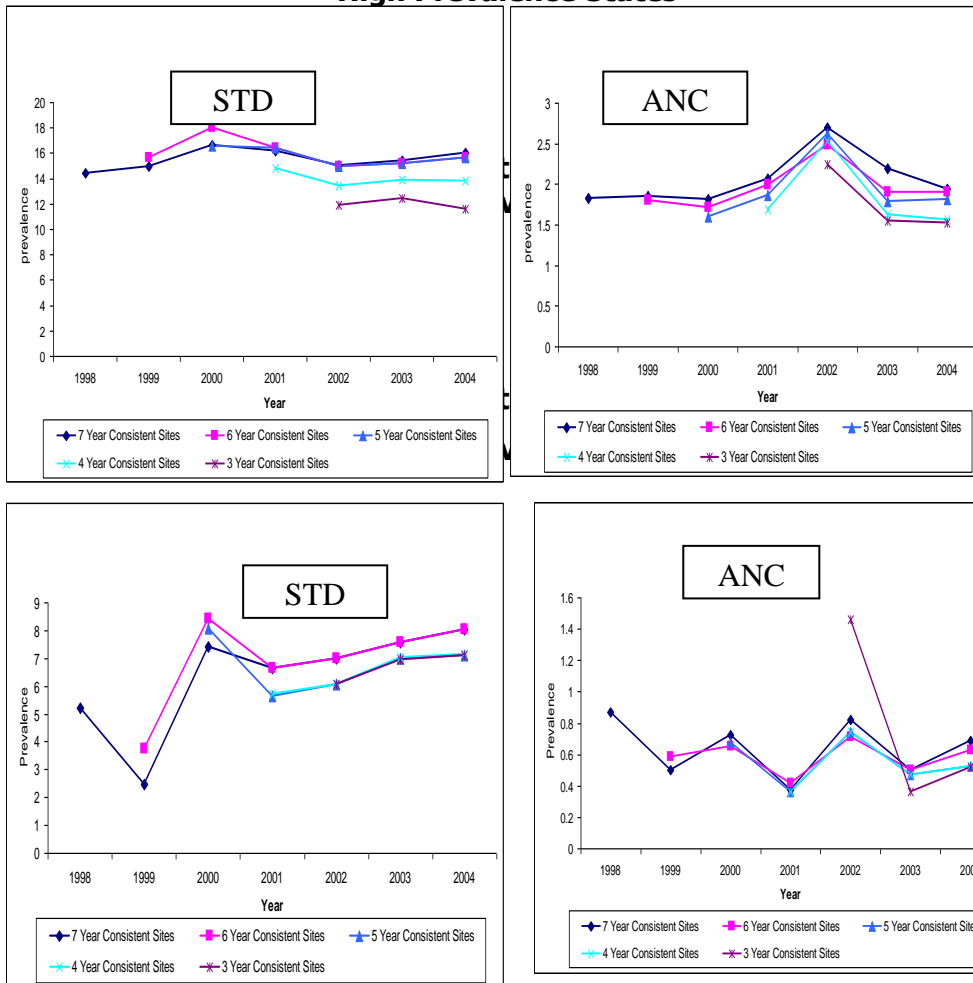
- In 2004, the total number of sentinel sites stands at 649 and this includes 171 STD sites, 268 ANC sites, 24 IDU sites, 15 MSM sites, 42 FSW sites, 122 ANC (rural) and 6 TB sites. IDU, MSM and FSW sites include targeted intervention sites. The state wise distribution of these sites is shown in the map below.



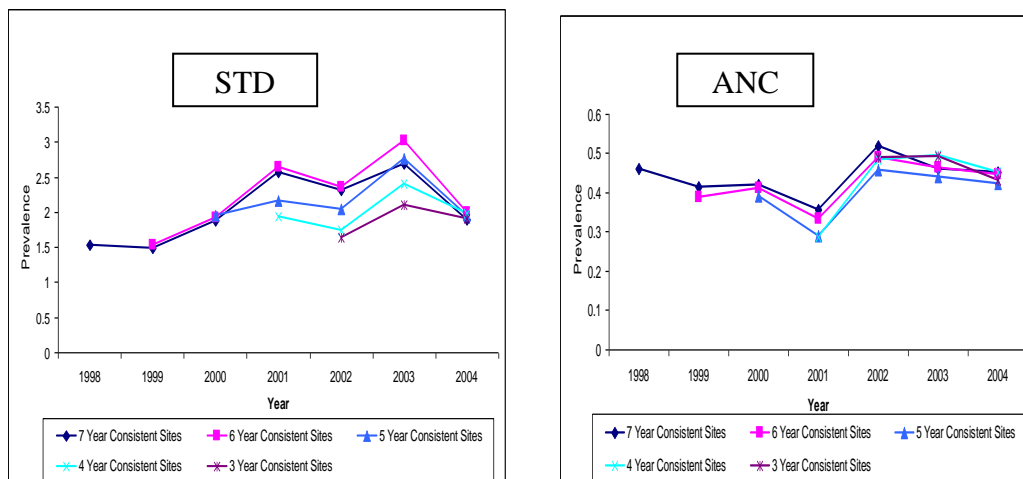
Trend in HIV Prevalence

- As mentioned earlier the number of sentinel surveillance sites has been increasing every year in order to study the extent of spread of the epidemic to the low risk population. A comparative trend analysis using sites which have been consistent for 3 – 6 years has been carried out for three epidemic zones separately for STD and ANC sites. The results are presented in the following charts.

**Chart 1: HIV Prevalence trends for consistent sites
High Prevalence States**



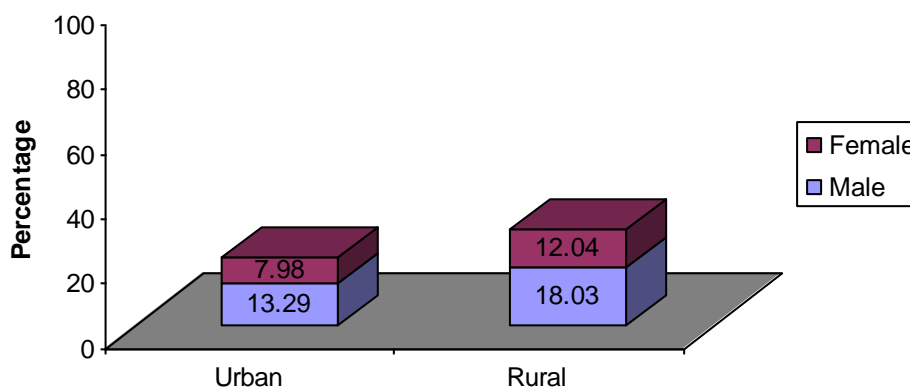
**Chart 3: HIV Prevalence trends for consistent sites
Low Prevalence States**



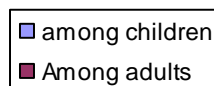
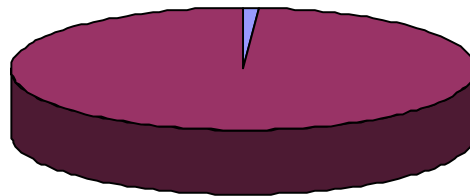
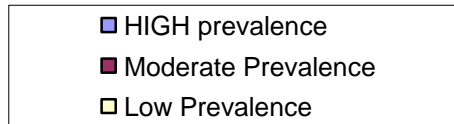
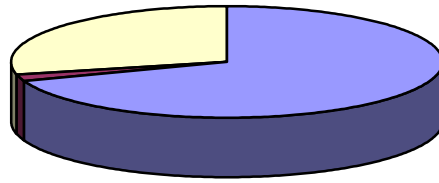
HIV Estimates

- HIV estimates are derived on the basis of HIV prevalence observed from STD, ANC, IDU, MSM and FSW sites. ANC rural sites are included for studying the epidemic characteristics in rural area. They are not been included for estimation as the people from both urban and rural areas are attending usual sentinel sites. The HIV estimates for the year 2004 are based on information available from 477 out of 520 sentinel sites where more than 75% of the sample size was covered. This includes 151 STD sites, 257 ANC sites, 19 IDU sites, 11 MSM sites, 39 FSW sites.
- The estimated HIV infection for the year 2004 is 5.134 million. Following table gives the distribution of the HIV burden by HIV epidemic zone, sex, residence, age and vulnerable groups.

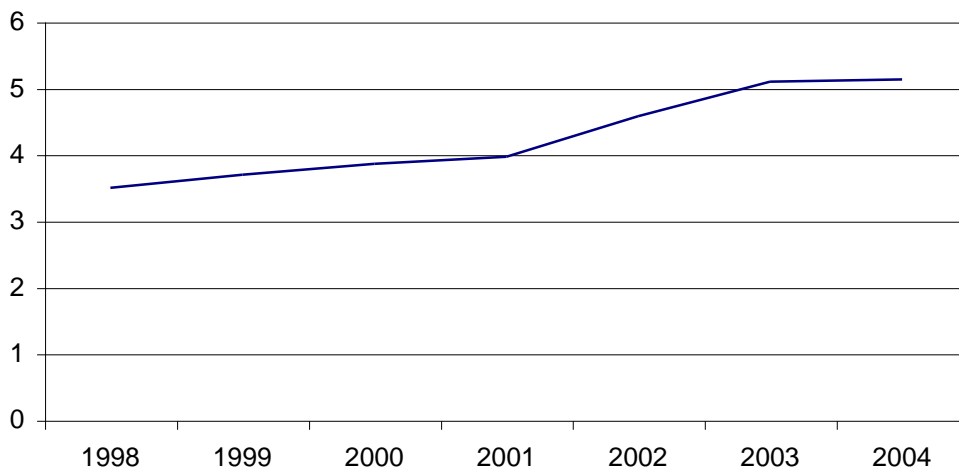
Distribution of Infected Polulation (%)



**Distribution of HIV Infection
(Total Infected Population - 51.34 Lakhs)**



**Estimates of HIV for the year 1998 - 2004
(Estimates in Millions)**



3. Analysis of data of India's District Household Survey (DHS) under RCH programme finding out the impact of first phase of RCH programme

Study objectives:

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

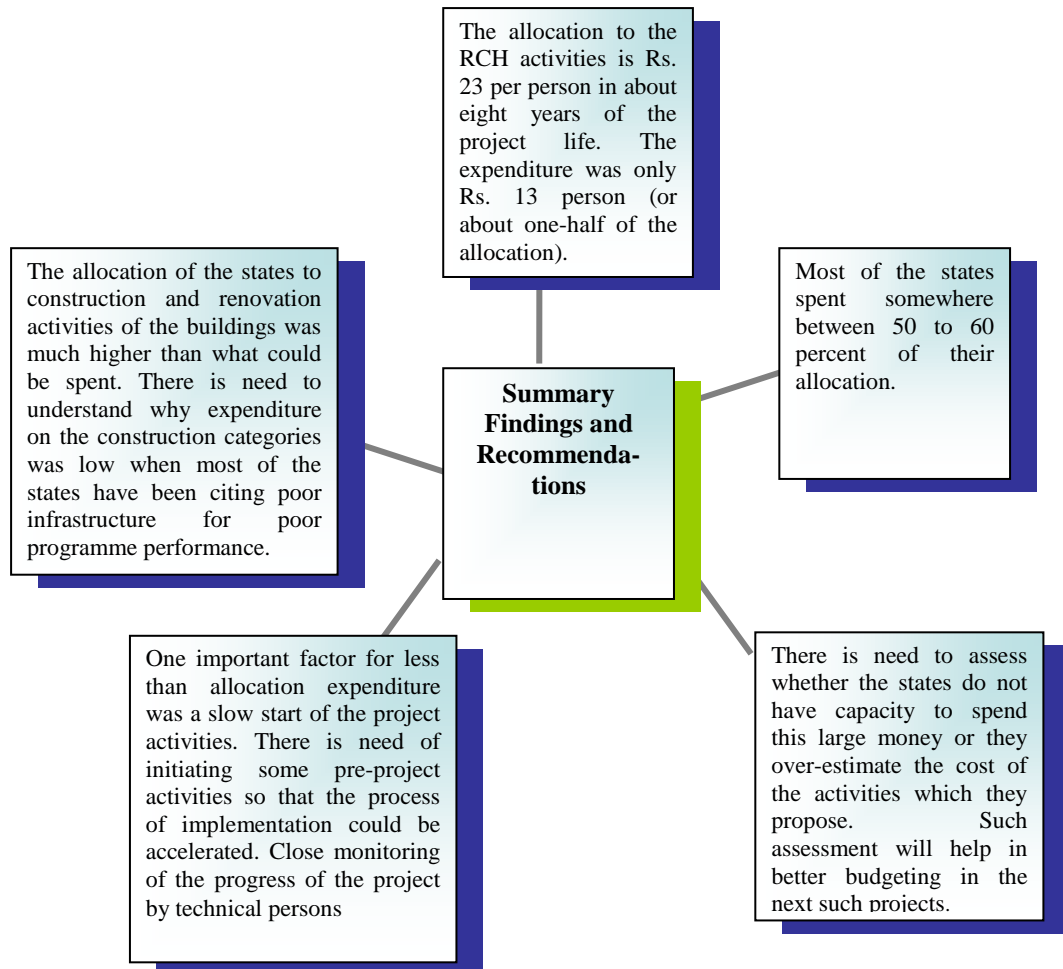
Methodology

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

1. To analyse 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:

- Organized consultative meetings among a group of experts to finalize indicators contained in the Project Agreement Document (PAD) of RCH-1.
- The copy RCH Project Agreement and the RCH programme inputs document has been procured from the ministry and analyzed.
- The analysis of available quantitative data has been undertaken.
- 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. Now Phase 1 and Phase 2 data sets are ready for analysis.
- Districts of RCH-1, RCH-2 and Census are compared. Two hundred and seventy nine (279) districts are identified as common in the two phases.
- Tabulation plan in respect of linking various inputs with the output indicators is in progress.
- 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.



4. Integrated Analysis of HIV/AIDS Epidemic in India

Study objectives

- To gain comprehensive understanding of the factors that have largest impact on HIV epidemic in India
- To set baseline behavior parameters at a specific point of time.
- To use models to assess what level of behavior change to be achieved to get desirable control of the epidemic

Methodology

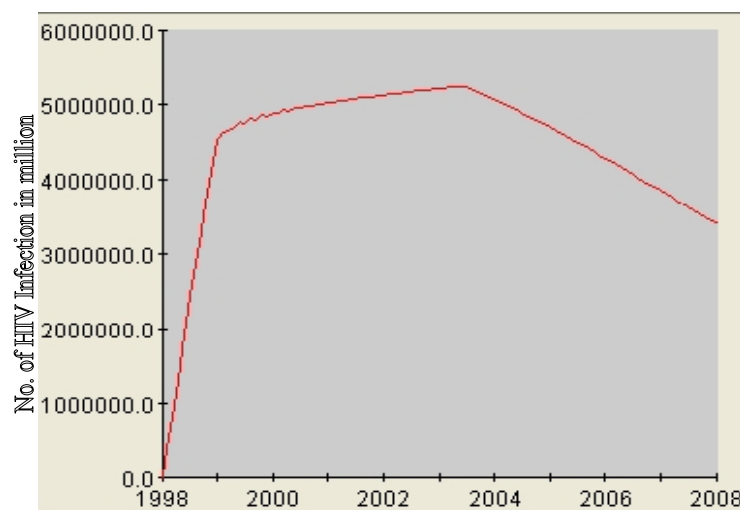
UNAIDS has developed new packages like Estimation and Projection Package (EPP), Spectrum and AIDS Impact Models (AIM) that helps to understand the dynamics of HIV/AIDS epidemic. However, the specific data required for using these models effectively are rarely available

due to the sensitive nature of the epidemic characteristics. EPP is based on the information related to population size of high risk groups like FSW, MSM and IDU and their behavior parameters such as unprotected sexual contacts, number of partners, needle sharing etc.

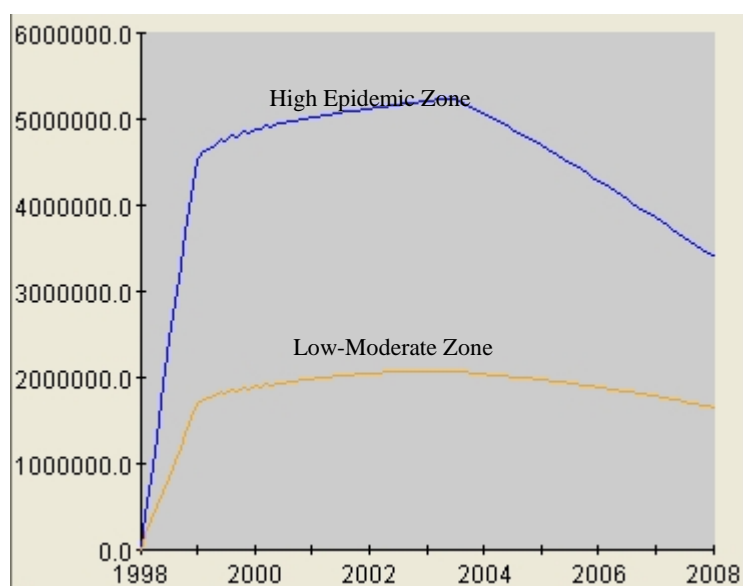
Results

- In the absence of reliable information on these parameters, an attempt has been made to incorporate current estimation procedure in the package and study the epidemic spread in STD and ANC population.

Estimation and Projection of HIV Infections in India



Estimation and Projection of HIV Infection in Epidemic Zones



- Further information has been collected and is being used to develop Spectrum and AIM models.
- HIV incidence for high and low-moderate epidemic zones in 2003 and 2004 as estimated from Incidence workbook using the available information is presented in tables below.

Incidence 2003

High Epidemic Zone

	Incidence	Percent	Incidence Per 100,000 risk popn.
Injecting Drug Use	533	0.37	1252.32
Partners IDU	197	0.14	925.87
Sex workers	2951	2.04	671.01
Clients	274	0.19	5.25
Partners of Clients	13356	9.25	296.71
Sex Between Men	1549	1.07	21349.67
Female Partners SBM			
Casual heterosexual sex	105407	73.03	133.28
Partners CHS	20059	13.90	26.74
Total Incidence	144326		

Low-Moderate Epidemic Zone

	Incidence	Percent	Incidence Per 100,000risk popn.
Injecting Drug Use	435	0.07	498.04
Partners IDU	150	0.02	343.89
Sex workers	1314	0.20	127.72
Clients	174	0.03	1.59
Partners of Clients	192	0.03	2.17
Sex Between Men	2212	0.34	13208
Female Partners SBM			
Casual heterosexual sex	537179	83.29	272.84
Partners CHS	98800	15.32	55.78
Total Incidence	640456		

Total HIV incidence in 2003 = 784782

Incidence 2004

High Epidemic Zone

	Incidence	Percent	Incidence Per 100,000risk popn.
Injecting Drug Use	500	0.32	1053.06
Partners IDU	181	0.12	762.05
Sex workers	2931	1.87	655.03
Clients	303	0.19	5.72
Partners of Clients	13547	8.64	295.83
Sex Between Men	10298	6.57	18251.77
Female Partners SBM			
Casual heterosexual sex	108419	69.13	134.88
Partners CHS	20652	13.17	27.07
Total Incidence	156831		

Low-Moderate Epidemic Zone

	Incidence	Percent	Incidence Per 100,000risk popn.
Injecting Drug Use	239	0.14	552.95
Partners IDU	83	0.05	382.63
Sex workers	1202	0.71	115.88
Clients	130	0.08	1.20
Partners of Clients	4289	2.52	48.20
Sex Between Men	3696	2.18	6551.21
Female Partners SBM			
Casual heterosexual sex	126159	74.27	65.16
Partners CHS	34061	20.05	13.10
Total Incidence	169859		

Total HIV incidence in 2004 = 326690

5. Study on Job Satisfaction Level among ICMR Scientists.

Study objectives

- To examine the level of job satisfaction of ICMR scientists, from various institutes within ICMR.

Methodology

A list of scientists at different ICMR Institutes was prepared. All the scientists were personally contacted by visiting the Institute and set of administered proforma was given to them. All those who were not available on the day of visit, the proforma was left there and request was made to send by post. All the ICMR Institutes were visited except RMRC Port Blair.

Progress

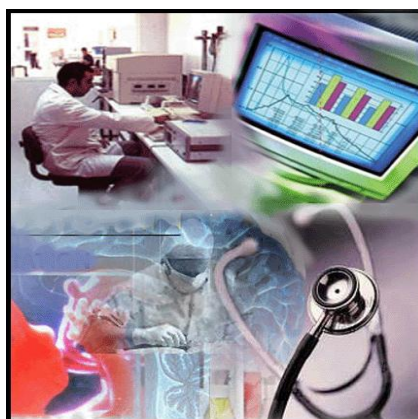
- The survey work has been related to the study has been completed. The consultant and one of the coordinators of the study personally visited all the Institutes under ICMR except Port Blair. The response rate is around 85%. The data entry work is in progress.

6. Development of Health Research Information System

Study objectives:

- To develop a Health Research Information System at IRMS

Project Proposal



H R I S

Health Research Information System
Institute for Research in Medical Statistics
ICMR New Delhi

Publications

1. Adhikari Tulsi, Bhattacharya M. GIS in Health. *GIS India* 2005; 14(1); 7.
2. Adhikari Tulsi, Interview on GIS in Health. *GIS India* 2005; 14(3); 1.
3. Adhikari Tulsi, Singh Padam. Estimation of Relative Risk under Case Control Designs : Comparison of SRSWOR and Inverse Sampling, *ISMS Proceedings*; in Press.
4. Aggarwal Abha, Pandey Arvind & Bhattacharya B.N. (2005) : Risk Factors for Maternal Mortality : A Case Control Study in Indian Slum, *Proceedings of 55th Session of International Statistical Institute*, Sydney, Australia, pg.290-291
5. Juneja A, Sehgal A, Mitra AB, Pandey A. A Survey on Risk factors Associated with Cervical Cancer. *Indian Journal of Cancer* 2003 ;40(1):15-22.
6. Kartik Charu, Adhikari Tulsi, Singh Padam, Sethi Mohini. Predictors of Nutritional Knowledge Level of Medical Practitioners Use of Discriminant Function Analysis. *Ind J Com Med* 2004; 29(3): 136-37.
7. Murthy NS, Juneja A & Sharma S. Modelling strategies for epidemiological process with special reference to logistic regression. *Indian Journal of Preventive and Social Medicine*,2004: 35(3); 136-145.
8. Pandey Arvind, Nandini Roy, D. Sahu & Rajib Acharya (2004) Maternal health care services: Observations from Chhattisgarh, Jharkhand & Uttranchal, *Economic and Political Weekly (EPW)*, Vol. XXXIX No.7, February 14-20, pp.719-720.
9. Singh Padam, Kumar Anil. Calorie Norm and Calorie Deficiency. *J Ind Society Agricultural Statistics (2004)*; 57: 145-58.
10. S C Mehta and H C Joshi (2004) Model Based Point Estimates of Death Rate/Survival Rate – an Input for Radiation Risk Assessment in *India Context*, Vol 19(1).
11. Yadav R.J., Suresh K. Coverage of IPPI Evaluation Survey in two districts of Bihar. *Indian Pediatrics*; 41 (3-4) : 961-63
12. Yadav R.J., Singh Padam. Prevalence of Protein Energy Malnutrition Deficiency among the People of Bihar. *Indian Journal of Preventive and Social Medicine*; 35(1-2): 77-79.

13. Yadav R.J., Singh Padam. Immunization Status of children and mothers in North East states. *Health and Population -Perspectives & Issues 2004; 27 (3) : 185-93.*
14. Yadav R.J., Singh Padam. Knowledge, Attitude and Practices of Mothers about Breast-Feeding in Bihar. *Ind J Com Med 2004; 29(3): 130-31 .*
15. Yadav R.J., Singh Padam. Immunisation Status of Children and Mother in the State of Madhya Pradesh. *Ind J Com Med 2004; 29(3): 147-48 .*

**Conferences/Training/Workshops/Meetings Attended/Lecture
Delivered**

Dr. Arvind Pandey

Meetings of National/International Committees

- 27 April 2004 Meeting of Expert Group on Finalization of HIV Estimates: The 2003 Annual Round of HIV Sentinel Surveillance in India.
- 29 April 2004 Meeting of Technical Advisory Committee of the Population Foundation of India (PFI) on HIV/AIDS projects, New Delhi
- 12 May 2004 CBHI Project Presentation by ECTA on HS Policy Reform Option Data Base (PROD) of India at Nirman Bhavan, New Delhi
- 27-28 May 04 National dissemination workshop of the Population Council's projects on HIV/STI Prevention and Care Research Programme in India at the India Habitat Centre, New Delhi
- 2 June 2004 Presentation of the National HIV estimates for the year 2003 under the Chairmanship of the Secretary (Health), Ministry of Health & Family Welfare, Nirman Bhavan, New Delhi.
- 23 June 2004 Orientation Meeting of Regional Coordinators for 2004 Annual HIV Sentinel Surveillance at the National Institute of H&FW, Munirka, New Delhi.
- 30 June 2004 Seminar on Infant Survival and Gender Issues by Dr. Vinode Mishra of East-West Centre, Hawaii at the Population Foundation of India(PFI), New Delhi.

- 9 July 2004 Meeting of Investigators of the project "Estimation of the Spread of HIV/AIDS in India at the National Institute of Health & Family Welfare (NIHFW), New Delhi.
- 10 July 2004 National Seminar on "Census 2001-Data Dissemination" at Vijanan Bhawan organized by the Office of the Registrar General, India, New Delhi
- 15 July 2004 Meeting on "Planning for National Family Health Survey, 2005-06 (NFHS-3)" at the National Institute of Health & Family Welfare (NIHFW), Nirman Bhavan, New Delhi.
- 30 July 2004 Meeting to discuss the current status of work and the direction in the methodology for undertaking modeling of critical disease conditions in the country by 2015 at the National Commission on Macro-Economics & Health, Ministry of Health & Family Welfare, R.K. Puram, New Delhi
- 9-10 August 04 Consultative National Meeting of the Population Council, Lodi Estate, New Delhi
- 10-13 Aug. 04 Data Analysis and Interpretation workshop for the mapping and size estimation of IDUs obtained in the five North-East States of India, Family Health International (FHI) at Kolkata.
- 21 August 2004 Training of Field Investigators organized by the UNDP, CHARCA at Guntur, Andhra Pradesh
- 1 Sept. 04 Meeting on "HIV estimates in India-2003" at NACO, Ministry of Health & Family Welfare, Govt. of India.
- 27 Sept. 04 Meeting of Technical Advisory Committee on study proposals under the MacArthur and Packard Foundation, at the Population Council, New Delhi.
- 19 Nov. 04 Invited talk on "Sampling Strategies" for the Investigators of study proposals under the MacArthur and Packard Foundation, at the Population Council, New Delhi
- 1 Oct. 2004 Dissemination Workshop on Unintended Pregnancy and Induced Abortion in Rajasthan at Population Council, New Delhi
- 20 Nov. 04 Workshop of Epidemiologists and Statisticians to discuss on Modification of sampling plan and data collection methodology for the Study of Burden of disease due to HIV/AIDS at NIE, Chennai.
- 3 Dec. 2004 Expert Group Meeting on "Review of HIV Surveillance and HIV estimates in India" National AIDS Control Organization (NACO) at India Habitat Centre, New Delhi

- 8-10 Dec. 04 Meeting of the UNAIDS/WHO Reference Group on Estimates, Modelling and Projections at Lisbon, Portugal.
- 18 Dec. 04 Technical Advisory Committee for implementation of National Family Health Survey, 2005-06 (NFHS-3) at the National Institute of Health & Family Welfare (NIHFW), New Delhi.
- 11 Jan. 2005 Meeting of the study "Youth in India: Situation and Needs" organized jointly by the International Institute for Population Sciences & Population Council, New Delhi.
- 18 Jan. 2005 CBHI project on Policy Reform Option Databases (PROD) in Health Sector on detailed action plans for initiating the project at CBHI, Nirman Bhavan, New Delhi.
- 26-30 Jan. 05 Workshop on "New Strategies for HIV/AIDS Surveillance in Resource Constrained Settings" held in Addis Abada, Ethiopia during January 26-30, 2004.
- 4 Feb. 2005 Workshop on NFHS-3 Sampling, National Institute of Health & Family Welfare, New Delhi

Meeting at ICMR & Its Institutes

- 4 June 2004 Selection Committee Meeting for the post of Research Officer at TRC, Chennai
- 20-21 July 04 Meeting of Scientific Advisory Group (SAG) at ICMR
- 17 August 2004 Project Review Group to review the research programmers of its Social and Behavioural Research Unit (SBR) of RHN Division at ICMR
- 6 Sept. 2004 Meeting to appraise about the activities of IRMS to Dr. Joao Fumane, Director, National Institute of Health, Mozambique, Dr. Richardo Thompson, Scientific Director, Dr. Adelaide Agostinho, Heaad of Department of Traditional Medicine, Dr. Iiesh Jani, Head of Deptt. of Immunology to India at ICMR
- 29 Sept. 2004 Task Force Project Meeting on COD by Verbal Autopsy, Division of NCD, ICMR, New Delhi
- 10-11 Oct. 04 International Symposium on Emerging Viral infection: New Frontiers and Challenges and Golden Jubilee Celebration of NIV, Pune.
- 8 Nov. 2004 To review the report on "Tracking financial flows for Health Research in India to an independent consultant under the Task force on Statistics" & proposals submitted to the Task Force at ICMR

- 9 Nov. 2004 First Meeting of the Working Group on NCD Surveillance under IDSP constituted by the MOHFW at ICMR.
- 20 Nov. 2004 Workshop of Epidemiologists and Statisticians to discuss on Modification of sampling plan and data collection methodology for the Study of Burden of Disease due to HIV/AIDS at NIE, Chennai.
- 23 Nov. 2004 Meeting of Expert Group Meeting of Infertility in India at ICMR, New Delhi
- 10 Jan. 2005 Project Review Group (PRG) Meeting of RHN Division of ICMR
- 25 Jan. 2005 Expert Group Meeting to discuss preliminary results and issues related to HIV estimates in the country at ICMR.
- 24 Feb. 2005 Meeting on "Stability of Iodine in Double Fortified Salt: a short study" by NIN Hyderabad at ICMR Headquarters, New Delhi.
- 7 March 2005 Meeting of presentation of the modules developed in Task Force Project on "Adolescent Reproductive and Sexual Health Education" at ICMR.
- 9 March 2005 PI's Meeting to discuss draft protocol and contract of Mapping Size Estimation and Integrated behavioural and biological survey in HIV prevalence settings in India at ICMR.

Meetings at IRMS

- 7 May 2004 Meeting of Selection Committee of NNMB Project.
- 13 May 2004 Reproductive Child Health (RCH) Meeting.
- 3 July 2004 Selection Committee Meeting of RCH Project
- 12-14 July 04 Meeting of the End line Study on the Impact of RCH Project
- 14 Sept. 04 IRMS Building construction plan work meeting with Architect Consultant from NIRRH, Mumbai
- 28 Oct. 2004 Meeting of Scientific Advisory Committee
- 15 Jan. 2005 Meeting of Selection Committee of HIV Project
- 28 Feb. 2005 Meeting on the study "Epidemiological based line and projections for maternal health in India".
- 4-5 March 05 Meeting of the Baseline Survey of CARE-CHAYAN Project
- 22 March 05 Expert Group Meeting for finalization of estimates HIV

28 March 05 Seminar on Health Infrastructure, contraceptive use and infant mortality in Uttar Pradesh" by Dr. Alok Bargava, USA

Meetings of Other Institutes

3 Sept. 2004 Investigational New Drug Trial Monitoring Committee at Dabur Research Foundation, Sahibabad

3-7 Jan. 05 92nd Session of the Indian Science Congress at Nirman University, Ahmedabad

10 March 05 Meeting of the Advisory Committee of DST funded research project entitled 'Baseline database collection and documentation of good manufacturing and supply practices adopted by the manufacturer of FORCH/ELIS kits and quality control assessment at the user label of these kits at AIIMS.

Field Visits & Meetings of the Projects

22 April 2004 CBHI Project Meeting under the Chairmanship of Director of the Policy Reform Options Database (PROD) at Nirman Bhavan, New Delhi

7 May 2004 Meeting of Selection committee of NNMB Project at IRMS.

12 May 2004 Presentation by ECTA on CBHI-Project on HS Policy Reform Option Database (PROD) at CBHI, Director General of Health Services, Nirman Bhavan, New Delhi..

22 May 2004 Awareness and sensitization Meeting of the District Administration ICDS field Staff and Community/block levels leaders before initiating the Base Line Research Impact Assessment of ICDS Food fortification in Uttaranchal at Nainital.

15 July 2004 Meeting of the National Family Health Survey (NFHS)-3 under the chairmanship of secretary (FW) at Ministry of Health and Family Welfare, Nirman Bhavan, New Delhi.

10-13 Sept 04 End line Study on the Impact of RCH Programme – Project (RCH) at IRMS

24 Sept. 2004 Visited Lucknow in connection with the World Food Programme (WFP), New Delhi

1 Oct. 2004 Visited Mumbai in connection with the Report writing workshop for Baseline study in CHARCA districts.

18 Jan. 2005 CBHI Project Meeting of the Policy Reform Options Database (PROD) in Health Sector on detailed action plans for initiating the project at Nirman Bhavan, New Delhi.

Ph.D. Guidance

1. Some Mathematical Models to Study the Childbearing Process Using Vital Statistics, by S. Sreenivasan at the International Institute for Population Sciences, Mumbai.
2. Value of Children and Fertility Behaviour in an Agricultural Society: A Study of Bulandsahr District in Uttar Pradesh by Ravendra K. Sharma at the International Institute for Population Sciences, Mumbai.
3. A Class of Statistical Models to Study the family Planning Acceptance and Unmet Need in Orissa using National Family Health Survey by Ranjana Kar at the Department of Statistics, Utkal University, Bhubaneswar.

Viva Voce/Consultancy

- 19 April 2004 Viva-voce examination of Ph.D. thesis of Mr. Lysader Menezes at IIPS, Mumbai
- 20 May 2004 M. Stat. Viva Voce examination at the Institute of Social Sciences, Agra
- 25 May 2004 Ph.D. viva voce examination at JNU.
- 27 July 2004 Viva-voce examination of Ph.D. thesis of Ms. Jyoti Thanvi at Dept. of Statistics, Rajasthan University, Jaipur.
- July 2004 External Examiner of the M.Phil Dissertation "Urban Poor Living on Streets – An Analysis of Selected Factors in Chennai City, Tamil Nadu" submitted by Ms. Immagulate Mary, Jawaharlal Nehru University, New Delhi.
- 25 August 04 Fifth Doctoral Committee Meeting for Mr. Prem Chandra in the Dept. of Biostatistics, AIIMS
- 28 August 04 Viva-voce examination of Ph.D. thesis entitled "A Class of Statistical Models Study the family Planning Acceptance and Unmet Need in Orissa Using National Family Health survey" of Ms Ranjana Kar, Utkal University, Bhubaneswar

- 7 October 04 Acted as Co-Supervisor of Ph.D. thesis of Ms. Nidhi, a project employee of DST project at Indian Institute of Technology, New Delhi.
- 8 October 04 Acted as examiner of the Ph.D. thesis entitled "Urban Poor Living in the Streets of Chennai City, Tamil Nadu: an Analysis of Their Socio-economic and Health conditions" by Ms. Immagulate Mary, Jawaharlal Nehru University, New Delhi.
- 29 October 04 Doctoral Committee Meeting of Ms. Shahina Begum in Deptt. of Biostatistics, AIIMS, New Delhi.
- 25 Feb. 05 External Examiner of the Ph.D. thesis "Reproductive and Child Health Services and Their Utilisation by Adolescent Women in Rural Madhya Pradesh" by Ms. Abhilasha Sharma, JNU, New Delhi
- 28 Feb. 05 M. Phil Viva Voce Examination of Ms. Meghna Buragohain, JNU, New Delhi

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

- 25-27 June 04 Resource person for participating in IIPS Workshop for tool finalization for Baseline organized by CHARCA Project (joint United Nations Project on Reproducing Women's Vulnerability to HIV/AIDS).
- 28 June 2004 Resource person for the workshop on "Reproductive Health Research Methodology" from June 21-July 2, 2004. and Presentation on "Variables and parametric" & "Tests of significance" at NIRRH, Mumbai
- 23-25 July 04 Resource Person for Participating in IIPS TOT workshop for Baseline organized by CHARCA Project (joint United Nations Project on Reproducing Women's Vulnerability to HIV/AIDS at IIPS, Mumbai.
- 10-13 Aug. 04 Data Analysis and Interpretation Workshop for the mapping and size estimation information on IDUs obtained from the five North East States of India organized by Family Health International (FHI) at Kolkata.
- 15 Oct. 2004 Chair Person for the presentation of Action Plan by participants in Training Course on HIV/AIDS surveillance and Awareness at NIHF, New Delhi
- 3-5 Nov. 04 Chaired a Technical Session on a National Workshop on HIV AIDS organized by ICSSR at R.K.Mission Hospital, Eta Nagar, Arunachal Pradesh.

Delivered invited talk on "HIV Scenario in North-East Region".

- 19 Jan. 2005 Delivered lecture on "Role of Statistics in Medical Research" at CSO, New Delhi
- 21-23 Jan. 05 Annual Conference of ISMS at Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER), Pondicherry
- 9-11 Feb. 05 Annual Conference of Indian Association for the Study of Population at Annamalai.
- 17-18 Feb. 05 Two days' workshop Planning Session on Alcohol and HIV study in Mumbai.
- 21 Feb. 05 One day workshop in connection with the project entitled "Alcohol, Sexual Risk and HIV Prevention in Mumbai at IIPS.

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. Task Force on Sentinel Surveillance on HIV/AIDS, NACO, Ministry of Health & Family Welfare, Govt. of India
3. Working Group to Estimate the Excess Death on Account of HIV/AIDS, NACO, Ministry of Health & Family Welfare, Govt. of India
4. Working Group on the Community Based Study on STI Prevalence in India, NACO, Ministry of Health & Family Welfare, Govt. of India.
5. Technical Group on Population Projection, National Commission on Population, Govt. of India
6. Task Force on Social & Behavioural Research in Reproductive Health, Indian Council of Medical Research, New Delhi
7. Task Force in Statistics, Indian Council of Medical Research, New Delhi.
8. Project Advisory Committee of National Household Survey on Patterns and Trends in Drug Abuse in India, UNDCP under the Ministry of Social Justice and Empowerment
9. Technical Advisory Committee of Base Line Survey of *Chayan* component of *Rachana* of Integrated Nutrition Health Project, CARE-India.
10. Technical Advisory Committee of the WFP Evaluation of the Food Fortification Impact on Child Health through ICDS in India

11. Scientific Advisory Committee of the National Institute for Research in Reproductive Health, Mumbai
12. Scientific Advisory Committee of Desert Medical Research Centre, Jodhapur, Rajasthan
13. Working Group on Strengthening Monitoring and Evaluation System for Social Sector Development Schemes during X Five-Year Plan on Programme Evaluation, Planning Commission, Govt. of India
14. Working Group on Implementation of Population Policy and Rapid Population Stabilization, Ministry of Health & Family Welfare, Govt. of India

Participation in International Meetings/Conferences/Workshops

- 8-10 Dec. 04 Meeting of the UNAIDS/WHO Reference Group on Estimates, Modelling and Projections at Lisbon, 8-10 December (Sponsored by UNAIDS).
- 30 March-
1April 2004 Annual Meeting of the Population Association of America at Boston, March 30-April 1 (Sponsored by the Indian Council of Medical Research).

Membership of National and International Professional Bodies

1. International Biometric Society (IBS).
2. International Union for the Scientific Study of Population (IUSSP).
3. International Epidemiological Association (IEA).
4. Population Association of America (PAA).
5. Canadian Society for International Health (CSIH).
6. Indian Association for the Study of Population(IASP), Vice-President (2000-2004)
7. Indian Society for Medical Statistics ((ISMS) (1994-98),
8. Indian Science Congress Association (ISCA).
9. Indian Society of Probability and Statistics (ISPS).

Visitors

- 16-17 Sept. 04 Mr. Aye Kyaw, Dept. of Medical Research, Yangon, Myanmar under the WHO Fellowship Programme
- 1-4 March 05 Dr. Hari Dayal, Prof. & Chair, Dept. of Community Medicine, Medical University of Texas.
- 28 Feb–3 March 05 Students of DPS, MPS/M.Phil., International Institute for Population Sciences (Study tour).

Dr S C Mehta

24-Feb, 2004 Attended International Conference on Digital Libraries (ICDL 2004) on 24th Feb, 2004 at Vigyan Bhavan, New Delhi, organized by Min. of Tourism & Culture and TERI.

Dr R.J.Yadav

2004

15-17 Sept. Regional Ministerial Consultation on Maternal & Child Nutrition in Asian Countries during at Vigyan Bhawan and Ashoka Hotel, New Delhi sponsored by Department of Women & Child Development, Ministry of Human Resources Development and. World food Programme. Health Ministers of Asian countries attended the meeting. The meeting was addressed by Hon,ble Prime Minister , Union Health minister and State Minister of HRD.

17-19 Sept. Training to Trainers for Mid term evaluation of the project for Hosangabad block of MP at CARE Bhopal.

11-13 Oct. A Golden Jubilee Event International Symposium Emerging Viral Infection New Frontiers and challenges at National Institute of Virology, Indian council of Medical Research, Pune.

28-November Scientific Advisory Committee meeting of the Institute.

20-November Invited to attend Inauguration ceremony of the Symposium on uncommon Opportunities- a Road map for Employment, Food and Global Security at Teen Murti Bhawan, New Delhi. HE President of India inaugurated the ceremony.

2005

3-5 January 92nd Indian Science Congress in Ahmedabad . Hon'able President of India and Prime Minister of India inaugurated the conference.

Dr. R.K.Gupta

2004

4-8 October Acted as a resource person for the training programme on statistical Methods in Biological Research organized for scientist NIB at National Institute for Biologicals, NOIDA.

2005

- 10-18 Jan. Participated as a faculty in a training programme for the M.Sc. (Final) Statistics of Kurukshetra University
- 21-23 Jan. XXII Conference of Indian Society for Medical Statistics held at Jawaharlal Institute of Postgraduate Medical Education and Research (JIPMER)
- 3-4 March Fourth Annual General Meeting of (ARM) 2005 of One World South Asia at India Habitat Centre
- 17-18 March workshop on Evidence Based Medicine and Bayesian Statistics conducted by the Institute.

Dr Anil Kumar

2004

- 4-8 October Training programme organized in National Institute of Biologicals as resource person held.

2005

- 10 January Selection Committee for the post of Data Entry Operator at ICMR, New Delhi
- 10-18 Jan. Lecture given to the students of M.Sc. students of Kurukshetra University
- 16-January Selection committee for the post of Data Entry Operator at IRMS, New Delhi
- 21-25 March Training on ISA server Network Management organised by ICMR Headquarters.

Dr. M. Thomas

2004

- 1-30 June Participated in the summer seminar on Integrated Analysis to improve HIV Responses in Asia and the Pacific at East-West Center, Honolulu, USA.
- 16-17 July Review meeting on HIV Sentinel Surveillance round 2004 for Southern region in Thiruvananthapuram, Kerala.
- 22-23 July Review meeting on HIV Sentinel Surveillance round 2004 for Northern region in Shimla
- 1-September Attended the meeting to discuss the action plan for HIV Sentinel Surveillance 2004 round held at NACO.

- 8-September Delivered a lecture on data management of HIV Sentinel Surveillance to the M & E officers from States at NIHFV.
- 10-October A talk on descriptive statistics – Training program on statistical methods in Biomedical Research at National Institute of Biology
- 3-December Participated in the Expert group meeting on 'Review of HIV surveillance and HIV estimates in India'.
- 21-December Project orientation and Consultation meeting for Integrated Behavioral and Biological Survey (IBBS) for AVAHAN implementing agency and partners at FHI, New Delhi.
- 28-December Review meeting of regional coordinators of Annual Sentinel Surveillance for HIV Infection – 2004.

2005

- 12-January Attended the Research Advisory Committee meeting for the IIHMR project HIV/AIDS Prevention & Care Programme for Rural and Tribal Youth in Orissa and Rajasthan.
- 15-January Selection Committee for the posts of Consultants and Senior Research Fellows for estimation data management and analysis of HSS 2004.
- 25-January Expert group meeting for finalization of HIV estimate – 2004.
- 29-January Core Group Meeting on HIV Estimation – 2004 at NIE, Chennai.
- 11-February Advisory Committee Meeting - HIV/AIDS Prevention and Care Programme for Rural and Tribal Youth in Orissa and Rajasthan - supported by European Commission and implemented by Oxfam (India) Trust
- 22-March Second Expert group meeting for finalization of HIV estimate – 2004 at IRMS on.
- 28-29 March Anti-Retroviral Drug Resistance Genotypic Characterisation of HIV-1 from India at NARI, Pune.

Dr. Abha Rani Aggarwal

2004

- 2-June Attended as a **resource person** an Ethical Committee meeting of CCRAS, New Delhi.
- 11-September Invited as a resource person to deliver lecture on Basic Statistics in Pharmacology to faculty of Maulana Azad Medical College.

- 13-18 Sept. A training course on "Decentralized Management of Rural Health Care Origramme at National Institute for Rural Development , Hyderabad.
- 21-September Invited as a resource person to deliver lecture " Sample Size Determination for Clinical Trial."
- 4-8 October Delivered lectures on Basic Statistics, Diagnostic Procedures , Youden Plot, Grubb's Testy and sample size determination for evaluation of Diagnostic kits to Scientists of National Institute for Biologicals, NOIDA during Training Programme .
- 4-8 December Attended and presented "on Accessibility and Utilization of Health Facilities in urban slum of Delhi, Hyderabad, Kolkata and Bangalore " in 8th **International Conference** Epidemiological Association, South East Asia Conference at Jhansi.

2005

- 20-22 Jan. 22nd Annual conference of Indian Society of Medical Statistical at Pondicherry.
- 10 Feburary Meeting with scientist of NIB, NOIDA to discuss the statistical significance of data " Testing of OPV samples by National Institute of Biological, NOIDA.
- 17-18 Feb. Project Review committee Meeting of all Institutes under CCRAS at Janakpuri , New Delhi.
- 20 February Attended a meeting as a resource person for the preparation of protocol for the study entitled " Treatment practices in Malaria" at MRC, New Delhi.
- 13 & 17-Jan Deliver lectures on case control studies and Case history to Students of M.Sc(Statistics) Kurushetra University.
- 24-25 Feb. Attended as a resource person WHO workshop on Refresher course on Clinical Trial in CCRAS , Janak Puri during 24-25th Feb 2005
- 25-February Attended a Core **Committee meeting in MOHFW** for finalization of sample size and methodology for National level study on MMR as a **coordinator** of the study.
- 11-March A meeting of Task Force of Experts for Finalization of Clinical Plan Protocol on Tamak Swasa at CCRAS, New Delhi.

Dr Tulsi Adhikari

2004

- 3-5 March National Workshop on MIS organized by WHO at NIHFW.
- 5-May Meeting of the 'Study on Analysis of Data of India's District Household Survey (DHS) under RCH Programme and Find Out the Impact of the First Phase of RCH Programme, IRMS, New Delhi
- 13-July Meeting of RCH project to initiate the operational strategies at IRMS, New Delhi
- 21-23 July 6th **ICSA International Conference** Jointly organized by Department of Statistics and Applied Probability and Institute for Mathematical Sciences at NUS Singapore.
- 28-July Meeting to discussed the proposed Health Research Information System at IRMS, IRMS New Delhi
- 13-15 Sept. National Workshop on Methodologies for Assessment of Vitamin A Deficiency, Iron Deficiency Anemia and Iodine Deficiency Disorders organized by Department of Human Nutrition, All India Institute of Medical Sciences, New Delhi.
- 15-17 Sept. Coordinated the training for Mr Aye Kyaw, WHO fellow from Myanmar.
- 4-8 October Acted as resource person for the Training program on Statistical Methods in Biological Research held for the scientists of National Institute of Biologicals NOIDA
- 29-Nov.-3-Dec **WHO fellowship on GIS in Health** at National Institute Health & Family Welfare, Munirka, New Delhi.
- 16-Dec. Meeting to discuss the modality and feasibility for taking up the "Development of Health Research Information System at IRMS", IRMS, New Dehi.

2005

- 10-18 Jan. Coordinated the training program on Applied Statistics for the M.Sc (statistics) final year students of Kurukshetra University.
- 20-22 Jan. 22nd Annual Conference of Indian Society for Medical Statistics at Pondicherry.
- 1-4 March Coordinated the workshop on Evidence Based Medicine and Bayesian Statistics conducted by the Institute.

- 17-March A lecture on Design and organization of large time series based and multi-dimensional health care, public health and health indicators data bases by Dr. Chris Leowski, Director from Centre for Computing in Humanities and Social Sciences, University of Toronto, Canada at ICMR, New Delhi.
- 21-25 March A training on configuration of Server 2003, ISA server, Exchange server, Network management, configuration of router and switches etc. at ICMR.

Dr. D. Sahu

2004

- 1-4 April Visited Patna for conducting feed-back meeting for the study Causes of Death by Verbal Autopsy.
- 5-May Meeting of the 'Study on Analysis of Data of India's District Household Survey (DHS) under RCH Programme and Find Out the Impact of the First Phase of RCH Programme, IRMS, New Delhi
- 25-May Conducted Pilot survey of study on JobSatisfaction Level of ICMR Scientists at National Institute of Biologicals. NOIDA.
- 30-June Invited to attend lecture on "Gender Differential in Childhood Feeding, Health Care and Nutritional Status in India" by Dr. Vinod Mishra at Population Foundation of India, New Delhi.
- 7-July Attended Organizing Committee Meeting of 24 Annual Convention of Indian Association of Cancer Research held at ICPO NOIDA
- 13-July The first meeting of RCH project to initiate the operational strategies at IRMS, New Delhi
- 11-August Participate DevInfo 4.0 planning Workshop organized by UNICEF at UNICEF country Office, New Delhi.
- 13-18 Sept. Participated training Course on "Decentralised Management of Rural Health Care Programme" at National Institute of Rural Development, Hyderabad.
- 1-3 October Visited Jaipur for monitoring fieldwork for the study Causes of Death by Verbal Autopsy.
- 14-15 Oct. Visited Jaipur for monitoring fieldwork for the study Causes of Death by Verbal Autopsy.
- 28-October Attended SAC meeting and presented project proposal on "Baseline Information and Projection on Maternal and Child Health Condition in India"

- 1-November Invited to participate on talk "Assessing Education for all in India: A Description of a New Framework for Assessing EFA with an Illustration using Indian data" by Ray Langsten, American University in Cairo, at Hotel Ambassador, New Delhi.
- 1-2 Nov. 1-2 Visited Udaipur for monitoring fieldwork for the study Causes of Death by Verbal Autopsy
- 3-5 Nov. Visited IIPS, Mumbai for reviewing RCH project work.
- 3-December Expert group meeting on 'Review of HIV surveillance and HIV estimates in India'
- 21-22 Dec. Participate IASP_UNFPA Consultation Meeting on ICPD+ 10 meeting- Aging and Migration in India at Qutab Hote, New Delhi.

2005

- 10-18 Jan. Delivered lecture to MSc(final) Statistics students of Kurukshetra University at Bio-statistic's Department Lectuer Hall, AIIMS
- 25 January Expert group meeting for finalization of HIV estimate – 2004
- 10-12 Feb. Participated and presented a paper titled "Components of Child Mortality in India: An analysis of Trends, current stagnation and forcasting" at the XXVII Annual Conference of the IASP, held at Punjab University, Chandigarh.
- 1-4 March Attended Workshop on Basian Statistics and Evidence Based Medicine at IRMS.
- 17-March A lecture on Design and organization of large time series based and multi-dimensional health care, public health and health indicators data bases by Dr. Chris Leowski, Director from Centre for Computing in Humanities and Social Sciences, University of Toronto, Canada at ICMR, New Delhi.
- 22 March Second Expert group meeting for finalization of HIV estimate – 2004

Dr. Atul Juneja

2004

- 25-May Conducted Pilot survey of study on JobSatisfaction Level of ICMR Scientists at National Institute of Biologicals. NOIDA.

- 7-July Attended Organizing Committee Meeting of 24 Annual Convention of Indian Association of Cancer Research held at ICPO NOIDA
- 21-23 July Presented a paper entitled Application of Multiple Logistic regression Analysis in Identification of Risk factors Associated with Cervical Neoplasia held at **National University of Singapore**, Singapore.
- 27-July Meeting of Advisory Committee to Modernize the Facilities and Infrastructure of ICMR Library and Information Network.
- 6-11 Sept. Visited ICMR institutes at Bhubaneshwar, Hyderabad, Chennai Pondicherry , Madurai to administer the profroma on "Job Satisfaction Study" to the scientists
- 14-Sept. Visited CJALMA (ICMR) Agra to administer the profroma on "Job Satisfaction Study" to the scientists.
- 15-17 Sept. Coordinated the training of Mr Aye Kyaw WHO fellow from Myanmar
- 27-28 Sept. Visited Rajinder Memorial Institute (ICMR) Patna to administer the profroma on "Job Satisfaction Study" to the scientists.
- 4-8 Oct. Acted as resource person for the Traing program on Statistical Methods in Biological Research held for the scientists of National Institute of Biologicals NOIDA
- 11-14 Oct. Visited NIRH, IIH Mumbai and DMRC Jodhpur to administer the profroma on "Job Satisfaction Study" to the scientists.
- 16 Oct. Attended Building Committee of Institute of Cytology and Preventive Oncology held at ICPO NOIDA.
- 18 Nov. Delivered a lecture on Role of Statistics in Medical Research at Central Statistical Organisation for the in service training program on Social Statistics including Population Statistics. (*Training*)
- 22-Nov-3-Dec Attended **WHO Fellowship program on Health Planning Research** held at National Institute of Health and Family Welfare Munirka New Delhi.

2005

- 5-8 January Represented IRMS at the Science Exhibition held Indian Science Congress Nirma University of Science and Technology, Ahmedabad.

- 10-18 January Delivered Lectures at the training program conducted for the final year students of Kurukshetra University.
- 21-23 January Attended 22nd Annual Conference of Indian Society for Medical Statistics held at JIPMER Pondicherry and presented a paper on Alternate Screening Strategies for Control of Cervical Cancer.
- 9-12 Feb. Attended 24th Annual Conference of Indian Association for Cancer Research held at ICPO (ICMR), NOIDA. Acted as rapporteur for the session on Young Scientists award presentation.
- 16-18 Feb. Deputed to attend meeting concerning Survey of National Health Research Expenditure by Global Forum for Health Research at Hotel Grand Vasant Kunj.
- 1-4 March Coordinated the workshop on Evidence Based Medicine and Bayesian Statistics conducted by the Institute.
- 17 March Attended a lecture on "Design and organization of large time series based and multi dimensional health care, public health and health indicators data bases" by Dr Leowski, Director Centre for Computing in Humanities and Social Sciences, Ontario, University of Toronto, Canada at ICMR, New Delhi.
- 26-28 March Attended 7th Annual Conference of Indian Society of Information Technology held at MIMIT Malout (Punjab).
- 31 March Attended the meeting on clinical trial at Central Council for Ayurveda and Siddha .

Consultancy

Consultancies Provided/ Reviewed Papers/Proposals

Dr. Abha Aggarwal

1. Provided consultancy to Dr. Achla, Scientist , NIB, NOIDA for her paper entitled " Interpretation of antimicrobial sensitivity testing data of Salmonella typhi using criterion of sensitivity Index(SI) of antimicrobial agent in vitro and its clinical correlation in cases of typhoid Fever."
2. Provided statistical consultancy to Dr. P.R. Bhattacharya, MRC, New Delhi. for data analysis of " Genetic polymorphism of T helpers cell

epitopic region of circumsporozoite proteins of Plasmodia falciparum isolates from India Relevance for Vaccine Development.

3. Provided comments on Stability of Iodine Fortified Salt: A Short Term Study submitted by RHN Division, ICMR. For the design and Methodology of the Trial.
4. Reviewed a Research Paper Nutritional Status of Baigas – A Primitive Tribe of Madhya Pradesh submitted by Dr. T. Chakma, Jabalpur.
5. Reviewed a research project from Jabalpur entitled" Occurrence of falciparum malaria among haemoglobinopathic.
6. Reviewed and provide comments on Ph.D thesis "Modeling Lymphatic Filariasis Transmission and Control" of Mr. S. Subramanian
7. Provided Comments on "Baseline Survey in Chandigarh & SAS Nagar, Mohali for preparation of TB free City submitted to ICMR from National Institute of Pharmaceutical Education & Research, Chandigarh.
8. Reviewed a research paper " High Infant and Child Mortality Rate in Orissa: An Assessment of possible reasons."
9. Provided comments on "Intervention programme on Cholera,Intestinal parasitism, Vitamin A deficiency and scabies amongst the primitive tribes of Orissa- A Pilot study, to Regional Medical Research Centre., Bhubaneswar.
10. Reviewed an article Estimation of the Size of Floating Sex Workers in selected Urban Area in Bangalore: An application of Capture-recapture Methods for Demography India
11. Provided Comments for sampling design and sample size determination for The Baseline Survey of CHARCA Implementation Project.
12. Attended a meeting for sampling design of Stratification of High Malarious Areas Based on Vector Species Prevalence in Different Eco-Epidemiological System for Planning Effective Situation Specific Malaria Control Strategy- A Multi- Centric Study.

Dr. Atul Juneja

1. Dr Himanshu ,Department of Ophthalmology Lady Hardinge consulted for his thesis.
2. Dr Linda, Department of Medicine Maulana Azad Medical College for her thesis on Diabetes.

3. Dr Saurabh Malhotra Department of Medicine Maulana Azad Medical College for her thesis on Diabetes.
4. Dr Ritu Mittal Department of ENT, Lady Hardinge Medical College for her thesis on comparison of surgical procedures for tympanoplasty.
5. Mrs. Grace from College of Nursing consulted for her thesis leading to post graduation.



Scientific Advisory Committee Meeting - 2004

