NRHM.

ABSTRACT

Public Health and Preventive Medicine – Institutionalizing Infant Death Verbal autopsy and audit – Guidelines –Issued.

HEALTH AND FAMILY WELFARE (R1) DEPARTMENT

G.O.(Ms).No. 418 Dated: 30-12-2009

Read:

From the Director of Public Health and Preventive Medicine letter No.33675/NRHM, RCH/2009/A2, dated 8.12.2009.

ORDER:

Infant Mortality Rate (IMR) is defined as the number of deaths of children below one year of age per 1000 live births in a given year. Infant Mortality Rate is one of the indicators of the level and quality of maternal and child health services provided to the community.

2. Over the last two decades, Tamil Nadu has recorded an appreciable reduction of IMR (31/1000: SRS 2008). This has been the result of the various innovative strategies adopted by the Government. However there are still few areas of concern.

- The fall in IMR has been slow since late 1990s, and in the last few years it has been almost stagnant.
- In Tamil Nadu, 70% of the infant deaths occur during the neonatal period. The rate of reduction in neonatal deaths in the past few years is not encouraging.
- The rate of reduction of IMR in rural area is much more than the urban area and hence there is very little difference between rural and urban IMR
- The infants in rural areas have higher risk of dying than in urban areas.
- Regional variations in IMR within the state prevails. There are blocks which register a high IMR and thus negate the achievements in other areas in the overall state scenario.

The above concerns indicate the need for further strengthening of the existing strategies as well as to focus on high IMR district/Blocks. To do this, we need to understand the various contributory factors (medical as well as social) including the service delivery system factors. Verbal Autopsy and auditing is the best way to bring these factors into limelight.

Verbal Autopsy

Verbal Autopsy is a technique whereby the mother or her family members, relatives, neighbors or other informants and the service providers are interviewed to elicit information on the circumstances leading to the death of an infant in their own words and to identify the medical, non medical and social factors that lead to infant death. Apart from this, the details related to the quality of services provided for the infant also are elicited during the conduct of verbal autopsy. After the introduction of verbal autopsy for the Maternal Deaths, Maternal

Mortality Ratio has come down in Tamil Nadu. Based on the success of the verbal autopsy for maternal deaths, it is now planned to introduce verbal autopsy for infant deaths also.

Objective

The main purpose of conducting verbal autopsy in the community and in the facility is to identify the factors (gaps/deficiencies/barriers etc) that led to the infant death. The conduct of verbal autopsy will help in understanding barriers in the health seeking behavior, deficiencies in the system functioning and gaps in the provision of services. The results of the verbal Autopsy analysis will help in formulating strategies to bring about positive changes through health and health related interventions while at the same time help in eliminating barriers in accessing the care.

Institutional Audit

Nearly 99% of the deliveries are conducted in the institutions and around 69% of the deliveries are conducted in the Government health institutions. It is possible to reduce neo-natal deaths. The institutional based infant death audit system would help to identify the existing gaps in the provision of services and quality of intranatal care in the Institutions. The participation of all the medical and nursing staff in the infant death audit meetings would sensitize them about the gaps in the quality of services and steps to rectify the gaps.

1. **State Nodal Officer / Nodal Department**

Director of Public Health and Preventive Medicine (DPH&PM) will be the State Nodal Officer for IMR reduction related activities including conduct of verbal autopsy and infant death audits. Directorate of Public Health and Preventive Medicine will be the Nodal Department.

2. **Strategy**

2.1. First Information Reports – (a) Domiciliary Infant Deaths occurring in the area

All the infant deaths that occur at home will be reported by the field health staff both in the Rural and Urban areas to Deputy Director of Health Services (DDHS) / Corporation Health Officer (CHO) / Municipal Health Officer (MHO) / District Family Welfare Medical Officer (DFWMO) (in case of Chennai Corporation) within 24 hours of occurrence. The contact telephone numbers of the district officers will be provided to all the health staff.

(b) Infant Death from the Institutions

All infant deaths that occur at the institutions namely Govt. Hospitals (Medical college hospitals, Dist. Head quarters hospitals ESI hospitals, Taluk and Non taluk hospitals, etc.) and private institutions will be reported by the head of the institutions to the respective CHO/MHO/DDHS/ DFWMO (in case of Chennai Corporation) within 24 hours of occurrence. The contact telephone numbers of the district officers will be provided to all the institutional heads of both Government and private institutions.

2.2. Line listing of Infant deaths

All Infant deaths that occur in the Districts and Chennai Corporation should be line listed and **Specific Identification Number** should be allotted for each death. The line list should be maintained at Primary Health Centre (PHC) /Municipality/ Corporation / Districts. The compiled list for the month should be sent to the Office of the Director of Public Health and Preventive Medicine by 5th of succeeding month.

2.3 Field Investigation of Infant Death Verbal Autopsy

The Medical Officer of the PHC/ Urban Health Post (UHP) will investigate all the Infant deaths in the field using the verbal autopsy tool which has already been developed by the core committee and submit the report to DDHS within 15 days of occurrence. In Municipalities where there is no Medical Officer the concerned Block Medical Officer / a Medical Officer designated by DDHS shall be responsible to conduct the verbal autopsy and submit the report.

2.4 Institutional Audit for Infant Deaths

The heads of the Department of Pediatrics and Obstetrics & Gynecology of Govt. Hospitals (Medical college hospital, District Head quarters hospital, and Chief Medical Officer of Taluk and Non Taluk hospitals, etc.), where the death occur, will conduct Infant death audit at the institutional level every week. The findings of the infant death should be discussed in the monthly infant death audit meetings usually in a fixed day which will be held under the chairmanship of the institutional head and the findings would be sent to Joint Director of Medical Services (JDMS) and DDHS every month. The findings would be shared with staff in the departments of Pediatrics and Obstetrics and Gynecology for rectification/ correction of deficiencies identified. The individual case findings should be shared by the head of the institution on request of the District Infant Death audit committee.

2.5 District Infant Death Audit Sub Committee

At District level, sub-committees for infant death audit is constituted under the Chairmanship of Joint Director of Medical Services for Institutional audit and Deputy Director of Health Services for verbal audit with the list of members given in the Annexure-I (a) & (b) to the Government Order. The sub Committee under the Chairmanship of Joint Director of Medical and rural Health Services will review the Infant Deaths occurring in all the Secondary and Tertiary Institutions. As the Committee need to discuss clinical issues and quality of care, role of senior Pediatrician and Obstetrician is critical and thus if there is a medical college senior pediatrician and obstetrician from the medical college would be expert members and senior pediatrician and obstetrician from the district headquarters hospital would also be members. In the absence of medical college the senior pediatrician and obstetrician from the district hospitals would be the expert members. Every month, the final report with minutes will be sent to the DDHS who will consolidate and submit the report to the District Infant Death Audit Committee. The Sub Committee under Deputy Director of Health Services will analyze both the field level Verbal autopsy and the institutional audits reports and submit its findings to the District Infant Death Audit Committee every month. DPH & PM should develop separate template for recording the minutes of the subcommittee meeting and for the submission to the District Audit meeting to have uniformity.

2.6 District Infant Death Audit Committee

At the district level, District infant death audit committee under the chairmanship of District collector is constituted with the list of members given in the Annexure-II to this order. The District infant death audit committee shall analyze the report and take appropriate action to rectify the defects in the system and in the community and send its findings and recommendations to Director of Public Health and Preventive Medicine, Director of Medical and Rural Health Services and Director of Medical Education every month. In the meeting, four mothers may be invited to narrate the events leading to the death of the baby. Four deaths one death in each from the medical college hospital, secondary hospital, home/transit/private hospital may be selected from the reports which suggest delays in the provision of care.. The mothers of these 4 infant deaths may be invited to narrate the events before the audit team as is being followed in the maternal death verbal autopsy. These women who are invited for the audit meeting may be paid Rs.200 per family from the respective PHC/Hospital Patient Welfare Society to compensate their wage loss and to cover the transport cost.

2.7 State level Infant Mortality Reduction Working Committee

A State level Infant Mortality Reduction Working Committee is constituted under the Chairmanship of Commissioner for Maternal and Child Health and Welfare with the Members as given in the Annexure III to this order. The committee shall study the report of the District Collectors and the Director of Public Health and Preventive Medicine and inform the recommendations to the Stat Task Force Committee.

2.8 State Level Infant Death Task Force Committee

The State level Infant Death Task Force Committee is constituted under the Chairmanship of Principal Secretary to Government, Health and FW Department with the members as given in the Annexure-IV to this Government order. The State level committee shall meet once in three months and analyze the report received from the District collectors and suggest appropriate remedial measures. This Task Force will discuss the policy recommendations and needed system improvement.

3. Infant Death Reporting

Flow of report from field to State

First Information reporting of Infant deaths

To improve the reporting of large number of Infant deaths, the reporting system shall be institutionalized. The Head of the Government / Private Institutions of Urban local bodies are responsible for informing the Infant deaths within 24 hours of occurrence to DDHS/CHO/MHO/DFWMO (in case of Chennai Corporation).

3.1 HSC to DDHS

All the infant deaths including visitor deaths occurring in the HSC area should be reported to the respective PHC Medical Officer by the VHN/AWW within 24 hours of occurrence.

3.2 PHC to DDHS

The Medical Officers of the PHC will send the report of the Infant deaths that occur in the PHC area to the respective DDHS within 24hrs of occurrence.

3.3 Municipality to DDHS

Municipal Health Officer shall be responsible for reporting all the infant deaths that occur in the Municipality area to the respective DDHS within 24hrs of occurrence. In the absence of MHO, the Woman Medical Officer / Sanitary Inspector / Maternity Assistant is responsible for sending First Information Report (FIR) to DDHS.

3.4 Corporation to DDHS

The Corporation Health Officer (CHO) shall be responsible for reporting all the infant deaths that occur in the Corporation area to the respective DDHS within 24hrs of occurrence.

3.5 Chennai Corporation to DPH&PM

District Family Welfare Medical Officer (DFWMO), Chennai Corporation shall be responsible for reporting all the infant deaths that occur at Chennai Corporation area to DPH&PM within 24hrs of occurrence.

3.6 Government Hospitals to Municipality/Corporation

Dean / Medical Superintendent / Chief Medical Officer of Govt. Hospitals (Medical college hospital, Dist. Head quarters hospital, ESI hospital, Taluk and Non taluk hospitals) shall be responsible for reporting all the infant deaths that occur in their institutions to the respective MHO / CHO / DDHS/ DFWMO (in case of Chennai Corporation) within 24 hours of occurrence.

3.7 Private Hospitals

Head of the private institutions (Medical college hospitals and private hospitals) shall be responsible for reporting all the infant deaths to the respective CHO/MHO/DDHS/ DFWMO (in case of Chennai Corporation) within 24hrs of occurrence.

4. Processing the FIR

The DDHS/MHO/CHO/ DFWMO (in case of Chennai Corporation) should nominate a staff exclusively for the purpose of collecting the first information reports on Infant Deaths on all days including holidays. He / she in consultation with the District Maternal and Child Health Officer, Assistant Director (SBHI) / District Statistical Assistant should reconcile the first information reports to avoid duplication.

The DDHS/ MHO / CHO/ DFWMO (in case of Chennai Corporation) should give feedback about the Infant deaths to the concerned PHCs / Municipalities / Corporations The details of visitor cases should also be cross notified to the concerned.

The entire staff of the DDHS/ MHO / CHO/ DFWMO (in case of Chennai Corporation) office including the Ministerial staff should be sensitized about the system of

Infant death reporting. A separate register be maintained in the office to record the data. Any staff who receives the telephone call should record in the register.

5. Infant Death Verbal Autopsy

The following guidelines are issued for the conduct of Infant death Audit:

5.1 Training

A comprehensive format has been developed for conduct of Infant death verbal autopsy by a core group under the Chairmanship of DPH&PM. The Deputy Director of Health Services (DDHS), district Maternal and child Health Officer (DMCHO) Corporation Health Officers (CHO) Municipal Health Officer (MHO) and DFWMO (in case of Chennai Corporation) will be trained in the use of verbal autopsy format. In turn, they will train the Medical Officers (MOs) of Urban Health posts, Women Medical Officers (WMOs) of Maternity Homes, Medical Officers of PHCs and the field health functionaries in the investigation of infant deaths by using the verbal autopsy format both in Urban and Rural areas.

5.2 Sensitization

Medical Officer will sensitize all the field Health functionaries and AWWs about the reporting of Infant deaths and process of verbal autopsy.

5.3 Field Investigation

The Medical Officer, PHC / Medical Officer, Municipality / Corporation shall be responsible for the conduct of detailed investigation of every Infant death by personally visiting the family along with the field health functionaries and meeting the relative of the deceased. The MO will use the verbal autopsy format for conducting the investigation which has been directly developed by the core committee. The investigation should be completed within 15 days of the occurrence of the Infant death. The MO should personally conduct the investigation and he / she should not entrust this responsibility to any paramedical functionary. A narrative case history will be prepared for each infant death and the factors contributing to infant death will be listed and action taken to rectify the deficiencies will be recorded at PHC / Municipality / Corporation level. The completed verbal autopsy investigation format should be sent to DDHS. In Municipalities where there is no Medical Officer the concerned Block Medical Officer / a Medical Officer designated by DDHS shall be responsible to conduct the verbal autopsy.

6. Responsibilities of Private and Government Hospitals

6.1 Providing Information (Govt. Hospital and Pvt. Hospital)

The Head of the Institutions of Government and Private Hospitals should provide all details and case records of deceased child / Child discharged against medical advice / Absconded cases who had attended their institutions for the perusal of the investigating Officers.

6.2 Infants discharged Against Medical Advice (AMA) / Absconded cases

With regard to Infants discharged Against Medical Advice (AMA) and absconded from the institutions the Head of the institution (Medical College Hospital / District / Taluk / Non Taluk Hospitals) should intimate the relevant details, including the complete address of the infants discharged Against Medical Advice (AMA) cases to the DDHS / CHO / MHO / DFWMO (in case of Chennai Corporation). The DDHS CHO/MHO / DFWMO (in case of Chennai Corporation) shall send the list of infants discharged against medical advice/ absconded to the respective Medical Officers. The medical officer will investigate to find infant deaths amongst those discharged Against Medical advice (AMA)/ absconded and if not already reported, shall notify the DDHS immediately. The DDHS/CHO/MHO / DFWMO (in case of Chennai Corporation) will ensure that Verbal Autopsy is conducted for such infant deaths.

6.3 Infants deaths reporting from Private Hospitals

Infant deaths occurring in private health facility shall be immediately reported to the DDHS by the Head of the institution by Fax / Telegram / E.mail through internet. Private Health Institutions will co-operate with the government officials in conducting the verbal autopsy as per the prescribed format. The Joint Director of Medical and Rural Health Services / Deputy Director (Medical) / DFWMO of Chennai Corporation will arrange to inform the Private Hospitals about the need for reporting infant deaths and permitting the investigator to have an access to the medical records of such infant deaths. Indian Medical Association, Indian Academy of pediatrics and other professional bodies will be requested to provide necessary support for the investigation process. The information collected from the Private Hospital is of non-statutory value.

7. Health Unit District level analysis and reporting

The JDHS / DDHS / DMCHO/MHO/DFWMO (in case of Chennai Corporation) will scrutinize the verbal autopsy formats received from the investigation. The consolidated forms would be submitted to the Health Unit District infant death subcommittee for analysis. The feedback obtained from the committee will be discussed with the MOs and the concerned field health functionaries and appropriate remedial measures will be taken at different level of service delivery system.

The DDHS should send the verbal autopsy analysis report before 5th of succeeding month to the DPH&PM.

Similar arrangements should be made at Chennai Corporation by DFWMO to send verbal autopsy analysis report before 5th of succeeding month to the DPH&PM.

All the institutional heads and urban health staff are encouraged to use the online reporting system for reporting the infant deaths and the verbal autopsy reports every week.

8. Online Reporting

One pager reporting format has been developed by the core committee. Director of Public Health and Preventive Medicine shall make necessary arrangements to develop software with the support of National Informatics Centre for online reporting. The Medical Officer who investigates the infant death will arrange to enter the details of ID in the online format immediately after completion of verbal autopsy investigation (within 15 Days of

occurrence). All the medical officers / superintendent in charge of the hospital's / Director of the Institutions should nominate one medical officer as nodal officer for each Institution who is responsible to upload the infant death details and the verbal autopsy investigation report in the internet every week. The DFWMO Chennai Corporation will also carry out the same for Chennai corporation area. The Government direct all the Head of Departments, Head of Institutions and all other authorities concerned to follow the guidelines to do verbal autopsy to the Infant Death from January 2010.

DPH&PM will form an audit cell in the directorate to monitor the collection of reports, consolidation at the state level. The DME and DM&RHS will nominate a nodal officer for monitoring the implementation of the GO on infant death verbal autopsy.

The Director of Public Health and Preventive Medicine will consolidate all the information, findings, analyze and the recommendations in the form of annual bulletin and place the report before the State Task Force.

Based on the findings of the verbal autopsy no disciplinary action is to be initiated against any of the service providers. The key principle to be adopted during the entire process of auditing is not to blame or find fault with anybody. The purpose of the audit is to identify gaps at different levels and to take appropriate corrective measures and to sensitize the service providers to improve the accountability.

(BY ORDER OF THE GOVERNOR)

V.K. SUBBURAJ
PRINCIPAL SECRETARY TO GOVERNMENT

To
The Director of Public Health and Preventive Medicine, Chennai-6
The Director of Medical Education, Chennai-10
The Director of Medical and Rural Health Services, Chennai-6
THE Director of Family Welfare, Chennai-6
The Project Director, Reproductive and Child Health Project and Commissioner for Maternal, Child Health and Welfare, Chennai-6
The Project Director, Tamil Nadu Health System Project, Chennai-6.
The Commissioner, Corporation of Chennai, Chennai-3
The Director of Municipal Administration, Chennai-5.
The Commissioner, ICDS, Tharamani, Chennai-600 113.
Commissioner of all Municipal Corporations.
All Municipal Commissioners.
All District Collectors.
All Deans of Government Medical Colleges
All Joint Director of Health Services.
All Deputy Director of Medical and Rural Health Services and Family Welfare,
All Deputy Director of Health
Services of Health Unit Districts.
Sf / sc.

/ FORWARDED / BY ORDER /

SECTION OFFICER

21/1/10

Annexure-I

District Infant death audit Sub committee

Considering the number of infant deaths occurring per month (50 to 100 / pm), it is not practically feasible to audit infant deaths case by case by the district committee. Hence a sub committee is constituted in every district. District Infant Death Audit sub-committee is constituted with the following members:

(a) Sub-Committee for Institutional Audit:

Joint Director of Medical & Rural Health Services	-	Convener cum Nodal Officer
Deputy Director (Medical)	-	Co-Convener
Deputy Director of Health Services	-	Member
District Project Officer, ICDS	-	Member
Obstetrician and Peadiatrician from Medical College Hospital and Headquarters Hospital	-	Member

(b) Sub-Committee for Verbal Autopsy:

Deputy Director of Health Services (District HQ)	-	Convener cum Nodal Officer
Deputy Director of Health Services(HUD)	-	Co-Convener
Deputy Director (Medical)	-	Member
Assistant Director (SBHI) / SA	-	Member
District Maternal and Child Health Officer	-	Member
Paediatrician and Obstetrician from District Headquarters Hospital	-	Members
Paediatrician and Obstetrician from Medical College Hospital	-	Members
Block Medical Officers (2)	-	Members
Medical Officers (1-PHC 1-Mpty / Corpn.)	-	Members

The sub committee shall scrutinize the correctness and completeness of the reports. The committee shall analyse the first information reports, all the Line listing Reports, all the verbal autopsy formats, institutional audit reports and place the important findings and recommendations to the District committee once in a month.

Annexure II

District Infant Death Audit Committee

The District Infant Death Audit Committee, to review the Infant deaths, is constituted with the following members:

Collector	- Chair person
Deputy Director of Health Services (District HQ)	- Member Secretary
Dean, Medical College	- Member
Deputy Director of Health Services(HUD)	- Member
Joint Director of Medical and Rural Health Services	- Member
Deputy Director (Medical)	- Member
Obstetrician and Peadiatrician from Med.Col.Hosp	- Members
Obstetrician and Peadiatrician from Dt. Headquarters Hospital	- Members
Corporation Health Officer	- Member
District Project Officer, ICDS	- Member
District Social Welfare Officer	- Member
Municipal Health Officer / WMO	- Member
Chief Medical Officer and Child Health Officer	- Member
District Maternal and Child Health Officer	- Member
Assistant Director (SBHI)/ DSA/MSA	- Member
Block Medical Officer	- Member
IMA / IAP / Professional Bodies (3)	- Member

The Committee shall meet monthly to carry out the audit. The District Committee shall review the findings of the Infant death audit Sub Committee report. The Committee shall discuss with the various service providers including private service providers to elicit their views on the factors contributing to Infant Deaths including the quality and timeliness of service provision in the health facilities. The committee shall also hold discussions with Urban Health Post Medical Officer who carried out the verbal autopsy. The Committee shall also have the version of Mothers of four infant deaths. The various factors that led to the death of the infant shall be reviewed. The committee shall facilitate the institutions to take appropriate measures to correct the preventable causes of Infant Death. Every month the District Committee will send a detailed report to DPH&PM and the Principal Secretary, Health & FW Department about the status and corrective measures taken to minimize the Infant deaths.

Annexure III

State Level Infant Mortality Reduction working Committee

A State Level Infant Mortality Reduction Working Committee is constituted under the Chairmanship of the Commissioner for MCH & W with the following members:

Commissioner for MCH&W	-- Chairperson
Director of Public Health and Preventive Medicine	-- Member secretary
Director of Medical and Rural health Services	-- Member
Director of Medical Education	-- Member
Director, Institute of Child Health and Hospital for Children, Egmore	-- Member
Director, Institute of Obstetric and Gynecology, Egmore	-- Member
State Immunisation Officer	-- Member
Expert Resource Persons (Two)	-- Special Invitees

The State Level Infant Mortality Working Committee will meet once in a month. The Committee shall study the reports and recommendations of the Director of Public Health and Preventive Medicines and the District collectors, and inform the State Task Force Committee on the recommendations and the appropriateness of the responses. It will asses the quality, appropriateness and with the timeliness of the services provided and recommend suitable steps which will include field visits, operational research, data analysis etc., to rectify the lacunae identified.

Annexure IV

State Level Infant Mortality Task Force Committee

A State Level Infant Death Task Force Committee is constituted under the Chairmanship of the Principal Secretary to Government with the following members :

Principal Secretary, Health and FW	-	Chair person
Director of Public Health and Preventive Medicine	-	Member secretary
Special Secretary Health and FW	-	Member
Project Director, RCHP and Commissioner for MCH&W	-	Member
Commissioner, Municipal Administration	-	Member
Project Director, TN Health System Project	-	Member
Commissioner, ICDS	-	Member
Commissioner, Chennai Corporation	-	Member
Director of Medical Education	-	Member
Director of Medical and Rural Health Services	-	Member
Director, Institute of Child Health and Hospital for Children, Egmore	-	Member
Director, Institute of Obstetric and Gynaecology, Egmore	-	Member
State Immunisation Officer	-	Member
Expert Resource Persons (Five)	-	Special Invitees

The State Level Infant Death Task Force Committee will meet once in three months. The Committee shall study the report and recommendations of the Director of Public Health and Preventive Medicine and the District Collector and take appropriate measures to prevent Infant deaths. The committee shall discuss with the various level service providers including private service providers to elicit their views on the factors contributing to Infant Deaths including the quality and timeliness of service provision in the health facilities. The committee shall make suggestions and recommendations for the system improvement.

V.K. SUBBURAJ
PRINCIPAL SECRETARY TO GOVERNMENT

/ True copy /

SECTION OFFICER