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**Other Administrative Records for Vital Statistics –  
the Indian Experience**

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## **A. Introduction & Background**

1. In India, the vital statistics are mainly generated through Civil Registration System for registration of births and deaths (CRS) and Demographic Sample Surveys.

- a. The demographic surveys include the regular survey called the Sample Registration System (SRS), which is the only source for reliable data on vital rates. The Medical Certification of Cause of Death (MCCD), which is an integral part of CRS, provide data on cause of death. The CRS supported by SRS and MCCD constitutes the National Vital Statistics System. The Office of the Registrar General, India (ORGI) is responsible for unification and coordination of the civil registration activities under the Registration of Births and Deaths Act, 1969 and for implementation of all the schemes mentioned above.
- b. The vital statistics are invaluable for planning, monitoring and evaluating various social sector programmes related to primary health care, family planning, maternal and child health, education, public housing and so forth. Vital statistics are also used for demographic purposes such as preparation of population estimates and projections, studies of mortality, fertility and construction of life tables.
- c. Although it is about forty years since the RBD Act, 1969 has been enforced, the performance of registration system has been far from satisfactory. The major factors responsible for low performance of registration system in India are lack of awareness among the general public about the need for registration and infrastructural bottlenecks both in terms of staff and equipment. The system cannot be expected to improve unless concerted efforts are put in to seriously tackle the infrastructural and organisational bottlenecks.
- d. In the absence of dependable vital statistics from civil registration, the ORGI initiated the sample registration of births and deaths in India, popularly known as Sample Registration System (SRS) in 1964-65 on a pilot basis and on full scale from 1969-70. This is a demographic sample survey based on a dual record system. The main objective of SRS is to provide reliable estimates of birth and death rates at the state and national levels for rural and urban areas separately. It also provides various other measures of fertility and mortality.
- e. In India, despite various efforts made and initiatives undertaken by the Government over the past several decades, administrative records, as a supplementary/alternative source of data/information, continue to leave a lot to be desired. The Government of India is now intensifying its efforts to optimally exploit the data/information obtainable and retrievable from the administrative records pertaining to various sectors, especially the social sectors. However, as things stand today in India, it clearly seems that it may take quite a while (may

be of the order of some more years) before administrative records can become a viable and dependable additional source of data/information on various sectors, including, of course, the domain of “Vital Statistics”. As such, an overview of the CRS, MCCD & SRS has been presented in the succeeding paragraphs.

## **B. Civil Registration System**

2. The Civil Registration System may be defined as continuous, permanent and compulsory recording of the occurrence and characteristics of vital events as defined in and as provided through a decree or regulation in accordance with the legal requirements of a country.

3. Objectives of civil registration are two-fold. Registration of births is the first step towards providing identity to a child. Registration is an essential public utility service provided by the government through which general public can obtain birth/death certificates which have several civil uses to them in the form of evidence for age, domicile, inheritance, etc. Simultaneously demographic data generated by a complete and efficient civil registration system is of immense utility for successful planning in the areas of population control, public health administration and elementary education etc. In the context of decentralised planning and demand of vital rates at District & Sub-District level, the civil registration data has become of special importance as sample surveys have a limitation in providing estimates for smaller areas. Therefore, registration data on births/deaths are the basic tools at local area level for monitoring population growth and effects of policy intervention in public health & other civil utilities at District & Sub-District level.

## **C. Registration of Births and Deaths Act, 1969 (RBD Act, 1969)**

4. After the enactment of the Central legislation in 1969 known as “The Registration of Births and Deaths Act, 1969”, the registration of births and deaths is being carried out in India under provisions of the Registration of Births and Deaths Act, 1969 (RBD Act, 1969). The Act provides for uniform law for compulsory registration of births and deaths across the country. Keeping in view the diversity of the country, it allows the State Governments to formulate Rules for its implementation and appointment of various functionaries.

5. The Registrar General, India has the responsibility of unifying and coordinating the registration work in the entire country. The implementation of the Act is the responsibility of the State Governments. The rules framed by the State Governments are based on a model set of rules provided by the Central Government. The hierarchy of the registration system varies across the States.

6. The Chief Registrar of Births and Deaths is the Chief Executive Authority for implementing the Act in the States. The Director Health Services or equivalents are the Chief Registrar in 20 States/Union territories. The Director Economics and Statistics are the Chief Registrar in 10 States. Director of Panchayats, Director Local Administration etc. are Chief Registrars in the other States/Union territories.

#### D. Salient Features of the RBD Act, 1969

7. Some of the salient features of Registration of Births and Deaths Act, 1969 are:

- **States to frame their own Rules:** The RBD Act, 1969 permits the States/Uts to frame their own Rules based on the model Rules framed by the Office of the Registrar General, India.
- **Regularization of Births /Deaths:** The Act provides that the births/deaths can be registered only at the place of its occurrence only.
- **Responsibility of Reporting:** The Act lays the responsibility of reporting the births & deaths fixed for domiciliary as well as institutional events.

Domiciliary events  
Institutional events

Head of households  
In-charge of the institution

- **Free birth certificate:** Free Birth/Death Certificate is issued in case the event is reported within 21 days of its occurrence.
- **Duties of certain persons to notify births/deaths:** The Act assigns the responsibility on certain persons to notify the births/deaths - midwives or any medical attendant at birth or death, the keeper or owner of a place set apart for disposal of dead bodies, etc. ,to notify every birth or death at which he or she was present, to the Registrar.
- **Delayed Registration of events:** Births and deaths not reported within the prescribed period of 21 days. (a) After 21 days but within 30 days of occurrence, can be registered with a normal late fee. (b) After 30 days but within one year of occurrence, an event can be registered only on written permission from the prescribed officer (usually District Registrar), production of an affidavit and payment of late fee. (iii) After one year of occurrence, an event can be registered only on an order of First Class Magistrate and on payment of late fee.
- **Penalties:** The Act provides for penalties on persons/establishments not reporting the events and the registration functionary who neglects or refuses, without reasonable cause, to register.
- **Issue of certificates:** As soon as the registration is complete a certificate is issued free of cost to the informant. The Section 17 of the Act provides for giving certified extracts from the birth and death register on payment of prescribed fee. Such extracts are admissible under the Indian Evidence Act in evidence of the birth or death the entry relates to. Such extracts will not include the cause of death entered in the register.
- **Entry of the name of the child** later on, but within the prescribed period, if the birth was registered without name of the child. Within 12 months of registration of a birth, name of the child can be got entered without any fee. After 12 months but within 15 years of registration, it can be entered after payment of a prescribed fee.
- **Correction or cancellation of entries** made erroneously, fraudulently or improperly in the birth and death registers. If it is proved to the satisfaction of the

Registrar that any entry of a birth or death in any register kept by him is erroneous, he may, subject to the rules correct the error or cancel the entry.

## **E. Statistical Reporting System**

8. **Annual Reports** at the National Level: As per the RBD Act, 1969, the State Governments are mandated/required to compile State wise reports on births and deaths on an annual basis in about 50 or so statutory tables. Based on the annual reports prepared by the states, the Office of the Registrar General, India is bringing out annually a comprehensive report on Working of the RBD Act, 1969 and also a statistical report entitled 'Vital Statistics of India based on the Civil Registration Data'. The Annual Statistical Report prepared by the ORGI is a series of reports that have been brought out starting with 1958. The RGI is required to submit to the Central Government the annual report on the Working of this Act.

### **9. Determination of performance of the States in implementation of the RBD Act, 1969:**

The performance of a State/Union territory in implementation of the RBD Act is generally, judged on the basis of two important indicators:

#### **(i) Level of reporting from the registration centers**

Example: Level of reporting for birth summary report  
= (Number of summary monthly reports of births received from registration centres) / (Number of registration centres \* 12) \* 100

#### **(ii) Level of registration (LOR)**

Example: LOR of Births = (Number of registered births) / Number of estimated births based on SRS rates) \* 100

Level of registration is in direct correlation with level of reporting and hence LOR can be considered as the best tool to judge the efficiency of the registration system.

10. **Statistical reports:** The office of the Registrar General, India brings out annually a comprehensive statistical report entitled 'Vital Statistics of India'. The series of reports have been brought out starting with 1958. The report is divided into two parts. The detailed statistical data based on the registration records are presented in the main tables included in Part-II of the report. Part-I contains analytical notes on important features and analysis of the data, along with a brief review of the progress made towards enforcement of the Act and measures initiated for improvement of the registration system. Part I also contains brief notes on the sample registration system, along with the latest data available from this source.

11. The registration data at present suffer from both under registration and incomplete coverage. Information in respect of certain registration areas is not available in time. A set of control charts has been prescribed to monitor the reporting. These charts provide

for monitoring the receipt of forms from each registration unit month wise, separately for births, deaths and still births. These are to be maintained at the sub district, district and state levels.

#### **F. Causes of Low Registration**

12. There may be several factors for low levels of registration across the country. Some of the most important reasons for under-registration of events are listed below:

- Lack of awareness among the general public about the need, importance and benefits of registration.
- Lack of procedural knowledge among the registration functionaries and submission the officials for registration preparation of periodical reports.
- Administrative slackness in some of the states,
- General apathy of the public in rural areas and in low income groups, as no immediate and personal benefits are perceived from the registration,
- Limited use being made of Birth/Death certificate by the public due to illiteracy and poverty and also the use of alternative documents in lieu of birth/death registration documents,
- Non-registration of infant deaths and deaths at younger ages as it does not result in any benefit to the individual,
- Gross non-reporting of domiciliary events by the members of the households who tend to ignore this aspect even if they are aware of the same, as they do not perceive any immediate need to do so and are also not aware of the importance and procedures of registration.
- Inadequate and ill equipped staff deployed for overseeing registration work in the Chief Registrar offices in several states in terms of awareness of rules and procedures resulting in delayed supply of Reporting Forms and registration stationery to field units, inadequate training of district and field level functionaries, lack of monitoring and control on the flow of perodical returns from local registration unit to District Headquarters.
- In some of the States/Uts like Jammu & Kashmir and Chandigarh, registration in rural areas is being done in Police Station. Due to obvious reasons, people in general, tend to avoid visiting police stations. Registration in these states heavily depends on the intermediary between the Police Station and the villagers created in the form of Village Chowkidars or other such functionaries. Large number of vacant posts of these functionaries has been adversely affecting the registration work in source of these states. Apart from the above the distance between the village and Police station or the registration centre, also a significant facts.
- Lack of coordination among various departments engaged in the work of registration in the state.

#### **G. Measures being taken to improve the civil registration system**

13. Various measures are being taken by Office of the Registrar General, India (ORGI) for improving the Civil Registration System in the country. These include:

- Financial Assistance to States for
  - Advertisement and publicity on registration of births and deaths for creating mass awareness.
  - Training of civil registration functionaries for capacity enhancement.
  - Preservation and maintenance of civil registration records.
  - Computerisation of civil registration work and networking of computers.
- Advertisement in Doordarshan / All India Radio and private TV Channels.
- Persuading the states to convene the Intra-Departmental Coordination Committees.
- Launching of national campaign on issue of Birth Certificates.
- Monitoring of five low performing major States namely, Andhra Pradesh, Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh on a monthly basis.
- Amendment of RBD Act, 1969 to make it more citizen friendly.
- Holding of National/Regional Conference of Chief Registrars of births and Deaths to discuss the ways and means to improve Civil Registration System
- Utilisation of Support from UNICEF:
  - For creating mass awareness through for publicity and advertisement,
  - Organizing workshop to prepare action plan particularly in low performing districts in various states
  - For training of registration functionaries at districts and sub-districts levels
- Utilisation of Support from NGO for creating mass awareness through for IEC activities

## **H. Medical Certification of Cause of Death**

14. One important aspect of vital statistics is the certification of cause of death. This information is very important for public health planners. A provision has been made in the RBD Act for certification by a medical practitioner who attends death. In the case of hospital deaths, report of death and cause of death are to be sent by the authorities to the registrar. Separate forms have been prescribed for reporting by hospitals and individuals. These are form 4 and 4A. Form 4 is to be filled up in the case of hospital deaths and form 4A is to be used in all other cases. Form 4 uses international classification evolved by World Health Organization. This form has two parts, Part-I provides for entering the diseases in a specific sequence of events leading to death so that the immediate cause is shown first and the underlying cause is shown last. The underlying cause is that morbid condition which initiated the chain of events leading to death. The World Health Organization has recommended that the underlying cause of death is to be taken into account for tabulating cause-specific mortality. In cases of violent deaths and other medico-legal cases usually brought to the notice of a medical examiner at the postmortem stage, the certificate may be filled in by the medical examiner on the basis of evidence noticed by him. Considering the present state of medical infrastructure, it may not be possible to fully implement the international recommendations.

15. The medical certification of cause of death was in operation in all major medical teaching institutions and other hospitals in many states by the beginning of the seventies. It envisages that the certificate of cause of death is to be filled in by the attending medical

practitioner and given to the informant for onward transmission to the Registrar for registering the death. Classification of causes of deaths is to be done according to WHO's International Classification of Diseases (ICD) by trained persons. At present, the data mainly relate to hospitals and similar institutions, which are compiled at the municipal headquarters, along with the other registration data. The certificate of cause of death is the basic document for generating cause of death statistics. Filling this accurately needs training. Central Bureau of Health Intelligence, Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India through its training centres provides such trainings to non medical personnel. The National Workshop on Civil Registration and Causes of Death held at New Delhi during 24 - 26 May 2001 reviewed the status and functioning of the Medical Certification of Cause of Death in the States/UTs. It has made a number of useful suggestions such as involving medical record unit of medical institutions in coding of causes of death, training of doctors for writing the proper cause of death in Form 4/4A medical certificate of cause of death; (ii) training of staff entrusted with coding of cause of death according to ICD; and (iii) printing of forms used in the registration of births & deaths, including form 4/4A in the implementation of the MCCD scheme. Indian Medical Association may be involved in giving wider publicity among doctors regarding the statutory requirement and protection available to them. Newsletters brought out by the IMA should be made available to all private practitioners to sensitize them about the importance of the medical certification. **I.**

### **I. Sample Registration System(SRS)**

16. The conference on improvement of vital statistics 1961 recommended that a scheme of sample registration areas be set up to get reliable estimates of birth and death rates at the state and national levels. In pursuance of the above recommendation, the Office of the Registrar General India (ORGI) formulated a Plan Scheme titled "Plan for improvement of Vital Events" during the Third Five Year Plan, as a centrally sponsored scheme. The Planning Commission, recognizing the importance of the data on vital events approved the scheme in 1963 for inclusion in the middle of third five-year plan. A pilot study was initiated during 1964-65 and on full scale from 1969-70. This was called the Sample Registration Scheme (SRS). Later on, the name changed to Sample Registration System (SRS).

#### **a. Objective of SRS**

17. The main objective of SRS is to provide reliable estimates of birth rate, death rate and infant mortality rate at the natural division level for the rural areas and at the state level for the urban areas. Natural divisions are National Sample Survey (NSS) classified group of contiguous administrative districts with distinct geographical and other natural characteristics. It also provides data for other measures of fertility and mortality including total fertility, infant and child mortality rate at higher geographical levels. In order to facilitate effective tracking of Millennium Development Goals (MDGs) on under-five mortality, the estimates of Under-5 mortality rate for India and bigger states separately for rural & urban and also by sex have been made a regular feature of SRS - Annual Statistical Report starting from the year 2008. Similarly, the estimates of maternal



mortality generated under the domain of SRS starting from 1997 provide important inputs for tracking of MDGs on maternal mortality.

#### **b. Dual Record System**

18. The field investigation under Sample Registration System consists of continuous enumeration of births and deaths in a sample of villages/urban blocks by a resident part-time enumerator, and an independent six monthly retrospective survey by a full-time supervisor. The data obtained through these two sources are matched. The unmatched and partially matched events are re-verified in the field to get an unduplicated count of correct events. The advantage of this procedure, in addition to elimination of errors of duplication, is that it leads to a quantitative assessment of the sources of distortion in the two sets of records making it a self-evaluating technique.

#### **c. Structure of the Sample Registration System**

19. The main components of SRS are:

- Base-line survey of the sample units to obtain demographic details of the usual resident population of the sample areas;
- Continuous (longitudinal) enumeration of vital events pertaining to usual resident population by the enumerator;
- Independent retrospective half-yearly surveys for recording births and deaths which occurred during the half-year under reference and up-dating the House-list, Household schedule and the list of women in the reproductive age group along with their pregnancy status by the Supervisor;
- Matching of events recorded during continuous enumeration and those listed in course of half- yearly survey;
- Field verification of unmatched and partially matched events; and
- Filling of Verbal Autopsy Forms for finalized deaths.

#### **J. Baseline Survey:**

20. The base-line survey is carried out prior to the start of continuous enumeration. This involves preparation of a notional map of the area to be surveyed, house numbering and house listing and filling-in of a household schedule. Wherever a sound system of house numbering exists the same is adopted. Otherwise, the house numbering is done by the enumerator/supervisor with the help of chalk and tar, etc. at a conspicuous place near the entrance of the house. The supervisor prepares a notional map, with the help of the local Part-time enumerator, showing important landmarks and location of the houses covered by the sample unit. Thereafter, a list of houses/households covered by the sample is prepared in the **House List (Form 1)** and the details relating to the residential status and demographic particulars of each individual residing in the household viz. name, sex, age, marital status and relation to head of household, etc. are recorded in the **Household Schedule (Form 2)**. The inmates of public institutions like hotels, inns, schools and

hospitals are excluded, but households living permanently within the compound of such institutions are covered. A list of all women in the reproductive age group 15-49 years along with their pregnancy status is also prepared in the **Pregnancy Status of women (Form 3)**.

#### **K. Continuous Enumeration**

21. An enumerator is appointed in each sample unit to record birth and death, as and when they occur in a sample unit. The enumerator maintains a **Birth Record (Form 4)** and a **Death Record (Form 5)** in respect of his area. The enumerator is expected to record all births and deaths occurring within the sample unit, as well as those of the usual residents occurring outside the sample unit. The events to visitors occurring within the sample unit are also listed, but these are not taken into account while calculating rates. Thus the events to be enumerated by the enumerator are those pertaining to: (i) Usual residents inside the sample unit; (ii) Usual residents outside the sample unit; (iii) In-migrants present; (iv) in-migrants absent; (v) Visitors inside the sample unit.

22. For ensuring complete netting, the enumerator uses different sources to get information of the occurrence of vital events in the sample unit. These include the help of the village priest, barber, village headman, midwife and such other functionaries. The enumerators maintain contact with these informants at frequent intervals and collect information about the occurrence of births and deaths. On being informed about the occurrence of an event, the enumerator visits the concerned household and records the prescribed particulars. The enumerator also keeps in touch with other socially important persons and visits local or nearby hospitals, nursing homes, cremation or burial grounds, at frequent intervals to keep updated about the occurrence of events. The enumerator maintains and updates a list of all women in the reproductive span along with their pregnancy status, which helps in netting of all the births. Despite all these efforts, the enumerators may miss information about some of the events, therefore, they are required to visit all the households once a month so as to ensure that all the events have been recorded.

#### **L. Half-Yearly Survey**

23. Half-yearly survey is carried out independently in each sample unit by a full-time supervisor. The supervisor belonging to the statistical cadre of the State Census Directorates (either a Compiler or a Sr. Compiler or Statistical Investigator or any suitable official) visits each household in the sample unit and records the particulars of births and deaths in Forms 9 & 10 respectively in respect of all the usual residents and visitors (only those occurring within the sample unit) which had occurred during the half-yearly period (January-June or July-December) under reference. Simultaneously, updating of the house-list, the household schedule and the pregnancy status of women is also done by making entries of changes, if any. While carrying out this survey, supervisors do not have access to the birth and death records of the enumerator for the same periods which are withdrawn from the field before the supervisor's visit for the half yearly survey.

## **M. Matching**

24. On completion of the half-yearly survey, the Forms 9 & 10 filled-in by the supervisors are compared with those in the Forms 4 & 5 (filled-in by the enumerators). This is done at the office of Directorate of Census Operations for all states except for rural areas of Kerala and Maharashtra, where it is done at the Directorate of Economics and Statistics of the respective states. Selected important entries in the enumerator's and supervisor's record are matched item by item and events are classified as fully matched, partially matched and unmatched. The items generally considered for matching for birth events are: Identification code of the head of Household and mother, Relationship of the mother to head, date of live birth, month in case of still birth/abortion, sex in case of live birth /still birth (for birth) and the item considered for death events are: identification code of the head of household and mother in infant death, relationship of the deceased to head, date of death and sex of the deceased.

## **N. Field verification of unmatched and partially matched events**

25. Every unmatched or partially matched event is verified by a visit to the concerned household. This is done either by a third person or jointly by the supervisor and the enumerator, depending upon the availability of staff.

## **O. Information Collected in SRS - SRS Forms and their flow**

26. For collecting information on population and vital events various forms/schedules have been prescribed under the SRS. Depending upon various operations under the system, the following 17 types of forms are in use:

### **Baseline Survey Forms**

- Form 1: House List
- Form 2: Household Schedule
- Form 3: Pregnancy Status of women

### **Continuous Enumeration Forms**

- Form 4: Outcome of Pregnancy recorded by Enumerator (January-June/July-December)
- Form 5: Deaths recorded by Enumerator (January-June/July-December)
- Form 6: Monthly report of Outcome of Pregnancy
- Form 7: Monthly report of Deaths

### **Half yearly Survey Forms**

- Form 9: Outcome of Pregnancy recorded by Supervisor (January-June/July-December)
- Form 10: Deaths recorded by Supervisor (January-June/July-December)
- Form 15: Distribution of usual resident population by age, sex and marital status (as on 1<sup>st</sup> July/1<sup>st</sup> January)
- Form 16: Distribution of Female population by broad age groups and levels of education (as on 1<sup>st</sup> July/1<sup>st</sup> January)
- Form 17: Number of females who got married by age at effective marriage (January-June/July-December)

## **Compilation/Tabulation Forms**

Form 8: Consolidated monthly report on births and deaths

Form 11: Finalised list of Outcome of Pregnancy (January-June/July-December)

Form 12: Finalised list of Deaths (January-June/July-December)

Form 13: Results of the HYS for Outcome of Pregnancy (January-June/July-December)

Form 14: Results of the HYS for Deaths (January-June/July-December)

## **P. Processing of Forms**

27. Every enumerator records all births and deaths events (Forms 4 and 5) on a continuous basis and the same is retained for six months prior to initiation of the next half yearly surveys. The enumerator is required to send to the state headquarters in the first week of the following month, a monthly report on births and deaths (Forms 6 and 7). The relevant entries of birth and death records are copied in monthly report from six monthly records and sent to the state headquarter. On the basis of the monthly reports received from the sample units, the state headquarters are required to prepare a consolidated monthly report (Form 8) and forward the same to the Office of the Registrar General, India by the end of the following month. The monthly reports for the individual units remain at the state headquarters. The supervisor records details of each birth and death event occurring during the six-month reference period in Forms 9 and 10 respectively. After matching of each birth and death event recorded in Forms 4 and 5 with those in Forms 9 and 10 and verification of partially and unmatched events in the field, finalized forms 11 and 12 are prepared, after necessary corrections and inclusion of additional events recorded during the survey. These forms are sent to the Office of the Registrar General, India, along with the half-yearly survey results in Forms 13, 14, 15, 16 and 17.