LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

Armed conflict and health

Imperial College, London

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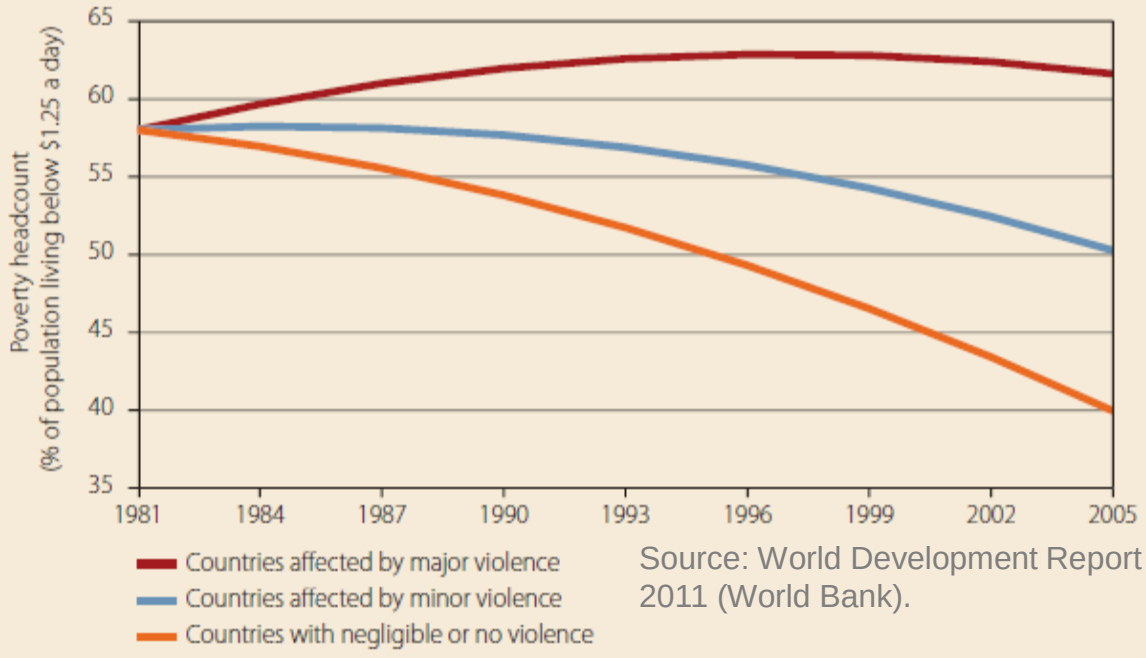
Learning outcomes

1. Have background knowledge on armed conflict.
2. Be able to describe key health impacts and pathways.
3. Engaged in key issues in the health-sector response, particularly the role of good information.

1. Background

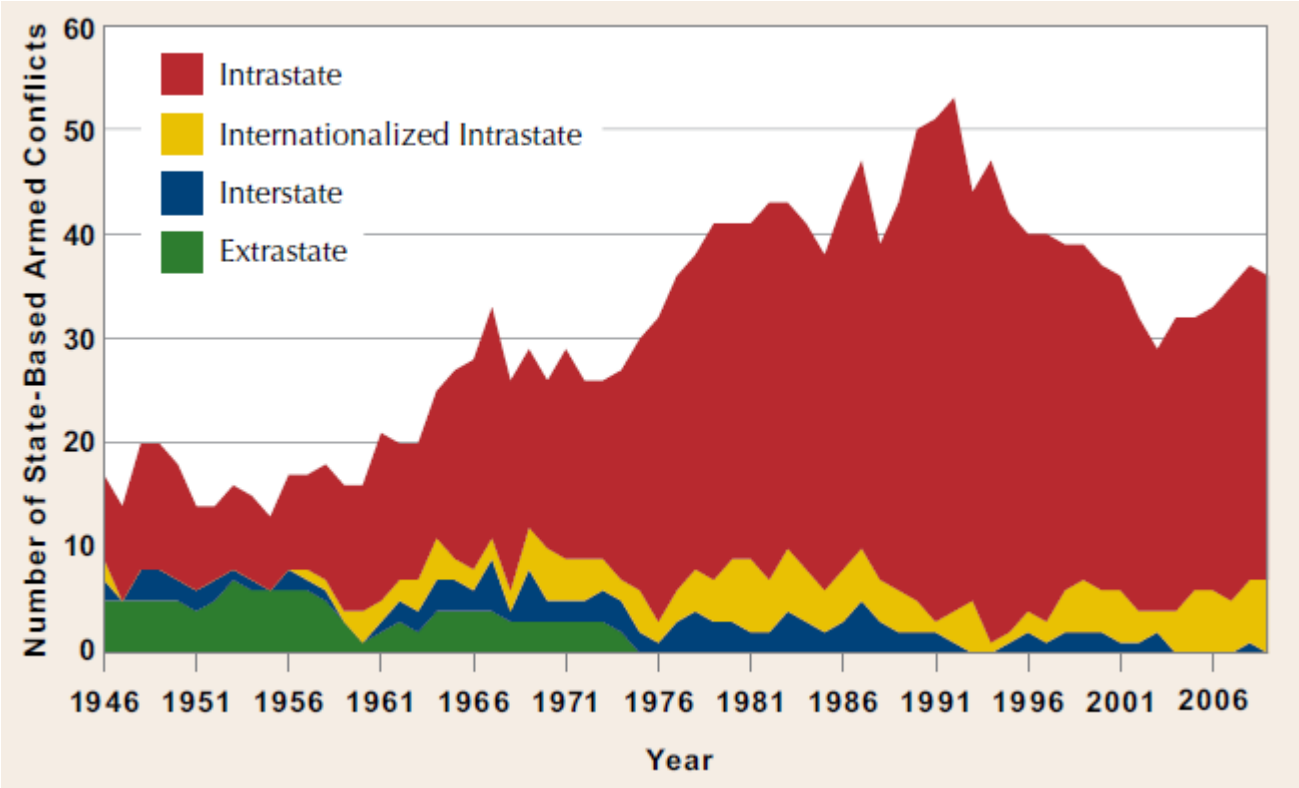
Why bother?

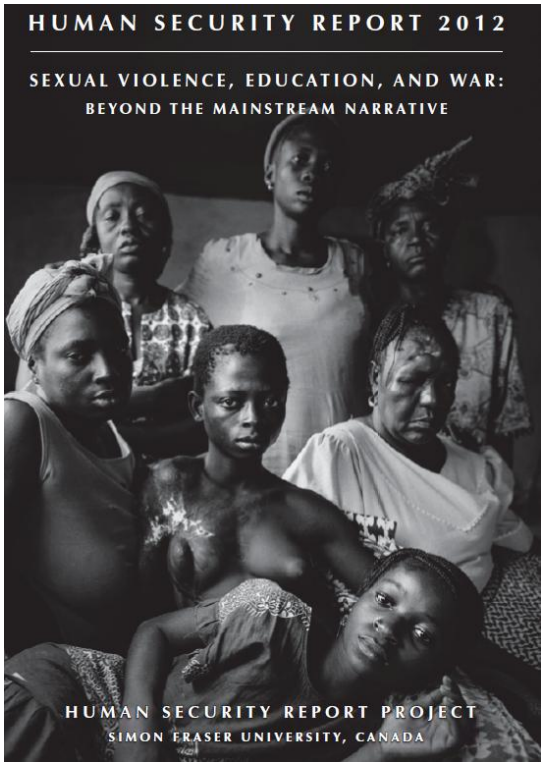
1. Humanitarian impulse
2. Civilians bearing the brunt of conflict
3. Major contributor to burden of disease
4. Technically easy and high impact interventions
5. Prevents long-term improvement in population health
6. Legal obligations
7. Halts development
8. Inequitable aid
9. Strategic: spill over, migration, loss of markets/resources etc



Source: World Development Report 2011 (World Bank).

Numbers of Conflicts 1946-2009

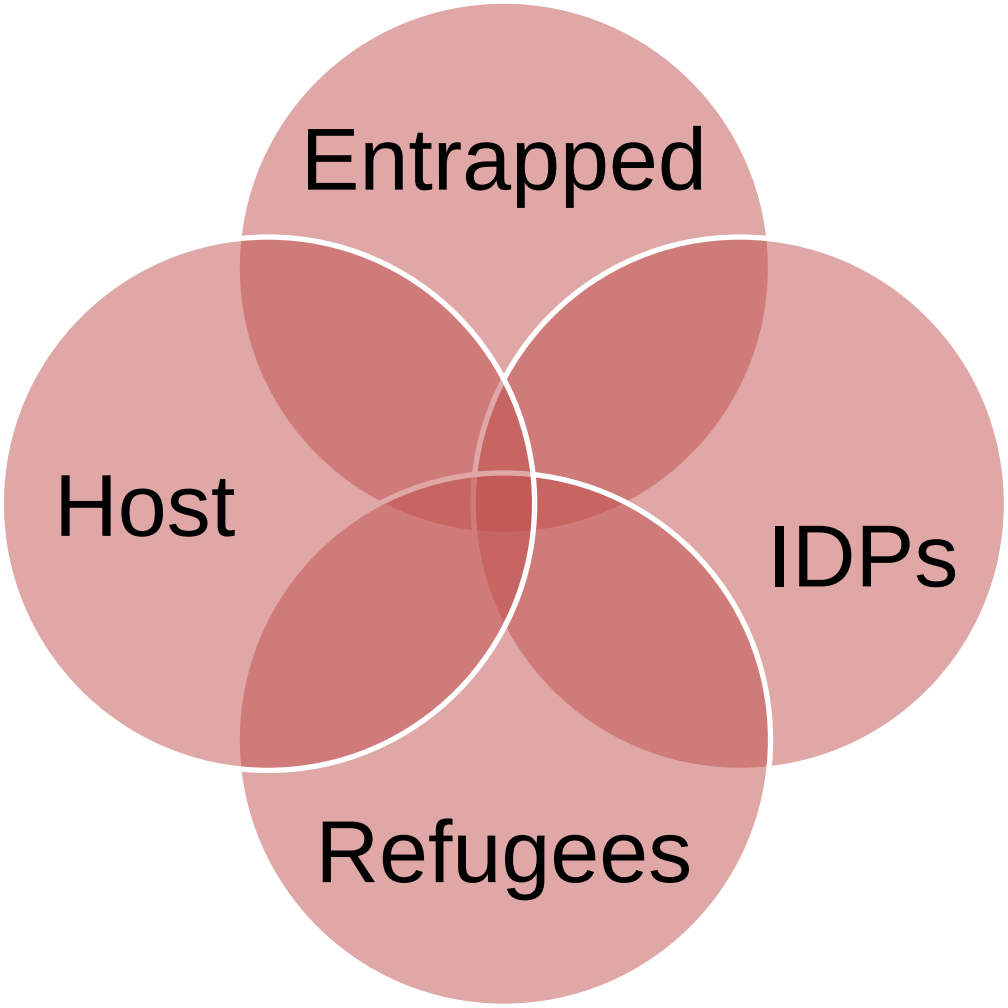




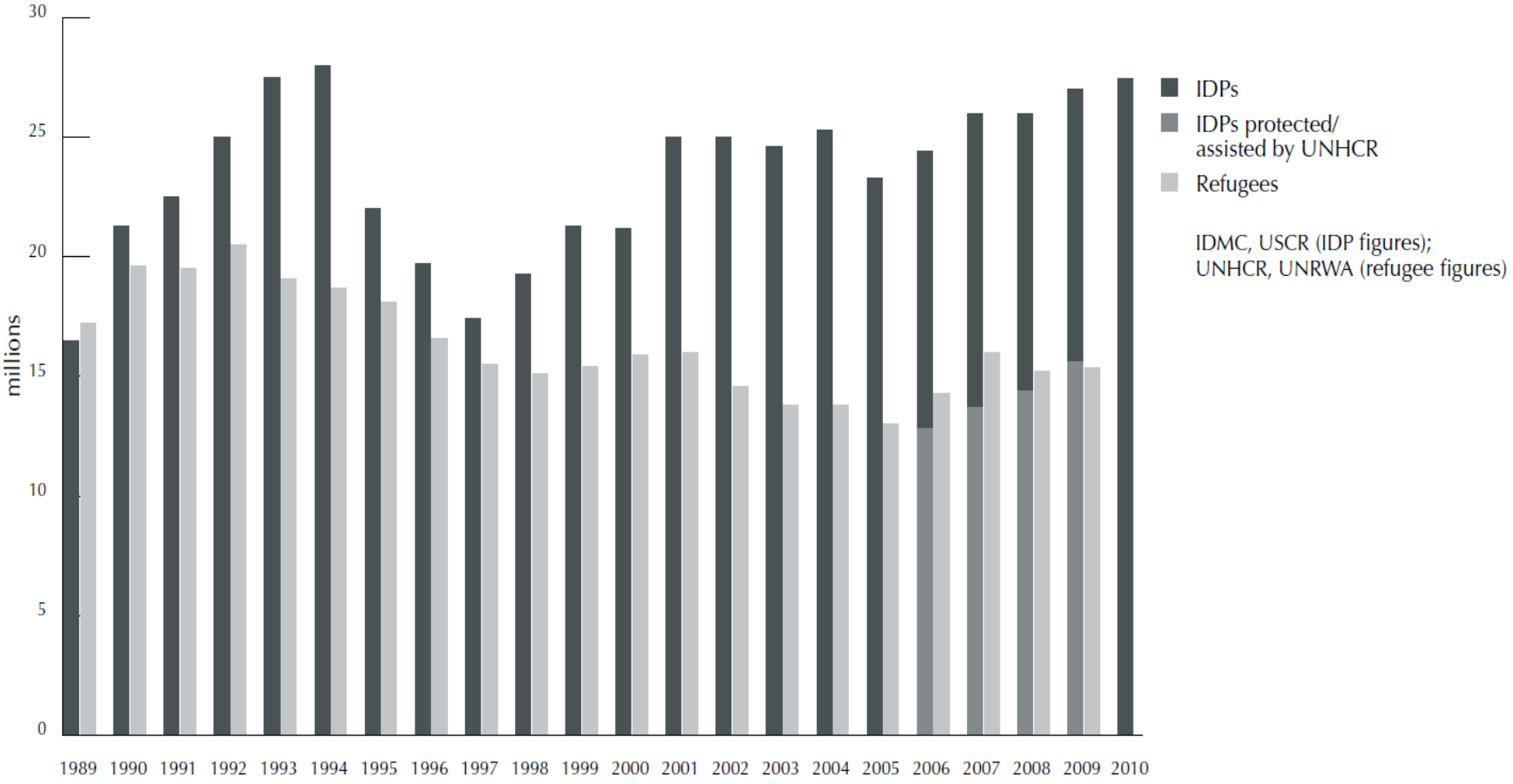
Source: Human Security Report 2012, Human Security Centre

Conflict maps: http://conflicthistory.com/#/period/2007-2012

Affected civilian populations

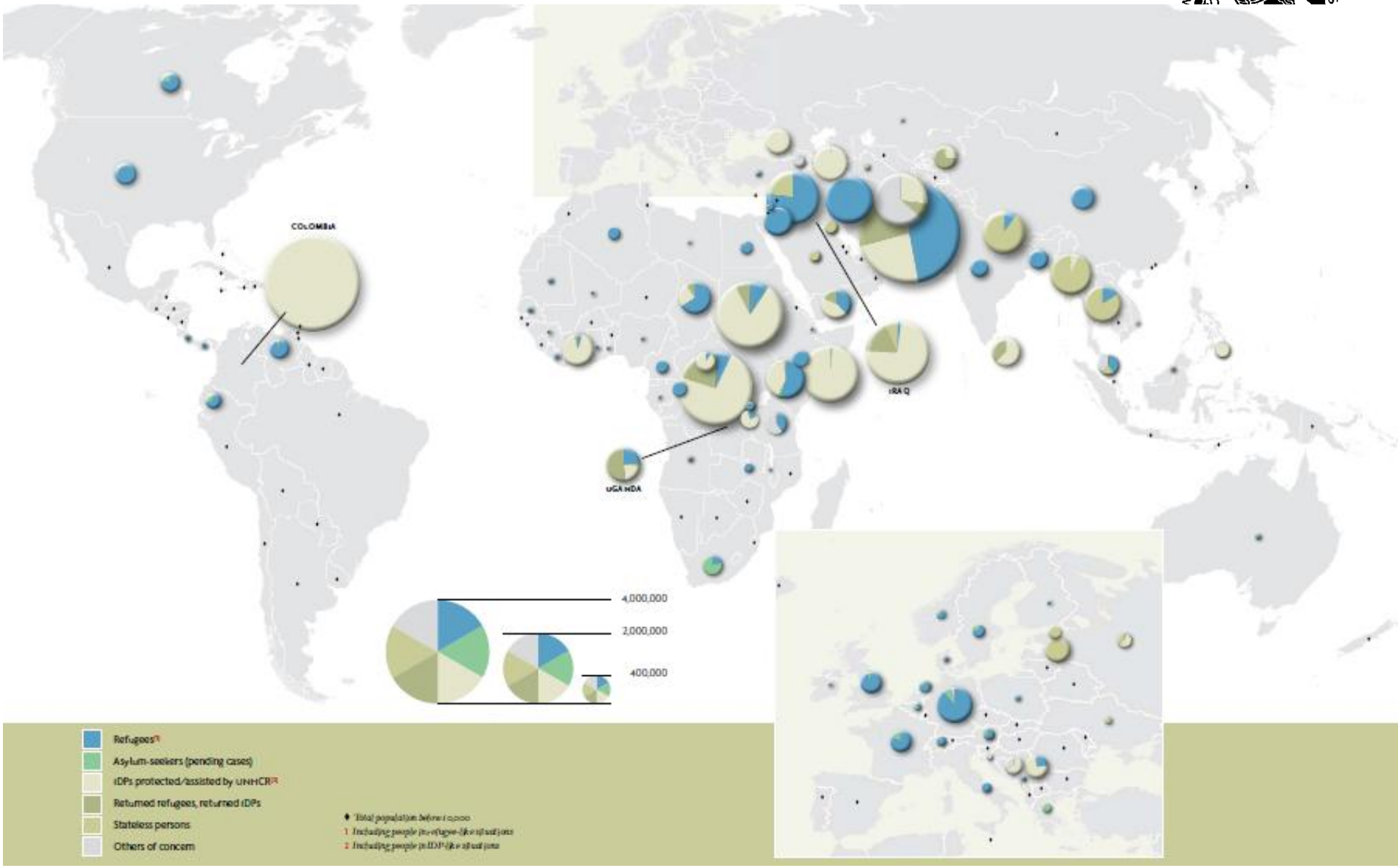


Global trends of IDPs and refugees



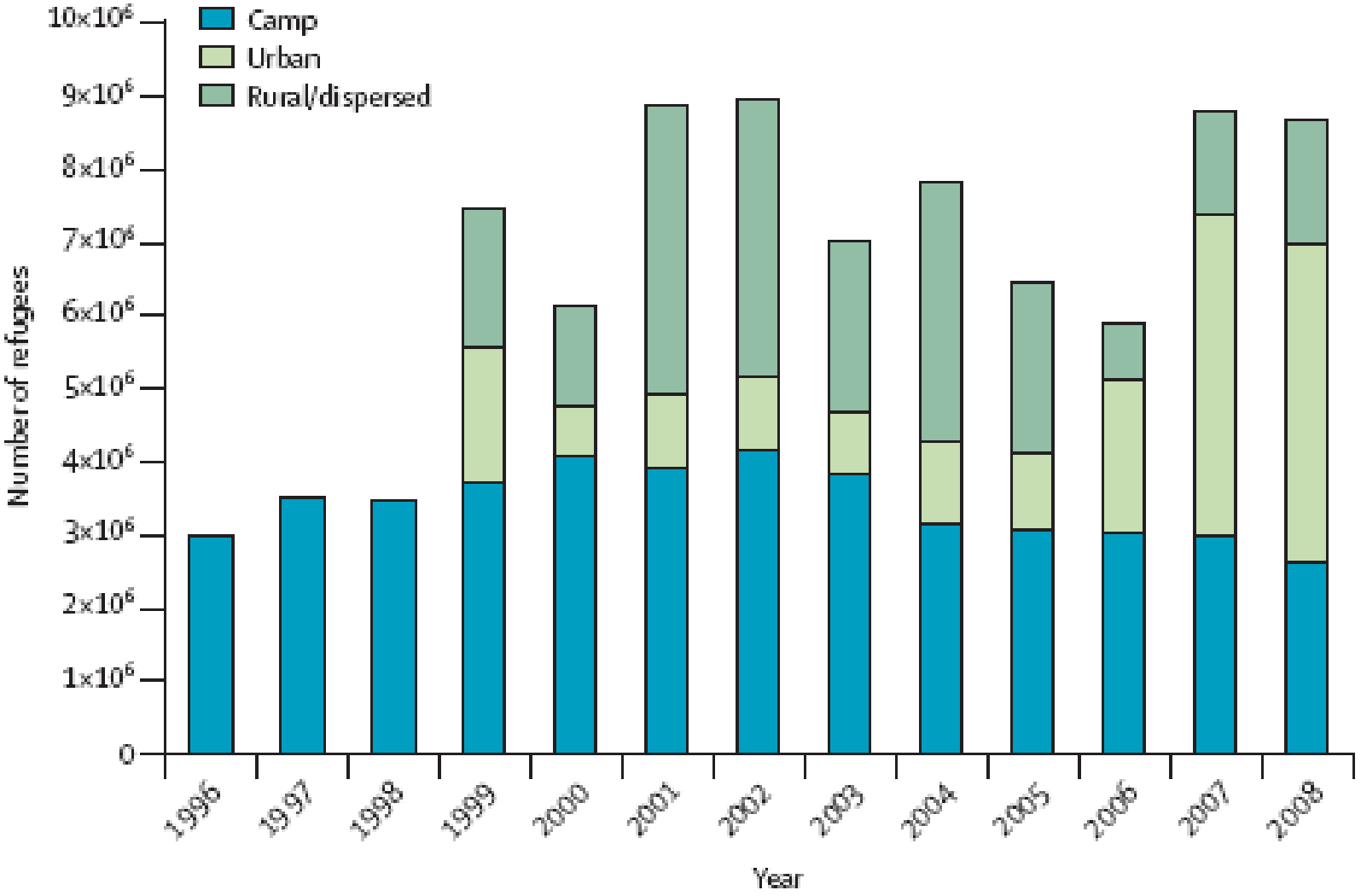
Source: Internal Displacement: Global Overview of Trends and Development in 2010. (IDMC, 2011)

Distribution of refugees and other Populations of concern to UNHCR



Source: UNHCR Global Trends 2010.

Living location of refugees



Source: Spiegel, Checchi et al. The Lancet. Vol.375. January 23 2010.

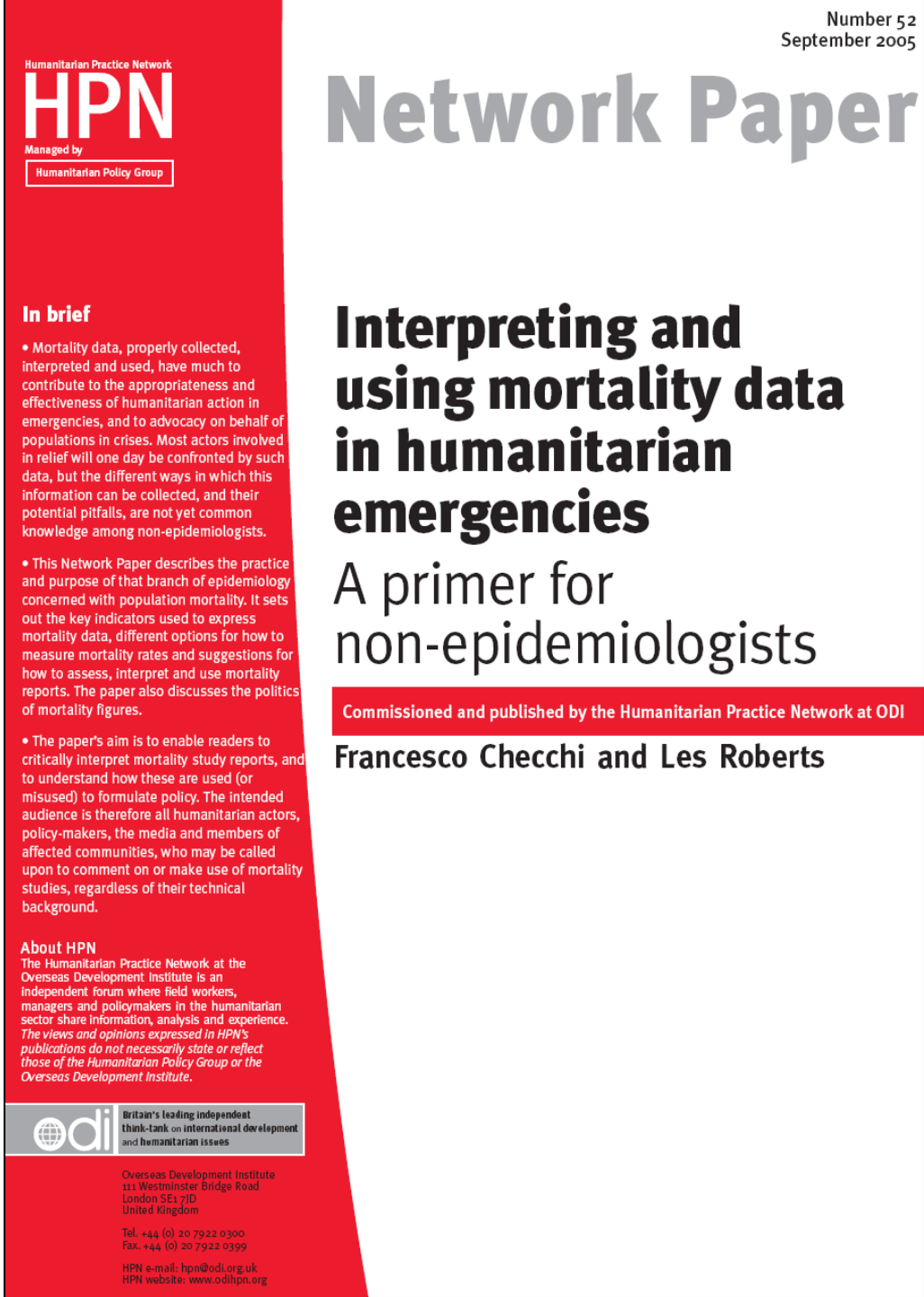
2. Health Impacts and Pathways

What do you think is the most important health indicator in a humanitarian crisis?

Mortality

- Mortality rates measured in emergency settings as the number of deaths per 10,000 persons per day

- Sphere guidelines: emergency threshold – crude mortality rate (CMR) and under 5 mortality (U5MR) doubling of 'norm' (context specific)



Humanitarian Practice Network
HPN
Managed by
Humanitarian Policy Group

Number 52
September 2005

Network Paper

In brief

• Mortality data, properly collected, interpreted and used, have much to contribute to the appropriateness and effectiveness of humanitarian action in emergencies, and to advocacy on behalf of populations in crises. Most actors involved in relief will one day be confronted by such data, but the different ways in which this information can be collected, and their potential pitfalls, are not yet common knowledge among non-epidemiologists.

• This Network Paper describes the practice and purpose of that branch of epidemiology concerned with population mortality. It sets out the key indicators used to express mortality data, different options for how to measure mortality rates and suggestions for how to assess, interpret and use mortality reports. The paper also discusses the politics of mortality figures.

• The paper's aim is to enable readers to critically interpret mortality study reports, and to understand how these are used (or misused) to formulate policy. The intended audience is therefore all humanitarian actors, policy-makers, the media and members of affected communities, who may be called upon to comment on or make use of mortality studies, regardless of their technical background.

About HPN
The Humanitarian Practice Network at the Overseas Development Institute is an independent forum where field workers, managers and policymakers in the humanitarian sector share information, analysis and experience. *The views and opinions expressed in HPN's publications do not necessarily state or reflect those of the Humanitarian Policy Group or the Overseas Development Institute.*

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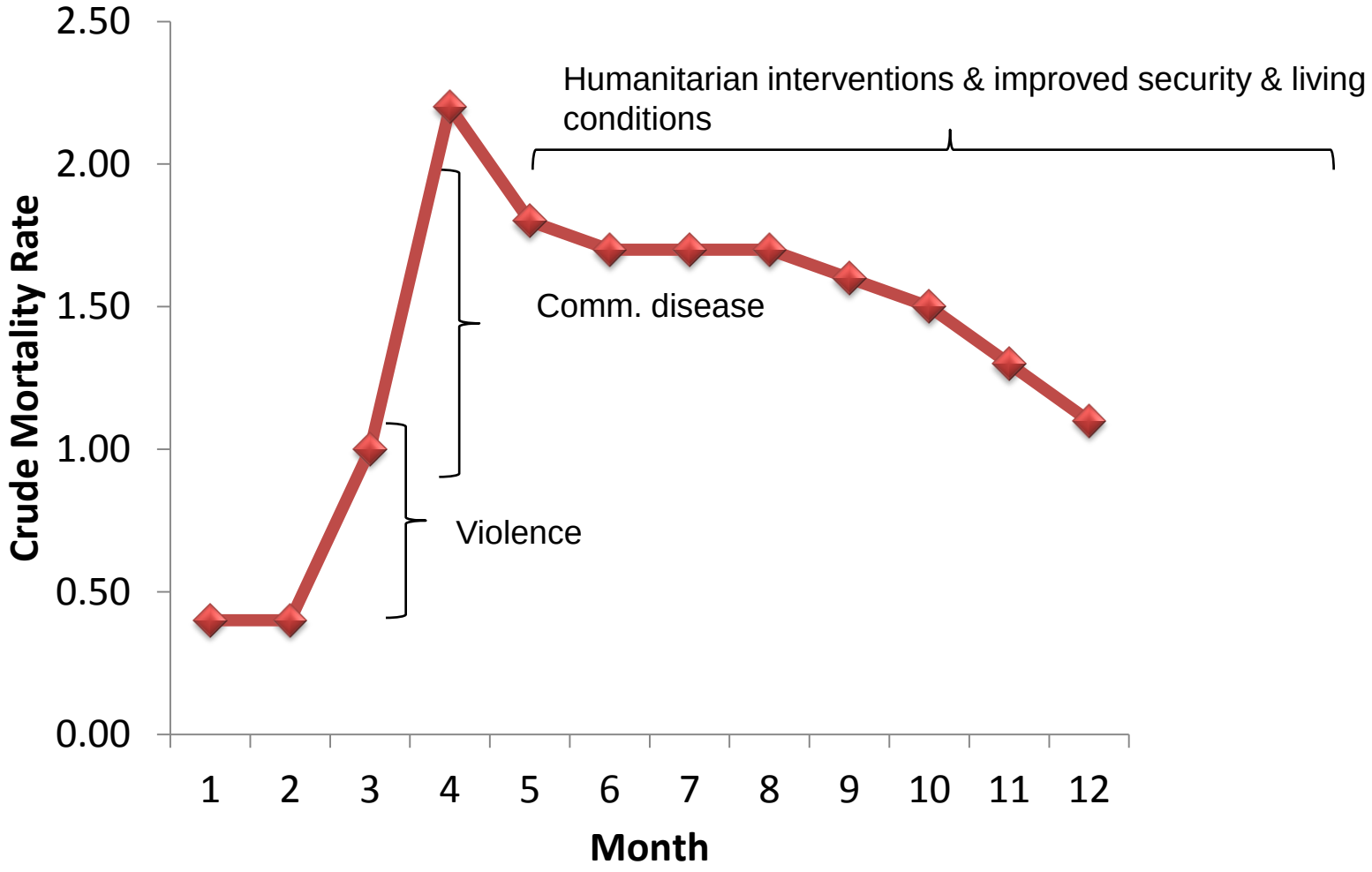
Interpreting and using mortality data in humanitarian emergencies

A primer for non-epidemiologists

Commissioned and published by the Humanitarian Practice Network at ODI

Francesco Checchi and Les Roberts

Mortality trends



Selected Crude Mortality Rates

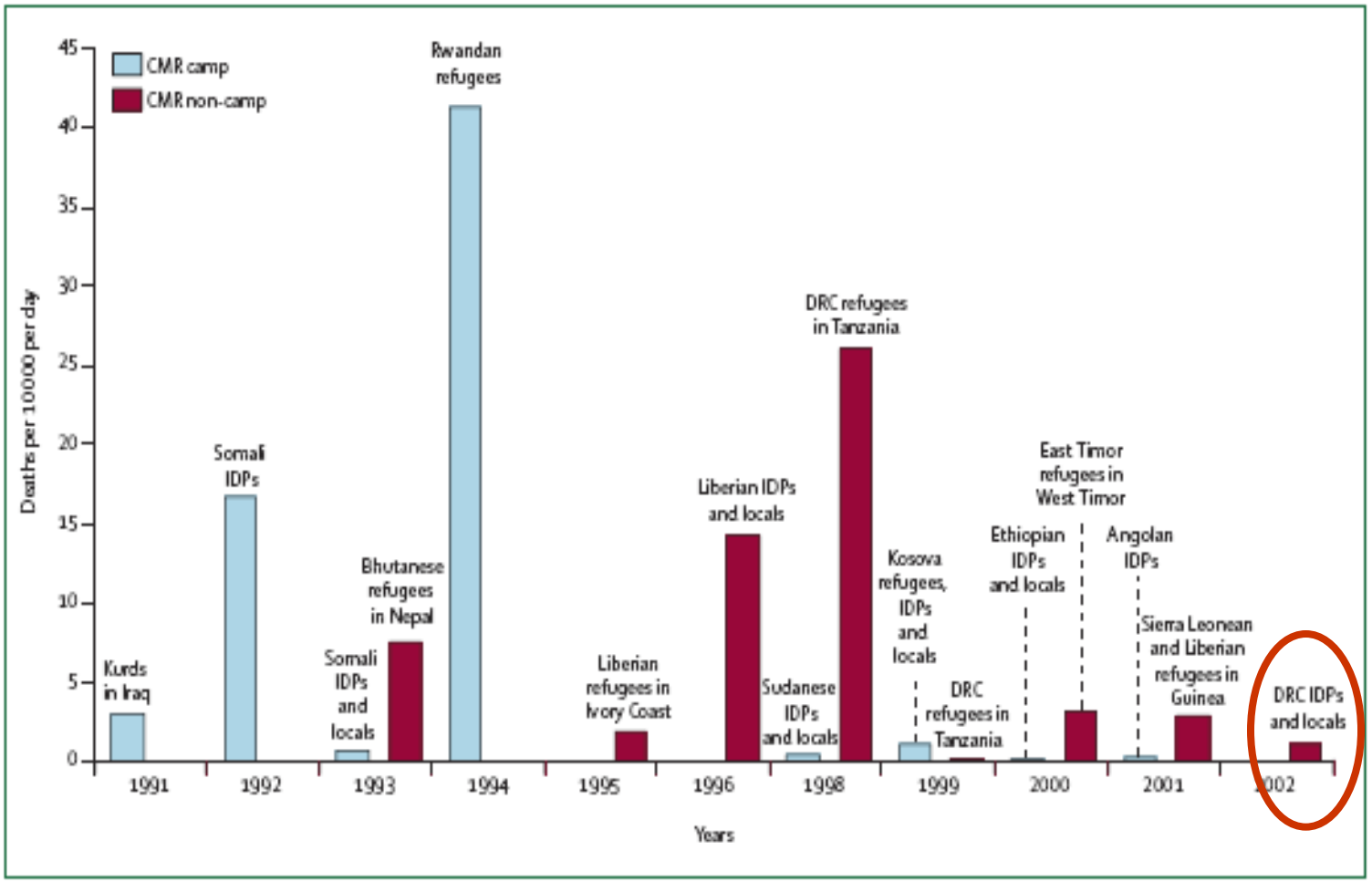
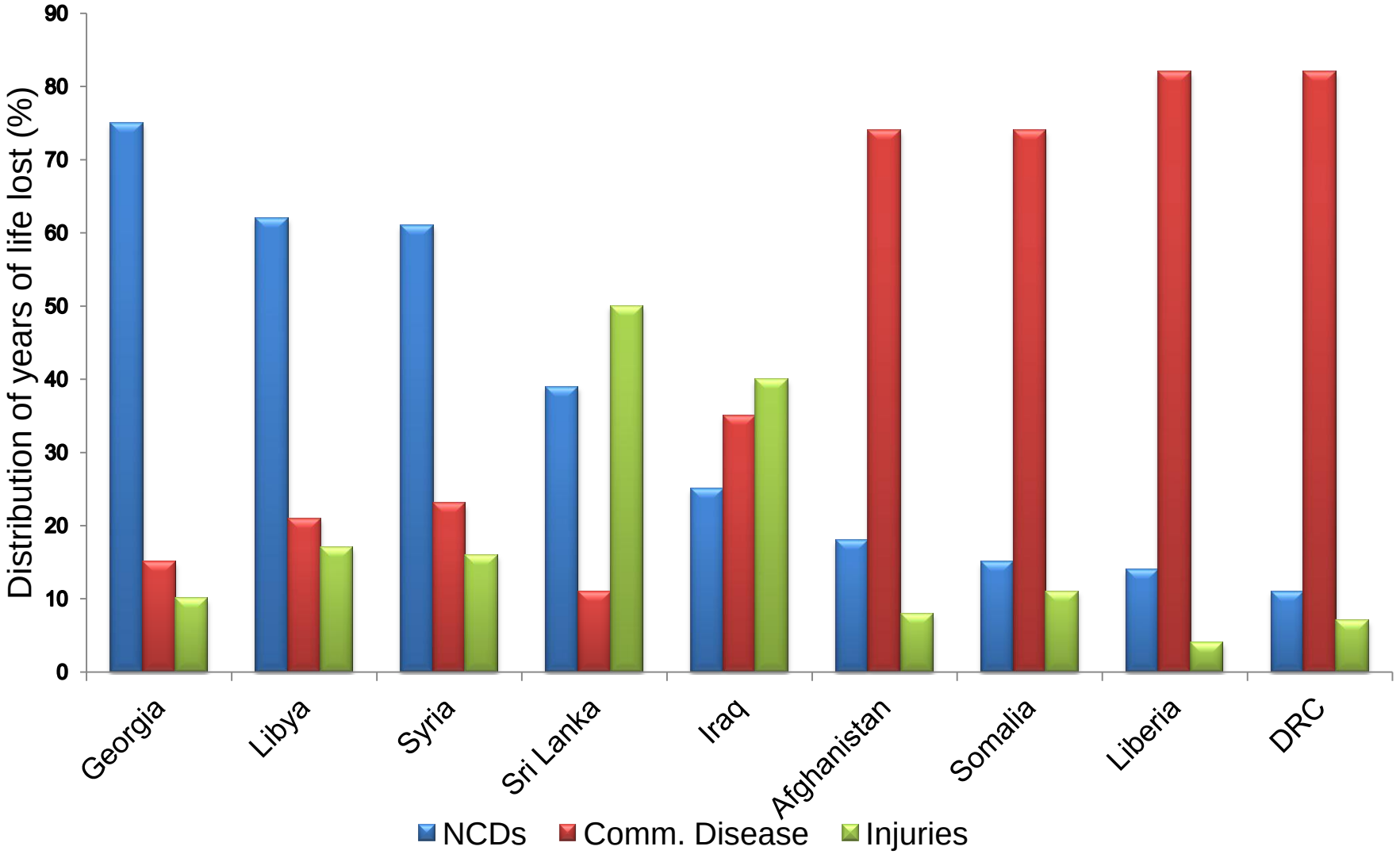


Figure 1: Crude mortality rates from selected complex emergencies disaggregated by camp and non-camp situations
IDPs= Internally displaced people. DRC= Democratic Republic of Congo. CMR=crude mortality rates.

Source: Salama et.al., Lancet, November 2004

Distribution of years of life lost (2008), by selected conflict-affected countries:



Source: WHO, Country Health Profiles.

Pathways

Underlying factors
- Poverty, structural barriers to development and wellbeing
- Epidemiological conditions and demographic profile
- Vaccination coverage
- Access to health services and strength of the health system
- Nutrition levels and food security

Characteristics of conflict
- Intensity, duration, type of war

Impact of conflict
- Reduced access to health services/delayed treatment
- Disrupted vaccination and disease control programmes
- Damage to broader health system
- Less agriculture, food supply, and nutritional intake
- Poor water, sanitation and hygiene conditions
- Inadequate shelter, overcrowding
- Environmental decay
- Population displacement
- Exposure to violence and traumatic events
- Poverty

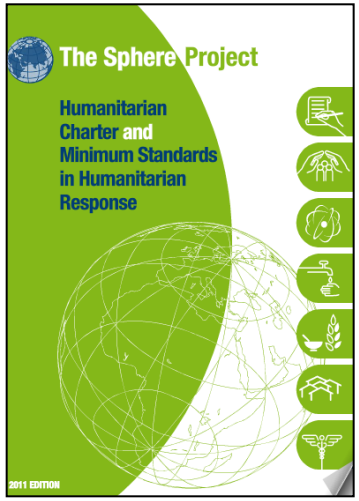
Direct health effects
- Injuries
- Worse mental health
- Mortality

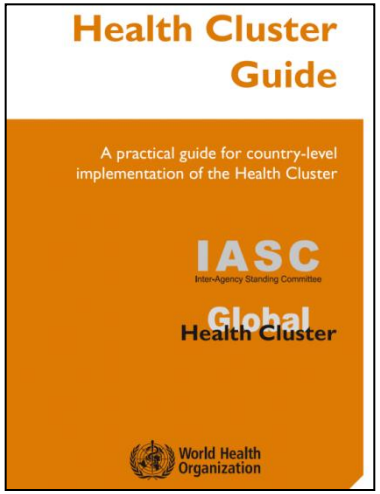
Indirect health effects
- Infectious disease
- Malnutrition
- Poor reproductive health
- Worse mental health
- Worse NCDs
- Mortality

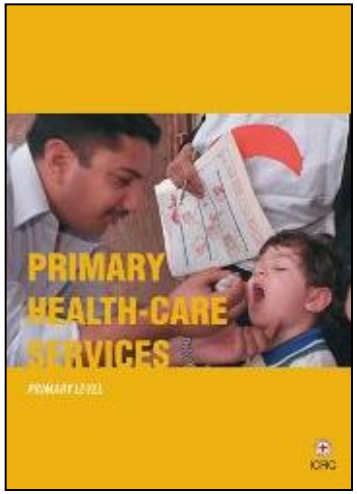
3. The Response

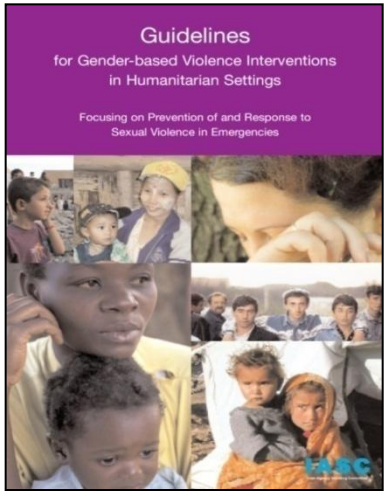
Guidelines

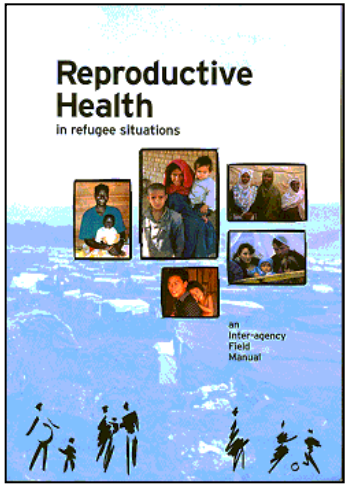
Eg. Sphere, IASC guidelines, Cluster Guidelines, individual agency guidelines (Red Cross movement, MSF etc)



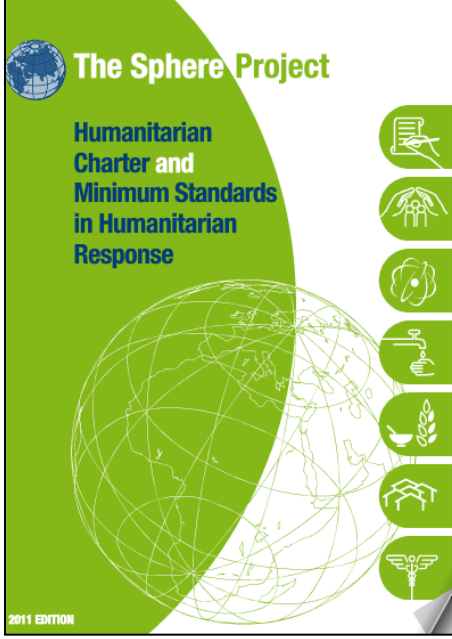




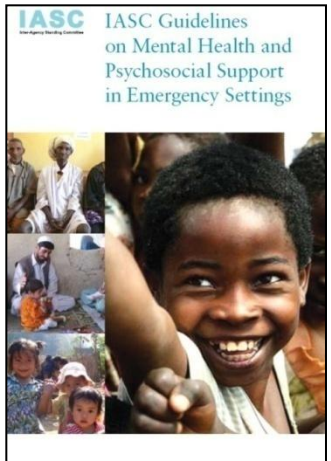


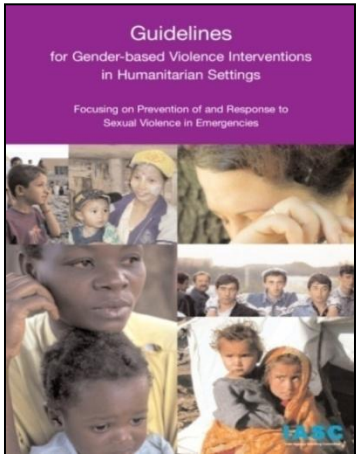


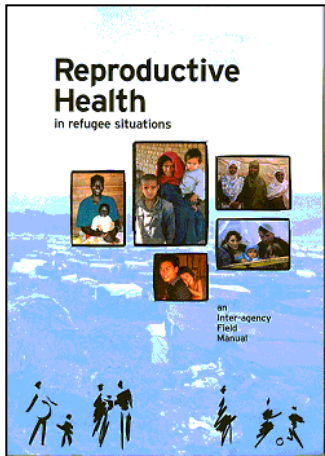
Key health interventions



- Adequate and appropriately spaced shelter
- Sufficient and safe food
- Sufficient and safe water
- Adequate sanitation facilities
- Mass vaccination (especially measles)
- Access to primary health care and referral hospitals
- Disease surveillance, outbreak preparedness and control, vector control.
- Health education and social mobilisation
- Reproductive health (MISP)
- Mental & psycho-social healt



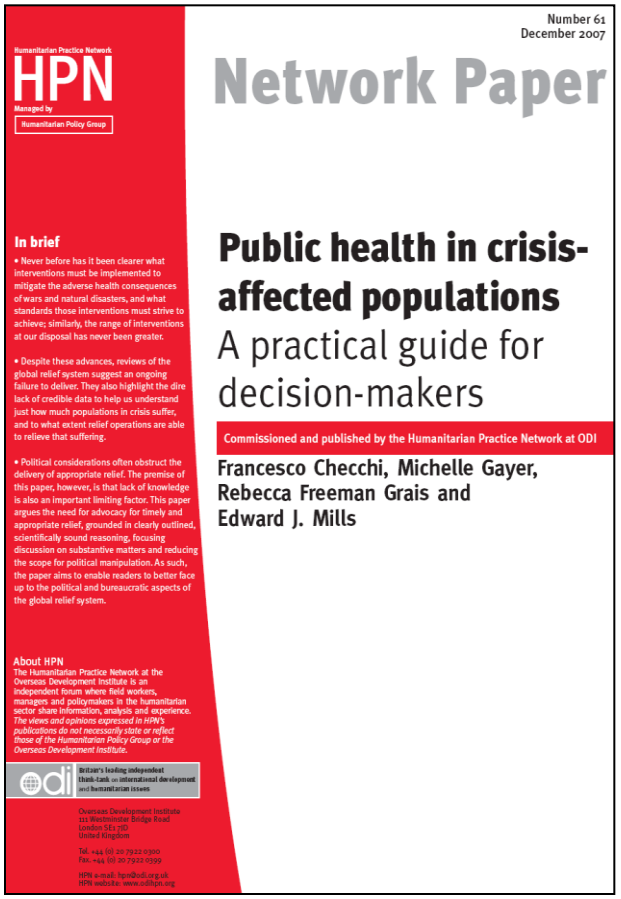




Criteria for selecting interventions

- Potential to address main health problems
- Feasibility
- Maximum opportunity benefit
- Minimum opportunity cost
- Maximum effectiveness/cost-effectiveness
- Timeliness

Maximising impact - coverage and effectiveness



Information – why?

Benchmark the severity of the crisis

- Population mortality rate
- Prevalence of acute malnutrition

Orient public health priorities

- Establish main epidemiological risk factors
- Detect and respond to unusual events (epidemics)

Advocate for humanitarian and political intervention

- Witnessing and documentation

Monitor and evaluate relief interventions

- Coverage of interventions (e.g. vaccination, water and sanitation)
- Impact of entire relief operation (decline in mortality?)

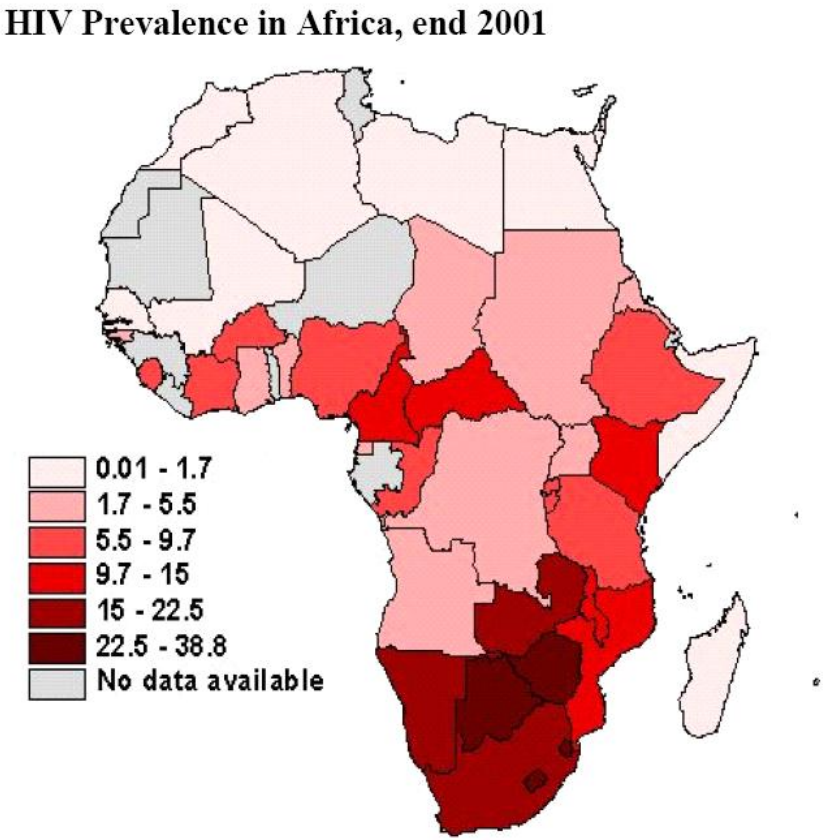
Information needs	Information sources
•Demographic profiles •Size of affected population • Epidemiological profiles •Vaccination coverage •Risk profiles (prox., intermediate, distal) •Existing disease control programmes •Existing vaccination services •Existing health facilities/services •Stakeholders •Malnutrition rates •Morbidity data •Mortality data (various) •Disease prevalence/incidence •Programme/project performance (Efficiency, Effectiveness, Equality/Equity, Accessibility, Appropriateness, Acceptability)	•Existing data (e.g. population and epidemiological data. •Routine service data. •Rapid assessments (observations, clinic data, grave counts, community meetings, satellites images etc). •Participatory methods with community members. •Coverage mapping (e.g. health facilities). •Surveillance: births and deaths, disease outbreaks, health worker/facility records. •Sample surveys: e.g. Mortality, malnutrition, mental health etc •Population estimation methods

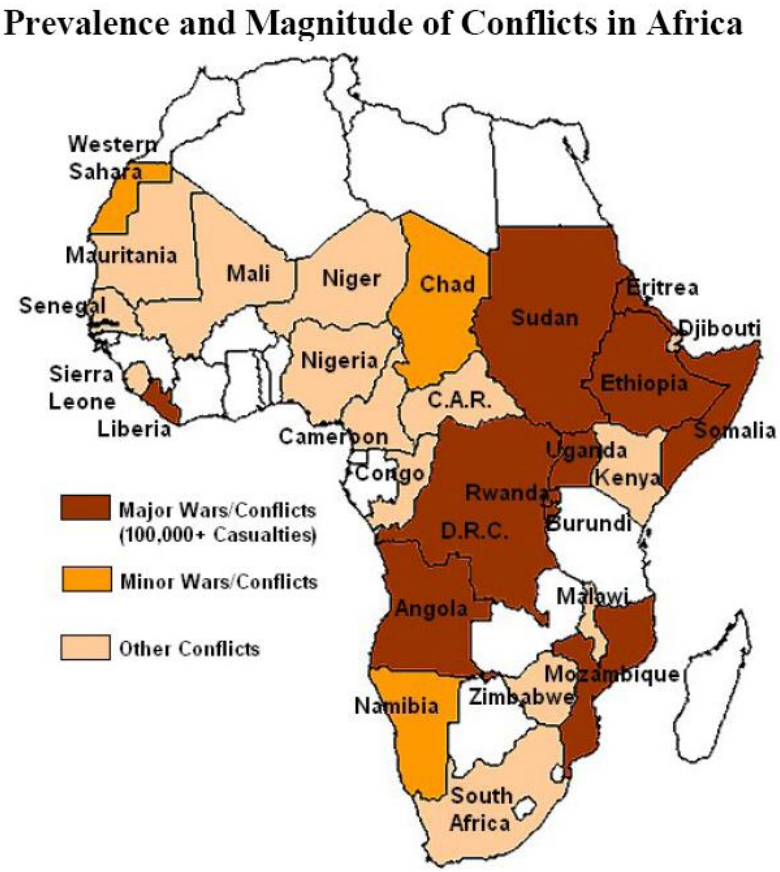
HIV/AIDS

"Armed conflicts and natural disasters also exacerbate the spread of the epidemic"

- The 2001 UN General Assembly Special Session on HIV/AIDS (UNGASS)

Distribution of HIV prevalence and conflicts in Africa





Source: Mock et al. Emerging Themes in Epidemiology 2004 1:6

See also: Spiegel, P. et al. B. Prevalence of HIV infection in conflict-affected and displaced people in seven sub-Saharan African countries: a systematic review. Lancet, 369(9580): 2187-95.

Summary

1. Background knowledge on armed conflict and need to engage with conflict-affected states.
2. Describe key health impacts and multiple health pathways.
3. Understand and engage in key issues in the health-sector response, particularly the need for good, locally-driven information.

Some useful sources

- Centre for Research on the Epidemiology of Disasters: http://www.cred.be/cred1/index.htm
- Conflict and Health journal: http://www.conflictandhealth.com/
- Health and Fragile States Network: http://www.healthandfragilestates.org
- HealthNet TPO: http://www.healthnettpo.org
- Humanitarian Policy Group (ODI) : www.odi.org.uk/hpg/index.html
- Inter-Agency Standing Committee: http://www.humanitarianinfo.org/iasc
- International Committee of the Red Cross: http://www.icrc.org
- Internal Displacement Monitoring Centre: http://www.internal-displacement.org
- One Response: http://oneresponse.info/Pages/default.aspx
- ReliefWeb: www.reliefweb.int/w/rwb.nsf
- MISP online training module: http://misp.rhrc.org/
- Reproductive Health Response in Conflict Consortium: http://www.rhrc.org
- Sphere Project: http://www.sphereproject.org
- WHO (HAC): http://www.who.int/hac/en/index.html
- WHO Disease Control in Humanitarian Emergencies: http://www.who.int/diseasecontrol_emergencies/resources/en/