A record 70.8 million people have been displaced worldwide by war, persecution and other violence – an increase of more than two million from last year – according to UNHCR, the UN refugee agency.

FORCED DISPLACEMENT BY WORLD REGION, 2018 (millions)

- UNHCR refugees
- Asylum-seekers
- Internally displaced persons (IDPs)

Northern America: 1.23
Europe: 5.50
Oceania: 0.13
Latin America and the Caribbean: 8.79
Africa: 25.22
Asia: 29.93

*United Nations Relief and Works Agency for Palestine Refugees in the Near East

GLOBAL FORCED DISPLACEMENT, 2009-18

70m

Sources: Associated Press, UNHCR
Picture: Getty Images
© GRAPHIC NEWS
Disease Risk in COEs (esp among Refugees)

• Forcibly displaced populations are often at greater risk of disease due to
  • High levels of mobility
  • Poor living conditions which increase exposure to disease or disease vectors
  • Decreased access to health services often caused by ongoing conflict, collapse of health system, ethnic, cultural, linguistic or other barriers
  • Weakened immunity because of multiple infections and malnutrition esp during 1st phase of displacement
  • Poor water container water management & Flood / surface water = increased insect numbers and disease transmission
  • Open defecation sites & poorly maintained latrines increase flies numbers and disease transmission
  • Movement from low to high transmission zones. Majority of refugees live in areas in which malaria is endemic or occurs in seasonal epidemics
  • Women of reproductive age and children constitute a majority of refugee populations
Top 5 Killers listed for Humanitarian Emergencies:

- Diarrhoea
- Malaria
- Malnutrition
- Measles
- Pneumonia

But
In other emergency settings other VBDs predominate, and may or may not come with malaria:

- Leishmaniasis / Syria,
- Dengue fever / Haiti / Somalia/ tsunami/ SEA cyclones……. (followed by other aedes borne viral diseases) in many natural crises and conflict settings
- Plague, even Ebola….starts as a VBD
- Typhus fever / African camp settings
- RVF /Somalia/Kenya drought and floods
- And amongst refugees in Europe?
Global *Plasmodium falciparum* Incidence and Refugee/IDP sites

*P. falciparum* data 2017 estimates
UNHCR Refugee, IDP sites last updated July 2019
Disease transmission escalates dramatically in conditions created by Conflict and Natural Disasters

- Flooding
- Cyclones
- Drought
- Earthquakes
- Volcanoes

N Kenya/Somalia  Cyclone Nargis  Indonesia—tsunami
Challenges

- Access to the population
- Local capacity
- Supply systems
- Global stocks
  - Availability of stocks
- Financing ($)
- Strength of the health system
  - Resilience and response planning
  - Reallocation of staff & resources according to need
- Availability & transmission of data
- Social norms/cultural practices
- Fears/Rumours
- Socio-political context
Humanitarian Situation in Refugee Settings

Scenarios

People are on the move and scattered

Distribution not feasible
Focus on access to rapid diagnostics and treatment

Distribution difficult, LLIN likely not being used
Must include host population
Ensure access

• Distribute as CRI
• Hanging
• Use of IT plastic sheeting

• Distribute as NFI/CRI
• Shelter kit
• Household item
Humanitarian Situation in Refugee Settings

Scenarios

People are on the move and scattered

People seek shelter in the bush or host villages

Distribution not feasible
Focus on access to rapid diagnostics and treatment

- Distribution difficult,
- LLIN likely not being used
- Must include host population
- Ensure access to RDT/ACT

People arrive at a transit centre

People are settled in a camp or settlement

- Use of IT plastic sheeting
- Campaigns

Focus on access to rapid diagnostics and treatment

- Distribute as CRI
- Hanging
- Use of IT plastic sheeting

• Distribute as NFI/CRI
• Shelter kit
• Campaigns
Humanitarian Situation in Refugee Settings

Scenarios

People are on the move and scattered
People seek shelter in the bush or host villages

People are settled in a camp or settlement

Distribution not possible

• Distribution difficult,
• LLIN likely not being used

• Must include host population

Distribute LLIN
• Hanging
• Use of plastic sheeting

Distribute as NFI/CRI
• Shelter kit
• Campaigns

People arrive at a transit centre

People are settled in a camp or settlement
Humanitarian Situation in Refugee Settings

Scenarios

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People seek shelter in the bush or host villages
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Humanitarian Situation in Refugee Settings

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• Distribute as CRI
• Hanging
• Use of IT plastic sheeting
• Distribute LLIN
• Shelter kit
• Campaigns

People are settled in a camp or settlement
WHO’s new goal concerning humanitarian emergencies

1 billion better protected from health emergencies

WHO Graded Health Emergencies 2019

Currently responding to 40 graded events/emergencies
12 new this year

Global Malaria Programme

World Health Organization
UNICEF Health Strategy for 2016–2030

Guided by the Convention on the Rights of the Child (CRC) and Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), and in line with the Sustainable Development Goals (SDGs) and Every Woman, Every Child (EWEC)

A world where no child dies from a preventable cause, and all children reach their full potential in health and well-being

Vision

Goals

Promote the health and development of all children

End preventable maternal, newborn & child deaths

Address inequities in health outcomes

Strengthen health systems, including emergency preparedness, response and resilience

Promote integrated, multi-sectoral policies and programs

Approaches

Advocate for every child’s right to health

Influence government policies

Strengthen service delivery

Empower communities

- Support data capture, evidence generation, and use
- Engage with partners
- Expand available resources

- Support evidence-based policymaking and financing
- Promote scale-up of effective interventions/innovations
- Share knowledge & promote south-south exchange

- Build capacity of management and health providers
- Support programmes, including service provision, in particular at community level and in emergencies
- Strengthen supply chain systems

- Engage for social and behaviour change
- Generate demand
- Strengthen accountability

Programme areas

Maternal, newborn, and child health (focus on equitable access to quality primary health care)

Older child and adolescent health (focus on public policies and supportive environments)

Proposed actions and program areas represent global "menu" to be tailored to country context by country offices

M&E

Measurement, learning and accountability
WFP’s and UNHCR’s view of emergencies

- Intensified collaboration between health, nutrition and logistic clusters
Co-morbidities exacerbate malaria mortality

Example: Acute malnutrition

Bulletin of the World Health Organization, 2000, 78 (10)

Malnutrition as an underlying cause of childhood deaths associated with infectious diseases in developing countries
Amy L. Rice,1 Lisa Sacco,2 Adnan Hyder,3 & Robert E. Black4

Malaria
Comparatively few studies assessed nutritional status and death from malaria. The data from hospital-based studies conducted in Africa suggest that anthropometric status at admission is associated with subsequent death from malaria (25, 44–48). The largest study involved a cohort of over 8000 cases of malaria and over 700 deaths in the Gambia. Compared with children who had weight for age Z-scores ≥ 2, case fatality rates were twofold higher among children with scores of <−3 to >−4 and threefold higher among those with scores < −4 (25). Likewise, data from the Republic of Chad (48), Madagascar (46, 47); Nigeria (45), and Senegal (44) indicate that malnourished children admitted to hospital for severe malaria fared less well than adequately nourished cases. No community-based studies were identified.

Screening for SAM during MDA highly recommended as SAM requires therapeutic feeding and Parenteral antimalarial therapy
Northern Nigeria: Delivering in Partnerships

Geographical Presence (41/44 LGAs)

Maiduguri and Jere Partners:
ACF
ICRC
IRC
MSF-F
PUI
UNFPA
WHO

ALIMA; UNFPA; WHO

UNFPA; WHO

ACF; ALIMA; ICRC; MSF-F; WHO

WHO

ICRC; WHO

WHO

ICRC; MSF-F; UNFPA; WHO

WHO

MSF-F; WHO

UNFPA; WHO

Local Government Area
State Boundary
International Border

Satellite Camps
LGA’s Headquarter
Newly Accessible LGA’s
Health Presence
Inaccessible LGA’s
Multi-sectoral Work

• Collaboration with Protection/Registration unit. Protection needs, Community work, Population projection/planning figures

• In order to help retention and use of LLITNs, it is important to address refugee’s basic needs e.g. food and non-food items, cash based intervention etc.

• Country public health team work with field teams and health partners on planning and implementation of LLIN mass distribution, targeted distribution and post distribution monitoring.

• Close collaboration with WASH and environment sectors eg Outbreak management, vector control, environmental measures.

• Site selection and shelter arrangement for the refugees need special attention considering environmental factors e.g. swampy areas and shelter design to allow for effective LLIN hanging. Sleeping on mats or beds (former being difficult to ensure nets are held secure)
New Malaria SOPs in Ebola outbreaks?

• New best practices need to be documented and published

Recent example:
First integrated MDA and LLIN distribution in Ebola epicentre Beni, NK, DRC
27/11 to 1/12/2018
Example: Potential of intensified collaboration with WFP

<table>
<thead>
<tr>
<th>Complex Emergency</th>
<th>IPC Levels</th>
<th>Population affected</th>
<th>Population reached by WFP 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nigeria (Borno)</td>
<td>3-5</td>
<td>3'600'000</td>
<td>1'300'000</td>
</tr>
<tr>
<td>Niger (Diffa)</td>
<td>2-4</td>
<td>691'400</td>
<td>180'000</td>
</tr>
<tr>
<td>Chad*</td>
<td>2-4</td>
<td>129'200</td>
<td>155'000</td>
</tr>
<tr>
<td>Cameroun</td>
<td>2-4</td>
<td>678'000</td>
<td>237'000</td>
</tr>
<tr>
<td>South Sudan</td>
<td>3-5</td>
<td>5.100'000</td>
<td>4'100'000</td>
</tr>
<tr>
<td>Somalia</td>
<td>3-5</td>
<td>2'900'000</td>
<td>597'700</td>
</tr>
<tr>
<td>Ethiopia**</td>
<td>2-4</td>
<td>5.600'000</td>
<td>5'350'000</td>
</tr>
<tr>
<td>Kenya</td>
<td>3-5</td>
<td>1'200'000</td>
<td>650'000</td>
</tr>
<tr>
<td>Uganda</td>
<td>3-5</td>
<td>3.900'000</td>
<td>1'177'500</td>
</tr>
<tr>
<td>Yemen</td>
<td>3-5</td>
<td>7'100'000</td>
<td>3'200'000</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>30'698'600</td>
<td>16'947'200</td>
</tr>
</tbody>
</table>

* Boko Haram affected only
** Estimate of population in need of food assistance – Government of Ethiopia
Leveraging multi-sectoral/programme contact points: Example Going to scale in Borno through polio transition

<table>
<thead>
<tr>
<th>Distribution period</th>
<th>Target</th>
<th>Age groups</th>
<th>Overall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start</td>
<td>End</td>
<td>3-11mths</td>
<td>12-59 mths</td>
</tr>
<tr>
<td>Cycle 1</td>
<td>08/07/2017</td>
<td>150,309</td>
<td>738,596</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reached</td>
<td>160,868</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% 93%</td>
<td>75%</td>
</tr>
<tr>
<td>Cycle 2</td>
<td>23/08/2017</td>
<td>191,795</td>
<td>1,015,914</td>
</tr>
<tr>
<td></td>
<td>27/08/2017</td>
<td>Targeted</td>
<td>168,683</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% 114%</td>
<td>99%</td>
</tr>
<tr>
<td>Cycle 3</td>
<td>14/10/2017</td>
<td>202,271</td>
<td>1,052,688</td>
</tr>
<tr>
<td></td>
<td>18/10/2017</td>
<td>Targeted</td>
<td>168,683</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% 120%</td>
<td>102%</td>
</tr>
<tr>
<td>Cycle 4</td>
<td>16/11/2017</td>
<td>198,788</td>
<td>1,015,914</td>
</tr>
<tr>
<td></td>
<td>20/11/2017</td>
<td>Targeted</td>
<td>168,683</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% 118%</td>
<td>99%</td>
</tr>
<tr>
<td>Overall</td>
<td>08/07/2017</td>
<td>743,163</td>
<td>3,831,178</td>
</tr>
<tr>
<td></td>
<td>20/11/2017</td>
<td>Targeted</td>
<td>666,917</td>
</tr>
<tr>
<td></td>
<td></td>
<td>% 111%</td>
<td>94%</td>
</tr>
</tbody>
</table>

Global Malaria Programme
Improved Cluster Coordination:
Nduta Refugee Camp, Tanzania. (MSF)

Health Cluster:  *epi and entomological monitoring: LSM*
Shelter Cluster:  *brick pits and drainage*
WASH Cluster:  *water tap stands*
Integrate across disease delivery systems
Borno State Nigeria. Malaria, cholera, measles, famine (WHO)

ITN logistics,
Seasonal Malaria Chemoprophylaxis
and
Polio vaccination

Need to Shift to Integrated Vector Control

Integrating appropriate vector control tools design to best fit the operating and living context is likely to increase efficacy of VBD control in most settings.
Solutions for Humanitarian Crises Shelter Contexts has the potential to generate solutions and markets for Outdoor Transmission.
Objectives:

• Provide a platform for information exchange, from the emergency viewpoint, including on existing vector control tools and processes to empower implementing agencies to do their work better.

• Advocate to improve operational collaboration among clusters in humanitarian or refugee emergencies, agencies, and relevant national programs and both emergency and development donors.

• Integrate across diseases and delivery strategies to improve efficiencies and effectiveness of program delivery.

• Facilitate bringing new tools to the field, including through contribution to the evidence-base through Standard Operating Procedures, collaboration with industry and academia and IRB-approved Operational Research.
Many good reasons why a new field manual needed

- Previous WHO Technical Guidance needs updating and synthesis
Aim of the revised guide

- A concise guide to effective malaria control responses in humanitarian emergencies
  - Particular focus on the initial acute phase when reliance on international humanitarian assistance is greatest.

- Provides WHO and UNICEF recommendations and practical advice on designing and implementing interventions to reduce malaria morbidity and mortality during anthropogenic (e.g. conflict) and natural (e.g. flood, earthquake) disasters.

- Revisions to reflect changes in best practices, improvements in technologies, availability of tools, and changes in WHO and UNICEF recommendations.

- Each chapter includes the latest available WHO and UNICEF recommendations and guidance and operational examples of how to implement them in humanitarian settings.
Target Users

- Humanitarian field coordinators & programme managers.
- Those tasked with assessment, planning, costing, implementing, monitoring, or evaluating malaria control interventions in a humanitarian emergency.
- Those who may have limited experience of malaria prevention and control.
- Possible useful reference for students and senior decision-makers (e.g. in donor agencies).
Development of this update was initiated by WHO (GMP, WHE) & UNICEF

- Initial draft developed in early 2019
- Independent revisions were consolidated during a working group meeting in Sharm El Sheikh (14-16 March 2019).
- Second (much smaller) working group meeting in Geneva (3-7 June 2019).
- New version should be available in Q1 2020 for final review and inputs

What’s new

- All sections updated and revised
- Addition of two new chapters
Current structure of the manual (1/2)

- Executive Summary
- Chapter 1 introduces humanitarian emergencies and the malaria burden.
- Chapter 2 introduces malaria essentials
- Chapter 3 summarises assessment and situation analysis approaches in humanitarian emergencies that include malaria.
- Chapter 4 describes case management interventions: uncomplicated and severe malaria, monitoring and evaluation.
- Chapter 5 describes vector control interventions, including WHO recommendations, operationalisation, monitoring and evaluation.
Current structure of the manual (2/2)

- Chapter 6 describes chemoprevention interventions, WHO recommendations, operationalisation, monitoring & evaluation.
- Chapter 7 describes surveillance, epidemic detection and response interventions, including WHO recommendations, operationalisation, monitoring & evaluation.
- Chapter 8 describes partnering with communities to ensure respectful health communications and capacity-building approaches.
- Chapter 9 describes key competencies needed by malaria control staff in humanitarian emergencies, including curriculum development and examples of training materials and job aids.
- Chapter 10 discusses operational research needs for evidence generation, including potential interventions for which insufficient evidence currently exists for a WHO recommendation.
- Annexes & Further reading
Emergency-related WHO technical guidance documents


UNICEF in Complex Operating Environments

• UNICEF strives to save lives and protect rights as defined in the Core Commitments for Children (CCCs) in Humanitarian Action.
• UNICEF focuses its efforts on systematically reducing vulnerability to disasters and conflicts for effective prevention of and response to humanitarian crises to ensure rapid recovery and building community resilience to shocks that affect children.

In 2016, UNICEF and partners responded to 344 humanitarian situations of varying scale in 108 countries with 576 surge deployments – the largest number of situations and countries recorded since tracking began more than a decade ago.

Key actions:
• early identification of priorities & strategies to build resilience on emergency to development spectrum
• rapid deployment of qualified staff and clear accountabilities for the response.
• In collaboration with MoHs, UNICEF country offices, NGO & academic partners, UNICEF’s Chid Health Unit is documenting lessons learned & providing evidence on best practices on the role and impact of community health workers and other community actors in complex & insecure environments.
Supply actions in emergencies

- **Focus on preparedness**: ensuring appropriate and sufficient health supplies are in place.
- **Capacity Development**: E.g. expertise on markets, products, inventory, monitoring, convening partners.
- **Strengthening together**: supply chain strengthening efforts are part of the UNICEF-wide Health Emergency Preparedness Initiative (HEPI) launched in 2015.
- **Reduce stock-outs** by keeping emergency commodities stockpiled at all times or through LTAs with suppliers.
- **Improve delivery/timelines** through improved reporting, quantification, forecasting, etc.
- **Reaching the last mile**

**Emergency Context**

In 2016, UNICEF emergency funds’ procurement reached $379.1 million. South Sudan, Nigeria, Somalia, Yemen, Mali, Burundi, Niger, Guinea (8 countries)

UNICEF total spend on in-country logistics for 2015-16 was **62.3 million USD**
• New IASC Level 3 (L3) Activation Procedures for Infectious Disease Events - requiring all sectors/clusters to be ready \textit{(beyond health)}

• UNICEF has developed a ‘package of support’, which consists of guidance, resources and tools necessary for a well-coordinated and rapid sector specific response in the event of an outbreak.

• This also includes disease-specific supply requirements with pre-positioned stock and a roster of staff for response teams.
Malaria Emergency Kit

• The Inter-Agency Emergency Health Kit (IEHK2011) is an integral part of UNICEF's immediate response to most emergencies and contains enough supplies to protect a population of 1,000 persons for 3 months.
• The basic unit contains antimalarial medicines (for uncomplicated) & rapid diagnostic test kits and is meant for use by healthcare workers with limited training. Injectable medicines can be ordered in a supplemental kit.
Open Data Kit

- https://opendatakit.org/

Open Data Kit tools help millions of people around the world collect, manage, and use their data.

Our users include Google, WHO, CDC, USAID, the Red Cross and Red Crescent, the Carter Center, the Jane Goodall Institute and many others.

From monitoring rainforests to observing elections to tracking outbreaks, Open Data Kit is the standard for mobile data collection.
Sphere Standards

FACTORS FOR SUCCESS

- Rapid response esp engaging local actors and community health workers and leaders immediately
- Unique & concentrated partner effort
- Continuous dedicated leadership
- Cross-level technical teams with country representation
- Specific support for tracking key areas & activities
- Emergency preparedness plans
- Balance between emergency response and continuation of services