IIHMR UNIVERSITY

National Health Mission
State Health Society, Health and Family Welfare Department,
Government of Gujarat

Strategies for Bio-Medical Waste Management and sustainability

Introduction-

Bio-Medical Waste is a by-product of healthcare and includes sharps, non-sharps, blood, body parts, chemicals, pharmaceuticals, medical devices, and radio-active materials. Inadequate and poor handling and management of this waste exposes health care providers, waste handlers, patients and the citizens of community in general to infection and serious fatal consequences as well.

Problem statement: -

. What is the current situation of Biomedical Waste management in public health facilities in Bharuch district in Gujarat

Objective: -

. To assess current status of knowledge, attitude and practice of public health care professional towards BMW M in Bharuch district, Gujarat.

. To identify the existing lacunae and problem s in BMWM and sustainability

Research method:

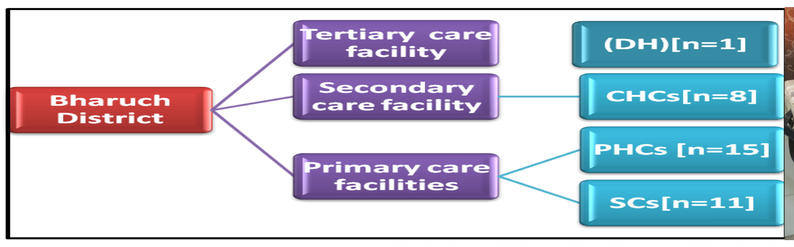
1.**Study design-** Cross sectional descriptive method with direct observation of BMWM system in different public health facilities in Bharuch district, Gujarat.

2.**Sampling Technique-** A purposive/feasible, non-probability sampling technique.

3.**Study Participants–** Health care personnel of different public health facilities like DH, CHCs, PHCs, SCs, Block office like Doctors, Nursing staff, laboratory technician, waste handlers.

Sample design: 39 facilities and 121 health care persons of that facilities.

Result and Discussion: The present study outlines the gap between BMW Rules and inadequate state of execution and awareness in practice



Training of Waste Handlers and Particulars Regarding Risk Involved in BMW Waste Han-

Knowledge domain-
1.BMW regulation Act- Average % in all the staff that was gave correct answer is 17. And In doctor compare to nursing and waste handlers having more knowledge for same.
2.PPEs- Average % in all the staff that was gave correct answer is 60. But poor in waste handler which is below 20 in almost all facilities. As the staff who was given the correct answer and ask for name PPEs than very less number of % able to give the answer that is only 27.
3.Maximum bag filling as per rule - Average % in all the staff that was gave correct answer is 29%. And poor in waste handlers that is below 10 in almost all the facili-

]]	Training & other particulars	DH (%) (n=17)	CHC (%) (n=42)	PHC (%) (n=47)	SC (%) (n=11)
1	Received special training in BMW management	0	24	26	27
2	Aware of risk involved in BMW handling	41	62	58	100
3	Is there any BMW management committee in your institution?	12	48	30	27

Practice of BMW among health care personnel of all government facility

Practice domains	Different public Health care facilities with responses			
	DH (%) (n=17)	CHCs (%) (n=42)	PHCs (%) (n=47)	SCs (%) (n=11)
Is bins lined by proper color bags?	59	91 NR-2	75 NR-2	82
Is bag size according to bins ?	76	52 NR-2	32 NR-4	55
Have you taken any vaccination against specific infection for prevention?	36	31	17 NR-6	9
Is disposal of BMW done in specific color bag?	71	69	53	46
Recap the used needle	53	33 NR-2	47 NR-4	46
Filled bag tied & labeled at source	65	33	28	36
Blood spillage	6	5	9	0
Mercury spillage	0	5	0	0
Frequency of cleaning of bin	25	0	9	

Recommendation:

1.Regular & special training for BMW handling and management is necessary for better BMW management and sustainability.
2. Segregation cum storage area is must at every facility from large to small.
3.Monitoring of BMWM & handling by BMW Management committee's member on regular basis with meeting monthly basis for discussing issue related BMWM.
4.Vaccination should be given to all the staff (class one to class four) at all the facilities (from DH to SCs) like hepatitis-b, T.T mainly at the cost of government.
5.PPEs should be used by all waste handlers while handling the BMW and that should be monitor by class 2 or class 1 officer on regular basis.

Special Learning related to:

. **Human Resource Management-** Skill development and capacity building of the staff in need. Performance appraisal and special motivation done at all the facilities to improve the quality of work.

. **Health Management Information System–** How to read and analyzed data from the HMIS portal to provide better services to the beneficiaries.

KEY areas of management issues identified:

At District Panchayat Office (Health Department) - Co-ordination gap between district and taluka level officer.

. Salary is inequitable with respect to the ranks of the staff & less lucrative like other government job because it is on contractual basis.

At CHC- Lack of manpower while having proper infrastructure and equipments making the facility inefficient.

. Reference only to DH from any CHC of that particular district even when the DH of the neighbouring district is nearer for especially high risk patient.

. Nursing staff from one CHC deputed to other CHC which are about 70km apart. So, I found it difficult for nursing staff to manage his/her duty at both CHC with full enthusiasm.

At PHC– There is no security at 24*7 PHC.

. Lack of man power as two posts are being managed by a single person.

. Frequent change of staff leads to lack of team building.

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