NEW HORIZONS FOR MONITORING AND DIAGNOSING UNDERNUTRITION
QUESTIONS AND ANSWERS

INVESTIGATING THE RELATIONSHIP BETWEEN HYDRO-CLIMATIC DATA AND NUTRITIONAL STATUS TO IMPROVE THE EARLY WARNING SYSTEM IN SOUTHERN MADAGASCAR

ALAN RICARDO PATLAN HERNANDEZ, ACTION CONTRE LA FAIM FRANCE

What I see from the data is that Madagascar is a very seasonal country, where wasting is also very seasonal. Intuitively, if the rain is abundant, vegetation will increase and ultimately malnutrition rates will decrease. The opposite happens when it fails to rain. What is the element of novelty brought by these data?

It is true that we can reasonably expect that when the rainfall is weak, then the piezometric index is also low, and the same holds true for the vegetation index. The purpose of this study was to strengthen the evidence and measure the temporary lag between the indicator and the occurrence of malnutrition. For the purpose of humanitarian response, this is very relevant. If we are able to identify the exact temporary lag between the shortage of rainfall and the occurrence of malnutrition, we will know when we will have to respond and prepare on time to assist the populations.

In addition, we know that countries that used to be seasonal are impacted by climate change. This model is reactive and allows for adaptability over time.

There is a lot of work being carried out on algorithms and machine learning. Why are we building new systems instead of using an existing one?

Our projects must be adapted to our communities. Not all communities will have the same effect modifiers and kind of interventions in place. We have built a system adapted to Southern Madagascar, which is identified as a hot spot for climate change. If the system is to be replicated in another country, the methodology may be the same, but we will have to adapt to the communities.

REAL-TIME NUTRITION DATA FOR DECISION-MAKING

TANJA ENGLBERGER, CRS

What is your experience in contexts where the network is very weak in the field? How do you plan to offset this problem?

I don't have a good answer given that in the south of Madagascar, the Internet network is strong. Even in our field offices, we could look at the data constantly.

CLINICAL SIGNIFICANCE OF THE HETEROGENEOUS ANTHROPOMETRY-BASED CASE DEFINITIONS OF SEVERE ACUTE MALNUTRITION IN CHILDREN: PRELIMINARY RESULTS OF THE MULTI-CENTRIC OPTIDIAG STUDY AND POLICY IMPLICATIONS

RAYHAN MOSTAK, PALLI KARMA-SAHAYAK FOUNDATION
TRENTON DAILEY-CHWALIBÓG, ACTION CONTRE LA FAIM FRANCE

Was it in inpatient set up or also outpatient?

It was an outpatient care setup. We wanted to include children in inpatient care but we didn't have the resources. We would have needed to double the size of our sample to achieve statistical significance. Also, we referred to the national protocol. Some countries accept someone in inpatient cares, while others don't. Some of our patients could have indeed been treated in inpatient care in certain countries. Our exclusion criteria were the danger signs from WHO.

In your presentation, you suggest that we should consider adding in program children with weight for height less than -3. However, this suggestion is based on proxy indicators, which can not be uses as a basis for public policy recommendations. Prospective studies looking at the associations between anthropometry and mortality show that other options make it possible to detect malnutrition, such increased MUAC cutoff or weight for age. What do you think about this?

I agree that using a proxy indicator is problematic. However, in 2019, the only data we have to quantify mortality are those collected in Bangladesh in the 1970s, when there was no CMAM programming the way it exists today. With these data, it was possible to study the relation between anthropometric deficits and mortality. Today, we can't do that

anymore and we need to use proxy indicators. In any case, the objective of this study is not to come up with policy recommendations.
As for alternative options, it is true that nowadays MUAC only programming is seen more as of a continuum than something to be applied according to a strict cutoff. In Bangladesh however, the cutoff is MUAC less than 115. Increasing that cutoff to 125 does take into consideration some of the weight for height z-score only children, however these children are treated as if they were MAM.

How much of the difference you find among groups can be explained by age and sex?

We took all the known confounding factors linked to an anthropometric deficit, including sex and age. The results presented are already adjusted for these confounders

SUBSTANDARD DISCHARGE RULES IN CURRENT SEVERE ACUTE MALNUTRITION MANAGEMENT PROTOCOLS: AN OVERLOOKED SOURCE OF INEFFECTIVENESS FOR PROGRAM

BENJAMIN GUESDON, ACTION CONTRE LA FAIM FRANCE

The way your study is presented seems too focused on the strict labelling of SAM and MAM, rather than on the child himself. This does not allow for the health worker to assess the clinical status. Also, we do see a MUAC plateau effect - we need more research in that sense. Field teams observe children for which the weight for height is normalized, but there seems to be a plateau for MUAC. They are therefore unsure whether they can discharge them or not. Our recommendation in that case is to base the decision on the clinical assessment. What do you think of these considerations?

In the presentation, I used MAM and SAM to identify children that would have been classified as such according to their anthropometric criteria if a nutritional survey was carried at that time. It was indeed a simplistic definition for timesaving purposes. Clearly, we can estimate that they are on the road to nutritional recovery, and are therefore not in such a degraded state as if they were detected in the community and sent to the health center. It is quite possible, but on the other hand, we do not know.
My recommendation, based on the results of this study, is to verify if patients who are considered recovered are still in nutritional deficit, and to investigate the risks of relapse.

Studies are underway on the risks of relapse after discharge from SAM treatment, which will make it possible to determine if the non-achievement of ambitious objectives in terms of anthropometric recovery is a problem or if, on the other hand, we should loosen the criteria up.
Regarding the plateau on the MUAC, to my knowledge, we have not been able to objectify this by descriptions of anthropometric recovery during the treatment, which would show us that this plateau does indeed exist. However, I can well imagine that this is the case.

In relation to default patients, do we see a change in the number of default cases if based on the differences in discharge criteria? If we make discharge criteria stricter, do we expect an increase in default patients?

The risk of setting up disproportionately strict discharge criteria seems to me to be quite real. I don't think that the current discharge criteria are necessarily optimized. Their revision is possible, but under what conditions? Do we revise them without saying that we revise them and without strictly evaluating the consequences, or do we propose to revise them downwards and to document their consequences both on relapses and drop-out rates?

Why do you think that ministries have taken such decisions when it came to protocol design?

It's a very good question, for which I don't know the correct answer. My assumption is that they ignore the deviation from the standard and the potential consequences. The goal of this study was therefore to bring these elements to the attention of decision makers.

QUESTION TO THE PANEL

Do you have sustained and recent examples of a surveillance system that combines climate data, food security related data and nutritional data?

Rutishauser-Perera: FEWS NET is probably a good example. It is a surveillance system that uses numerous triggers and spreads through many countries.