

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.

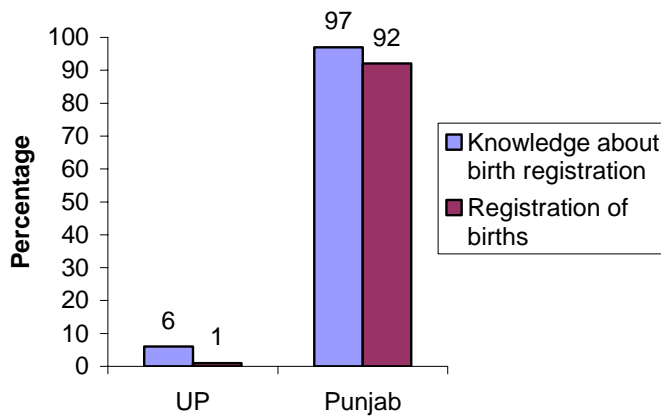
Salient Findings

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.

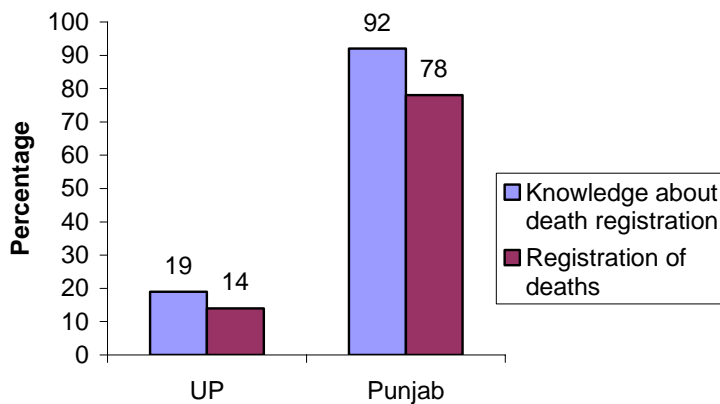
- In U.P., it is observed that registration of births and deaths is not a practice but a need based where the certificate is required.
- In Punjab, both birth and death registration is a practice but the families receive certificates when the same is needed.

- 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:

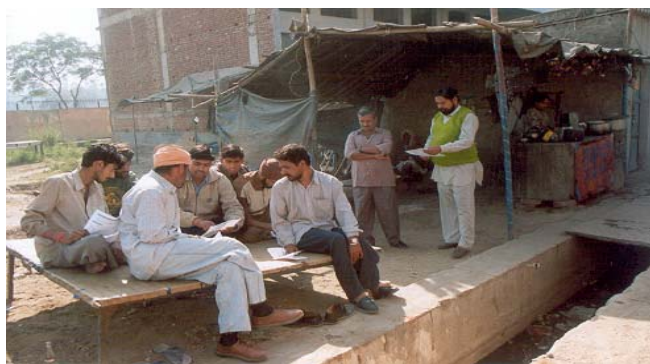
- Create awareness on STD and HIV/AIDS and its preventive measures.
- Motivate for adoption of behaviour change.
- To examine the effectiveness of different components of intervention programme through a series of qualitative research methods
- To identify the priority areas for potential improvements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

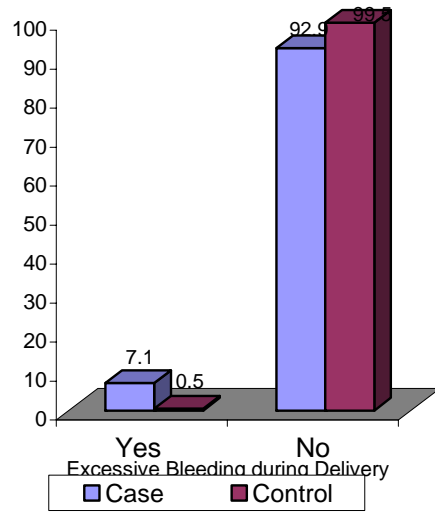
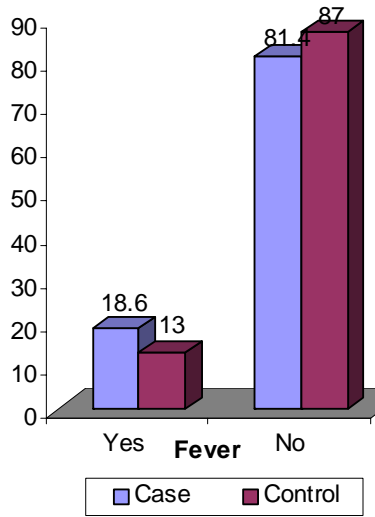
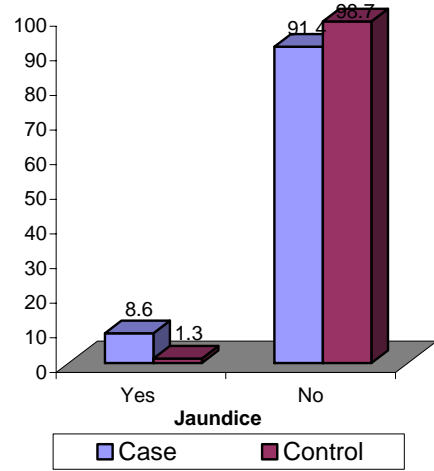
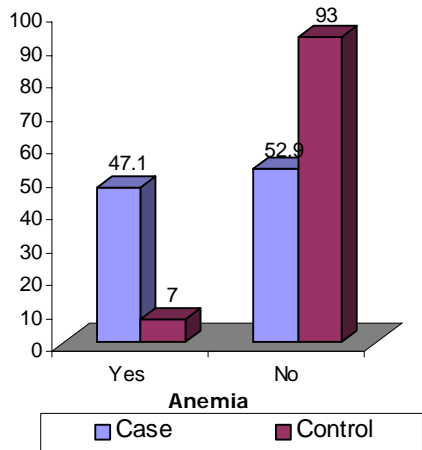
- The information on the maternal deaths which occurred during the last two years is collected from the locality, mentioned above, from the registers maintained at health centers under IPP-VIII. Snowball sampling is conducted to identify the maternal deaths through key informants including ANM and Basti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

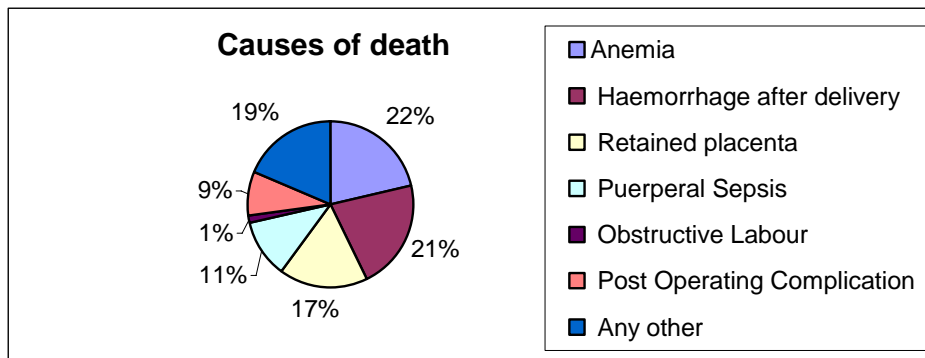
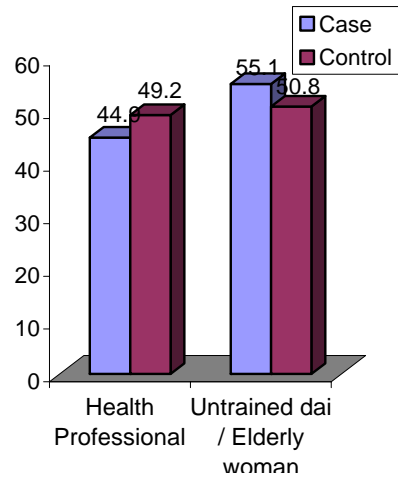
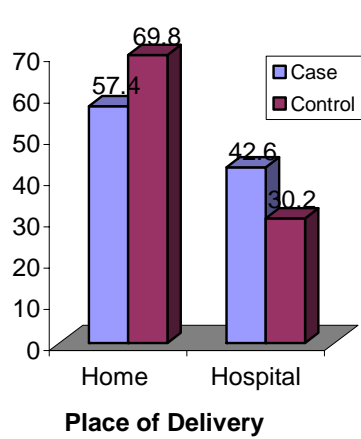
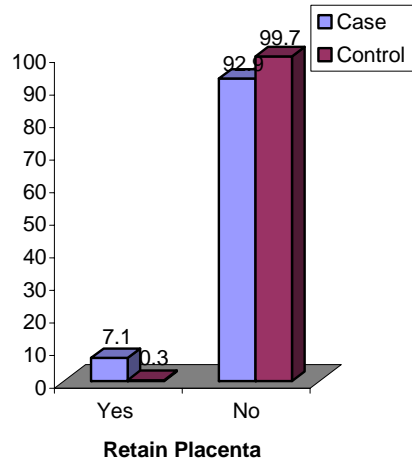
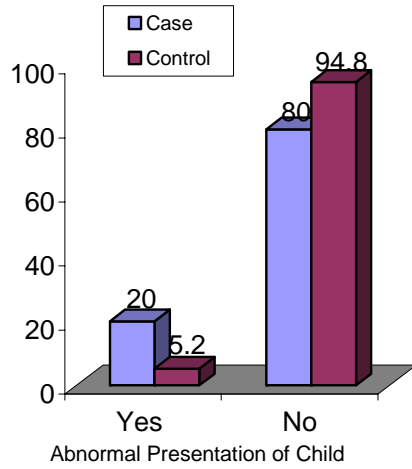
Coverage

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.