Internship at the Centers for Diseases Control

Survey method to assess reproductive health of refugees

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International Emergency Refugee Health Branch (IERHB)

- Division of Emergency and Environmental Health Services (EEHS),
- National Center for Environmental Health (NCEH)

IERHB mission statement

- to bring public health and epidemiologic principles to the aid of populations affected by complex humanitarian emergencies

IERHB mission statement

- Upon request of
    - Government agencies
    - International agencies/ NGOs
    - United nations

$\Rightarrow$ Coordinates, supervises, and monitors response to complex humanitarian emergencies

IERHB mission statement

- Provides direct technical assistance to emergency-affected populations in the field

  $\Rightarrow$ rapid health and nutrition assessments, public health surveillance, epidemic investigations

- Develops and implements operational research projects

  $\Rightarrow$ improving response to complex and humanitarian emergencies

- Develops technical guidelines on public health issues in complex humanitarian emergencies

IERHB Survey and Research

- War Related Injuries
- Mental health
- Nutrition
- Surveillance and Data Collection Methods
- HIV/AIDS
- Epidemiologic Assistance in Complex-Humanitarian Emergencies
- Pacific Emergency Health Initiative

What about reproductive health for refugees?

National Center for Chronic Disease Prevention and Health Promotion (NCCDP)

Division of Reproductive health,

Global RH

Refugee RH

5-year Agreement between USAID and DRH, CDC

Technical assistance is provided for

- Reproductive health surveys
- Reproductive health epidemiology
- Contraceptive logistics
- Refugee reproductive health

In developing countries where USAID has a mission

Refugee reproductive health activities:

- Epidemiologic investigations (reproductive health status)

- Reproductive health rapid assessment tool and behavioral and epidemiologic surveillance systems

  $\Rightarrow$ Design, implement, evaluate interventions

- Strengthen the capacity to collect and use data

Technical Assistance

- sample design
- questionnaire content and design
- interviewer training
- fieldwork logistics
- data entry and editing
- data analysis
- report production/ recommendations

Refugees Reproductive health surveys

- A Determination of the Prevalence of Gender Based Violence (GBV) Among Conflict-Affected Populations in East Timor and Kosovo, 2002

- An Assessment of Reproductive Health Issues Among Karen and Burmese Refugees Living in Thailand, 2001

- Azerbaijan Reproductive Health Study, 2001

- Reproductive Health Survey Among Afghan Refugees Living in Pakistan, 2000

- Maternal Mortality Among Afghan Refugees in Pakistan, 1999–2000

- An Evaluation of Poor Pregnancy Outcomes Among Burundian Refugees in Tanzania 1997-98

Under testing: Tool kit for data entry and analysis software programs

Maternal Mortality Among Afghan Refugees in Pakistan, 1999–2000

- Goal of the Study:
  - To identify the gap in knowledge about maternal health among Afghan refugees settlements/ Pakistan
  - Guide health care intervention

Maternal Mortality Among Afghan Refugees in Pakistan, 1999–2000

- Specific objectives:
    - Burden of death among women due to maternal causes
    - Risk factors for maternal death
    - Preventability
    - Barriers to health care

Maternal Mortality Among Afghan Refugees in Pakistan, 1999–2000

- ## Method and procedure
  - Population based retrospective cohort
  - 12 Afghan refugees settlements/post-emergency phase
  - Data collection for a 19.4 month period
  - 2 stages:
    - ⇒ identification of all deaths in the population
    - ⇒ investigation of deaths among women of reproductive age

Maternal Mortality Among Afghan Refugees in Pakistan, 1999–2000

- RAMOS (reproductive age mortality survey)
  - Verbal autopsy of surviving family members
  - Standardized questions to determine maternal and other causes of death
    - 3 barriers to health care access
 - + questions about demographic, risk factors, preventability

Maternal Mortality Among Afghan Refugees in Pakistan, 1999–2000

- Results:
  - 134,406 refugees in 12 settlements
  - 22% women of reproductive age
  - 1197 deaths (0.15/10,000/day)
  - 232 neonates (19.3%)
  - 66 women of reproductive age, 27 (41%) of maternal causes (MMR 291)
  - 24 post-partum, 3 during late pregnancy

Cause of death*	Number of deaths (n=1197)	Percentage of all deaths (95% CI)
Neonatal	232	19·3 (17·1–21·6)
Respiratory diseases	225	18·8 (16·6–21·0)
Other (includes renal diseases and cancer)	167	14·0 (12·0–16·0)
Unknown	144	12·0 (10·2–13·9)
Injuries/accidents	106	8·9 (7·2–10·5)
Cardiovascular system	100	8·4 (6·8–9·9)
Diarrhoea and dysentery	74	6·2 (4·8–7·5)
Hepatitis	34	2·8 (1·9–3·8)
Tuberculosis	32	2·7 (1·8–3·6)
Maternal	27	2·3 (1·4–3·1)
Malaria	25	2·1 (1·3–2·9)
Typhoid	15	1·3 (0·6–1·9)
Malnutrition	5	0·4 (0·05–0·8)

*Classification as per categories used by the International Rescue Committee.
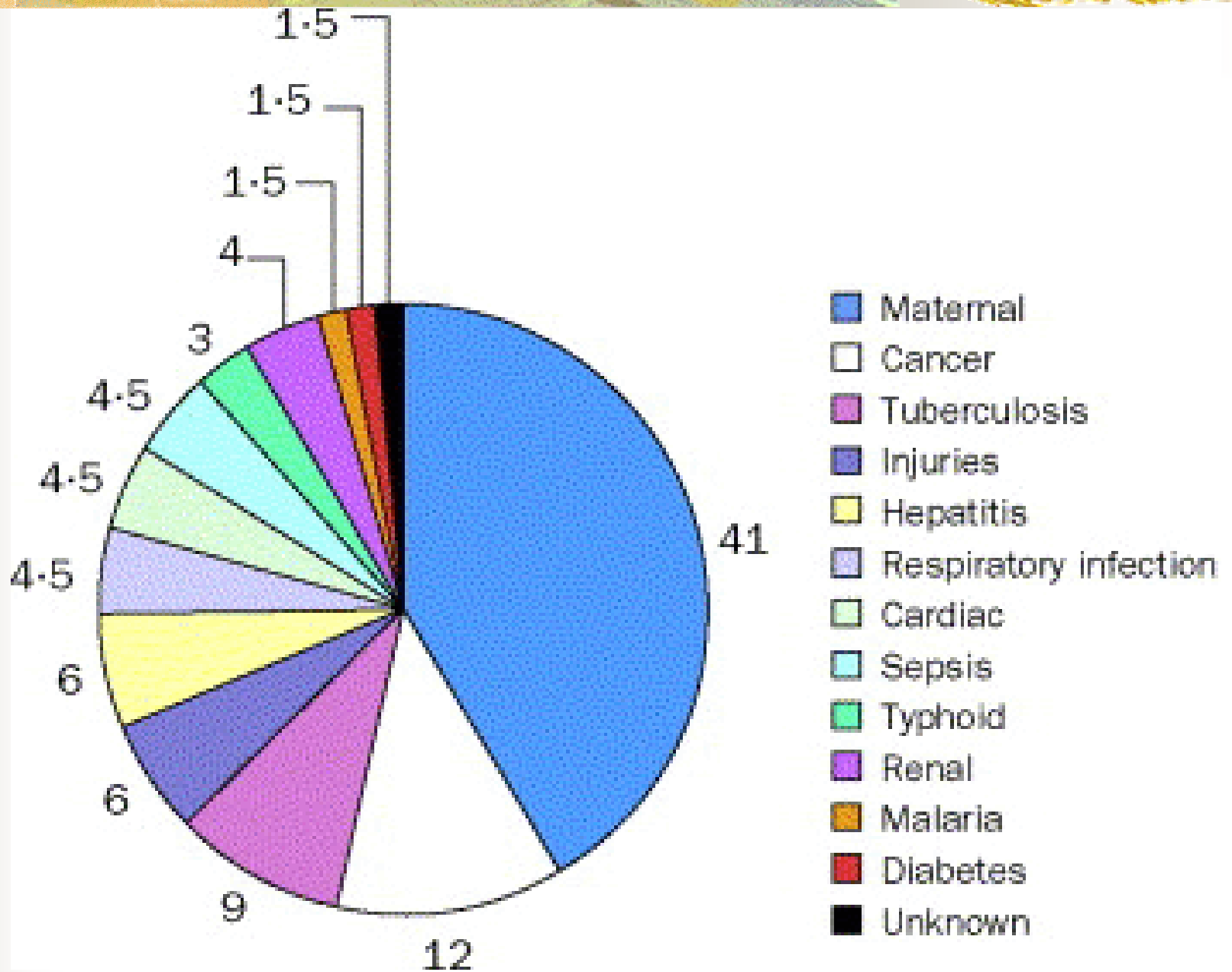
Level of barrier	Maternal deaths	Non–maternal deaths	Total deaths
Number of barriers reported by level			
1†	18 (46%)	10 (40%)	28 (44%)
2‡	7 (18%)	8 (32%)	15 (23%)
3§	14 (36%)	7 (28%)	21 (33%)
Total	39 (100%)	25 (100%)	64 (100%)
Number of women who reported ≥ 1 barrier by level*			
1	14 (52%)	10 (26%)	24 (36%)
2	6 (22%)	8 (21%)	14 (21%)
3	13 (48%)	6 (15%)	19 (29%)
Any level	22 (81%)	22 (56%)	44 (67%)

*Some women had barriers at more than one level, therefore percentages in this section of the table can add to more than 100%. †Difficulty recognising there was an illness or complication or in deciding to seek health care once a complication was recognised. ‡Difficulty reaching health care once a decision was made to seek health care. §Difficulty acquiring timely, quality health care once it was accessed.

Maternal Mortality Among Afghan Refugees in Pakistan, 1999–2000

- Conclusion:
    - 92% of the maternal deaths and about 33% of non-maternal death were preventable (3 reviewers)
    - Burden of maternal death will be greater for women seeking repatriation, where health care services are in short supply
    - Surveillance of maternal death should be given special attention

Results from a Reproductive Health Survey Among Afghan Refugees Living in Pakistan, 2000

- Goals
  - To determine unmet need for family planning
  - Describe the prevalence of gender based violence against female refugees
  - Assess safe motherhood
  - Assess behavioral risks (STD, HIV/AIDS)

Reproductive Health Survey Among Afghan Refugees Living in Pakistan, 2000

- **Methodology**
  - Research design: cross sectional survey
  - Case definition: married women 15-49 years
  - Sample design: two stage sampling (based on the census done in 2000)
    - Random sample of a family
    - Random selection of a married women
  - Sample size calculation: based on estimated prevalence of unmet need for family planning in Pakistan (29%) +9.8% refusal rate: 665 interviews
  - Sample size proportional to number families/camp

Reproductive Health Survey Among Afghan Refugees Living in Pakistan, 2000

- Questionnaire based on demographic and health survey (DHS) and CDC reproductive health survey
  - Background characteristics
  - Reproductive history
  - Family planning
  - STI&HIV/AIDS knowledge
  - Interviewer's observations

Reproductive Health Survey, Findings

- Characteristics:
  - Language: Pastho: 93.2 %, Dari 6.8%
  - 83.4% were living for more than 16 years in camps
  - 98.7 never attended schools and were not able to read and write

Reproductive Health Survey, Findings

- Fertility regulation, family planning methods (%)

	Know	Ever used
Any method	82.2	17.6
Modern methods	81.6	16.7
Traditional methods	14.6	4.2

Reproductive Health Survey, Findings

■ Unmet needs for family planning

women who don't want to be pregnant but are not using any contraceptive method = 47.8%

Opposed to

• women who are pregnant and wanted the pregnancy

• women who want to be pregnant

• infecund women

• women using contraceptive

Reproductive Health Survey, Findings

- Teenagers 15-19 year-old, n=47, in %

Age	mothers	First time pregnant	Never pregnant
15	25.0	0.0	75.0
16	25.0	37.5	37.5
17	57.1	0.0	42.9
18	87.5	12.5	0.0
19	84.6	15.4	0.0

Reproductive Health Survey, Findings

- Place of delivery/ skilled attendance at birth for deliveries occurring within the past 5 years (n=869), %

Place of delivery	
Home	74.6
Minor operating theater	11.6
Other hospital	13.8
Assistance during delivery	
Skilled	33.1
unskilled	66.9

Writing my own protocol

- Assessment of the reproductive health status of
  Afghan refugees
  in Mashhad, Khorassan
  Province, Iran

Assessment of the reproductive health status of Afghan refugees

- Historical Background
- Objectives (general and specific)
- Procedure and methods
    - Study population
    - Sampling size
    - Sampling methods
    - Data analysis
- Survey Instrument (questionnaire)

Historical Background

- Since 1979: 3 waves of refugees
  - 1979, 1992-2000, 2001
- 2004: 1.9 M of Afghan refugees
- Less than 1% living in camps
- Changes in Iranian policies since 2002
- Afghan women at high risk
  - high fertility, anemia and malnutrition
  - poverty, illiteracy, lack of education
  - cultural gender-based barriers to health care

Objectives

1. Describe policies and programs
2. Describe demographic characteristics and reproductive health status
3. Assess knowledge, participation, utilization of and barriers to routine and emergency reproductive health services.
4. Examine associations between reproductive outcomes and potential risk factors.
5. Assess the access and usage of family planning

Procedure and methods

- <u>Study Design</u>: Cross-sectional survey

- <u>Setting</u>: Mashhad, Khorassan Province, Iran

- <u>Participants</u>: Afghan refugee women and Iranian women living in Mashhad who have had a delivery in the last 5 years

- <u>Main outcome measures</u>: Proportion of delivery with skilled birth attendance and access to family planning

Procedure and methods

- Sample size calculation
  - Mashad population 3M
  - Afghans living in Mashad: 100,000-200,000
  - Main outcomes:
    - skilled birth attendance (Iranian 90%, Afghans?)
    - access to family planning
    - ⇒450 Afghan and 270 Iranian households
  - (prevalence; design effect; nb mothers/household, margin of error)
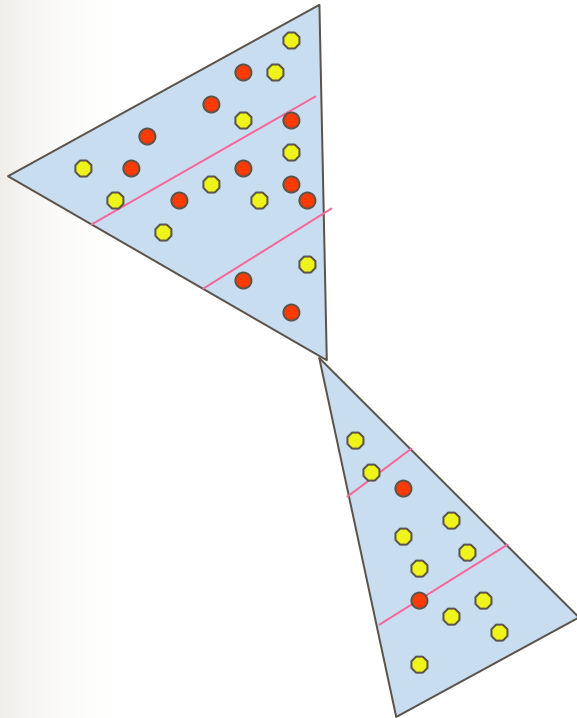
Sample design

- Option 1: Systematic random sampling
- Option 2: Multistage cluster (30) sampling

Mantageh
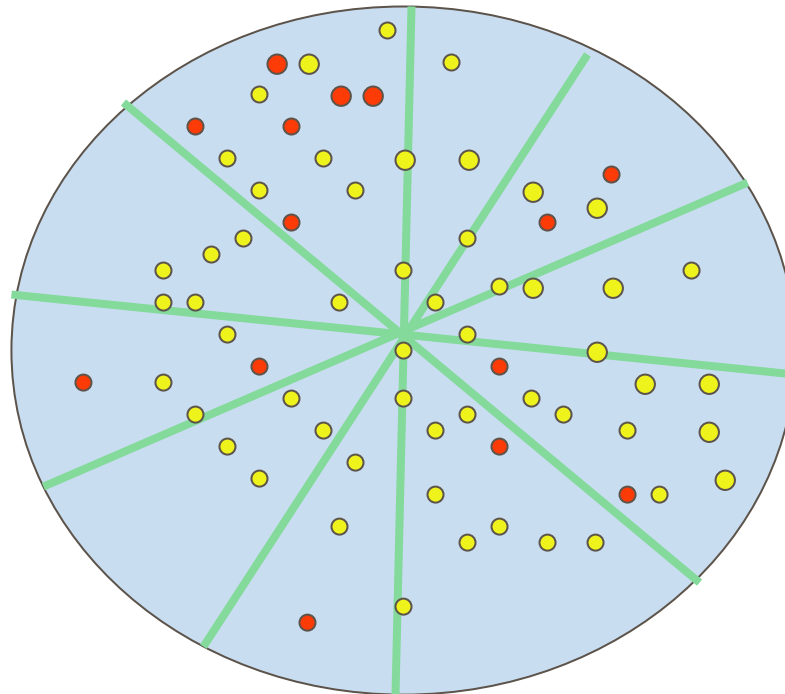
Multistage random sampling

- nâhiyeh

Asking questions in cross-cultural settings: anecdotal

- Wart que shoma edrar mikoni, dard mikoni?
  - When you pass urine, does it hurt you?

- Djavab chai kheili suzech mikone
  - Is the tea answer very hurtful

Reference Questionnaires

- Demographic Health Surveys (DHS)
- CDC reproductive health surveys
  - ⇒ Field validation?
  - ⇒ Cross-cultural comparisons?
- Guidelines of the maternal and child epidemiology unit, London SHTM
- Questionnaire tested on Afghan women (reproductive health survey in Pakistan)

Birth attendance

- Who assisted with the delivery of (NAME)? (DHS)

- During that delivery (reporting to the previous question), was anyone there to help you CDC reproductive health

- Who attended that birth (referring to the previous question) questionnaire Afghan refugees

- Was someone present to help you during delivery? Guidelines London School of hygiene and Tropical Medicine

Survey instrument

- 3 parts
  - General information (31 questions)
    - Citizenship, ethnicity, arrival in Iran, legal status, marital status, housing condition, job
  - Health related issues (34 questions)
    - General health status, 3 barriers

Survey instrument

- Reproductive health data (38 questions)

  - Fertility and children mortality
  - family planning
  - prenatal care and pregnancy morbidity
  - skilled birth attendance and delivery related morbidity

What will be the future of Afghan Refugees in Iran?