

Unique ID:

## MODEL INJECTION CENTER (MIC)

2005-09

An IndiaCLEN, Program Evaluation Network Study

### HEALTH-CARE WASTE MANAGEMENT

Interview scheduled for official from Municipality/ Pollution control board

|      |   |   |   |   |   |   |
|------|---|---|---|---|---|---|
| Date | D | D | M | M | Y | Y |
|------|---|---|---|---|---|---|

|                                |  |
|--------------------------------|--|
| Name of the office/ department |  |
|--------------------------------|--|

|                                |  |
|--------------------------------|--|
| Designation of the interviewee |  |
|--------------------------------|--|

|                         |                                |                                |                  |                                 |                                  |
|-------------------------|--------------------------------|--------------------------------|------------------|---------------------------------|----------------------------------|
| Location of functioning | <input type="checkbox"/> Rural | <input type="checkbox"/> Urban | Type of hospital | <input type="checkbox"/> Public | <input type="checkbox"/> Private |
|-------------------------|--------------------------------|--------------------------------|------------------|---------------------------------|----------------------------------|

|          |              |               |
|----------|--------------|---------------|
| District | Tehsil/Taluk | Village/ Town |
|----------|--------------|---------------|

#### Instructions for filling up the interview schedules

Dear friends

- Do not prompt for any answer
- Please record the responses in appropriate boxes by TICKING (✓) and later enter the answer (code) in boxes provided next to each question.
- Where blank box is provided, write the responses actually given by the respondent [verbatim] in the blank boxes provided under these questions.
- The reported information will be treated as confidential and used to understand the current bio-medical waste management in the hospitals.
- Use pencil / black ball pen only

**Namaskar, My name is ....., I would like to discuss few topics which will help us to improve the bio medical waste management system and there by increase the quality of health care in your district. I would appreciate if you could spare your valuable time to speak to me. Your responses will be kept confidential.**

**These questions are common for municipality official as well as pollution control board official.**

1. Does your department have **circulated/ enforced guidelines** for the management of health care related wastes as per the rules of central pollution control board (CPCB)?

[0] No

[1] Yes

[8] Refuse to answer

[9] Don't know/ Not sure

2. Are there a designated **officer/ person** responsible for monitoring the compliance with the rules/ guidelines?

[0] No

[1] Yes

[8] Refuse to answer

[9] Don't know/ Not sure

2.1. If yes, please mention his/her **post or designation**?

2.2 Please list out the important duties of this person?

**(to be recorded verbatim)**

Following questions are quantitative. Please enter '00', if answer is 'no', enter '99' if the answer is "Don't know / not sure"

3. How many **health facilities** are there (**total number of health facilities**) in this district / in your jurisdiction?

|  |  |  |
|--|--|--|
|  |  |  |
|--|--|--|

Total number of health facilities may include small as well as large hospitals in this district/ village.

3.1. Total number of **clinics with outpatients** only, in this district?

|  |  |
|--|--|
|  |  |
|--|--|

If answer is '00' or '99' skip to Q.5

3.2. Total number of hospitals with **bed facility less than 100**, in this district?

|  |  |
|--|--|
|  |  |
|--|--|

3.3. Total number of hospitals with **bed facility more than 100**, in this district?

|  |  |
|--|--|
|  |  |
|--|--|

3.4. Total number of **Medical Colleges**, in this district?

|  |  |
|--|--|
|  |  |
|--|--|

3.5. Approximate number of health facilities

3.5.1. **Urban area** (in this district)

|  |  |
|--|--|
|  |  |
|--|--|

3.5.2. **Rural area** (in this district)

|  |  |
|--|--|
|  |  |
|--|--|

3.6. Approximate number of health facilities

3.6.1. **Public sector** (in this district)

|  |  |
|--|--|
|  |  |
|--|--|

3.6.2. **Private sector** (in this district)

|  |  |
|--|--|
|  |  |
|--|--|

4 Among above mentioned hospitals in this district, how many of them have **self / in house** facilities for the **treatment of bio medical wastes**?

|  |  |
|--|--|
|  |  |
|--|--|

4.1. Do these hospitals have obtained authorization from the appropriate authority to treat bio-medical wastes?

- [0] No
- [1] Yes
- [8] Refuse to answer
- [9] Don't know/ Not sure

4.2. Is there any team to inspect the bio medical waste treatment facilities in hospitals?

- [0] No
- [1] Yes
- [8] Refuse to answer
- [9] Don't know/ Not sure

4.2.1. If yes, how frequently they inspect the bio-medical treatment facilities and give report?

- [1] Once in every year
- [2] Once in 6 months
- [3] Once in 3 months
- [4] Others (specify.....)
- [8] Refuse to answer
- [9] Don't know/ Not sure

5. In this district how many hospitals are **dependent on municipality** for disposal of bio-medical waste?

**If interviewee is a pollution control board official please move to Q 5.7.**

5.1. Do you have a **separate dedicated team** for collecting health care related wastes?

- [0] No
- [1] Yes
- [8] Refuse to answer
- [9] Don't know/ Not sure

5.1.2. If yes, are they **trained in handling** the health care related wastes?

- [0] No
- [1] Yes
- [8] Refuse to answer

[9] Don't know/ Not sure

5.2. How **frequently** these teams visit the hospitals to collect bio medical waste?

[0] Never / Once in a while

[1] Once in two days

[2] More than Once in a week

[3] 2-4 times in a month

[4] Less than once a month

[8] Refused to answer

[9] Don't know/ not sure

5.3. Which vehicle is used for **transporting bio-medical waste**?

[1] Closed vehicle

[2] Open vehicle

[3] Others (specify.....)

[8] Refuse to answer

[9] Don't know/ Not sure

5.4. Is there a **specific time schedule** to remove the wastes from the hospital?

[0] No

[1] Yes

[3] Others (specify.....)

[8] Refuse to answer

[9] Don't know/ Not sure

**Different time schedules and routes are adopted by many authorities to minimize difficulties to public.**

5.5. Any **dedicated route** for the **transport of waste** to avoid the passage through public areas?

[0] No

[1] Yes

[8] Refuse to answer

[9] Don't know/ Not sure

5.6. Which are the **self protection** devices for waste handling staff?

[0] None

[1] Masks

[2] Masks and Gloves

[3] Masks, Gloves and Boots

[4] Masks, Gloves, Boots and aprons

[8] Refuse to answer

[9] Don't know/ not sure

5.7. Have you noticed/ informed/ suspect **incidences of pilferage/ rag picking** during collection/ transport/ storage of bio medical wastes?

**Rag picking/ pilferages is a major issue in the re-use of solid bio-medical wastes thereby a major cause for spreading blood borne infections.**

[0] No

[1] Yes

[8] Refuse to answer

[9] Don't know/ Not sure

5.7.1. If yes, how frequently you noticed this in last 3 months?

5.7.2. What are the measures adopted to avoid **pilferage** for recycling/ mixing/ re-use of biomedical wastes?

**(to be recorded verbatim)**

### Bio-medical waste treatment plans

*There can be 3 methods of health care waste treatment and disposal mechanisms. Either hospitals can adopt their own bio-medical waste (BMW) treatment facilities or they can rely on municipality for bio-medical waste (BMW) or can rely on private agencies to dispose the bio medical wastes (BMW).*

|   |   | Own BMW treatment (hospitals) (a)                                     | BMW through municipality (b) | BMW through private agency (c)   |
|---|---|---|------------------------------|--|
| 6 | Enter approximate number of health facilities which rely on each modality for biomedical waste treatment in your district | <input type="text"/>  | <input type="text"/>         | <input type="text"/>   |
| 7 | <b>Number of health facilities</b> in your district which have following bio medical waste treatment facilities           |   |                              |  |
|   | 7.1. Incinerator  | <input type="text"/>  | <input type="text"/>         | <div style="border: 1px solid black; padding: 5px;"> Enter '00' if no hospitals have that particular bio-medical treatment facility and enter '99' if don't know/ not sure. </div> |
|   | 7.2. Autoclave  | <input type="text"/>  | <input type="text"/>         |  |
|   | 7.3. Microwave  | <input type="text"/>  | <input type="text"/>         |  |
|   | 7.4. Chemical disinfection  | <input type="text"/>  | <input type="text"/>         |  |
|   | 7.5. Shredder   | <input type="text"/>  | <input type="text"/>         |  |
| 8 | Which of the following treatment facility are available with the <b>municipality</b> ?                                    |   |                              |  |
|   | 8.1. Incinerator  | [0] No<br>[1] Yes<br>[8] Refuse to answer<br>[9] Don't know/ not sure | <input type="text"/>         |  |
|   | 8.2. Autoclave  | [0] No<br>[1] Yes<br>[8] Refuse to answer<br>[9] Don't know/ not sure | <input type="text"/>         |  |
|   | 8.3. Microwave  | [0] No<br>[1] Yes<br>[8] Refuse to answer<br>[9] Don't know/ not sure | <input type="text"/>         |  |
|   | 8.4. Chemical disinfection  | [0] No<br>[1] Yes<br>[8] Refuse to answer<br>[9] Don't know/ not sure | <input type="text"/>         |  |
|   | 8.5. Shredder   | [0] No<br>[1] Yes<br>[8] Refuse to answer<br>[9] Don't know/ not sure | <input type="text"/>         |  |

|     |   |   |  |
|-----|---|---|--|
| 12  | How do you manage when bio-medical waste treatment system at municipality doesn't function?                 |   |  |
| 95. | Availability of bio-medical waste treatment facilities within the municipality<br>(to be recorded verbatim) |   |  |
|     | the weight of different type of wastes treated by municipal authority                                       | [0] None<br>[1] Once<br>[2] 2-4 times in a week<br>[3] More than once<br>[4] Don't know/ not sure | [5] Yes<br>[6] No<br>[7] Not available<br>[8] Refused to answer<br>[9] Don't know/ not sure  |
| 9.1 | Enter the quantity (in kg) of bio-medical wastes treated in municipal facility                              |   |  |
|     | 9.1.1. Quantity (in kg) of BMW for incineration (per day)   | [7] Not available<br>[8] Refused to answer<br>[9] Don't know/ not sure                            | <input type="text"/>   |
|     | 9.1.2. Quantity (in kg) of BMW for autoclaving / microwaving (per day)                                      |   | <input type="text"/>   |
|     | 9.1.3. Quantity (in kg) of BMW for shredding (per day)  |   | <input type="text"/>   |
| 10. | Does municipality use <b>deep burial</b> as final disposal method?  | [0] No<br>[1] Yes<br>[8] Refused to answer<br>[9] Don't know/ not sure                            |  |
|     | 10.1  | What is the type of land/ dumping place?  | [1] Open filling land<br>[2] Open pit<br>[3] Closed pit<br>[8] Refused to answer<br>[9] Don't know/ not sure                             |
|     | 10.2  | How far (in meters), is the nearest residential area?   | [1] Less than 100 meters<br>[2] Less than 500 meters<br>[3] Greater than 500 meters<br>[8] Refused to answer<br>[9] Not sure/ don't know |
| 11  | Does municipality use <b>open fire</b> as final disposal method   | [0] No<br>[1] Yes<br>[8] Refused to answer<br>[9] Don't know/ not sure                            |  |

|  |      |                                      |  |                      |
|--|------|--------------------------------------|--|----------------------|
|  | 13.2 | Autoclave/<br>Microwave              | [0] Never/ Once in a while<br>[1] More than once in week<br>[2] 2-4 times in a month<br>[3] Less than once a month<br>[7] Not available<br>[8] Refused to answer<br>[9] Don't know/ not sure | <input type="text"/> |
|  | 13.3 | Shredder                             | [0] Never/ Once in a while<br>[1] More than once in week<br>[2] 2-4 times in a month<br>[3] Less than once a month<br>[7] Not available<br>[8] Refused to answer<br>[9] Don't know/ not sure | <input type="text"/> |
|  | 13.4 | What are the reasons for down times? | [1] Maintenance<br>[2] Spare-parts<br>[3] Financial problems<br>[4] Resources (fuel or electricity)<br>[5] Manpower<br>[8] Refused to answer<br>[9] Don't know/ not sure                     | <input type="text"/> |

These questions are common for municipal authority as well as pollution control board official.

|   |  |   |  |                      |
|---|--|---|--|----------------------|
| If any health facility in this district rely on <b>private agencies for bio medical waste treatment</b> then, |  |   |  |                      |
| 14  | How many private agencies are working on bio-medical waste collection and treatment in this district |   |  |                      |
|   |  |   |  | <input type="text"/> |
|   | 14.1.  | Are they authorized by appropriate authority? | [0] No<br>[1] Yes<br>[8] Refused to answer<br>[9] Don't know/ not sure | <input type="text"/> |

|        |  |  |                          |
|--------|--|--|--------------------------|
| 14.2.  | How frequently they collect the bio-medical wastes from healthcare facility?             | [0] As and when sufficient quantity of biomedical waste accumulates<br>[1] More than once in week<br>[2] 2-4 times in a month<br>[3] Less than once a month<br>[8] Refused to answer<br>[9] Don't know/ not sure | <input type="checkbox"/> |
| 14.3   | Is there any team or official to inspect/ check the agency on their treatment facilities | [0] No<br>[1] Yes<br>[8] Refused to answer<br>[9] Don't know/ not sure   | <input type="checkbox"/> |
| 14.3.1 | If yes, how frequently this team/ official visit the agencies for inspection.            | [0] Never/Once in a while<br>[1] More than once in month<br>[2] 2-4 times in a year<br>[3] Less than once a year<br>[8] Refused to answer<br>[9] Don't know/ not sure  | <input type="checkbox"/> |

15 Number of agencies with following treatment facilities

|                             |                      |                      |   |
|-----------------------------|----------------------|----------------------|---|
| 15.1. Incinerator           | <input type="text"/> | <input type="text"/> | Enter '00' if agency don't have that particular bio-medical treatment facility or enter '99' if don't know/ not sure. |
| 15.2. Autoclave             | <input type="text"/> | <input type="text"/> |   |
| 15.3. Microwave             | <input type="text"/> | <input type="text"/> |   |
| 15.4. Chemical disinfection | <input type="text"/> | <input type="text"/> |   |
| 15.5. Shredder              | <input type="text"/> | <input type="text"/> |   |

|       |  |  |                          |
|-------|--|--|--------------------------|
| 16    | Did you ever receive any complaints with regards to transport and/or treatment/ disposal of biomedical wastes? |  |                          |
| 16.1. | From local community / leaders   | [0] No<br>[1] Yes<br>[8] Refused to answer<br>[9] Don't know/ not sure | <input type="checkbox"/> |
| 16.2. | Any notice from hospitals / health facilities  | [0] No<br>[1] Yes<br>[8] Refused to answer<br>[9] Don't know/ not sure | <input type="checkbox"/> |

**Interview schedule with municipal official/ pollution control board  
Section 3, 2008-09**

**If answer is No, move to Q.14**

|      |  |
|------|--|
| 16.3 | What are the reasons and frequency of complaints/ notice<br><b>To be recorded verbatim</b> |
|      |  |

|    |   |
|----|---|
| 17 | What is the available system in your health facility to treat/ dispose off unused medicines (e.g., pharmaceutical wastes)<br><b>To be recorded verbatim</b> |
|    |   |

|    |   |
|----|---|
| 18 | In your view, what should be done to improve bio-medical waste system in your district?<br><b>To be recorded verbatim</b> |
|    |   |

**Date:**

**Signature  
Name  
Designation**