Public Health Situation Analysis- Short Form
Wonderland, 2018

Any similarities to real locations are purely coincidental

Date and time of release
Contacts:

Led by: Country Office ☐ Regional Office ☐ HQ ☐ collaboration ☐

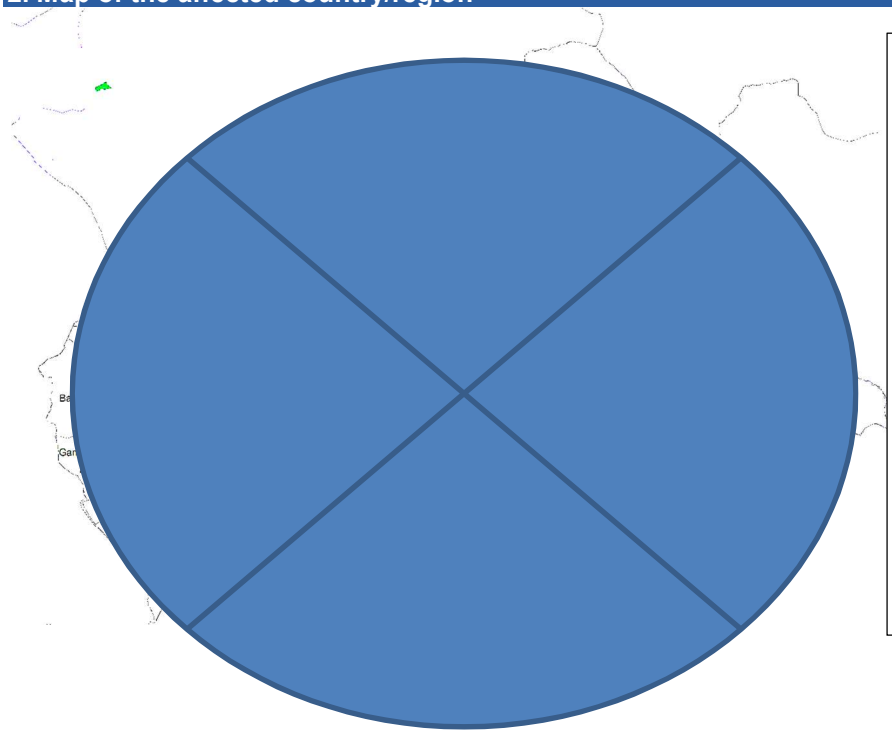
Type of emergency	Main health hazards	WHO grading at 15 June 2018	UN Level	Security level(s)	INFORM index at mid 2018.
	• Malaria • Typhoid/Acute Diarrohea • Malnutrition, • Trauma, • GBV	2	N/A	Substantial (4)	8.4 (Very High)

1. Summary of the crisis

A crisis which began at the end of 2012 continues to intensify over entire country due to renewed violence, particularly in Bambo City. Humanitarian access is limited both by the lack of and damaged roads, expected to further deteriorate during the rainy season (April-September), and continual violence, looting and targeting of health infrastructures and humanitarian workers. One in four citizens of WON have been forcibly displaced, and the largest groups of displaced persons in IDP sites are located Alindao (Basse-Komo prefecture, 32271 IDPs), Bambago (Ouanga prefecture, 75500 IDPs), and Bringa (Haute Komo prefecture, 36971 IDPs) (1). 60% of IDPs are expected to be living with host families, who also require humanitarian assistance; including basic services, such as water and healthcare.

Wonderland was ranked the lowest on the Human Development Index in 2015 (at number 188) (2). Endemic diseases such as Malaria are at risk of becoming a major Public Health threat with factors such as the rainy season, limited treatment, and continual violence constraining access to health facilities. Vaccination coverage is low, threatening the resurgence of vaccine-preventable diseases. Access to healthcare is expected to be limited countrywide, apart from Bambo City. An estimated 70% of health infrastructure has been damaged due to the conflict (3).

2. Map of the affected country/region



Key Figures (24; 28)
Population in need: 2.5 million, more than half of the total population, 46% women.

Population in need of humanitarian health assistance: 2.5 million, 51% women.

Deaths: 2013-2014: 2,286-2396+

Injuries: No known estimates.

Humanitarian Profile:
IDP's: 614,679 registered (CMP July 2018)

Refugees: 568, 572 in Cameroon, DRC, Chad, Congo-Brazzaville and Sudan

Returnees: 50, 735 (38387 (CMP July 2018)

3. Health Status and Threats

Risks at a glance for the coming month*

Threat	Geographical Scope	Likelihood in coming month	Public health consequence in coming month	Level of risk in coming month	Rationale
Acute diarrhoea/ Dysentery	[redacted]	Almost certain	Moderate	High	Poor WASH, rainy season
Typhoid fever	[redacted]	Likely	Moderate	High	Poor WASH, rainy season
Monkeypox	[redacted]	Unlikely	Minor	Low	Limited spread between people
Measles	[redacted]	Likely	Major	High	Low vaccination coverage
Rabies	[redacted]	Likely	Minor	Moderate	100% fatality but very few cases
Meningitis	[redacted]	Unlikely	Moderate	Moderate	Low vaccination coverage, but lower risk in dry season
Acute flaccid paralysis	[redacted]	Very unlikely	Moderate	Moderate	No wild polio in country or nearby.
VHFs (Ebola)	[redacted]	Unlikely	Severe	High	Ebola outbreak in DRC but not currently close to WON border
Malaria	[redacted]	Almost certain	Major	Very high	Inadequate treatment, rainy season
Malnutrition and child health	[redacted]	Highly likely	Major	Very high	Poor WASH, limited access to healthcare, high IMR
Sexual and reproductive health	[redacted]	Almost certain	Major	Very high	2nd highest MMR in world, worse access to care
TB	[redacted]	Highly likely	Moderate	High	High burden, low coverage, protracted crisis
HIV	[redacted]	Highly likely	Moderate	High	High burden, low coverage, protracted crisis
NCDs	[redacted]	Likely	Minor	Moderate	Low rates of NCDs
Mental health	[redacted]	Likely	Moderate	High	PTSD, depression and anxiety due to conflict
Injuries	[redacted]	Highly likely	Moderate	High	Ongoing fighting, road accidents
GBV	[redacted]	Almost certain	Major	Very high	Ongoing fighting

Scale for **likelihood** is very unlikely-unlikely-likely-highly likely-almost certain. Scale for **consequence** is minimal-minor-moderate-major-severe. Red = Very High Risk: Could result in high levels of excess mortality/morbidity. Orange = High Risk: Could result in considerable levels of excess mortality/morbidity. Yellow = Moderate Risk: Could make a minor contribution to excess

Vaccination coverage

According to the most recently available data (2017) nationally, vaccination coverage was suboptimal for all key vaccines (4).

Yellow fever	51%
Meningitis (menA)	31%
MCV1	50%
PCV3	51%
Penta 3 (2018) (source MoH)	58%

In February 2018, health cluster partners achieved a 89.2% vaccination coverage for measles, and a 90% coverage of polio for children between 6-59 months in Pangoua, Ouhang-Pengo prefecture.

Population mortality

Although there are no known estimates of injuries, during Week 22 (26 May through 1 June), physical trauma was reported as one of the main cause of morbidity and mortality in the country (5). There have been 133 deaths reported in the first trimester of 2018 (6).

Epidemic-prone diseases

The lack of access to clean water and poor hygiene practices are reported as the main drivers for epidemics in country.

Acute Diarrhoea/Dysentery

During the first trimester of 2018, 8.2% of health consultations were related to acute diarrhoea (6). Risks of outbreaks of cholera are common due to population movement, overcrowding, and inadequate WASH. The last outbreak of cholera was declared by the WON government in August 2016.

Alindingo and Malgrum, Mbaru prefecture reported flares of acute watery diarrhoea from IDP sites.

Between January-February 2018, 118 cases of bloody diarrhoea were reported, including 3 deaths (CFR 3%) from the villages of Somboke and Ngoumourou in Nango prefecture. Out of 35 samples sent for testing, *E. histolytica* (10/35), and schistosomes (2/35) were identified (7). The investigation report mentioned cases of dysentery.

Diarrhoea and dysentery are expected to be high risk due to poor WASH and the presence of the rainy season.

Typhoid Fever

In Brino, Haut-Kongo prefecture between March 2017 and January 2018; there were 25 cases including 2 deaths (CFR 8%), with 40% of cases reported from PK3 IDP site. From the 2 through 18 April 2018, new cases were reported (3).

Typhoid fever is expected to be high risk due to poor WASH and the presence of the rainy season.

Monkeypox

Since the beginning of the outbreak declared on the 17th March 2018, Brongi, Bangu and Mbai districts have been affected. Cumulatively, 40 cases with one death (CFR 2.5%) have been reported from 2 March through 22 August 2018. 13 out of 23 samples tested were laboratory confirmed. No cases have been reported since then (5).

Risk of excess morbidity/mortality from monkeypox as a result of the humanitarian crisis is considered to be low in the coming month, due to the primary zoonotic nature of the disease, low number of recent cases and limited propensity for spread between individuals.

Measles

Although the latest outbreak of measles was in 2016 in Boua (3), low vaccination coverage remains a key risk factor in the spread of the disease. Thus, given crowding and poor hygiene present as a result of the humanitarian crisis, measles is considered high risk.

Rabies
Between weeks 1 through 9 of 2018**,** a total of 107 cases of dog bites suspected to be infected with rabies were reported**,** with 42 cases and 1 death from Grebio prefecture, and 65 from Mini prefecture.

The fact that only one death was observed above suggests that most cases are not actually due to rabies, as the virus is easily transmitted during dog bites. There are likely to be a small number of cases but this will result in little public health impact, thus the overall risk is moderate.

Meningitis
Parts of the Wonderland are in the meningitis belt, with the highest risk during the dry season (9). As of 26 June 2018, MSF confirmed two new cases of meningitis in Bongo (10). Low vaccination coverage for MenA (39% in 2017) remains a key risk factor.

As it is currently the rainy season, there are fewer cases and thus the risk is assessed as moderate.

Acute Flaccid Paralysis (AFP)
During the week 7 through 13 August 2018, 20 children under the age of 5 presented with paralysis, symptoms of poliomyelitis, in the commune of Beno in Haute-Mino prefecture. Other suspected cases have been reported in XXX (11). The last case of indigenous wild-type polio was in 2000, but imported wild polio has been detected as recently as 2011. Circulating vaccine-derived poliovirus present in neighbouring parts of Nigeria in 2018, at risk for spillover.

The risk is assessed as moderate due to the low likelihood of wild poliovirus occurrence, and the moderate public health impact if a small number of cases were to occur.

Viral Haemorrhagic fever (Ebola)
There are currently no cases of Ebola virus disease in WON. However, due to the ongoing Ebola outbreak in the bordering country of Democratic Republic of the Congo and the multiple porous border routes between the two countries, there is an ongoing non-zero risk of introduction. Ebola outbreaks may have severe public health impacts, thus the risk is assessed to be high.

Endemic infectious diseases
Malaria
Malaria is the leading cause of morbidity and mortality in the country with 41.7% of all health consultations attributed to the disease during the first trimester of 2018. As of the 17th of June 2018, a total of 80 407 cases and 39 deaths (CFR 0.05%) have been reported since the start of 2018. The majority of cases are children under 5 (52.2% of cases, and 82.1% of deaths) (source: EWARS) (12).

Plasmodium falciparum is the main malaria vector in country, with 100% of the population expected to be living in high transmission areas. In 2013, Malaria accounted for 70% of child deaths in local hospitals, and remains a leading cause of death in children under 5**.** Since 2014, there has been a sharp increase in malaria admissions and deaths, with nearly 60 deaths per 100,000 in 2016, compared to 15 in 2014 (13). The lack of adequate treatment for malaria is a concern (5)**.**

Because of its widespread prevalence and its high impact on public health, low treatment, and in particular the concurrent rainy season, the risk of malaria is deemed very high.

Malnutrition and Child Health
Global Acute Malnutrition (GAM) rates above the emergency threshold of 15% are prevalent in all prefectures, with Severe Acute Malnutrition (SAM) above the 2% emergency threshold in six sub-prefectures: XXXXX). The situation has worsened since 2014, when the prevalence of GAM was 6.6%, SAM was 1.9%, and Chronic Malnutrition was 40.8% (15). Limited access to healthcare and inadequate WASH are reported as contributing to these high levels of malnutrition (3).

In 2017, WON had the third highest infant mortality rate in the world, with 86.3 deaths/1,000 live births (15) and the second highest levels of late neonatal mortality, with 1 in 24 dying in first month of life. The under 5 mortality rate was 123.6 per 1,000 in 2016 (16). In 2015, 15% of child deaths under 5 were caused by malaria (16).

Due to high malnutrition, poor hygiene, and limited access access to healthcare, and resultant extremely high mortality, child health risk is considered very high.

Sexual and reproductive health

In 2015, the maternal mortality rate was 882 per 100,000 live births, the 2nd highest in the world (15). According to the latest available data (2010), 40% of births are attended skilled health personnel, and 38% of women attended ANC clinic at least 4 times (16). In 2017, the unmet need for family planning for women aged 15-49 was 24%, with a total fertility rate of 4.8 (17). 65% of pregnant women and new-borns are protected against tetanus. Women lack medical assistance when delivering, due to security threats and/or expensive medical bills (3).

Due to extremely high maternal mortality rates and poor access to health services, exacerbated by conflict, SRH risk is deemed very high.

Tuberculosis and HIV

According to the most recently available data (2016) the incidence of tuberculosis was 407 per 100,000, with a treatment coverage of 55%. 10 618 cases were notified, with 82% pulmonary and 64% with known HIV status. 0.4% of new cases had multiple drug resistant (MDR), rifampicin resistant (RR)-TB (18).

In 2016, the prevalence of HIV was 4%, with an estimated 130 000 people living with HIV, among whom 24% were receiving treatment, reportedly one of the lowest coverage rates in the world. There were 8700 people newly infected with HIV, with an incidence of 3.18 per 1000 population. 7300 AIDS related deaths were reported. Among pregnant women living with HIV, 81% were on ARVs (19). Bambo City (7.7%), Haute Komo (8.5%), Nibere (7.7%) have previously been reported as having higher HIV rates than the national average (3).

Due to high rates of TB and HIV but relatively low short-term impact of treatment disruptions and resultant increased morbidity and transmission, risk is deemed high.

Non-communicable diseases (NCDs) & Mental health

NCDs are estimated to account for 20% of total deaths, with a cardiovascular diseases accounting for 8%, cancers 3% and diabetes 1% (20).

Due to relatively low rates of NCDs and low short-term impact of treatment disruption, risk associated with NCDs is deemed moderate.

Although no recent data is available on the prevalence of mental health conditions, these are expected to high with people traumatised by violence and insecurity (21). In Paoua; post-traumatic stress disorders (PTSD) have been reported in in IDP children, as well as anxiety and depression in adolescents and adults (6).

Despite paucity of data, risk is estimated to be high due to likelihood of high prevalence associated with conflict and insecurity, and resultant high morbidity.

Trauma

Injuries

As of 2018, political violence has increased and spread to new regions: XXXX (self-defence militias) and dramatic escalation of violence since beginning of April in Bambo City (concentrated in the PK5 neighbourhoods). Although the situation has significantly improved in Bambo City since 2013, there are often one-off incidents.

Renewed violence in Bambo City has occurred since 24 May 2018, which led to the suspension of humanitarian activities. Violence in the Eastern and Western regions have remained steady, with violence in Ouhmam and Mbonou still being consistently high (22). Abductions are frequently used as a war tactic, with a total of 181 abducted and 17 killed in 2017 (5). Violence is severely affecting people's access to basic services, such as in Itty, where a water source is located 500m from IDP site, and health facility 800m from the site, but the presence of armed groups restricts access (23). In the second half of 2017, violence was concentrated in the Haute-Komo region (Brino). Since the end of

2016, violence has been prevalent in almost all provinces both due to fragmentation of armed groups shifting alliances, and inter-communal violence.

While rates of violence continue to be relatively high, the overall effect of direct violence-related injuries on public health is moderate, this the risk is deemed high. (Effects of limited access to healthcare due to violence are incorporated into other threats).

Gender-based violence
Gender-based violence (GBV) throughout the Wonderland remains pervasive, with pre-existing gender inequalities, early and forced marriage, unwanted pregnancies and other sexual violence such as rape and sexual slavery systematically used by ex-Sekka and anti-Bamaka as a weapon of war.

Between January and September 2017 in Bambo City alone, MSF reported 1,296 cases of rapes requiring medical assistance, of which 38% were minors, and 7% were in children under 10 years old (24). In SICA hospital, also in Bambo City, MSF reported treating on average 300 survivors of rape and sexual violence per month in 2018 (25). The table below shows other reported instances of GBV.

Location	Month	Number of GBV instances
[redacted]	July 2018	88 instances of GBV (11)
[redacted]	February 2018	61 cases of GBV; 32 rapes, 10 forced marriages, 19 acts of physical/and or psychosocial violence.
[redacted]	February 2018	10 women sought medical assistance for rape, while collecting water in the bush 56km from Bongoa

Due to the extremely high prevalence of GBV and the major public health effect this has on (particularly) women and children, the risk is considered very high.

Determinants of health
Water, Sanitation and Hygiene
Almost half of the population of the Wonderland (over 2.5 million people) are in need of WASH assistance, with an estimated 80% and 70% of the population lacking access to adequate sanitation and clean water respectively. Outside Bambo City, there is reportedly no waste management. The situation is particularly dire for IDPs sites; including in Itty, Pua, those hosting displaced people from Bambo City, and IDPs living XXXXX prefecture.

Food security
As of March 2018, 34% of the population (1.6 million) were estimated to be in IPC phase 3 and 4, with 2 million (43% of population) in crisis, and 687 000 in Emergency from April-August 2018. The situation in XXXX prefectures have significantly deteriorated since 2017. In Haute-Komo, due to low agricultural production and insecurity, the population is at risk of facing Emergency levels. Although it is currently harvest season (April-July), many people cannot afford to buy food.

Natural Hazards
With the wet season occurring between April and September, flooding, particularly around Ugi River (bordering Congo), Buk River, bordering Chad where flooding has occurred before, is a risk.

Humanitarian Access
Poor road infrastructure; with an estimated 2.5% of paved roads (24), the rainy season, and the presence of armed groups severely limits humanitarian access. With the rainy season approaching, humanitarian access is likely to deteriorate further. Access remains limited in many locations including *Ouaka* **(**particularly XXXX**,** where operations have been temporarily suspended) due to the presence of armed groups along roads and attacks on humanitarian bases and convoys.

4. Health System Status (capacities, availabiity, coverage, response) (3)
Pre-crisis

In 2013, the health system was estimated to cover 10-20% of the population, with 1 hospital bed/1,000 people in 2011. Most services were provided by external assistance, with low medicine availability. 90.4% of health expenditures were financed through out-of-pocket payments, and self-medication was common.

In-crisis
Robberies, attacks on humanitarian convoys, bases, and personnel, and looting of humanitarian supplies are frequent. Currently, there is 1 doctor per 100,000 patients (November 2016). (15).

The crisis has led to the interruption of regular vaccination campaigns, limited HIV/TB treatment, and severely constrained access to medical facilities during malaria season. Access to healthcare facilities is expected to be limited everywhere except Bambo City.

According to the most recently available data (March 2016) 34% of health structures are partially or totally destroyed, 68% functional, of which only 21% had electricity. Lack of equipment, training, medicines and staff were the most commonly reported reasons for non-availability of services (26). This situation, however, has deteriorated further (in certain part of country) the situation has improved significantly în Bambo City since 2013 (see below reports from 2018).

Mbou: In the health district of Bangassou, 27% of health facilities are damaged or closed.
Basse-Komo: XXXX lack adequate health facilities.
Haute-Komo: 60% of health facilities are non-functional.
Haut-Mbou: In Zetio, the limited availability of medicines led to the death of six children with Malaria and 6 people with HIV/AIDS. 12,392 IDPs have no access to adequate healthcare.
Oam: The only health centre in Maunda is affected, which lacked adequate sanitation prior to the conflict.
Ouha: The loss of livelihoods and insecurity limits health access.
Oubo: On the 7 June, the Regional Hospital of Bamboni was targeted by threaten medical staff and patients.

Main figures on disruption of key health system components (3; 5)

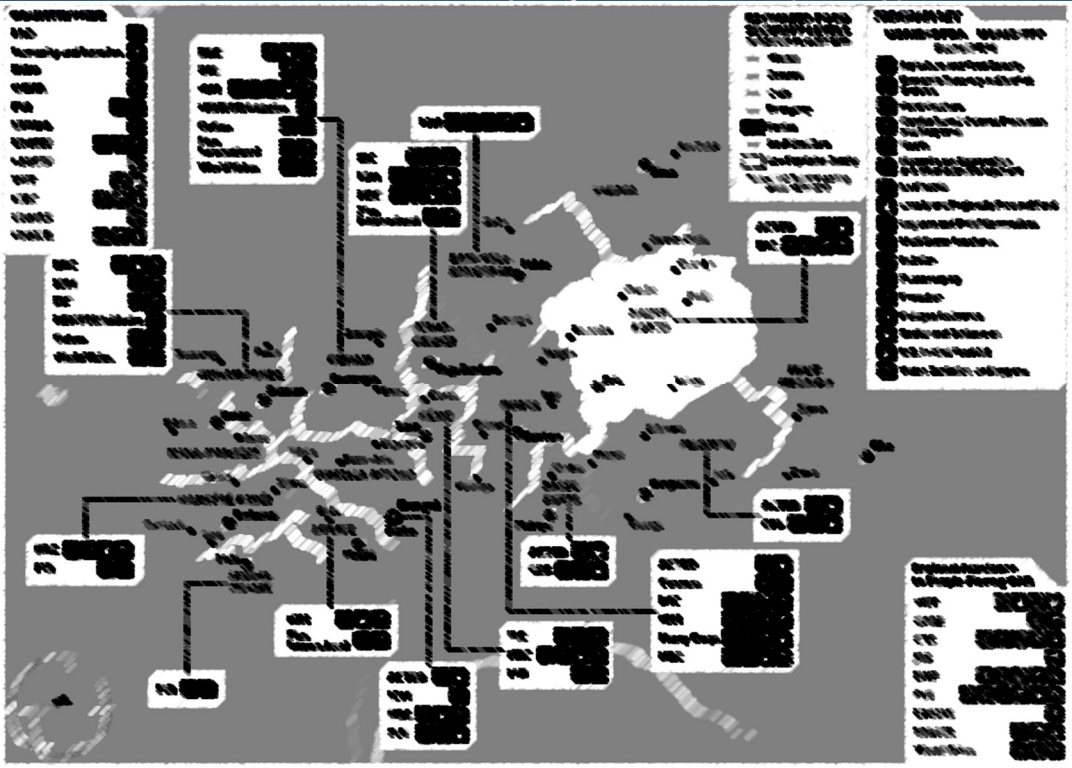
Infrastructural damage: At least 70% of 1,010 health structures have been damaged and/or non-functional due to conflict

Health workforce:
The national health system lacks qualified staff. In 2015, there were 28 staff at national level, 111 at sub-national, and 4,010 staff in health structures; including 1 doctor for 22,013 people, 1 mid-wife for 17, 400 people, 1 nurse for 16, 656 people, and 1 community health worker for 2,014 people (26). In February 2018, a news source reported an estimated 5 paediatricians, 7 gynaecologists, and 300 nurses/midwives in the whole country.

Attacks against health workers:
The highest number of reported incidents have occurred in Bria (targeting humanitarian workers and IDPs in PK3 site). UNDDS reported by week ending 1st June 2018, there had been 59 security incidents, including 63 aid worker attacks.

Drugs and other supplies:
The country is lacking medicine and equipment, with no system to supply them. In 2012, MSF reported that the government programme of providing free malaria treatment for children under 5 does not work due to shortages of essential medicines (29).

5. National and International humanitarian capacity & coordination (3W Map)



6. Information gaps, priorities & recommendations

	Categories	Recommended Tools for primary data collection
	Mental health	Assessment for mental health tool
	Injuries	Operational agencies Local human rights organizations
	HIV- 2018 statistics	UNAIDS, WHO, MoH key informants Local associations of people living with HIV Agency that is the primary recipient of Global Fund funding for HIV, TB and Malaria
	TB- 2018 statistucs	WHO, MoH key informants Agency that is the primary recipient of Global Fund funding for HIV, TB and Malaria
	NCDs	WHO, MoH key informants Other agencies working on NCDs in country
Health Resources & availability	Health facility mapping	Updated HeRAMS report
Health System Performance (output, coverage, utilization, quality of health services)		

7. Key documents, sources & annexes

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