COVID-19 Pandemic, Food Systems, and Interaction with Malnutrition

*Ag2Nut Community of Practice Discussion*

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Major causes of death among children <5 years
The shaded regions are deaths due to malnutrition

- Pneumonia: 30%
- Diarrhea: 27%
- Malaria: 13%
- Injuries: 5%
- Measles: 6%
- HIV/AIDS: 5%
- Other: 14%

Pelletier et al. 1995 and Bryce et al 2005
Total and relative proportions of death due to severe vs. mild-moderate malnutrition

World

Percent of child deaths due to Malnutrition

Pelletier et al. 1995
Special challenges for COVID-19 in Africa?

What needs to be done?

- Nutrition programs and role of sectors to support the anticipated crises on food system and malnutrition due to COVID-19
Living condition very challenging for physical distancing
• What should be done differently in nutrition at this critical time?
  • Are we able to do current programs as planned? If not, what can we do differently?

• Where is the current resource allocation for nutrition?
  • What resources are currently available for nutrition?
  • What additional resources are needed for nutrition? How can we get these additional resources?
  • What can we do differently with the available resources to reduce the effect of COVID 19 on the burden of malnutrition?
## Resilience in food systems due to COVID-19? How?

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Economics of Covid-19 impacts on agriculture, food & nutrition
Will Masters (Tufts University)

• Risks to farm production and **food supply chains**
  – Transmission via close contact, in group workspaces and face-to-face transactions
  – Most farms and food supply activity is already dispersed, but vulnerable at some locations
  – Greatest immediate risk is stopped movement of migrant workers, transport & marketplaces

• Impact of shift to reliance on **food at home**
  – Loss of school meals and other safety nets that rely on face-to-face contact
  – Huge disparities in capacity to acquire and prepare food at home

• Effects of widespread loss of **employment and livelihoods**
  – Cost of shutdown is largest income decline in history (uncontrolled disease would be even worse)
  – Sharp decline in demand for many goods & services, shift to basic necessities (including food)

• Need real-time monitoring of **food prices and quantities**
  – Price spikes will reveal supply chain disruption for specific food groups
  – Price declines will reveal loss of purchasing power by local populations
FOOD ENVIRONMENT TYPOLOGY

NATURAL FOOD ENVIRONMENTS

WILD food environment
- Forests & Jungles
- Open Pastures
- Disturbed Habitats
- Natural Lakes, Seas, Ponds & Rivers

CULTIVATED food environment
- Fields
- Closed Pastures
- Aquaculture
- Orchards
- Gardens

BUILT FOOD ENVIRONMENTS

INFORMAL MARKET food environment
- Farmer's/Wet Markets
- Street Vendors
- Mobile Vendors
- Kiosks

FORMAL MARKET food environment
- Supermarkets
- Hyper Markets
- Restaurants
- Institutions & Public Procurement
- Online Vendors
- Retailers
- Farmer's Markets

Downs et al. Forthcoming
Diversity at every level: Land-use mosaics