ANGOLA:
The Human Impact of War

A data review of field surveys in Angola between 1999-2005

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CE-DAT: The Complex Emergencies Database

CE-DAT is a global, shared, searchable database on complex humanitarian emergencies. The main objectives are:

1) To provide key nutritional, health and mortality indicators for rational humanitarian aid decision making.

2) To promote effectiveness of international policy on response and prevention through evidence-based trend analysis and impact briefings.

3) To support decision making by constructing an internet-accessible, multi-source database on the human impact of complex emergencies.

Indicators included in the database come from more than 1150 surveys undertaken by United Nations Agencies, NGOs and academic institutions in conflict and post-conflict situations.

CE-DAT collects three categories of data:

1) Mortality Rates (Crude Mortality, Under 5 Mortality, Infant Mortality)

2) Malnutrition (Acute Malnutrition, Chronic Malnutrition, Underweight, Oedema and MUAC)

3) Vaccination coverage (Measles, Polio, DTP, Tuberculosis) and Vitamin A coverage

All indicators in the database specify the legal status of the population measured (IDP, resident or refugee) and identify their exact location up to the smallest administrative level boundary. Moreover, CE-DAT is committed to improving the quality of data from conflict settings and hence provides methodological details (sampling methods, recall periods...) and states all sources of data.

For further information, please go to http://www.cred.be/cedat/index.htm
CONTENT

1 INTRODUCTION ...............................................................................................................................5

2 ANGOLA: A COUNTRY RAVAGED BY WAR..................................................................................6

   2.1 The End of the Angolan War (December 1998- April 2002): A last deadly step before peace ................................................. 6

   2.2 Worst affected Provinces (Insecurity and Mass populations movements)..... 9

3 METHODS USED TO MEASURE THE HUMAN IMPACT OF CONFLICT: The CRED Complex Emergencies Data Base (CE-DAT).................11

4 HUMAN IMPACT OF THE CONFLICT ON THE ANGOLAN POPULATION.................................................................13

   4.1 Human impact of war through different periods: conflict, transition and post-conflict .................................................................13

       4.1.1 Nutritional status .............................................................................................................................................14

       4.1.2 Crude Mortality Rate ......................................................................................................................................15

       4.1.3 Under Five Mortality Rate ..............................................................................................................................16

   4.2 Human impact of war according to legal status (Residents, IDPs and refugees) .........................................................................................19

       4.2.1 Nutritional status .............................................................................................................................................20

       4.2.2 Crude Mortality Rate ......................................................................................................................................22

       4.2.3 Under Five Mortality Rate ..............................................................................................................................23

       4.2.4 Direct Comparison between Residents Vs IDPs: surveys at the same time at the same place ..............................................................24

   4.3 Excess of mortality due to conflict: estimation and causes .........................................................27

       4.3.1 Estimation of Excess of Mortality by period and legal status .........................................................................................27

       4.3.2 Main causes of excess of mortality.......................................................................................................................29

5 CONCLUSIONS ........................................................................................................................................30

6 ABREVIATIONS ........................................................................................................................................33

7 ACKNOWLEDGEMENTS ......................................................................................................................33

8 BIBLIOGRAPHY ........................................................................................................................................34
1. INTRODUCTION

The effects of armed conflicts on mortality fall into one of two categories: direct and indirect. By direct mortality we mean those violent deaths caused by military operations among both soldiers and civilians, often called battle deaths. The loss of life caused by armed conflicts does not stop there. In fact, much more death and misery is inflicted on civil populations by indirect means. Those collateral effects of conflict are commonly known as “indirect” or “excess” mortality. They account for those non-violent deaths among civil populations that would not have occurred without the conflict. Over the last decades, indirect deaths have greatly outnumbered direct battle-deaths in most conflicts. The main causes of those indirect deaths include economic collapse, food shortages and malnutrition, the disruption of health systems, mass population movements to overcrowded settlements, and the stretching of public safety systems due to long conflicts.

In this document, we will analyze the human impact that the Angolan conflict has had on the civilian population in terms of mortality and malnutrition. Special attention will be paid to the differences in impact over time and according to the legal status of the population affected; residents, Internal Displaced Persons (IDPs) and refugees. At the same time, we will assess the extent to which the Angolan conflict has caused an excess mortality and look into the main causes of this excess.

Reconstruction, recovery and development activities in Angola require an in-depth understanding of past trends and patterns in essential population, health and nutrition indicators. Predictions of disease and mortality patterns, as well as health service needs, can best be projected using past trends and patterns of these indicators among the displaced, returnee and resident populations.

We have focused the analysis on the last period of armed conflict between UNITA (National Union for Total Independence of Angola) and the Angolan Government in the years 1999-2002 and the post-conflict situation after the April 2002 ceasefire up to 2005. The last period of war between 1999 and 2002 was the most deadly, due in great part to the “scorched earth” military strategies of both warring sides. This caused a huge influx of IDPs to overcrowded cities, as well as rendering large areas of Angola inaccessible to international relief.

With the aim of assessing the burden of conflict, we have used more than 90 quantitative surveys undertaken in Angola by several NGOs since 1999, as well as surveillance mortality data on Angolan refugee camps outside the borders. These surveys have been a reliable source of information on the level of distress caused by the conflict among the civil population.
2. ANGOLA: A COUNTRY RAVAGED BY WAR

As the graph 1a shows (timeline with the summary of the conflict), Angola has endured the burden of armed conflict since the independence war against Portugal in 1956. This war was followed by 27 years of civil conflict between the governmental MPLA (Popular Movement for the Liberation of Angola) and the insurgent UNITA, which finally came to an end in April 2002.

All those years of civil strife have had a devastating effect on Angola’s development and the well-being of the population. The results of the war, including dysfunctional infrastructure, lack of adequate health care, and food shortages, left the Angolan population in a dire situation by the time the war ended.

The comprehensive Multiple Indicator Cluster Survey (MICS) undertaken by UNICEF in 2001 (one year before the end of the war) showed that Angola was the country with the third-worst under five mortality rate, with 250 deaths for every 1,000 live births; around 181,000 children every year\(^1\). The MICS survey revealed a maternal mortality rate that was also one of the highest in the world, estimated at 1,280 deaths for every 100,000 live births; approximately 11,000 maternal deaths and 36,000 orphans every year\(^2\). It should be noted that the MICS survey did not take into account those rural populations inaccessible in 2001 because of security issues, which may have given even higher values\(^3\). Another discouraging consequence of the conflict was the life expectancy at birth in 2001. This was just 39.9 years, one of the lowest in the world\(^4\).

2.1 THE END OF THE ANGOLAN WAR (DECEMBER 1998- APRIL 2002): A LAST DEADLY STEP BEFORE PEACE

On December 1998, after a calm period of 4 years, Angola’s president put on hold the Lusaka Protocol from 1994 by declaring war on UNITA. There followed a UNITA counter-offensive. Due to considerable governmental superiority in military resources and the international embargo imposed on UNITA-held areas, UNITA’S once well-equipped conventional army was significantly undermined and forced to change to guerrilla warfare tactics.

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1 Access to UNICEF-MICS data on http://www.childinfo.org/MICS2/newreports/angola/angola.htm
3 The areas not included were expected to be the worse off was, they account for 35% of the territory and 5% of the country’s population.
1956 - Beginnings of the socialist guerrilla independence movement, the People's Movement for the Liberation of Angola (MPLA), based in northern Congo.

1951 - Angola's status changes from colony to overseas province.

1974 - Revolution in Portugal, colonial empire collapses.

1975 - Angola gains independence but power struggle ensues between MPLA, backed by Cuba, and the FNLA plus UNITA backed by South Africa and the USA.

1989 - Government and UNITA agree cease-fire, which collapses soon afterwards and guerrilla activity resumes.


1991 May - Peace deal which results in a new multiparty constitution.

1993 - UN imposes sanctions against UNITA. The U.S acknowledges the MPLA.

1999 - UNITA leader Savimbi was shot dead by government troops.

2000 - UN mission overseeing the peace ended.

2003 - January - 1.8 million IDPs came back.

2002 May - 85% of UNITA troops gathered at demobilisation camps.

2002 - February - Savimbi (UNITA leader) was shot dead by government troops.

2002 (April) - Signed ceasefire agreement.

2003 - January - 2 more million IDPs headed home. Only 450,000 IDPs left.

2000 - War with Portugal

1990 - Civil War

1998 - Full-scale fighting resumes.

1999 - September. After initially making advances, UNITA was pushed back.

1999 - UNITA resorted to mobile guerrilla warfare.

PERIOD STUDIED IN THE DOCUMENT

1998 - Last period of conflict

2000 - Transition

2005 - Post-Conflict
Through road-mining, ambushes and the terrorising of villages, UNITA forces drove the government back into the provincial capitals and a few small towns, leaving rural Angola out of control and highly insecure.

This last phase of the conflict was characterized by cruelty against civilians by both warring parties. On the one hand, more than 3 million Angolans were trapped in the UNITA-held zone. There, they were unable to receive any humanitarian assistance, as well as suffered radical UNITA methods such as extortion, forced recruitment of men and children, and involuntary displacement to government-held areas in order to burden the government with humanitarian responsibilities. On the other hand, government troops also forced massive displacement. This governmental cleansing strategy was meant to empty significant parts of the countryside, hampering UNITA forces’ attempts to find villages in which they could harbor and recruit new troops.

Considering the warfare strategies used by both parties, along with the long period of conflict in Angola, it is not surprising that at the end of the war, the number of Internally Displaced Persons (IDPs) reached 4,288,000 and more than 470,000 refugees were hosted outside Angola (mostly in Zambia, DR Congo or Namibia). That is to say that more than 40% of the population was pushed out of their homes.

Within Angola’s borders, the absence of an actual front line, linked to the exploitation of the civil population by both sides, resulted in different types of grey zones for the civil population for those last years of the conflict:

- Firstly, there were those civilians living in areas not under the control of either side, which made them completely unreachable by relief operations as well as very vulnerable to attack. Due to internal displacement to villages or government-held cities, they were fewer and fewer as the conflict progressed.
- Secondly, there were those civilians accompanying UNITA units, usually by force, suffering repression in many cases and very harsh conditions as a consequence of the itinerant life and the lack of access to relief assistance.
- Finally, there were those displaced by the Government outside the national or provincial capital security perimeter and therefore inaccessible to humanitarian organizations. This relocation was regarded by many as part of the Government’s attempt to consolidate its presence and control in newly liberated areas.

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5 NORWEGIAN REFUGEE COUNCIL/GLOBAL IDP PROJECT. Profile of internal displacement: Angola Compilation of the information available in the Global IDP Database of the Norwegian Refugee Council (as of October 2005) at http://www.internal-displacement.org/


Civil populations living in these grey zones were the worst off, suffering great hardship. Besides experiencing the proximity of war, they were completely unreachable for humanitarian organizations. Despite the UN Security Council’s call in 2001 for the provision of humanitarian safe corridors, UNITA rejected the possibility, linking it to a bilateral cease-fire (IRIN 18/10/2001). Thus, after the ceasefire, it was estimated that up to 500,000 people had not had access to international humanitarian aid since 1998. Likewise, as we will see in this document, several rapid assessments undertaken by relief agencies in these inaccessible areas showed people suffering great hardships, with malnutrition prevalence and mortality rates far beyond the accepted thresholds for the declaration of an emergency.

As for the displaced rural population, they were moving into already overcrowded urban and semi-urban areas, where they faced a lack of functioning health infrastructures, and difficulties in gaining a livelihood as there was no land to cultivate. Displaced populations very often arrived in cities and towns in a desperately poor condition. Because of their lack of a livelihood, many of them rapidly became dependent on the assistance of humanitarian organizations. However, the delivery of aid was often constrained by the disruption of the road communications caused by mines and ambushes, forcing those distributing aid to rely on expensive air cargos which limited a proper distribution. This meant it was sometimes extremely difficult to help those in extreme need.

After the cease-fire and with the security situation under control, the humanitarian community gained access to the rest of the country. Nevertheless, during the first months after the ceasefire the mechanisms of international assistance were not as effective as they should have been. The presence of mines and the condition of the destroyed infrastructure continued to hamper relief aid distribution, leaving large areas insecure for a longer period.

2.2 WORST AFFECTED PROVINCES (INSECURITY AND MASS POPULATION MOVEMENTS)

One of the main characteristics of the Angolan conflict, especially during the last period between 1999 and 2002, was the major security problems with many ambushes, attacks, mines and cases of looting. These made it difficult for humanitarian organizations to deliver aid to scattered rural populations. Guerrilla attacks and general insecurity were widespread in almost all provinces, although most activities of the war were concentrated in the central highlands of the country (Huambo and Bié provinces and some areas of Huila, Benguela and Kuanza Sul) and the provinces of Mexico and Cuando Cubango (provinces shaded in map 1).

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9 WFP, Food security and livelihood Survey in the Central Highlands of Rural Angola, June 2005.
In addition, there were massive population movements throughout the country, which caused huge concentrations of IDPs in some of the provinces (see map 1). For instance, some rural areas from Huambo province were almost depopulated, the fleeing population hosted mainly in Benguela or Bié provinces.

Map 1 also points out to what extent the 18 provinces of Angola were affected by the arrival of Internally Displaced Persons. Here, we notice that all 18 provinces hosted displaced persons, but a few took the brunt of this displacement. Provinces such as the capital Luanda, Bié, Lunda Norte or Benguela were the most affected, hosting more than 400,000 IDP each at the end of January 2002.

**MAP 1: Most insecure provinces & IDPs population hosted by province in January 2002**
3. METHODS USED TO MEASURE THE HUMAN IMPACT OF CONFLICT: The CRED Complex Emergencies Data Base (CE-DAT)

Mortality and nutrition are commonly chosen as the best indicators for assessing the severity of a complex emergency, identifying needs and prioritizing interventions and monitoring their impacts.

According to the Sphere Project Handbook, the daily crude mortality rate (CMR) is the most specific and useful health indicator to monitor in a disaster situation. A doubling of the baseline CMR indicates a significant public health emergency, requiring immediate response. A conflict setting is commonly considered an emergency when the CMR is above the 1 death per 10,000/day. The threshold is doubled for the Under-5 Mortality Rate (U5MR), at 2 deaths per 10000/day\(^\text{10}\).

Nutritional status can be considered a subsidiary aspect of general health status, since the former is a major determinant of the latter. In order to assess malnutrition, we have chosen the indicator most commonly used in emergency settings, the prevalence of Global Acute Malnutrition (GAM), measured as Weight for Height indicator and standardized by the NCHS/CDC reference tables. Children aged 6-59 months are taken as a proxy for the entire community, as they are the group most vulnerable to food shortages. According to the WHO definition an emergency situation exists when GAM is above 10%. The situation is critical when GAM is above 15%.

For this document, we have used data collected in Angola by means of nutritional and mortality surveys from 1999 to the present. The information was obtained from the online Complex Emergencies Database (CE-DAT), which gathers data on the human impact of conflict, promoting an evidenced-based policy on conflict prevention and response. CE-DAT has been developed and maintained by the WHO Collaborating Center for Research on the Epidemiology of Disasters (CRED) and is funded by the U.S. Department of State Population, Refugees and Migration Bureau. To date, CE-DAT includes more than 1150 surveys on nutrition and mortality in more than 35 countries affected by conflict or refugee displacement.

In order to undertake the present analysis of the impact of the war in Angola, we have used 88 field surveys carried out in Angola since 1999 and included in CE-DAT. As Table 1 showed, CE-DAT provides us with the details of surveys during the conflict (between 1999 and April 2002), the transition period, understood as the 6-month period after the cease-fire, and what we call the post-conflict phase (from November 2002 up to

CE-DAT also includes the legal status of the survey’s target population (resident, Internally Displaced Persons or these surveys targeting both at the same time).

**TABLE 1: Surveys available in Angola according to status and period**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents</td>
<td>11</td>
<td>4</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>IDPs</td>
<td>19</td>
<td>6</td>
<td>2</td>
<td>27</td>
</tr>
<tr>
<td>IDP &amp; Residents</td>
<td>22</td>
<td>1</td>
<td>8</td>
<td>31</td>
</tr>
<tr>
<td><strong>Total surveys</strong></td>
<td><strong>52</strong></td>
<td><strong>11</strong></td>
<td><strong>25</strong></td>
<td><strong>88</strong></td>
</tr>
</tbody>
</table>

CE-DAT includes surveys from 13 provinces throughout the period in question. Table 2 shows the large differences among the number of surveys available for each province. Benguela, Huila, Cuando-Cubango and Bié are the provinces where CE-DAT has gathered the most surveys.

**TABLE 2: Number of indicators gathered by province**

<table>
<thead>
<tr>
<th>Provinces Angola</th>
<th>Malnutrition</th>
<th>Crude Mortality Rate (CMR)</th>
<th>Under Five Mortality Rate (U5MR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benguela</td>
<td>23</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Huila</td>
<td>17</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Cuando-Cubango</td>
<td>15</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Bié</td>
<td>12</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Malange</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Cuanza Sul</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Huambo</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Lunda Sul</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Mexico</td>
<td>2</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Uíge</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Luanda</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Lunda Norte</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Zaire</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>88</strong></td>
<td><strong>73</strong></td>
<td><strong>75</strong></td>
</tr>
</tbody>
</table>

In addition to the surveys undertaken in Angola, CE-DAT also provides information from the Angolan refugee camps in Zambia, DR Congo and Namibia. CE-DAT includes 10 malnutrition surveys from refugee settings between 2001 and 2004, as well as mortality information coming from the mortality surveillance system in the camps in 2003 and 2004.
4. HUMAN IMPACT OF THE CONFLICT ON THE ANGOLAN POPULATION

4.1 HUMAN IMPACT OF WAR THROUGH THE DIFFERENT PERIODS: CONFLICT, TRANSITION AND POST-CONFLICT

The Angolan population experienced great deprivation and suffering over the last phase of the conflict. With the aim of showing the impact of the conflict over time, we have plotted all indicators available in CE-DAT on global acute malnutrition, crude mortality and under five mortality since 1999 (see graph 1, 2 and 3).

If we analyse quantitatively the evolution of the three indicators over time, we clearly verify that from the end of the conflict, the situation for Angola population began to improve according to available surveys. One year after the ceasefire, Angola had been able to leave behind the high rates of crude mortality and malnutrition that field surveys had recorded during the conflict. Nevertheless, as we will see, it cannot be concluded that the humanitarian situation is completely under control. Firstly, there are still concerns about the high vulnerability of some returnees, as it will take some time for them to fully reconstruct their livelihoods. Secondly, there are not enough comprehensive and recent surveys to draw solid conclusions of the exact situation for the whole country nowadays.

In order to reflect the impact of the conflict on the survey-based indicators, we have divided the whole period between 1999 and 2005 into 3 different phases:

1. Conflict Period: between 1999 and the ceasefire in April 2002
2. Transition Period, covering the 6 months after the ceasefire, when humanitarian organizations began to reach some of the areas and populations previously unreachable
3. Post-conflict Period, November 2002 to the present

From mortality and nutrition survey results since 1999, we can discern a clear pattern for the three indicators, linked to the period in which the surveys took place: significant levels of distress during the conflict, worsening conditions during the transition, and a steady improvement through the post-conflict period to the present, according to the scarce recent surveys available.
4.1.1 Nutritional status

Focusing on the Global Acute Malnutrition (GAM) indicators of 88 surveys undertaken in 13 provinces of Angola (see graph1), 24% of the them displayed a prevalence of wasting above the emergency threshold of 10% (mainly in Bié, Benguela, Huambo, Huila and Cuando Cubango). However, this proportion undergoes large variations during the three periods under consideration. Thus, for instance, during the conflict 28% of the surveys showed a prevalence above the emergency threshold of wasting in children, whilst in the post-conflict period, only one survey of the 24 surveys available exceeds this threshold. This shows a significant improvement in the food security conditions since the end of the conflict throughout the areas surveyed.

Despite this improvement in the nutritional situation, a recent survey undertaken by the World Food Program in the central Highlands of Angola (Huambo province and part of Bié) in June 2005 recorded a worrying 13.4% GAM. This is a good example of the still high vulnerability of the population living in this area of the country. There, in 2005 44% of households had received humanitarian aid, 73% of which received food aid. This vulnerability is linked to the return and resettlement of households in their area of origin, returns very often characterized by the lack of assets and the need to reconstruct their livelihoods. Thus, 67% of the households surveyed in the area had been displaced at least once during their lifetime with an average displacement period of 5.4 years.

Looking at graph 1 it is also remarkable that it was during the period immediately after the ceasefire that the number of surveys recording GAM exceeding the emergency threshold was highest (46% of all surveys). The main explanation is that during the conflict, humanitarian relief was not reaching the areas worst-hit in terms of nutrition. Surveys undertaken at the end of the conflict often revealed the plight of those previously...
unreachable areas. Thus, we find surveys in Moxico, Huila and Cuando Cubango where the proportion of wasting in children exceeded the crisis threshold of 15%.

Map 1 shows the areas surveyed during the conflict and transition phases along with the levels of prevalence of acute malnutrition displayed by those surveys. Here we can see that the emergency threshold was exceeded in several areas in provinces such as Huila, Benguela, Moxico or Cuando-Cubango. Moreover, the map shows some areas with prevalences well above 15% in Bié, Huambo and Cuanza Sul. Such high prevalence in some of the regions most affected by the conflict is due either to difficulties in getting relief aid to the populations or to the resettlement of displaced populations in large numbers.

**MAP 2: Average GAM prevalences during conflict and transition periods (01/1999 – 10/2002)**

4.1.2 Crude Mortality Rate

For mortality indicators, the observed pattern is very similar to what we have just observed regarding malnutrition status. Surveys undertaken in the conflict and transition periods were more likely to display rates above the emergency threshold.

Graph 2 displays the results of 73 Crude Mortality indicators available in CE-DAT for 12 provinces of Angola. Overall, surveys displayed a very bad situation in terms of mortality, far worse than for malnutrition status. Surveys recording CMR above the emergency threshold of 1 death per 10,000/day account for 64% of the total surveys between 1999 and 2005. Nevertheless, as we saw for malnutrition, surveys throughout the conflict period showed rates higher than post-conflict; 73% of the surveys between 1999 and
April 2002 were above the threshold, against the 32% since November 2002. On the other hand, we remark once again that surveys undertaken in the transition period showed the worst mortality indicators, with 8 out of 10 showing CMR above the emergency levels. For instance, surveys undertaken in Luena (Moxico) among Internally Displaced Persons and ex-UNITA soldiers and their families gathered in the Quartering and Family Area (QFA) displayed high mortality rates, particularly just before their arrival in the settlements after the war (reaching 7.2 per 10,000/day in Muacanhica and Muachimbo camps and 4.6 per 10,000/day in Chicala QFA).

**GRAPH 2: Crude Mortality Rates through time (deaths / 10,000 /day)**

Map 3 shows the mortality indicators by district during the conflict and transition phases (up to November 2002) according to 55 mortality surveys available in CE-DAT. Here, we see that the majority of the areas surveyed were above the emergency limits, having emergency situations in the districts of Moxico, Bié, Lunda Sul, Cuando-Cubango, Huila, Cuanza Sul, Malange and Benguela. On the other hand, the map also shows those areas where mortality was under control, mainly in the north area (Luanda, Zaire and Uige provinces) and a district in Cuando-Cubango and Malange.

Finally, as we can see in graph 2, once the conflict was over and humanitarian aid started to pour in, mortality rates recorded by the surveys underwent a significant drop. After November 2002 only 6 surveys out of 19 had mortality rates slightly above the threshold (Benguela and Huila provinces) and, more positively still, since April 2004 there have been no surveys with mortality rates above the emergency threshold.
4.1.3 Under 5 Mortality Rate

Under 5 Mortality Rate (U5MR) is the indicator that gives us perhaps the best insight into the huge impact of war on Angola’s population. CE-DAT provides 75 surveys that include U5MR indicators in 12 different provinces. 75% of these 75 surveys displayed rates above the threshold of 2 deaths per 10,000 per day. This proportion was 78% during the conflict and even reached 100% in the transition period. Finally, at the post-conflict stage, 53% of the surveys still included rates above the threshold (Benguela and Huila). Nevertheless, the situation seems to be under control since 2004, as all surveys since then have displayed an under five mortality rate below the threshold. Having said that, it must be acknowledged that there have been very few surveys recently from which to draw solid conclusions for the whole country.

Besides the proportion of surveys with rates above the threshold, graph 3 also shows many surveys displaying very high under five mortality rates, far higher than the figures that might be expected even in a conflict situation. For example, the U5MR average for all surveys undertaken in the conflict and transition phases was 3.9 deaths per 10,000 per day, almost twice the emergency level.
Map 4 shows that between 1999 and November 2002, according to the surveys in CE-DAT, under five mortality was seemingly out of control in areas of Lunda Norte, Lunda Sul, Moxico, Bié, Huambo, Huila, Huambo, Cuanza Sul, Malange, Benguela and Cuando Cubango.

Comparing malnutrition indicators with mortality ones, it can be noted that overall the latter revealed a more critical situation, especially among under fives. Relatively low malnutrition rates combined with very high U5MR may lead us to conclude that the malnutrition rates were not so high in certain cases because those worst-off had already died when the surveys were carried out.

4.2 HUMAN IMPACT OF WAR ACCORDING TO LEGAL STATUS (RESIDENTS, IDPs and REFUGEES)

As stated before, the Angolan conflict caused massive population displacement both within Angola, with more than 4 million Internally Displaced Persons, and outside its borders, with 450,000 Angolan refugees mainly in Zambia, DR Congo and Namibia.

These large-scale movements resulted in different legal statuses for the conflict-affected Angolan population: residents, IDPs, and refugees, which eventually became returnees when they came back to home.

By residents, we mean those persons who did not move from their dwellings as a consequence of the conflict. Hence, they kept living in their local environment throughout the conflict, usually allowing them to preserve their own livelihoods and/or social networks. As we will see later, based on the surveys analysed, remaining at home is a key factor in the impact of the war. As a rule, residents are in a better position to cope with the consequences of war than IDPs or refugees.

Unlike residents, refugees and IDPs were forced or obliged to flee from their homes or places of habitual residence, because of the armed conflict and violations of human rights. The main difference between the two groups is that IDPs have not crossed an internationally recognised state border. This has a major impact on legal status and protection rights.

Refugees are legally far more protected than IDPs as their security is granted by the 1951 Convention Relating to the Status of Refugees, the 1967 Protocol relating to the Status of Refugees and the 1969 Convention of Refugees of the Organization of African Unity, as well as having a UN agency whose aim is to ensure their well-being (UNHCR).

However, despite having the same origin and certainly the same needs, IDPs do not have the benefit of any extra legal protection in addition to the regular international humanitarian law. Nor does there exist a special UN agency with the clear mandate of taking care of them. IDPs remain under the jurisdiction of their own government, and the only thing ensuring their well-being is the United Nations "Guiding Principles on
Internal Displacement”, which is not an international convention and therefore entails no legal obligations.

In this section we will use the surveys gathered in CE-DAT to analyse the impact of conflict, in terms of mortality and nutrition among the different legal statuses of the population. Taking into account the way data is presented by the different surveys reports, we have divided the indicators in CE-DAT into 4 categories:

- Indicators on Resident populations\textsuperscript{11}
- Indicators on IDPs.
- Indicators on refugees who fled Angola
- Indicators on groups comprised of both residents and IDPs (owing to the fact that some of the surveys in CE-DAT do not provide a breakdown of the results by legal status)

4.2.1 Malnutrition

Graph 4 summarises all malnutrition surveys in CE-DAT by year and status, providing us with the yearly average GAM for all the surveys by status. At first glance, it seems clear that hunger was closely related to the status of the population surveyed. Thus, IDPs had on average a far worse nutritional status than residents and refugees, displaying an average GAM prevalence above the threshold of 10% until 2004. IDP-resident surveys follow a very similar trend to residents. This is to be expected as those surveys targeting IDPs and residents usually had a higher proportion of residents than IDPs (on average 65% were residents versus 35% IDPs).

Regarding refugees, a short time after they fled the country a survey was undertaken in the Nangweshi, Zambia camp in April 2000 by MSF-Holland. The survey showed a high prevalence of GAM (16.1%). However, as time went by and humanitarian organisations began operations, the Angolan refugee situation improved. We can see an important drop in GAM from this survey in 2000 to subsequent surveys among refugees in Namibia, DR Congo or Zambia undertaken in 2003 and 2004. In these, malnutrition seemed to be under control with an average prevalence of GAM under 5%. For example, a survey undertaken in Nangweshi camp in 2004 showed a prevalence of 1.5%, far below the rate of 16% recorded there in April 2000.

\textsuperscript{11} Due to the mixing in some of the surveys between residents and returnees and the impossibility of splitting their results in most cases, returnees have been taken as resident population.
The better condition of residents vis-à-vis Internally Displaced Persons is further shown in graph 5. Here, we notice also the improvements in malnutrition status recorded by surveys since the end of the war. For instance, the average GAM recorded by IDP surveys between 2000 and November 2002 was 14.9%, with 44% of the surveys having rates above the 10% threshold. On the other hand, the average GAM among residents in the same period was 6.4%, with only 21% of the surveys being above the threshold.

**GRAPH 5: Global Acute Malnutrition by status and period**

<table>
<thead>
<tr>
<th>Average Global Acute Malnutrition</th>
<th>% of surveys above threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IDPs</strong></td>
<td></td>
</tr>
<tr>
<td>n=25</td>
<td>14.9%</td>
</tr>
<tr>
<td>n=2</td>
<td>6.3%</td>
</tr>
<tr>
<td><strong>IDPs &amp; RESIDENTS</strong></td>
<td></td>
</tr>
<tr>
<td>n=23</td>
<td>8.3%</td>
</tr>
<tr>
<td>n=8</td>
<td>6.6%</td>
</tr>
<tr>
<td><strong>RESIDENTS</strong></td>
<td></td>
</tr>
<tr>
<td>n=14</td>
<td>6.4%</td>
</tr>
<tr>
<td>n=15</td>
<td>6.8%</td>
</tr>
</tbody>
</table>
4.2.2 Crude Mortality Rates

As for Crude Mortality Rates, we notice in graph 6 the same trends already discussed for malnutrition. CMR among IDPs were on average above the emergency threshold and they showed a remarkable peak in 2002, mainly due to those surveys undertaken among populations previously unreachable for security reasons. In 2002 some of the surveys among IDPs displayed very high rates, such as those among UNITA soldiers and their families demobilised and gathered in Quartering Camps or Transit areas of Luena (Moxico), with CMR ranging from 1.6 to 7.2 per 10000/day.

One of the remarkable aspects about graph 6 is the very low mortality rates for refugees in 2003 and 2004. These “unrealistically” low figures lead us to wonder whether this is because the mortality situation for refugees was excellent, or, more likely, because there are problems of one sort or another with the data collected in the refugee camps. Such problems may be caused by the underreporting of deaths among refugees, as well as problems with the official population figures used to calculate the rates.

Graph 7 shows once again the graver mortality situation for IDPs vis-a-vis residents. 92% of 25 surveys carried out among IDPs during the conflict and the transition period record CMR above the emergency threshold. On the contrary, only 50% of the surveys among residents over the same period recorded rates exceeding the threshold, as well as having an average CMR 2.2 times lower.
4.2.3 Under Five Mortality Rates

Finally, Under 5 Mortality Rates plotted in Graph 8 display the same trends as for malnutrition and Crude Mortality. The most noteworthy aspect is the very high average rates displayed for residents and especially IDPs, whilst mortality data for refugees presents extreme low rates. The latter showed us once again the difficulties in obtaining reliable mortality data in refugee situations.

Graph 8: Annual U5MR average by legal status
Graph 9 clearly displays the seriousness of the under five mortality situation in Angola throughout the whole period analysed. Almost 100% of the surveys among IDPs show rates above the emergency threshold. Furthermore, the situation is not much better among IDPs-Residents, and even rates for residents during the conflict were very high, with 77% of the surveys showing rates above the threshold.

**GRAPH 9: Under five mortality rate by status and period**

<table>
<thead>
<tr>
<th></th>
<th>Average Under Five Mortality (per 10,000/day)</th>
<th>% of surveys above threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IDPs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n=27</td>
<td>2.35</td>
<td>93%</td>
</tr>
<tr>
<td>n=2</td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td><strong>IDPs &amp; RESIDENTs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n=17</td>
<td>2.66</td>
<td>71%</td>
</tr>
<tr>
<td>n=7</td>
<td>2.81</td>
<td>86%</td>
</tr>
<tr>
<td><strong>RESIDENTs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>n=13</td>
<td>2.87</td>
<td>77%</td>
</tr>
<tr>
<td>n=10</td>
<td>1.6</td>
<td>20%</td>
</tr>
</tbody>
</table>

4.2.4 Direct Comparison between Residents and IDPs: surveys at the same time and place

CE-DAT provides us with 15 different surveys undertaken by Action against Hunger-Spain in Huila, Bié, Lunda Sul, Benguela and Cuando Cubango provinces where results for IDPs and Residents are given separately. This allows us to make strict comparisons between the nutrition and mortality situations of each group at the very same place and at the very same moment in time.

Graphs 10, 11 and 12 give us a visual confirmation that legal status is a key factor in the distress caused by conflict. Thus, in graph 10 we notice a systematically worse nutritional status for IDPs, especially in the provinces of Huila and Bié, where nutritional indicators for displaced populations were far above emergency levels. Malnutrition rates for residents in those two provinces were further below acceptable levels. On the contrary, rates in Benguela showed that the relative situations of residents and IDPs were quite similar throughout the sites surveyed.
Graphs 11 and 12 display the same pattern as graph 10: higher mortality rates for displaced populations that are sometimes double or even triple the rates of residents. Once again, Huila province is where the differences are most pronounced.

Examining the figures displayed in Graphs 11 and 12, we realise how the living conditions of the transit centres and overcrowded camps predisposed this population to an increased susceptibility to communicable diseases, with no safe water sources and poor sanitation. According to the United Nations Consolidated Appeal for 2002, at least 60% of the general population used contaminated water sources, but this proportion rose to 90% for IDPs. Looking at the results of these surveys, we see evidence that displaced persons succumbed in greater numbers than resident populations to diseases such as measles, fever and diarrhoea.
### GRAPH 11: Differences in Crude Mortality Rates among IDPs and Residents

#### CMR According to Legal Status

<table>
<thead>
<tr>
<th>Province</th>
<th>IDPs</th>
<th>Residents</th>
<th>Difference (IDPs Vs Residents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huila 5/2002</td>
<td>1.1</td>
<td>3.0</td>
<td>+1.9</td>
</tr>
<tr>
<td>Huila 1/2002</td>
<td>2.0</td>
<td>3.8</td>
<td>+1.8</td>
</tr>
<tr>
<td>Benguela 11/2000</td>
<td>0.7</td>
<td>1.6</td>
<td>+0.9</td>
</tr>
<tr>
<td>Lunda Sul 1/2002</td>
<td>1.1</td>
<td>1.8</td>
<td>+0.7</td>
</tr>
<tr>
<td>Huila 3/2002</td>
<td>1.0</td>
<td>2.3</td>
<td>+0.5</td>
</tr>
<tr>
<td>Bie 6/2000</td>
<td>1.8</td>
<td>2.4</td>
<td>+0.5</td>
</tr>
<tr>
<td>Bie 12/1999</td>
<td>1.1</td>
<td>1.9</td>
<td>+0.4</td>
</tr>
<tr>
<td>Huila 3/2004</td>
<td>0.7</td>
<td>1.2</td>
<td>+0.5</td>
</tr>
<tr>
<td>Benguela 5/2001</td>
<td>1.24</td>
<td></td>
<td>+0.3</td>
</tr>
<tr>
<td>Benguela 11/2001</td>
<td>1.4</td>
<td></td>
<td>+0.1</td>
</tr>
<tr>
<td>Bie 11/2000</td>
<td>1.2</td>
<td></td>
<td>+0.1</td>
</tr>
<tr>
<td>Cuando-Cubango 12/2000</td>
<td>0.66</td>
<td>0.67</td>
<td>=</td>
</tr>
<tr>
<td>Benguela 6/2002</td>
<td>1.28</td>
<td>1.41</td>
<td>-0.13</td>
</tr>
</tbody>
</table>

### GRAPH 12: Differences in U5MR among IDPs and Residents

#### U5MR According to Legal Status

<table>
<thead>
<tr>
<th>Province</th>
<th>IDPs</th>
<th>Residents</th>
<th>Difference (IDPs Vs Residents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huila 1/2002</td>
<td>12.6</td>
<td>6.5</td>
<td>+6.1</td>
</tr>
<tr>
<td>Huila 3/2002</td>
<td>8.0</td>
<td>2.8</td>
<td>+5.3</td>
</tr>
<tr>
<td>Lunda Sul 1/2002</td>
<td>6.0</td>
<td>2.2</td>
<td>+3.8</td>
</tr>
<tr>
<td>Huila 3/2002</td>
<td>5.7</td>
<td>3.1</td>
<td>+2.6</td>
</tr>
<tr>
<td>Bie 6/2000</td>
<td>4.3</td>
<td>2.0</td>
<td>+2.3</td>
</tr>
<tr>
<td>Benguela 11/2000</td>
<td>4.6</td>
<td>3.3</td>
<td>+1.3</td>
</tr>
<tr>
<td>Bie 11/2000</td>
<td>3.5</td>
<td>2.3</td>
<td>+1.2</td>
</tr>
<tr>
<td>Benguela 5/2001</td>
<td>3.1</td>
<td>2.1</td>
<td>+1.0</td>
</tr>
<tr>
<td>Benguela 11/2001</td>
<td>3.9</td>
<td>2.9</td>
<td>+1.0</td>
</tr>
<tr>
<td>Huila 3/2004</td>
<td>2.4</td>
<td>1.5</td>
<td>+0.9</td>
</tr>
<tr>
<td>Benguela 6/2002</td>
<td>3.0</td>
<td>2.1</td>
<td>+0.9</td>
</tr>
<tr>
<td>Bie 12/1999</td>
<td>4.5</td>
<td>3.8</td>
<td>+0.7</td>
</tr>
<tr>
<td>Cuando-Cubango 12/2000</td>
<td>2.5</td>
<td>2.1</td>
<td>+0.4</td>
</tr>
</tbody>
</table>
4.3 EXCESS OF MORTALITY DUE TO CONFLICT: ESTIMATION AND CAUSES

4.3.1 Estimation of Excess of Mortality by period and legal status

A common feature of the majority of recent armed conflicts is that battle deaths\textsuperscript{12} tend to be a minor part of the overall cost in human lives. In fact, the great majority of human losses are usually “indirect” deaths, also called “excess” of mortality.

By excess of mortality we understand those non-violent deaths among civil populations which would not have occurred without the conflict. Explanations of this excess of mortality may be found in the breakdown of health and social services, the mass displacement of populations and the overcrowded conditions, along with the impossibility of continuing local livelihoods as a consequence of the war.

A recent study by Lancina and Gleditsch on the estimation of battle deaths for several conflicts made an estimate of 160,475 battle deaths for the Angolan war since 1975. According to the study, battle deaths account for 11\% of the estimated 1.5 million deaths caused by the war for the whole period\textsuperscript{13}.

In this section, we will use mortality surveys in CE-DAT to assess the excess of mortality caused by the conflict in Angola for the period of analysis between 1999 and 2005. However, the available surveys mostly focus on certain small areas and there is a lack of general mortality surveys for the whole country. Therefore, it is not possible for us to estimate accurately a total number of deaths for the whole period using only these surveys.

Nevertheless, the surveys in CE-DAT enable us to calculate the actual number of deaths on the sites studied over the exact period surveyed, by using the recall period of the study. In other words, we have been able to estimate the number of deaths for the areas surveyed by using the Crude Mortality Rates and the recall period of the surveys. By doing that for every survey, we get a total number of deaths estimated for every survey over the period surveyed. Following that, we can compare this number of deaths with a contra factual, calculated as the estimated deaths during the same period and the same areas in the case of no conflict. In order to calculate this contra factual, we have used the Sub-

\textsuperscript{12} Violent deaths caused by military operations either among soldiers or civilians.
Saharan baseline for mortality of 0.44 deaths per 10,000/day over the whole recall period, instead the real CMR estimated by surveys\textsuperscript{14}.

Comparing both numbers, we get for every site surveyed an estimation of the percentage of actual deaths that may be considered as excess of mortality caused by the conflict. That is to say, the proportion of deaths that would not have occurred had there been peacetime mortality rates (baseline of 0.44 per 10,000 /day).

Using mortality surveys in CE-DAT we estimate that excess of mortality accounts for 69\% of the deaths on the sites surveyed between 1999 and 2005. Furthermore, table 3 shows us once again differences in the excess of mortality among the different periods considered throughout this paper. During the conflict period, excess of mortality accounted for 71\% of deaths, 83\% over the 6 months of the transition period, and finally excess of mortality drops to 45\% since November 2002.

\textit{TABLE 3: Excess of mortality according to period}

\begin{table}[h]
\centering
\begin{tabular}{|l|l|l|l|}
\hline
 & Estimated deaths in sites surveyed using real CMR & Hypotetical deaths in sites surveyed using Subsaharian CMR baseline & EXCESS OF MORTALITY in sites surveyed using real CMR % over total deaths in sites surveyed using Subsaharian CMR baseline \\
\hline
Conflict & 60.420 & 17.232 & 43.188 & 71\% \\
Transition & 15.744 & 2.748 & 12.996 & 83\% \\
Post-conflict & 15.620 & 8.616 & 7.003 & 45\% \\
Total & 91.784 & 28.596 & 63.188 & 69\% \\
\hline
\end{tabular}
\end{table}

In addition, table 4 displays great differences in excess of mortality by legal status. Thus, among residents surveyed excess mortality accounts for 48\% of total deaths, whilst among IDPs eight out of 10 deaths may be considered as excess of mortality due to the conflict.

\textit{TABLE 4: Excess of mortality by legal status}

\begin{table}[h]
\centering
\begin{tabular}{|l|l|l|l|}
\hline
 & Estimated deaths in sites surveyed using real CMR & Hypotetical deaths in sites surveyed using Subsaharian CMR baseline & EXCESS OF MORTALITY deaths % over total deaths \\
\hline
Residents & 18.996 & 9.951 & 9.045 & 48\% \\
IDPs & 29.925 & 10.864 & 19.061 & 64\% \\
Residents & 42.863 & 8.616 & 35.082 & 82\% \\
IDPs & & 7.003 & & \\
Total & 91.784 & 28.596 & 63.188 & 69\% \\
\hline
\end{tabular}
\end{table}

4.3.2 Main causes of excess of mortality

43% of the mortality surveys available in CE-DAT specify the cause of death reported by the interviewee. Violence turns out to account for an insignificant proportion in all surveys, with the only exception being those surveys of UNITA soldiers amongst whom, for instance, violence accounted for 18% of the deaths between July 2001 and June 2002\(^\text{15}\).

Analysing the causes of death specified in the surveys, we clearly see that high mortality rates were not a consequence of a high proportion of violent deaths. The main causes of death reported by surveys, both of children and adults, were preventable and treatable diseases such as diarrhoea, malaria or respiratory infections. Moreover, some of the cases of very high mortality rates are explained by epidemics such as the measles outbreak in Caconda (Huila Province) in 2002, which brought the under five mortality rate among IDPs and residents up to 12.6 and 6.48 per 10,000/day respectively.

Considering the low proportion of violent deaths displayed by the surveys gathered in CE-DAT, we can conclude that for the Angolan conflict the high mortality rates were more linked to the disruption of some health determinants than to the conflict itself. After many years of war in Angola, factors such as the deterioration in access to health care, the lack of sanitation, low vaccination coverage and high levels of malnutrition are revealed as the main causes of the human impact of the conflict. This is especially true amongst the youngest casualties, which account for more than half of the total deaths. Thus, for instance, at the end of 2002, 12% of hospitals, 11% of health centres, and 85% of health posts were not operational because of the destruction or serious deterioration of their physical infrastructure. Furthermore, there was a serious shortage of staff and of basic equipment; Angola counted 0.05 doctors per 1,000 inhabitants, 20 times less than the number recommended by WHO\(^\text{16}\).

\(^{15}\) According to MSF survey in the QFA in Bié, Huila, Malange and Cuando-Cubango
\(^{16}\) REPUBLIC OF ANGOLA Ministry of Health & UNFPA& UNICEF. Strategic Plan for the accelerated reduction of maternal and child mortality 2004 – 2008
5. CONCLUSIONS

Angola has faced almost forty years of war from 1961 to 2002, when a peace settlement was signed between the two opposing parties; the government (led by the MPLA) and UNITA. Despite two prior attempts at negotiated peace settlements between the government and UNITA, it was not until the outright victory of the government forces in April 2002 that a sustained peace settlement was possible.

The end of the war found a country completely ravaged by the effects of such a long conflict. In 2002, Angola had more than four million IDPs (about 40 per cent of the total population), more than 60 per cent of the population living below the poverty line and less than 30 per cent having access to adequate health care.

Our report analyses more than 90 mortality and nutrition surveys undertaken in Angola since 1999. It identifies trends in health and nutrition indicators in Angola examining them over time (conflict between 1999-2002, transition and post-conflict), over space and across population groups (residents, refugees and IDPs).

The main aim of the report is to provide insights into the distribution of health and nutrition indicators and point out populations at higher risk or potentially more vulnerable in conflict settings. In the absence of vital registration or reliable surveillance systems in the country, survey data is often the only resource available to perform these analyses. While the results may not be comprehensive for the whole country or can sometimes be inaccurate or partly distorted, some insights may be better than none at all. It is in this spirit that all valid surveys were collected and analyzed. The main conclusions drawn from the analyses developed for this report are as follows:

- Tautological as it may seem, it is worth pointing out that the absence of conflict since 2002 has had a beneficial effect on the health status of the country in general, including of the displaced and refugees. This is not inevitably the case, as observed in DR Congo or Darfur where peace accords have had little effect on reducing civil violence and in some cases may have even increased it.

- Data analyzed in this report highlights the fact that isolated areas and populations were the worse-hit by the conflict. These severely affected populations were more in need of relief aid than development actions even in the first years of the post-conflict period. Generally speaking, the grim conditions of out-of-reach populations in a conflict’s aftermath make them unable to absorb development actions for a while. Therefore, it is recommended that international development
programs in immediate post-conflict situations leave some room to humanitarian relief actions for the most distressed communities.

- Our research indicates that the health status and the need for services of residents, returnees and internally displaced vary enough to warrant specific policies adapted to the target communities.

- IDPs were by far the most affected population group during the conflict. Furthermore, once the war was over, the difficulties for those IDPs (now returnees) to earn their livelihood, along with key deprivation during the conflict such as loss of schooling or adequate nutrition in critical ages, maintains some of them in a vulnerable category.

- While past nutritional stresses will compromise the health recovery of the IDPs, returnees remain the most fragile and vulnerable group in the country, especially in the Central Highland provinces of Huambo and Bié. Due to inadequate distinction between residents and returnees in most of the surveys used for this study, we were unable to extract the specific situation of the returnees. However, contextual information and some of the surveys available indicate that they are still a matter of key concern for national development plans.

- Among all the vulnerable groups, children under five have been and continue to be the most consistently and catastrophically affected, both in terms of mortality and malnutrition. However, global acute malnutrition improved more quickly over time than mortality, stabilizing below emergency levels since the peace agreement in 2002. The reasons for this slower progress of a key development priority that is U5MR should be further explored.

- While the good news is that the health and nutritional status of children respond gratifyingly fast to health and nutritional interventions, the bad news is that after a long conflict it can be very difficult to reach those children most in need. Measures such as vaccination campaigns and supplemental feeding should form the backbone of health programmes after conflicts, focusing on systems to get these services out to the children in rural or remote areas.

- Our estimates of excess mortality (calculated using the estimates from multiple surveys and measured against the average Sub-Saharan baseline) during the entire period indicated that overall excess deaths due to the conflict in the sites surveyed account for about 70% of all deaths in this period (1999-2005). The internally displaced essentially took the brunt of the burden (8 out 10 deaths in the IDP-sites surveyed may be considered as excess mortality caused by the conflict and therefore preventable deaths, versus 5 out of 10 among residents).
• Deaths due to the Angola conflict have not received the international public attention given to deaths in other regions of the world, such as in Darfur, Kosovo or Rwanda. Despite the large number of deaths caused by the Angola civil conflict, there has been a lack of attribution of responsibility between the warring parties. This shows us a common and worrying pattern in conflicts around the world. If governments or rebel groups are causing deaths among civilians using direct violence, this may be considered as a crime against humanity or sometimes even as a genocide. However, if the same government or rebel group are responsible for thousands and thousands of civilian deaths by disrupting civil life or simply by negligence, as was the case in Angola, they are not accountable to anyone. Furthermore, these deaths are often neglected by the mainstream media.

Finally, we would like to end by underlining the value of these types of analyses and the need to share survey data and findings, especially from countries or regions where data is unavailable or difficult to get. Composite analyses from multiple surveys can help both humanitarian and reconstruction planning by identifying groups and areas at high risk of mortality and malnutrition. Encouraging humanitarian non governmental agencies to undertake good quality surveys and share the data in a common repository would facilitate planning and resource allocations at very little cost.
6. ABBREVIATIONS

CDC = Center for Disease Control and Prevention
CE-DAT = Complex Emergencies Database
CMR = Crude Mortality Rate
CRED = Centre for Research on the Epidemiology of Disasters
DTP = Difteria, Tetanus and Pertusis
IDPs = Internal Displaced Persons
MICS = UNICEF Multiple Indicator Cluster Survey
MPLA = Movimento Popular de Libertação de Angola
MSF = Médicins Sans Frontières
MUAC = Mid-Upper Arm Circumference
NCHS = National Center for Health Statistics
NGO = Non Governmental Organizations
QFA = Quartering and Family Area
U5MR = Under Five Mortality Rate
UNHCR = United Nations High Commissioner for Refugees
UNICEF = United Nations International Children's Emergency Fund
UNITA = União Nacional para a Independência Total de Angola
WFP = World Food Program
WHO = World Health Organization

7. ACKNOWLEDGEMENTS

We would like to thank to the U.S. Department of State Bureau of Population, Refugees, and Migration for generously supporting the CEDAT project since 2003.

We would also like to thank the following humanitarian aid agencies that have taken the trouble of undertaking statistically sound surveys in Angola, mostly under extremely difficult circumstances, and sharing their results for further analysis.

Acción Contra el Hambre-España         Epicentre
World Food Program           Médicins Sans Frontières-CH
CARE             Médicins Sans Frontières-Belgium
Concern               Médicins Sans Frontières -Spain
Christian Relief and Development Association (CRDA)  UNHCR
Catholic Relief Services (CRS)
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• UNITED NATIONS. Consolidated Inter-Agency Appeal 2002


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