Speakers

• Miriam Chang, Nutrition Technical Specialist, WorldVision
• Riccardo Lampariello, Head of Health, Terre des hommes
• Marelize Gorgens, Senior Specialist - Decision Science & Artificial Intelligence, World Bank
• Claudia Juech, CEO & President, Cloudera Foundation
Multi-Stakeholder Approach to Digital Health & Nutrition
Amidst COVID-19 Response
ALEDIA: Alliance for e-Diagnostic

Miriam Chang
Nutrition Technical Specialist
World Vision Canada

Global Digital Health Network Meeting
April 30, 2020
ALeDIA (Alliance for e-DIAgnostic)

- A partnership between Tdh, World Vision and Action Against Hunger

- Launched at the WHA 2018

- Shared interests include
  → Improving health and nutrition outcomes of children
  → Health systems strengthening
Malnutrition contributes to about 45% of the 5.3 million deaths among children under 5 years of age (2018)

Two effective treatment protocols exist:

- Integrated Management of Childhood Illnesses (IMCI)
- Community-based Management of Acute Malnutrition (CMAM)
Protocol adherence is low and often not well coordinated

- Misclassification of nutritional status
- Appetite test upon admission of severe acute malnutrition not always performed
- Delayed prescription of ready-to-use therapeutic food (RUTF)
Protocol adherence is low and often not well coordinated

- Infrequent, inconsistent counselling on recommended feeding practices, health and hygiene behaviours
- Loss to follow up +++; defaulters, difficulty tracking referrals and counter-referrals

- Challenges with paper registers
COVID-19 Aftershocks: Secondary Impacts Threaten More Children’s Lives Than Disease Itself

Analysis based on:

• Secondary impact of Ebola crisis in 2014-16 in 3 countries

• Existing need in 24 countries prioritised by UN Global Humanitarian Response Plan COVID-19

⇒ Estimate: As many as 30 million children’s lives threatened by secondary health impacts of COVID-19, e.g.

  o Increase in malaria
  o decreased immunization
  o increased malnutrition
  o health systems are overwhelmed by COVID-19 patients

ALeDIA (Alliance for e-DIAgnostic)

- Shared interests:
  - Using technology to improve treatment protocol adherence and support health workforce capacity building
  - Improve diagnostic and treatment of childhood illnesses and malnutrition with an Integrated IMCI+CMAM digital solution

→ Improve health and nutrition outcomes
→ Strengthen health systems
The stand-alone mobile apps already exist

Childhood infections e.g. Diarrhea, Malaria, pneumonia

IMCI mobile App
“The Rec”
Tdhs IeDA Project

Acute Malnutrition

CMAM mobile App
World Vision

Let’s reduce FRAGMENTATION!
Integrated workflow for IMCI+CMAM

Not shown: A complementary digital solution for community health workers
ALeDIA Consortium

“Alone we go fast, Together 😊 ← 2m → 😊 we go far”

Ministries of Health
Research institutions
Technology partners
Mobile network operators
Donors

ACTION CONTRE LA FAIM
Terre des hommes
World Vision
Thank you
Multi-Stakeholder Approach to Digital Health & Nutrition Amidst COVID-19 Response

Apr 30th, 2020
Riccardo Lampariello
Head of Health
Terre des hommes
the leading Swiss organization for children’s aid

Notre engagement dans le monde en 2019

4.2 M beneficiaries in 2019
Since 2010, Terre des hommes and the Ministry of Health of Burkina Faso have co-created a job-aid tool digitalizing a medical protocol (IMCI) for children at primary healthcare facilities
IeDA is a rare example of digital solution at scale in Sub-Saharan Africa

1’189 PHC use IeDA today (62% of PHCs in Burkina Faso)

6,390+ active users; over 92% of consultations made with the tool

2.8 million children registered (> 14% of total population)

~200,000 consultations per month on average, 6.0 M consultations (Feb ‘20)

Deployed in Mali (2 districts), just launched in Niger

MoH takes over by end of 2020
Digitization: the «easiest» initial step
Digitization: the «easiest» initial step
Integration is a prerequisite to reduce fragmentation and to scale-up.

Some of the apps are currently under development.
Scaling-up: other key factors

- MoH on board from the beginning
- Long term vision … and tenacity
- Engagement by all stakeholders
- Medical relevance & impact
- Cost
- Partnerships
If you want to go quickly, go alone.
If you want to go far, go together. (African proverb)
To foster further integration and scale-up: an Alliance for e-Diagnostic (ALeDIA)

A partnership with World Vision and Action Against Hunger with the aim to:

• **Reduce clinical fragmentation** (two medical protocols & 3 healthcare levels)

• **Reduce digital fragmentation** (larger footprint and data standardisation)

• **Increase efficiency**
Integration helps address COVID - 19
THANK YOU
BACK UP slides
Scaling up IeDA in Burkina Faso will lead to savings for the MoH

- Net savings in operating costs are estimated to be between 33.2 $ and 66.3 $ per health centre per month
- Further economies of scale are expected when the transfer of IeDA to the Minister of Health will be effectively in place
- Not included societal costs
- Not included synergies
Impact study shows a significant improvement compared to paper based

Reduction in over-prescription of antibiotics of about 6% to 15%
Data management system

- **PHCs**
  - Raw data
  - Processed data for reporting

- **Cloud**
  - Processed data
  - Data linked to 60 indicators

- **Dashboards (District/National levels)**
  - Processed data

- **RBF* indicators**
  - Processed data

- **Data visualization tools**
  - Tableau

- **Research**
  - Data for scientific research

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*RBF: Result Based Financing*
ALeDIA integration

Community level screening; Follow up of MAM and SAM cases

**DEBUT**
- MUAC
- Weight & Length or Height
- Edema
- Appetite Test
- RDP (Malaria)

**Screening/case finding**
- Referral
- Triage
- Evaluation + Classification
- Treatment
- Follow up

**Hospital (Stabilization Centre)**
- SAM with complications
  - SAM 0-6months old
- SAM and MAM cases return for follow up
  - visit after 1 week as per country protocol

**IMCI Consultation**
- Centralized system for MAM and SAM cases
- Positive
  - SAM, MAM
- Negative
  - No MAM or SAM
- Discharged with counselling

**IMCI Treatment Modules**
- REC Reporting Module
- IMCI + CMAM

**CMAM Treatment Modules**
- Reporting for MAM/SAM treatment
- Discharged with counselling
- Child is fine

**Danger signs**
- Referral
WHO WE ARE

OUR MISSION:
Enable nonprofits around the globe to use data and data analytics to improve people’s lives and protect the planet

• An independent 501(c)(3) nonprofit, NOT a nonprofit sales organization

• Created in 2017 by Cloudera, Inc., an enterprise data cloud company

• Senior team has international experience in data, technology and the needs of nonprofits

• Work across all fields, sectors and geographies
UNCONVENTIONAL DATA SOURCES

Census 2015

Fill in gaps

Malnutrition

Complement and enrich

2021
SCALE

> 5 million consultations

Question of data volume optimal for predictive and ML uses

Reducing duplication

Device, training, data related expenses – using constraint resources most effectively
STRENGTHENING HEALTH SYSTEMS

Future Trends
Early Warning
Linkages

Malaria
Pneumonia
Nutrition
COVID
THANK YOU

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