High levels of mortality above the emergency threshold, Ouaka prefecture, Central African Republic: population-based mortality survey, 2020

MSF Scientific Days 2021

Eve Robinson *on behalf of the study team*

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SCIENTIFIC DAYS

CAR – in a state of "silent crisis"

"One day, you will come back and you won't find anyone here because the problems will have killed us all"
Mother of 10 children, Ouaka

- Decades of political unrest

- >70% under control of armed groups

- One of lowest ranking countries for many health indicators

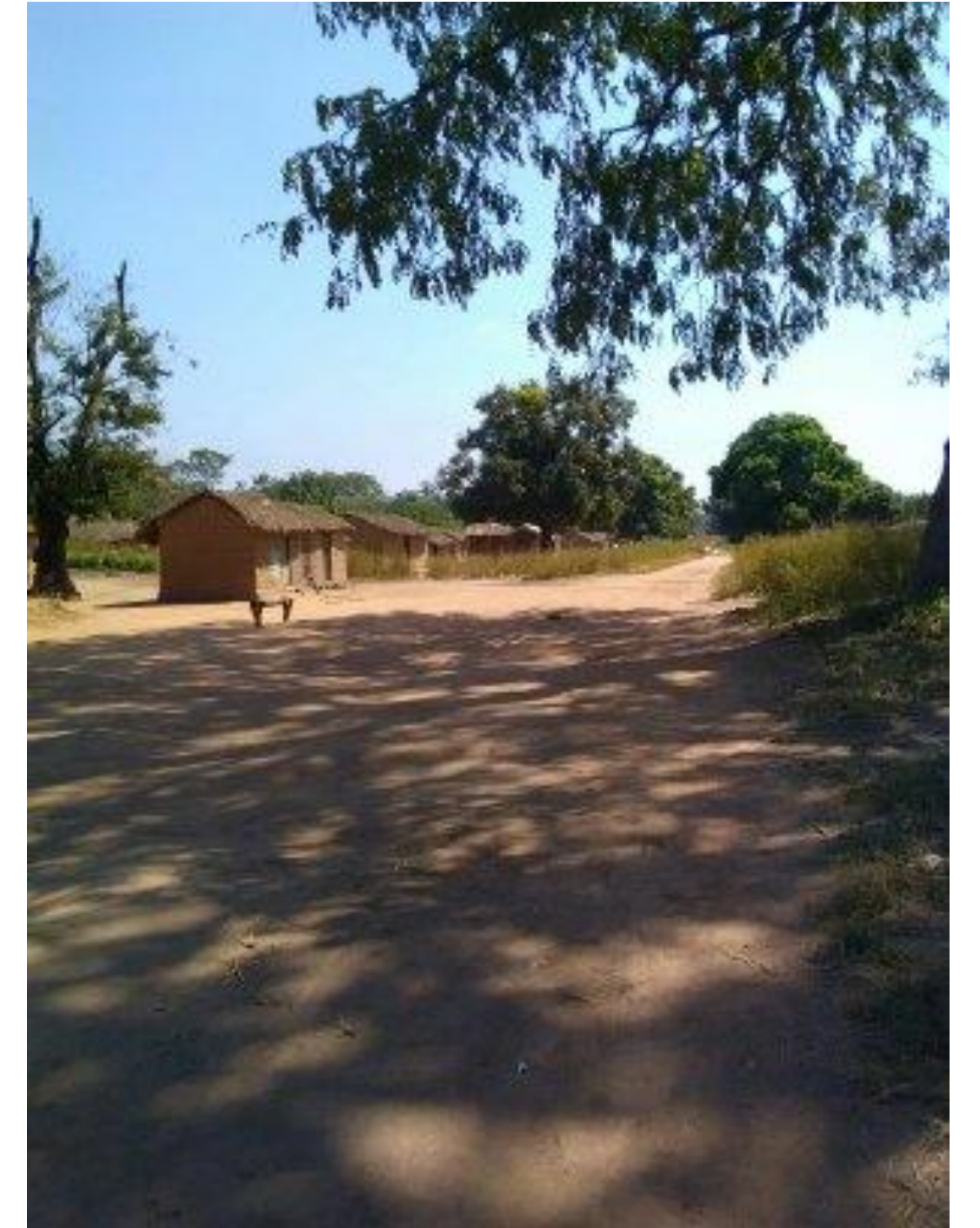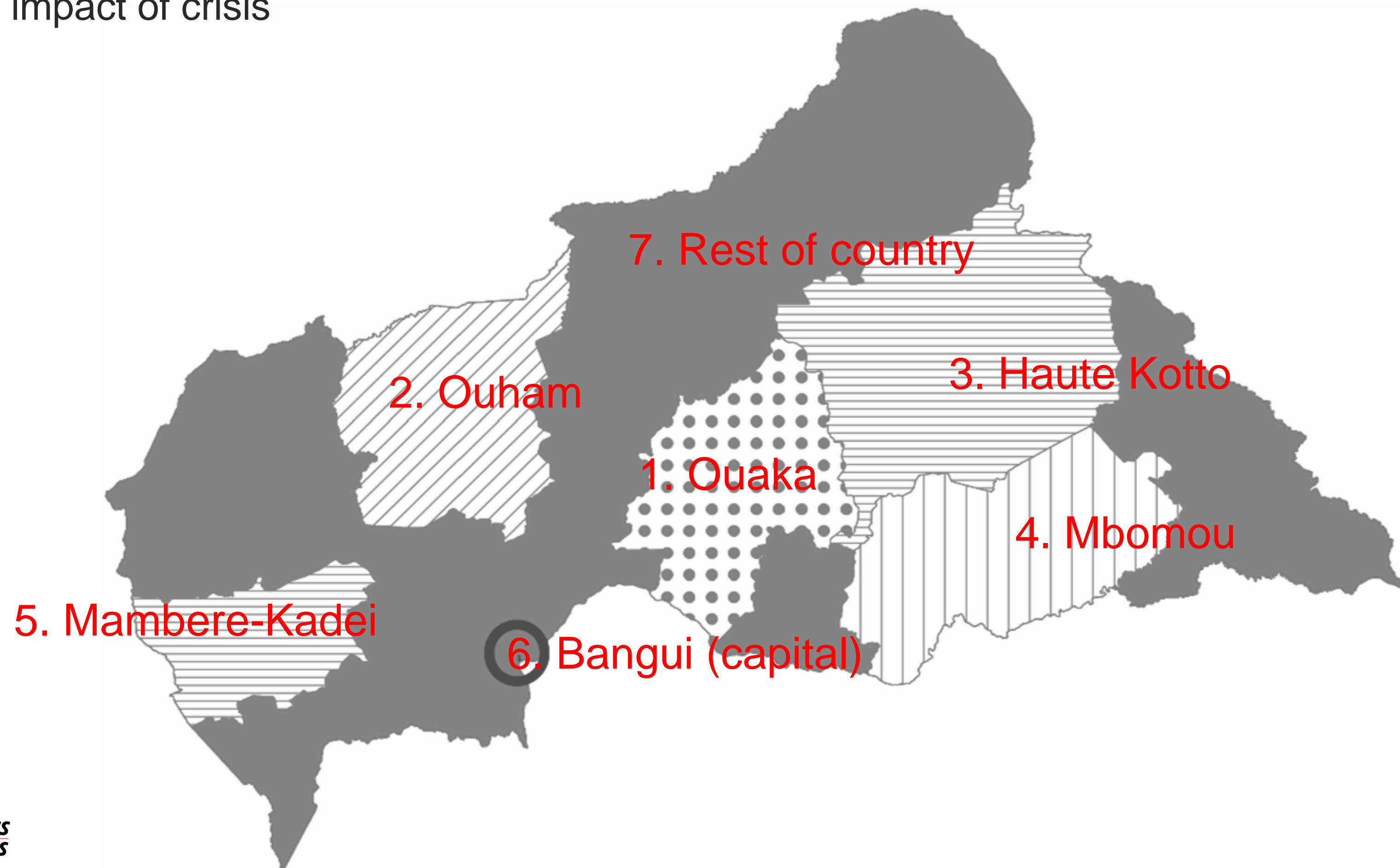- UN estimate crude mortality rate (CMR): 0.34 deaths/10 000/day

Photo by Eve Robinson

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Context – need for reliable mortality estimates

- Nationwide mortality study planned

- Plan and prioritise programs

- Document impact of crisis

- Advocacy

7. Rest of country

3. Haute Kotto

2. Ouham

1. Ouaka

4. Mbomou

5. Mambere-Kadei

6. Bangui (capital)

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Methodology – Population based survey

Data collection
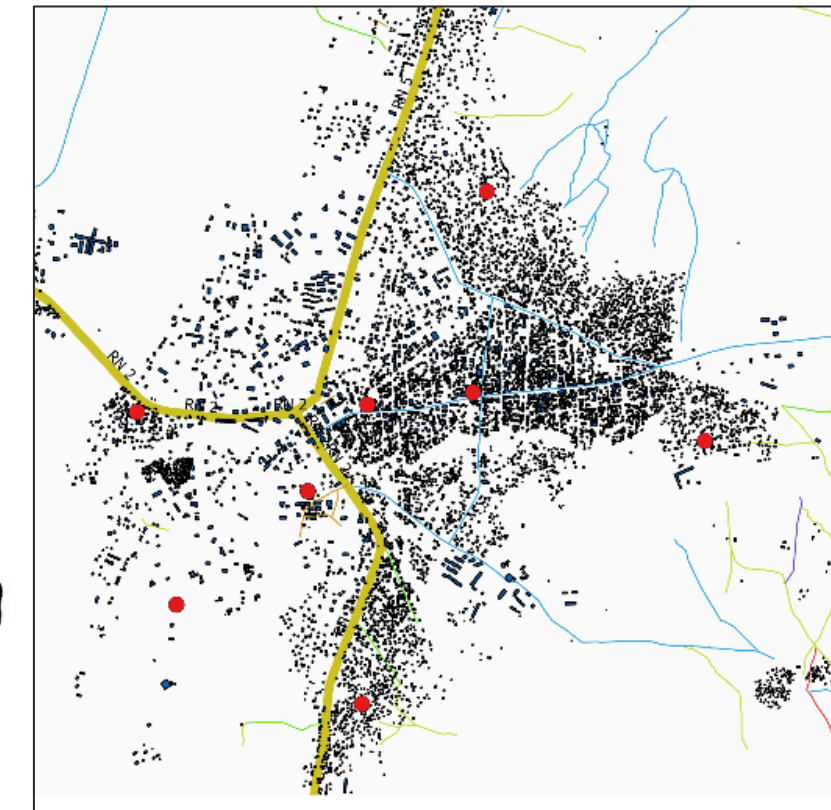
9 Mar-9 Apr 2020
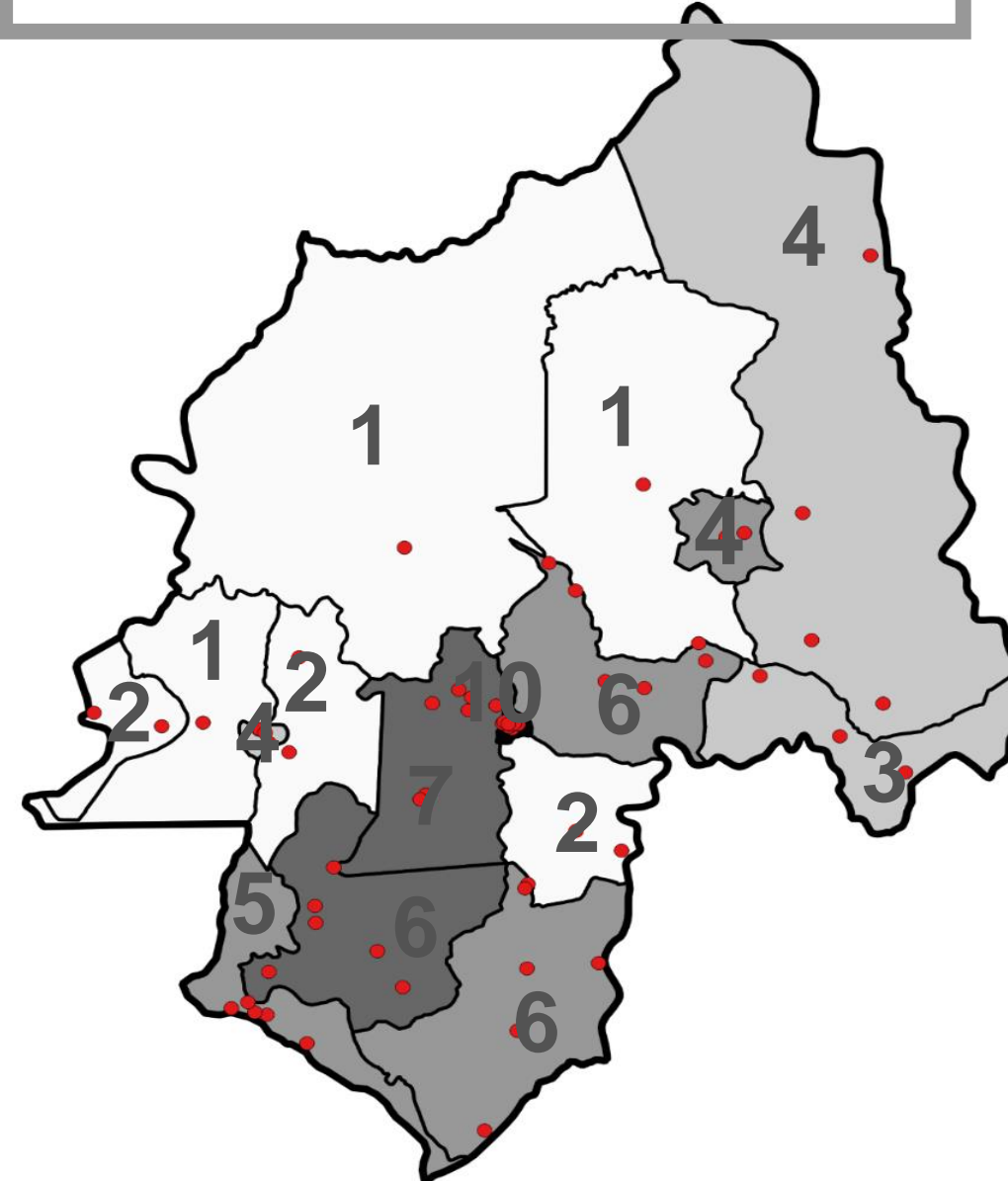
Recall period – 26 May 2019

Target sample size – 3,636 persons across 765 households
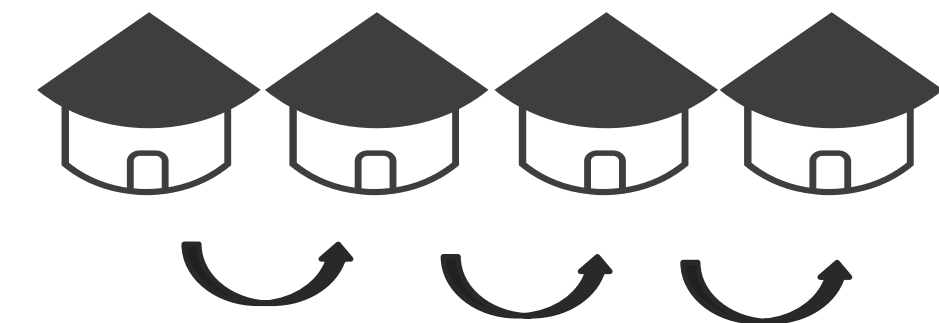
2-stage cluster sampling

64 clusters

12 households per clusters

Structured interview with household head

Analysis

CMR & U5MR : Deaths/10,000,day

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Methodology – special features

Standard MSF questionnaire except for:

- Focus on mortality only

- Beginning with an opening question

  « What are the difficulties your household faces on a daily basis? »

- Specific question on pregnancy and outcome
  - Early loss
  - Late pregnancy loss (incl. stillbirths)
  - Live birth – still alive
  - Live birth – no longer alive

- Training on identifying maternal and neonatal deaths

Photo by MSF CAR Communications team

Photo by MSF CAR Communications team

Study Population
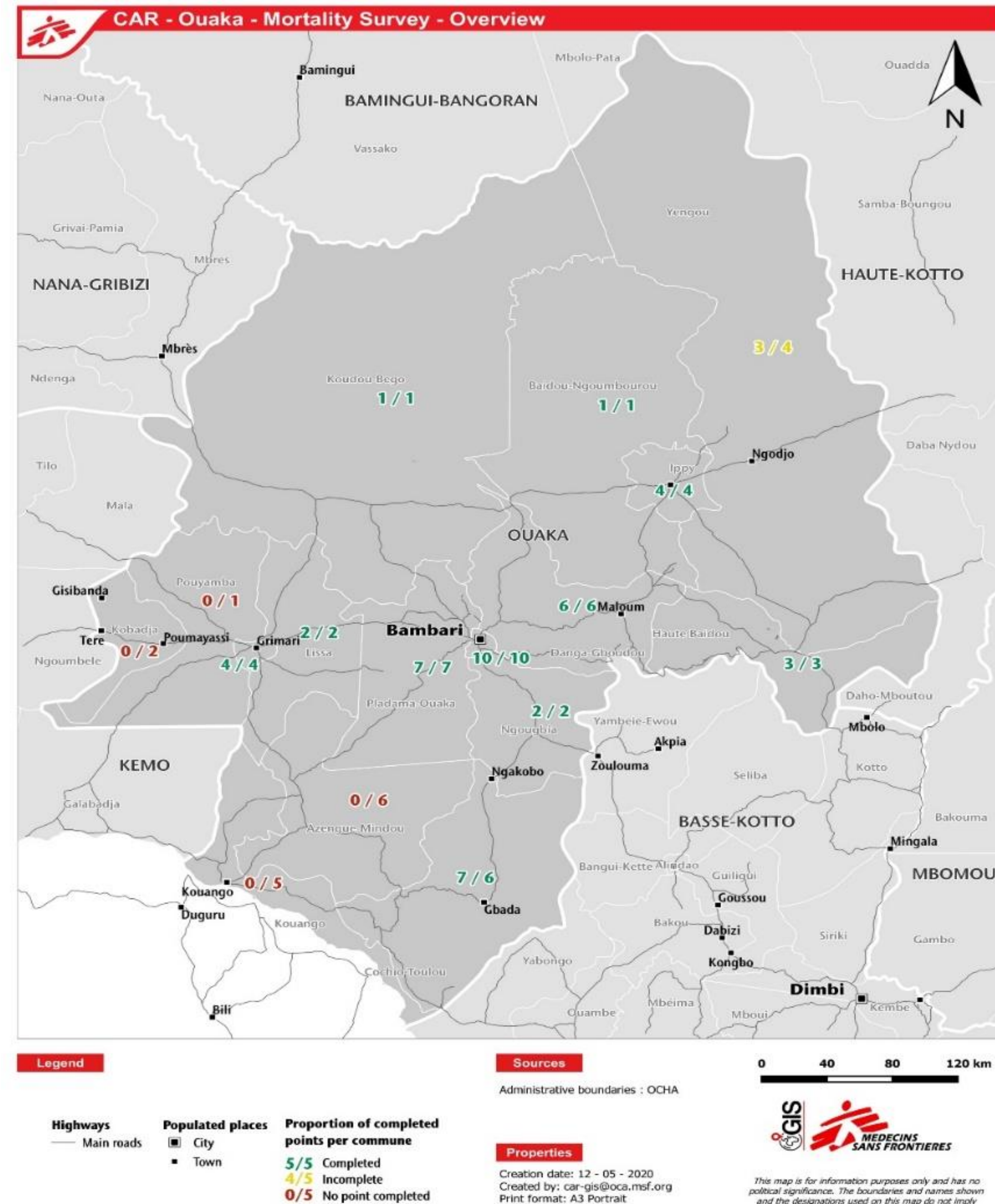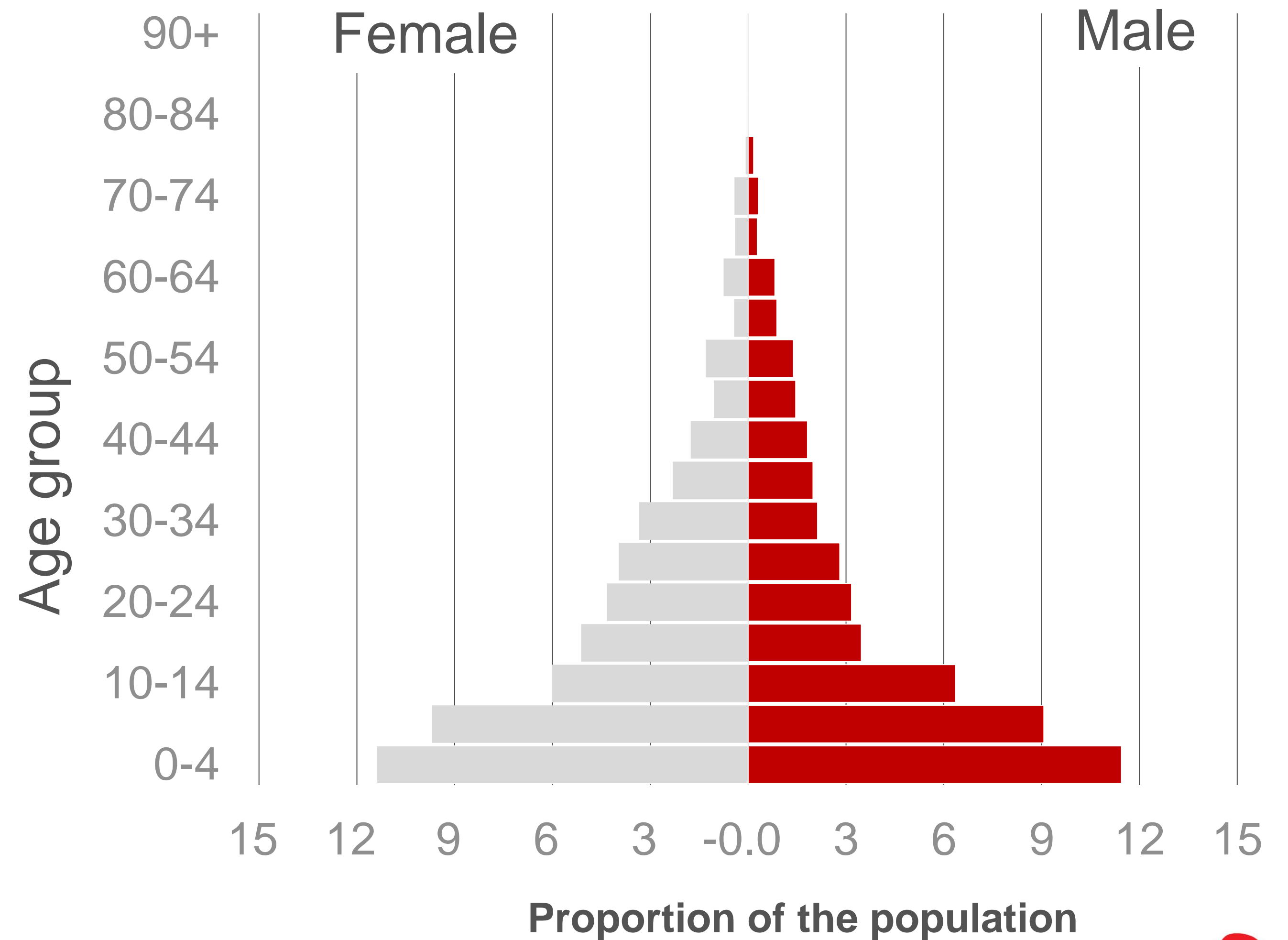
- 50 clusters across 12/16 communes

- 591 households

- 4272 household members

- Median household size: 7 persons (IQR 4-9)

Results – population structure

- Median age: 12 years

- <5 years: 22.8%

- Birth rate: 59.0/1000 population

Proportion of the population

Results – causes of death

- **CMR: 1.33 deaths/10 000 persons/day (95% CI: 1.09—1.61)** *(emergency threshold – 1 deaths/10,000 /day)*

Cause of death	< 5 years		≥5 years	
	n	% (95% CI)	n	% (95% CI)
Malaria/fever	15	30.5(17.8—47.1)	11	9.9(5.9—16.2)
Violence	2	4.8(0.6—28.8)	20	16.7(7.7—32.5)
Diarrhoea/vomiting	11	24.0(11.9—42.7)	5	5.0(1.9—12.2)
Respiratory infection	3	6.8(2.1—20.1)	10	9.1(4.6—17.1)
Neonatal	6	11.9(5.3—24.7)		
Maternal			5	4.4(2.0—9.4)
Measles	3	6.6(2.1—19.0)	1	0.9(0.1—6.7)
Trauma/accident	1	2.3(0.3—16.2)	2	2.3(0.5—9.3)
Malnutrition	1	2.4(0.3-16.5)	1	0.9(0.1—6.0)
Other – specified	0		15	13.1(7.7—21.3)
Unknown	5	10.6(4.2—24.3)	43	37.9(26.6—50.6)
Total	**47**		**113**	

Results – causes of death

- CMR: 1.33 deaths/10 000 persons/day (95% CI: 1.09—1.61)
- **U5MR: 1.87 deaths/10 000 persons/day (95% CI: 1.37—2.54)** *(emergency threshold – 2 deaths/10,000 /day)*

Cause of death	< 5 years		≥5 years	
	n	% (95% CI)	n	% (95% CI)
Malaria/fever	**15**	**30.5(17.8—47.1)**	11	9.9(5.9—16.2)
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- *MMR: 2 525 deaths/100 000 live births (95% CI: 825—5 794)* (UN estimate - 829 deaths/100,000 live births)

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Results – health seeking

- 62% sought healthcare prior to their death

- 38% did not seek healthcare prior to the death

- Reasons for not seeking care

  - Sudden death 50.9%

  - No money for the consultation 27.5%

  - Self medication 13.0%

  - Traditional healer 5.8%

  - Distance 5.6%

  - Security 5.4%

Photo by Eve Robinson

Results – challenges faced by households

Health (378 HHs)

"The children have malaria constantly"
[household 231, cluster 21, Pladama-Ouaka]

"…it is necessary to go to Bambari for treatment"
[household 168, cluster 14, Pladama-Ouaka]

"We have a health centre but that requires money, we don't have money"
[household 244, cluster 22, Pladama-Ouaka]

Insecurity or conflict (130 HHs)

"I lost my wife and….child due to crossfire"
[household 326, cluster 30, Ippy]

"We can't go to the fields"
[household 187, cluster 16, Danga-Gboudou]

"They burnt my house, I lost everything"
[household 579, cluster 72, Yengou]

Poor living conditions

"To access water we must go 3km into the bush"
[household 541, cluster 66, Pladama-Ouaka]

"We live on only wild yams"
[household 131, cluster 11, Danga-Gboudou]

"we have money difficulties"
[household 322, cluster 29, Ippy]

Photo by MSF Mortality study team

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Discussion – high mortality

- Very young population with a high birth rate

- High mortality

  - CMR beyond emergency threshold

  - U5MR below emergency threshold

  - Maternal mortality far exceeds UN estimates

- Physical, mental and social impact of violence and conflict

- Unmet healthcare needs

- Challenging living conditions

Impact of special features

- Potentially explain higher estimates

  - Household at ease

  - Less perceived judgement

  - Less time pressure

  - Improved identification of neonatal deaths

Photo by MSF CAR Communications team

Conclusion – the silent crisis continues

- Situation likely worse since upsurge in violence since December 2020

- UN appeal for funding targets for 2021 still not met

- Need sustained and effective humanitarian and development support across all domains

Photo by Eve Robinson

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SCIENTIFIC DAYS

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Acknowledgements

- Participants, community leaders and residents of the study villages

- The Ministry of Health and of the Population

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- The Gates foundation

- Supervisors, interviewers, drivers and staff of MSF OCA Bambari project

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Photo by Eve Robinson