Assessment Manual

For

Refugee Emergencies

Bureau for Refugee Programs
Department of State

ASSESSMENT MANUAL FOR REFUGEE EMERGENCIES

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ASSESSMENT MANUAL FOR REFUGEE EMERGENCIES

TABLE OF CONTENTS

INTRODUCTION AND USERS GUIDE

INTRODUCTION

This manual is designed to provide Foreign Service Officers (FSOs) with a simple but complete guide to assessing emergency situations involving refugees or displaced persons. The manual provides both guidance about how to collect and interpret information and a format for reporting it to the Department of State.

It is recognized that most FSOs are not experienced in refugee camp analysis, and that many aspects of an emergency situation are confusing and unfamiliar to someone encountering these problems for the first time. Nevertheless, due to the need for on-site, rapid assessment, as well as the difficulty of fielding assessment teams from Washington to meet all contingencies, local embassy personnel must often carry out the necessary assessments. This manual has been structured to enable you to rapidly assess the overall situation, evaluate the most critical aspects, and report this information back to the Department in a form that will enable them to take or recommend the appropriate actions.

The survey is designed to be carried out by one person in approximately three hours at each site being assessed or by two people in two hours at each site. If a qualified person from a relief agency cannot accompany you on the trip, it may be possible to utilize a doctor or nurse from the U.S. Embassy, the Peace Corps or USAID, or some other person familiar with local medical and health issues. Others who could be helpful are AID engineers or planners and/or Food for Peace logistical personnel.

Although there may be several methods of gathering the needed information, we ask that the procedures employed in this manual be adhered to as closely as possible to allow the State Department in Washington to receive standardized data that can be easily compared with information coming at other times or from other areas.

Objectives of the Assessment

The primary objective of the assessment is to provide you and the State Department with a clear, concise picture of the situation. The information you obtain may be used to help determine options for humanitarian assistance and/or political action, to verify other assessments or requests for assistance by the host country or from the United Nations High Commissioner for Refugees (UNHCR), or to determine if further State Department involvement will be required.

This manual is designed to obtain the critical information required for decision-making; the person(s) carrying out the assessment is directed immediately to the most important issues and problems. Although some of the material may appear to be redundant, this is intentional so that critical issues can be cross-checked and verified from separate sources.

The assessment procedure includes:

a) visual inspections;
b) interviews with key personnel;
c) a brief survey of randomly-selected refugees.

This mix of survey methods is designed to provide the user with the best tools to get the right information. Some information can be obtained from visual observation, but some must be obtained through interviews or more detailed investigation. It is important that these activities be carried out in sequence, for each builds upon the previous activities and permits cross-checking and verification. For example, visual inspections are used to help organize and speed the assessment, but unless the other questionnaires and checklists are also used, the information from a visual survey is incomplete and may be misleading.

Some of the information to be collected is specifically tailored to the data needs of the Department of State and a summary will be transmitted to them in a cable. Other information (e.g., addresses, telephone numbers, contacts) is expressly for later use in-country by you or someone else who is asked to obtain follow-up or more detailed information.

The survey procedures in this manual represent a complete assessment procedure for one location. Yet refugee status and relief problems can vary greatly from site to site. If refugees are in several different locations, the complete field assessment procedures should be repeated at representative sites throughout the emergency zones. Obviously, the more sites sampled, the more accurate will be the picture obtained. Sites in different geographic areas should be selected, if possible.

Sites for Conducting the Assessment

The assessment procedures are designed to be conducted at (1) border receiving stations, (2) transit camps (camps set up to hold refugees until they can be moved to safer or more environmentally suitable locations), and/or (3) refugee camps or settlements established to hold refugees until long-term political solutions can be developed. Camps can range from large buildings such as warehouses, churches or barracks to tent cities or even "towns".

Standards

In order to determine whether or not relief services are adequate, certain assumptions must be made about minimum standards of service, common practices and procedures. Each system or service that you will assess will be evaluated according to standards developed for the State Department on the advice of refugee operations specialists. These standards are incorporated in the Problem Analysis Worksheets included in this manual. It is recognized that, during the initial emergency, it may be difficult for a relief organization to meet these standards. However, attempts should be made to achieve these standards as soon as possible; a great deal of experience has indicated that maintaining these standards is crucial to preventing problems and to pinpointing sources of problems when they occur.

Terminology

As you may encounter references to various unfamiliar terms or programs, a glossary of common terms used in refugee relief operations is included at the back of this manual. You should familiarize yourself with these terms prior to your departure for the field. For simplicity's sake, the word "refugee" is used herein in a very broad sense to include displaced persons.

You should note that many of the items and activities that may be popularly associated with refugee relief (such as the provision of used clothing) are not considered critical concerns in an emergency; therefore, they are deliberately given little or no attention in this assessment manual. However, if you feel that information which is not included would be helpful, by all means include it in the reporting cables.

THE ASSESSMENT PROCEDURE

The assessment procedure encompasses four activities: data collection, problem analysis, reporting and follow-up activities. The procedure is set out in the order in which an assessment mission should be organized.

The procedure is divided into eight steps or modules. In each module you will find an explanation and the objectives of the procedure plus the necessary checklists or forms you will need. Each is a complete set of information, and all modules pertaining to activities in the field should be completed before going on to the next site.

Step 1 provides guidance on planning the assessment and preliminary data collection. It is important that you collect certain information prior to going into the field, not only to enable you to more efficiently plan the trip, but also to collect the impressions of others so that they can be verified.

Step 2 covers observations that you can make as you approach the scene of the emergency. As you approach either by land or air, it is important that you observe certain aspects about the environment, the sites where refugees are being placed, and the level of relief or other (e.g., military) activity in the area. A plastic "initial checklist" that you can carry in your pocket has been provided to help you collect visual "clues" about the situation. No note-taking is required at this stage.

Step 3 is a series of on-site interviews with key relief personnel. Two persons are critical: the camp administrator and the senior health worker. If time permits, other persons can also be interviewed.

Step 4 is a visual inspection of the site and conditions. Again, a short, plastic checklist has been provided. You will notice that some of the items on this checklist were also covered in the "initial checklist" used in Step 2. This will give you an opportunity to verify your first impressions.

Step 5 is a brief household survey. It is the most important part of the site visit and has been designed to obtain data about the health and nutritional status of the refugees. Twenty families with children under five years of age should be randomly sampled, and the arm circumference of all children between 12 months and five years of age should be measured with the color-coded arm circumference tape that is included in that section. Every fifth household in the survey should be asked additional questions about health, food and water supply; those questions are included on the back of the form used for the household survey. This information is important because it will provide verification of all the information collected from your visual inspections, the interviews and other information collected earlier. From this survey, problems in the food supply, problems relating to water quality or quantity, and information relating to disease can all be detected. The household survey provides the "hard" data to confirm or reject initial impressions gathered from interviews and brief visual inspections.

Step 6, preparation for later surveillance, helps set the stage for more detailed monitoring in the future. A number of forms are included which you should leave with the appropriate officials before departing the site. These are standard forms used throughout the world and these, or equivalent forms, must be used in order to detect long-term problems among the refugees.

Data collection and field work are now complete, and analysis of the information can begin.

Step 7 is a preliminary analysis of the information that you have collected to this point. A series of worksheets is provided to help you make sense out of the information. Each worksheet describes the problem or system being analyzed; the standards by which to evaluate services; the procedure for analyzing the situation; and space to work out the information or record your impressions. At the end of each worksheet, you will find a sample reporting cable paragraph or paragraphs with blanks to be filled in with the data that you have developed. These paragraphs form the basis of your reporting cable to Washington. It is recognized that you may have neither the capability nor the time to conduct a detailed analysis of each problem during your initial field visit. If further analysis is needed, refer to the section entitled "Further Problem Analysis".

Step 8 summarizes the types of reports that you should send to the State Department, and provides checklists for collecting more information to send to Washington by courier or pouch.

Further Problem Analysis

The section following Step 8 in the manual contains information and guidance for further in-depth analysis of specific problems that tend to occur frequently in refugee emergencies.

MAJOR EMERGENCY CONCERNS

In every new emergency, there are certain life-threatening conditions and diseases that are of major, priority concern. In order of priority, you should be alert for:

1. Forced repatriation (refoulement);
2. Organized physical violence against the refugees (from any military, police or mob source);
3. Lack of water;
4. Deaths from starvation upon or just after arrival;
5. Measles;
6. Lack of shelter resulting in deaths from exposure to extreme cold (hypothermia);
7. Obvious signs of severe malnutrition among refugees;
8. Shortages of local food supplies to feed new arrivals.

If death rates are high, and cannot be attributed to any of the above, a top priority is to determine:

1. the primary cause of childhood deaths; and
2. the primary cause of adult deaths.

Finally, it is important that agencies providing assistance make realistic projections of needs and develop workable contingency plans for supporting new arrivals. Thus, it is crucial for you to determine whether the agencies, especially the agency or organization in charge, are fully anticipating basic needs and developing plans to provide the necessary resources.

NOTE: THIS MANUAL CONTAINS ONE MASTER COPY OF EACH OF THE SURVEYS, QUESTIONNAIRES, FORMS AND WORKSHEETS THAT YOU WILL NEED. PHOTOCOPIES SHOULD BE MADE FOR USE IN THE FIELD ASSESSMENT. IF YOU EXPECT THAT YOU MAY BE VISITING MORE THAN ONE LOCATION (OR AN UNKNOWN NUMBER OF LOCATIONS) IN THE FIELD, PHOTOCOPY SUFFICIENT ADDITIONAL FORMS PRIOR TO YOUR DEPARTURE.

STEP 1: PLANNING AND PRELIMINARY DATA COLLECTION

OBJECTIVES

This section has two purposes:

1. To give guidelines for the collection of information which will provide background about the situation and simplify aspects of the field trip. These activities should help you identify persons or organizations in the field that may be useful sources of information once you arrive at the site.

2. To provide a simple checklist of items which may be useful during the field trip.

The section contains checklists identifying information you should have prior to departing for the field and interview forms to help you collect information about the situation and organize your trip. The checklists and interviews cover two general categories:

* Background data which will probably be available within your Embassy or AID Mission.

* Data on the current situation which can often be obtained from officials in national or regional capitals (e.g., officials of the host government or relief agencies).

A trip checklist of items that may simplify or improve the data collection process and of personal health/hygiene items for such a trip is also included, along with a brief list of suggested photographs to assist in the description of the camp.

In planning the trip, be sure to note areas where hostilities are or may be taking place, and use caution in selecting the sites you intend to visit, the method of travel, and the hours of your trip.

CHECKLISTS FOR DATA COLLECTION

1. Background data available from the Embassy or AID Mission:

- Geographic features of the area (lakes, rivers, other natural features);
- Maps;
- Weather and climate including temperature extremes, rainy seasons, amount of rainfall, etc.;
- Agriculture and cropping patterns (usual crops, seasons, expected harvests);
- Information about background of relevant ethnic/tribal conflicts;
- Previous reports on these refugees or other refugees in the area;
- Host country health data specific to the emergency zone;
- Data on health/other conditions in refugees' country of origin.

2. Data on current situation from officials in national or regional capital (see interview forms in this section):

- Host government officials (e.g., Ministries of Defense, Interior);
- UN agency officials (especially UN High Commissioner for Refugees, UNICEF, World Food Program, UNRWA or equivalent);
- International Committee of the Red Cross;
- Host country Red Cross/Red Crescent personnel;
- Relief agency personnel (e.g. CARE, CRS, OXFAM);
- News media.

Interview forms have been provided at the end of this section as a guide to collection of relevant data. Topics listed are those which have frequently proven to be useful for assessing a refugee situation, but the information you collect need not be limited to the issues cited.

3. Trip checklist: Items in Group A can help simplify or amplify data collection in the field. Items in Group B are personal health items to consider. Group B is not a substitute for seeking advice from your embassy health unit.

Group A
Data Collection

- Camera (with flash)
- Film
- Clipboard
- This assessment manual
- Additional copies of all forms (if more than one site will be visited)
- Tape recorder/dictaphone
- Steno pad
- Flashlight
- Map(s)
- 3 felt-tip pens
- Arm circumference tape(s)

Group B
Personal Health Aids Checklist

- Immunizations as needed
- Clean drinking water/Water purification tablets
- Mosquito repellent
- Mosquito net
- Chloroquine or other anti-malarial
- Sunglasses
- Toilet paper
- Sunscreen

4. Photograph list: If permitted, photographs can add to the description of a refugee site. Although you should be guided by your own photographic instincts, the following photographs will be of interest to others relying on your assessment:

- aerial view of camp;
- natural landmarks in area of camp;
- camp entrance, from outside;
- camp perimeter, especially fences, watchtowers, etc.;
- typical living quarters (exterior and interior);
- all health facilities (exterior, both front and back, including waste disposal facilities);
- latrines (exterior);
- latrines (interior, if enclosed structure);
- water system, including:
  - -- water source (river, well, lake)
  - -- water distribution points (well, tap, tank, etc.)
  - -- methods of transporting water (trucks, carts, buckets, etc.)
  - -- methods of water purification
  - -- in-house storage (barrels, jars, etc.)
- supplemental feeding site and activities including registration, weighing, food preparation, food serving, waste disposal;
- warehouse(s) including exterior, interior, method of storage (shelves, pallets, etc.);
- in-house cooking, including typical stoves, fuel;
- distribution of bulk food rations, (food lines, amounts, etc.);
- people including new arrivals, children, women with infants;
- special facilities or installations such as schools, cultural centers, administrative centers, etc.

PRE-TRIP INTERVIEW DATA FORM I: GOVERNMENT OFFICIAL(S)

Interview Date _____ Address _____

Name _____ _____

Position _____ Telephone _____

Organization _____ Name of Interviewer _____

A. BACKGROUND

1. Number of refugees _____ as of (date) _____.

2. Source of data: (Circle) Rumor, Visual Estimate, Census/Count, Unknown

3. Place of origin: _____.

   Distance traveled: _____ km.

4. Circumstances of arrival (e.g., walking, arrival on vehicles, etc.):
   _____.

5. Current location (place and relation to border, road, airport, water source, etc.): _____
   _____.

6. General condition: _____.

7. Anticipated future arrivals: _____. Is this number being used for contingency planning? Yes _____ No _____

8. Security situation: _____.

9. Problems currently occurring in/around camp: _____
   _____.

B. HOST GOVERNMENT POLICIES

10. Has government officially granted refugee status? Yes _____ No _____

11. Government plans:

    (a) short-term _____

    (b) long-term _____

12. Does government have the capacity to deal with the situation (personnel and resources, especially food)? _____
    _____
    _____

13. Plan(s) to appeal for international aid?

14. Staff, food, other resources already committed: _____

_____

_____

15. Ministries involved including contact persons/telephones:

_____

_____

_____

16. Government security concerns, if any: _____

_____

17. Government's overall assessment of situation: _____

_____

C. CURRENT ON-SITE GOVERNMENT ACTIVITIES

18. Official in charge on site (name/organization/location): _____

_____

19. Government agencies involved: _____

20. Other non-government agencies involved? UN? ICRC? National Red Cross?

_____

_____

21. Travel permit needed? Yes ____ No ____ If yes, where can it be obtained? _____.

Permit to enter camps? Yes ____ No ____
Permit to photograph? Yes ____ No ____

D. COORDINATION

22. Which agency has been designated as lead agency for coordination of emergency relief? _____

E. STAFF

23. Are the following tasks currently assigned to a specific individual?

		Person	Agency
(a)	Coordinator (overall emergency)	_____	_____
(b)	Food Logistics Coordinator	_____	_____
(c)	Feeding Program Coordinator	_____	_____
(d)	Health Program Coordinator	_____	_____
(e)	Water/Sanitation Coordinator	_____	_____
(f)	Transport Officer	_____	_____
(g)	Social Service Officer	_____	_____
(h)	Protection	_____	_____

PRE-TRIP INTERVIEW DATA FORM II: UNHCR (OR OTHER UN AGENCY PARTICIPATING IN RELIEF OPERATION) AND/OR DELEGATE OF ICRC

Interview Date _____ Address _____

Name _____ _____

Position _____ Telephone _____

Organization _____ Name of Interviewer _____

A. BACKGROUND

1. Number of refugees _____ as of (date) _____.

2. Source of data: (Circle) Rumor, Visual Estimate, Census/Count, Unknown

3. Place of origin: _____

4. Circumstances of arrival (e.g., walking, arriving on vehicles, etc.):
_____

5. Current location (place and relation to border, road, airport, water source, etc.): _____

6. General condition: _____

7. Anticipated future arrivals: _____. Is this number being used for contingency planning? Yes ____ No ____

8. Problems currently occurring in/around camp: _____
_____

B. POLICY/PROTECTION/SECURITY ISSUES

9. Is host government signatory to Geneva refugee protocol?
Yes ____ No ____

10. Is camp (access) open or closed? Fenced? Guarded? _____

11. UNHCR presence at site? Name/Title/Location: _____
_____

12. ICRC presence at site? Name/Title/Location: _____
_____

13. UN objectives: (a) Short-term _____

(b) Long-term _____

14. Protection issues (e.g., actual or threatened combat in area, risk to refugees from local population): _____
_____

15. Has refugee status been accorded?_____

16. Has there been or is there a threat of forced repatriation? Yes _____ No _____. Comments _____

17. Other protection or security concerns: _____

18. How many additional refugees are estimated to be across border?_____

19. Location of crossing points:_____

20. Procedures for border crossing:_____

21. Situation on other side: _____

_____

_____

C. ASSISTANCE

22. UN support committed (funds, staff):

(a) emergency funds released?

(b) planned arrival time of UNHCR emergency unit rep?

23. Principal operating partners (volags, international agencies, etc.) and programs:

Agency	Programs	$	No. of Staff

Are operating partners experienced in refugee relief operations? Yes _____ No _____

Do they have adequate staff to handle the situation? Yes _____ No _____

Are any agencies working with displaced persons (potential refugees) across the border? (List with program) _____

_____

Are any agencies working in country of origin but not with potential refugees? _____

_____

24. Other agencies on site:

25. Travel problems (roadblocks, etc.):

26. Overall assessment:

D. STAFF

27. What person has overall responsibility for:

		Person	Agency
(a)	Overall emergency coordination	_____	_____
(b)	Food logistics	_____	_____
(c)	Feeding programs (supple. feeding)	_____	_____
(d)	Health program	_____	_____
(e)	Water and sanitation	_____	_____
(f)	Protection	_____	_____
(g)	Social services	_____	_____
(h)	Transport	_____	_____

PRE-TRIP INTERVIEW DATA FORM III:
US EMBASSY* IN COUNTRY OF ORIGIN

Date _____ Telephone _____

Name _____ Telex _____

Position _____ Cable Number _____

Address _____ Telegram Date _____

_____

A. BACKGROUND

1. Estimate of displaced persons likely to leave country: _____
2. Location: _____
3. Where from: _____
4. Circumstances of departure: _____
   _____
5. Condition (health, food, water, other): _____
6. Any known diseases (especially measles): _____
7. Anticipated crossings (and/or pressure for crossings): _____
   _____
8. Location of crossing points: _____
9. International agencies involved: _____
10. Procedures for crossing: _____

B. DEPARTURE COUNTRY GOVERNMENT POLICIES

11. Interest in repatriation: _____
12. Plans for repatriation: _____
13. Government security concerns: _____
14. Military units near border? _____
15. Government's (country of origin) overall assessment of situation:
    _____
    _____

C. U.S. EMBASSY ASSESSMENT

16. Embassy assessment of situation **(Attach copy of cable/telegram if that is data source)**:

Notes:

* If no US Embassy is available, consider using other friendly embassy for this information.

PRE-TRIP INTERVIEW DATA FORM IV:
VOLUNTARY AGENCY/NATIONAL RED CROSS/RED CRESCENT

Date _____ Address _____

Name _____ _____

Position _____ Telephone _____

Agency _____ Name of Interviewer _____

A. BACKGROUND

1. Number of refugees _____ as of (date) _____.

2. Anticipated new arrivals: _____. Is this number being used for contingency planning? Yes ____ No ____

3. General condition: _____

4. Problems occurring in/around camp: _____

_____

B. RELIEF PROGRAMS

5. On-site staff (number, types, experience): _____

_____

6. Current programs (e.g., feeding, health, etc.): _____

_____

7. Planned programs (immediate, future): _____

_____

8. Overall assessment of:

(a) refugees (conditions, needs, priorities)

(b) relief programs

(c) staffing (adequate or additional number/type needed)

9. Funding duration at current activity/funding level? _____

_____

10. Problems with access to site? _____

_____

11. Security problems for staff? _____

_____

12. Other obstacles to program: _____

_____

_____

13. Is the agency working with displaced persons (potential refugees) across the border? _____

14. Overall assessment of the situation:

PRE-TRIP INTERVIEW DATA FORM V: WFP OR OTHER FOOD LOGISTICS PERSONNEL

Date _____ Address _____

Name _____ _____

Position _____ Telephone _____

Organization _____ Name of Interviewer _____

A. BULK RATIONS (FOOD BASKET)

1. Total number of refugees receiving food assistance: _____ as of _____.

2. Are all refugees receiving food assistance? Yes ____ No ____. If no, estimate percentage of total _____.

3. Source of food for those not receiving WFP (or other) rations: _____

4. What is the make-up of the food basket?

_____ grams of _____ per day/week/month
_____ grams of _____ per _____
_____ grams of _____ per _____
_____ grams of _____ per _____
_____ grams of _____ per _____
_____ grams of _____ per _____
_____ grams of _____ per _____
_____ grams of _____ per _____

5. What is the average total calorie intake per person per day (now)? _____.

6. If below 1800 calories per day, when will 1800 calorie level be met? _____.

7. How many days supply at current distribution rate is now on hand (in country, ready/available for distribution)? _____

8. Are supplies on hand or in the pipeline adequate to meet needs of anticipated new arrivals? Yes ____ No ____. If no, how much more must be acquired? _____

9. What number is being used for contingency planning or estimating the number of people that will be receiving rations, and how was that number derived? Number: _____.
Basis for determining number: _____
_____
_____

10. Is food basket purchased locally or imported? _____

11. If imported, how long is average delivery time (from date of request)?
_____

12. If purchased locally, are local supplies adequate to meet needs?
_____

13. Is food basket similar to refugees' normal, staple diet?
Yes ____ No ____

14. Are refugees receiving food from other sources? Yes____ No____.
If yes, describe: _____

15. If critical supplies needed to meet existing or anticipated needs are en route, what is estimated time of arrival? _____

B. SUPPLEMENTAL FEEDING

16. Are vulnerable groups receiving supplemental feeding? Yes____ No ____

17. How many people are receiving supplemental feeding?_____

18. What percentage of need (for supplemental feeding) is being met?
_____.

19. Is supplemental feeding in the form of prepared meal(s) _____,
additional ration _____, milk _____, other _____

20. Are foods for supplemental feeding provided by the same agency as the one supplying food basket? Yes ____ No ____. If no, give name of agency _____.

21. Are supplies on hand adequate? Yes ____ No ____. If no, what quantity is needed? _____

C. STORAGE AND TRANSPORT

22. Is food kept or received at a central warehouse? Yes ____ No ____.
Where? _____

23. Is it sent to a regional warehouse or direct to camps? _____
_____

24. How much is sent to camps at one time (i.e., how many days ration per person)? _____

25. Are there major problems in transport or storage? Yes ____ No ____
If yes, describe: _____
_____
_____

26. Is transport adequate to meet future needs? Yes ____ No ____.
If no, describe: _____
_____

Step 2:
Initial Observations

INITIAL OBSERVATIONS CHECKLIST

1. Things to note about area:

- Terrain (desert, mountain, etc.)
- Ground cover (grassy, sandy, barren, etc.)
- Presence of surface water (lakes, rivers)
- Status of local crops and vegetation
- Road types and conditions
- Signs of flooding

2. Things to note about location:

Proximity to:

- Border
- The refugee crossing point
- Towns/villages
- Roads/railways
- Surface water (lakes, rivers)
- Host country (or friendly) forces
- Hostile forces
- Other refugee settlements
- Alternative sites

3. Things to observe about refugees:

- Appearance of people
- Presence of animals and types
- Means of conveyance
  —— to/at border
  —— to camp

4. Things to note about campsite:

- Size
- Density (crowding)
- Layout (shape, geometry, presence of roads, streets)
- Walls, fences, guard towers
- Ease of access and escape
- Level of activity in camp
- Flags (Red Cross, UN, other)
- Geographic location (on hill, in valley, etc.)
- Types of shelter
- Condition of roads both now and in rain/snow seasons

STEP 2: INITIAL OBSERVATIONS

As you approach the emergency zone, you can observe and detect many important aspects of the situation. On the next page is a checklist to help you pick up visual "clues". Review the checklist with your driver or pilot before you leave so that he can help you spot the things you need to see.

The plastic copy of the checklist can be removed from the manual and carried in your pocket for easy use.

INITIAL OBSERVATIONS CHECKLIST

1. Things to note about area:

   - Terrain (desert, mountain, etc.)
   - Ground cover (grassy, sandy, barren, etc.)
   - Presence of surface water (lakes, rivers)
   - Status of local crops and vegetation
   - Road types and conditions
   - Signs of flooding

2. Things to note about location:

   Proximity to:

   - Border
   - The refugee crossing point
   - Towns/villages
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3. Things to observe about refugees:

   - Appearance of people
   - Presence of animals and types
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     --- to/at border
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4. Things to note about campsite:

   - Size
   - Density (crowding)
   - Layout (shape, geometry, presence of roads, streets)
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   - Ease of access and escape
   - Level of activity in camp
   - Flags (Red Cross, UN, other)
   - Geographic location (on hill, in valley, etc.)
   - Types of shelter
   - Condition of roads both now and in rain/snow seasons

STEP 3: ON-SITE INTERVIEWS

OBJECTIVES

Upon reaching the site and completing the necessary formalities, seek permission to interview the camp administrator and the senior health worker (separately, if possible). Interview forms for each are provided on the following pages. The questions for the administrator may require assistance from the person(s) in charge of water and latrines, and food supplies; if so, they should be interviewed together. If a supplemental feeding program is in operation, ask the person in charge to join the senior health worker during the interview.

These interviews have several objectives:

1. To expand, confirm or modify information obtained in the pre-trip interviews.

2. To provide baseline data for evaluation of the current status of the camp population and for planning future needs.

3. To identify potentially life-threatening situations which require intervention.

4. (By the nature of the questions themselves) to suggest issues or approaches for inexperienced relief staff to consider.

If the answers to questions are unknown by the person being interviewed, simply record that fact with a question mark. (Filling in with a question mark, rather than leaving an answer blank, will help you remember later whether the blank means the answer was unknown or that the question was not asked.) Do not coax someone to guess after they have already stated they do not know the answer. An answer that exactly duplicates a prior answer from another person interviewed should be recorded only as "same" or "same as (person) ".

Finally, the administrator/health worker sheets only duplicate each other in a few crucial areas. If only one of these people is available for an interview (e.g., health worker only), try to have that person provide answers to any questions on the other questionnaire to which they can easily reply.

ON-SITE INTERVIEW DATA SHEET: ADMINISTRATOR OR SENIOR RELIEF OFFICIAL

Date _____ How Long at Site _____

Name _____ Address _____

Position _____ _____

Organization _____ Telephone _____

Name of Interviewer _____

A. BACKGROUND

1. Name of camp: _____

2. Location: _____

3. Total Population: _____

4. Date site established: _____

5. People in camp classified as refugees _____, illegal immigrants _____, other _____.

6. Within last month:
   (a) arrivals _____
   (b) deaths _____

   Within last week:
   (a) arrivals _____
   (b) deaths _____

7. Within last 24 hours:
   (a) arrivals _____
   (b) deaths _____

8. Data source (count, estimate, rumor, etc.): _____

9. Estimated distribution of adult population: men _____% women _____%

10. Size of campsite (estimated square meters _____; hectares _____; acres _____; other _____)

11. Description of campsite: _____
    _____

B. WATER

12. Source: _____

13. Distance to source: _____

14. Quantity available (estimate liters per day): _____

15. Purification/Treatment:
    (a) at source: _____
    (b) at campsite: _____

C. FOODS IN CURRENT USE

16.	Food Item	Distribution Basis	Supply On Hand (Tons, Weeks, Etc.)
Ex:	Rice (polished)	3 kg/per family/per week	240 tons
(a)			
(b)			
(c)			
(d)			
(e)			

17. Agency with overall responsibility for providing bulk rations:

18. Estimated daily calories provided per person (if known):

19. Are infant feeding bottles in use?

20. Are there special feeding programs for young children or malnourished persons? Yes ____ No ____. If yes, which agency is in charge of these? _____

D. SANITATION

21. Type and number of latrines, if any: _____

_____

22. Distance from shelters: _____

23. Lighting: Yes ____ No ____

24. Frequency of maintenance: _____

25. Who maintains? _____

26. Other place(s) of defecation: _____

27. Estimate of latrine use (well used, not used, etc.): _____

E. HYGIENE

28. Bathing facilities? Yes _____ No _____

29. Is soap available? Yes _____ No _____

30. Facilities for utensil washing? Yes _____ No _____

31. Method of garbage disposal? (Collection, burning, etc.): _____

32. Frequency of garbage collection? _____

F. RITES

33. Methods for disposal of bodies of dead?

(a) Burial _____
(b) Cremation _____

34. Are records kept or are graves registered? _____

G. PROTECTION/PERCEIVED RISK

35. Is there real or perceived risk from:

(a) cross-border military action?
(b) local military action?
(c) violence among refugees?
(d) violence among local/host population?

H. STAFF

36. How many staff are assigned to the camp?

Type	No.	Full-time	Adequate? (Yes/No)
Camp administrator			
Assistant camp administrator			
Health Workers			
Feeding Programs			

37. Are refugees participating in running the camp or any of its operations? _____

ON-SITE INTERVIEW DATA SHEET: SENIOR HEALTH WORKER

Date _____ Time at Site _____

Name _____ Address and/or Phone _____

Position _____ _____

Organization _____ Name of Interviewer _____

A. BACKGROUND

1. Name of camp: _____

2. Location: _____

3. Total population: _____

4. Date site established: _____

5. People in camp classified as: refugees _____, illegal immigrants _____, other _____.

6. Within last week:
   (a) arrivals: _____
   (b) deaths: _____
   Within last 24 hours:
   (a) arrivals: _____
   (b) deaths: _____

7. Number of childhood deaths (under 5 years) in last week: _____

8. Data source (exact count, estimate, rumor, etc.): _____

9. Estimated distribution of adult population: men _____%
   women _____%

10. Size of campsite (estimated square meters _____;
    hectares _____; acres _____; other _____)

11. Description of campsite: _____
    _____

B. WATER

12. Source: _____

13. Distance to source: _____

14. Quantity available (estimate liters per day): _____

15. Purification/Treatment:
    (a) at source: _____
    (b) at campsite: _____

C. FOODS IN CURRENT USE

16.	Food Item	Distribution Basis	Supply On Hand (Tons, Wk., Etc.)	Notes
Ex:	Rice (polished)	3 kg/per family/per wk.	250 tons in camp	Supplies irregular
(a)				
(b)				
(c)				
(d)				
(e)				

17. Agency with overall responsibility for providing bulk rations:

18. Estimated daily calories provided per person (if known):

19. Are infant feeding bottles in use?

20. Are there special feeding programs for infants or malnourished? Yes ____ No ____. If yes, which agency is in charge of these?
_____

D. PROTECTION/PERCEIVED RISK

21. Is there real or perceived risk from:

(a) cross-border military action?
(b) local military action?
(c) violence among refugees?
(d) violence among local/host population?

E. HEALTH FACILITIES

22. What facilities are in the camp (health centers, OPDs, hospitals, etc.)? _____

(a) Mobile medical team? (yes ____/no ____)

(b) Aid station or out-patient facility? (yes ____/no ____)

(c) Clinic or hospital with beds for in-patients? (yes ____/no ____). If yes, how many beds? _____.

(d) Hospital for referrals accessible? (yes ____/no ____). If yes, travel time _____ hours; or distance _____ kilometers.

(e) Supplemental feeding center? (yes ____/no____)

(f) Therapeutic (intensive) feeding center for severely malnourished? (yes ____/no ____)

F. MOST COMMON ILLNESS

23. Illness — Method of Treatment

(a) _____ _____
(b) _____ _____
(c) _____ _____
(d) _____ _____
(e) _____ _____

24. Are any of the following being seen:

Xerophthalmia Yes____/No____
Beri-beri Yes____/No____
Scurvy Yes____/No____
Pellagra Yes____/No____

G. DEATHS

25. Most common causes of death:

(a) _____
(b) _____
(c) _____
(d) _____

H. OTHER HEALTH CONCERNS

_____
_____
_____

I. HEALTH PROGRAM GUIDELINES IN USE? GOBI (UNICEF) _____

Other(s) _____

J. IMMUNIZATIONS	Date of Last Mass Program	Adequate Supplies?
(a) Measles	_____	Yes ____/No ____
(b) Polio	_____	Yes ____/No ____
(c) DPT	_____	Yes ____/No ____
(d) BCG	_____	Yes ____/No ____
(e) Other	_____	Yes ____/No ____

26. Has a cold chain been established? Yes ____ No ____

27. Have there been problems in maintaining the cold chain? Yes ____ No ____

K. WHAT STANDARD DRUG LIST IS IN USE?

WHO/UNHCR _____; ICRC _____; Other _____; None _____.

L. ARE THERE ADEQUATE SUPPLIES OF THE FOLLOWING?

(a) Bandages? (yes ____/no ____)
(b) Vitamin A (200,000 IU UNICEF capsules)? (yes ____/no ____)
(c) Oral rehydration supplies? (yes ____/no ____)
(d) Antibiotics? (yes ____/no ____)
(e) Soap or antiseptics? (yes ____/no ____)
(f) Other: _____
_____
_____

M. SPECIAL FEEDING PROGRAMS

28. Supplemental feeding: Yes _____ No _____

(a) Number of children enrolled _____
(b) Number of children usually attending _____
(c) Method of measuring Height for weight _____;
arm circumference _____; weight for age _____
(d) Content of meals: _____
(e) Frequency: _____
(f) Feeding on-site or take-home? (Circle one)
(g) Approximate percentage severely malnourished when admitted _____%
(h) Approximate percentage (of admitted) severely malnourished at present _____%
(i) Is there an outreach program to identify children who should be enrolled? (yes ____/no ____)

29. Therapeutic feeding: Yes _____ No _____

(a) Number of children enrolled _____
(b) Frequency: _____
(c) Feeding on-site or take-home? (Circle one)
(d) Approximate percentage severely malnourished when admitted _____%
(e) Approximate percentage (of admitted) severely malnourished at present _____%

N. HEALTH SCREENING

30. Are new arrivals given a health screening before they enter camp and mix with those already in the camp? _____

31. Are potentially infectious new arrivals isolated and treated?
Yes ____ No ____

O. STAFF

Type	Number	Full-time?	Adequate (or number needed)
Health			
Feeding Programs			

32. Are refugees helping to operate the health and feeding programs?
Yes ____ No ____

STEP 4: DETAILED VISUAL INSPECTION (WALK THROUGH)

It is important for you to personally observe the situation in order to identify many of the problems and specific issues. To do this, a walk-through visual inspection of the camp is required.

The purposes of the visual inspection are to further verify observations made when flying over or driving to the site and to visually confirm some of the responses to questions from the interviews.

A visual inspection checklist has been enclosed to guide the inspection and to make sure that critical facilities, problems and issues which can be seen are observed.

The objectives of the visual inspection are to help you gather valid impressions about:

1. Immediate needs for life support including water, food and shelter.

2. The relative degree of severity of the situation in relation to normal life patterns of the affected people and local surroundings.

3. The approximate number of people involved.

4. Possible security concerns.

5. The ability of on-site relief agencies to deal with all critical aspects of the situations.

6. The refugees' ability to cope with the situation and provide self-help emergency assistance for themselves and others around them.

7. The approximate amount of local infrastructure and resources, including manpower, available to assist in this refugee situation.

8. Identification of secondary issues which, if not addressed, could eventually lead to emergencies for the refugee population.

The checklist is designed to help you locate patterns and potential problems rather than being a source of statistical data. It should highlight specific problems which should later be followed up. If you will be inspecting more than one camp or site, you may want to take notes using the checklist as a guide. The plastic checklist may be removed from this manual for easy use.

VISUAL INSPECTION CHECKLIST

(* Items to be photographed)

Things to observe about site

- Layout and organization (esp. living areas)
- Overcrowding
- Cleanliness
- Excessive feces on ground
- Waste receptacles*
- Signs of gardens, "cottage" industries, markets*
- Refugees' freedom to enter/leave camp (Note watchtowers, barbed wire, locked gates, etc.)*
- Signs of flooding/drainage problems, now and in rainy season (yes ___/no ___)*
- Level of relief agency activity (e.g., people actively working, presence of relief supplies, trucks, etc.)

Things to note about people

- Overall condition (healthy, active, obviously malnourished, etc.)*
- Friendliness/hostility/fear
- Presence of men (as percentage of total population)
- Presence of children less than 5 years
- Activity levels in women, children
- Wounds
- Signs of fuel-gathering off-site (people cutting or carrying firewood, areas of deforestation)*
- Presence of food animals or draught animals*
- Presence of weapons

Things to note about shelter

- Type of construction*
- Condition*
- Overcrowding*
- Ventilation
- In-shelter cooking*
- People sleeping/living outside shelters*
- Cleanliness of area inside/outside
- Bedding
- Flooding/drainage problems*

Things to observe about water

- Source (if on or near site)*
- Discoloration of water
- Water storage and distribution points*
- Method of transporting water to camp*

Latrines

- Type (trench latrines, deep pit latrines, individual shallow pit latrines, chemical toilets, aqua privies, other _____; none _____)*
- Number
- Cleanliness

- Signs of use, level of use
- Feces near entrance
- Lighting
- Distance to water supplies
- Maintenance/disinfecting
- Distance from shelters
- Defecation zones/areas

Warehouse
- Size*
- Supplies on hand
- Cleanliness
- Condition of food stores/evidence of pests
- Is food on ground or pallet?*
- Security
- Record-keeping (obtain copy of forms)

Food Distribution
- Foods distributed
- Methods of distribution
- Orderliness of food lines*
- Condition of food (fresh, moldy, etc.)
- Registration system

Health Facilities
- Types (hospital, clinic, etc.)
- Conditions
- Utilization/overcrowding
- Staff
- Equipment

Reception Facilities
- Presence of UN/ICRC/Host government military
- Registration/screening process*
- Forms used (obtain copy if possible)

Security (use caution in photographing)
- Fences*
- Guard towers*
- Lighting
- Armed guards
- Reaction of refugees to guards

Special Feeding Centers
- Facilities*
- Food preparation
- Registration
- Weighing/measuring equipment and activities*
- Waste disposal
- Cleanliness of site
- Condition of people
- Refugee workers

VISUAL INSPECTION CHECKLIST
(*Items to be photographed)

Things to observe about site

- Layout and organization (esp. living areas)
- Overcrowding
- Cleanliness
- Excessive feces on ground
- Waste receptacles*
- Signs of gardens, "cottage" industries, markets*
- Refugees' freedom to enter/leave camp (Note watchtowers, barbed wire, locked gates, etc.)*
- Signs of flooding/drainage problems, now and in rainy season (yes _ _ _ / no _ _ _)*
- Level of relief agency activity (e.g., people actively working, presence of relief supplies, trucks, etc.)

Things to note about people

- Overall condition (healthy, active, obviously malnourished, etc.)*
- Friendliness/hostility/fear
- Presence of men (as percentage of total population)
- Presence of children less than 5 years
- Activity levels in women, children
- Wounds
- Signs of fuel-gathering off-site (people cutting or carrying firewood, areas of deforestation)*
- Presence of food animals or draught animals*
- Presence of weapons

Things to note about shelter

- Type of construction*
- Condition*
- Overcrowding*
- Ventilation
- In-shelter cooking*
- People sleeping/living outside shelters*
- Cleanliness of area inside/outside
- Bedding
- Flooding/drainage problems*

Things to observe about water

- Source (if on or near site)*
- Discoloration of water
- Water storage and distribution points*
- Method of transporting water to camp*

Latrines

- Type (trench latrines, deep pit latrines, individual shallow pit latrines, chemical toilets, aqua privies, other _ _ _ _; none _ _ _)*
- Number
- Cleanliness

- Signs of use, level of use
- Feces near entrance
- Lighting
- Distance to water supplies
- Maintenance/disinfecting
- Distance from shelters
- Defecation zones/areas

Warehouse
- Size*
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- Methods of distribution
- Orderliness of food lines*
- Condition of food (fresh, moldy, etc.)
- Registration system

Health Facilities
- Types (hospital, clinic, etc.)
- Conditions
- Utilization/overcrowding
- Staff
- Equipment

Reception Facilities
- Presence of UN/ICRC/Host government military
- Registration/screening process*
- Forms used (obtain copy if possible)

Security (use caution in photographing)
- Fences*
- Guard towers*
- Lighting
- Armed guards
- Reaction of refugees to guards

Special Feeding Centers
- Facilities*
- Food preparation
- Registration
- Weighing/measuring equipment and activities*
- Waste disposal
- Cleanliness of site
- Condition of people
- Refugee workers

STEP 5: HOUSEHOLD SAMPLE SURVEY

OBJECTIVES

Data collected in other parts of this evaluation, while important, may not be truly representative of the health status of the whole population. To obtain data which more truly represents the entire population, it is necessary to conduct a random sample survey of the population. The Household Sample Survey, on the following page, can provide a reasonable estimate of health and nutritional status and other important indicators of the wellbeing of the population. This may be the single most important step in the assessment.

It is extremely important that you complete this survey. Conditions may be worse, or better, than you or others observe. The only way to detect these conditions is to go into the population and check. Twenty households should be randomly selected and surveyed, and the arm circumference of all children in the families older than 12 months and under 5 years should be measured with the color-coded tape enclosed. Experience has demonstrated that children under five are the most vulnerable segment of a population. Thus, their health status is a sensitive barometer of the health and nutrition status of the whole population. In addition, the normal arm circumference changes only slightly in the 12-60 month age range.

PROCEDURE

#1: Determine (obtain or estimate) the number of shelters in the camp. (If this is not feasible, estimate the number of people in the camp.)

#2: Divide the number of shelters by 20 (or the estimated population by 100). The resulting number is the sampling interval which helps you determine which families in the camp to sample. For example, if a camp contains 80 shelters, dividing by 20 gives you a sampling interval of 4; thus, every fourth shelter should be sampled. If the number obtained for a sampling interval is not an even number, then round to the nearest whole number. For example, if a camp contains 68 shelters, the sampling interval is 68 divided by 20 or 3.4. This should be rounded to 3 and indicates that every third shelter is to be sampled. As another example in the situation where shelter numbers are unknown, assume a camp population of 3000. Dividing by 100 gives 30 which becomes the "sampling interval".

#3: If the shelters are already numbered or if a good map of the camp exists, you can choose shelters before you begin. In the first example in #2 you would be able to choose before you begin shelters 1, 5, 9, 13, 17, and so on. If shelters are unnumbered, you can walk up and down the roads or through the sections choosing every fourth house by some consistent method.

Alternate Sampling Method: If the number of shelters or number of people is uncertain or if the camp is extremely large, you might try to sample several in each section or quadrant of the camp. One way to do this is to systematically criss-cross the camp, being careful to avoid committing one of the bias errors in the survey as noted in Table I below.

If your sampling scheme results in selecting an unoccupied shelter, survey the next occupied shelter, then continue without changing the number of any other shelter to be surveyed.

If shelters contain more than one family, select the family closest to the doorway for the survey. Check all eligible children in that family. Do not seek out only families with children; it will bias the survey.

TABLE 1:
POSSIBLE BIASES OF NON-RANDOMLY-GATHERED DATA IN A REFUGEE CAMP

If You Sample People:	The Possible Bias Of Data Is:	Because
On the streets or in markets	- Better than actual	- Ill children are less likely to be outside
		- Without household mortality data, you will only see survivors (who are obviously "better off")
At feeding centers	- Better than actual	- They are getting food; may be others who need food but are not getting it
	- Worse than actual	- In some situations, only worst cases are allowed in feeding centers
At hospitals/health centers	- Worse than actual	- Sicker people are in health facilities
Near administrative center of camp	- Better than actual	- "Wealthier" or more powerful people may live there
In any one area or quadrant of camp	- Better or worse than actual	- People of similar status (and thus physical condition) tend to live together
Along roads	- Better than actual	- "Wealthier" or more powerful people live there

FAMILY HOUSEHOLD SURVEY FORM

Questions:

Record Data Here

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. Time living at this place (in months):																				
2. Total living here:																				
adult males																				
adult females																				
children >5 yrs.																				
children <5 yrs.																				
3. Children born last 5 years?																				
Number alive now																				
Number died																				
how long ago?																				
age at death?																				
Cause of death?																				
a. Cough																				
b Diarrhea																				
c. Fever																				
d. Measles																				
e. Nutrition Problems																				
f. Wounds (Trauma)																				
g. Other (list)_____																				
_____																				
4. Current illness of children <5																				
a. Cough																				
b. Diarrhea																				
c. Fever																				
d. Measles																				
e. Nutrition Problems																				
f. Wounds (Trauma)																				
g. Other (list)_____																				
_____																				
5. Arm Circumference of children >1 - <5 yrs.																				
Red																				
Yellow																				
Green																				
6. How many children <5 are attending a supplementary feeding program?																				

Family 5

Food Supply:	Kind	Amount on Hand:	Date Last Received:
Grain/Staple			
Oil			
(Others)			

Do you have food/milk animals now? (Yes___/No___)

Type & No.: Goats___, Sheep___, Cows___, Pigs___,
Other _____

Do you have enough fuel? (Yes___/No___)

Type _____ Cost of fuel _____ Wk/Mo.

Is there soap in the household? (Yes___/No___)
Amount of water in dwelling (est. liters) _____
Weekly cost of water _____

Do you feel threatened? (Yes___/No___)
What is the biggest problem in the camp today?

_____

Family 10

Food Supply:	Kind	Amount on Hand:	Date Last Received:
Grain/Staple			
Oil			
(Others)			

Do you have food/milk animals now? (Yes___/No___)

Type & No.: Goats___, Sheep___, Cows___, Pigs___,
Other _____

Do you have enough fuel? (Yes___/No___)

Type _____ Cost of fuel _____ Wk/Mo.

Is there soap in the household? (Yes___/No___)
Amount of water in dwelling (est. liters) _____
Weekly cost of water _____

Do you feel threatened? (Yes___/No___)
What is the biggest problem in the camp today?

_____

Family 15

Food Supply:	Kind	Amount on Hand:	Date Last Received:
Grain/Staple			
Oil			
(Others)			

Do you have food/milk animals now? (Yes___/No___)

Type & No.: Goats___, Sheep___, Cows___, Pigs___,
Other _____

Do you have enough fuel? (Yes___/No___)

Type _____ Cost of fuel _____ Wk/Mo.

Is there soap in the household? (Yes___/No___)
Amount of water in dwelling (est. liters) _____
Weekly cost of water _____

Do you feel threatened? (Yes___/No___)
What is the biggest problem in the camp today?

_____

Family 20

Food Supply:	Kind	Amount on Hand:	Date Last Received:
Grain/Staple			
Oil			
(Others)			

Do you have food/milk animals now? (Yes___/No___)

Type & No.: Goats___, Sheep___, Cows___, Pigs___,
Other _____

Do you have enough fuel? (Yes___/No___)

Type _____ Cost of fuel _____ Wk/Mo.

Is there soap in the household? (Yes___/No___)
Amount of water in dwelling (est. liters) _____
Weekly cost of water _____

Do you feel threatened? (Yes___/No___)
What is the biggest problem in the camp today?

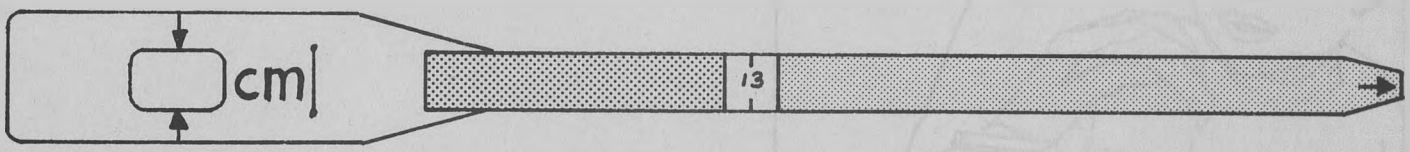
_____

ARM CIRCUMFERENCE MEASUREMENT

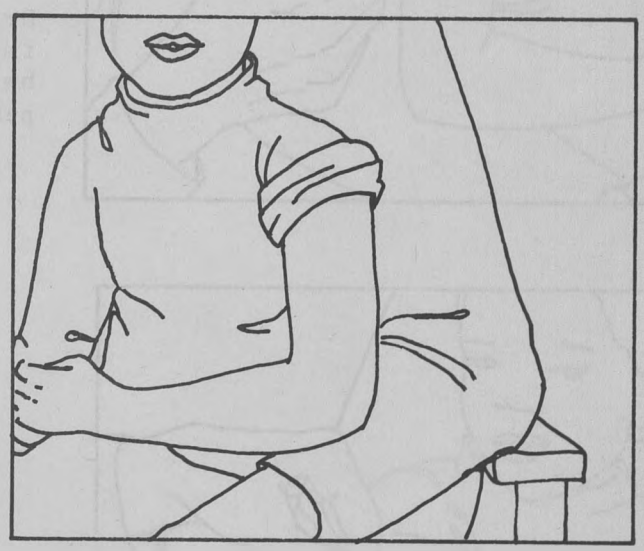
Measurement of the mid-upper-arm circumference is one simple way to estimate a child's nutritional status. In reality, this measurement varies according to the thickness of the fat and muscle layers in the arm. The arm circumference of normal (i.e., not malnourished) children changes very little between one and five years of age, so children of these ages can be included in a nutrition survey using the same standards.

The arm circumference tapes have colored bands representing different nutritional states:

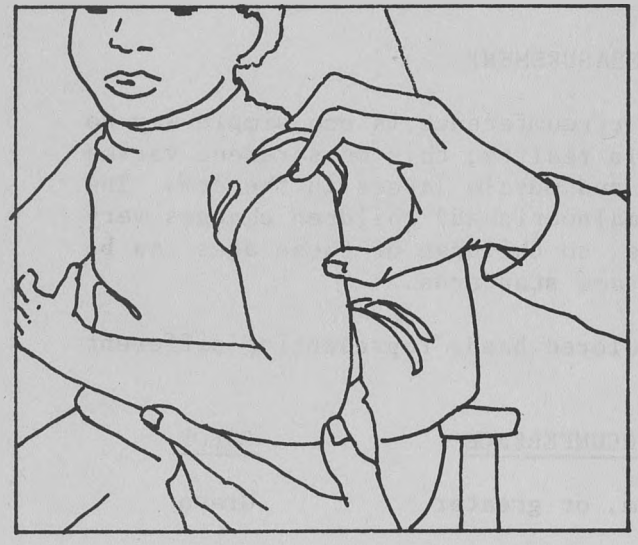
STATUS	ARM CIRCUMFERENCE	COLOR
Normal	13.5 cm. or greater	Green
Mild - Moderate Malnutrition	12.5 - 13.4 cm.	Yellow
Severe Malnutrition	Less than 12.5 cm.	Red



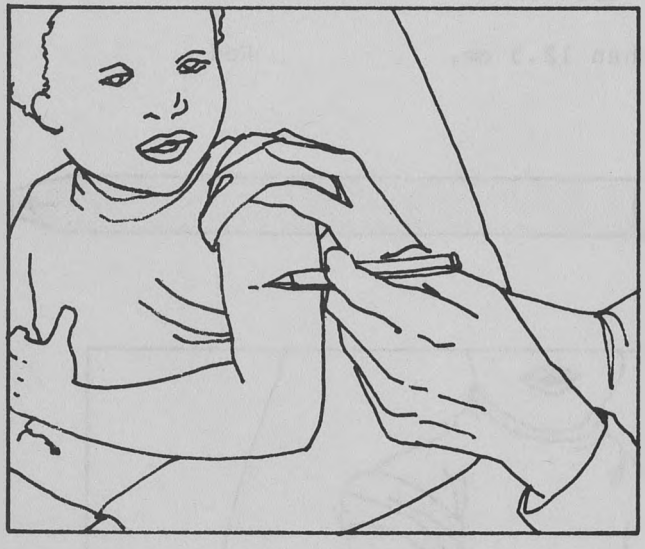
In order to minimize non-cooperation, the child should be seated comfortably in the mother's lap or, if this is not possible, should be held by the mother.



The child's arm should hang down loosely and should be bent 90^{o} at the elbow to aid in identifying the middle of the upper arm.



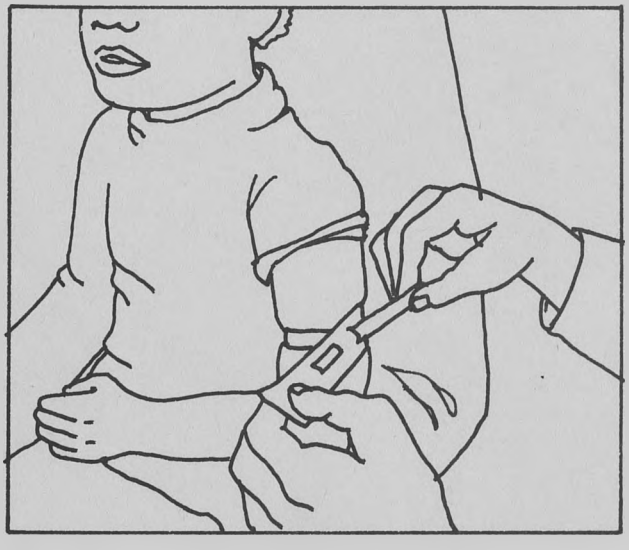
The child should preferably be undressed. At a minimum, any sleeve must be rolled up so the tip of the shoulder can be seen. The midpoint of the left upper arm should be estimated. This is a point halfway between the tip of the shoulder (acromion) and the tip of the elbow (olecranon). It does not have to be measured exactly but does need to be estimated carefully each time.



Draw a horizontal line about 1 cm (1/2 inch) above the midpoint. Lines are best made with a felt-tip or fiber-tip pen.

The tape measure is circled around the arm. The tip should be inserted back-to-front through the narrow slit at the white end of the tape.

The tape should be pulled until it is snug - not tight. Read the arm circumference to the nearest 0.1 cm. between the vertical arrows at the center of the large opening.



Note how the skin of this child's arm is indented. This tape is too tight and will give falsely low readings.

This tape is too loose and will give falsely high readings.

The arm circumference should never be measured over clothing!

STEP 6: SURVEILLANCE AND MONITORING SYSTEM

If a camp is newly established, it is likely that record-keeping will be non-existent or in disarray, and the information one can gather initially will often be impressions or hearsay. After collecting what information is available from interviews, visual inspection and household surveys, it is important to ensure that the staff are keeping basic health records. If they are not, you should encourage them to set up a simple system to confirm initial impressions, to identify potential or evolving problems, and to assess the impact of intervention programs. This system will allow health services to be adjusted and resources to be re-allocated as necessary. The forms for such a system are included in this section.

In emergency situations, workers may incorrectly view surveillance as unnecessary paperwork diverting their time and energies from more useful endeavors. That view is erroneous! Repeated experience has demonstrated that, without adequate record-keeping and analysis of data, health workers squander resources and often provide inappropriate and untimely aid. In a situation where conditions change rapidly and new arrivals are continuing, record-keeping is vital to "getting ahead of the situation" and to medical management of the emergency.

It is important to keep the data collection as simple as possible and to only gather information that has a definite and immediate purpose. Where possible, enlist the aid of the refugees themselves for keeping records.

The purposes of the record system are:

1. To document treatment of individual patients. Since a number of health workers may provide care, and since one visit may not be sufficient for care in all cases, a record of past treatment is an important part of quality care. These records can also help document problems in effectiveness of various treatment regimens.

2. To determine resources. Data on types and numbers of problems seen can help identify correct needs for resources such as oral rehydration salt packets, penicillin, etc.

3. To document health problems. Patient data is the ultimate source of data for a disease surveillance system which, in turn, is the basis for the public health approach to refugee health care. Rates of various diseases among the refugee population are the best indicators of the population's health status.

Minimal information needed for a patient record system are name, age, sex, diagnosis, treatment. Residence section or area in the camp is also helpful. These data can easily be kept in a small notebook with each patient's data on a single line (see Sample Patient Log). In addition, as camps become better organized, refugee-carried health records can be considered.

The following forms are the minimum needed for recording critical information.

SAMPLE PATIENT LOG

Name	Age	Sex	Diagnosis	Treatment	Living Section
Example 1	29 years	F	Pneumonia	Penicillin 250 mg poQID	4
Example 2	4 months	F	Malnutrition	Send to supple. feeding	18

POPULATION DATA

MONTH _____
YEAR _____

DATE	TOTAL NEW ARRIVALS	ADULT MALE	ADULT FEMALE	DEPENDENT CHILDREN (< 5 YRS)	NEW TOTAL IN CAMP (CUMULATIVE)
MONTHLY TOTALS					

MORTALITY (DEATHS)- Weekly

DATES _____

AGES:

	<1 Mo	1-11 Mo	1-4 Yrs	5-14 Yrs	15-44 Yrs	>44 Yrs	Unknown	Total
POSSIBLE CAUSES:								
Diarrhea								
Pneumonia								
Malaria								
Trauma/Accident								
Malnutrition								
Prematurity								
OTHER:								
TB								
Measles								
Meningitis								

MORBIDITY (ILLNESS) DATA- Weekly

Type of facility: Hospital _____ . Clinic _____ Aid Station _____

Dates Total Patients Seen

AGES:

SYMPTOM/DISEASE:	< 1 Mo	1-11 Mo	1-4 Yrs	5-14 Yrs	15-44 Yrs	> 44 Yrs	Total
Fever, no cough							
Fever/cough							
Diarrhea, no blood							
Diarrhea, blood							
Skin infection							
Trauma/Accident							
Measles							
Intestinal Parasites							
Anemia							
Severe Malnutrition							
Other:							

STEP 7: PROBLEM ANALYSIS WORKSHEETS

The following pages contain a series of Problem Analysis Worksheets. Each worksheet is designed to help you analyze the information you have collected during the initial assessment mission. Each worksheet provides:

1. An explanation of the problem;

2. A procedural guide for analyzing the problem;

3. Workspace to analyze the problem or record notes about the situation; and

4. The format for a section of a reporting cable that summarizes the situation and outlines the next steps or follow-up activities that are required.

Each of the worksheets that you fill out should be kept for future reference.

When composing the reporting cable (see Step 8), use the cable language at the end of each worksheet or, if changes are necessary, try to maintain the same general format (the cable paragraphs have been constructed to incorporate the data needed by the State Department to make rational program decisions).

To help determine what further actions should be taken, refer to the section entitled "Further Problem Analysis" after Step 8.

PROBLEM ANALYSIS WORKSHEET NO. 1: DEATHS

BACKGROUND:

Mortality rate (death rate) is the single most important indicator of serious stress (illness/malnutrition, etc.) in a population. Knowing the causes of death is crucial since it helps set priorities for appropriate relief intervention. In addition, deaths are indicators/events of obvious interest and concern to refugees, relief administrators and the media.

A sample listing of crude (overall) mortality rates, expressed as deaths per 10,000 persons per day, is given in the accompanying table. In refugee populations served by well-run relief efforts, overall mortality rates should not exceed 1.5 times those of the host population. An elevated mortality rate is a sign of some ongoing problem and should serve as a stimulus for a basic investigation of the situation.

The lower part of the table shows mortality rates for several emergency situations. In general, even initially high mortality rates should fall to or below 1 per 10,000 per day within 4-6 weeks of beginning an adequate basic support program (sufficient food and water, simple health care, etc.) for a population. Rates which stay above that level should be a cause for concern.

STANDARD:

Death rates exceeding 2.0 deaths per 10,000 population per day indicate a serious situation; immediate actions should be taken. Ideally one should seek rates below 1.0 deaths per 10,000 per day.

Because the number of deaths changes from day to day, it is important that rates be calculated over a period of days. The usual periods are one week or one month. For example, take the number of deaths occurring each day over a 7-day period and average the total; the resulting average daily number is used in analyses.

DATA SOURCES:

Camp population	_____	(See page 23)
Total deaths in last week	_____	(See page 26)
Childhood deaths (under 5 years) in last week	_____	(See page 26)
Major causes of death:		(See pages 28 and 36)

Cause	Number
_____	_____
_____	_____
_____	_____

ANALYSIS PROCEDURE:

$$\text{Death rate} = \frac{\text{Number of deaths x 10,000}}{\text{No. of days x Population}} = \text{Deaths per 10,000 per day}$$

Example: If 21 deaths have occurred over a 7-day period in a refugee population of 5,000 people, the death rate would be calculated as follows:

$$\text{Death Rate} = \frac{21 \times 10{,}000}{7 \times 5{,}000} = \frac{210{,}000}{35{,}000} = 6$$

which is expressed as 6.0 deaths per 10,000.

[To convert to deaths per 1,000, which is the preferred method of some public health personnel and epidemiologists, divide the rate above by 10. For example, 6 divided by 10 equals 0.6 deaths per 1,000 per day.]

WORKSPACE/NOTES:

Death rate = _____

REPORTING CABLE: DEATHS (See page 77)

Data based on exact count of deaths indicates _____ deaths among _____ (population) in last _____ days (_____ deaths/10,000 people/day). Children less than 5 years accounted for _____ deaths or ____% of the total. Most of these deaths were due to (1)_____ (____% of deaths), (2)_____ (____% of deaths) and (3) _____ (____% of deaths).

NEXT STEPS: Steps discussed/planned to affect mortality rate include_____

_____

_____. Lead agency in this effort is _____

The following actions are being taken:

A. _____
B. _____
C. _____

SOME REPRESENTATIVE MORTALITY RATES FOR COMPARISON

Recent Mortality Rates:

PLACE	YEAR	DEATHS PER 10,000 POPULATION PER DAY
Africa	1980	0.47
Burkina Faso	1980	0.60
Sudan	1976	0.49
Egypt	1976	0.41
Asia	1980	0.30
Kuwait	1976	0.22
Yemen (People's Rep.)	1976	0.58
Latin America	1980	0.22
Guatemala	1976	0.41
Costa Rica	1976	0.14

Sample Mortality Rates During Past Emergencies:

Thailand: Refugee Camp	early Nov. 1979	9.10 (Overall) 8.99 (Children under 5)
Thailand: Same Refugee Camp After Intervention	Dec. 1979	0.7 (Overall) 2.12 (Children under 5)
Mozambique: Famine	1983	2.63 (Overall) 3.07 (Children under 5)
Sudan: Refugee Camp I	Feb. 1985	6.5 (Overall)
Sudan: Refugee Camp II	March 1985	21.3 (Overall)

PROBLEM ANALYSIS WORKSHEET NO. 2: DISEASE

BACKGROUND:

Refugees on the move or in camps face both the normal disease risks associated with life in a developing country as well as additional disease risks associated with aspects of being a refugee (such as overcrowding, poor sanitation, lack of access to preventive or curative health programs, under-nutrition, etc.). The objective of this section is to help you identify emergency disease measures that should be taken to reduce deaths or permanent severe disabilities.

DISEASE CONTROL PRIORITIES:

1. Detection: Establishing a simple surveillance system to detect and confirm diagnosis is the first priority in disease control (see page 41).

2. Analysis: The relative importance of diseases can be assessed by determining certain characteristics.

   (a) Prevalence -- how common is the disease itself, the risk of the disease, or the susceptibility to disease? This is determined by dividing the number of cases of a disease by the total population at risk. (Not all people are equally at risk from a disease; for example, children are more likely to be than adults.) Some diseases, especially measles, are so important that only one detected case is of concern.

   (b) Severity -- is the disease or condition potentially life-threatening or permanently disabling (e.g., blindness from Vitamin A deficiency), or is it mild?

   (c) Responsiveness to Control Measures -- can currently available control measures reduce disease incidence, prevalence, severity or mortality?

The accompanying table outlines a number of potentially serious infectious disease and non-infectious disease/health problems in refugee populations, and appropriate actions for anticipation and intervention. The list is not all-inclusive; certain diseases or health conditions may develop depending on local circumstances in each case.

The actions that are usually most useful in refugee situations are underlined.

(Refer to the section entitled "Further Problem Analysis" for more detailed information on how to analyze and respond to these and other specific health problems. As a general principle, local medical/public health resources should be sought first but, if not available or severely limited, outside resources may be requested.)

WORKSPACE/NOTES:

REPORTING CABLE: DISEASE (See page 78)

Situation Summary: The most common illnesses in camp* are:

Illness	Number of Deaths	Number of Patients	Number of New Patients Per Wk/Month	Control/Prevention Measures
1.				
2.				
3.				
4.				

Measles has/has not been reported by _____.
Measles vaccine has been given/ordered/deferred.

Basic health records are/are not being kept. A surveillance system is/is not established. Agency in charge is _____.

Medical supplies are/are not sufficient. The _____/no standard drug list is used.

Supply	Amount

Measles vaccines have/have not been ordered from _____.

A cold chain has/has not been established. Anticipated cold chain problems include _____. Person/Agency in charge of cold chain is _____.

Oral rehydration solutions are/are not being used. Supplies are/are not adequate. (Amount needed is _____ by [date] _____.)

Agency in charge of health program is _____.

*If more than one camp or site, repeat for each as appropriate.

PRIORITY DISEASE AND HEALTH PROBLEMS WHICH ARE COMMON, SERIOUS RISKS TO REFUGEE POPULATIONS IN EMERGENCIES

PROBLEM	GROUPS MOST AT RISK	PRIMARY MODE OF SPREAD	POSSIBLE OUTCOMES	CONFIRMATION OF DIAGNOSIS	ANTICIPATION	PREVENTION OF FURTHER ILLNESS	DISEASE AMELIORATION OR CURE	COMMON ERRORS
Diarrhea[1]	Young children	Direct fecal (hand-to-mouth)	Death		Obtain supplies for ORS*	Improve sanitation and water quality	ORS*	Emphasis on intravenous hydration
Measles[2]	Young children	Direct contact (respiratory)	Death	Experienced observer	Vaccination		Symptomatic care and supplemental feeding	Waiting for disease to occur, assuming adult illness w/rash to be measles
Falciparum Malaria[3]	Infants and people from non-malarial areas	Mosquitoes	Death	Blood smear	Surveillance, understand disease pattern in area	Mosquito control	Specific antimalarials	No surveillance system, failure of confirmation
Typhus	All	Lice	Death	Laboratory, experienced observer	Surveillance	Vector control, delousing	Antibiotics	Failure to report to national authorities
Cholera/Typhoid[4]	All	Direct fecal (hand-to-mouth)	Death	Laboratory	Surveillance	Improve sanitation and hygiene loop	ORS*, antibiotics	Reliance on vaccination as control measure
Diphtheria	All	Direct contact (respiratory)	Death	Experienced observer	Vaccination, surveillance	Isolation-treat contacts	Antibiotics, symptomatic care	Failure to report to national authorities
Dehydration (lack of water)	All		Death		Store sufficient water for all contingencies	Provide sufficient water containers for each family	Increase water supply	Failure to plan, lack of surveillance
Starvation (severe malnutrition)	Children less than five		Increased susceptibility to disease	Arm circumference, height-for-weight	Stockpile sufficient quantities of food, prepare for possibility of supplemental and therapeutic feeding	Provision of adequate food basket**	Therapeutic feeding, supplemental feeding	Failure to plan, lack of surveillance
Xerophthalmia, Vitamin A Deficiency	Children less than five, especially those with measles		Blindness, death	Glazed eyes	UNICEF Vitamin A capsules (200,000 IU), diet	See "Anticipation"	Injectible Vitamin A, diet	Waiting for disease to occur, lack of surveillance
Wounds	All		Disability or death		Supplies for trauma surgery		Supplies for post-surgical care and rehabilitation	Failure to use local hospital resources, reliance on overly-sophisticated medical equipment, overestimating needs

* ORS = Oral Rehydration Solution

** Food basket must provide sufficient level of calories and a balanced diet.

1 Diarrhea: See "Further Problem Analysis": Further Analysis of Specific Health Problems.

2 Measles: Vaccination program requires vaccine transport and storage capability — "cold chain". Measles vaccine is of limited usefulness after exposure. DO NOT WASTE TIME OR RESOURCES VACCINATING CONTACTS.

3 Falciparum Malaria: National malaria control staff must be involved in control efforts.

4 Cholera/typhoid: Vaccination is ineffective to control disease spread.

PROBLEM ANALYSIS WORKSHEET NO. 3: VACCINE COLD CHAIN

BACKGROUND

The "cold chain" system for protecting vaccines by refrigeration is crucial to any immunization program. Cold chain failure means that weak or inactive vaccines will be given to children who thus remain unprotected. The following principles apply to every cold chain.

1. Clearance through customs of imported vaccines can be a major source of problems, especially if the vaccine is unrefrigerated in the customs area.

2. Storage facilities at the central (capital city) and regional level should have temperature alarm systems and backup (emergency) generators.

3. Vaccine control cards should be posted on the refrigerator or cold room door; temperatures should be checked twice daily and noted on the cards.

4. A cold box or other form of refrigeration should be used to transport vaccine at every transfer step.

5. Vaccines should be stored on central shelves of refrigerators. They should not be stored in refrigerator doors.

6. DPT vaccine and tetanus toxoid should never be frozen.

7. Vaccines should be wrapped in foil for field use.

8. Vaccines beyond their expiration dates should not be stored with current vaccines.

ANALYSIS PROCEDURE

Although cold chain analysis requires an expert, even a novice can easily evaluate at least some of the following critical points in a cold chain.

At the central level:

1. Record of last shipment received; how long in customs; at what temperature.

2. Functioning temperature alarm system.

3. Functioning emergency generator.

4. Vaccine control card on refrigerator or cold room door.

5. Written evidence of twice-daily temperature checks.

6. No vaccine stored in refrigerator doors.

At the regional level:

7-11 See 2 - 6 above

During transport:

12. Use of a cold box.

At the local facility:

13-15 See 4-6 above

16. No vaccine beyond label expiration date.

During use:

17. Vaccine wrapped in aluminum foil.

WORKSPACE OR NOTES:

REPORTING CABLE: VACCINE COLD CHAIN (See page 78)

Situation: The cold chain does/does not appear to be a problem. Last vaccine shipment cleared customs in _____ days/_____ hours and was stored at _____°/room temperature in the interim. Central storage does/does not have alarm system. Temperature of central and regional storage is/is not checked twice daily, and records are/are not kept on visible vaccine control card. Vaccines are/are not stored in refrigerator doors. Vaccines are/are not transported in cold box. Expired vaccines are/are not stored in refrigerator or cold box. Vaccine vials are/are not foil-wrapped during use.

The following further actions are being taken:

PROBLEM ANALYSIS WORKSHEET NO. 4:
NUTRITIONAL STATUS AND SUPPLEMENTAL FEEDING

BACKGROUND:

Inadequacies in food supply are detected by observing nutritional status and consequent increased occurrence and severity of nutrition-related illnesses (e.g., diarrhea, measles, beri-beri).

STANDARDS:

Arm circumference greater than or equivalent to 13.5 cm. in children from 12 months to 5 years is satisfactory. Readings between 12.5 - 13.5 cm. indicate malnutrition, and readings less than 12 cm. indicate severe malnutrition.

Occurrence of certain nutrition-related illnesses also indicates an ongoing problem.

Illness	Dietary Deficiency Or Problem Is	Possible Outcomes
Kwashiorkor	Calories, protein	Death
Marasmus	Calories	Death
Xerophthalmia	Vitamin A	Blindness, death
Beri-beri	Vitamin B	Death
Scurvy	Vitamin C	Severe joint disease, death
Pellagra	Niacin	Dementia, death
Severe Measles	Severity due to overall malnutrition	Death
Malnourished children (less than one year)	Insufficient breast feeding and/or excess use of feeding bottles	Death

ANALYSIS:	DATA SOURCES:
1. Total Population _____	Interviews/administration
2. Children under 5 years (as % of total) _____ %	Household survey
3. Total under 5 years _____	Calculation
4. % with arm circumference less than 12.5 cm _____	
5. % with arm circumference 12.5 - 13.5 cm _____	Household survey
6. Feeding bottles in use? Yes/No	Interviews/observation
7. Food supply adequacy? OK/Deficient	Food supply worksheet
8. Supplementary Feeding Program operating? Yes/No Frequency: _____ meals per week.	Health worker interview
9. Percent of children in SFP: _____ %	Household survey
10. Are any of the following being seen? Xerophthalmia Yes/No ; Beri-beri Yes/No Scurvy Yes/No ; Pellagra Yes/No	Health worker interview
11. Other nutrition-related diseases: _____	Health worker interview

Analysis (Continued)

Data Sources

12. Other nutritional status data:

Agencies in area

Example: UNICEF random survey indicates 20% malnutrition by weight-for-height standards among children under 5 years.

Specify source of sample (random, hospital, clinic, other _____), number of children measured, type of measurements, and agency collecting data.

WORKSPACE:

REPORTING CABLE: NUTRITIONAL STATUS/SUPPLEMENTAL FEEDING (See page 79)

Data obtained from Household Survey at (site) indicates ____% of children malnourished. This is more than/less than/same as estimates developed by health/feeding program staff on site. Health workers report _____ cases of marasmus, _____ cases of kwashiorkor out of a total population of _____ children. Xerophthalmia/beri-beri/scurvy/pellagra are also being noted.

Supplemental feeding center(s) is/is not in operation, operated by (agency), providing milk/hot prepared meals/dry supplemental rations/(other). _____ meals are provided per week.

Feeding program is on-site/take-home, providing ____ extra calories per day. Number of children under 5 years served daily is _____/day (by actual count/estimate), representing ___% of eligible on-site population. Children under five are/are not registered, and are/are not measured daily/weekly/monthly by arm circumference/height-for-weight/weight-for-age/(other).

Feeding centers are/are not clean and are/are not well-organized. There is/is not an outreach program to identify those who should be receiving supplemental food and those who fail to appear for feeding.

The following actions are being taken:

A)
B)
C)

PROBLEM ANALYSIS WORKSHEET NO. 5: RATIONS

BACKGROUND:

Food supply may be the most critical problem faced by refugees or displaced persons. Inadequate food supplies quickly result in childhood malnutrition. Increased death rates are a direct result.

The mix of food provided to refugees as a basic ration by relief agencies is called the "food basket".

STANDARDS:

The following concepts are most important in assessing food supplies:

1. A recommended minimum is 1800 calories per person per day (including total population, even children in this calculation).

2. Levels under 1500 calories per person per day are directly associated with increases in deaths from starvation and nutrition-related diseases.

3. The general rations during the emergency must contain oil, a staple grain, and a source of protein.

4. More activity (e.g., heavy labor, a moving refugee column) means more calories are needed.

5. A high rate of illness or recent starvation in the population also increases calorie requirements; extra calories are needed for recovery.

6. The bottom line for avoidance of starvation is what people/families actually get to eat. Food in a warehouse does not count if it is not distributed.

DATA SOURCES:

Camp Population _____ (from page 23)

Food List On Hand	Data From Camp Administrator (page 24)	In Households (page 37)
[e.g., sorghum	12.2 MT	1.5 kgs]

Feeding Agency _____ (From Administration Interview, page 24)

Daily Calorie Supply _____ calories (From Administration
or _____ unknown Interview, page 24)

Food Animals: Yes / No; Kind _____ (From Observations)

WORKSPACE/NOTES:

REPORTING CABLE: RATIONS (See page 79)

Rations: Food Supplies are/are not/will be a problem. Relief officials state that the following foods and amounts are on hand:

a) _____ of _____
b) _____ of _____
c) _____ of _____
d) _____ of _____
e) _____ of _____

Officials state that each family receives the following quantities each week/month:

a) _____ of _____
b) _____ of _____
c) _____ of _____
d) _____ of _____
e) _____ of _____

The total estimated calories per person per day are _____.
Data from Household Survey indicates no/the following deficiencies in family rations: (describe)_____
_____
_____
_____

Most/some/no families have food animals of following kind(s):_____
_____.

The following actions are being taken to maintain/improve the situation:

PROBLEM ANALYSIS WORKSHEET NO. 6: FOOD DISTRIBUTION

BACKGROUND:

The method and timing of the actual distribution of food is as important as the amount and quality of the food. In some cases, distribution of too much food at one time can be as harmful as too little food. If the amount of food in the pipeline appears adequate, yet malnutrition is still present, it is important to check the distribution system and schedule. Common problems include:

1. Theft. Refugees involved in the distribution may be stealing a portion of the food. This can usually be detected by measuring the amount of food families are receiving and by interviewing households.

2. Diversions. Refugees may be diverting a portion of their rations to send to relatives or to combatants back in their homeland (usually more likely when camps are close to the border). This can be detected by checking food levels in the home one or two days after distribution and/or by observing departures from the camp during the same period.

3. Hoarding. If the distributions are not regular, people may hoard the food, not consuming all of it for fear that there may not be more coming. This can be detected by household survey. Only regular ration distributions can correct this problem.

4. Sale. Refugees may be forced to sell a portion of their ration in order to obtain cash, goods or services they feel are critical. The most common reasons for selling food are:

   (a) to purchase water

   (b) to pay for milling grains

   (c) to raise money for purchasing other supplies

   (d) to raise money for paying "protection" or bribes

   The significance of the amount being sold can be determined by talking with local merchants, observing relief goods in nearby markets, and interviewing refugee camp administrative personnel.

5. Rapid Consumption. Hungry refugees may have trouble limiting or rationing their supply of food. This can be a major problem in the early stages of an operation, especially for new arrivals who may eat their entire ration within a few days after receiving it. This may be compounded by relief officials who, in an effort to reduce the administrative burden, may issue large amounts of food (up to 30 days' worth) to each family. Thus, when people consume the food early in the distribution cycle, they may end up with no food for a significant time before the next distribution. For people who are severely malnourished, this can be critical.

APPROACH:

The monitoring and control of distribution problems is dependent on a simple system of distribution and a timely distribution interval. Experience has shown that a 7 - 10 day ration interval is the most practical (and has the added advantage of reducing the amounts of food on hand to levels where they can be monitored throughout the pipeline); also, distributing food in bulk through traditional community leaders provides a convenient way to monitor the distribution levels and pinpoint thefts and diversions.

DATA SOURCES: Household Survey, pages 36-37
Camp Administrator Interview, page 24
Senior Health Worker Interview, page 27

WORKSPACE/NOTES:

REPORTING CABLE: FOOD DISTRIBUTION (See page 80)

Rations are currently distributed every ____ days. The following problems were observed/reported:

--- Thefts of food (describe)
--- Diversions of food (describe)
--- Hoarding (describe)
--- Sales of food by refugees (describe)
--- Rapid consumption (describe)

Officials are/are not planning to take remedial actions. (Describe)

PROBLEM ANALYSIS WORKSHEET NO. 7: SITE

BACKGROUND:

Temporary settlements have a way of becoming permanent. Therefore, the considerations (in order of priority) for selecting a site for an emergency settlement or refugee camp are that the site should be:

1. near a reliable supply of water;
2. near a good all-weather road ensuring all-year access;
3. reasonably safe from armed attack from outside the camp;
4. dry and safe from flooding;
5. located where latrines can be dug without polluting the drinking water supply;
6. adequate in size to hold all refugees (including anticipated arrivals) without overcrowding.

ANALYSIS PROCEDURE:

All the considerations listed above, with the exception of No. 5, can be determined from observations, from interviews, from consulting knowledgeable engineers, or by referring to the maps you have collected.

To determine whether adequate space is available in a camp with defined or limited area for expansion, determine the total number of square meters available for the camp and divide by the total number of people that are expected to occupy the site. If the result is less than 7.5 square meters per person, the space is NOT ADEQUATE to meet all the needs of a temporary settlement. An area less than 7.5 square meters per person results in overcrowding and has been shown to result in increased health, social and administrative problems. The standard provides adequate space for shelters; roads and paths; administrative, health, feeding and supply facilities; and it permits installation of firebreaks.

WORKSPACE/NOTES:

REPORTING CABLE: SITE (See page 80)

Situation Summary: The site chosen for the _____ settlement is/is not suitable for long-term occupancy. The site is _____ km/mi from the border and is/is not currently threatened by armed attacks from _____. The site is/is not threatened by flooding, is/is not well drained, is/is not located near adequate water supplies. Latrines can/cannot be dug without polluting the supply of drinking water, and adequate space is/is not available to meet present and future needs. The road(s) leading to the site are dirt/gravel/hardsurfaced and will/will not be suitable throughout the year/months of _____.

Further Actions: The agency in charge of site selection is _____. Alternative sites are/are not being considered due to _____. In order to move to a more suitable site/to improve the existing site, the following resources are needed:

Resource:	Amount/Quantity	Identified/Requested by:
_____	_____	_____
_____	_____	_____
_____	_____	_____

The following further actions are being taken:

PROBLEM ANALYSIS WORKSHEET NO. 8: WATER QUANTITY

BACKGROUND:

People need water not only for drinking but also for cooking, washing cooking utensils, bathing and washing clothes. If average water supplies fall below certain levels, problems of skin disease, diarrhea and finally dehydration may occur.

STANDARD:

The supply of water to refugees in an emergency should be no less than 10 liters of water per person per day and, as soon as the initial emergency is over (i.e., a significant decline in the number of new arrivals), no less than 15 liters of water per person per day should be provided.

ANALYSIS PROCEDURES:

To determine if water supplies are adequate, determine the source of the water. Possible sources include:

A. Flowing rivers. If the settlement is adjacent to a flowing river, the quantity of water should not be a problem.

B. Intermittent streams, ponds, small lakes or open wells. It is important to determine how much water people are able to gather and store in their shelters, and to determine whether or not bathing and washing take place at the same location where drinking water is drawn.

If bathing and washing is not at the shelter, the amount of water available to each family should not be less than 5 liters per person per day.

If washing and bathing is at the shelter, the amount of water available to each family should be approximately 10 liters of water per person per day.

C. Pumped water wells. If water is drawn from wells with pumps, determine the volume available from each pump per day and divide by the total number of people. The total amount of water per day should not be less than 10 liters of water per person per day.

$$\text{Water per person per day} = \frac{\text{Total volume (in liters) available daily from all sources}}{\text{Total number of people}}$$

D. Water deliveries. If water is delivered to the site by truck, cart or tanker, determine the volume delivered each day and divide by the total number of people. The amount of water available to each family should not be less than 10 liters of water per person per day.

If deliveries are less frequent than daily, please note it in the cable.

$$\frac{\text{Total volume of water available daily (in liters)}}{\text{Total number of people}} = \text{Amount of water available per person/day}$$

E. Piped water: If water is obtained from a municipal water system, it is important to note the number of water taps. If people are forced to line up throughout the entire day, additional taps may be needed. Remember to check if the water flow is constant or if water is rationed, at certain hours, through the pipes.

Note: Anytime refugees are found to be paying for drinking water, the quantity of water delivered by relief agencies is below the standard.

WORKSPACE/NOTES:

REPORTING CABLE: WATER QUANTITY (See page 80)

Situation summary: Water supplies are/are not a problem. People are receiving approximately _____ liters per person per day, from (source). In-house storage is/is not a problem.

Next steps: Efforts are/are not underway to increase supplies. The agency responsible for water supply to the site is _____. Containers for storage in shelters are/are not needed and _____ agency currently will supply them within _____ days. The following resources are needed:

Resource	Amount/Quantity	Identified or Requested by:
_____	_____	_____
_____	_____	_____
_____	_____	_____

The following actions are being taken:

PROBLEM ANALYSIS WORKSHEET NO. 9: WATER QUALITY

BACKGROUND:

Pure water is needed by people for drinking, cooking and washing their eating utensils. (Water that is not pure but is generally clear may be used for bathing and washing clothes during the emergency.)

Purified water may be obtained by:

- Boiling -- this requires adequate fuel and kettles for boiling.
- In-home filtering -- this requires a filtering device.
- Adding chemicals such as bleaching powder or water purification tablets in the home -- this requires an adequate supply of chemicals or tablets.
- Adding chlorine at water tanks where people receive water -- this requires a clean water storage and distribution tank(s), and a person or team to inspect and clean the tank and then treat the water.
- Adding chlorine to the water at the source before delivering it to the site -- this requires a team to inspect and clean the water tankers before they are filled and to treat the water before or after it is put in the tanker; if the water is put in tanks for distributing to the people, a second team is needed to maintain the water tanks.
- Drawing the water from a clean source.

ANALYSIS PROCEDURE:

The method for purifying water should be determined from observation and verified from the interviews (see pages 23 and 26).

An unusually high percentage of children and adults ill with or dying from diarrhea may indicate a problem of contaminated water. If more than 25% of the adults and children report diarrhea on the Household Survey (see page 36), further analysis should be undertaken.

WORKSPACE/NOTES:

REPORTING CABLE: WATER QUALITY (See page 80)

Situation: Water quality does/does not appear to be a problem. The method of treatment is _____. At the source, the water is (reported to be) clear/muddy/yellow/red/green on the surface and is odorless/foul-smelling. Water reaching the people is/is not tested periodically by _____. Other observed problems include

_____

_____

_____

Next Steps or Follow-up Actions: Efforts are/are not underway to improve water quality. The following resources are needed:

Resource	Amount/Quantity	Identified or requested by:
_____	_____	_____
_____	_____	_____
_____	_____	_____

The following actions are being taken:

PROBLEM ANALYSIS WORKSHEET NO. 10: SHELTER

BACKGROUND:

The provision of adequate shelter during the initial emergency is a critical concern where people are exposed to cold or rainy conditions. In dry, arid areas, shelter is a lesser concern.

STANDARDS:

When evaluating emergency shelter, the following aspects (listed according to priority) should be assessed:

- Protection from the environment:

  1. Do the roofs provide adequate protection from rain?

  2. Are shelter sites safe from flooding?

- Overcrowding: Each family should have private space equivalent to approximately 3.0 square meters per person. During the emergency, any form of habitation is acceptable if: 1) this space standard can be met, and 2) some degree of privacy can be given to each family, and 3) adequate ventilation can be provided.

TYPES OF SHELTERS:

You may encounter one or more of these types of shelters:

1. Self-built shelters: normally, one-room structures built of scavenged materials such as cardboard, plastic sheeting, cane, bamboo or sticks.

2. Emergency shelter units: shelters provided by relief agencies such as tents, prefabricated shelter units, wood frames covered with plastic sheets.

3. Temporary shelter in large buildings: warehouses, schools, barracks, etc.

4. More permanent structures: structures built of durable materials such as wood, cement block, adobe, brick or metal sheets designed to provide long-term shelter.

5. Scattered-site housing: families sheltered in existing housing dispersed throughout the emergency zone.

Any of the above shelters may be considered adequate if the standards outlined previously are met. The long-term suitability of each type should be considered, however; and, as a general rule, tents and other emergency shelter units should be used only as a last resort due to their cost and general poor durability. If it is possible that a long-term settlement is to be established at the initial site, more permanent shelter options should be considered immediately.

WORKSPACE/NOTES:

REPORTING CABLE: SHELTER (See page 81)

Situation Summary: Emergency shelter is/is not a problem. Refugees are currently housed in _____. _____ families occupy each structure. Average floorspace per family is approximately _____ square meters per person, based on a calculation of approximately _____ persons per family, and _____ square meters per family space. Ventilation in each structure is considered adequate/inadequate. The current number of shelters and/or materials on hand are/are not adequate to meet current and anticipated needs.

Further Action: Efforts are/are not underway to improve the situation. The agency in charge is _____. The following resources are needed:

Resource:	Amount/Quantity	Identified or Requested By:
_____	_____	_____
_____	_____	_____
_____	_____	_____

The following actions are being taken:

PROBLEM ANALYSIS WORKSHEET NO. 11: PROTECTION

BACKGROUND:

International law guarantees refugees the right to protection from physical harm or coercion during the period they are refugees. This includes protection from armed attack from their country of origin and from the country of asylum, the right to remain in the country of asylum until they can return without fear of repression or persecution, and the right to protection from mistreatment while they are refugees.

The most important emergency concern is protecting the refugees from being forced to return to the country from which they fled (refoulement). An important indicator of a host government's intentions is the status or classification they extend to the refugees. If the arrivals are officially classified as refugees, refoulement is not usually an immediate threat. If, however, they are classified as "illegal immigrants", "economic migrants", etc., forced repatriation may be a threat.

By international law, the United Nations is assigned responsibility for guaranteeing refugees' rights. Most refugees are protected and assisted by the Office of the United Nations High Commissioner for Refugees (UNHCR). Others are handled by certain designated or specialized agencies of the UN, including UNRWA (for Palestinians), UNBRO (for Thai-Kampuchean border) and UNICEF (in certain cases only). The UNHCR has protection specialists on its staff and usually investigates protection incidents. The International Committee of the Red Cross (ICRC) may also become involved in protection issues.

Problems to look for (in order of priority) include:

--- Any instances of forced repatriation of refugees;

--- Incarceration or physical violence against refugee leaders or members of any ethnic group among refugees;

--- Evidence of violence, intimidation of refugees by other refugees or armed elements in the camp;

--- Discriminate refusal of refugee status and/or protection status by host government;

--- Official disregard for violence against refugees by host country nationals, especially military or police;

--- Confiscation of refugees' belongings by host government forces/officials;

--- Unexplained or high incidences of murder, disappearance, rape or other violent crimes;

--- Closed borders (by country of asylum).

PROCEDURE:

Any incident that might indicate a problem of protection should be reported. Early detection and constant monitoring is a high priority. UNHCR and/or ICRC should be asked to verify or corroborate information on any incident. Reports on protection issues involving the host government should be classified. A guide for further analysis of protection problems can be found on pages 85-86.

Data Sources: Pretrip interviews I (Government), II (UNHCR/ICRC), III (US Govt.), pages 9-15.

WORKSPACE/NOTES:

REPORTING CABLE: PROTECTION (See page 81)

Summary of Problems: The following protection incidents have been reported/rumored by _____ and have/have not been verified by _____:

Government of _____ is/is not signatory to Geneva refugee protocol.

Refugee status has/has not been granted. Refugee status is likely/unlikely to be granted.

UNHCR/ICRC/Other representatives are/are not present with refugees.

Next Steps or Follow-up: UNHCR/ICRC/other is/is not investigating further. A report will/will not be available by _____. This incident is/is not a major cause for concern. (Elaborate if necessary).

The following actions are being taken:

PROBLEM ANALYSIS WORKSHEET NO. 12: STAFFING FOR OVERALL COORDINATION AND MANAGEMENT OF THE EMERGENCY

BACKGROUND:

In a large-scale emergency operation, there are certain institutional and personnel requirements that are considered minimal to a successful relief operation.

Institutional Requirements:

1. An overall lead agency should be designated. This may be the host government's refugee organization, the UNHCR, ICRC, or other international agency.

2. A central food logistics agency should be selected. Normally, this would be UNHCR, WFP, ILO, or the host country's refugee organization. In some cases, AID/FFP has assumed this role.

3. If more than one volag is working in a refugee camp on the same type of program, one should be designated as the lead agency for that camp and all other agencies should provide services at a level equal to that of the lead agency.

Personnel Requirements:

1. A single person within the lead agency should be designated as coordinator for the emergency.

2. If the region where the emergency is occurring is remote, an on-site coordinator should be designated.

3. One person in each camp should be appointed as camp administrator.

4. For overall coordination of certain facets of the operation, one person should be appointed to each of the following positions:

   (a) Food Logistics Coordinator
   (b) Feeding Program Coordinator (Supplemental Feeding Programs)
   (c) Health Program Coordinator
   (d) Water and Sanitation Coordinator
   (e) Protection Officer
   (f) Transport Officer

WORKSPACE/NOTES:

REPORTING CABLE: STAFFING FOR OVERALL COORDINATION AND MANAGEMENT OF THE EMERGENCY (See page 81)

Lead agency for the relief program is _____.
The food logistics agency is _____. Overall coordinator for the emergency is (person). The principal counterpart agency is _____.

Staffing for overall coordination of the emergency is/is not adequate.
Additional staff are needed for _____.

PROBLEM ANALYSIS WORKSHEET NO. 13: STAFFING IN THE REFUGEE CAMPS

BACKGROUND:

A certain minimal staff is required in order to operate and maintain a refugee camp. Many of the critical jobs can be assigned to refugees.

STANDARDS:

The following staff are the minimum usually needed in a refugee camp during an emergency where new arrivals are sick and/or malnourished. Note: If several small camps are grouped close together, a mobile staff may be adequate.

Position	Number/Ratio
Camp administrator	1 per camp
Assistant administrator	1 per camp
Storekeeper	1 per camp
Storekeeper's assistant (distribution)	1 per 5,000
Warehouse guards	4-6 per warehouse
Senior health officer	1 per camp
Nurses	____ per 10,000
Medical personnel	_____
Supplemental feeding coordinator	1 per camp
Supplemental feeding center administrators	1 per camp
Sanitation officer	1 per camp
Sanitation workers	1 per 500
Water maintenance officer	1 per camp
Housing/shelter officer	1 per camp
Shelter construction teams	as needed
Registration officer	1 per camp
Registration and screening teams	10 per 1,000 daily arrivals

WORKSPACE/NOTES:

REPORTING CABLE: STAFFING IN THE REFUGEE CAMPS (See page 81)

Staffing in the _____ camp is/is not adequate. The camp has a full/part-time administrator. Food supplies are/are not kept in the camp. Supplies in camp are/are not adequately protected and monitored. Medical personnel include _____. Teams have/have not been organized for water, sanitation, shelter. Refugees do/do not participate in camp operations.

PROBLEM ANALYSIS WORKSHEET NO. 14: CONTINGENCY PLANNING

BACKGROUND:

Where refugees are continuing to arrive and the situation that is displacing them is not predicted to change in the immediate future, the circumstances demand that effective contingency planning, especially for food supplies, receive a high priority. Contingency planning consists of estimating the number of new arrivals and ordering and pre-positioning supplies. Because refugee situations are fluid, it is often difficult to estimate the number of people that may require help. Among the factors that must be considered are:

1. Enough supplies must be ordered to meet the needs of new arrivals without:
   (a) over-ordering;
   (b) drawing on supplies for refugees already under care;
   (c) overloading storage and transport capacity (thus resulting in spoilage and increased chance of pilferage).
2. Sufficient lead time must be factored into any purchases that require shipment from abroad to allow for transit time.
3. Local purchases must be handled in such a way that they do not cause price increases or shortages for local people.

FORMULA FOR CONTINGENCY PLANNING:

A formula that may be used for estimating the potential number of new arrivals is described below. This formula provides planners with:

1. An estimate of how many people may be in need of assistance during a specified, limited period.
2. A number that can be used to determine whether the supplies on hand or in the pipeline can meet the needs of new arrivals.
3. A number that will permit an agency to order the necessary supplies without over-ordering or overloading the logistics system.

In most refugee situations, new arrivals appear over a period of time; i.e., after the initial influx, the percentage of new arrivals rarely doubles instantaneously. The new arrivals rarely come in a steady flow; rather they usually come in waves triggered by specific events. Thus, contingency plans must be constantly updated, and agencies should adopt a flexible basis for determining numbers rather than trying to guess the total and stockpiling for that number. The figure obtained by using the following formula should therefore be updated on a weekly basis throughout the emergency.

PROCEDURE:

To determine the number of refugees for contingency planning, use the following formula: $CN = R_1 + (R_2 \times T) + P(R_2 \times T)$

Where:

CN = Contingency planning number
R_1 = The number of refugees now receiving assistance
R_2 = The number of new arrivals in last week
P = The percentage of the total that the new arrivals (last week) represent
T = The time in weeks needed to deliver supplies (e.g., if a two-month lead time, use 8)

Note: Always round contingency planning number to next 5,000 increment.

Example: Assume there are 10,000 refugees now, and last week 1,000 more arrived. Also assume an 8-week lead time for shipping supplies.

CN = 10,000 + (1,000 x 8) + .10 (8,000)
CN = 10,000 + 8,000 + 800
CN = 18,800
CN = 20,000 (rounded to next 5,000 increment)

WORKSPACE/NOTES:

REPORTING CABLE: CONTINGENCY PLANNING (See page 82)

Contingency planning appears adequate/inadequate. The number of refugees now receiving assistance is _____. The estimated number of new arrivals last week was _____. The average lead time for delivery of food supplies is _____ weeks. ___(Food supply agency)___ estimates _____ weeks of food now on hand given the standard ration of _____ calories per day. Each person receives _____ grams of (grain) per day/week/month. The number of people being used for estimating contingency food needs by ___(the food supply agency)___ is _____. This is more/less than the contingency planning number as developed with the formula shown in the assessment manual.

STEP 8: REPORTING

The State Department's assessment procedure requires three reporting activities: 1) an initial reporting cable; 2) the forwarding of supporting data, photographs, maps and other materials collected in the initial data collection; and 3) regular follow-up reports as the emergency progresses.

Initial Reporting Cable

The initial reporting cable is outlined on the next pages. The sources of this information are the Interviews and the Problem Analysis Worksheets. You are not limited to reporting just this information; any additional data which you feel is necessary or useful for clarification should be added to this format. The initial cable should report on the most critical aspects of the emergency operation.

Supporting Data

In order to provide a more detailed picture of the situation for the State Department, supporting data of a non-critical nature should be sent when it is obtained. This could include copies of any reports, maps, photographs, or statistics collected in Step 1 (Planning and Preliminary Data Collection) and information that you are able to collect during the assessment mission. A checklist of supporting data useful to the State Department is included at the end of this section.

Follow-up Cables

After the preliminary assessment mission, more detailed information should become available on a regular basis. Major sources of this information will be the monitoring and surveillance program that has been set-up and the more detailed data developed as specific problems are analyzed in more detail (see the following section of this manual, "Further Problem Analysis").

REPORTING CABLE:

AA. OVERALL SUMMARY

1. On (Dates), (Person) accompanied by Name(s) and Organization(s), visited camp(s) or settlement(s). The following data was obtained by using the procedures outlined in the Assessment Manual for Refugee Emergencies.

2. Narrative: Camp is situated in desert/mountains/flatland, _____km. from capital, and is accessible easily/with difficulty by road. Total surface area occupied by refugees is _____ acres/square miles/kms. Camp is/is not fenced and guard posts are/are not visible. Local military presence is/is not apparent. People in camp are generally active/despondent/hostile. Adult males are/are not in evidence. Camp appears crowded/not crowded. Food/draught animals are/are not visible.

   Current camp population is approximately _____ according to census/estimate of (agency) as of (date). Camp population is stable/growing/declining by _____ persons per day/ week/month.

   Staff/vehicles of ICRC/UNHCR/UNICEF/(other) were on scene.

   Reality of refugee situation is similar to/different from that described in (capital) by officials of _____.

   [Further summarize situation in your own words, if needed.]

3. In general, I recommend the State Department give this situation high _____ intermediate _____ low priority _____.

4. The host country government/UN agencies/ICRC/Volags and/or _____ are/are not adequately handling the situation and do/do not have the capability of meeting the refugees' needs.

5. Technical summary:

BB. DEATHS

1. Data based on exact count of deaths indicates _____ deaths among _____ (population) in last _____ days (____deaths per 10,000 persons per day). Children less than 5 years accounted for _____ deaths or ___% of the total. Most of these deaths were due to (1) _____ (__% of deaths), (2) _____ (__% of deaths), and (3) _____ (__% of deaths).

2. Further Actions: Steps discussed/planned to affect mortality rate include _____.
Lead agency in this effort is _____.

The following actions are being taken:

A. _____
B. _____
C. _____

CC. DISEASE

1. Summary: The most common illnesses in the camp are: (1)_____ (2)_____. Health workers see a total of _____ people per week/month.

The number of patients with disease (1) per week/month is _____.
The number of patients with disease (2) per week/month is _____.

The source of this information was impressions/interviews/data from hospital/clinic/other.

2. Further Actions: The following actions are being taken: Disease #1. The diagnosis has been/is being/is not being confirmed by _____ _____. Surveillance for the disease is/is not in place. Control measures being implemented are _____ _____. The following actions are planned: _____ _____.
Disease #2. The diagnosis has been/is being/is not being confirmed by _____. Surveillance for the disease is/is not in place. Control measures being implemented are _____ _____. The following actions are planned:_____ _____

DD. COLD CHAIN

1. Situation: The cold chain does/does not appear to be a problem. Last vaccine shipment cleared customs in _____days/_____hours and was stored at _____°/room temperature in the interim. Central storage does/does not have alarm system. Temperature of central and regional storage is/is not checked twice daily, and records are/are not kept on visible vaccine control card. Vaccines are/are not stored in refrigerator doors. Vaccines are/are not transported in cold box. Expired vaccines are/are not stored in refrigerator or cold box. Vaccine vials are/are not foil-wrapped during use.

2. The following actions are planned:

EE. NUTRITIONAL STATUS AND SUPPLEMENTAL FEEDING

1. Summary: Data obtained from Household Survey, at (site) indicates ____% of children malnourished. This is more than/less than/same as estimates developed by health/feeding program staff on site. Health workers report _____ cases of marasmus, _____ cases of kwashiorkor out of a total population of _____ children. Xerophthalmia/beri-beri/scurvy/pellagra are also being noted.

   Supplemental feeding center(s) is/is not in operation, operated by (agency) providing milk/hot prepared meals/dry supplemental rations/(other). _____ meals are provided per week.

   Feeding is on site/take home and provides _____ calories/day. Number of children under 5 years served daily is ____/day (by actual count/estimate), representing ___% of eligible on-site population. Children under five are/are not registered, and are/are not measured daily/weekly/monthly by arm circumference/height-for-weight/weight-for-age/(other).

   Feeding centers are/are not clean and are/are not well organized. There is/is not an outreach program to identify those who should be receiving supplemental food and those who fail to appear for feeding.

2. The following actions are being taken:

FF. RATIONS

1. Summary: Food supplies are/are not/will be a problem. Relief officials state that the following foods and amounts are on hand:

   a) _____ of _____
   b) _____ of _____
   c) _____ of _____
   d) _____ of _____
   e) _____ of _____

   Officials state that each family receives the following quantities each week/month:

   a) _____ of _____
   b) _____ of _____
   c) _____ of _____
   d) _____ of _____
   e) _____ of _____

   The total estimated calories per person per day are _____.
   Data from Household Survey indicates no/the following deficiencies in family rations: (Describe) _____
   _____

   Most/some/no families have food animals of following kind(s):_____
   _____.

2. The following actions are underway to maintain/improve the situation:

GG. FOOD DISTRIBUTION

1. Summary: Rations are currently distributed every _____ days. The following problems were observed/reported:

--- Thefts of food (describe)
--- Diversions of food (describe)
--- Hoarding (describe)
--- Sales of food by refugees (describe)
--- Rapid consumption (describe)

2. Officials are/are not planning to take remedial actions. (Describe)

HH. SITE

1. Summary: The site chosen for the _____ settlement is/is not suitable for long-term occupancy. The site is _____ km/mi from the border and is/is not currently threatened by armed attacks from _____. The site is/is not threatened by flooding, is/is not well drained, is/is not located near adequate water supplies. Latrines can/cannot be dug without polluting the supply of drinking water, and adequate space is/is not available to meet present and future needs. The road(s) leading to the site are dirt/gravel/hard-surfaced and will/will not be suitable throughout the year/months of _____.

2. Further Actions: The agency in charge of site selection is _____. Alternative sites are/are not being considered due to _____. In order to move to a more suitable site/to improve the existing site, the following resources are needed:

II. WATER QUANTITY

1. Summary: Water supplies are/are not a problem. People are receiving approximately _____ liters per person per day, from (source) . In-house storage is/is not a problem.

2. Further Actions: Efforts are/are not underway to increase supplies. The agency responsible for water supply to the site is _____. Containers for storage in shelters are/are not needed and _____ agency currently will supply them within _____ days. The following resources are needed:

JJ. WATER QUALITY

1. Summary: Water quality does/does not appear to be a problem. The method of treatment is _____. At the source, the water is (reported to be) clear/muddy/yellow/red/green on the surface and is odorless/foul-smelling. Water reaching the people is/is not tested periodically by _____. Other observed problems include _____

2. Further Actions: Efforts are/are not underway to improve water quality. The following resources are needed:

KK. SHELTER

1. Summary: Emergency shelter is/is not a problem. Refugees are currently housed in _____. _____ families occupy each structure. Average floorspace per family is approximately _____ square meters per person, based on a calculation of approximately _____ persons per family and _____ square meters per family space. Ventilation in each structure is considered adequate/inadequate. The current number of shelters and/or materials on hand is/is not adequate to meet current and anticipated needs.

2. Further Actions: Efforts are/are not under way to improve the situation. The agency in charge is _____. The following resources are needed:

LL. PROTECTION

1. Refugee status has/has not been granted and/but is likely/unlikely to be granted. The government of _____ is/is not signatory to Geneva refugee protocol. ICRC/UNHCR/Other representatives are/are not at refugee site.

2. Summary of Problems: The following protection incidents have been reported/rumored by _____ and have/have not been verified by _____.

3. Further Actions: UNHCR/ICRC is/is not investigating further. A report will/will not be available by _____. It is felt that this incident is/is not a major cause for concern. [Elaborate, if necessary.]

MM. STAFFING FOR OVERALL COORDINATION/MANAGEMENT OF THE EMERGENCY

Lead agency for the relief program is _____. Food logistics agency is _____. Overall coordinator for the emergency is (person). The principal counterpart agency is _____. Staffing for overall coordination of the emergency is/is not adequate. Additional staff are needed for _____.

NN. STAFFING IN THE REFUGEE CAMPS

Staffing in _____ camp is/is not adequate. The camp has a full/part-time administrator. Food supplies are/are not kept in the camp. Supplies in camp are/are not adequately protected and monitored. Medical personnel include _____. Teams have/have not been organized for water, sanitation, shelter. Refugees do/do not participate in camp operations.

OO. CONTINGENCY PLANNING

Contingency planning appears adequate/inadequate. The number of refugees now receiving assistance is _____. The estimated number of new arrivals last week was _____. The average lead time for delivery of food supplies is _____ weeks. ___(food supply agency)___ estimates _____ weeks of food now on hand given the standard ration of _____ calories per day. Each person receives _____ grams of (grain) per day/week/month.

The number of people being used for estimating contingency food needs by ___(food supply agency)___ is _____. This is more/less than the contingency planning number as developed with the formula shown in the assessment manual.

CHECKLIST OF SUPPORTING DATA

The following materials should be sent to the State Department by pouch or courier.

1. Map showing location of:

   --- Refugee camps/concentrations
   --- Border crossing points
   --- General disposition of military forces near refugees (if known)
   --- Source of water
   --- Refugee relief facilities (warehouses, etc).
   --- Logistical routes, facilities, etc. (airfields, etc.)

2. Copies of other reports, studies, etc.

3. Copies of any statistical data about refugees.

4. Data on food and other supplies ordered, with expected dates of arrival, etc.

5. Lists of volags working in refugee zone (by site, if possible).

6. Photocopies of all interview forms.

7. Copies of photos taken on assessment trip.

8. Copies of any data you feel are relevant to helping the Department better understand the situation (e.g., reports, editorials, historical data, etc.).

GUIDES FOR FURTHER PROBLEM ANALYSIS: INTRODUCTION

Most problems or relief systems are too complex to be fully analyzed in a brief field trip. The following guides describe in detail how to study and analyze the problems most commonly found in relief operations. Obviously, these analyses are most efficiently carried out by experts but, in case you are called on to do the work, these guides can help you ask the right questions of the right people.

FURTHER PROBLEM ANALYSIS: PROTECTION AND SECURITY

Detection of problems concerning protection and security for the refugees is important. Certain aspects of the situation such as refugee behavior, rumors of "incidents", or even things about the site of the refugee camp, should alert you to possible protection and security problems. Review the table below. Column A lists the potential problem. Column B lists indicators of the problem. Column C lists some of the options for action that can be taken after consultation with the State Department in Washington.

(A) Potential Problem	(B) Indicators of the Possible Problem	(C) Options
Armed attack on refugees from country of origin	- refugee site near military installation - refugee site near international border - refugee site near conflict zone - combatants live in or routinely visit refugee camp	- move the camp - increase the UN/ICRC or other international presence - increase presence of host government military forces in area
Involuntary repatriation (Refoulement)	- refugees held near border when good, safer, alternate site(s) available - no international "protection presence" permitted in or near camp - refugees regarded as "illegal immigrants" - refugees confined to camp	- UNHCR, ICRC, USG protests - assurance of resettlement or <u>legal</u> repatriation - increase UN/ICRC presence

(A) Potential Problem	(B) Indicators of the Possible Problem	(C) Options
Violence or threats against refugees	- historic conflict between refugees and host population - different ethnic, religious, tribal structures between refugees and host population - enforced confinement in camp with local security forces - refugees regarded as "illegal immigrants" - host forces with free access to confined population of refugees - refugees engaged in or accused of engaging in subversive or illegal activities - refugee family units broken up or not allowed to reunite - mail and communication outside of camp not allowed - refugee assets not protected - no international presence in camp	- increase UN/ICRC presence - separate or relocate persecuted ethnic groups
Forced conscription in host country military or in guerrilla forces	- combatants living in or visiting camp - local forces in camp - registration not permitted by host government	- strong protests, increased UN/ICRC presence

FURTHER PROBLEM ANALYSIS: REGISTRATION OF REFUGEES AND DISPLACED PERSONS

The registration of incoming refugees is a crucial, yet sometimes controversial, matter. Persons who are fleeing from oppression may be wary of any type of registration system for fear that it will be used as a means of control and/or harrassment. This is especially the case when displaced persons are required to register in order to receive services from a government involved in a civil war.

Relief experts concede that full registration is a necessary evil, although many feel that partial registration (i.e., registration without identifying people by names) is a preferred alternative, at least until legal refugee status has been fully granted.

In a refugee situation, registration is vital for:

(1) Protection: Names of refugees are needed to enable the protection officers to follow up on protection and security incidents. Without registration, it is far more difficult to trace persons who have been involuntarily repatriated, arrested or "disappeared".

(2) Tracing and Family Reunification: Families often become separated during their flight. Without adequate registration systems, it is virtually impossible to trace family members and to reunite families.

(3) Planning: Registration provides the statistical data needed for determining needs and priorities, and forms the basis for case work for families that have individual problems.

The primary controversy stems from the question of who is to register the refugees and maintain the records. If the status of the refugees has been clearly defined, there is usually no problem; the registrar may be the host government, the UNHCR, the International Committee of the Red Cross, or a designated non-governmental agency.

The registration of displaced persons who do not have the protection afforded by legal refugee status is far more controversial, and these people normally resist any type of registration. In some cases, they may be willing to register with the UN or ICRC, but generally even these agencies are distrusted, for it is felt that they cannot maintain secure records.

If registration does not appear to be a problem, and if refugees and relief organizations feel no threat from registration, a registration form using the minimum information shown on the following sample page should be used.

If registration does appear to be a problem, and refugees and voluntary agencies have concerns about registration, the following alternatives might be explored:

1) Assigning responsibility for developing and/or maintaining a registration system to an acknowledged neutral organization such as ICRC. The neutral organization could maintain files of registered persons and provide aggregate data for planning purposes to governmental organizations.

2) Permitting relief organizations to carry out their own registration. Each organization would be responsible for preventing duplication and corruption within its assigned sectors. Again, aggregate data sufficient for planning could be provided to governmental and other organizations.

3) Developing a multi-organizational registration system with representation by at least four different relief organizations, perhaps representing different aspects of the political spectrum. A secure system using random numbering and control of master numbers by a neutral international organization could be developed. One registration card bearing the logos and names of all organizations could be issued by any one of the participating organizations, with numbering verified by the neutral organization.

CAMP SCREENING/REGISTRATION LOG

Date _____ Team _____

Camp _____ Page (for today)_____

	Name	Registration Number	Age (Yrs)	Sex	Acute Illness?	Wt/Ht or A.C. (1-5 yrs)	Measles Vaccine (<5)	Vit. A (all)	Malaria Rx
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
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25									
TOTAL									

FURTHER PROBLEM ANALYSIS: SPECIFIC HEALTH PROBLEMS

Information about the illnesses most likely to be encountered in a refugee emergency can be found on the following pages:

IMMUNIZABLE DISEASES:

Immunizable diseases are those which can be prevented by vaccination; they include measles, polio, whooping cough (pertussis), diphtheria, tetanus, and meningococcal meningitis.

Many vaccines are very sensitive to heat and light and require appropriate refrigeration during all stages of transport, storage and field use. Vaccines which have not gone through this process of continuous protection, called the "cold chain" (see pages 53-54), may not protect the recipients.

DISEASE	NAME OF VACCINE	USUAL UTILITY FOR REFUGEES	APPROPRIATE AGES	COMMENTS
Measles	Same	++++	Under 5 yrs	Malnourished are high priority
Polio	Same	+++	Under 5 yrs	
Diptheria	DPT	++	Under 5 yrs	
Pertussis	DPT	++	Under 5 yrs	
Tetanus	DPT	++	Under 5 yrs	
Tuberculosis	BCG	+	Under 1 month	
Cholera	Same	0	---	
Typhoid	Same	0	---	
Meningococcal Disease	Same	Use only in outbreaks		

It should be remembered that vaccines prevent diseases; they do not cure them. Therefore, these diseases must be anticipated and detected early.

CHICKENPOX

Description: This is usually a mild disease in children characterized by slight fever, malaise, and a skin eruption characterized by lesions in several stages of maturity (bumps on the skin, blisters and scabs are often seen at the same time).

Transmission: From person to person by direct contact with contaminated articles or airborne spread of secretions from the respiratory tract of infected persons.

Incubation Period: 2-3 weeks.

Period of Communicability: From 5 days before skin rash to 6 days after last crop of skin blisters.

Vaccination: A vaccine is now available but it is not of practical benefit in emergency situations since the disease is relatively mild and usually does not pose a serious threat to infected individuals.

Carrier State: None. Infection causes lifelong immunity. The virus, however, can persist in the body and cause "shingles" in later life.

CHOLERA

Description: An acute intestinal disease characterized by sudden onset of profuse watery stools with occasional vomiting. Diarrhea can be so severe that it can lead to dehydration and even death. Many infected individuals have just mild diarrhea or even no symptoms at all. The treatment of choice is rehydration with appropriate electrolyte solutions, by mouth if possible. [See "Diarrhea".]

Transmission: Occurs through ingestion of water contaminated with feces. To a lesser extent, food contaminated by water, soiled hands or even flies can spread the disease. Person-to-person spread generally does not occur.

Incubation Period: Usually 2-3 days, but can be from a few hours to as long as 5 days.

Period of Communicability: Although long-term carrier states have been described, this is quite rare and patients generally carry the cholera bacteria in their stools only while they are having diarrhea and for a few days after recovery.

Vaccination: A cholera vaccine is available but current vaccines provide protection in only about 50% of vaccinees and protection lasts only a few months. Also, initial immunization requires two doses of vaccine given 4 weeks apart. For these reasons, cholera vaccine is not appropriate for an outbreak situation.

In most cases, a contaminated water supply is the source of infection and all efforts should be directed at checking the hygiene loop to be

sure the water supply is safe and protected from sewage contamination. If there is any question about water safety, insist on having water supplies chlorinated or boiled.

Approach: If cholera is suspected, the following measures should be taken:

1. Report suspected cases to national public health authorities.

2. Confirm the diagnosis by culturing stool samples from suspected cases. Regional public health laboratories or a hospital lab in the capital city should be able to help confirm this diagnosis by testing the samples.

3. Check the hygiene loop to be sure water is safe and is protected from sewage contamination. If there is any question about water safety, insist on having water supplies chlorinated or boiled.

4. Cholera vaccine is not appropriate for an outbreak situation. Even in high risk situations, vaccine use is not helpful because current vaccines provide protection for, at most, about 50% of vaccinees and then for only a few months. Vaccine does not prevent spread of the cholera organism!

DIARRHEA

This is the most common fatal childhood disease worldwide and is especially prevalent in areas where populations do not have access to clean water or food sources. Malnourished individuals are particularly prone to diarrhea. Its complications among young children can result in dehydration and shock. Untreated, it is frequently fatal in already-malnourished children.

Antibiotics rarely affect the course of childhood diarrheal illnesses. Diarrheal diseases generally are self-limited and, if fluids and electrolytes (water, salt, bicarbonate, potassium, etc.) can be replaced by mouth, the illness will run its course and the patient will survive. Packets containing the proper mixture of electrolytes are available, but homemade fluids containing the most important minerals can easily be produced [see "3" below].

Approach: If diarrhea, other than cholera or typhoid, is suspected to be a major problem:

1. Confirm prevalence of problem by reviewing morbidity and mortality data. Information on location of patient in the camp, length of time in the camp, and source of family water supply can help pinpoint source of infection.

2. Check adequacy and purity of water supply, particularly to determine if there is any actual or potential contamination of water supplies by human feces.

3. Stress importance of oral rehydration therapy. If packets containing the proper mixture of electrolytes are not available, the most suitable fluid is a sugar-salt solution containing the following ingredients in 1 liter of water:

(a)	Sodium chloride (table salt)	3.5 grams
(b)	Sodium bicarbonate (baking soda)	2.5 grams
(c)	Potassium chloride	1.5 grams
(d)	Glucose (sugar)	20.0 grams

4. Intravenous fluids are rarely preferable to oral rehydration.

DIPHTHERIA (D), WHOOPING COUGH (P = pertussis), TETANUS (T)

A. Diptheria: Generally not a problem in tropical countries but illness usually characterized by a patch or patches of a grayish membrane in the throat.

B. Whooping Cough: A bacterial disease common in children througout the world. It begins as a runny nose and an irritating cough. The cough gradually becomes worse over 1-2 weeks and lasts for 1-2 months. Whooping cough can be a severe disease and be lethal, especially in unimmunized malnourished children less than one year of age.

Mode of Transmission: Airborne spread from respiratory secretions of infected patients.

Incubation Period: 7-10 days.

Period of Communicability: First three weeks of illness.

C. Tetanus: A severe infection characterized by painful muscular contractions especially of the jaw and neck muscles. In developing countries this disease is almost always fatal.

Mode of Transmission: Tetanus spores introduced into the body during injury, usually a puncture wound contaminated with soil or feces but also through burns and trivial wounds. Neonatal (infant) tetanus continues to occur in large numbers in developing countries because of unsterile cutting of the umbilical cord or ritualistic covering of the cord stump with unsterile items (e.g., cow dung).

Incubation Period: About 10 days.

Period of Communicability: Not transmitted person-to-person.

Vaccination: DPT vaccine is available and highly protective against these three diseases. The vaccine must be given in three separate injections at least 4 weeks apart. Vaccine can be given beginning at 1-2 months of age. DPT vaccinations can be delayed until after the emergency phase of a refugee operation. An essential part of a

tetanus vaccination program is administering two doses of tetanus toxoid vaccine to women in the last four months of pregnancy (who should receive 2 doses 4-6 weeks apart).

There is a high incidence of minor reactions to the DPT vaccine, especially to the pertussis component. These reactions, which are generally of short duration and not serious, include fever, muscle aches, irritability, and aching at the site of injection.

INTESTINAL PARASITES

Parasites are extremely common in developing countries. A majority of the population can be infected with one or more parasites, of which the most common are usually hookworm, Ascaris, and Trichuris (whipworm). Many of those infected will appear perfectly healthy but fever, anemia, abdominal pain, vomiting and exacerbation of malnutrition can occur with heavy infestations. These parasites are usually transmitted when barefoot children or adults step on soil contaminated by feces. They are not spread from person-to-person.

Intestinal parasitic infections should assume a very low priority in the emergency phase of a refugee operation. Because reinfestion after treatment is an indicator of poor sanitation, correction of sanitary deficiencies is likely to help abate the parasite problem and other more serious diseases.

Approach: If parasites are a problem:

1. If a laboratory is available, survey children to determine the prevalence of infection and the type of parasite involved.

2. Once several malnourished children have begun recovering, treat for possible worm infestation.

3. Check for adequate facilities for proper disposal of feces and prevention of soil contamination in areas immediately adjacent to houses, particularly in children's play areas.

4. Promote health education, and encourage refugees to use latrine facilities.

5. Longer-term parasite control efforts must include health education and the wearing of shoes or sandals. Control programs based on drugs alone do not work.

LEPROSY

Leprosy is a chronic infectious disease characterized by progressive deterioration of skin and occasionally other tissues. Despite adequate treatment now available, leprosy still carries serious social stigma in many cultures. Leprosy primarily occurs in tropical regions and in the lowest socio-economic groups. The incubation period for leprosy is 1-20 years, but 90-95% of those "infected" never develop any manifestations of the disease.

Approach: In most refugee camps in developing countries, a few people with leprosy may be encountered. Identified cases should be treated, but low priority should be given to identifying new cases and establishing a control program, especially in the early phases of an emergency, since leprosy is a chronic disease and is not very contagious. However, because of the social stigma attached to the disease, efforts may be needed to calm the fears of other refugees and workers in the camp.

MALARIA

During the last decade, malaria has had an upsurge in many developing countries, probably related to decreased mosquito control programs and increased resistance of the malaria parasite to the usual treatment. There are four types of malaria, but vivax and falciparum are the most common. Vivax is not generally a life-threatening disease, but falciparum can be rapidly fatal and needs prompt treatment. The usual symptoms of malaria are fever, chills, headache and sweats, and this can progress to kidney and liver failure, shock and coma. In an area known to have falciparum malaria, fever and delirium, disorientation or coma should be assumed to be malaria and treated promptly.

Those who have been exposed to malaria before have some immunity to the disease and may either remain without symptoms or have a mild attack if re-exposed to malaria. The major threat to health arises in non-immune refugees who may be forced to flee from a setting where malaria may not be a problem (especially urban areas), to or through jungle, swamps or other areas where malaria transmission is occurring and where they can contract the disease.

Approach: If malaria is suspected, do the following:

1. Attempt to confirm the diagnosis. Blood smears on suspect cases are simple to do and, if a microscope is available, local medical technicians can confirm the diagnosis. If laboratory confirmation is not available, assume that recurrent fever, chills and headache in a malaria area is malaria until proven otherwise.

2. Assess risk of disease. Check to see if refugees originally lived in an area where malaria was a problem. If so, they probably have some immunity and malaria will not likely be a major problem except among young children. If they do not come from an area with malaria, it is very important to check whether malaria exists along the route by which they came to the camp or in the camp area itself. Local health authorities will probably have information about the existence of malaria in the camp area and also might know whether it is the more serious (falciparum) or less serious (vivax) malaria. The refugees will most likely know whether malaria was present in their homeland.

3. Assess prevalence and severity:

   (a) Laboratory Data - If a simple laboratory is available and malaria smears can be done, examine the laboratory records

to determine the number of smears done, the number positive, and whether each smear was positive for vivax or falciparum malaria.

(b) Check morbidity and mortality records to assess the prevalence of the disease in the camp.

4. Institute control measures:

(a) If the refugees are in a highly endemic area for falciparum malaria and came from a non-endemic (malaria-free) area, one can assume that malaria may be or might become a problem*; mosquito spraying or other appropriate control measures in refugee areas and close surveillance for possible malaria should be instituted.

(b) If malaria is already a major problem, mosquito control becomes more urgent, and consideration should also be given to prophylaxis of the entire population with antimalarial drugs (if this is possible) until mosquito abatement programs can be instituted.

MEASLES

Description: Measles is a highly contagious viral infection characterized initially by fever, cough, running nose and red eyes. This is followed in 3-7 days by a dusty red, blotchy rash which begins on the face and then extends over the rest of the body and lasts for 4-6 days.

Transmission: Spread by airborne contact with nasal or throat secretions or by contact with articles freshly soiled with secretions of nose and throat.

Incubation Period: About 10 days from exposure to disease to onset of first symptoms.

Period of Communicability: From appearance of first symptoms (fever, cough, etc.) to 4 days after appearance of rash.

Carrier State: None. Prior measles infection induces lifelong immunity. Once a person has had measles, he will not get it again.

Importance: Measles is a disease that can result in very high mortality, especially in an undernourished population.

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* During the malaria season

Vaccination: Measles vaccine should be given before an outbreak occurs, ideally as soon as the refugees can be assisted. If significant malnutrition is present, it is absolutely essential to implement a measles vaccination program as soon as possible. Only one injection is necessary. Vaccine should be administered to all children between 9 months and 5 years of age. If vaccine supplies are limited, the top priority is to vaccinate all malnourished and hospitalized children. The next priority is to vaccinate 9-month to 2-year-old children, regardless of nutritional status. If vaccine supplies are ample, all children to age 12 should be vaccinated. Vaccine should not be given to pregnant women, persons with high fevers or those with severe egg allergies.

Since measles is such a highly contagious disease, it is likely that most susceptible individuals have been exposed and are incubating the disease by the time several cases have been reported. Although it is not dangerous to vaccinate an individual incubating measles, it is important not to waste vaccine and manpower trying to stop the spread of measles in a camp where the disease is already established.* Turn your attention instead to camps where measles has not yet appeared and especially to the villages immediately surrounding the infected camp.

If measles vaccine is not available prior to or early in an outbreak, it should still be ordered on an emergency basis. A decision on whether to immunize children in an affected camp will depend on factors such as estimates of the remaining susceptible population and can be deferred until the vaccine is actually available.

About 5-15% of vaccinees will develop a temperature greater than 39.4°C (103°F) generally between the fifth and twelfth day after vaccination and usually lasting for 1-2 days. Transient rashes have also been reported in approximately 5% of vaccinees.

MENINGITIS

Meningitis is characterized by fever, stiff neck and headache and, left untreated, it can progress rapidly to confusion, delirium, coma and death. Meningitis can be caused by bacteria, viruses and parasites, including malaria.

Some types of meningitis are contagious, especially those due to certain bacteria (meningococcus and hemophilus). The level of contagion is low, but occasionally meningococcus can occur in outbreaks and then be a serious cause of morbidity and mortality. Ascertaining the specific cause of meningitis is often very important since, with meningococcal meningitis, it may be appropriate to vaccinate or perhaps prophylax high risk groups with an antibiotic.

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* It takes approximately one week after vaccination for a vaccinee to develop immunity to measles. Vaccine given several days after a vaccinee has been exposed to measles is unlikely to offer protection against the disease.

Approach:

1. Confirmation of the type of meningitis often requires specialized techniques not generally available in refugee camps (e.g., spinal taps and culture of fluid obtained).

2. If there are several cases of meningitis reported with rash, assume this is meningococcal meningitis and take the following steps:

   (a) If spinal taps can be done, obtain fluid and send it back to a medical laboratory for confirmation of diagnosis and to determine the type of meningitis.

   (b) Treat and isolate all cases in a separate area until at least 24 hours of treatment has been given.

   (c) Keep an accurate tally of the number of cases and their ages.

   (d) An effective vaccine is available for some types of meningitis outbreaks. Contact appropriate health authorities in the host country or at the World Health Organization for further advice.

POLIO

Description: Polio is an acute viral infection characterized by fever, malaise, headache, nausea and vomiting, and stiffness of neck and back with or without paralysis. Polio can range in severity from inapparent infection without any symptoms to meningitis, and to paralytic disease and possibly death due to paralysis of the muscles of respiration. The incidence of inapparent infection or "minor" illness usually exceeds that of paralytic cases by more than a hundredfold.

The paralysis of polio is typically asymmetrical (i.e., involving only one leg or one arm). In refugee situations, the diagnosis is generally made on symptoms alone, since laboratory diagnosis involves the difficult task of isolating the virus from feces or saliva.

Transmission: Spread by close contact with infected individuals and rarely by food or water. In developing countries, older children and adults are usually immune to polio, having had contact with the virus during childhood.

Incubation Period: 3-21 days, but commonly 7-12 days.

Period of Communicability: Virus persists in the throat for about 1 week and in the feces for 3-6 weeks or longer. Cases are most infectious for one week before and after onset of symptoms.

Approach to Polio: Assume that fever followed by asymmetric (one-sided) paralysis is polio. Even a few cases of paralytic polio indicate an epidemic and should result in the prompt institution of a mass childhood vaccination campaign with oral polio vaccine. Oral polio vaccine is safe, inexpensive, has few side effects and is easy to administer. Inactivated polio vaccine is available in injection form, but the easiest and most effective way to administer the vaccine is through the oral route.

RABIES

In many developing countries, rabies is a threat from animal bites. The species of animal carrying rabies varies from one area to another but dogs, cats, skunks, raccoons, foxes, and bats are the most likely animals to be rabid. Rodents (squirrels, hamsters, guinea pigs, gerbils, chipmunks, rats and mice) and lagomorphs (rabbits and hares) are rarely infected.

An unprovoked attack is more likely than a provoked attack to indicate that an animal is rabid.

The DEV (duck embryo vaccine) is the old vaccine and is not as effective, causes more adverse side effects, and requires more injections than the human diploid cell vaccine which should be given as soon as possible after exposure with additional doses on days 3, 7, 14 and 28. Human rabies immune globulin should also be given with the first dose of vaccine.

Approach to Rabies: Vaccine is not readily available and is very expensive. If rabies is a problem, intense efforts should be made to control the animal species responsible rather than relying on vaccine to treat individuals bitten by infected or possibly infected animals.

SKIN INFECTIONS

Scabies is a common refugee skin infection, especially for those living in crowded conditions and with inadequate water supplies for washing. It is caused by a mite and is characterized by intense itching and small sores caused by the mite burrowing under the skin.

Impetigo (streptococcal infection of the skin) is another contagious skin infection which may be common in refugees.

Skin infections are generally a low priority in the emergency phase of the relief operation; but since these infections may be an indication of deficiencies in soap and water supply and of overcrowding, they should be investigated.

Approach: If skin infections are a major problem:

1. Check to be sure refugees have enough soap and water for washing.

2. Specific treatment (medicine) is available for both scabies and impetigo, and should be given as needed.

3. Clothes worn by refugees during the day prior to treatment should be washed thoroughly.

TETANUS (See "Diphtheria", pp. 93-94)

TUBERCULOSIS (TB)

TB is usually not an illness that needs to be considered in the first few weeks of a refugee emergency. The disease can take years to develop after original exposure and often is a chronic, progressively debilitating disease most commonly involving the lungs and characterized by fever, cough with sputum (phlegm) production and weight loss. It is usually not a rapidly fatal disease except in very young children who can die rapidly of disseminated TB or TB meningitis. Various treatment regimens have been developed, but even the shortest regimens require 6 months of continuous treatment. On the other hand, while TB may not be a first priority in an emergency, it should not be forgotten since crowded camps housing debilitated refugees provide a fertile ground for transmission of the disease. Two arguments are often raised to justify not instituting a TB control program:

--- TB requires prolonged treatment which is unlikely to be completed in an emergency refugee situation.

--- Inadequate short-term treatment may cause the development of resistent TB strains.

These are not always valid arguments in refugee situations for the following reasons:

--- Ill individuals have difficulty travelling and are unlikely to leave a safe haven where food and water are available. In addition, secure camps tend to remain in existence for more than 6-9 months (i.e., refugee situations tend to exist for far longer than desired or anticipated).

--- Short-term treatment with adequate TB combination therapy regimens is unlikely to develop resistance and may actually prevent the spread of TB in a crowded camp.

Approach to TB:

1. Attempt to confirm the diagnosis. TB can be easily diagnosed by a laboratory technician if a microscope is available. If laboratory confirmation is not available, assume that fever and cough persisting for more than three weeks is TB until proven otherwise.

2. If sputum smears can be done, examine laboratory records to determine the total number of smears examined and the number found to be positive for TB. The higher the percentage of positive TB smears to number of smears examined, the more likely it is that TB is a major problem in the refugee population.

3. Check morbidity and mortality records to assess the number of deaths attributable to TB and also the number of patients reporting to the hospital, aid station, etc., with fever and chronic cough.

4. If TB is a major problem, a treatment program for known cases should be instituted by an experienced agency or physician and case finding should begin. Patients with chronic cough and fever should have their sputum screened for TB and, if positive, should be enrolled in the TB control program. The treatment program does not need to be hospital-based.

5. Consideration should be given to starting a BCG vaccination program. Since young children are at highest risk of developing severe and rapidly progressive disease, BCG vaccine should be targeted at the young, especially children under 1 year of age. (In some countries, this vaccine is routinely given at birth.)

TYPHOID

Description: Typhoid is characterized by fever, headache, malaise, and occasionally a mild rash on the trunk. Constipation occurs more commonly than diarrhea.

Transmission: Spread by food or water contaminated by feces or urine from a patient or carrier of the disease. Occasionally, flies can also transmit the disease.

Incubation Period: 1-3 weeks.

Period of Communicability: Usually the typhoid bacteria is excreted in the stool only while the patient is sick. About 70% of patients will excrete bacteria for three months, and 2-5% become permanent carriers.

Vaccination: As with cholera vaccine, typhoid immunization is not recommended in refugee situations or in natural disasters. The vaccine requires two shots one month apart to be effective, and the vaccine is associated with a high incidence of side effects (1-2 days of localized pain around the injection site, fever, malaise and headache).

In an outbreak situation, vaccination programs can be harmful since they divert scarce resources and attention that should be directed at ensuring safe food and water supplies.

Approach: If a typhoid outbreak is suspected:

1. Confirm the diagnosis. In refugee settings, culturing urine or stool after the first week of illness and sending the specimen(s) to a regional public health lab or hospital would be appropriate.

2. Check hygiene loop to be sure water is safe and protected from sewage contamination.

3. If no obvious source is found but typhoid is confirmed as a major problem, additional help should be requested from regional or national health authorities.

WHOOPING COUGH (See "Diphtheria", pp. 93-94)

FURTHER PROBLEM ANALYSIS: HEALTH SCREENING DURING RECEPTION OF NEW ARRIVALS*

INTRODUCTION

Registration and rapid assessment of health status is one of the critical tasks in each refugee settlement. Such assessment is important in order to identify those in immediate need of health care (triage); identify specific, current health needs; and predict long-term health care needs.

It is important that registration and screening procedures be integrated and that records be kept as accurately as possible in order to keep track of the refugees and their health status. Without this data, effective relief planning will be difficult, if not impossible.

THE SCREENING PROCESS

A screening system such as the one described below should be used when refugees first enter the camp. Each refugee should be screened quickly so that large numbers of new arrivals can be evaluated without slowing down the process of settlement in the camp.

Setting Up the Screening Area

Buildings in which to conduct health screening will usually not be immediately available; an area with marked-off or roped-off segments for crowd control may be the only feasible solution. Often many people arrive at once; thus a traffic control system should be set up to avoid mass confusion. Refugees or the vehicles bringing them should be directed to stop in front of one or more locations of screening teams.

The teams should be composed of one-to-three experienced health workers, two-to-three interpreters (who may be refugees), and some non-medical volunteers. In a situation where incoming refugees constantly arrive, some of the teams may be assigned to work full-time at screening, but usually they can do this as part of other assignments.

When the refugees arrive, each family, bus or truck should be met by a member of the screening team who checks the group or scans the interior of the vehicle for any critically ill persons. Once identified, such people should be taken directly to a hospital, clinic or other medical facility for further evaluation. Refugees travelling long distances in tropical

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* Based on a paper by Donald T. Allegra, Roger I. Glass, Phillip Nieburg, and Magnus Grabe, "Rapid Health Screening as an Epidemiologic Tool in Refugee Camps", Emergency Refugee Health Care: A Chronicle of Experience in the Khmer Assistance Operation 1979-1980, Centers for Disease Control, Public Health Service, U.S. Dept. of Health & Human Services, 1984, pp. 171-176.

areas are often significantly dehydrated, particularly infants; thus water and rehydration solutions should be made available at the point of entry to the screening area so that both children and adults can be rehydrated before entering.

Demographic Data

The new arrivals are moved into one of the roped-off areas, and someone counts the total number in the group. The age and sex of each refugee should be recorded, and the area or settlement from which each has come.

Physical Examination

After the initial census data has been obtained, each refugee should be questioned about health problems. If anyone complains of illness, a brief history and physical examination should be completed. The basic examination consists of looking for conjunctival pallor, enlarged spleen, and high fever. The seriously ill should be taken to an admissions area by vehicle (if available) or stretcher. Those with mild fever, moderate anemia, or other conditions not requiring immediate attention should be given referral cards to go to one of the out-patient clinics after they and their families have settled in the camp.

Referrals

Three types of referrals can be made in the screening area: referral of critically ill patients to the medical facility; patients with non-emergency problems to out-patient facilities; and malnourished children less than five years of age, pregnant and lactating women to the supplementary feeding program where they can receive an extra meal each day and be monitored for nutrition-related problems.

Special Situations

Pregnant Women

Women of reproductive age should be asked if they are pregnant. If yes or not sure, they should be referred to a separate area where they can be given a physical examination (including estimating the month of gestation and measuring blood pressure and weight). This information should be recorded in each patient's record, and the patients referred to pre-natal services in the camp.

Children to be Vaccinated

Children from 9 months to 5 years of age should be sent to a special area where they can be vaccinated against measles. If possible, measles vaccine should be given to all children over 9 months arriving in a refugee camp.

Epidemiologic Surveys

A great deal of useful information can be obtained from single surveys of arriving refugees. If time and numbers of new arrivals allow, surveys

should be carried out as part of the screening process. A random sample should be selected to gain further information about the incoming refugees. The decision of what conditions to survey for is based on an initial impression of the major health problems among the refugees. Surveys done during the initial screening process are sometimes preferable to those involving the settled population, because initial surveys are logistically much easier to perform, and a cluster sampling technique (e.g., sampling every fifth vehicle, every 50th family, etc.) is much simpler to implement. Also, these initial data provide a baseline against which later surveys in the camp can be compared to assess the efficacy of health intervention programs (e.g., results of nutritional surveys during the health screening process could be compared with results obtained after feeding programs have been implemented).

Malaria. If malaria is a suspected problem, blood smears for malaria testing should be taken periodically from samples of newly arriving refugees.

Anemia. Random sample surveys should be taken to determine if anemia (less than 30% hematocrit) is a major problem, particularly among pregnant females.

Nutritional Assessment. Some form of nutritional assessment should be carried out. This may be the arm circumference method, such as the one used in this assessment manual (pp. 38-40), weight-for-height ratios, or other screening methods. Ideally, both arm circumference and weight-for-height would be done. This information identifies severe malnutrition and also provides a population baseline against which results of later surveys can be compared for monitoring health and nutritional status.

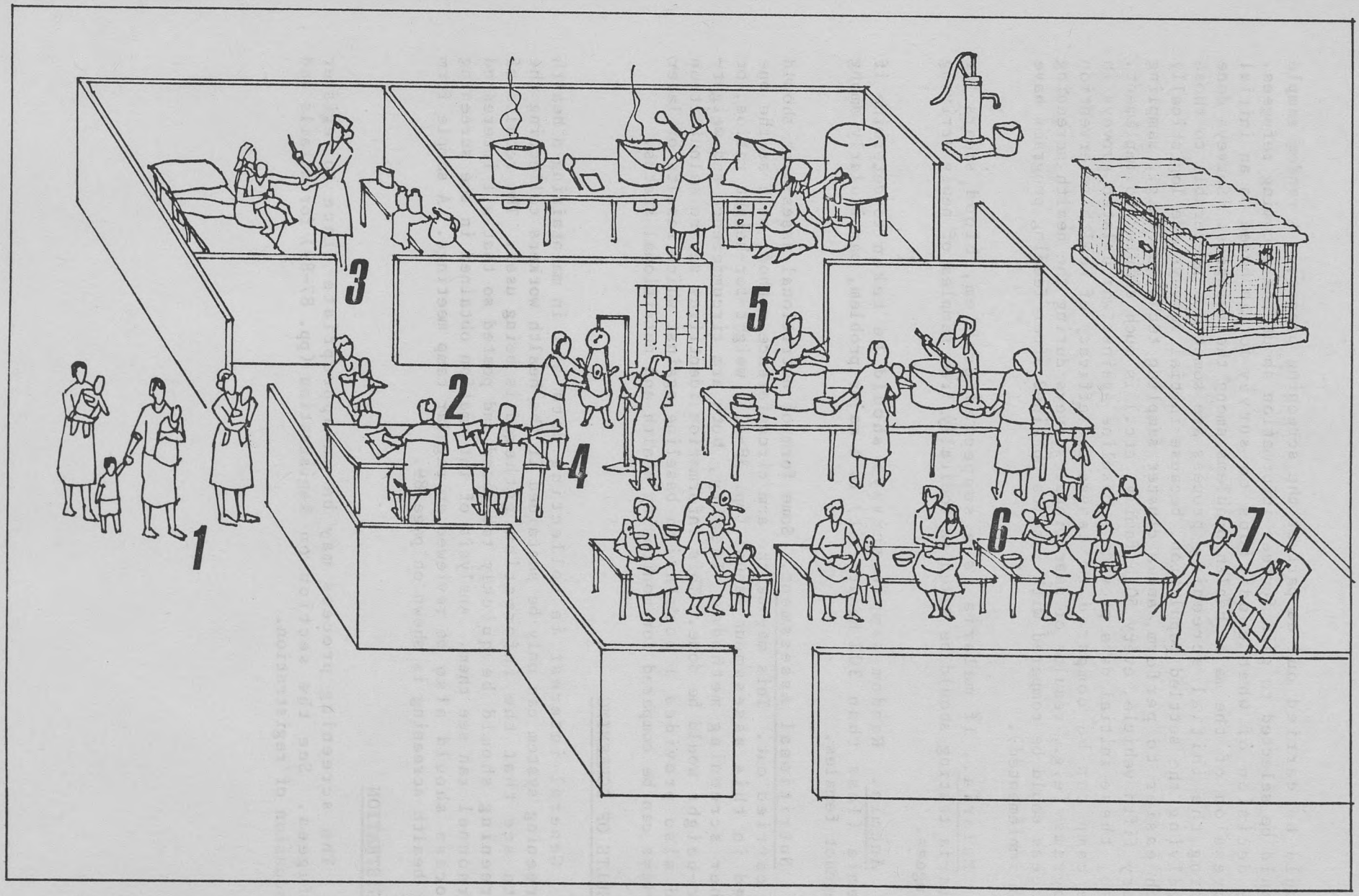
RESULTS OF SCREENING

General interest in collecting data and in maintaining a health screening system can only be sustained if the health workers collecting the data see that the information gathered is being used. The results of screening should be quickly tabulated and posted so that all interested personnel can see them. Analysis of information obtained in the screening process should also be reviewed at regular camp meetings. A sample form for health screening is shown on page 89.

REGISTRATION

The screening process may be an appropriate place to register refugees. See the section on Registration (pp. 87-89) for details and discussion of registration.

ORGANIZATION OF A SUPPLEMENTAL FEEDING CENTER



1. Controlled Entry
2. Registration/Health & Growth Monitoring
3. Immunization of New Entrants
4. Height and Weight Monitoring
5. Feeding Prepared Meal
6. Sit-down Consumption w/ Checking by Nursing Staff
7. Health and Nutrition Education

FURTHER PROBLEM ANALYSIS: FOOD SUPPLY/MALNUTRITION

Although refugee food supply problems are ultimately reflected in childhood malnutrition (and its consequences) and/or increased food prices, such problems may also come to light in a number of other ways. Conversely, when trying to trace the source of disrupted food supply, you may encounter what appears to be a nearly endless list of possible problems. The following Table I indicates the expected linkages and activities which need to successfully occur if an adequate food basket is to be supplied to refugees and if childhood malnutrition is to be avoided.

APPROACH

If childhood malnutrition becomes or remains detectable in unexpectedly large numbers of children, do the following:

1. Review the "food basket" for quality and quantity. If a specific deficiency disease has been observed (e.g., xerophthalmia), examine the food basket for an adequate source of the appropriate vitamin (e.g., Vitamin A). If the malnutrition is general calorie/energy deficiency (also called protein-energy malnutrition, wasting or marasmus), find out the intended number of calories in the food basket. Remember that at least 1800 calories per day for everyone (including children) is an absolute population minimum for reasonable growth.

2. If the food basket is adequate, find out from mothers of some malnourished children the circumstances of malnutrition. Possibilities include:

   a) pipeline problem -- not enough food available to the family.

   b) family education problem -- a relatively simple questionnaire administered to a dozen such mothers would indicate no illness, adequate family food supply, but not enough food being given to child.

   c) support problem -- adequate food available to family but inadequate cooking fuel.

   d) support problem -- supplementary feeding not available to the child.

   e) illness problem -- illness prevented normal appetite.

   f) illness problem -- excessive calorie loss/waste due to diarrhea.

TABLE I

THE NUTRITION PIPELINE CHECKLIST
FOR ASSESSMENT OF FOOD SUPPLY FOR REFUGEES AND DISPLACED PERSONS

Activity/ Decision	Desired Outcome	Responsibility	Indicators	Current Status
Choice of Foods	Adequate food basket	(Agency)	Nutritional adequacy	
Amount of Foods	Growth/Health status	(Agency)	Malnutrition/ Growth	
Importation or Purchase	Sufficient supplies to meet needs and contingencies	(Agency)	Stock levels; In-out flow	
Protected Storage	No loss or spoilage	(Agency)	Amount of Loss or Spoilage	
Distribution to Feeding Agencies	Adequate stocks	(Agency)	Waybills, Receipts	
Delivery to Distribution Center	Adequate supplies to meet all needs w/minimal reserves	(Agency)	Waybills, Receipts	
Storage at Distribution Center	No loss or spoilage	(Agency)	Visual inspection	
*Distribution to Families	Adequate family supplies	(Agency)	Receipts; Nutritional status; Amount on hand	
*Storage in Homes	Adequate stocks with minimal spoilage	Mothers*	Nutritional status; Amount on hand	
*Proper Preparation	All available nourishment	Mothers*	Nutritional deficiency diseases	
*Provision of Adequate Amounts to Children	Satiety; Good health	Mothers*	Malnutrition/ Growth	
*Breast Feeding	Adequate growth; Arrest of diarrhea	Mothers*	High infant mal-nutrition rates; Poor infant growth	

* Activities, decisions and groups on which nutrition education could have an impact

TABLE 2

Finding	Implication	Next Steps
Pipeline Problem	Waste or diversion of food between purchase/ import and delivery to family	1. Survey larger random sample for food supply/ delivery data 2. If problem confirmed, request assistance to examine storage and distribution system
Family Education Problem	Incorrect understanding of child nutrition principles	1. Create or expand nutrition in/and supplementary feeding
Illness Problem	Possible failure of prevention system(s)	1. Survey larger random sample to confirm 2. If diarrhea confirmed, indicates problem in hygiene loop (see p. 110) or with feeding bottles 3. If vaccine-preventable disease (e.g., measles) confirmed, improve immunization program(s) 4. If other disease, plan program specific for disease
Support Problem	Failure of normal support	1. Survey larger sample to confirm 2. Provide adequate cooking fuel as appropriate or 3. Institute or upgrade supplementary feeding program

THE HYGIENE LOOP CONCEPT

Water supply, sanitary facilities (latrines), water portage and storage hygiene of families, food and water preparation and storage hygiene, and personal hygiene and cleaning routines are all interconnected and are known as the "hygiene loop". Contamination anywhere in this loop can cause the spread of waterborne diseases, including diarrhea, which in turn will affect health and nutritional status. This section gives guidance on how to analyze the most critical elements and/or problems of the hygiene loop. Emphasis is placed on the water and latrine (or sanitation) systems.

WATER SYSTEMS

Water systems for refugees can be classified as closed or open systems. Closed systems are those normally found in urban areas where water is collected from a river or reservoir, treated chemically or through filtration, then piped to water distribution points. It is called a closed system because the water is not exposed from the point where it is treated to the point where it is distributed. So long as the system remains closed, the water will remain pure.

Open water systems are any means of collecting and distributing water that are exposed, or open, at any point in the distribution network. Normally, water is obtained from wells, lakes or rivers and then carried in containers either directly to the shelter or to water tanks where the refugees can come and collect the water in containers to take to their dwellings. Sometimes the water is treated at the source and sometimes in the water tanks. But most often, refugees are expected to treat the water themselves by boiling, filtering or adding chemicals or water purification tablets before using it for drinking or cooking.

Closed systems usually provide the safest constant source of water, although contamination can result at the water distribution point or in the home. Open systems are usually problematic; contamination can take place at any point in the system.

The chart on the following pages provides a brief guide for tracing problems in both open and closed water systems.

ANALYSIS OF PROBLEMS: WATER, SANITATION, PERSONAL HYGIENE

PROBLEM INDICATOR	PROBLEM	CONTRIBUTING FACTORS OR ROOT CAUSE	REMEDIAL ACTIONS
Thirst, Dehydration, Excessive cases of heat stroke, Reports of water shortages	Insufficient water at source	1. Drought	1. a) Develop emergency water source (i.e., wells). b) Deliver additional water to site. c) Move camp. d) Reduce water evaporation rates if possible.
		2. Diversion	2. Check water supply system at source and along route.
		3. Overuse of source	3. a) Institute water allocation. b) Develop alternative source. c) Deliver additional water to site. d) Move camp.
		4. Poor quality water	4. See pages 65-66.
		5. Poor site for camp/ settlement	5. Move camp.
Scabies and other skin diseases	Insufficient water for washing	1. Insufficient water supplies	1. Increase supplies (see options above).
		2. Distance to source too far from camp	2. Bring water to camp by pipes or tankers and distribute from water tanks.
		3. Insufficient storage or carrying containers	3. Distribute closed jerry cans and smaller containers for children to carry water.
		4. Poor personal hygiene	4. a) Provide soap for bathing and clothes washing. b) Build/increase washstands.

Analysis of Problems: Water, Sanitation, Personal Hygiene (Cont'd)

PROBLEM INDICATOR	PROBLEM	CONTRIBUTING FACTORS OR ROOT CAUSE	REMEDIAL ACTIONS
Diarrhea	Impure water	1. Poor quality source	1. a) Develop alternative supply. b) Treat water at source. c) Provide means to treat water in shelters.
		2. Contamination between source and home (in closed system)	2. Check water quality at all points in the system (start at water distribution point).
		3. Unsanitary conditions at source or water distribution points in camp	3. a) Check distance to latrines; if closer than 25 meters, move water point or latrines. b) Check conditions at water point. If muddy/unclean, install concrete or brick platform around point. Fence area to keep animals out. Step up cleaning/disinfection of site.
		4. Improper storage in home (usually because containers are unclean or left open)	4. a) Provide "dedicated" closed containers for clean water for drinking/cooking. b) Increase in-home protection by providing: -- boiling pots, -- adequate fuel, and/or -- chemicals (chlorine tablets)
		5. Poor food preparation, hygiene	5. a) Provide soap for dishwashing and/or personal use. b) Install handwashing facilities near latrines.
	Disease	(See pages 50-52)	
	Food	Spoilage of food	Improve in-house storage of food.

Analysis of Problems: Water, Sanitation, Personal Hygiene (Cont'd)

PROBLEM INDICATOR	PROBLEM	CONTRIBUTING FACTORS OR ROOT CAUSE	REMEDIAL ACTIONS
Excessive feces on ground	Failure to use latrines	1. Overcrowded latrines	1. Build more latrines.
		2. Poor maintenance of latrines (smelly, dirty)	2. a) Intensify latrine maintenance. b) Provide disinfectants. c) Rotate latrines (if pit latrines). d) Install screens.
		3. Fear of falling in	3. Strengthen or replace covers.
		4. Inadequate lighting at night	4. a) Install lights. b) Provide lanterns to users at entrance.
		5. Security problems for women	5. a) Place guards at latrines. b) Install lights.

FURTHER PROBLEM ANALYSIS: TRANSPORT AND LOGISTICS

Keeping one or more large refugee camps adequately supplied with all of the basic necessities for life support can be a logistical nightmare. Since relief organizations often fail to devote adequate resources and technical expertise to this necessary and vital task, you can expect to find problems in the logistics system in almost every relief operation. The problems can be classified as:

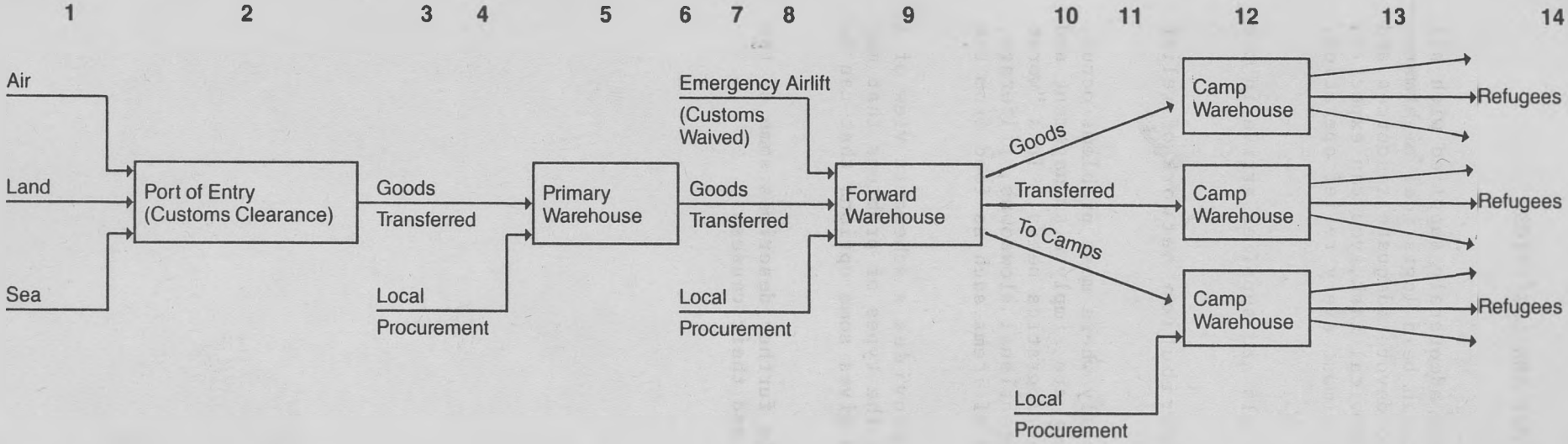
1. problems that occur before materials and supplies arrive in the country;

2. problems that occur in the distribution network of relief supplies within the country.

Of the two sets, the second is generally where most problems occur. In a "best case scenario", the problems are simply mismanagement and failure to apply adequate resources to meet logistics needs. In a "worst case scenario", the problems are due to intentional slowdowns, pilferage, theft and sometimes official diversions of items such as food from the refugee camps.

The figure on the following page provides a schematic view of a typical refugee supply pipeline, identifies the types of problems that may occur at each point in the system, and gives some options that can be considered to eliminate the problems.

The following problem analysis table further describes some of the most common transport and logistics problems and their causes.



PROBLEMS:

1. –Procurement delays
   –Shipping delays
2. –Clearance delays
   –Pilferage
   –Diversions by local gov't
   –Spoilage
3. –Transport delays
   –Enroute pilferage
4. –Procurement delays
   –Poor quality goods
5. –Pilferage
   –Spoilage
   –Lost in bureaucracy
   –Forgotten
6. –Bureaucratic losses
7. –Enroute Pilferage
   –Thefts
   –Spoilage
8. –Procurement delays
   –Poor quality goods
   –Transport delays
9. –Pilferage
   –Spoilage
   –Lost in the records
   –Forgotten
   –Mismarked
10. –Enroute pilferage
    –Thefts
11. –Unavailability of goods
    –Insufficient quantities
    –Poor quality of goods
12. –Pilferage
    –Thefts
13. –Inequitable distribution
    –Hoarding
    –Diversion by refugee leaders
14. –Unsuitability to refugee needs
    –Culturally unsuitable
    –Over-rapid consumption
    –Insufficient quantities to meet needs

ANALYSIS:

A. A way to speed delivery at the port of entry is to establish the warehouse at or adjacent to the customs shed at the wharf or airport and off-load directly from the carrier to the warehouse.

B. One way to speed deliveries through the system and reduce losses may be to eliminate the Forward Warehouse and ship goods directly to the camps.

C. One way to reduce food losses, increase consumption, and make stocks easier to monitor, is to provide limited rations. For example, a ten-day ration is smaller, thus easier to monitor, and people will not be as likely to hoard that amount. Overconsumption by malnourished people will not be as critical (i.e. if they eat all in the first 7 days, they will only be out of food for 3 days until the next distribution).

TYPICAL REFUGEE LOGISTICS SYSTEM AND EXPECTED DELAYS

TRANSPORT/LOGISTICS PROBLEM ANALYSIS TABLE

PROBLEM	POSSIBLE CAUSE
1. Inadequate Food Supply for Refugees	a) needs not properly anticipated b) port congestion c) inadequate in-country transport vehicles d) inadequate vehicle fuel supplies e) inadequate road system (seasonal?) f) inadequate central warehousing g) inadequate regional warehousing h) inadequate camp warehousing i) inadequate administrative system to manage logistics j) inadequate camp distribution process
2. Spoiled Food	a) wet storage facilities b) pests in storage facilities c) inadequate dock/ship unloading facilities d) food stored too long before distribution (includes failure to rotate stocks)
3. Recorded Shortages Between Central Supply and Camp	a) inadequate checks and controls of transportation process b) inadequate warehouse bookkeeping/controls c) lack of oversight responsibility d) stocks held too long (oversupply facilitates pilferage)
4. Port Congestion (Backup)	a) customs clearance system not clearly defined for relief goods b) inadequate facilities for handling off-loading and storage c) not enough central storage d) distribution to regional warehouses inadequate e) lack of transport fuel f) inadequate transport vehicles (trucks, trains, boats, barges, etc.)
5. Transport Vehicles Not Running to Capacity	a) lack of fuel b) lack of spares/parts c) lack of maintenance facilities/personnel d) inadequate administrative efficiency or technical skill e) roads, train tracks, waterways may not be adequate (seasonal?)

FURTHER PROBLEM ANALYSIS: FLY AND MOSQUITO CONTROL

In the initial assessment, it is important to determine the potential of mosquito- and fly-related problems and to identify what resources are required. Since these pests can carry diseases, they are known as "vectors", and efforts to control them are called "vector control". If vector-borne diseases such as malaria are a threat, vector control efforts should be started as soon as conditions permit.

A considerable amount of incorrect information concerning mosquito and fly problems and the diseases related to these pests can be generated by unreliable sources. In most cases, these fears are exaggerated, and careful analysis of the situation (especially if it can be compared with information collected before the emergency) will permit a proper evaluation of the threat and ensure that logical decisions can be made.

Issues and Concerns

Knowledge about both the prior and current situation regarding flies and mosquitoes, and the diseases that they transmit in the areas where refugees are converging, is needed to determine priorities for action. It is also important to know the effect of various natural conditions on vector problems. For example, flooding usually flushes out or destroys mosquito breeding sites, but subsequently creates additional habitats that may eventually produce even greater mosquito populations. The storage of potable water in shelters can provide additional breeding sites for mosquitoes, while latrines can provide breeding sites for both flies and mosquitoes. Inadequate food storage, poor sanitation practices and contamination by debris, animal carcasses and excreta, all provide food sources for flies.

The convergence of people from different regions may provide an opportunity for proliferation of diseases. For example, persons with a certain strain of malaria may move into an area where the strain is unknown, permitting mosquitoes at the site to spread the disease.

Control Measures

Control of flies and mosquitoes and the diseases they transmit is a coordinated effort between the epidemiological surveillance and medical authorities and the vector control team. Once mosquitoes and flies are identified as a problem, and especially if disease transmission by mosquito vectors is occurring, prompt attention should be given to a control program. Local, regional or national health authorities would be the best resources to consult.

FURTHER PROBLEM ANALYSIS: HOME-USE FUEL

A reliable supply of fuel is needed for refugees for two reasons:

1. Cooking -- without adequate fuel for cooking, the relief program will have to provide cooked food directly. If fuel is provided, preparation of foods by individual families is facilitated.

2. Heating -- fuel is needed to provide heat in shelters during cold seasons.

Sources:

Refugee populations have two possible sources of fuel: the environment and the relief program. From the environment, refugees can gather wood and animal dung (if the refugees have large herds). When relief agencies supply fuel, it is most often wood, charcoal or kerosene. Other fuels such as waste materials from the relief program, solar energy, biogas from latrines and other methods, although theoretically useful, are generally considered to be too unreliable for large-scale use in refugee camps.

Common Problems

The most common problems in providing fuel are scarce supplies and competing demands for funds and transport. Thus, refugees normally end up cutting down trees and scrub brush surrounding the refugee camps. In some cases, this deforestation has added to local erosion problems.

Possible Approaches

In many ways, the problem of fuel can never be fully solved. Two common ways to maximize available resources are:

1. providing more efficient stoves, such as the Lorena stove and other improved designs; and

2. introducing charcoal-making (if wood is the primary fuel). Charcoal burns hotter and slower, and therefore does not require as much wood.

Another possibility for long-term camps is growing a portion of the fuel. Several species of fuel-wood trees have been successfully introduced as a means of satisfying a portion of the total fuel demand.

Another option which can be tried in sparsely-populated, arid areas where plentiful scrub trees may be available is to form teams of wood cutters and provide them with transport to go to remote areas to harvest wood for the camp.

One other possibility that has been used with limited success in a few areas is to switch portions of the food basket to less energy-intensive foods. For example, by switching from rice (which requires almost one hour of heating for preparation) to another grain such as corn (which only requires five minutes of heating), substantial reductions can be made in fuel requirements. Changes such as these are difficult, however, if the food being substituted is not familiar to or commonly eaten by the refugees. Also it should be remembered that, because most "food baskets" contain only a few foods, care must be taken not to upset the nutritional balance being provided.

FURTHER PROBLEM ANALYSIS: FIRE PROTECTION

Vulnerability to fire depends on the camp layout and type of shelter construction. The population density of many refugee camps will be much greater than normal living conditions. Because of lanterns, open fires and highly-combustible building materials, fire can be a major threat. Thus, prevention and preparedness steps should be taken as soon as it appears that the settlement will be semi-permanent.

Suggestions for fire prevention:

1. Firebreaks 30m wide every 1000 ft. of built-up area;
2. 15m space between frame-constructed shelters of one-story;
3. 20m space between frame-constructed shelters of two stories;
4. Warehouses separated by 30m;
5. Tents should have a minimum of 2m distance, with 25m breaks every 300m;
6. Organize a firefighting team and provide basic firefighting equipment.

FURTHER PROBLEM ANALYSIS: SOCIAL SERVICES

The trauma of becoming a refugee can be very great. Social and psychological problems are created or exacerbated. Appropriate measures for resolving these problems are essential. It must be remembered that refugees are people with normal hopes, dreams and expectations. Being a refugee interferes with normal life, creating additional stress and fear. It can also lower the sense of self-esteem.

Social services must be designed to enable the refugees to participate in meeting their own needs. Care must be taken to utilize the refugee community's own resources for these efforts.

At a minimum, the following social services should be in place after 3 months:

1. Family reunification.
2. Programs of care and/or protection of unaccompanied minors.
3. Self-help programs (e.g., gardening, works projects, markets).
4. Public health and nutrition programs.
5. Mail services.

After six months, the following programs should be in place:

6. Programs for individuals who need special assistance in adapting socially or psychologically to their situation (especially teenage children).

7. Programs to assist the physically handicapped.

Determining whether or not these services are adequate is always difficult and usually not an emergency concern. However, some indicators that social services need to be increased or adjusted include the following:

Indicator	Problem	Options
Vandalism by teenagers	Boredom, frustration	Work, school and sports
Child abuse	Frustration	Work, counseling
Strikes or other organized protests	Frustration, specific grievances	Respond as appropriate
High incidence of women not menstruating	a. Stress, psychological problems, missing family (esp. children)	Counseling, women's programs, mother and child activities; step up tracing
	b. Ongoing malnutrition	Improve nutrition for women of childbearing age

FURTHER PROBLEM ANALYSIS: ANTICIPATING NEEDS OF NEW ARRIVALS AND PERSONS IN CONTESTED AREAS

It is often important to determine the health and nutritional status of persons who may seek assistance but are currently outside the reach of organized or extensive relief programs. These could include refugees living in an area of conflict, people known to be in transit to reception centers, persons trapped by fighting and unable to flee, and small groups of people from remote famine areas. In most cases, only limited information about these groups is available; yet conclusions must be drawn about their health and nutritional status in order to determine whether direct emergency assistance should be provided before they arrive (such as cross-border relief) and what assistance should be ready if and when they arrive. The process of determining health status in this situation is called "remote detection". The process relies on:

1. Interviews with recently-arrived refugees;

2. Interviews with relief or other personnel operating in or near the population of concern;

3. Assessment of the health and nutritional status of new arrivals.

PROCEDURE

Fifty families among the new arrivals are randomly selected. Each family is asked the following questions, and the arm circumference or weight-for-height ratios of all children under 5 is measured.

Questions:

1. Age of each person in family?
2. From what area of homeland?
3. Length of time in transit? Distance?
4. Occupation of father (professional, soldier, farmer, etc.)?
5. Arm circumference of children under 5?
6. For each family:
   - A. Number of live births in last 5 years?
   - B. Number of children still living?
   - C. Number who died in last 2 months (since travel began)? State causes.
7. Reason for departure?

Analysis:

From the above information, develop the following data:

1. Age pyramid: Compare with usual age pyramid of the country of origin*. Any differences? If yes, why?

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* If this data is unavailable, use data from a nearby country with similar characteristics.

2. Place of Origin: If refugees are from several regions in their homeland, the data on childhood mortality, nutrition, etc., can be broken down by region to give an assessment of conditions in each area of the homeland.

3. Socio-economic Group: Was this an anticipatory or acute refugee movement (see #2 below)? If anticipatory, the next wave of refugees is likely to be in far worse condition.

4. Nutrition Data:

   A. Present (based on arm circumference data) - What is the nutrition level of the refugee population, and is it true of refugees from all areas? Will a large nutritional rehabilitation program be necessary for refugees yet to arrive?

   B. Recent Past - What are the percentages of children less than 5 years old, and has mortality been high in the last two months?

Interpretation Parameters:

1. Age Groupings: In an armed conflict, young men are likely to be fighting and the wounded, the old, the women and the young children may be sent to safety in refugee camps, skewing the population pyramid toward the very young and very old. Conclusions based on the health of these groups would overestimate health problems.

   The most vulnerable group is the 1-5 age group. They are in a rapid growth phase requiring more food and, after weaning from their mother's breasts, they are least likely to be able to compete for food with other family members. If there is a large gap in numbers in this age group compared with the usual population pyramid for developing countries, this would indicate acute food shortages.

2. Occupation/Socio-economic Class: There are two major types of refugee movement. "Anticipatory" or voluntary migration refers to situations where the whole family moves in an organized fashion bringing resources with them. If a crisis is sub-acute and primarily political, the well-to-do (professionals, businessmen, etc.) may take steps to leave early, and the first wave of refugees may be well-fed, healthy and totally unrepresentative of the masses of marginal farmers who may emigrate on the spur of the moment without resources in an "acute" refugee movement at a later date.

3. "Unde Venis" - Where have the refugees come from?

   A. Food Patterns: In an emergency (especially an armed conflict), there may be enough food, but distribution can be haphazard, especially where there is ongoing conflict. Refugees coming from an area which is cut off from food supplies by the conflict may be acutely malnourished when

the rest of the population has plenty of food and no undernutrition.

B. Health Patterns: The best example of this is malaria. In many developing countries, malaria is only present in rural areas or below a certain altitude. In assessing the risk for a major malaria problem, it would be important to know the origin of the refugees and whether they emigrated through a malaria-endemic area. If they were at least partially immune to malaria because of prior exposure in their homeland, malaria might not be a major problem, even if they are housed in refugee camps in a malaria-endemic area.

C. Length of Time in Transit: The longer the transit time, the more likely the refugees are to be debilitated. If they have been in transit for a very long time, they may be in poor health but the population left behind in their area may be healthy.

POTENTIAL BIASES OF BORDER/REFUGEE POPULATIONS

Potential Bias	Implications
1) Vulnerable group(s) may be sent to borders	1) Population biased toward young/old; population biased toward sicker/ weaker.
2) Higher-income people may leave earlier	2) People left behind are poorer (worse health/nutritional status).
3) Refugees may represent only small population at risk	3) Is the refugee population likely to have been singled out for oppression? If so, status of those left behind may be better.
4) Exposure to unusual disease risk	4) E.g., malaria in Cambodians: non-immune population forced to flee through malaria-infested jungles to camps where malaria transmission was occurring; malaria not a problem in those left behind.
5) Difficulty of flight	5) (a) Only survivors "made it" to border; things may actually be worse than they appear. (b) Weaker ones did not attempt to flee; same conclusion.
6) Time in transit/ distance of travel	6) Travel weariness makes status appear worse than before leaving.

GLOSSARY

Assessment	Survey of an emergency situation to collect, analyze and appraise information on problems and needs in order to make recommendations for necessary relief action.
Branch Office	A UNHCR office responsible for a single country.
Calorie	A unit of energy, originally defined as the quantity of energy (or heat) necessary to raise the temperature of one gram of water, at constant atmospheric pressure, by 1°C. The kilo-calorie (sometimes called the kilogramme-calorie or large calorie) is 1000 cal. The calorific value of foods is usually given in terms of kilocalories and through loose usage the prefix "kilo" is often omitted. It is abbreviated as "kcal".
Civil Defense	A government agency that serves to coordinate, organize and direct in time of emergency the government, voluntary agency and private emergency response systems. It also acts to prevent, mitigate and prepare for disasters. The civil defense agency provides relief and life support in an emergency situation. It also initiates recovery and rehabilitation action and programs. In some countries, similar functions may be performed by civil protection, emergency preparedness, emergency services, civil preparedness or disaster assistance agencies.
Cooperative Agreement	The legal document by which the Department of State Bureau for Refugee Programs specifies refugee-related services to be provided by private voluntary agencies and transfers funds to them. On the Bureau's domestic side, the cooperative agreement is the guiding document in the Reception & Placement Program.
Coping Mechanisms	Patterns of social relationships which develop within any group for meeting needs or handling problems. Among refugees these have often broken down and may either have to be re-established or new, more appropriate patterns developed.
Corn-Soya Blend (CSB)	Precooked blend of corn, defatted soy flour, vitamins and minerals; a Food for Peace commodity often used in supplementary feeding programs.
Corn-Soya Milk (CSM)	Precooked corn, defatted soy flour, dry skim milk, vitamins and minerals; a Food for Peace commodity often used in supplemental feeding programs.

Counseling Projects	A UNHCR-funded effort to provide social work services for refugees. Funds are provided to pay all or part of the salaries and administrative support costs of social workers. Services provided generally include a wide range of social work activities, including but not limited to counseling. UNHCR uses the designation "CL" to indicate projects funded from the "counseling" category of assistance.
Country of Asylum	A country which has granted asylum to a person.
Country of First Asylum	A country which can be deemed to have granted asylum to a person before he or she left it for another.
Country of Origin	The country from which a refugee originates.
Country of Resettlement	A country that provides permanent asylum for refugees other than their country of origin or of first asylum.
Damage Assessment	Appraising or determination of the actual physical effects resulting from a disaster.
Deforestation	The clearing of a previously forested area. Deforestation often occurs near refugee camps as the refugees search for firewood.
Desertification	The process by which an already arid area becomes even more barren because of prolonged drought, sand drift or man-made degradation of the environment.
Diet	The total solid and liquid foods consumed by an individual or by a population group, either on an average basis or during a specified period.
Disaster	A disaster is a catastrophic situation in which the day-to-day patterns of life are, in many instances, suddenly disrupted and people are forced into suffering and loss, and as a result may need food, protection, clothing, shelter, medical and social care and other necessities of life. Disasters may be man-made or have natural causes and may include earthquakes, floods, fires, hurricanes, cyclones, major storms, volcanic eruptions, and creeping disasters such as droughts, epidemics or serious food shortages, as well as disasters of civil strife in which many victims may be left homeless as much property is seriously damaged or destroyed. Slow-moving disasters such as drought, health deterioration, epidemics and famine do not manifest themselves until extensive damage and suffering are widespread. Refugee emergencies often occur in the midst of these other disasters.

Disaster Area Survey Team (DAST)	A group that is deployed in an area after a disaster to ascertain the extent of damage to population and property and to recommend appropriate responses.
Disaster Assistance	Provision of measures to prevent, reduce the impact of, and reverse the effects of disasters. Phases include relief, rehabilitation, reconstruction and preparedness, and prevention and mitigation.
Displaced Person	An individual uprooted from his/her home. Internally-displaced persons have relocated in their own country, while externally-displaced persons have crossed an international border. Displaced persons may also be able to establish that they should be recognized as UNHCR-mandated or convention or protocol refugees. (For simplicity's sake, the term "refugee" has been used herein in a very broad sense to include displaced persons.)
Drought	Prolonged absence or marked deficiency of precipitation.
Durable Solution	A positive, lasting alternative to the condition of being a refugee. An essential element is the refugee's acceptance of the permanent protection of a government. A full, durable solution requires both economic self-support and social integration. The following are the durable solutions recognized by UNHCR: voluntary repatriation; local integration; resettlement.
Determination of Refugee Status	The act of assessing eligibility of an applicant for refugee status under 1951 United Nations Refugee Convention and 1967 Protocol.
Epidemic	An unusually high incidence of a disease defined in time, place and persons, and compared with previous experience. Epidemics of contagious diseases are of two types: a propagated or contact epidemic is one that results from increased frequency of person-to-person or chain transmission; a common vehicle epidemic is one that results from dissemination of the causative agent to a group of people through a common medium such as water, milk or food.
Epidemiology	The study of the health of a population, and the environmental interrelationships affecting health; also the surveillance of and techniques for discovery of sources, causes and control of epidemics.

Famine	A general scarcity of food with resulting hunger and starvation for large numbers of people.
Flood Plain	An area adjacent to a river, formed by repeated overflow of the natural channel bed. Refugee camps are often inadvertently placed on flood plains.
Food Basket	The basic ration supplied to refugees living in camps or camp-like situations. This implies regular provision of adequate amounts of a nutritionally-balanced diet. The food basket should be a mix of foods designed to provide the necessary balance of calories, nutritional value, vitamins, minerals, etc., for a basic healthy diet and should correspond as closely as possible to the food habits of the population.
Food for Peace	A United States Government program which provides food assistance to populations in need. Food for Peace commodities consist of grains, oils, legumes and blends of commodities whose nutrient values have been predetermined and which are sufficiently universal in nature to be accepted by most populations.
Food for Work	Program where persons perform necessary jobs to improve their communities and for which they receive food as full or partial payment. Also, a formal component of the P.L.480 Title II (Food for Peace) program.
Governmental Organization	A body constituted by a government, subject to the direction and control of that government.
Groups with Special Needs	These are refugees who may be physically, mentally or socially disadvantaged in comparison with other refugees. To ensure that such persons are able to meet both their daily living and their special needs is a priority for social services staff.
Humane Deterrence	The term for the Thai policy of putting newly arrived refugees in austere camps and initially denying them access to resettlement as a way of stemming the refugee flow from Vietnam, Kampuchea and Laos. This policy is also used by the Hong Kong authorities.
Implementing Agency	An organization funded by UNHCR to provide certain assistance to refugees.
Implementing Instrument	A document through which UNHCR authorizes expenditure under a specific project.

Infectious Diseases	Diseases that may be transmitted from one living thing to another. Several pathogenic bacteria are able to attack the mucosea lining the upper respiratory tract (nose, mouth, etc.) and give rise to disease; notable among these are the diptheria bacillus and whooping cough bacillus.
Infrastructure	The underlying foundation or basic framework of a system or organization. For example, the infrastructure of a refugee settlement could include such community facilities as a water supply system, roads, electricity, schools and a clinic.
In Kind	Commodity donations given at the time of a disaster, which may consist of food, blankets, medicines, tents, etc.
Intergovernmental Organization	A body constituted by more than one government, subject to the direction and control of those governments.
International Instrument	Treaties or conventions adopted by States at the international or regional level.
International Protection	The protection extended by UNHCR on behalf of the international community to refugees who by definition do not enjoy the protection of their former home country.
Local Integration	A durable solution that involves receiving permanent acceptance from the government of the country of first asylum and achieving self-support.
Logistics	A term loosely applied to a wide range of activities connected with supply, transportation, storage and distribution of relief goods.
Malnutrition	The condition of severe shortage of protein and calorie intake to such a degree that wasting and shrinking of muscles occurs and performance of daily tasks is drastically inhibited. Malnutrition is measured by several indicators, including upper arm circumference, weight/height, weight/age ratios. These measurements are compared to a standard for a well-nourished individual of the same age.
Morbidity	Illness.
Mortality	Death.
MUAC	Middle upper-arm circumference.

Needs Assessment	The process of identifying needs and resources required by a population during an emergency.
Non-governmental Organization (NGO)	A body not constituted by a government and not subject to the direction and control of a government.
Operational Partner	An organization that carries out assistance for refugees in cooperation with UNHCR, regardless of the source of funding for these activities. These can include: the government of a country of asylum; international intergovernmental organizations; non-governmental organizations (NGOs); private firms and technical consultants. The term applies most correctly to an organization contributing a portion of the resources required.
Outreach	Contacting refugees in the community for such purposes as informing them about available services, assessing their needs, encouraging action toward durable solutions, and following up previous contacts.
Project Management System (PMS)	The standard process for project design, review, implementation, management and evaluation used by UNHCR.
Refoulement	Involuntary return of persons who are subject to persecution in their country of origin or country of habitual residence.
Refugee	Under the terms of the Refugee Act of 1980, an alien (he or she): -- Outside his country of nationality or, if he has no nationality, outside his country of habitual residence or, if he has multiple nationalities, outside all countries of which he is a national; and -- unable or unwilling to return to that country or those countries; and -- unable or unwilling to avail himself of the protection of that country or those countries; because -- he has been persecuted or has a well-founded fear of persecution on account of race, religion, nationality, membership in a particular social group, or political opinion, or is otherwise ineligible for refugee status under the Convention and Protocol. An alien who satisfies all of the criteria above, except that he is still in his country of nationality or habitual residence may be considered a refugee under U.S. law if the President has so specified.

Refugee (Continued)	An alien who meets all of the criteria above is not a refugee if he participated in the persecution of others on account of their race, religion, nationality, membership in a particular social group, or political opinion, or is otherwise ineligible for refugee status under the Convention and Protocol. This manual uses the term "refugee" not only in accordance with the above definition, but also to refer to a displaced person or someone else on whose behalf the UNHCR is exercising its good offices.
Regional Office	A Regional Office of UNHCR covers several countries that generally do not have branch offices.
Resettlement	A durable solution involving migration to a third country accepting refugees permanently.
Screening	The process of body measurement to identify individuals needing nutritional or health assistance.
Shelter	Housing to meet basic needs of refugees. Immediate needs are often met by the use of tents, although better alternatives are usually made of local materials.
Situation Report	A brief report that is published and updated periodically (sometimes daily) during a relief effort and which outlines the details of the emergency, the needs generated, and the responses undertaken by all donors as they become known. Sitreps are issued by U.S. Missions overseas in telegram format and by UNHCR, ICRC and LRCS via telex.
Soy-Fortified Bulgur (SFB)	A Food for Peace commodity, often used in refugee rations.
Soy-Fortified Cornmeal (SFCM)	A Food for Peace commodity, often used in refugee rations.
Staple Food	A food which is regularly consumed in a country or community and from which a substantial proportion of the total calorie supply is obtained, especially by the poorer population sector and in times of food shortage.

Starvation	A state of extreme malnutrition caused by the long, continued deprivation of essential nutrients. It usually results from insufficient food intake, either because food is not available or because it is unable to be eaten due to illness or other factors.
Sub-office	In some countries UNHCR establishes sub-offices within a country. These are responsible to a branch or regional office.
Supplemental Feeding Program (SFP)	A special program designed to feed selected high-risk groups of the refugee population during times when normal food supplies are inadequate.
Surveillance	The repeated and constant monitoring of nutritional status and health.
Therapeutic Feeding	Intensive feeding of severely malnourished persons.
Unaccompanied Minor	A person up to the age of 18 years who is not accompanied by a parent, a close non-parental relative caring for the child, or a legal guardian.
Under-nutrition	The state of calorie/protein intake that is less than recommended minimum requirements and may be the result of poor eating habits, inadequate knowledge of nutritional requirements, or limited availability of necessary nutrients. Under-nutrition can be a constant and undetected condition for several years before becoming debilitating.
Volag	Voluntary agency or private voluntary agency (PVO).
Voluntary Agency	Non-governmental agency or organization. Some possess personnel trained to assist in disasters and refugee emergencies. Some volags have capabilities that extend from the local to national and international levels.
Voluntary Repatriation	A durable solution involving voluntary return to the country of origin.
Wheat-Soya Blend (WSB)	Precooked blend of whole wheat flour, defatted soy flour, vitamins, sugar and chemicals, sometimes distributed in supplementary feeding during an emergency.

LIST OF GENERAL ACRONYMS

AFSC	American Friends Service Committee, Inc.
AID	Agency for International Development (referred to as USAID overseas)
AP	Associated Press (USA)
ASEAN	Association of South-East Asian Nations (Jakarta)
BBF	Brother's Brother Foundation
BMMF	Formerly British Medical Missions Fellowship, now just BMMF (New Delhi)
CARE	Cooperative for American Relief Everywhere, Inc.
CASA	Christian Agency for Social Action (India)
CCC	Customs Cooperation Council (Brussels)
CCSDPT	Committee for Coordination of Services to Displaced Persons in Thailand (Bangkok)
CDC	Centers for Disease Control (Atlanta)
CI	Caritas Internationalis (Rome)
CICARWS	Commission on Inter-Church Aid, Refugee & World Service (WCC)
CIDA	Canadian International Development Agency (Ottawa)
COR	Office of the Commissioner for Refugees, Government of Sudan
CORR	Christian Organization for Relief & Rehabilitation (Dacca)
CORSO	New Zealand Council of Organizations for Relief Service Overseas, Inc.
CRS	Catholic Relief Services
CWS	Church World Service
EEC	European Economic Community (Brussels)
ERO	Emergency Relief Operations of WHO (Geneva)
FAO	U.N. Food & Agriculture Organization (Rome)
GIEWS	Global Information and Early Warning System (FAO)
IBRD	International Bank for Reconstruction & Development (World Bank, Washington)
ICM	Intergovenmental Committee for Migration (Geneva)
ICRC	International Committee of the Red Cross (Geneva)
ICVA	International Council of Voluntary Agencies (Geneva)
ILO	International Labor Organization
IMF	International Monetary Fund (Washington)
IRC	International Rescue Committee
LRCS	League of Red Cross/Red Crescent Societies (Geneva)
LWF	Lutheran World Federation (Geneva)
LWR	Lutheran World Relief (New York)
LWS	Lutheran World Service (Geneva)
MDRO	USAID Mission Disaster Relief Officer
MSF	Medecins sans Frontieres (Paris)
NCR	Norwegian Church Relief (Oslo)
OAS	Organization of American States (Washington)
OAU	Organization for African Unity (Addis Ababa)
OFDA	AID Office of U.S. Foreign Disaster Assistance

OSRO	FAO Office of Special Relief Organization (Rome)
OXFAM	Formerly Oxford Committee for Famine Relief, now simply OXFAM (Oxford, U.K.)
PAHO	Pan American Health Organization (Washington)
Resrep	UNDP Resident Representative
SAVE	Save the Children Federation, Inc. (Connecticut)
SCF	Save the Children Fund (London)
SWISSAID	Swiss Association for Aid to Developing Countries (Bern)
UNBRO	U.N. Border Relief Operations
UNDP	U.N. Development Programme (Geneva, New York)
UNDRO	Office of the U.N. Disaster Relief Coordinator (Geneva)
UNEP	U.N. Environment Programme (Nairobi)
UNESCO	U.N. Educational, Scientific and Cultural Organization (Paris)
UNFPA	U.N. Fund for Population Activities (New York)
UNHCR	U.N. High Commissioner for Refugees (Geneva)
UNICEF	U.N. Children's Fund (New York)
UNIPAC	UNICEF Packing & Assembly Centre (Copenhagen)
UNRWA	U.N. Relief & Works Agency (for Palestinian refugees - Vienna)
UPI	United Press International (USA)
USCC	United States Catholic Conference (Washington)
VITA	Volunteers for International Technical Assistance, Inc. (Washington)
WCC	World Council of Churches (Geneva)
WFC	FAO World Food Council (Rome)
WHO	World Health Organization (Geneva)
WMO	World Meteorological Organization (Geneva)
WVI	World Vision International (California)