

A review of the integrated analyses carried out during the first 90 days of the Ebola epidemic in Equateur

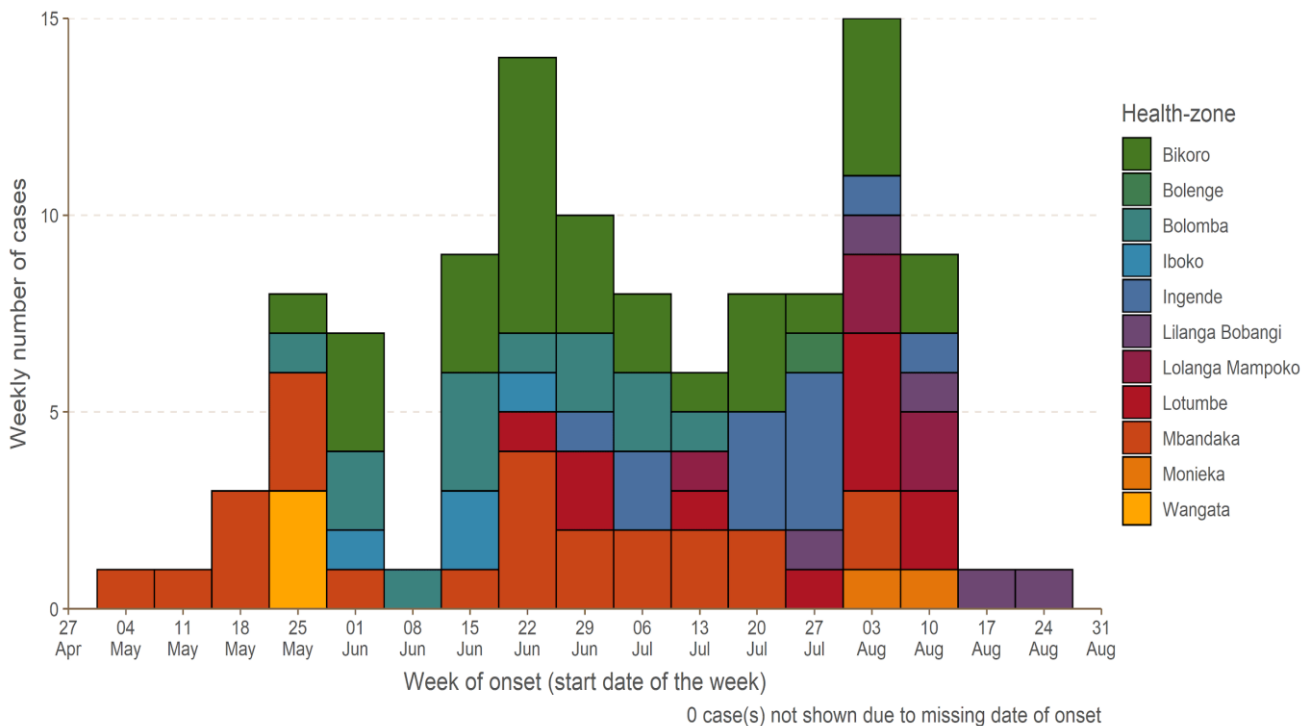
During the first 90 days of the Ebola virus disease (EVD) epidemic in Equateur province in the Democratic Republic of Congo (DRC), an integrated analytics cell was set up as part of the response to EVD, under the leadership of the Congolese Ministry of Public Health (MSP) including partners in social sciences, epidemiology and data management. Members of the cell worked together to undertake analyses with the aim to support the commissions, response actors and communities.

This report provides a summary of the main findings of the analyses carried out, the actions taken and the challenges encountered during these three months.

Situation and epidemiological analyses

As of 1 September 2020, a total of 110 cases of Ebola virus disease (EVD) have been reported in the Equateur province - 104 confirmed, 6 probable - including 47 deaths. Three months after the declaration of the 11th outbreak of EVD in the DRC, which began on 1st June 2020, the total number of confirmed cases had exceeded the number of cases recorded during the previous outbreak in Equateur (2018). While the first cases were detected in the town of Mbandaka (located in the health zone of in Mbandaka and Wangata), the epicentre of the epidemic gradually shifted to the Bikoro, Bolomba, Ingende and Lotumbe health zones. On 1st September 2020, Bikoro was the health zone which reported the highest number of cases (30).¹¹ In total, 12 of the 18 health zones are affected.

Number of confirmed and probable EVD cases by health zone and week of onset of symptoms, Equateur Province, DRC, May - August 2020 (n=110)



Analyses carried out within the first 90 days

■ **June 2020** : During the first week following the declaration of the epidemic, the partners of the analytics cell (Social Science Analytics Cell, World Health Organization, CDC, Epicentre, International Federation of the Red Cross) published six technical briefs^{[2],[3]} providing recommendations drawing on the analyses and experiences of the 9th and 10th epidemics of 2018 (Equateur) and 2018-2020 (North Kivu, Ituri and South Kivu).

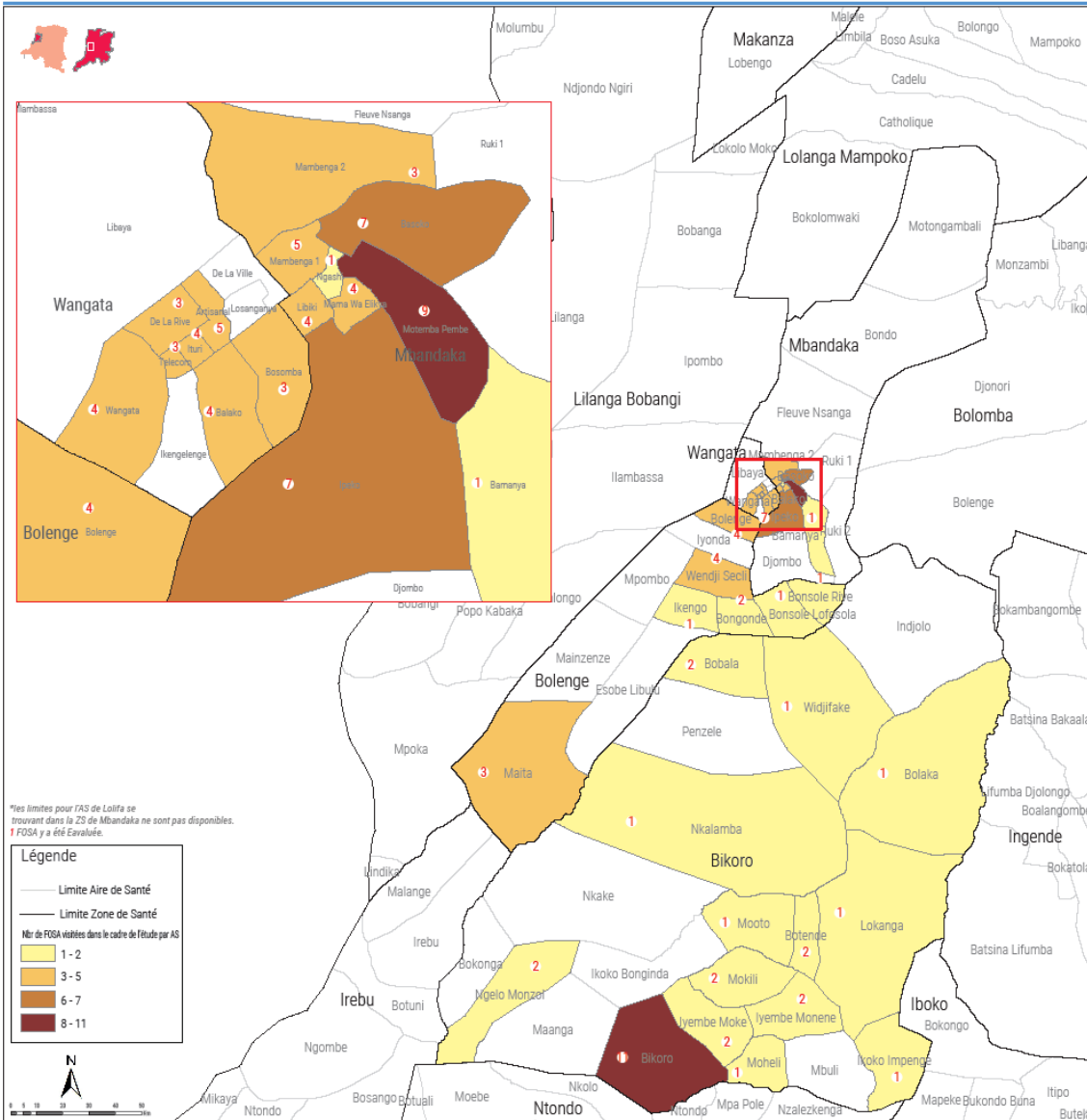
■ **June and July 2020 - understanding behaviour and perceptions related to EVD and response interventions**

At the end of June, the Social Science Analytics Cell (CASS) conducted a study on perceptions and behaviours related to EVD among communities and health workers in the health zones of Mbandaka, Wangata, Bolenge and Bikoro.

The study will be repeated at the end of September to identify and analyse possible changes over time.

Percentage of health facilities included in the June-July studies				
Wangata	Mbandaka	Bolenge	Bikoro	TOTAL
49 /73	23/45	14/26	31/45	117/189

Target population in June-July population surveys	
Health Zone	Total target population
Wangata	349
Mbandaka	390
Bikoro	400
Bolenge	388



Les frontières et les noms indiqués et les désignations employées sur cette carte n'impliquent pas reconnaissance ou acceptation officielle par l'Organisation des Nations Unies.

Date de création : 15 Septembre 2020 Sources : UNICEF, OCHA, MSF, OSM Feedback : www.unicef.org

Réalisé par OCHA

The methodology used for the study and the full results are available online [here](#).

Key

REPUBLIQUE DEOMCRATIQUE DU CONGO	DEMOCRATIC REPUBLIC OF CONGO
Province de l'Equateur	Equateur province
FOSA visitées	Health facilities visited

Etude CASS	CASS study
Perceptions et comportements liés à la MVE auprès du personnel de santé (juin-juillet 2020)	Healthcare worker's perceptions and behaviours related to EVD (June-July 2020)
Les limites pour l'AS de Lolifa se trouvant dans la ZS de Mbandaka ne sont pas disponibles	The boundaries of the Lolifa health area located in the Mbandaka health zone are not available
1 FOSA y a été évaluée	1 Health facility has been evaluated there
Légende	Key
Limite aire de santé	Boundary of health area
Limite zone de santé	Boundary of health zone
Nor. de FOSA visitées dans le cadre de l'étude par AS	No. of health facilities per health area visited within the framework of the study
Les frontières et les noms indiqués et les désignations employées sur cette carte n'impliquent pas reconnaissance ou acceptation officielle par l'Organisation des Nations Unies	The boundaries and names shown and the designations used on this map do not imply the official recognition or acceptance by the United Nations
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■ **July and August 2020 - presentation of results and co-development of recommendations with actors in the field**

In line with CASS procedures, the results of the studies were presented at the end of July to the sub-commissions (Infection Prevention and Control - IPC, Psychosocial Care - PSS, Risk Communication and Community Involvement - CREC) of the Bolenge [\[4\]](#) and Mbandaka health zones, as well as to partner

organisations (non-governmental organisations – NGOs including MSF, Oxfam, ALIMA). Recommendations have been developed by the different partners mentioned above (see below).

Key findings and analysis

<p>The results of the Perceptions and Behaviour studies</p>	<p>Reflections, proposals for action based on discussions with partners</p>
<p>1) The most effective interventions to stop the spread of the disease: contact listing and follow-up, dignified and safe burial, vaccination, isolation, decontamination, etc., are not mentioned as the most important and perceived as most effective by communities.</p>	<ul style="list-style-type: none"> - Prioritise the most important interventions to stop transmission: (1) contact listing and follow-up (2) dignified and safe burial (3) vaccination - Preventive measures must be explained in relation to the transmission modes of the disease. For example: safe and dignified burials are critical measures as people who touch the body or come in contact with body fluids of a person who died from Ebola are at high risk of getting infected (transmission mode/means of breaking the transmission - example of "F-Diagram" used for diarrhoeal diseases) should be carried out.
<p>2) There is confusion about the symptoms of the disease, which is caused by the difference between the symptoms shown by the response (mainly haemorrhagic) and the symptoms of sick people that communities see (dry signs, which may seem trivial and are very common - such as fatigue, or muscle pain).</p> <p><i>N.B.: a systematic analysis of case definitions published in 2020 found that the symptom "severe fatigue" is a highly predictive sign of EVD - see full article here.</i></p> <p><u>Consequences :</u></p> <ul style="list-style-type: none"> o Refusal of certain interventions that are not perceived as necessary: dignified and safe burial, not believing the diagnoses, etc. o Delay in seeking healthcare when these signs occur(no desired positive change in health behaviours). This contributes to the vicious circle of believing that Ebola Treatment Centres (ETCs) and isolation lead to death. 	<ul style="list-style-type: none"> - Communicate on all signs, using comparisons with other known diseases (e.g. malaria or cholera); taking into account the specific features of the current epidemic - When communicating about symptoms, link it to transmission modes and preventive means: the signs of Ebola are similar to those of other diseases but the transmission of Ebola is unique (body fluids). Communicate that in times of epidemics, it is important to be particularly careful, by taking following precautionary measures: <ul style="list-style-type: none"> Keeping distance from very sick people and accepting to receive help Direct contact can put relatives at risk of severe illness. Increase the level of hygiene - When communicating about symptoms, clearly explain to communities what to do when Ebola-like signs appear: who to call and when; what happens when an alert is made (detailing and explaining the process of alerts), etc. It is important to explain the definition of an alert in a language and wording which is easily understood. - Communicate the importance of early healthcare seeking to increase the chances of survival (why not use volunteers who have been cured?). - <i>Note that all activities involving those cured must take into account the potential risk of stigmatisation).</i>

	<p><u>Reflection :</u></p> <p><i>How can women and health workers be enabled to distinguish pregnancy-related bleeding from signs of EVD? (Explain the epidemiological link for transmission of the disease).</i></p>
<p>3) Geographical remoteness and the fact that the teams are perceived as being made up of strangers are two main reasons quoted for refusing isolation and dignified and safe burial.</p>	<ul style="list-style-type: none"> - Ensure that the teams (especially EDS teams and personnel working in TC/ETC transit centres) are composed of members from local communities who speak the local languages and know the customs of the area; in areas with a high number of indigenous population groups, the team’s composition should reflect this ethnic distribution. - Reinforce the solutions of relocated isolation and support the teams/facilities to make them more adapted and acceptable to the communities. - Consider options for home swabbing and treatment - particularly in remote and hard-to-reach villages.
<p>4) Local health workers are the most trusted information source for communities.</p> <ul style="list-style-type: none"> o 59% of health care staff consider to have average knowledge about EVD and only 17% feel able to explain EVD to patients and the community. o Less than a third of respondents report to have received information from doctors about EVD in the last month. 	<ul style="list-style-type: none"> - Train health workers, both on the disease and on how to communicate on it, to get messages across to communities and answer their questions related to healthcare and the chain of transmission ("what to do if you are sick, how could you have been exposed to the disease? etc."). - Train and encourage staff to communicate in local languages using the most appropriate terminology and in a respectful manner and on sensitive subjects such as health and death. - The training of traditional (including traditional-modern) healers is also important, as is the training of other healthcare providers. <p>Given the logistical difficulty of organising training in the health zone and health area, consider alternative capacity building measures such as accompanying (mentoring) teams by senior staff in the field for a few days, constructive and educational feedback</p>

	<p>on reports sent to the coordination, use of WhatsApp (dissemination of materials with educational support), etc.</p>
<p>5) Less than half of the health workers surveyed feel fully capable to manage EVD:</p> <ul style="list-style-type: none"> o 45% feel sufficiently informed and trained to stop EVD transmission in their facility; o 31% report that their facility is sufficiently equipped to stop or prevent nosocomial infections; o 30% feel able to detect a suspected case 	<ul style="list-style-type: none"> - Train health personnel to detect suspected cases (symptoms + epidemiological links). - Support health workers and facilities with materials needed for IPC and how to use them to prevent nosocomial infections. - Train health personnel in menstrual hygiene and sexual and reproductive health aspects.
<p>6) Concerning the ETC, there remain many questions and concerns about care (food, treatment), healthcare for other illnesses, family visits.</p>	<ul style="list-style-type: none"> - Use video or pictures to show the inside of the ETC (in addition to organising visits). - Use the experience of recovered and discharged patients without EVD to talk about healthcare in the ETC.
<p>7) Lack of understanding and mistrust around certain interventions:</p> <ul style="list-style-type: none"> o "I don't see why decontamination is important". o "The vaccine can infect you with Ebola", "Decontamination causes the disease" 	<ul style="list-style-type: none"> - Strengthen the capacities of all intervening teams to explain the response's interventions, their objective and importance in a simple and precise manner and in local languages. - Use scientific facts (in plain language) to communicate about the vaccination: there is a strong reduction in the infection risk among infected people prior to the exposure to the virus and it reduces the mortality by half among people who have been vaccinated and got subsequently infected. - Invite people who have been vaccinated to share their experience about side effects: reaction occurs only in the first few days. <p><i>How can we answer the questions around the mistrust of political and financial interests in the epidemic?</i></p>

Using analysis to guide response interventions

■ Recommendations co-developed by CASS with local stakeholders [5]

In order to strengthen the operationalisation of the results of the social science analysis, CASS has adopted a participatory approach to develop recommendations and set up a system to monitor their implementation.

- **IPC:** *The two recommendations identified by the IPC teams draw on the results of the studies conducted in Equateur, as well as on the experiences and studies carried out in North Kivu, which have highlighted the **importance of providing regular support to facilities in order to achieve a sustainable improvement of IPC measures.** This support cannot be limited to one-off training and evaluations, as it also requires monitoring of facilities and staff so that IPC teams and health facilities work together towards the same goal.*

o Insist on mentoring of health staff over time, after the training phase.

o Immediately after the evaluation phase, develop an action plan with health facilities to improve the identified areas, including a timeline;

- **PSS:** *The recommendations identified by the psychosocial support teams address 3 main points, which emerged from the studies carried out in Equateur as well as in North Kivu. Firstly, the **fear of isolation and of TC/ETC which is strongly linked to the fear of death** (ETC is associated with places of death); however, discharged non-cases and those recovered demonstrate that it is possible to leave the TC/ETC alive. Secondly, **the importance for all response teams to harmonise their ways of working**, with well defined and clearly communicated roles and interventions which are also coherent, **respecting communities and a common approach to community engagement.** Finally, **the sustainability of Ebola interventions and the importance of responding to humanitarian issues other than EVD in the areas of intervention.***

- Strengthen the capacities of all actors on the psychosocial approach, by organising information sessions with the various commissions.
- Value the integrated step by step approach in community interventions
- Include recovered and discharged patients without EVD in the response to counter the perception that isolation leads to death.
- Sustain community-based psychosocial support activities, which could continue after the epidemic.

- **RCCE:** *The results that emerged from the studies conducted by CASS in Equateur during June and July showed the **problems known in the context of EVD epidemics, namely, the fear of ETC, which represents the unknown and death, the importance of involving traditional healthcare providers (traditional and tradi-modern practitioners), etc.** The recommendations identified by the RCCE Commission therefore suggest approaches to address these findings.*

In addition, the study highlighted the need to communicate on priority interventions that stop transmission, using the most appropriate communication means (radio messages from health care workers in local language).

- Organise ETC visits for families
- Organise broadcasting with the medical staff
- Strengthen the dissemination of messages on most-effective preventive measures: vaccination, dignified and safe burials, decontamination, etc.
- Conduct a follow-up meeting with the community feedback team bringing together other (response) pillars
- Adjust broadcasting times and spots on media channels
- Involve traditional healthcare providers (including traditional-modern practitioners) in the response.

■ Other examples of data use

- The recommendations of the [guidance note were integrated in](#) Surveillance interventions – more specifically during the **briefing of the surveillance teams of the Mbandaka, Bolenge and Wangata health zones conducted by the Ministry of Health**.
- The key results of the study will be **used by MSF France** to inform the message content during health promotion activities to be implemented in the near future [\[6\]](#).
- The results of the Bikoro study will be **presented and discussed with ACF's IPC teams** at their request - to contribute to their training.
- **The Translators Without Borders (TWB) [glossary](#) for DRC**, containing 400 terms as well as local alternatives for communicating sensitive health concepts, will soon be available in Lingala Makanja with a downloadable application for offline use.
- The integration of **CASS recommendations into UNICEF programmes** will be strengthened by CASS' contribution to the development of UNICEF projects with implementing partners.

Challenges

- Data quality and availability

There are still challenges regarding the extent to which the data is complete and of quality, as well as the regular data flow and sharing with the Coordination.

As a result, the coordination teams and the analytics cell cannot have a clear vision of the dynamics of the epidemic and the performance of the response interventions.

Please note: the strike of service providers in August had among other a serious impact on information sharing and data collection; and highlight the importance to strengthen the commitment and involvement of the health zone personnel (beyond payment issues).

→ **Strengthen the capacities of field teams to improve the quality of data collected and compiled and ensure regular support.**

→ **Strengthen the information sharing system between the field and coordination (and vice versa), taking into account the constraints linked to poor phone coverage in the area.**

- Community swabbing and decentralised isolation approaches

As a result of major access issues, the response adopted a decentralised approach to isolation and swabbing. One of the objective of this approach is to reduce the fears associated with TC/ETC, which are closely linked to remoteness, the unknown and the distrust of communities.

However, many cases are reported of suspected patients who leave the local isolation centre (or TC) prior to having the test results, or who refuse to go to the specialist facilities (ETC) when the results come back positive; and which - according to some members of the response - question the appropriateness of the decentralised approach.

The reasons for such behaviour on the part of suspected patient can be multiple:

- 1) Long delay between swabbing and the results which can take up to 10 days due to the distance to the laboratories.
- 2) Isolation is done in poor conditions: unsuitable facilities (lack of patient flow, latrines, etc.), lack of medicines for the treatment of other diseases, etc.
- 3) Preference to stay close to their loved ones and communities during illness.

→ Invest in logistics to reduce the time between swabbing and results: transport, communication, laboratory capacities, etc.

→ Support local isolation facilities to increase the level of IPC and ensure quality patient care.

→ Conduct analyses to evaluate decentralised isolation and swabbing approaches in order to make science-based decisions.

- Inclusion of indigenous peoples

Many confirmed EVD cases are reported among indigenous populations groups (which constitute in some areas the majority). However, the specific problems indigenous people may face are not systematically taken into consideration by the response teams and partners. Indigenous people are also not adequately represented in all the response teams given their population number in specific areas (**one (01) indigenous person in a team does not mean representation!**).

→ As part of the response efforts to EVD, support and encourage initiatives aimed at the effective integration and consideration of issues indigenous peoples have.

- Community-based surveillance

Access difficulties, the slowing down or in some cases the entire stop of response activities following the strikes in August, the low level of alerts in several areas, etc., highlight the importance of implementing a community-based surveillance system (CBSS). Such initiatives have been launched in some health areas with the main objective of increasing the number of alerts. As explained in [the guidance note](#) on surveillance interventions developed by the CASS and its partners at the beginning of the epidemic, investigating alerts that do not meet the definition requires the deployment of financial, human and logistical resources which are limited in the current response.

→ Ensure and reinforce the training of community surveillance teams (community health workers, members of community action committees), health workers, to enhance their understanding of how an alert is defined and strengthen their ability to take the appropriate decision.

- Language knowledge and skills

There is little data on the languages spoken in the different affected areas and there is little capacity in local languages, particularly in terms of experienced and trained translators, terminology tools and materials in local languages. This reduces the possibilities of training and supporting field staff in localising concepts of the response in an appropriate manner.

→ Encourage and strengthen the collection of linguistic data and its use to adapt the communication of response teams.

To follow: planned analyses

- Analysis cell

Comparative analyses of barriers and motivators to community participation in key response interventions: integrated and multidisciplinary analyses aimed at identifying common factors in areas with more or less participation, in order to be able to adapt approaches.

- CASS

2nd phase of the study Perceptions and behaviours related to EVD among populations and health personnel (representative quantitative survey): launched during September in order to monitor and analyse possible changes after the first 3 months of response.

The study will also be launched for the first time in the areas of Bomongo (newly affected), Lotumbe and Lolanga Mampoko (at the request of the Coordination).

- Translators without Borders (TWB)

Study on language and communication barriers with the aim of testing the understanding of RCCE messages and understanding communication needs and preferences, including for indigenous peoples.

Partners and contributors to this document

This document was developed by CASS, with its partners :

- The Analytical Cell under the leadership of the Congolese Ministry of Public Health (MSP): WHO, IFRC, Epicentre, CDC
- Anthrologica

- The Social Science in Humanitarian Action Platform (SSHAP)
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¹ WHO, Regional Office for Africa, Weekly bulletin on outbreaks and other emergencies, week 35, 24 - 30 August 2020 <https://apps.who.int/iris/bitstream/handle/10665/334083/OEW35-2430082020.pdf>

² Available here: <https://drive.google.com/drive/folders/1Btk11rD7Rs5tea4hx1yeJIQaEhKUAc0c?usp=sharing>.

³ The notes were developed with input from WHO, TWB, IFRC, ITM, MSF-Epicentre and Oxfam, under the guidance and advice of the Ministry of Health.

⁴ The recommendations developed with the Bolenge teams were developed before the zone reported its first confirmed case. After the zone has become active, the applicable recommendations are likely to change.

⁵The follow-up to the recommendations co-developed with the Response's commissions and actors (by study, zone) is available online on the CASS MONITO:

<https://drive.google.com/drive/folders/1lqOduiefESXEdY8JXSWUqmXYamZZ7sP68?usp=sharing>.

⁶A summary of the results and proposed key actions has been shared, and is available here:

<https://drive.google.com/file/d/14MiNepqYojjdjfPslkwLlgoy3VbpJq25/view?usp=sharing>.