# CHAPTER-9: ACHIEVEMENTS IN HEALTHCARE

## 9.1 Performance indicators

The NRHM prescribed national targets for reducing infant mortality rate (IMR), maternal mortality rate (MMR), total fertility rate (TFR) and morbidity and mortality rates and increasing the cure rate of different endemic diseases covered under various NDCPs. The State specific targets were not prescribed under the Mission. States had to fix their own targets keeping in view the overall national targets.

However, SHSs in Assam, Arunachal Pradesh, Andaman & Nicobar, Bihar, Chhattisgarh, Daman & Diu, Delhi Jharkhand, Karnataka[60], Manipur, Meghalaya, Mizoram, Punjab, Sikkim, Tripura, Uttar Pradesh and West Bengal (17 States/UTs) did not prescribe long term goals and targets in respect of these performance indicators. In nine States,[61] outcome goals for performance indicators as well as long term goals under NRHM were prescribed. However, pre NRHM data on various impact and performance indicators was not compiled/available in Chandigarh, Jammu & Kashmir, Kerala and Uttarakhand. In the absence of pre NRHM data on IMR, MMR, TFR etc. and various performance indicators, the reasonableness of targets set and progress post NRHM could not be measured.

The district is the basic unit for all interventions under the NRHM. However, the district-wise long term targets for impact indicators and annual targets for performance indicators were also not prescribed in Assam, Arunachal Pradesh, Andaman & Nicobar, Bihar, Chhattisgarh, Daman & Diu, Delhi, Jharkhand, Rajasthan, Manipur, Meghalaya, Mizoram, Madhya Pradesh, Orissa, Punjab, Sikkim, Tripura, Uttar Pradesh and West Bengal (19 States/UTs).

The Ministry stated that State and district targets and corresponding performance indicators were available for examining the impact of NRHM. Each Integrated District Health Action Plan (IDHAP) contains the base line of respective district and goals (including intermediate goals) which the district concerned wants to attain. Similarly, the annual PIP of the States draws support and direction from the perspective goals laid down by the respective State. The Ministry stated that State and district targets had not been laid out centrally under NRHM. In a large and diverse country like India, with wide interstate and intrastate variations, the Ministry felt that it would be inappropriate to centrally prescribe local targets of the health sector reform agenda. Each State would need to be conscious of its base line and its capacities before adopting realistic, targets. The same applies to the districts also.

The Ministry further stated that NRHM did prescribe output targets and overall outcome targets for various interventions. The various programme constituents of NRHM had their own targets which are honoured as part of the overall NRHM agenda. Vigorous efforts for operationalising the web base health MIS have shown

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[60] SHS did not provide information regarding target set for impact and performance indicators.

[61] Andhra Pradesh, Chandigarh, Dadra & Nagar Haveli, Himachal Pradesh, Jammu & Kashmir, Kerala, Maharashtra, Uttarakhand and Tamil Nadu

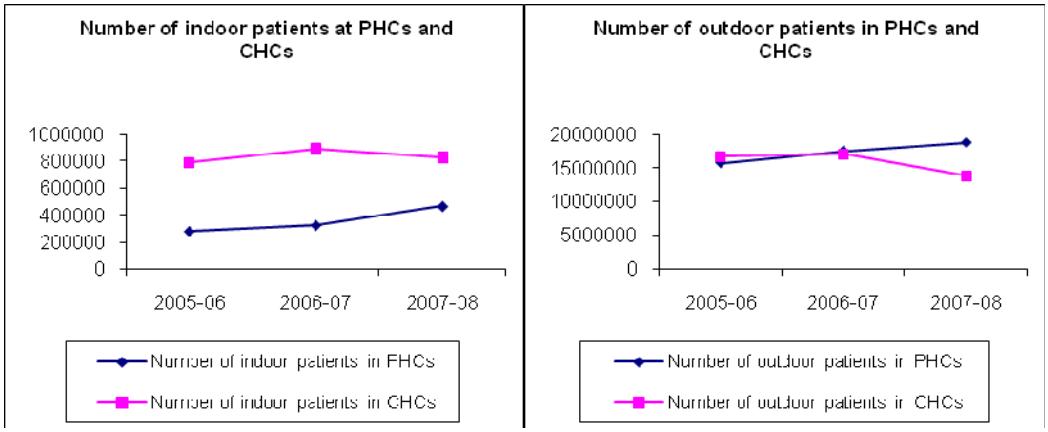
positive results and more robust, regular MIS was becoming available for matching the achievement of various programmes against the targets.

While the Ministry's emphasis on the IDHAP was appreciated, the fact remains that half of the States/UTs and most of the districts had not prepared their perspective plans indicating long-term goals. At the Ministry level also, no roadmap had been developed in consultation with States to set the disaggregated State wise long term targets, goals and outputs to achieve the overall national outcomes prescribed under the NRHM. The national targets did not reflect the inter-state and intra-state variations pre-NRHM, for various indicators. The targets should be based on clear and achievable goals built up from grassroots data set by the States. The need for the Ministry to guide and ensure that State goals are achievable and are in line with overall national indicators, is again emphasised. Overall targets should be set for the country by the Ministry. The States can set their own annual targets to reach the national goal.

## 9.2 Increase/ decrease in in-patient and out-patient cases

Increase/decrease in the number of in-patient and out-patient cases is an important indicator to help assess the effectiveness of various interventions under the NRHM.

The number of out patients cases reaching the PHCs had increased substantially but the number of inpatient and outpatient cases at CHCs was not increasing apace as seen in the sample audited districts of Assam, Andaman & Nicobar, Bihar, Chhattisgarh, Jammu & Kashmir, Himachal Pradesh, Haryana, Meghalaya, Punjab, Puducherry, Uttar Pradesh and Tamil Nadu (12 States/UTs). However, the overall number of OPD and IPD patients had decreased in five States (Himachal Pradesh, Orissa, Lakshadweep, Madhya Pradesh and Gujarat). The trend of OPD IPD patients at the CHCs and PHCs of audited districts in 26 States/UTs was as under:




In eight States (Andhra Pradesh, Arunachal Pradesh, Assam, Jharkhand, Mizoram, Kerala, Sikkim and Chhattisgarh), SHSs did not maintain overall data on number of patients during 2005-08. In Maharashtra (up to 2006-07), Uttarakhand and Punjab data for CHC only was maintained.

The varying response by patients to the interventions made under NRHM indicated asymmetrical implementation of various components of the Mission countrywide. For instance, increase in outpatient cases at PHCs but stagnancy in in-patient and out-

patient cases at CHCs indicated facility of doctors, medicines, etc. but lack of adequate facilities for nursing, emergency services etc.

**Patients waiting at a health facility in Bihar**

The Ministry stated that no two States in the country are identical. The health seeking behaviour of communities also varies from district to district and state to state. As the health system is rejuvenated, absolute number of citizens utilizing the services is bound to improve. However, spread of this increase was not expected to be uniform. Some States had allocated sequential attention to rejuvenation of various levels of health facilities. Others had undertaken jurisdiction wise upgradation of services. Still others had adopted thematic focus. Hence the improvement of OPD at various levels in many States was not uniform. The OPD attendance at various levels was also a function of the health seeking preferences of the community. The overall transactional capacity of the State in terms of availability of transport, road condition, communication services etc. also determines the preferred locus of interaction of citizens with the health system. The relatively slower improvement in the inpatient statistics can be attributed to several reasons including lack of residences / transport for service providers (because of which they are inclined to restrict the services to OPD only). Efforts were being made under NRHM to improve the availability of physical infrastructure, augmenting the nursing HR etc. to improve the utilization of inpatient beds in public facilities.

## 9.3 Reproductive and Child Health (RCH)

### 9.3.1 Maternal health

Under maternal health, the RCH II aimed to reduce maternal and infant mortality rates to 100 per one lakh and 30 per thousand respectively by 2010. The important services for ensuring maternal health and care included antenatal care, institutional delivery care, post natal care and referral services.

#### (a) Antenatal care

One of the major aims of the safe motherhood programme was to register all pregnant women within 12 weeks of pregnancy, provide them four antenatal check-ups, Iron Folic Acid tablets for 100 days, two doses of tetanus toxoid (TT) and advice on the correct diet and vitamin supplements and in case of complications refer them to more specialised gynaecological care.

#### (i) Registration and checkups

Systematic records for all the four ante-natal checkups were not maintained in sample districts in 19 States/UTs (Assam, Andhra Pradesh, Arunachal Pradesh, Chhattisgarh,

Dadra & Nagar Haveli, Daman & Diu, Himachal Pradesh, Haryana, Jammu & Kashmir, Jharkhand, Kerala, Mizoram, Orissa, Rajasthan, Sikkim, Tripura, Uttar Pradesh, Uttarakhand and West Bengal). The details of registration of pregnant women were not recorded in Andaman & Nicobar, Arunachal Pradesh, Bihar, Jharkhand[62], Orissa, Sikkim, Tripura and Uttarakhand. Mother and Child Health (MCH) registers were also not maintained properly in most cases.

Moreover, less than 50 *per cent of* pregnant women were registered within 12 weeks of pregnancy in five States/UT (Dadra & Nagar Haveli, Jharkhand, Madhya Pradesh, Mizoram and Rajasthan). State-wise details are in Annex **9.1**. Data in this regard was not made available in nine States/UTs ( Andaman & Nicobar Islands, Arunachal Pradesh, Orissa, Chhattisgarh, Meghalaya, Punjab, West Bengal, Uttarakhand and Tripura) .

Only 21 to 57 *per cent* of pregnant women received four antenatal checkups in Assam, Jammu & Kashmir, Jharkhand, Madhya Pradesh, Meghalaya and Uttar Pradesh. 38 to 58 *per cent* of pregnant women had not received any checkups in Gujarat, Jharkhand and Meghalaya. In contrast, all pregnant women had been registered within 12 weeks of pregnancy in eight States/UTs[63]. However, the data provided by the SHS needs to be checked given the absence of systematic records of registration, checkups and sound reporting system from CHCs, PHCs and Sub Centres to the DHS and further above. Specific cases of variation in data provided by the SHS and data verified during audit are given in Table 9.1:

**Table: 9.1 Variation in number of pregnant women registered**

| Name of the State | Year | No. of pregnant women registered as reported by | |
|---|---|---|---|
| | | DHS | SHS |
| Uttar Pradesh | 2005-06 | 396000 | 494000 |
| | 2006-07 | 409000 | 503000 |
| | 2007-08 | 422000 | 500000 |
| Mizoram | 2005-08 | 20307 | 20246 |

The Ministry stated that while the report of District Level Household and Facility Survey- 3 (DLHS-3, 2007-08) conforms to the audit findings on most of the parameters, in some States data of audit and DLHS vary on some parameters.

However, the variation between DLHS-3 data and the audit finding is inevitable. While DLHS-3 was based on surveys of sample households, the audit findings are based on information for three years (2005-06 to 2007-08) provided by the SHSs. Wherever, the variation is considerable the matter needs to be examined by the Ministry.

### (ii) Iron Folic Acid Administration

In nine States/UTs (Gujarat, H.P, Kerala, Punjab, Uttarakhand, Delhi, Arunachal Pradesh, Orissa, Uttar Pradesh) 20 to 50 per cent pregnant women could not receive the full dose of IFA tablets while in seven States/UTs (Jammu & Kashmir, Jharkhand, Sikkim, Assam, Chandigarh, Puducherry and Maharashtra) the shortfall was more

[62] In Jharkhand, the SHS provided data on registration of pregnant women, while no such data was maintained in any of the audited districts, which raises doubts on data provided by the SHS.

[63] Assam, Chandigarh, Haryana, Himachal Pradesh, Jammu & Kashmir, Kerala Puducherry and Uttar Pradesh.

than 50 per cent. The SHS did not maintain data on administration of IFA tablets to pregnant women in Andaman & Nicobar, Bihar, Daman & Diu, Karnataka, Manipur, Mizoram, and Tripura (7 States/UTs).

As per data provided by the SHSs, the number of pregnant women administered IFA gradually decreased from 2005 to 2008 in 17 States/UT as detailed in **Annex 9.2**. In 4 sample districts of Assam, Punjab[64] and Andhra Pradesh, IFA tablets were not given to any of the 520661 registered pregnant women during the year 2005-08. In most States, the shortfall in administration of IFA tablets was mainly due to non-supply or short supply[65] of IFA tablets. State specific cases of discrepancies in administration of IFA tablets are given below**:**

| | |
|---|---|
| **Uttar Pradesh** | Government of India released Rs. 38.49 crore in March 2006 for procurement of Kit A containing IFA tablets and Kit B. However, due to non-finalisation of the procurement agency, the procurement of Kits was delayed and the kits were distributed to ANMs in April 2008. All 68 Sub Centres, 25 PHCs and 18 CHCs of the audited districts had reported (2005-08) the distribution of IFA tablets to the pregnant women to the SHS in their progress reports, although IFA tablets were not available with them during this period. |
| **Bihar** | In audited districts, proper records were not maintained by the health units to show the status of pregnant women actually receiving IFA administration. In Kishanganj district both the prophylaxis and therapeutic tablets were shown as administered to expectant mothers but each beneficiary received only 10 to 30 tablets during 2005-08. |

In 90 CHCs, 208 PHCs and 707 Sub Centres of Bihar, Haryana, Punjab, Rajasthan, Manipur, Uttar Pradesh and Tamil Nadu (7 States) the stock of IFA tablets was nil during the most of the period from 2005-08 and in 18 CHCs, 55 PHCs and 108 Sub Centres of Jharkhand, Mizoram, Sikkim, Uttarakhand and Chhattisgarh (5 States) the stock of IFA tablets was below the minimum recommended level during 2005-08.

The Ministry stated that there had been shortfalls in IFA tablets availability at peripheral health centres of some States of the country in the past. This was now being supplied by procurement through UNOPS.

### (iii) Tetanus Toxoid Immunisation

Data for immunisation against the tetanus toxoid was not maintained by SHS and DHS in Bihar and Arunachal Pradesh.

Further, the targets fixed by other States had no relationship with the demographic profile, nor were they based on any baseline survey. While Madhya Pradesh and Uttar Pradesh fixed a target of 62.88 lakh and 193.06 lakh respectively, the target for Tamil Nadu and Andhra Pradesh was only 37.71 lakh and 54.56 lakh respectively. Figures of achievement also showed wide variations. While Chandigarh and Lakshadweep exceeded their targets, Jammu & Kashmir, Jharkhand, Uttar Pradesh and Tripura fell short and reached less than 75 *per cent* of the target. Besides, the data

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[64] In Bathinda, IFA was administered to 1534 women only out of the total 88265 registered pregnant women. In Hoshiarpur IFA tablet was not administered to any pregnant woman during 2005-07.

[65] An exception was Jammu & Kashmir where shortfall was due to poor response from pregnant women as sufficient stocks of IFA tablet were available at the health centres.

was not very reliable as no systematic records on pregnant women were available in most districts and States.

The Ministry stated that in the absence of well defined systems in the State, target for TT immunization was fixed centrally based on projections of Census 2001. Ideally, States should decide targets based on annual household surveys at the field level and bottom-up approach should be taken in fixing targets from sub-centre level upwards. Further, the reporting system in some of the States was weak as reflected in wide gap between the evaluated and reported data.

**Poor condition of maternity ward at District Hospital, Rajouri, Jammu and Kashmir**

### (b) Institutional delivery care & Janani Suraksha Yojna

The Janani Suraksha Yojna (JSY) scheme was introduced in April 2005 replacing the earlier National Maternal Benefit Scheme (NMBS). JSY had the twin objectives of reducing maternal and infant mortality by providing cash incentive to pregnant women of BPL/SC/ST families in all States and all pregnant women in ten low performing States (eight EAG States, Assam and Jammu and Kashmir).

#### (i) Targets and achievement

A primary objective of the scheme was to increase institutional deliveries and achieve the target of 100 *per cent* institutional deliveries by the end of 2010. However, in 12 States/UTs viz. Andaman & Nicobar, Arunachal Pradesh, Bihar, Chandigarh, Dadra & Nagar Haveli, Himachal Pradesh, Karnataka, Kerala, Manipur, Mizoram, West Bengal and Orissa, the SHS did not prescribe year-wise targets for institutional deliveries. Shortfall in target achievement was noticed in 11 States which ranged between 25 to 81 *per cent* in six States and maximum in Jharkhand (60 *per cent*), Uttarakhand (78 *per cent*) and Punjab (81 *per cent*) (**Annex 9.3**). Further, even in 47 audited districts of low performing States, a shortfall was noticed in 19 districts (40 *per cent*) and shortfall was not measured in 16 districts due to non-fixation of targets.

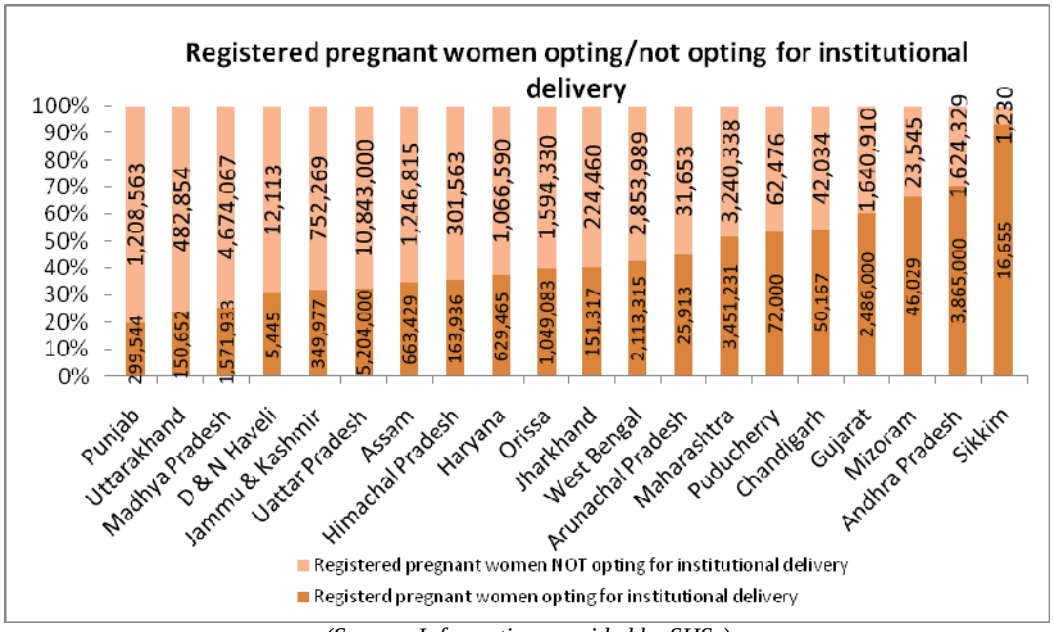
The Ministry stated that for the year 2007-08 more than 540 districts had made their health action plans fixing physical and financial targets. Substantial progress had been made in this regard. Overall figures of JSY beneficiaries had risen 11 times (approx.) between 2005-06 (7.39 lakh) and 2008-09 (84.5 lakh). However, the States were being advised to fix their targets keeping in mind the available resources both in terms of infrastructure and manpower.

#### (ii) Implementation of the scheme

The scheme envisaged that all registered pregnant women would be provided with JSY and Mother and Child Health (MCH) cards and ASHAs would keep track of them for ante-natal care (ANC), delivery and post delivery care. The ANM would prepare Micro Birth Plan for effective monitoring of the antenatal and post delivery care. However, the Micro Birth Plan had not been prepared in the audited districts at

the PHC and Sub Centre levels in Arunachal Pradesh, Andhra Pradesh, Bihar, Chhattisgarh, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Kerala, Madhya Pradesh, Orissa, Rajasthan, Sikkim, Tripura, Tamil Nadu, Uttar Pradesh, Uttarakhand and West Bengal (17 States). In the absence of any Micro Birth Plan, JSY and MCH cards, all the registered pregnant women could not be tracked for checkups, institutional delivery and post natal care.

Further, a majority of pregnant women were registered but did not use the health centres for institutional delivery particularly in EAG States as shown in the chart below.




*(Source: Information provided by SHSs)*

In 13 out of 20 States, less than 50 percent of total registered pregnant women preferred institutional delivery at health centres. Further, in 19 out of 23 sample districts of Chhattisgarh, Himachal Pradesh, Jharkhand, Orissa, Uttar Pradesh and Uttarakhand (6 States) domiciliary deliveries were more than institutional deliveries.

Besides, women were discharged after delivery and without the minimum recommended stay, and consequently the proper delivery and post natal care required to be provided under the scheme was not availed of. Lack of infrastructure, supporting staff and doctors at health centres, further affected the extent and quality of institutional delivery care.

The Ministry stated that the issue pointed out by Audit was well taken. It has been a constant endeavour of the Ministry to ensure that after registration of the pregnant women in the first trimester, a Micro Birth Plan was made. The Micro Birth Plan captures all essential data required. States were constantly striving towards preparations of the Micro Birth Plan for each pregnant woman. The Ministry stated that while audit had pointed out domiciliary deliveries were more than institutional deliveries, however, institutional deliveries as percentage of total deliveries rose from 42 *per cent* (2005-06) to 84 *per cent* (2006-07) among the below poverty line JSY beneficiaries. The Ministry had been advising States to ensure that the women staying at the facility for two days after delivery for proper post-natal care (PNC).

The Ministry felt that recent trends were encouraging. The States were being advised to ensure quality of care for the pregnant women both in terms of PNC and ANC.

While the progress shown by the Ministry was a positive development, as per DLHS-III (2007-08), the percentage of institutional deliveries was 47 per cent of the total deliveries. During DLHS-II (2002-04) this percentage for institutional deliveries was 40.9 per cent, while during DLHS-I (1998-99) this was 37 per cent. The three DLHSs indicate a steady but slow increase in the percentage of institutional deliveries.

### (iii) Payment of incentive under JSY

Under the JSY, disbursement of cash incentive was to be made to the beneficiaries immediately after the delivery. As per the scheme, any payment after 7 days of delivery would be illegitimate. In 249 test checked units of 13 States viz. Andhra Pradesh, Bihar, Chhattisgarh, Himachal Pradesh, Jammu & Kashmir, Manipur, Mizoram, Madhya Pradesh, Orissa, Punjab, Rajasthan, Tamil Nadu and Uttarakhand payment of cash incentive to eligible beneficiaries was delayed for periods ranging from 8 to 730 days. Delays were due to lack of funds, non-provision of imprest with the ANM and lack of awareness among the beneficiaries about the scheme. In Arunachal Pradesh, Jammu & Kashmir, Karnataka, Rajasthan and Uttar Pradesh, only 6 to 38 *per cent* beneficiaries were paid the cash incentive.

Further, proper records and vouchers in support of payment of incentive were not always maintained. Cases of fraudulent and excess payment, non-payment and inordinate delay are given in **Annex 9.4** and text box below**.**

The Ministry stated that for timely payment to the ASHA & beneficiaries, the scheme envisages creation of an Imprest Money Fund with the ANM. The Ministry had also mandated that payment to the beneficiaries and ASHA be made through cheques. The Ministry stated that it monitored these aspects during the course of Review Missions and the Financial Management Division under NRHM also conducted regular review. Complaints about financial irregularities as and when received in the Ministry were brought to the notice of the States with a request to conduct thorough investigation in the matter. As regards the timelines, the Ministry stated that the States were being advised to adhere to the timelines laid down in the JSY guidelines.

However, the fact remained that non payment, inordinate delay and irregularities in payment of incentives defeated the very purpose of mother and child care through the provision of cash incentives and resulted in denial of benefits to the intended beneficiaries.

### (iv) Monitoring of the scheme

The Ministry was monitoring the scheme through the quarterly physical and financial reports furnished by the States/UTs, but these were not regularly sent by the States/UTs. In 2007-08 only ten States/UTs viz. Andhra Pradesh, Lakshadweep, Mizoram, Tripura, Delhi, Jharkhand, Uttar Pradesh, West Bengal, Orissa and Arunachal Pradesh had submitted quarterly reports on physical achievement for all the four quarters.

**Case study: Implementation of JSY in Bihar and Orissa**

**Bihar:**

- During 2006-08, Rs 16.15 lakh was paid to the expectant mothers in the 37 PHCs against registration in the health centres. But no record regarding further tracking of beneficiaries were available with PHCs.
- Janani and Bal Suraksha Yojana beneficiaries were released from the health units just after 2 to 4 hours (average) of delivery against the IPHS norm of stay of 3 days after delivery under normal condition.
- Same 298 beneficiaries (detected on the basis of their photographs and registration number/date mentioned on the JSY payment register) had been paid two to five times within the period of one day to two months resulting in fraudulent payment of Rs. 6.67 lakh in the 14 PHCs of audited districts. On this being pointed out in August 2008 DHS, Nalanda had recovered the amount of Rs. 4.84 lakh and other DHS had stated that appropriate action would be taken after proper investigation.
- In 2 PHCs viz. Sadar and Barhara of Bhojpur district, during 2006-08, cash incentive of Rs 8.03 lakh was paid to 429 beneficiaries for delivery in non-accredited private clinics. PHC, Sadar had neither indoor nor outdoor patient facility.
- Neither JSY card nor MCH card was maintained in any of the test checked PHCs. Micro Birth Plan was not prepared by any ANM though these basic records were to be mandatory maintained/ prepared by ANM after identification of expectant mother by ASHA. Prescribed monthly meeting with ASHA and ANM for the effective implementation of the JSY was also not organized in any of the PHC regularly.

**Orissa:**

- Institutional deliveries declined from 6.5 per cent in 2005-06 to 1.9 per cent in 2007-08 in Sub-centres due to non availability of trained man-power and equipment. In audited districts, institutional delivery was conducted in only 19 PHCs out of total 244 PHC (N). No institutional delivery was conducted in 963 PHCs (N) of the State during 2005-07. Delivery by untrained dais constituted about 10 per cent of total deliveries during the period 2005-08.
- Maternal deaths during pregnancy increased from 296 in 2004-05 to 430 in 2006-07, during delivery increased from 331 (2004-05) to 525 (2006-07) and with in six weeks of delivery increased from 288 (2004-05) to 411 (2006-07).

In an oversight, the quarterly report's format did not contain any column for enumerating the number of BPL women registered as beneficiaries under the scheme, while one of the determinants of the success of the scheme was the increase in institutional deliveries among poor families.

The Ministry had been monitoring the expenditure under JSY through quarterly and annual progress reports and the Financial Management Report sent by the field nodal officers of JSY and SHS respectively. However, there were variations in the expenditure reported through these two reports. Further, the Ministry's data on institutional deliveries and number of beneficiaries who had been paid an incentive was inconsistent with the data verified during audits. The reporting system from CHCs, PHCs and Sub Centres to the DHS and finally SHS was not very reliable, making SHS and Ministry's figures doubtful. Details of data inconsistencies are in **Annex 9.5**.

The Ministry had no mechanism to check the authenticity of the data and figures of expenditure and beneficiaries reported by the States regarding payments under the JSY and the quality of data and expenditure reported needed improvement.

The Ministry stated that the data available with the Ministry at times changes on account of revision of data submitted by the States. To have a sound, fool-proof and quick reporting system, the Ministry had launched a web based data reporting system namely the HMIS. The quality, speed and accuracy of the data reported by the States would improve drastically under the new reporting system. States were being told to ensure that the data on the HMIS web portal was accurately loaded. Quarterly physical and financial reports were one of the mechanisms for monitoring the scheme. Variations in the financial reports as per data available in the Ministry and SHS may be on account of further reconciliation of data by SHSs. The Ministry opined that reporting systems both physical and financial had progressed considerably over time. This was on account of availability of infrastructure like computers and data entry operators at the PHCs and CHCs. Training to health functionaries on financial and physical reporting had also helped in maintaining quality, accuracy of the data submitted. The HMIS would go a long way in ensuring that data is captured quickly, reliably and is submitted in time.

### (v) Impact assessment

While approving the outlay of the scheme, Expenditure Finance Committee in April 2004 provided Rs. 12 crore for the assessment study/survey at district level to assess the impact of the scheme. However no such survey had so far been conducted to assess the impact of the scheme.

The Ministry stated that the impact of the scheme was evaluated through various mechanisms. Apart from the regular data reports from States, the biannual Joint Review Missions and the Common Review Missions also evaluate the impact of JSY. Recently, the Ministry had commissioned an evaluation of the scheme through UNFPA in five States of Uttar Pradesh, Madhya Pradesh, Bihar, Orissa and Rajasthan in 2007. The Ministry intends to commission an assessment survey shortly.

The role of ASHA/ANM under the JSY scheme was limited to payment of cash incentives and the consistent tracking of expectant mothers for antenatal and post partum check-ups and deliveries and preparation of mandatory records such as Micro Birth Plan needed more attention. Meetings to monitor the implementation of the JSY were not organized in PHCs regularly and the lack of facilities and shortage of supporting staff and doctors' at the health centres had also further hampered the quality health care required during delivery.

### (c) Postnatal care

The percentage of women receiving post natal care (PNC) increased in eight States during 2005-08 and declined in seven States. Details are given in **Annex 9.6**. In Jammu & Kashmir, Uttar Pradesh and Sikkim the number of women availing of post natal care was below 10 *per cent* of the figure for all registered women. Besides, the post natal care facilities were yet to be made available in four CHCs and 16 PHCs test checked in Orissa. Records relating to postnatal care were not maintained in all the test checked districts of Assam, Bihar, Tripura and Uttarakhand and in two districts of Jammu & Kashmir and Karnataka.

The Ministry stated that there were variations between DLHS-3 data on PNC and the audit finding.

While some variations are bound to occur as DLHS-3 was based on surveying sample households, the audit findings are based on information for three years (2005-08) provided by the State Health Societies. But wherever, the variation is considerable, the matter needs to be examined by the Ministry.

### (d) Referral services

The RCH II scheme outlined lump sum assistance to panchayats to transport pregnant women from indigent families to health centres. During 2005-08 no funds were distributed to panchayats/VHSCs for referral services in the 21 States/UTs (Haryana, West Bengal, Assam, Bihar, Chhattisgarh, Punjab, Rajasthan, Jammu & Kashmir, Uttar Pradesh, West Bengal, Lakshadweep, Dadra & Nagar Haveli, Puducherry, Andaman & Nicobar, Orissa, Tripura, Gujarat, Kerala, Karnataka and Uttarakhand). In 34 sample audited districts in Tripura, Gujarat, Madhya Pradesh, Assam , Himachal Pradesh, Jammu & Kashmir, Jharkhand, Manipur and West Bengal[66] (9 States/UTs), Rs. 4.48 crore (57 *per cent* ) out of Rs. 7.87 crore released for referral services to DHS remained unutilised. In Sikkim and Manipur the utilisation of funds of Rs. 45.90 lakh and Rs. 2 crore respectively distributed to VHSCs could not be monitored due to poor reporting and non maintenance of records.

Further, the referring centre was to get feedback from the referral centres regarding progress of treatment given by the specialist, records of referred women were to be maintained at all levels and ANMs were to visit referred women every week during their antenatal, natal and postnatal periods for follow-up. However, in most of the audited health centres, registers for referral cases were not maintained and feedback from the referred centres was not received. The ANM rarely visited the patient during her referral.

The scheme of referral services was not implemented through the Panchayat/VHSCs as envisaged under the Mission. The funds utilisation under the scheme was very low and utilisation of funds was not accounted for properly.

The Ministry stated that under NRHM rather than distributing funds to panchayats,

**Case study: Referral service in Andhra Pradesh**

In a positive innovation in Andhra Pradesh, the Government sought to encourage health seeking behaviour and proper institutional care by providing free travel passes @ Rs. 19.36 to BPL pregnant women for three round trips to the nearest health centre during the validity of a year for check up/referral services. However, almost 40 per cent of the passes were not utilised and out of 16 lakh passes, only 13.03 lakh passes had been distributed and remaining 2.97 lakh passes valuing Rs. 57.46 lakh could not be distributed and expired. The Government may like to explore the linkage of distribution of passes through health centres with the validity period being stated by the ANM concerned so that the awareness about the measure and its greater adoption is ensured. Since, the target population will always be an approximation, being expectant mothers, the state government may like to consider improving the scheme by making it a continuing one and exploring the option to revalidating unused passes for use in subsequent years.

[66] Rs 1.56 crore paid to Block Societies and Hospitals but utilisation thereof was not accounted for properly

innovative models of public private partnerships for providing referral transport were being encouraged. In addition, resources were available at the facilities through untied funds. The Ministry accepted that the States need to focus on proper maintenance of records for monitoring the referral transport system including utilization of untied funds.

#### (e) Maternal deaths

SHS and DHS in Chandigarh, Bihar, Rajasthan, Sikkim and Uttar Pradesh did not maintain data on maternal and neonatal deaths. In 59 out of the 67 audited districts in 17 States/UTs of Haryana, Andaman & Nicobar, Andhra Pradesh, Bihar, Jammu & Kashmir, Jharkhand, Lakshadweep, Manipur, Mizoram, Madhya Pradesh, Puducherry, Punjab, Sikkim, Tripura, Uttarakhand, Rajasthan and Uttar Pradesh there was no proper mechanism to get regular information about maternal and neonatal deaths from post partum centres. In Uttarakhand, the data on maternal deaths provided by the DHS and those maintained at SHS was inconsistent.

Thus, in the absence of a proper system of collection and reporting of data on maternal and neonatal deaths, the data available with the SHS was less reliable and the actual number of deaths could not be ascertained.

The Ministry stated that States were being advised to institute a regular system of maternal death audit.

The maternal health care under the RCH II required better monitoring in the States. All the registered expectant mothers were not tracked for ANC, TT immunisation and for delivery and post delivery care. The weak reporting of registration of pregnant women, antenatal checkups, IFA and TT administration, institutional deliveries, postpartum care and maternal and neonatal deaths were a cause of concern because this reduced the effectiveness of the consequent monitoring and future interventions.

### 9.3.2 Family planning

The RCH II had launched a number of initiatives under family planning while continuing existing methods to achieve the goal of population stability and reduction of total fertility rate to the replacement level viz. 2.1 by 2012. The family planning programme includes terminal and spacing methods to increase the contraceptive prevalence rates and ultimately reduce the total fertility rate.

#### (a) Terminal method

The terminal method of family planning includes vasectomy for males and tubectomy for females. The SHS did not prescribe year wise targets in various terminal methods in Assam, Arunachal Pradesh, Chhattisgarh, Jammu & Kashmir, Kerala, Karnataka[67], Puducherry, Himachal Pradesh, Lakshadweep, Mizoram, Delhi, Manipur, Andaman & Nicobar, Rajasthan, and Chandigarh (15 States/UTs). Due to non-fixing of targets the shortfall in achievement could not be measured in these States. However, out of 13 States in which targets had been prescribed, the shortfall of 11 to 62 *per cent* was noticed in 11 States (**Annex 9.7-A**).

[67] SHS did not provide information on the status of target and achievement in various terminal methods for the state as a whole.

The proportion of vasectomy to total sterilisation was only 4 *per cent* and this is a manifestation of the gender imbalance that plagues the programme. State wise performance (Details in **Annex 9.7-B**) showed that percentage of vasectomy to total sterilization was less than one in 10 States/UTs while it ranged between one to nine in 16 States/UTs. In Lakshadweep no vasectomy had been done and in Mizoram only two vasectomies had been conducted out of the total 6740 sterilisation operations.

The performance of laparoscopic tubectomy during 2005-08 was low ranging in 10 States/UTs (detail in **Annex 9.7-C**) between 11 to 27 *per cent*. In Bihar and Lakshadweep it was nil and abysmally low in Jharkhand (1.58 *per cent*) and Puducherry (1.36 *per cent*). The reason of low performance was attributed to lack of trained doctor and equipment in the PHCs and CHCs in most of the States.

Further, 3074 cases of unsuccessful sterilisation in the 13 States during 2005-08 were noticed (**Annex 9.7-D**). Cases of sterilisation failure were significantly higher in Tamil Nadu, Rajasthan, Puducherry, Himachal Pradesh, Uttar Pradesh and Delhi as compared to Maharashtra. In five States viz. Andaman & Nicobar, Bihar, Sikkim, Madhya Pradesh and Kerala SHS had not maintained data on unsuccessful cases of sterilisation. In 17 test checked districts, the DHS had not received reports of failure of sterilisation in Haryana, Chhattisgarh, Chandigarh, Uttar Pradesh, Jammu & Kashmir, and Mizoram.

#### (b) Spacing methods

Oral pills, condoms and inter uterine device insertions are three prevailing spacing methods of family planning to regulate fertility and promote couple protection ratio. SHS had not prescribed year wise targets for various spacing methods in Manipur, Tripura, Himachal Pradesh, Arunachal Pradesh, Andaman & Nicobar, Bihar, Chandigarh, Delhi, Kerala, Lakshadweep and Puducherry (9 States/UTs).

In all PHCs and CHCs of the audited districts of Bihar and Orissa and 730 Sub Centres and 92 PHCs of the selected districts of Gujarat, the ANMs, nurses and doctors were not trained in IUD insertion.

There was a shortfall in achievement vis-à-vis targets for IUD insertion and oral pill distribution in 18 and 15 States respectively. The shortfall was maximum in Jharkhand, i.e. 68 and 81 percent. Among the total spacing methods, usage of condoms was maximum in 22 States ranging from 51 to 98 *per cent* alone, while the usage of IUDs was greater in four States only. Oral pill usage was below 38 *per cent* in 25 States/UTs other than Sikkim and West Bengal (Details in **Annex 9.7-E**).

In the family planning schemes, female sterilisation constitutes 96 *per cent* of total sterilisation. Low usage of feminine spacing methods i.e. oral pill and IUD meant that the decision-making role of women in family planning was limited.

### 9.3.3 Immunisation and child health

#### (a) Routine Immunisation

The immunisation of children against six preventable diseases, namely tuberculosis, diphtheria, pertussis, tetanus, polio and measles had been the cornerstone of routine immunisation under the universal immunisation programme.

The SHSs had not fixed targets for secondary immunisation of children in the age group of 5 to 6 years in Bihar, Tamil Nadu, Uttarakhand and Lakshadweep. The percentage achievement against the targets of fully immunised children was quite low in Manipur (37), Arunachal Pradesh (45) and Jharkhand (65), while in remaining States this ranged between 77 to 100 *per cent.* Target of fully immunised children were, however, not made available in Bihar. Besides, the targets for immunisation had been fixed on an ad hoc basis in test checked districts in Bihar, Jharkhand, Himachal Pradesh, Madhya Pradesh, Uttar Pradesh, Uttarakhand, Assam, Manipur, Sikkim, Tripura, Kerala, Punjab, Puducherry, Tamil Nadu and West Bengal (15 States/UTs).

Despite the higher rate of coverage, the incidence of infant and child diseases also increased during the period 2005-08 in 9 States. Moreover, 957, 544, 462, 1980 and 29321 cases of neonatal tetanus, diphtheria, tetanus, whooping cough and measles respectively were reported in 104 test checked districts in 23 States/UTs (Detail in **Annex 9.8**). In Andaman & Nicobar, Chandigarh and Manipur data on incidence of infant and child diseases was not maintained by the SHS.

The Ministry stated that increase in number of cases did not necessarily reflect an increase in incidence rate of these diseases. The increase in cases could also be due to an improvement in detection, diagnosis, reporting and health service reach and does not necessarily reflect upon less effectiveness of immunization.

**Case study: Use of glass syringe in Mizoram**

Against the total requirement of 3,72,009 AD syringes for immunisation, based on number of children immunised during the years 2006-08, the Mission actually used 1,40,491 syringes raising doubts on the veracity of the achievement of the immunisation coverage claimed by the State Mission. However, the Department stated in November 2008 that due to short supply of AD syringes by the Central Government, re-usable glass syringes had been used. However, adequate funds were available with the State Mission for procurement of the syringes.

The use of re-useable glass syringe contradicted the Government strategy of single syringe usage per child, and also exposed the rural population to the risk of transmission of diseases like HIV.

The Ministry stated that ideally as per GoI norm AD Syringes should be used however during initial stage of introduction of Auto-disable Syringe (ADS) in 2006, the States were asked to use glass syringes with all precautions in case of shortage of AD Syringe so that the immunization programme doesn't suffer.

### (b) Pulse polio immunisation (PPI)

The pulse polio immunisation was launched under the RCH II to eradicate polio and ensure zero transmission by the end of 2008. The continuing reported cases of polio showed that the Mission had not been successful in its quest for polio free country.

Despite 2 National Immunisation Days, 6 Special National Immunisation Days (and additional rounds in selected districts of Bihar and Uttar Pradesh), 1640 new polio cases had been detected in 17 States/UTs. The maximum new cases were reported in Bihar (594) and Uttar Pradesh (948) (Details in **Annex 9.9**).

**OPV being administered**

The shortfall in achievement of targets under PPI was the greatest in Sikkim ( 16 per cent) and Meghalaya ( 9 per cent ). In 11 States/UTs, the shortfall was less than five per cent whereas targets were exceeded in seven States/UTs. State specific deficiencies in pulse polio immunisation in Bihar and Mizoram are in **Annex 9.10**.

**Case study: Deficiencies in pulse polio immunisation in Bihar**

During joint physical verification in 20 Routine Immunization Centres in audited districts, under pulse polio immunisation audit noticed serious lapses in administration and handling of vaccines as detailed below :

- In East Champaran district, vaccine carrier of all the ten pulse polio teams inspected were containing water instead of ice and OPV vials were kept in the vaccine carrier containing water at normal temperature.
- In Bhojpur district, no thermometer was available to measure temperature and in 19 out of 23 health units, temperature of the cold box/ILR containing vaccine vials ranged between12 $^{0}$ to 19$^{0}$ C.
- In two PHCs, temperature ranged between -10$^{0}$ to - 22$^{0}$ C against the required temperature of 2$^{0}$ to 8$^{0}$ C, hence vaccine vials were found in frozen condition.
- Instead of ice, normal water was kept in ice pack and immunization was being conducted by keeping the vaccine vial on the table at atmospheric temperature.

### (c) Vitamin A solution

The RCH II programme advocated a Vitamin A solution for all children less than three years of age. In the audited districts of the 22 States/UTs (details in **Annex 9.11**) there was a shortfall in administration of the first and second dose of vitamin A. Shortfall in first, second and subsequent doses was maximum in Punjab (86.29 *per cent*), Jammu & Kashmir (91.37 *per cent*) and Meghalaya (80.58 *per cent*). However, targets were exceeded in administration of third to fifth dose of vitamin A in 10 States.

The SHSs did not fix targets and maintain records on administration of vitamin A doses in Arunachal Pradesh, Andaman & Nicobar and Lakshadweep. Besides, in 12 out of 24 test checked districts of Assam, Andhra Pradesh, Bihar, Mizoram and Sikkim, no targets were found to be fixed.

The main reason of shortfall in achievements was short supply of Vitamin A at health centres in most of the States. In Delhi[68] and Uttarakhand, the stock of Vitamin A was not available over the period 2006-08 and Chandigarh had suffered short supply up to January 2007. In 30 CHCs, 72 PHCs and 144 Sub Centres stock of Vitamin A was nil

[68] Supply started in March 2008.

for 8 to 12, 24 to 36 and up to 36 months in Bihar, Haryana and Punjab respectively during 2005-08. While in 15 CHCs, 28 PHCs and 63 Sub Centres of Jammu & Kashmir and Mizoram the stock was not adequate. In Rajasthan and Uttar Pradesh shortfall in administrating Vitamin A was caused by a lack of awareness.

## 9.4 National Leprosy Elimination Programme (NLEP)

The NLEP aimed to eliminate leprosy by the end of 11th Five Year Plan and ensure a leprosy prevalence rate of less than one per ten thousand. In Bihar, Chandigarh, Delhi and Jharkhand the leprosy prevalence rate was more than one per ten thousand. The prevalence rate was more than one per ten thousand in 16 out of 30 districts and 94 out of 314 blocks of Orissa.

**Positive development**

The prevalence rate of leprosy was less than one in Arunachal Pradesh, Assam, Andhra Pradesh, Andaman & Nicobar, Dadra & Nagar Haveli, Himachal Pradesh, Madhya Pradesh, Orissa, Puducherry, Tamil Nadu, Uttar Pradesh and Uttarakhand.

However, the total cases and also new cases of leprosy detected during 2005 to 2008 remained high. New cases increased in Bihar, Chhattisgarh, Dadra & Nagar Haveli, Himachal Pradesh, Karnataka, Maharashtra, Mizoram, Orissa, Tripura, Tamil Nadu and Madhya Pradesh in 2007-08. Medicines for treatment of leprosy were also not available in 29 CHCs and 82 PHCs test-checked in Bihar, Haryana and Punjab.

The Ministry stated that the goal set by National Health Policy, 2002 was elimination of leprosy as a public health problem (reducing the prevalence of leprosy to less than one case per 10,000 population) at national level by the year 2005. As set, the goal of elimination which was at national level had already been achieved by India in December 2005. For better monitoring of the programme, the government was monitoring the achievement of leprosy elimination at State level. As on 31st March 2009, out of 35 States/ UTs, only 3 States had prevalence rate of more than one per ten thousand namely Bihar, Chhattisgarh and D & N Haveli. Out of 630 districts, 510 districts had already achieved the elimination status. The aim of NLEP during the 11th plan is to further reduce the leprosy burden in the country by providing quality leprosy services. Govt. of India had provided adequate quantity of MDT (Multi drug therapy) drugs to all States including Bihar, Haryana, Punjab and Manipur with necessary guidelines for supply and management of MDT. The States are repeatedly advised to keep 2 months buffer stock at all districts and PHCs. Under NLEP, more emphasis was given on two component viz. detection of new cases and completion of their treatment. Increase in number of new leprosy cases detected in the States suggest that the States were making efforts to detect new cases at early stage so that they may not suffer from any consequences.

## 9.5 National Programme for Control of Blindness (NPCB)

The NPCB aimed to reduce the cases of blindness to 0.8% by 2007 through increased cataract surgery (46 lakh by 2012), eye screening in schools and free distribution of spectacles, collection of donated eyes and creation of donation centres and eye-banks and strengthening of infrastructure by way of supply of equipment and training of eye surgeons and nurses.

### 9.5.1 Cataract operation performance

The distribution of workload between private and public sectors for cataract operation was expected to be in the ratio of 1:1.

Sector wise details of cataract surgery performed in the 19 States indicated that while the NGOs and private sector exceeded the 50 *per cent* mark, the Government sector lagged behind, logging barely 5 to 27 *per cent* in 10 States and 31 to 48 *per cent* in 5 States as evident from the table in **Annex 9.12**. The SHSs in D & N Haveli, Delhi, Manipur, Meghalaya, Punjab and Tripura did not maintain data on cataract surgeries performed in the private sector /and by NGOs.

Further, as per Ministry's guidelines, surgeries in Eye Camps are banned under the NPCB. Screening Eye Camps are organized and the patients are referred to fixed facilities for operation. However, in 14 States/UTs 19.52 lakh cataract surgeries were performed in camps which was 47 per cent of the total cataract surgeries in these States (**Annex 9.13-A)**.

The cataract surgery rate (CSR) was lower than the desired level of 600 cataract operations per lakh population per year and ranged between 100 to 276 in six States, 285 to 394 in five States and 455 to 560 in two States as shown in **Annex 9.13-B**. State specific cases are in **Annex 9.13-C**.

**Case study: Failure of cataract operation in Orissa**

**Orissa:** In three separate incidents in September 2006 (Deogarh), January 2007 (Bhabanipatna) and March 2007 (Cuttack), 25 out of 36 persons who were operated in eye camp at Government / charitable hospitals and discharged on next day of the operation lost their vision. Subsequent investigation of sterility of medication and materials used in eye OT confirmed infection in infusion sets, single use needle, the ringer lactate procured locally and intra-ocular lenses etc. due to presence of harmful bacteria. Besides, possibility of infection due to unhygienic conditions at home could not be ruled out as the patients were discharged on the same day of surgery. As a result, operated eyes of 18 patients were to be removed. In spite of successive failures, the department failed to initiate remedial measures to avoid recurrence. Even precautionary instructions were not issued as of June 2008.

The DHS stated that instructions would be issued for taking proper postoperative measures in respect of cataract operations by insisting on mandatory stay in hospitals after the operation for at least three days. However, action in this regard was awaited as of September 2008.

The non-achievement of desired cataract surgery rate and high cataract operations in eye camps and non-Government Institutions in disregard of Government orders indicates a lack of adequate infrastructure / eye surgeons for the rural population. For instance, in the 14 audited districts in Kerala, Orissa and Uttar Pradesh, only 48 eye surgeons were posted in CHCs and district and other hospitals against the requirement of 189 eye surgeons.

The Ministry stated that as per report received from States up to 2008-09, around 60 lakh cataract surgeries are being performed in the country per year. It further stated that participation of Voluntary Organizations had been very significant in controlling blindness in the country. However, major portion of cataract surgeries in private/NGO

run eye hospitals was a result of various schemes run under the National Programme for Control of Blindness to support private/NGO eye hospitals. Effective measures like construction of dedicated Eye Wards & Eye OTs in District Hospitals, appointment of Ophthalmic manpower, development of Mobile Ophthalmic Units particularly in NE States, Hilly States & difficult Terrains for diagnosis and medical management of eye diseases and involvement of private practitioners in sub district, blocks and village level were being taken to improve cataract surgery rate during the 11th Five Year Plan. However, surgeries in Eye Camps are banned under the NPCB and necessary instructions/guidelines in this regard were being sent to States from time to time.

### 9.5.2 Refractive error and free distribution of spectacles

The programme envisaged training of teachers in government and government aided schools, for screening refractive errors among students and free distribution of spectacles to the students having refractive errors.

As against total number of 5.61 lakh schools in the 16 States/UTs only 2.85 lakh teachers were trained. In Orissa and Dadra & Nagar Haveli, no teachers had been trained for eye screening and in Jammu & Kashmir only five teachers had been trained for the entire State. In Lakshadweep no such programme for screening and free distribution of spectacles had been evolved so far, while in four audited districts of Rajasthan no eye screening was done.

The number of free spectacles issued did not correspond to the students having refractive errors. During the period 2005-08, only 10.67 lakh (51 *per cent*) spectacles were issued against the total detection of 21.07 lakh cases of refractive errors in 24 States/UTs. In Sikkim, D & N Haveli and Uttar Pradesh nil, six and 39 per cent of the total students detected with refractive error were distributed with spectacles, mainly due to paucity of funds. In Orissa 16557 spectacles had been distributed free whereas only 14680 students were detected with refractive errors. Data on eye screening and distribution of spectacles was not maintained in Manipur and audited districts of Jammu and Kashmir.

The Ministry stated that against the provision of 98,697 free spectacles during 2002-03, more than 4,62,688 free spectacles were provided to poor school age group children in States during 2008-09 under NPCB. The State Governments were being instructed suitably to provide free spectacles to needy poor school age group children under the programme. 20 per cent can be provided free. As per reports received from States, during the year 2002-03, 35,267 teachers were trained for eye screening under NPCB. The number of teachers trained had gone up to 77,157 during 2008-09. It was being ensured that more number of teachers were trained under the School Eye Screening Programme by providing adequate funds to States for organizing training of teachers for eye screening.

### 9.5.3 Eye banks

Development of eye banks is an important activity to help address corneal blindness. No eye bank was operational in Andaman & Nicobar, Arunachal Pradesh, Daman & Diu, Dadra & Nagar Haveli, Himachal Pradesh, Jammu & Kashmir, Lakshadweep,

Manipur, Meghalaya and Uttarakhand (10 States/UTs). As of March 2008 only 346 eye banks were operational in the 17 States/UT[69] out of which 97 were in the government sector and 249 were in the voluntary sector. Further, out of 375 district hospitals in the 13 States/UT[70] only 44 had facilities for eye donation.

The detail of performance of eye banks in Government and voluntary sectors is given in the **Annex 9.14-A**. The SHS did not maintain data for the voluntary sector in 5 States/UTs. No data was maintained for both the sectors in Punjab and Sikkim and separately for each sector in Maharashtra and Rajasthan regarding the performance of eye bank. Comparative analysis of performance in nine States/UTs where data on both the sectors was available separately showed that the voluntary sector collected 76 *per cent* of the eyes donated. The low presence and performance of the Government sector was due to lack of eye donation facilities in the Government hospitals. State specific audit findings are in **Annex 9.14-B**. Besides, almost 52 *per cent* of the eyes collected in the Government sector had been either rendered unfit or were used for research purposes as compared to 34 *per cent* in the voluntary sector. Moreover, the percentage of eyes actually utilised for keratoplasty was low overall.

The Ministry stated that in order to increase number of Eye Banks in the country and to cover all the States to encourage eye donation, it had been proposed to strengthen 50 Eye Banks during 11th Five Year Plan with enhanced assistance from Rs.10 lakh to Rs.15 lakh as non-recurring grant to Eye Banks in Govt./voluntary Sector. In addition, recurring assistance of Rs.1500 per pair of eyes was also being provided to Eye Banks towards honorarium to Eye Bank staff, consumables including preservation material and media, transportation/POL and contingencies. It had also been proposed to appoint 150 Eye Donation Counselors in Eye Banks in Govt. and NGO Sector. Donated eyes were utilized for corneal transplantation of needy population. Donated eyes which were not fit for transplantation were utilized for study and research purpose. State Health authorities were being advised separately to ensure proper utilization of donated eyes for corneal transplantation to the maximum possible extent. Ministry further stated that in order to ensure adequate supply of free spectacles to poor school age group children, a provision for supply of 4,73,472 free spectacles had been made in the Annual Plan 2009-10 under NPCB. Necessary funds to meet the provision were being released to States on the basis of utilization position furnished by them for the earlier years.

The shortfall in supply of free spectacles to children with refractive errors and non-utilisation of eyes collected through donations during 2005-08 are hurdles to overcome in the quest to reduce the prevalence of blindness in the States. The poor performance of government sector in eye bank activities was due to absence of eye donation facilities and inadequate number of eye banks in government hospitals.

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[69] Assam, Chandigarh, Chhattisgarh, Gujarat, Haryana Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Sikkim, Tripura, Tamil Nadu, Uttar Pradesh and West Bengal

[70] Assam, Chandigarh, Chhattisgarh, Gujarat, Haryana Jharkhand, Madhya Pradesh, Orissa, Punjab, Sikkim, Tamil Nadu, Uttar Pradesh and West Bengal

### 9.6 Revised National Tuberculosis Control Programme

The main objective of the Revised National Tuberculosis Control Programme (RNTCP) was to detect and maintain at least 70 *per cent* of the estimated New Smear Positive cases and to achieve and maintain at least 85 *per cent* treatment success rate among these cases through Directly Observed Treatment Short course (DOTS).

However, the cure rate was below 85 *per cent* in Assam, Andaman & Nicobar, Bihar, Chhattisgarh, Dadra & Nagar Haveli, Jammu & Kashmir, Haryana, Kerala, Madhya Pradesh, Manipur, Meghalaya, Puducherry and Tamil Nadu (13 States/UTs) and complete data on outcome of treatment from 2005 to 2008 was not made available in A & N Islands, Jharkhand, Kerala, Orissa, Rajasthan, Manipur, Uttar Pradesh and Karnataka.

The Ministry stated that the RNTCP had consistently maintained treatment success rate above 85 per cent. Although the national goal had been achieved by the programme, average cure rate for 2005-08 was less than 85 per cent in the above mentioned States/UTs. These States/UTs would require focus under the programme to ensure consistent achievement of cure rate targets.

### 9.7 National Vector Borne Disease Control Programme (NVBDCP)

The NVBDCP aims to control vector borne diseases by reducing mortality and morbidity due to malaria, filaria, kala azar, dengue, chikungunia and japanese encephalitis in endemic areas.

#### 9.7.1 Annual Blood Examination Rate (ABER) and Annual Parasitic Incidence (API) for malaria

The programme stipulated achievement of an ABER of 10 percent and API of less than 0.5 per thousand for the country[71]. Year wise details of ABER and API (**Annex 9.15**) indicated that targeted rate of 10 percent of annual blood examinations had not been achieved in 11 States/UT and in the audited districts of these States the ABER was even less than the State average. ABER showed a decreasing trend during the period 2005 to 2008 in seven States.

The API was higher than the stipulated rate in all the three years in 14 States/UTs and maximum in Arunachal Pradesh, ranging from 29 to 37. In Chandigarh, Jammu & Kashmir, Himachal Pradesh, Kerala, Sikkim, Uttar Pradesh and Uttarakhand the API was less than the stipulated rate. However lower API was not due to less incidence of malaria in the States but due to lesser blood examinations leading to cases of malaria remaining undetected.

Trend analysis of the API and ABER revealed that API increased/decreased in direct proportion to ABER in most of the States/UTs, therefore to detect all/maximum cases of malaria in the population under surveillance, not only does the targeted rate of ABER need to be achieved but it should be also revised upward.

The Ministry stated that the poor surveillance resulting in under achievement of ABER is mainly due to vacancies at the level of male multipurpose worker (MPW). The programme

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[71] ABER-Cumulative sum of monthly rate per 100 population under surveillance of blood examination during the year.
API-Positive malaria cases per thousand population.

was emphasizing passive surveillance by involving the community volunteers like ASHA through imparting training on malaria diagnosis and treatment in the high endemic districts. Further 5057 contractual MPWs had been allotted to the 14 States including Assam, Tripura, Jharkhand and West Bengal. For rationalization of screening of fever cases for malaria a definition of suspected malaria case had been incorporated in the operational manual for implementation of malaria programme 2009. The overall target of country for API to be achieved by the end of 11th Five year plan (2012) is 1.3.

### 9.7.2 Incidence of vector borne diseases

During 2005-08, morbidity and mortality due to various vector borne diseases were as under:

**Table: 9.15 Status on number of deaths due to vector borne diseases[72]**

| Year | Kala Azar | | Malaria | | Filaria | | Japanese Encephalitis | | Dengue | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cases | Deaths | Cases | Deaths | Cases | Deaths | Cases | Deaths | Cases | Deaths |
| 2005-06 | 32152 | 153 | 1708665 | 926 | 178006 | 0 | 5902 | 1660 | 10449 | 131 |
| 2006-07 | 39151 | 183 | 1690061 | 1503 | 150875 | 0 | 2594 | 599 | 8560 | 116 |
| 2007-08 | 44496 | 43 | 1423975 | 1190 | 202852 | 0 | 3159 | 712 | 4876 | 67 |

*(Source: Figures from SHSs)*

Cases of kala azar and filaria had been increased while cases of malaria and dengue had decreased. However, in 11 States/UTs (Andhra Pradesh, Chandigarh, Gujarat, Haryana, Maharashtra, Madhya Pradesh, Puducherry, Rajasthan, Uttar Pradesh, Uttarakhand and Orissa number of dengue cases increased from 2005-06 to 2007-08. Cases of kala azar decreased in Jharkhand and West Bengal but increased in the main affected State, Bihar and a few cases were also reported from Assam, Kerala and Sikkim. State-wise incidence of vector borne diseases are given in **Annex 9.16**.

The Ministry stated that the Directorate of NVBDCP did not capture all the morbidity and mortality due to malaria. It intends to monitor the trend. Since the country average ABER had been around 10 during the years so the reported cases and deaths due to malaria would indicate an actual trend of this disease in the country.

It further stated that increase in number of cases of kala azar was due to saturation of anti-kala azar drugs at the periphery level i.e. PHC, case search programme conducted twice a year and incentive given to patients on account of free diet to attendant and compensation for wage loss. The number of cases in West Bengal and Jharkhand had declined because of the reason that all the patients confirmed for kala azar were treated in the Government Health facilities to ensure complete treatment.

The Ministry also stated that in India, filarial elimination programme was launched since 2004. However, the coverage of eligible population in filaria endemic districts during Mass Drug Administration had increased from 72.4 *per cent* in 2004 to 82.82 *per cent* in 2007 and the microfilaria rate in the community has declined from 1.36 *per cent* in 2004 to 0.72 *per cent* in 2007.

Regarding Japanese Encephalitis, the Ministry stated that during 2005, a massive outbreak due to JE was reported mainly from seven districts in Gorakhpur and Basti

[72] Based on data in respect of 29 states

Divisions resulting in more that 6000 cases and 1500 deaths. As a result of this outbreak, Government of India decided to vaccinate children (1-15 years of age) with single dose of JE vaccine imported from China. The vaccination had been launched in campaign mode since 2006 and till 2009, 89 districts would be covered. During 2008, there was a marginal decrease in the number of cases (7%), however, significant reduction was reported in the number of deaths (31%).

The Ministry further added that for prevention and control of dengue, a long term action plan had been developed and sent to States for implementation.

### 9.7.3 Population protected with insecticides

Under the NVBDCP, all the areas having API of 2 and above were required to be covered under compulsory indoor residual spray of DDT and anti larva solution. There was shortfall in residual spray of DDT and anti larva solution vis-à-vis the target in most States. The shortfall was above 65 *percent* in Bihar, Gujarat and West Bengal and ranged up to 100 *percent* in Haryana, Punjab and Orissa. In Andaman & Nicobar data on spraying was not made available by the SHS.

In the audited districts of Assam, Chhattisgarh, Jammu & Kashmir, Jharkhand, Rajasthan, Sikkim and Uttar Pradesh, 35 to 100 *per cent* of areas had not been covered with indoor residual spray. The low percentage of coverage was mainly due to non-availability of DDT and targeting of only endemic areas in Uttar Pradesh. Few State specific cases are given in **Annex 9.17**.

The Ministry stated that the DDT insecticide was being provided by the Centre to the States where vector was susceptible to this insecticide, while the operational cost for spray and insecticide other than DDT was to be managed by the State. Haryana, Punjab, Jammu & Kashmir, Sikkim and Uttar Pradesh were low endemic and needed small focus for the spray. In high malaria endemic States apart from Indoor Residual Spray, insecticide treated bednets are provided by the programme and the community owned bednets were also treated with insecticides. Around 70-80 million population in the country was annually targeted for IRS with DDT, Malathion and Synthetic Pyrethroid in the rural areas.

Achievement of target for ABER and API for malaria needed further efforts as cases of malaria remained undetected. Adequate and timely spraying of DDT is an important component of the vector borne disease control programme. However, a regular supply and spraying of DDT and anti larva solution needs to be done according to the prescribed frequency so as to ensure greater effectiveness of the programme.

## 9.8 National Iodine Deficiency Disorder Control Programme (NIDDCP)

The NIDDCP was launched in 1992 to control iodine deficiency disorder below 10 *per cent* in the entire country by 2012. The important objectives and components of NIDDCP are - surveys to assess the magnitude of the Iodine Deficiency Disorders, supply of iodised salt in place of common salt, resurvey after every 5 years to asses the extent of Iodine Deficiency Disorders and the impact of iodated salt, laboratory monitoring of iodised salt and urinary iodine excretion, health education and publicity.

The programme was not implemented till March 2008 in Himachal Pradesh, Jharkhand and West Bengal, while there were delays in launching the programme in Chhattisgarh (in 2006-07), Jammu & Kashmir, Madhya Pradesh and Punjab (in 2005-06). Surveys/resurveys to assess the magnitude of iodine deficiency disorders were not conducted in Delhi, Jammu & Kashmir, Rajasthan and Uttar Pradesh during 2005-08. The coverage of surveys were 14 out of 23 districts in Andhra Pradesh, 6 out of 25 districts in Gujarat, 7 out of 20 districts in Punjab and 4 out of 7 districts in Meghalaya. IDD monitoring labs were yet to be established in Andhra Pradesh, Assam, Bihar, Chhattisgarh, Jammu & Kashmir, Madhya Pradesh, Punjab, Uttar Pradesh, Uttarakhand and Rajasthan.

**Case study: Implementation of NIDDCP in Chandigarh (an IDD endemic area)**

A survey concluded in 2006 revealed an increase of 2.4 percent in the prevalence of goitre against an earlier survey of 1999. As against the target of analysis of 600 salt samples every year, 557 and 134 samples were analysed in 2005-06 and 2006-07 respectively. Further, the number of urinary excretions analysed during 2005-08 was 262, 51 and 160 respectively as against the target of 300 samples per year. However, the year-wise number of patients reported with iodine deficiency disorder in the UT could not be assessed due to absence of symptom-wise reporting mechanism.

The Ministry stated that due to non filling up of vacant sanctioned posts and non establishment of IDD Lab the target for analysis of salt and urine samples was not achieved The matter was being pursued with States/UTs to establish IDD labs and also fill up sanctioned vacant post.

## 9.9 Integrated Diseases Surveillance programme

The IDSP was launched to establish a decentralised state based system of surveillance for communicable and non-communicable diseases by establishing and operating a central level disease surveillance unit, integrating and strengthening disease surveillance at the State and districts levels, improving laboratory support and training for disease surveillance and action. The project was launched in a phased manner covering 9 States[73], 13 States[74] and 13 States [75] under phase I, II and III during 2004-05, 2005-06 and 2006-07 respectively.

The Central Surveillance Unit was receiving weekly disease surveillance reports from only about 58 *per cent* districts (349/606) despite the fact that even nil reporting was mandated for DSU.

Further, no formal training was imparted to NGOs and other volunteers or personnel of other related departments. The project had also failed to train private practitioners and staff of private hospitals. The orientation workshop on IDSP and its reporting pattern was conducted in only 13 States with the members of Indian Medical Association (IMA). Further, no MOU had been signed at the central or the State level with IMA and Indian Association of Paediatrics so as to ensure participation of

[73] Andhra Pradesh, Himachal Pradesh, Karnataka, Uttarakhand, Madhya Pradesh, Maharashtra, Tamil Nadu, Kerala and Mizoram,
[74] Chhattisgarh, Goa, Gujarat, Haryana, Rajasthan, Orissa, West Bengal, Chandigarh, Puducherry, Delhi, Manipur, Meghalaya, and Tripura,
[75] Uttar Pradesh, Jammu & Kashmir, Punjab, Andaman & Nicobar, Dadra & Nagar Haveli, Daman & Diu, Lakshadweep, Bihar, Arunachal Pradesh, Assam, Jharkhand, Nagaland and Sikkim.

private practitioners in IDSP which was required to be done as per PIP. Besides, no training was imparted to Medical officers, Health workers, district lab technicians and peripheral lab technicians in the 13 States/UTs where the project was launched in the Phase III. The Video Conferencing (VC) technique was set up to organise training sessions with States and districts and was to be held on regular basis, but the log book of VCs revealed that only 105 VCs had been held till November 2008 and the VC technique was used only 12 times to impart training.

It was decided to develop 50 labs in phase II and III States at the first instance. Though the 50 district laboratories had been identified, the procurement process was yet to commence as of December 2008 and the inordinate delay was adversely affecting the project.

The Ministry stated that the priority labs had been identified and communications for procurement of equipment along with technical specification had been sent to States in February 2009. The Ministry further stated that –

- The implementation of IDSP had been done in a phased manner in different States (9 in phase-I, 14 in phase-II & 12 in phase-III) of the country. Implementation had been slow in phase III States.
- Presently the State Surveillance Units had been established in all the States.
- The district surveillance units had also been established in most of the States.
- Training of Surveillance Officers and Rapid Response Team members had been completed in most of the phase-III states.
- In addition, the system of reporting of outbreaks immediately to DSU/SSU/CSU had been established through Telephone, fax, E-Mail & IDSP Portal. Supplemental source of information is Media Scanning and IDSP 24X7 Call Centre toll free number 1075.
- State governments had been advised to encourage reporting through voluntary organizations.
- At present, 332 Satellite Interactive Terminals had been established across the country and in the remaining, installation is in process.

IDSP was not fully operational as the project was yet to be fully operationalised in five States including Uttar Pradesh, Bihar and Jharkhand covering one third of the population of the country and prone to outbreak of diseases. Strengthening of laboratories was yet to be completed at all the levels. In the absence of networking among/between the DSUs and SSUs, surveillance activities could not be integrated and, therefore, the establishment of a decentralized state-based system of surveillance for diseases for initiating timely and effective public health action was still in process.

### *Recommendations*

- ***Disaggregated State-wise targets may be set in view of overall target set by the Ministry for the country and State-wise progress may be measured***

***on the basis of disaggregated targets and data. The opportunity to consolidate real-time data captured by ANM and health workers may be made use of.***

- ***The monitoring and reporting mechanism under Janani Suraksha Yojana should be strengthened so as to ensure availability of reliable information with the State and District Health Societies. This would help mitigate the risk of fraud and irregularities in grant of cash compensation under the JSY. The Ministry may emphasise that nodal personnel encourage data integrity under JSY at the Ministry and SHS level.***
- ***The new technologies such as laparoscopy in tubectomy, new spacing methods etc. should be made available at prescribed levels of health centres. Usage of oral pill and IUD may be encouraged among women. Training in IUD insertions needs to be provided to doctors, nurses and ANMs posted in PHCs and CHCs.***
- ***The targets fixed for immunisation may be re-examined in the light of household surveys conducted in the States. The targets should be designed and monitoring and reporting structure should be strengthened to achieve universal immunisation and ensure negligible morbidity due to vaccine preventable diseases in areas covered by full immunisation efforts.***
- ***Supply of free spectacles to children identified with refractive errors should be improved and the utilisation of eyes collected through donations should be to the maximum possible extent.***
- ***IDD monitoring labs may be established and made functional to monitor the IDD cases. Fresh surveys may be conducted to locate new iodine deficiency areas and monitor prevalence of the disease.***
- ***The complete operationalisation of IDSP should be expedited to meet the health challenges effectively. The integration of activities through networking of surveillance unit and procurement of equipment for strengthening of laboratories at district level should be expedited for sustaining surveillance activities.***