

EVIDENCE FOR CONTACT TRACING (CT) ANALYSES FROM THE DRC EBOLA OUTBREAKS

GOARN CT PRESENTATION

DISCUSSION ON EVIDENCE AND CT: EXPERIENCE OF IMOA IN THE DRC EBOLA OUTBREAKS

1. What is IMOA for CT (DRC)
2. Key evidence on CT during the Ebola outbreaks in Equateur and Eastern DRC
3. Evidence of CE which improves CT
4. Take homes & recommendations

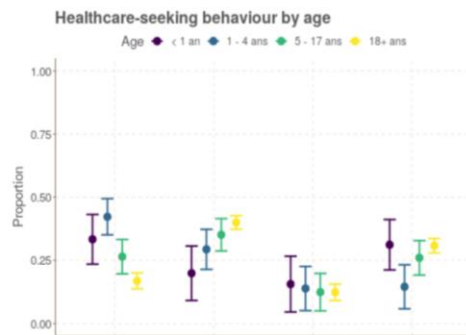
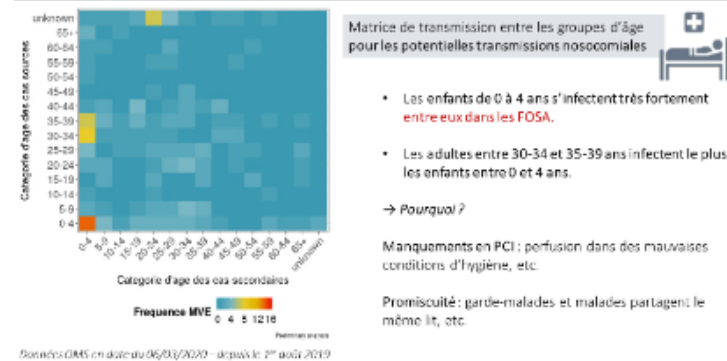


WHAT IS IMOA?



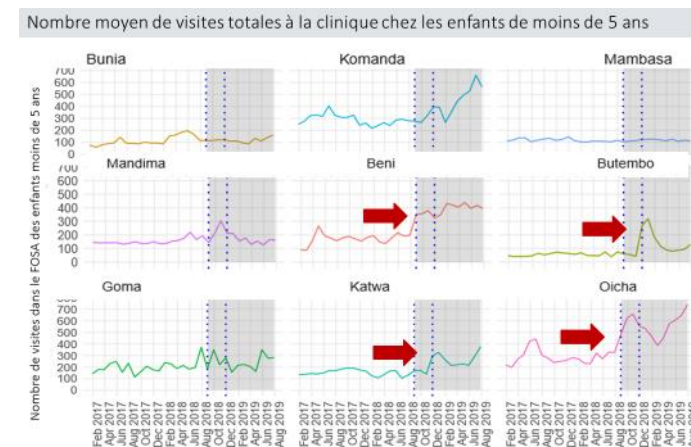
OVERVIEW OF INTEGRATED ANALYSIS: EBOLA STUDY ON CHILDREN UNDER 5 YEARS

**Children under 5 most infected nosocomially



**Children more likely for community deaths post HCF

**Increased use of health services for children under 5



Légende (données MSP- analyses Hung et al., 2019)

- ligne bleue = début gratuité à Beni
- deuxième ligne bleue = fin de gratuité « complète »

**Parents reported increased use of small HCF and poor IPC in HCF

« [...] il n'y avait pas des moustiquaires, il n'y avait pas de pavement dans les chambres, les soignants traitaient sans gants, nous même amenions notre propre eau, parce qu'il n'y avait pas d'eau »

-belle sœur : enfant de 2,5 ans, Butsili, mai 2019

« Les infirmiers utilisaient un même thermomètre en mercure pour tous les enfants [...]. Ils y avait un seul infirmier qui soignait sans gants mais il y avait des lavabos. »

-mère : enfant de 3 ans, Kalunguta, août 2019

« Le poste de santé était bien construit le problème est qu'ils ne décontaminaient pas les lits, et ils ne faisaient pas des mesures de prévention [...] ».

- mère : enfant d'un an, Ngongolio, juillet 2019



Exemples de pratiques à hauts-risques rapportées

Insuffisance de gants

Manque d'eau

Manque de toilettes propres

Manque de décontamination des lits et des salles

RISQUES DANS LES FOSA : CONTEXTE DE FRÉQUENTATION ACCRUE DES ENFANTS

Les enfants de moins de 5 ans sont emmenés plus souvent et plus rapidement dans les FOSA que les autres tranches d'âge.

« Les petits (moins de 5ans) n'ont pas les anticorps, ils ne peuvent pas rester à la maison, alors même avec peur, je ne peux pas attendre »

- Mère Katwa

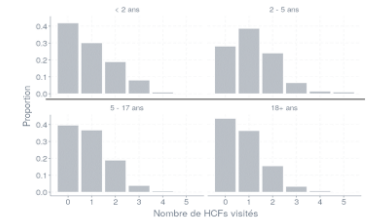
« Pour celui de moins de 5 ans, je l'amène après 1 jour mais pour celui de 5 à 12 ans, je l'amène aux soins après deux jours »

- FGD mères Butembo

* Etude CASS « Comprendre la vulnérabilité et les risques d'infection des enfants » à Butembo-Katwa - Nov 2019

Les analyses épidémiologiques montrent que les cas des enfants de moins de 5 ans fréquentent plus de FOSA que les autres tranches d'âge.

* Depuis le début de l'épidémie - données OMS en date du 10/03/2020



→ Les enfants de moins de 5 ans sont plus souvent dans les FOSA, et dans plusieurs FOSA. Ils sont donc davantage exposés aux risques au sein des FOSA

**IPC data shows least support to small HCF & highest nosocomial infection in small HCF



En décembre 2019, l'indicateur PCI/WASH le moins performant: l'isolement (29.8 %), la stérilisation (33.4 %), l'utilisation des EPI, bio nettoyage et la gestion des déchets

72 % des enfants auraient reçu des perfusions dans les FOSA selon les témoignages collectés. D'après les témoignages, la majorité aurait fréquenté des FOSA avec des insuffisances en termes de mesures PCI.

Les FOSA continuent de pratiquer la perfusion dans le contexte de l'épidémie, dans des conditions d'hygiène précaires.

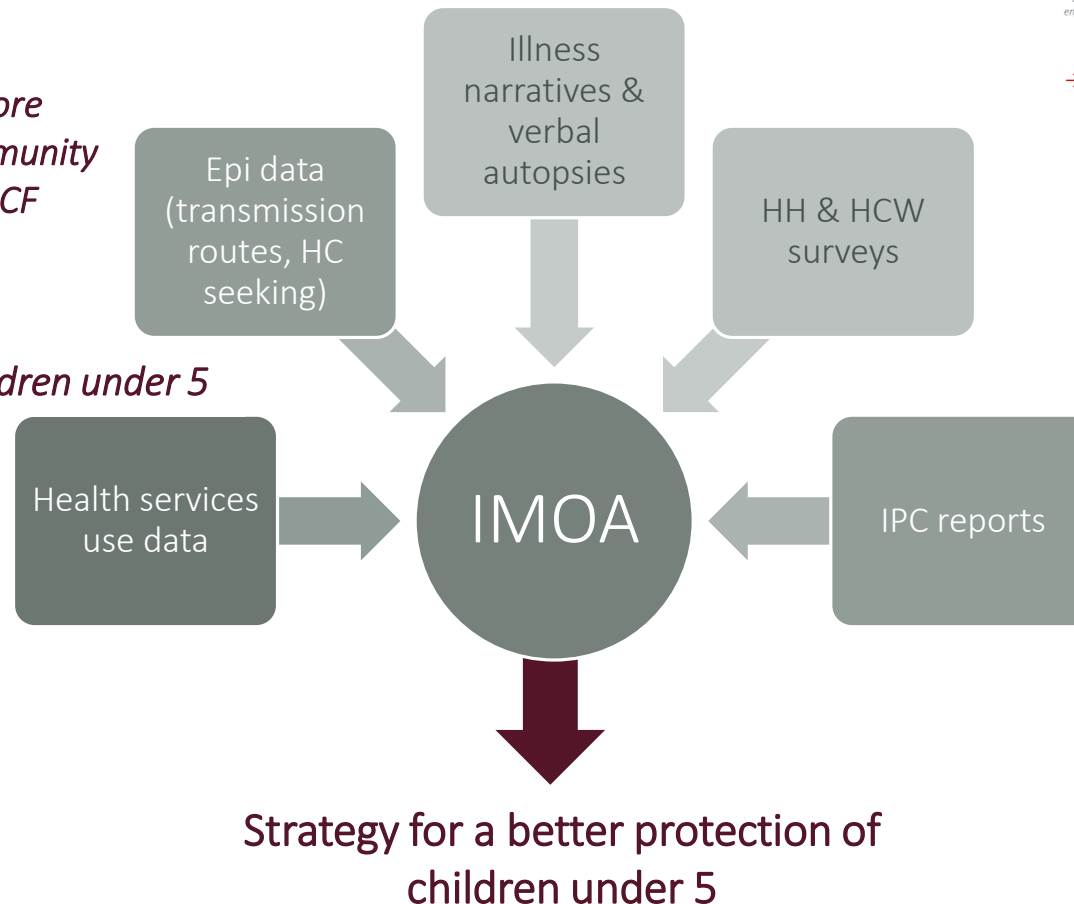
Risques élevés de transmission au sein de la FOSA !

« Il disait qu'il va réussir (à le traiter), mais je remarquais que quand l'enfant était piqué par l'infirmier, le sang ne s'arrêtait pas de couler. »

- mère : enfant d'un an, Ngongolio juillet 2019

« Comme il n'y avait pas de changement, nous nous sommes dirigés vers le poste de santé, où on l'a perfusé. Nous avons fait 3 jours avec lui. C'est après que nous sommes allés au centre de santé où on lui a perfusé aussi 4 séruns mais ça n'a pas tenu. Au nouveau centre de santé, nous avons fait une journée et directement l'enfant est mort... »

- mère : enfant de 6 mois, Aloya, mai 2019



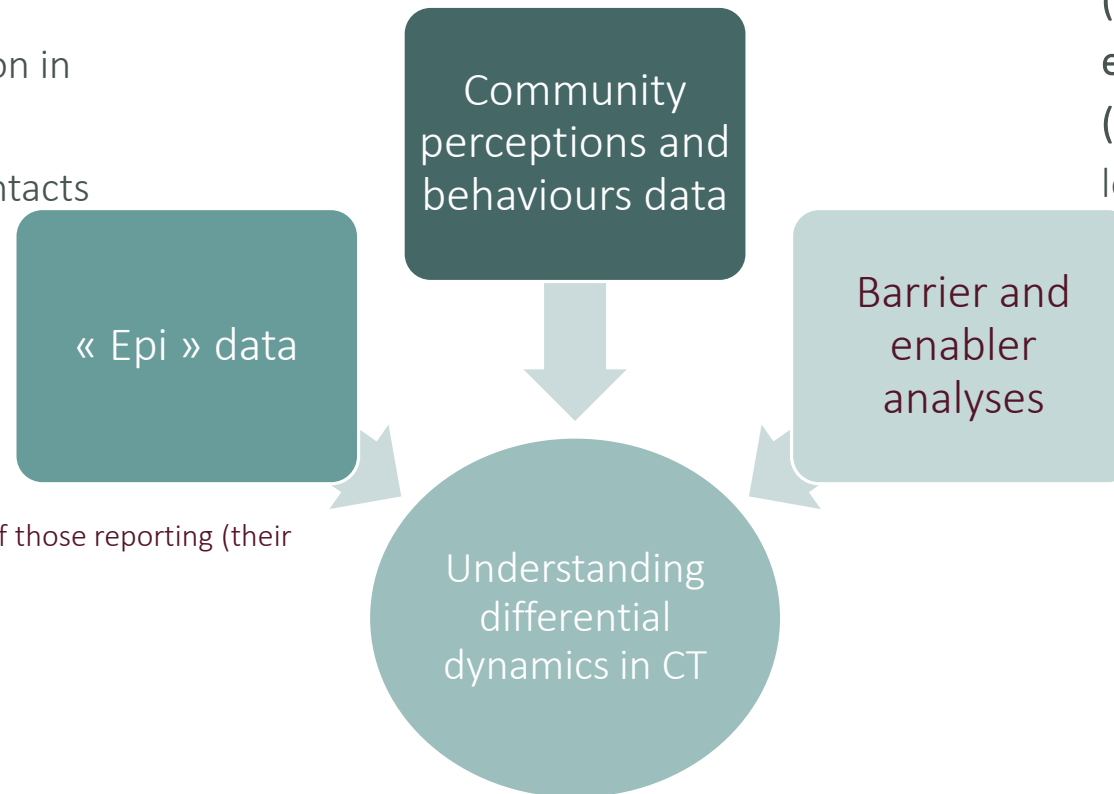
Strategy for a better protection of children under 5



- (1) HH & HCW surveys
- (2) Systematic and representative
- (3) General trends by health zone (not at granular level representation)
 - By age category
 - By sexe
 - By location (health zone level)

- (1) Differential trends in participation in contact tracing
- (2) Percentage of cases listed as contacts
- (3) Types of contacts listed
 - By age
 - By sexe
 - By location

****nb:** data remain “reports” reliant on behavior of those reporting (their training/ skillset)

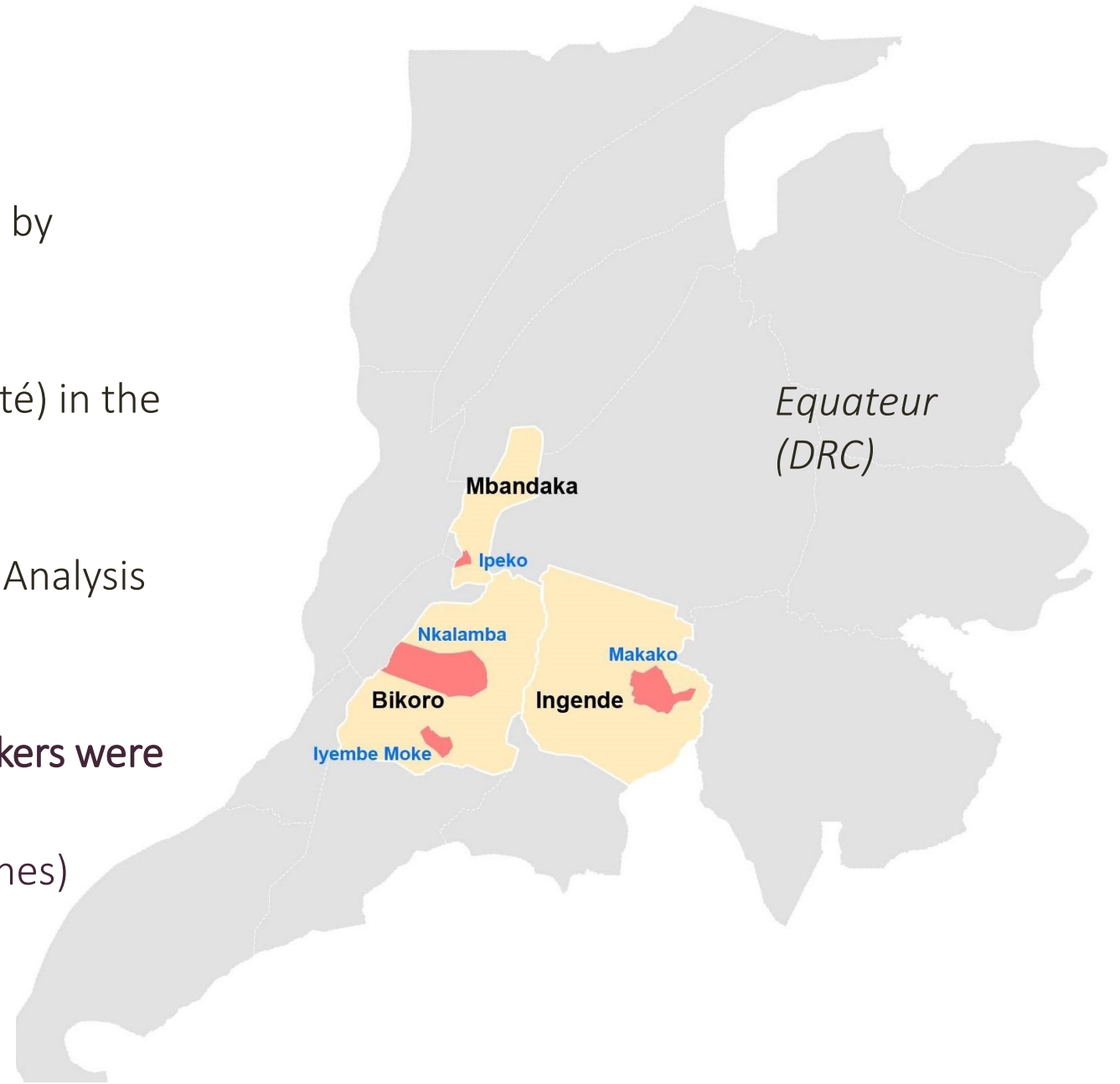


- (1) To identify specific dynamics in engagement with CT
- (2) Comparing high vs. low engagement locations or groups

- Interviews with CT teams and communities
- Analysis continued until saturation
- Triangulation of data with surveys and with field visits to accompany CTs

SAMPLE METHODOLOGY: COMPARATIVE BARRIERS ANALYSIS IN EQUATEUR

1. Epi data analyzed to understand differences in participation in CT by zones
 - “high” and “low” categories co-identified by analytics cell
2. Data collected in 04 health areas (aires de santé) in the health zones of Mbandaka, Bikoro and Ingende
 - Health areas identified based on epi analysis (Analysis Cell in Mbka)
 - **214 community members and healthcare workers were interviewed in 44 KIIs and 24 FGDs**
 - 28% aboriginal communities (autochthones)
 - 56% women



DATA META SYNTHESIS FOR THIS ANALYSIS



Eastern DRC (2018-20)

- CASS conducted 58 studies operating together with Epi Cell during the 2018-20 outbreak
- Specific barriers study conducted for CT
- 112 co-developed recommendations

Equateur (2020)

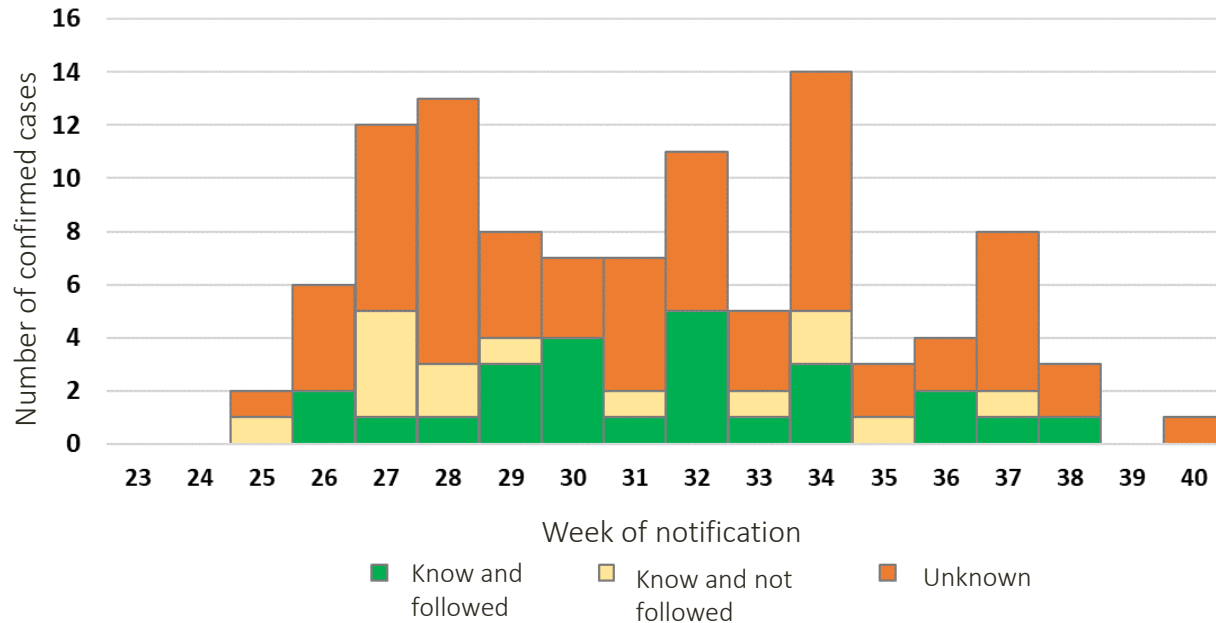
- 6 briefs, including specific brief for Surveillance developed (with all partners and MoH) - LINK
- HCW & HH surveys conducted in 7 health zones (representative)
- Specific barriers study conducted for CT
- 82 co-developed recommendations
- 13% of CASS codeveloped recommendations (Equateur 2020) specifically for surveillance teams

KEY RESULTS FROM INTEGRATED ANALYTICS

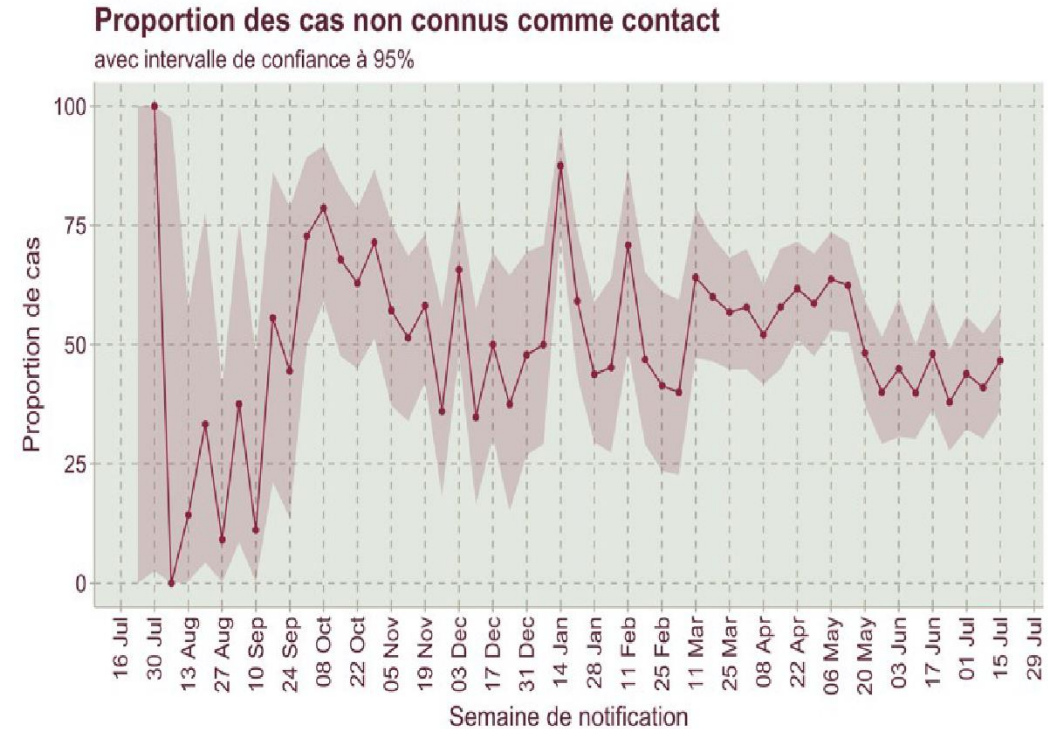


STATUS OF CONFIRMED CASES – KNOWN AND FOLLOWED CONTACTS

Equateur – *all health zones*



Eastern DRC – *all health zones*



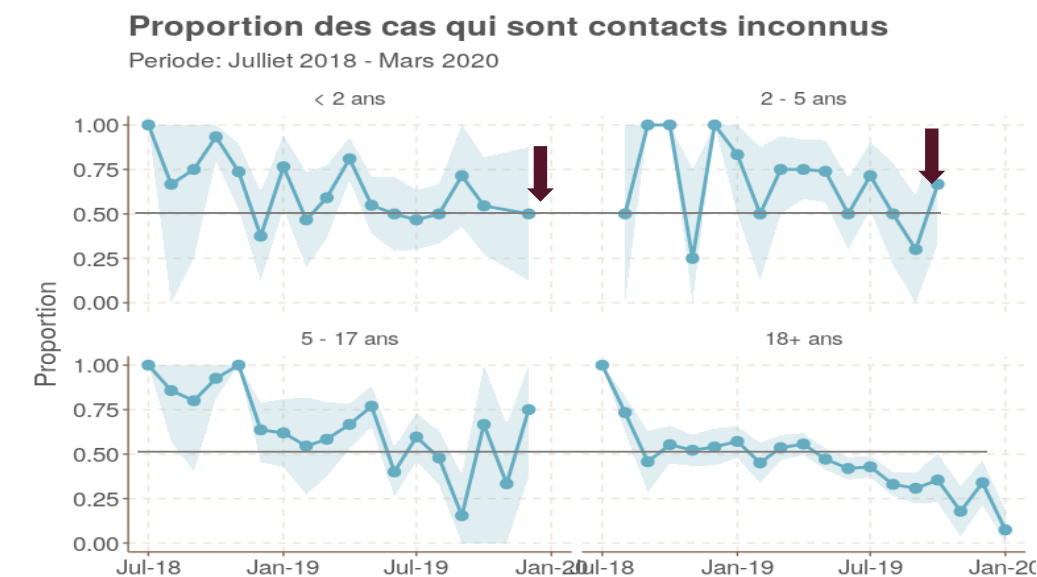
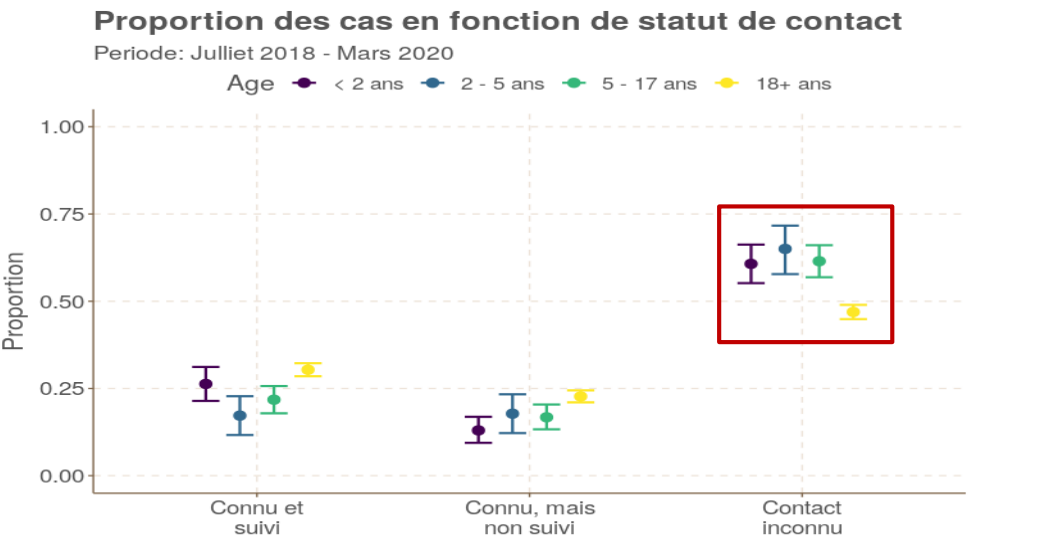
- Overall, the majority of confirmed cases were not known as contacts for much of the outbreaks
- The situation between health zones is quite heterogenous.



- Both Easter and Equateur outbreaks – throughout the duration of the outbreak, children were significantly less listed as contacts

- The risk of not being known as a contact was significantly higher for children compared to adults.

- Among these known contacts, the risk of not being followed up was higher for children aged 1 to 17 compared to adults.



Age group	RR* of not being known as a contact (ET 95%)	RR of not being followed up (ET 95%)
<1 an	1.18 (1.03 – 1.35)	0.98 (0.88 – 1.09)
1 – 4 ans	1.49 (1.34 – 1.66)	1.22 (1.13 – 1.32)
5 – 17 ans	1.33 (1.20 – 1.47)	1.33 (1.05 – 1.20)
≥18 ans	1.00	1.00

(1) EVIDENCE ON CHILDREN UNDER 5



IN EQUATEUR, HH SURVEYS INDICATED THAT ONLY 22% OF PARENTS WOULD ACCEPT LISTING THEIR CHILD AS A CONTACT

Children are not listed because (specific to children)

(1) They are not **recognized as having been exposed or at risk**

- Early messages and training implied children rarely got Ebola
- Nosocomial risks are rarely communicated (safe injections)
- If the mother/ parent or caregiver does not get Ebola, it's hard to imagine the child would

(2) There is a **fear that listing will result** in either or both **vaccination or a CTE** referral

- Perception that the vaccine is Ebola (misunderstanding of antibodies/ how vaccines work) – *fear of vaccine*
- Case fatality among children was higher = fear is understandable - *fear that CTE= death*

(2) EVIDENCE ON CT TEAM BEHAVIOUR

1. (perceived) Lack of correct listing

- Lack of training and skills of CT teams to identify the right persons
- Not listing or asking for children to be listed
- Listing of friends (related to kits distribution/ materials)

2. Inability to explain transmission chains & relationships between exposure & being listed

- Incubation period, reasons for perceived exposure not explained at household or community
- Support families to understand when could have been the exposure and therefore who should be listed
- Relationship with symptoms: lack of communication on symptoms influences understanding of exposure

3. Not familiar, local or trusted teams = distrust

- Conducted by outsiders, lack of respect and trust
- Related to income generation which fuels distrust
- Language barriers
- Less than 50% women (no opportunity for women to speak to women)

4. Lack of training, inability to respond to questions

- Lacking training on vaccination, the steps following the listing of contact
- Inability to answer community questions

5. Approaches create stigma

- visibility, cars & teams



(3) EVIDENCE ON COMMUNITY PERCEPTIONS & BEHAVIOUR

1. Proximity to the disease increases willingness to engage with / participate in CT

- In Equateur, the majority of the contacts that have become confirmed cases are contacts who are socially close to the source case.
- Communities & individuals who report willingness to participate express known/ having been close to the disease (common psychology of health behavior)

***challenge: how to engage communities with a disease which does not affect them, when there are many other more critical diseases?*

2. Misunderstanding of transmission routes reduces self-identification as a contact

- Lack of information (videos, communication) provided by all response teams negatively impact individual self-exposure identification

3. Fear of CTE and death

- High fatality at onset of disease increase fear of being listed = being sent to CTE = death

***attn: compared to W.Africa, listing is not associated with socio-economic burden of staying at home (march-June '20 COVID was!)*

4. Stigmatization (community & response teams) will reduce willingness to engage

5. Perceptions of severity of the disease and support available will influence engagement

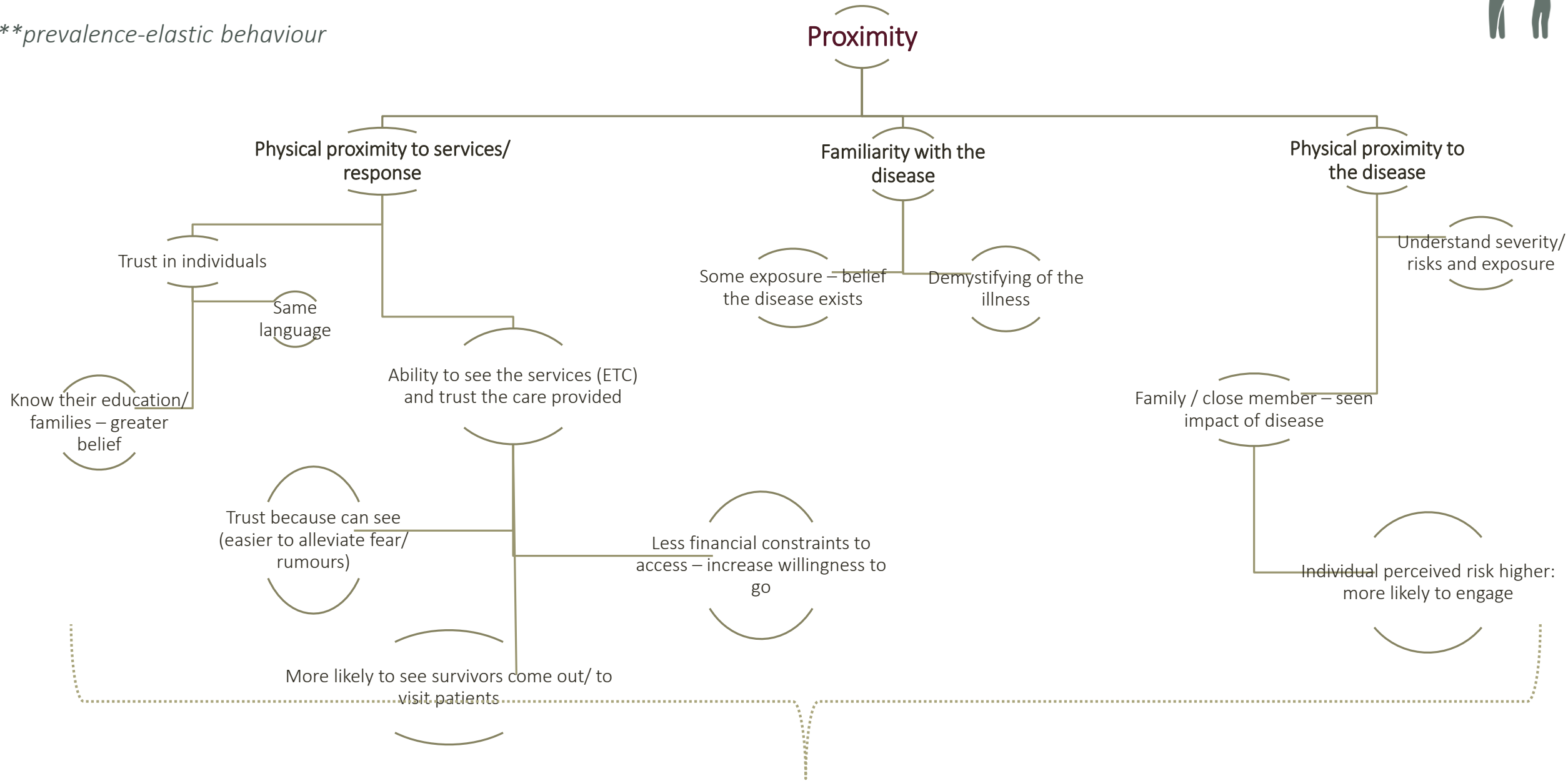
- Similar to proximity, high perception of risk may increase engagement and participation in contact tracing



(4) UNDERSTANDING THE RELATIONSHIP BETWEEN PROXIMITY TO A DISEASE & TO CARE



***prevalence-elastic behaviour*



*****If an individual doesn't have proximity to Ebola or the ETCs, information and communication and CE will remain challenging*****

WHAT CAUSES DISTRUST AND
DISENGAGEMENT IN CT?



WHAT THE EVIDENCE SAYS CAUSES DISTRUST AND DISENGAGEMENT IN CT?

1. Unknown CT team

- Must be local – language
- Representative/ reflective of communities: women, ethnic groups – proportionately representative (not just leaders)

2. Inconsistent approaches to CT

- definition for who is a contact should be presented and shared across communities both before and during CT activities
- Who is a contact, what is the moment of exposure and incubation period must be explained to support families identifying their own risks

3. Poorly trained CT

- 20-50% of HH respondents report response teams cannot explain process (“what will happen if I get symptoms”) in ways which build confidence/ trust

4. Unequal distribution of support to households / communities

- In one area, 100% of HH received high quality kits for staying home – because response perceived high risks. This resulted in community tensions and both communities refusing participation

5. Lack of access to HC/ HCF if symptoms arise (rural areas)

Strategies focused on “accept this intervention” vs. “Understand the disease, the mechanisms to stop the disease and let’s discuss what is best for you” undermine response success

WHAT CAN CT TEAMS DO?



WHAT THE EVIDENCE TELLS US WHAT MATTERS TO MAKE CT WORK

CT TEAMS.. What matters

1. Who you are
2. What you know
3. How you speak and engage
4. How you treat people
5. How patient you are

COMMUNITIES (INDIVIDUALS).. What matters

1. Their perceived “proximity” (psychological, geographic)
2. Who they trust
3. How they perceive the disease (risk)
4. Their perceived risk / benefit of participation
5. How they feel you will be treated



- Parentage of non-listed contacts is first put on the responsibility of the communities and listed as “engagement problem”, however there is often a lack of recognition of who should be listed
- There are multiple approaches to CT, and these must be addressed and discussed with communities (cars/ size of teams) – not just community leadership

WHAT EVIDENCE SUGGESTS CAN CT TEAMS DO



1. Work with governments to get local and representative teams

- Especially as UN actors – huge responsibility to ensure locally hired, language, gender and ethnically representative and trusted teams

2. Get trained & be equipped

- Set up systematic training for teams that include updating on key community questions (via RCCE feedback) and practice how to answer
- Know the entire response: be able to answer questions on “what will happen if I show symptoms”?
- Have communication materials (videos on smartphones, photos of treatment centres- use GoData!) to explain the process of “next steps”
- Explain how communication with families will/ would happen if the person was diagnosed

3. Know your responsibilities

- Communication and Community Engagement are everyone’s responsibility – be able answer all questions
- Support an understanding at HH level of exposure to the disease and support talking through who and how different family members (including small children) could have been exposed
- Be able to answer questions on vaccination, patient care, burials and food/ care for sick

4. Use data!!!! (and train teams to use evidence)

- Do not be scared to report low participation – do not blame communities
- Do not assume you know the causes – information does not equal behavior -- (requires training)
- Work with epi and social sciences to compare high and low participation groups (by location, zone) and identify what are the drivers/ barriers and how to reinforce and improve → Pre & Post studies demonstrate impact 😊

Questions & discussions

Ressources, studies links online

Google drive Ebola 2018-20 [\(lien\)](#)

Google drive CASS (all outbreaks from 2020) [\(lien\)](#)

Thank you & Merci 😊

Simone Carter

scarter@unicef.org

Manager, Social Sciences Analysis Cell – DRC

Integrated, Multidisciplinary Outbreak Analytics - Public Health Emergencies- UNICEF