NEW HORIZONS FOR MONITORING AND DIAGNOSING UNDERNUTRITION

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To introduce the first three research presentations of this session, the focus of this introduction will be on three specific aspects of assessment: Early Warning Systems, the identification of hot spots and the collection of routine data.

Setting up **Early Warning Systems** is about **finding a tool or an indicator** -for instance a climate-related one- **predicting if wasting among a certain population will increase**. However, **we have not found this indicator** –or these indicators- yet, due to the fact that **wasting is multi-causal**. Moreover, there are very few places in the world with sufficient **available data on the prevalence of wasting**, collected frequently enough. The same applies to climate-related indicators. The first presentation today, by Action contre la Faim, will focus on Madagascar. Action contre la Faim has a climatic hydrostation in Madagascar allowing to combine climatic data and the prevalence data from SMART surveys. The analysis of these data is being presented today.

Identification of hot spots is essential to the humanitarian response, as it is impossible to intervene everywhere -especially in emergencies, when they concern **large, difficult-to-access areas**. One of the limitations of **SMART surveys** is that they **assess prevalence in an area, but not at community level**. So we have to rely on different statistics methodologies to find out if there are hot spots or not. The second presentation is by REACH Initiatives. The approach presented relies on "crowdsourcing": **obtaining information from people who have access to otherwise unreachable areas**. IDPs coming from inaccessible areas could answer questions such as how many malnourished children live in that area, and this information can be triangulated with data on the prevalence of wasting. The idea of collecting information from people coming from a certain area is promising, especially if we think of a future when they will just be able to text the information real-time. The approach is interesting and offers an innovative solution to get information and prioritize certain areas.

The third presentation, by Catholic Relief Services, is about **routine data**, reported by the facilities. Currently many countries are trying to measure height in the facilities rather than weight only. However, we know that growth-monitoring promotion is not working. So **how do we use the data from the facilities and trust the data**? Imposing collection of new data from facilities is burdensome for the workload and for the time of the staff, potentially resulting in a lower capacity do deliver treatment.

Whichever the assessment tool, it is interesting to think in terms of future scenarios. I**n three to five years, we will have a breakthrough point thanks to technology**. It is possible to imagine a near future when survey team members do not work with scales and boards anymore, but with smartphones, videos and pictures, generating all the necessary data on the child. Moreover, mothers in the household would also be able to download an application on their smartphone, upload a picture of the child and send it directly to the health facilities. Technology might also solve our struggles when it comes to households' selection: one day there might be drones taking pictures and a software automatically proceeding to data analysis and selection of the households.

THE OPERATIONAL PERSPECTIVE

Alexandra Rutishauser-Perera, Action Against Unger UK

One the main purposes of this conference is to bring to the floor, along with the latest developments in research, the reality from the field and to determine how research can support humanitarian and development actors in addressing the problems they face.

The questions are many, but undoubtedly, the main one is: **how can we reach them all? How can we make sure that no child is left behind?** And this is the core decision in surveys, diagnostic and monitoring. If we are unable to reach all of them now, it is because we have significant **problems with data** such as **availability, quality and timeliness**. As a result, we fail to respond, or we do that too late and do not dispatch staff, financial resources and supplies on time.

The presentations we heard today are very interesting, because they didn't only present anthropometric measurement and malnutrition but also **triggers of malnutrition**, which is very important in the perspective of overcoming silos and avoid to focus uniquely on treatment. Sometimes the best response to put in place is **preventing malnutrition**. Alternatively, we might want to respond through **food aid or cash based interventions**.

Whatever the response, **it is crucial to have the information on time, and that we reach as many people as possible**. When it comes to surveillance, diagnostic and monitoring, we are confronted with several barriers in the field.

First, **we rely on anthropometric measurements**, some of which are **difficult to perform** in certain places –i.e. weight for height. However, we also know that if we rely on other solutions only -MUAC and edema-, we will leave out some children.

Second, it is **difficult to assess nomadic, migrant or displaced populations** for the very fact that they are in movement.

Thirdly, notwithstanding the undisputed potential of technological advancements, we should not forget that **very often internet is not available in the areas where we work** in and **be more careful about relying on technology**.

Today's presentations show that **there is no single solution for surveillance** –a single technology cannot solve all the problems everywhere in the world. What we need as operational and technical specialists is rather a **set of solutions that we can work with government and communities** and are **adapted to the different contexts** of intervention.