

CHAPTER 6 : PRESENTATION

6.1 Introduction

The aim of presentation is to give the thesis committee members an overall view of the study. It begins with the introduction of the study topic which is the improvement of EMS system in MRRH, with justifications for the study topic. The drawbacks in MRRH's current EMS system is highlighted.

The proposed study is presented by highlighting purpose statement, objectives, research questions, and research approaches used in collecting data on problem perceptions about EMS from stakeholders in Monggar. Justifications for the objectives are provided. Emphasis is given on the need to develop an EMS system which will equip the hospital for prompt and proper EMS response to emergency medical situations in the area.

The result of the data exercise done in MRRH is presented, also along with the highlights of its goal and objectives. Limitations of the study are explained, while at the same time coming up with the recommendations for the proposed study, and for the hospital administration as well.

The last part of the presentation is the training package for the EMS system in MRRH. Its goal and objectives are highlighted. Justifications for the training need are provided. The evaluation of training is also explained.

The presentations are made with the help of overhead projections of transparencies.

**AN ACTION RESEARCH STUDY ON
IMPROVEMENT OF EMERGENCY
MEDICAL SERVICES SYSTEM IN
MONGGAR REGIONAL
REFERRAL HOSPITAL
MONGGAR, BHUTAN**

QUESTIONS

1. WHY EMS IS IMPORTANT ?
2. WHAT ARE THE EMS NEEDS OF THE COMMUNITY ?
3. WHAT IS THE EXISTING CAPACITY TO PROVIDE EMS ?

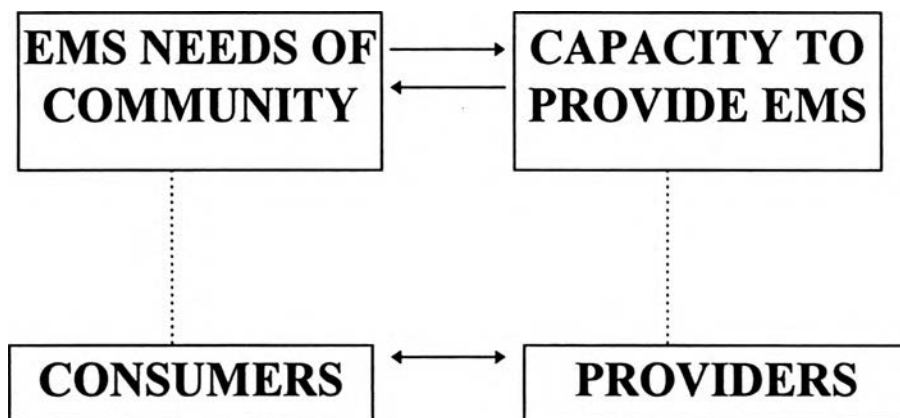


FIGURE 1 : EMS NEEDS AND CAPACITY TO PROVIDE EMS

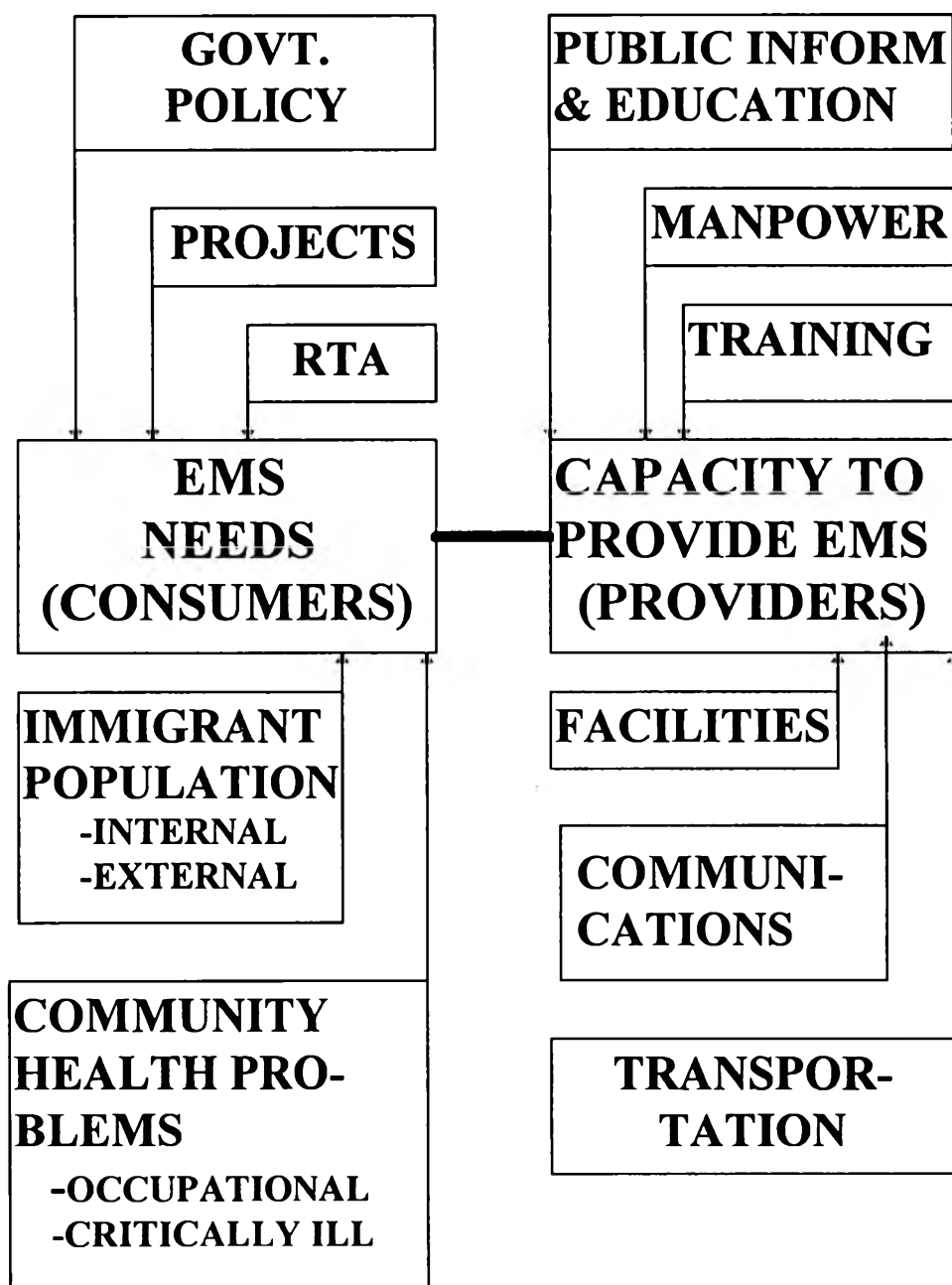


TABLE : COMPONENTS OF EMS SYSTEM

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- 1. MANPOWER**
 - 2. TRAINING**
 - 3. COMMUNICATIONS**
 - 4. TRANSPORTATION**
 - 5. FACILITIES**
 - 6. CRITICAL CARE UNITS**
 - 7. PUBLIC SAFETY AGENCIES**
 - 8. CONSUMER PRACTITIONERS**
 - 9. ACCESS TO CARE**
 - 10. PATIENT TRANSFER**
 - 11. COORDINATED PATIENT RECORD
KEEPING**
 - 12. PUBLIC INFORMATION & EDUCATION**
 - 13. REVIEW & EVALUATION**
 - 14. DISASTER PLAN**
 - 15. MUTUAL AID**
-

SOURCE: Lilja, G. P., & Swor, R. (1996). *Emergency Medicine: A Comprehensive Guide*. (Eds.). Pre-hospital care. (P. 1).

ISSUE

**WHAT ARE MY PRIORITIES IN DEVELOPING
AN IMPROVED EMS SYSTEM IN MRRH ?**

REASONS

- 1. RESULTS FROM DATA EXERCISE**
- 2. PERSONAL EXPERIENCE**

CONCLUSION

- 1. DEVELOP PRE-HOSPITAL EMERGENCY CARE**
- 2. STRENGTHEN/UPGRADE IN-HOSPITAL
EMERGENCY CARE**

- MANPOWER**
- TRAINING**
- FACILITIES**
- COMMUNICATION**
- TRANSPORTATION**
- PUBLIC INFORMATION & EDUCATION**

JUSTIFICATIONS

1. PRESENT PROBLEMS WITH EXISTING EMS SYSTEM

- * NO EMERGENCY ROOM/CASUALTY UNIT**
- * EMERGENCY MEDICAL CARE DURING AND AFTER OPD HOURS**
- * INCREASED EMERGENCY REFERRALS**
- * NO PRE-HOSPITAL EMERGENCY CARE**
- * LACK OF COORDINATED RESPONSE**

2. EXPECTED EMS PROBLEMS

- * MOTOR VEHICLE ACCIDENTS**
- * INDUSTRIAL ACCIDENTS**

- HYDRO-PROJECT CONSTRUCTION**
- NEW HOSPITAL CONSTRUCTION**
- ROAD WIDENING PROJECT**

- * IMMIGRANT POPULATION**
- * EMERGENCY CALLS**

3. GOVERNMENT DECISION

- * ESTABLISHMENT OF TRAUMA CARE CENTER**

AIMS

1. SHORT-TERM:

TO IMPROVE EMS RESPONSE TO EMERGENCY SITUATIONS IN TERMS OF BOTH PRE-HOSPITAL AND IN-HOSPITAL EMERGENCY MEDICAL CARE.

2. LONG-TERM:

TO REDUCE DEATH AND DISABILITY THROUGH THE DEVELOPMENT OF AN EMS SYSTEM IN MRRH.

OBJECTIVES

1. PRE-HOSPITAL:

1.1. TO IMPROVE THE QUALITY (PROMPT & PROPER) OF EMS

1.2. TO INCREASE EMS COVERAGE OF POPULATION

2. IN-HOSPITAL:

2.1. TO IMPROVE THE QUALITY (PROMPT & PROPER) OF EMS

2.3. TO IMPROVE EMERGENCY REFERRAL SYSTEM

RESEARCH QUESTIONS

- 1. WHAT EMS SHOULD BE PROVIDED, CONSIDERING THE COMMUNITY'S NEEDS AND THE VARIOUS VIEW POINTS OF STAKEHOLDERS ?**
- 2. WHAT EMS IS CURRENTLY PROVIDED IN RESPONSE TO EMERGENCY SITUATIONS ?**
- 3. WHAT GAPS EXIST BETWEEN THAT WHICH IS NEEDED AND THAT WHICH IS PROVIDED ?**
- 4. WHAT, IN THE VIEW OF STAKEHOLDERS, SHOULD AND CAN BE PRIORITY STRATEGIES AND TECHNIQUES FOR IMPROVING EMS ?**
- 5. TO WHAT EXTENT CAN THESE STRATEGIES/ TECHNIQUES BE CREDITED WITH REDUCING DEATH AND DISABILITY ?**

ACTIVITIES

A. FORMATION OF HOSPITAL MANAGEMENT TEAM

B. INTERVIEWS AND DISCUSSION SESSIONS

C. PRE-HOSPITAL EMS

1. PRE-HOSPITAL TEAM

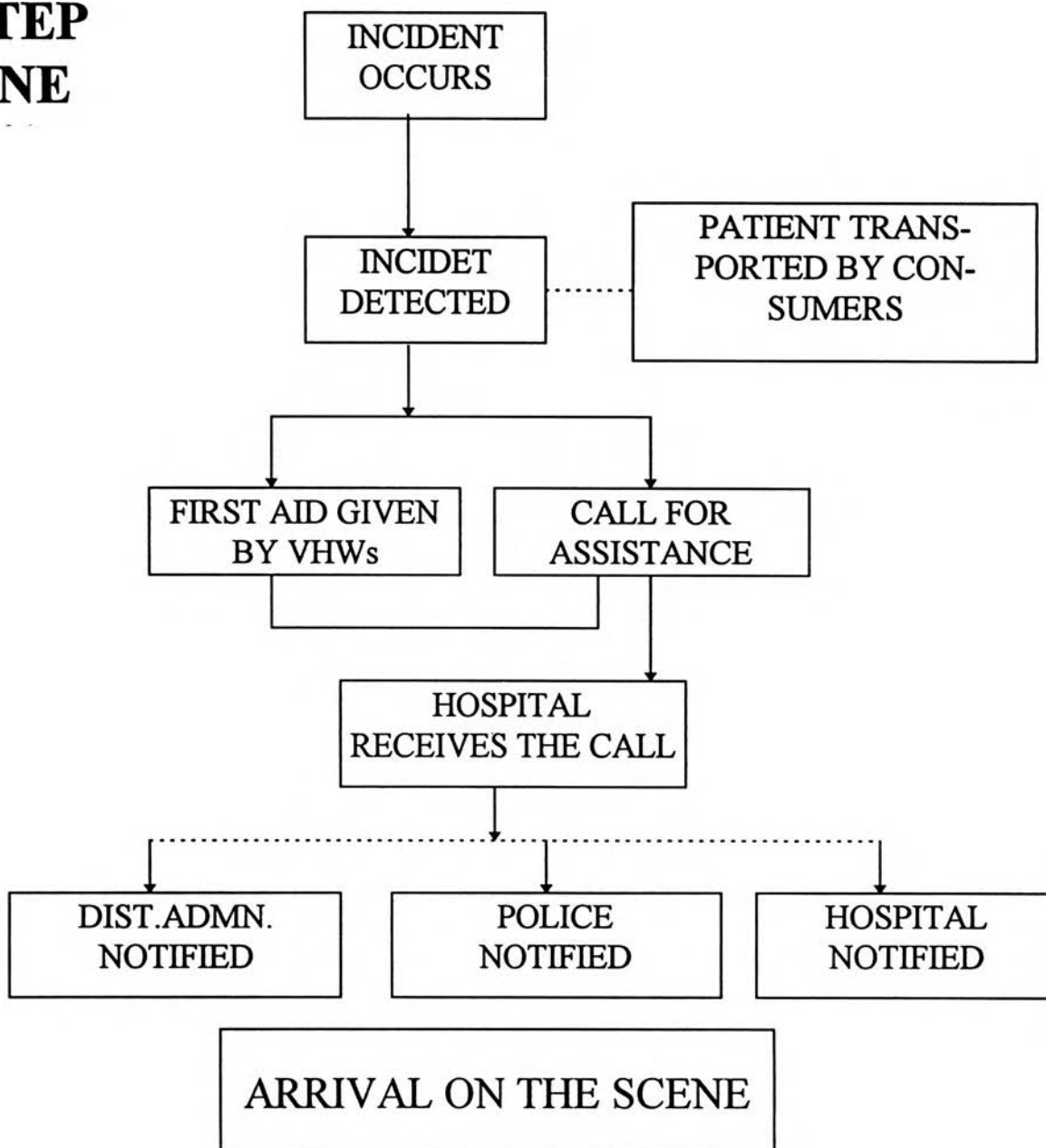
- * TRAINING/DRILLS**
- * AMBULANCE SERVICE**
- * COMMUNICATION**
- * PUBLIC EDUCATION**

D. IN-HOSPITAL EMS

- * EMERGENCY ROOM**
- * TRAINING**
- * STAFFING**
- * INFORMATION SYSTEM**
- * MEDICAL AUDITING**

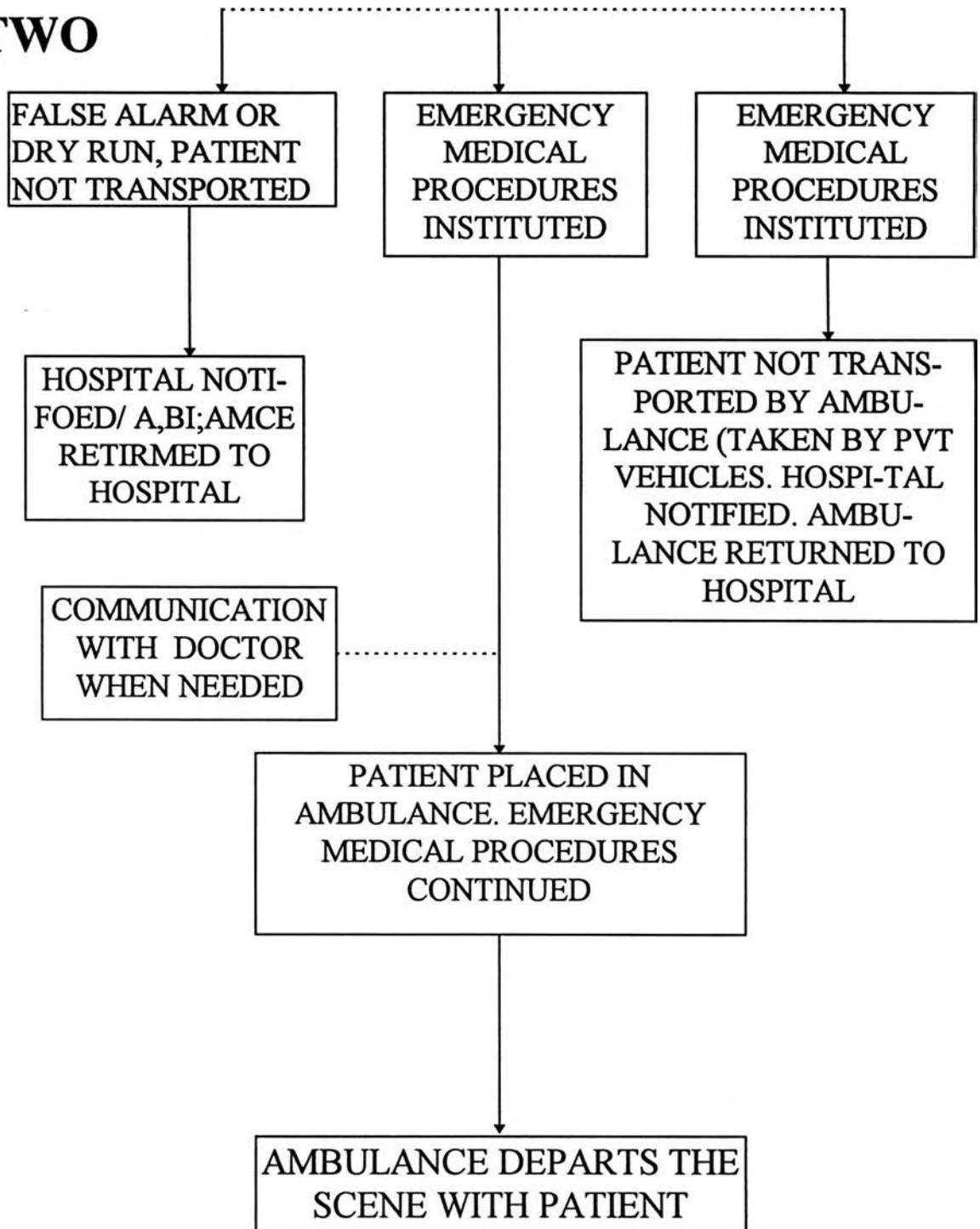
FIGURE : EMERGENCY MEDICAL SERVICES FLOW CHART

STEP ONE

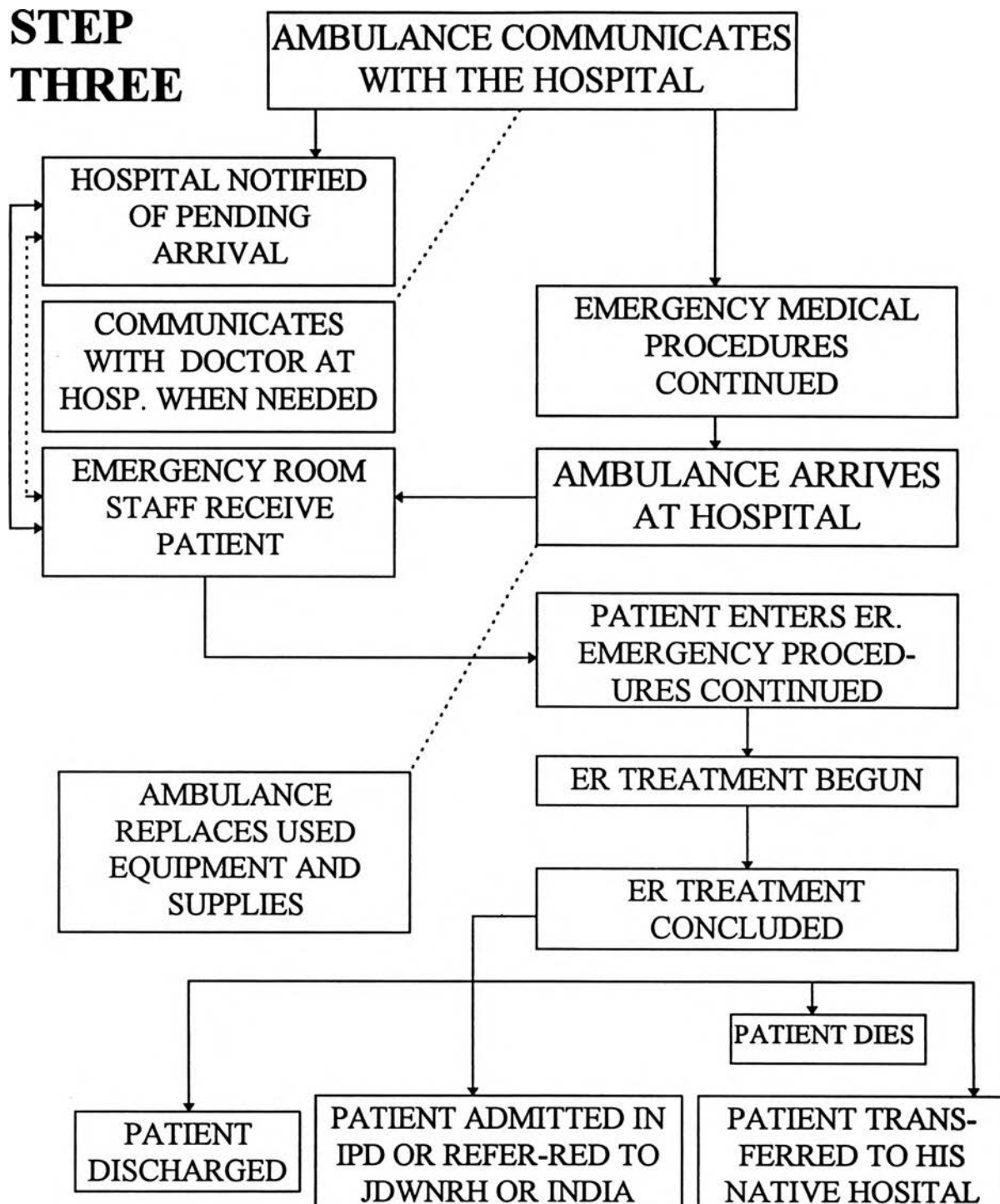


CONSUMER INVOLVEMENT

STEP TWO



PARAMEDICAL INVOLVEMENT



HOSPITAL INVOLVEMENT

SOURCE: adapted from : jenkins, A.L., & Van de LeUV, J.H., (1978).
 Emergency Department Organization and Management. (2nd ed.).
 Transporation and Communication. (P. 229).

RESEARCH APPROACHES

1- SAMPLE POPULATION

- * HOSPITAL STAFF**
- * DISTRICT BUREAUCRATS**
- * POLICE OFFICERS**
- * DYT MEMBERS**
- * VHWS**

2- SAMPLE SIZE

- * DOCTORS**
- * NURSING STAFF**
 - GNM**
 - ANM**
 - AN**
- * PARAMEDICS**
 - NMS**
 - TECHNICIANS**

*** DISTRICT BUREAUCRATS**

- DZONGDA
- DZONGRAB

*** POLICE OFFICERS**

- SUPERINTENDENT
- OFFICER-IN-COMMAND

*** DYT MEMBERS**

- 9 VILLAGE HEADS

*** VHWs**

- 27 VHWs

RESEARCH TECHNIQUES

1- IN-DEPTH INTERVIEWS

- * DISTRICT BUREAUCRATS**
- * POLICE OFFICERS**

2- NOMINAL GROUP TECHNIQUE

- * HOSPITAL STAFF**

3- FOCUS GROUP

- * DYT MEMBERS**
- * VHWs**

4- SECONDARY DATA

5- DATA ANALYSIS

6- EVALUATION

- * PROCESS EVALUATION**
 - MONITORING**
 - SUPERVISION**

- * IMPACT EVALUATION**
 - PT. SATISFACTION SURVEY**

DATA EXERCISE

GOAL

TO GATHER INFORMATION ON PROBLEM PERCEPTIONS ABOUT EMS FROM VARIOUS STAKEHOLDERS IN ORDER TO DEVELOP A PROPOSAL FOR ESTABLISHING AN IMPROVED EMS SYSTEM IN MRRH.

OBJECTIVES

- 1- TO TEST NOMINAL GROUP TECHNIQUE**
- 2- TO GATHER INFORMATION ABOUT EMS PROBLEMS FROM CONCERNED AUTHORITIES BY MAILING THE QUESTIONS ?**
- 3- TO IDENTIFY DEFICIENCIES IN INJURY RECORDING AND REPORTING SYSTEM:**
 - REVIEWING CASES**
 - REVIEWING REPORTING SYSTEM**
- 4. TO GATHER INFORMATION ABOUT EMS PROBLEM PERCEPTIONS.**
- 5. TO PROVIDE RECOMMENDATIONS TO THE PROPOSED STUDY**

QUESTION GUIDE FOR NOMINAL GROUP TECHNIQUE

FROM WHEN YOU FIRST RECEIVE THE EMERGENCY PATIENT, THEN CALLING THE DOCTOR ON CALL, TO TILL HE COMES AND SEES THE PATIENT AND GIVES HIS PRESCRIPTIONS, WHAT ARE ALL OR SOME OF THE PROBLEMS YOU IN PARTICULAR FACE, DURING YOUR SHIFT, TILL YOU HAND OVER TO THE NEXT GROUP ?

RESULT OF DATA EXERCISE
(A) NOMINAL GROUP TECHNIQUE

POINTS GENERATED (ROUND ROBIN STAGE)

- 1. DIFFICULTY MONITORING VITAL SIGNS**
- 2. INACCESSIBILITY OF SUPPORTING STAFF**
- 3. INSUFFICIENT BEDS**
- 4. INACCESSIBILITY TO DOCTOR ON CALL (DOC)**
- 5. INSUFFICIENT LINENS**
- 6. POWER FAILURE**
- 7. INACCESSIBILITY TO AMBULANCE DRIVERS**
- 8. COMPOUND NURSE**
- 9. LATE RESPONSE FROM STAFF ON CALL**
- 10. PRESCRIPTION OF DRUGS**
- 11. PRESSURES FROM PATIENT PARTY**
- 12. PATIENT ATTENDANTS**
- 13. INCREASED WORKLOAD**
- 14. ADDITIONAL AMBULANCE**
- 15. REMOVAL OF THE DECEASED**
- 16. LANGUAGE BARRIER**
- 17. NO BLOOD DONORS**
- 18. IMPATIENCE OF STAFF ON CALL**
- 19. INSUFFICIENT TECHNICAL SUPPORT**

TABLE 4.8 : TOTAL SCORES FOR PRIORITY ISSUES ACCORDING TO PRIORITY RANKINGS GIVEN BY PARTICIPANTS WHEN SCORE OF 5 TO 1 ALLOTTED FOR EACH ISSUE IN PRIORITY ORDER OF 1 TO 5.

PRIORITY ISSUES	1st	S	2nd	S	3rd	S	4th	S	5th	S	TS
Power failure	5x2	10	4x 2	8	3x 1	3	2x 0	0	1x 1	1	22
Insufficient tech. Support from DOC	5x 1	5	4x 0	0	3x 0	0	2x 0	0	1x 0	0	5
Inaccessibility of supporting staff	5x 1	5	4x 0	0	3x 1	3	2x 1	2	1x 0	0	10
Inaccessibility of DOC	5x 1	5	4x 0	0	3x 0	0	2x 0	0	1x 0	0	5
Insufficient beds	5x 0	0	4x 3	12	3x 0	0	2x 0	0	1x 0	0	12
Pres. of drugs not in emerg. box	5x 0	0	4x 1	4	3x 1	3	2x 0	0	1x 0	0	7
Additional vehicles/drivers	5x 0	0	4x 0	0	3x 3	9	2x 0	0	1x 1	1	10
Need for compound nurse	5x 0	0	4x 0	0	3x 0	0	2x 2	4	1x 0	0	4
Increased workload	5x 0	0	4x 0	0	3x 0	0	2x 1	2	1x 1	1	3
Late response from staff on call	5x 0	0	4x 0	0	3x 0	0	2x 1	2	1x 1	1	2
Difficulty in disposing dead	5x0	0	4x 0	0	3x 0	0	2x 1	2	1x 0	0	2
No blood donors	5x0	0	4x 0	0	3x 0	0	2x 0	0	1x 1	1	1
Too many pt. attendants	5x 0	0	4x 0	0	3x 0	0	2x 0	0	1x 1	1	1

NOTE : 1st : First Priority 4th : Forth Priority S : Score
2nd : Second Priority 5th : Fifth Priority TS: Table Score
3rd : Third Priority

ISSUES IN ORDER OF PRIORITY:

- 1. POWER FAILURE**
- 2. INSUFFICIENT LINENS**
- 3. UNAVAILABILITY OF SUPPORTING STAFF**
- 4. PRESCRIPTION OF DRUGS**
- 5. LATE RESPONSE BY DOCTOR ON CALL**

(B) IN-DEPTH INTERVIEWS

1- MANPOWER

2- FACILITY

3- TRANSPORT

4- MOBILE EMS TEAM

5- COMMUNICATION

6- EMERGENCY ROOM

7- PUBLIC EDUCATION

**TABLE : Injury Data analysed in order of Severity urgency, and according to
RTA, Industrial Accident, accident at Home/ Community and
Others/ No History**

SEVERITY URGENCY	ROAD TRAFFIC ACCIDENT			INDUSTRIAL ACCIDENT			ACCIDENT AT HOME/ COM.			OTHERS/ NO HISTORY			
	grade	Sl. Injury No.	Total	%	Sl. Injury No.	Total	% 50	Sl. Injury No.	Tota l	% 5 0	Sl. Injury No.	Tota l	% 50
1	37,40 41,42 43,44 49	7	50				1,7,8, 2,6, 30, 31, 54, 55	8	3 0		25,32, 38	3	18
2							2,10, 20,21, 24,29, 48,52, 53,47	10	3 7		13,14, 15,51, 57,58, 5	7	41
3	36,39, 45,46, 56,30, 34	7	50	12,28	2	100	3,4,6, 9,16,2 7,35, 50,59	9	3 3		11,17, 18,19, 22,23, 9	7	41

SEVERITY/ URGENCY

- 1: NEEDS IMMEDIATE INSTITUTION OF EMS PROCEDURES
- 2: INSTITUTION OF EMS PROCEDURES CAN BE DELAYED
- 3: NEEDS INSTITUTION OF EMS PROCEDURES WITHIN 2-3
HOURS

EMS TRAINING PROGRAM

BASIC LIFE SUPPORT IN CARDIAC AND TRAUMA EMERGENCIES

**GOAL: TO PROVIDE EFFECTIVE CARDIAC
AND TRAUMA EMERGENCY CARE
TO THE PEOPLE OF EASTERN
REGION.**

PROGRAM OBJECTIVE

- 1. UPGRADE KNOWLEDGE & SKILLS**
- 2. PROVIDE SUPPORT IN PRE-HOSPITAL CARE**

COURSE OBJECTIVES

- 1. OVERVIEW OF ANATOMY & PHYSIOLOGY**
- 2. UPDATE KNOWLEDGE & SKILLS IN B.L.S.**
 - CARDIAC EMERGENCIES**
 - TRAUMA CARE**
- 3. PROVIDE TECHNICAL SKILLS**
 - CPR**
 - FBAO**
- 4. PROVIDE PRACTICAL PROFICIENCY IN USE
EQUIPMENT & INSTRUMENTS OF BLS**
- 5. PRE-HOSPITAL CARDIAC & TRAUMA EMERG.**
- 6. MANAGEMENT OF ICU
& TRAUMA CARE**