

Neurodevelopment and mental health
assessment of children in the DR Congo
Implications for policies and research

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Background

- Diet is an important determinant for mental health and cognition
- Exclusive breastfeeding or staple food such as cassava may impact child behavior and cognitive functions



Background

- In Africa little is known on the impact of diet on child behavior and cognition
- Therefore, this project looks at the impact of nutrition / diet on child mental health and cognition in rural Africa DRC & Burkina Faso



Background

- Therefore, this project collaborates with two existing projects:
 - Promise Saving Brains (Uganda, Burkina Faso)
&
 - Konzo (DRC)



Background

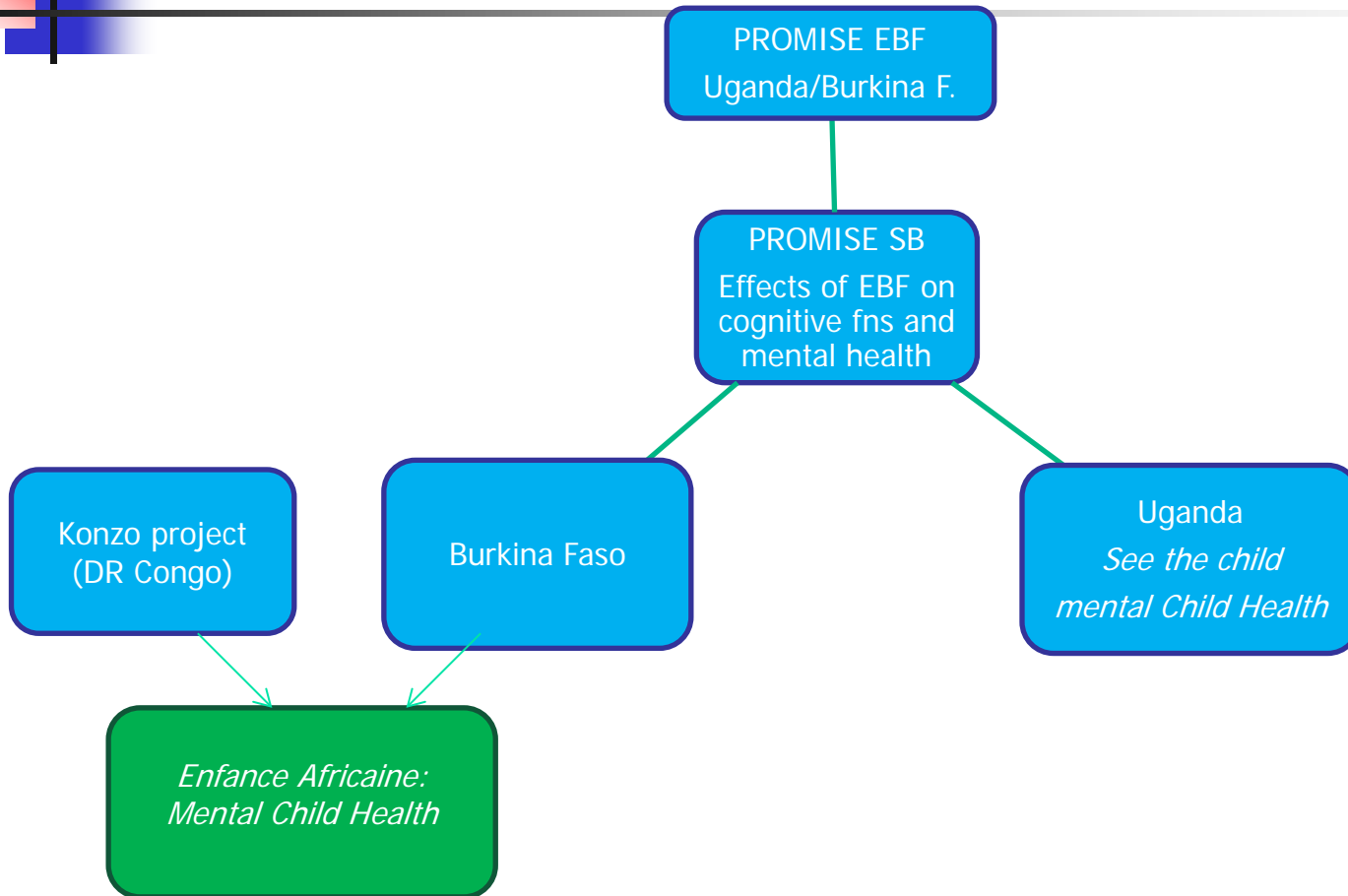
- Promise SB follows-up children born from the EBF trial in Uganda and Burkina
- Konzo project follows-up children affected by konzo (an irreversible upper motor neuron disease linked to the chronic consumption of cyanogenic cassava).



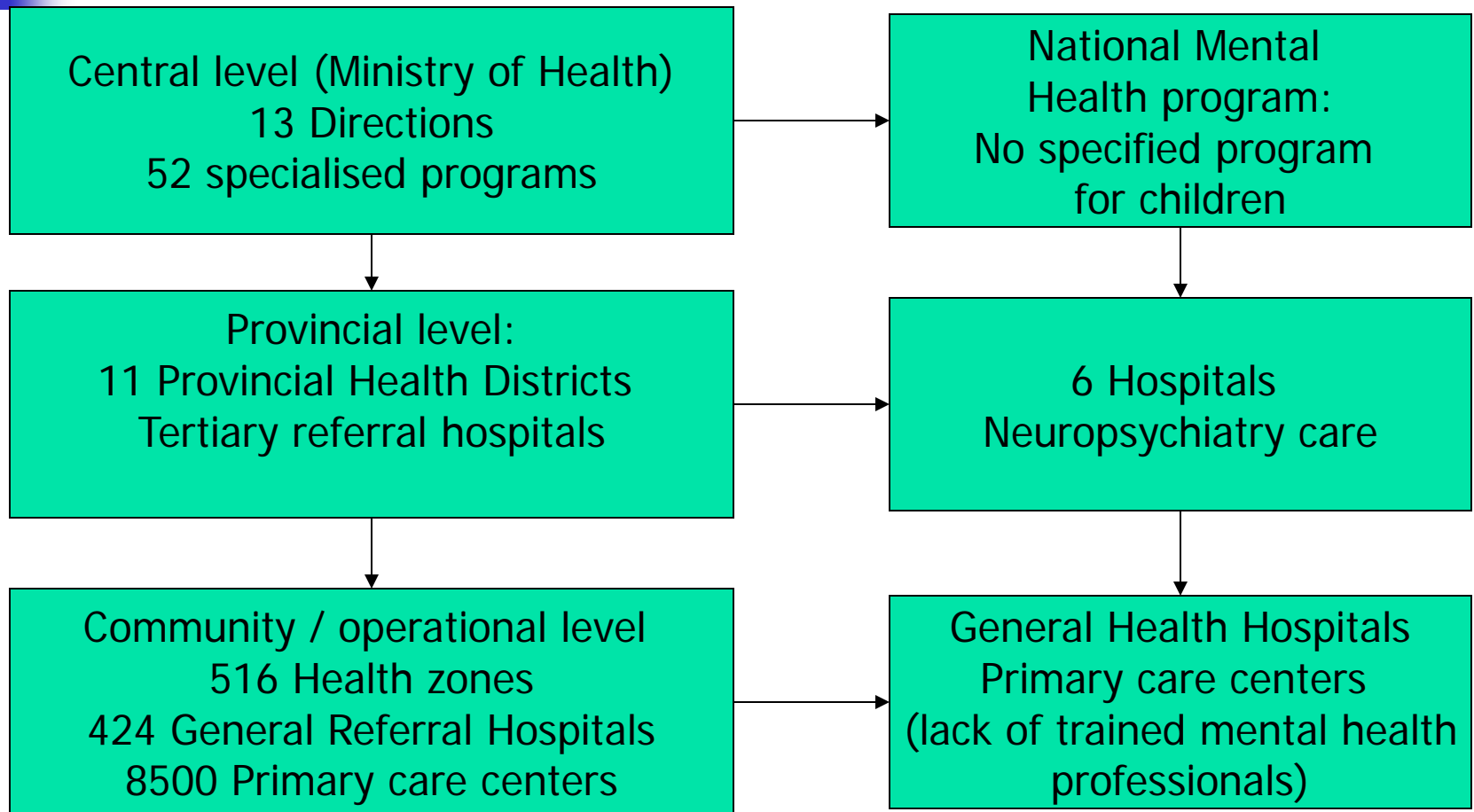
Objectives

- This collaborative project “Enfance Africaine”
 - Establishing prevalence estimate of childhood mental health conditions
 - And studying neuro-psychometric profile of the vulnerable children in the Burkina Faso & DRC cohorts.

Summarising graph



MHS organization in DR Congo?



Methods

Dem. Rep. Congo



- Kahemba (400 km from Kinshasa, capital)
- Rural area affected by konzo
- Children 2 years old residing in the area



Methods

- Case-control study
 - 150 children (75 cases & 75 controls)
- Approach
 - Interview with parents
 - Clinical and neurological evaluation
 - Behavioral & neurocognitive assessment



Methods

- Parents interview:
 - HSCL-10 (mother anxiety & depression)
 - Child neonatal & medical history
 - Learning and home environment (Home)
 - Parent education style
 - Nutrition and food security



Methods

- Behavior & neurodevelopment / cognitive assessment:
 - Ten Question Questionnaire (cognitive dev.)
 - Mullen Scale of Early Learning
 - Strengths & Difficulties Questionnaire (SDQ)



Methods

- Clinical assessment
 - Clinical exam
 - Anthropometry
 - Neurological



Implementation results

Implications for research

- Participants
 - 116 children out of 150 planned
- Reasons:
 - Refusal & Parents reported false age
 - Moved to Angola & Orphans



Implementation results

Implication for research

- Interview with parents:
 - Irregularities (caretakers / RECO)
 - E.g. 16 mothers non mothers/caretakers
Extra time to retraced 11.
 - One child brought twice, stereotyped answer



Implementation results

Implication for research

- The selected instruments / tools:
 - In general easy to administer and acceptable
 - Only 13 children refused to perform the MSEL
 - 3 did not complete their MSEL
 - HSCL-10: stereotyped answers?



Implications for policies & research

- There are benefits, challenges and limitations with the use of new tools and their administration in new settings
- Important to ensure that things are done correctly

Implications for policies and research



- Understand the local and cultural setting
- Important to involve local human resource but ensure that they understand the importance of the study
- Important to involve the health system at community level



Implications for policies and research

National level

- No child mental health policies
- Awareness, understanding and acknowledgment of mental health problems among children

Implications for policies and research



National level

- A number of on-going research projects on child mental health in DRC
- College for training of health professional in mental health (Eastern Congo since 2014)

Implications for policies and research



National level

- Still a long way to go
- The number of female neuropsychiatrists have increased from 1 (2002) to 6 (2015)

Implications for policies and research



Provincial level & operational level

- Awareness of child mental health problems among health workers, teachers, parents, communities...
- Still remains a taboo in rural areas

Conclusion



- There is no child mental health policies in DRC but improvement in awareness & management of child mental health
- Still remains a taboo in rural areas
- Important to understand cultural challenges & differences

Conclusion



- There is a need for more research on child mental health
- Specially in poor settings due to diverse factors impacting mental health
- Work together at the national & community levels to develop policies & strategies



Partners & Collaborators

- University of Kinshasa, DRC
- University of Bergen, Norway
- University of Michigan, USA
- Makerere University, Uganda
- Centre Muraz, Burkina Faso
- Promise SB consortium
- Konzo project consortium



Thank you



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