Enhanced
Responses to
Nutrition
Emergencies

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HEALTH SURGE LEARNING PAPER #2: PRACTICAL LEARNING FROM A YEAR OF IMPLEMENTATION

JUNE 2023

Head of Yama Health Facility presenting group work at the Health Surge workshop in Niger. March 2022.
Photo: Margaux Soyer/**Concern Worldwide**

Introduction

'Health Surge' or adapting CMAM Surge for application to other childhood illnesses – not just child wasting – has been a topic of interest among many CMAM Surge practitioners in recent years, particularly in West Africa. Exploring the potential of a 'Health Surge' approach was therefore prioritised as a key area for learning by the Global CMAM Surge Technical Working Group (TWG) and the West African CMAM Surge Task Force. A significant proportion of the learning around Health Surge has been supported under the Enhanced Responses in Nutrition Emergencies (ERNE) programme.[1]

This learning paper is the second in a two-part series on Health Surge. The first paper – An Introduction to the Health Surge Approach - is available on Concern's CMAM Surge Learning Hub.[2] This second paper focuses on practical learning gained from piloting the approach in Niger and Kenya between April 2021 and March 2022. The paper attempts to answer the key questions on Health Surge laid out in the Global CMAM Surge Learning Agenda:[3]

> *"Should a more comprehensive 'Health Surge' model–that includes management of at least one other childhood disease in addition to severe wasting–be the new standard in the revised CMAM Surge Operational Guide from 2022, or, should some contexts continue with only CMAM Surge?"*

Specifically:

- How does/can CMAM Surge & Health Surge **add value within health systems**, across the WHO's health system building-blocks?
- How can Health Surge **add value within broader health system strengthening (HSS) efforts** and what are those broader HSS efforts / initiatives in fragile and more development contexts?
- What is the best approach to setting thresholds under the Health Surge approach when child morbidities are added to child wasting? Should different methodologies for calculating thresholds be used for different contexts?
- What are the **current limitations of the approach**, what needs to be improved, what stakeholders need to be engaged and what are the opportunities for scaling it up?

The answers to these questions provided below are based on the information gathered for the review of the Health Surge pilots in in Kenya and Niger, which included field level observations and interviews with health facility staff and district health teams, analysis of health facility data (including Surge dashboards and reports), and workshops with key stakeholders in both countries (in Niger there were also representatives from Burkina Faso and Mali)[4].

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1. The ERNE programme is a three-year programme (2020–2023) covering DRC, Ethiopia, Niger, Sudan and South Sudan funded by ECHO through a Pilot Programmatic Partnership with Concern.
2. *Health Surge Learning Paper #1: An Introduction to the Health Surge Approach*. Concern Worldwide. November 2021. Available in English and French at *Concern's CMAM Surge Learning Hub*.
3. *CMAM Surge Learning Agenda* available at *Concern's CMAM Surge Learning Hub*.
4. *Annex 1* summarises the main learning sources referenced in this paper.

> **BOX 1: A NOTE ON TERMINOLOGY**
>
> - **CMAM Surge** refers to the original surge approach focused on child wasting/ acute malnutrition.
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> - **Health Surge** refers to the revised approach focused on child illness plus child wasting/ acute malnutrition
>
> - **Surge Approach** is the new, more holistic term that now refers to the Surge approach focused on child illness and/or child wasting/acute malnutrition (usually both)
>
> - **Health systems strengthening**: is an array of initiatives and strategies that improves one or more of the functions of the health system and that leads to better health through improvements in access, coverage, quality or efficiency[5].
>
> - **Health systems resilience** is the ability of health systems not only to plan for shocks, such as pandemics, economic crises or the effects of climate change, but also to minimise the negative consequences of such disruptions, recover as quickly as possible, and adapt by learning lessons from the experience to become even better performing and more prepared[6].
>
> - **A 'shock responsive' health system** can 'scale up' to meet additional demand that arises due to a shock, while maintaining the quality and coverage of essential service delivery despite disruptions.[7]

Starting to Answer Key Questions on Health Surge

Overarching Question: Should a more comprehensive 'Health Surge' model – that includes management of at least one other childhood disease in addition to severe wasting – be the new standard in the revised CMAM Surge Operational Guide from 2022 (or should some contexts continue with only CMAM Surge)?

Yes the more comprehensive Health Surge model should be the new standard. However, the new guide should offer practitioners flexibility to identify which morbidities alongside acute malnutrition (or possibly on their own) contribute most to health staff workload and are therefore most likely to compromise the continuity and/or quality of essential health services.

The reviews of the Health Surge pilots in Kenya and Niger concluded that most health workers and health district managers found the more comprehensive Health Surge approach was **relevant and feasible and responded to their need to more efficiently manage caseloads by planning for and receiving tailored support when required.** The clear message was that providing treatment services for other childhood morbidities generally contributed to the workload of a health facility as much ore even more than providing treatment services for child wasting.

> *"[The Health Surge approach is good]...because it is not only malnutrition that is the biggest burden on the work, it is malaria"* [8]
>
> – District Medical Director, Niger (March 2022)

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5. World Health Organisation, United Nations Children's Fund (UNICEF). Operational Framework for Primary Health Care: Transforming Vision Into Action [Internet]. Geneva; 2020.

6. OECD, 2022.

7. Newton-Lewis, T., Witter, S., Fortnam, M., Seal, A., Hailey, P., Nair, R., Hillier, D. (2020a) 'What is a shock-responsive health system? A framework to inform Maintains research' Maintains Working Paper, Oxford Policy Management, Oxford, UK.

8. Quotation translated from French.

In Kenya, health workers and managers piloting the approach emphasised that the broader Health Surge Approach was **more inclusive**, bringing the whole health facility team together (not just the nutrition focused staff) to plan how to deliver all health services efficiently, especially during peak periods.

The next iteration of the CMAM Surge Guidelines should provide a flexible set of tools applicable to child malnutrition and/or other childhood morbidities. The new Surge Approach guide and tools should also be simplified and streamlined if they are to be truly integrated into health system planning and delivery processes, especially if the approach will now also focus on common child illnesses. Learning from not only the Health Surge pilots but broader CMAM Surge implementation can inform how and where tools can be combined and simplified.

Sub-question 1: How does/can CMAM Surge & Health Surge add value within health systems, across the WHO's health system building-blocks?[9]

The CMAM Surge and Health Surge approach are contributing to strengthening health systems overall, particularly the Health Workforce, Health Management Information System and Service Delivery building blocks, as well as the Health Financing to some degree. The shift to Health Surge has, however, further highlighted the importance of completing a careful mapping of the national health system and key stakeholders to ensure alignment and engagement as appropriate.

While the CMAM Surge approach was not designed to strengthen all aspects of the health system on its own, two evaluations and the Niger and Kenya pilot reviews have concluded that it can contribute to strengthening the health system building blocks.[10] The transition to 'Health Surge' has broadened the potential contribution of the approach to health system strengthening efforts. It is important to note that the functionality of a health system depends not only on the sum of its functioning building blocks but on the dynamic interactions between blocks (Figure 1).[11] The Surge Approach has been observed to strengthen these relationships at a health facility level. For example, strengthening skills of the health workforce to directly use data from the health information system to plan for more consistent service delivery. The expansion to Health Surge promotes further integration of nutrition services into health systems by supporting planning for wasting services together with essential health services – breaking down the unfortunate silos that persist.

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9.   The _Health System Building Blocks_ are an analytical framework used by WHO to describe health systems, disaggregating them into six core components. WHO website.

10. See Concern Worldwide's CMAM Surge Webpage section on evaluations: https://www.concern.net/knowledge-hub/cmam-surge

11. _The Health System Assessment Approach: A How-To Manual. Version 2.0._ Health Systems 20/20. 2012.
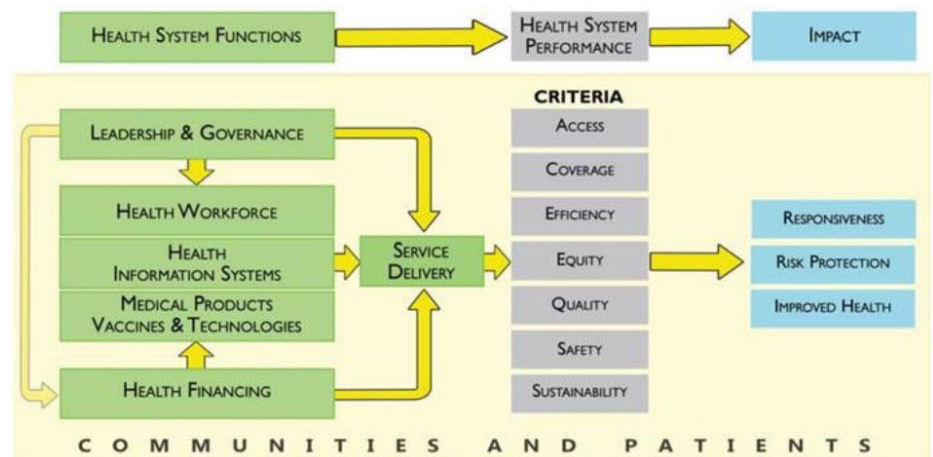
FIGURE 1: Health System Building Blocks Interactions (from the Health System Assessment Approach Manual, USAID 2012)

Health Workforce building block :

One of the benefits of the CMAM Surge approach most frequently reporting, including during evaluations, has been the improved capacity of health facility staff to analyse their own data to help plan their work, and the sense of empowerment that this generated. This was reiterated during the Health Surge pilot reviews, with practitioners in both Niger and Kenya appreciating the extension of the trend analysis, threshold setting and surge action planning steps to the morbidities that affect their workload most significantly. It provides a framework for better use of existing human resources, identification of needs and ensuring quality and continuity care are prioritised during peak periods.

In Niger, health facility staff remarked that the Health Surge approach better recognised the fact that nutrition and health services are generally delivered by the same – often very small - health facility team and in many cases the same staff member. For example, the same nurse is likely to deliver both nutrition treatment services for under-fives as well as malaria services for all age groups. Similarly, health facility staff in Kenya valued the Health Surge approach for being more 'inclusive', noting that it brought the whole health facility team together to analyse trends, set thresholds and plan for surges, whereas previously, it was only the Nutritionists who were involved.

Health Information System building block:

National Health Management Information Systems (HMIS) are often not fully digitised, especially at health facility level, due to a lack of resources and connectivity.[12] As a result, paper based data often flows upwards from health facilities to be inputted to databases at District level for analysis and use at District or National level. Health facility teams do not always have the tools nor are they necessarily encouraged to use that data directly. The Surge Approach promotes the analysis of data on consultations at the health facility level on a monthly basis, which not only promotes reflection on caseload trends and workload but often prompts some checking of data quality before it is entered into HMIS reporting templates.

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12. Koumamba, A.P., Bisvigou, U.J., Ngoungou, E.B. et al. Health information systems in developing countries: case of African countries. BMC Med Inform Decis Mak 21, 232 (2021). *https://doi.org/10.1186/s12911-021-01597-5*

"The contribution of Surge is visible in the ability of the health facility to analyse the data (calculation of cure rates, expected caseloads, etc.)... It is also clear that the regular support provided for follow-up contributes to improved quality of reporting (fewer discrepancies in data and more completeness)."[13]

– Nutrition Focal Point, District Health Office in Niger (March 2022).

However, as the Surge Approach expands to include child morbidities, a stronger understanding of health system information functions to ensure alignment and avoid duplication is required. In both pilots, health facilities selected the child morbidities they would set thresholds for alongside severe acute malnutrition (Table 1). This flexibility allowed practitioners to target the morbidities they felt were most relevant, but may make monitoring of thresholds by District health teams in the future unnecessarily complex.

TABLE 1. Total health facilities setting thresholds for different morbidities in the Health Surge pilots

MORBIDITY THRESHOLD SET FOR	KENYA (12 pilot facilities in total)	NIGER (12 pilot facilities in total)
Severe acute malnutrition	12	12
Diarrhoea	12	4
Malaria	1	12
ARI	8 URTI 4 Pneumonia	0

The Niger and Kenya reviews both highlighted the importance of using standard case definitions, reporting categories and reporting schedules per the national HMIS. In Kenya, all 12 health facilities piloting the Health Surge approach set thresholds for diarrhoea. Eight of those also set thresholds for Upper Respiratory Tract Infection (URTI) and four set a second threshold for pneumonia. The Kenya District Health Information System (DHIS) defines Acute Respiratory Infection (ARI) as Upper Respiratory Tract Infection (URTI), pneumonia/ lower respiratory tract infection and asthma. However, the terms ARI, URTI and pneumonia were often used interchangeably on Surge wall charts and in discussions. A similar observation was made for malaria in the Niger Health Surge review, with some workers charting 'suspected malaria' and others 'confirmed malaria' cases.

Going forward, those implementing the Surge Approach must ensure that morbidity categories and definitions align with the national HMIS and that these categories and definitions are communicated well to all stakeholders. To the degree possible, deciding which morbidities thresholds will be set for and standardising this for all health facilities across a district will allow District Health Teams to better monitor consultation trends against thresholds, compare health facilities.

Careful attention must also be paid to which illnesses are reported via the Integrated Disease Surveillance and Response (IDSR) i.e. notifiable diseases and any thresholds that may be set through that. This is discussed further below. For more detail on how the Surge Approach contributes to health system strengthening, please see *Annex 1*.

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13. Quotation translated from French

Health Financing building block:

Formalising agreements for Surge action plans is regularly cited as a challenge for the successful implementation and sustainability of the CMAM Surge approach[14]. Expanding beyond nutrition has increased the relevance of the approach to more actors and has promoted innovative and local sources of funding through efforts to increase community engagement and reinforced links between the community, diaspora and health district.

> *"It is the mayor's office that is accountable to the population and it is important that we are involved...[example of contributions to Surge action plans include] financing of a temporary labourer in a health facility, essential rehabilitations, fuel assistance for patient referrals, sourcing an ambulance..."[15]*
>
> — Deputy Mayor, Tahoua.

In Niger, it was reported that having Surge actions which went beyond the nutrition sector provided justification to approach, and interest from, other potential funding sources who previously may not have been engaged with the approach (for example, the diaspora). It also triggered a wider reflection of how Surge actions could be integrated into district health budgets. Following advocacy efforts by health facility teams, a number of districts have included a 'surge' line in their annual district budgets, to support health facilities if they cross thresholds and are in need of external support. In Kenya, it was remarked that Health Surge brought more engagement with key Health departments in the County governments and with that a more integrated approach to budgeting Surge actions across multiple budget lines (not just for nutrition).

Service delivery:

CMAM Surge and Health Surge both aim to ensure **continuity and quality of services** throughout the year, especially during seasonally-driven periods of high demand. Feedback from those involved in the pilots indicates that Health Surge does help strengthen service delivery and potentially more than CMAM Surge alone because it includes analysis and actions to improve delivery of a broader set of services.

In Kenya, health staff at facility level reported that Health Surge helped them to better visualise the scale of any increase in caseloads:

> *"Yes we recorded cases before [in monthly report forms], but seeing it increase by month on the wall helped us plan.... Having a threshold for illness helped us justify our request to Sub-county for immediate support when it was crossed (for diarrhoea"*
>
> — Nurse in Charge, Kinna Health Centre, Isiolo County, Kenya

During the Health Surge assessment in Kenya, widespread stock-outs were evident and health staff reported that many of the outreach sites were not being serviced due to lack of budget, further compromising access for the

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14. The CMAM Surge approach in Niger: Lessons Learned from 7 years of implementation
15. Quotation translated from French

highly dispersed and mobile catchment population. These weaknesses in the health system require urgent action, advocacy and resource mobilisation. However, against this backdrop of health system gaps, several members of the sub-county health management teams for North Horr and Laisamis Sub counties, felt strongly that the CMAM Surge and particularly the Health Surge approach helped them prioritise limited resources to facilities most in need. For example, health facilities that had passed a Surge threshold were prioritised for funds for outreach services at remote locations where patients were coming from (largely funding transport and meal allowances for health staff). They were also prioritised to receive a top up of essential drugs relevant to the disease threshold crossed. At the time of the review there were no reported shortages of nutrition commodities in either sub-county, but health staff suggested if RUTF or RUSF shortages did occur (as they did in 2021), Surge thresholds would be used in the same way to prioritise their provision.

As already stated, the Surge approach must be seen as only one tool in the health system strengthening toolbox. In the example above, the Surge approach was providing a short-term solution to the county-wide drug shortages and insufficient outreach services. However, in the long-term this issue must be addressed through broader health system strengthening efforts. It is important that the Surge approach does not become a 'bandaid' to a dysfunctional health system or legitimise the under-resourcing of essential services. Alongside more comprehensive health system improvements and resource mobilisation, the Surge approach can provide a short to medium-term means of rationalising limited resources.

How can Health Surge add value within broader ongoing efforts to strengthen health systems and what are those broader health system strengthening (HSS) initiatives in fragile and more development contexts that Health Surge could link with?

Health Surge complements broader HSS efforts by focusing support at a micro (health facility) level and adding a seasonal lens to understand seasonal pressures that may be regularly (and somewhat predictably) imposed on the health system. It empowers health facility staff to identify and address problems at their level of intervention. While broader HSS efforts tackle more systemic issues.

As outlined above, the Surge Approach has been observed to be filling a gap by supporting health facilities to use their own data to plan their work and identify specific support needs from the district. Such quality assurance measures at health facility level should be part of ongoing health system strengthening efforts but may not be prioritised or are assumed to be 'trickling down' following National or District level interventions. The Surge Approach also brings a seasonal lens and aspects of early warning and response, which are particularly important for health system strengthening in fragile contexts that experience regular shocks – not only in terms of disease outbreaks, but slower-onset droughts, and simple increases in caseloads due to e.g. seasonal population movements. The seasonal and events calendar, completed as part of step 1 of the Surge approach (Photo 2), encourages the comparison of local events and seasonality with the chosen morbidity. This enables health workers to identify predictors of fluctuations in caseloads and take the necessary preparedness measures.
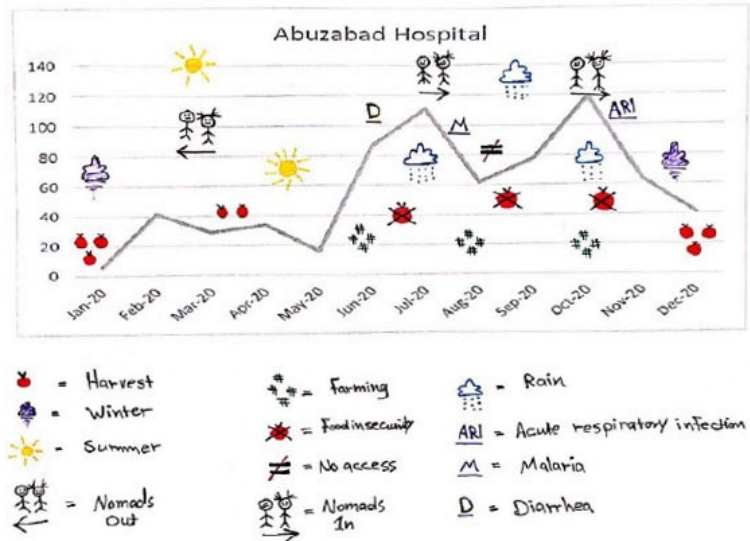
FIGURE 2. Seasonal and events calendar completed by project team in West Kordofan, Sudan

In the absence of long-term funding, it is critical that the Surge approach is aligned with health system processes and makes inroads to fill some of the gaps of a dysfunctional health system. An example of potential synergies between 'Health Surge' and a HSS initiative is illustrated in the diagram below.

Health Surge Approach with thresholds set for malaria:
- Promotes better understanding of driving factors of malaria caseloads and trends;
- Defines simple actions to respond to (and perhaps mitigate) increasing caseloads;
- Improves awareness of supply needs during peak periods.

Common Objective:
To ensure timely and appropriate treatment of childhood malaria.

Health System Strengthening Initiative – Impact Malaria:
- Improved supply chain for Artemisinin-based Combination Therapy (ACT);
- Capacity building of health workers on malaria treatment.

FIGURE 3: Health Surge approach and Health Systems Strengthening efforts working together for common objective

Increasingly we are seeing the Surge approach as a component of longer-term health programmes. An example of this is the Kulawa programme, a five-year (2020 – 2025) programme in Niger implemented by Save the Children (SCI) and funded by USAID, which works to improve access to and use of quality health services, strengthening ownership and management by communities, local government, and service providers. In this case the Surge Approach is being used to strengthen service delivery at a health facility level and empower communities to develop solutions that improve health care quality, coverage and accountability at a community level.

What is the best approach to setting thresholds under the Health Surge approach when child morbidities are added to child wasting? Should different methodologies for calculating thresholds be used for different contexts?

The Health Surge pilots highlighted that there is no 'best' approach to setting thresholds. However, ensuring a good understanding of what defines 'normal and manageable' workload for the health facility is critical to ensure that the thresholds reflect the capacity of the health facility, and allow Surge actions to be triggered in a timely fashion. More experience with setting thresholds for morbidities is also needed.

The pilot Health Surge tools proposed getting rid of the factor of multiplication to avoid having arbitrary ranges which were not reviewed to consider the capacity of the health facility. Not all countries embraced this, with some preferring to maintain the factor of multiplication (Table 2). There was a clear need to better define how a normal and manageable workload is calculated, and this should be included in the updated global guidance. In Kenya, health facilities used a mix of the multiplication factor and educated guess and key informants felt that morbidity thresholds needed more review and experience for health workers to set them appropriately (not too high and not too low), given consultation numbers may differ from that for SAM and MAM.

TABLE 2. Comparison of threshold setting methodologies (Health Surge Workshop, Niger, March 2022)

SURGE PHASE	BURKINA FASO (Combined Morbidity Thresholds)	MALI (Individual Morbidity Thresholds)	NIGER (Individual Morbidity Thresholds)
Normal	Normal workload x 1.5	Normal workload x 1.5	Normal workload based on capacity assessment
Alert	Normal workload x 2	Cut off for normal threshold x 2	Defined based on conversation with
Serious	Normal workload x 3	Cut off for alert threshold x 3	key stakeholders, using thresholds definitions
Emergency	Normal workload x 3.5	Cut off for serious threshold x 3.5	for guidance

In Kenya, the review found that URTI thresholds were likely set too low because all eight of the health facilities who set thresholds for URTI passed them during the 12 month pilot (Figure 2), and they remained above those thresholds for an average of six months (half the pilot period). The threshold for SAM, on the other hand, was not passed nearly as often - only four of the 12 facilities that set SAM thresholds and for an average of two months across those four facilities.
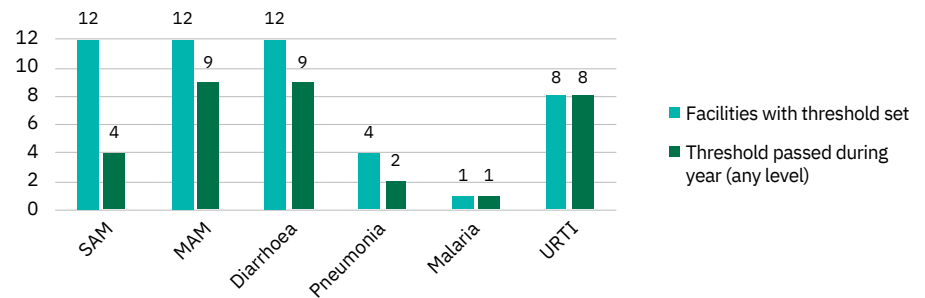
FIGURE 4. Total facilities setting and passing different thresholds

The Health Surge pilot tools also proposed a new single threshold, called the 'investigation' threshold, which aimed to capture changes in the overall workload of the health facility which may not have been detected through the individual morbidity thresholds. This had mixed reviews with some countries deciding not to put it in place (e.g, Kenya). In Niger, they set a maximum and minimum investigation threshold for total consultations aiming to detect not only when there was a surge in caseloads, but also when there was a drop below the norm.

In other contexts, such as Burkina Faso, a combined threshold was set (i.e. sum of several morbidities). This appears to have worked well with a digitalized system which allowed the morbidity driving the increase to be easily determined. With a non-digitalized system, it may be more cumbersome to determine what is driving the increase and thus ensure a targeted response plan.

Setting thresholds at district level has been common practice in Kenya for CMAM Surge (known as integrated management of acute malnutrition Surge or IMAM Surge). This entails establishing the maximum number of health facilities in the county at alert, serious or emergency phase that the County Health Management Team (CHMT) can manage on their own. If this number is crossed, the CHMT will need external support. The CHMT uses an IMAM Surge dashboard to monitor which facilities have crossed their SAM/MAM thresholds. The Kenya Health Surge review identified some areas for improvement in the dashboards, including that they are not linked to the HMIS (requiring additional data entry) and are cumbersome to update if health facilities need to adjust their thresholds e.g. following a change in capacity. The Kenya County Health Department and partners are exploring how the IMAM Surge dashboards can be better streamlined. The other key question is how the simple excel dashboards can monitor morbidity thresholds on top of SAM and MAM without becoming too complex.

What are the current limitations of the approach, what needs to be improved, what stakeholders need to be engaged and what are the opportunities for scaling it up?

The past 12 months of implementation have allowed us to identify some key challenges and considerations for future implementation of the Health Surge approach. These considerations will inform the revision of the Global CMAM Surge Guidance.

Improving integration into existing health systems, including protocols, HMIS, supply chains, and planning and budgeting processes. Transitioning from a nutrition to health approach has highlighted the need to better **understand the health and nutrition landscape**, in terms of key

stakeholders, financing mechanisms, alongside standard health system processes, before setting up the Surge approach. Allowing sufficient time for this pre-analysis mapping will ensure that the Surge approach reinforces and aligns where relevant with routine health system processes and that key actors are engaged, ensuring that MoH staff are leading or supported to lead where necessary. A simple health system mapping exercise is an important pre-step (see *Annex 3* for an example)

The Health Surge approach cannot on its own strengthen all aspects of a poorly functional health system. Implementers need to be realistic about what the Surge Approach can do. It is critical that the Surge Approach reinforces national health and nutrition policies/protocols and can be easily integrated into them**.** While the approach has reported to strengthen several health system building blocks by e.g. promoting use of health data at facility level, the approach must be easy to integrate into health system functions if these benefits are to be fully capitalised on. Understanding the HMIS and morbidity categories is particularly critical to avoid some of the confusion seen in the Health Surge pilots.

The CMAM Surge Approach has been viewed by some as a 'heavy' nutrition package requiring NGO support. The revised guide will include clearer orientations on how to align Surge with national health and nutrition policies. Optimising the modular format of the revised guide so relevant modules and tools can be integrated into exiting health system protocols and tools will be essential.

District and national level engagement has sometimes been weak. Strengthening this engagement will be critical for the sustainability of the Health Surge approach and ensuring it is contributing to improved service delivery over the long-term. The revised guidance will provide more practical tools to engage district health teams and national stakeholders from the beginning of the set-up process.

Preparedness actions to be taken before thresholds are crossed could be stronger. The **seasonal and events calendar**, albeit dependant on the quality of information gathered from health facility and community staff, is a valuable resource which is often underutilised. The revised guide will emphasise the importance of triggering preparedness actions during the 'normal' phase to even prevent increases in wasting or illness by linking with community actors and using the information gathered through the seasonal and event calendar to inform and trigger actions.

Conclusion

Overall, the Health Surge approach is relevant to health workers, is contributing to health systems strengthening and to building more shock responsive health systems (mainly at a health facility level). There are limitations with the approach, which cannot be overlooked and a number of simple adaptations could increase the impact of the approach on child health outcomes. In addition, the gaps identified should be used to advocate for longer HSS financing that can contribute to addressing the systemic issues in the health system.

In conclusion, it is appropriate that the revision of the CMAM Surge Global Guide expands to include other morbidities, with a strong emphasis on the contribution of the approach to other HSS initiatives and reinforcement of national policies and protocols.

ANNEX 1: Summary of key learning sources referenced in the learning paper

TITLE	OVERVIEW	ORGANISED/ COMPLETED BY	DATE
Resilient Health Systems: Adaptive Management Tools to Maintain and Strengthen Nutrition Services	Webinar tools and approaches to improve emergency preparedness and support health systems to respond to increased demands resulting from seasonal and unforeseen shocks and stresses.	CORE Group Humanitarian-Development Task Force	October 2021
Current and potential role of the CMAM and Health Surge Approaches to contribute to the shock-responsiveness of health systems	Literature review and key informant interviews.	Ghent University – consultants	November 2021
Health Surge Learning Webinar	Case studies shared by Save the Children (SCI) Mali, Concern Worldwide Niger and Terre des Hommes (TdH) Burkina Faso, followed by expert panel discussion.	West Africa CMAM Surge Taskforce	December 2021
CMAM Surge in Niger – « Botton Up » Learning (Le CMAM Surge Au Niger - Une Capitalisation « Par Le Bas »)	Field evaluation aimed at identifying the key conditions (critical path, contexts, processes), main factors and obstacles to the success and sustainability of the implementation and ownership of the Surge approach	LASDEL (Laboratoire d'Etudes et de Recherches sur les Dynamiques Sociales et le Développement Local)	February 2022
Health Surge Workshop	Three-day workshop with participants from Niger, Burkina Faso and Mali.	Concern Worldwide Niger	March 2022
Field evaluation on Health Surge implementation	Internal evaluation visiting 6 health facilities and completing interviews with approximately 20 key informants.	Concern Worldwide Niger	March 2022
Field evaluation on Health Surge implementation	Internal evaluation	Concern Worldwide Kenya	March 2022

ANNEX 2: Overview of the contribution of the Surge Approach to Health System Strengthening efforts[16]

HEALTH SYSTEM BUILDING BLOCK	CONTRIBUTIONS[17]:	OPPORTUNITIES/ASPECTS TO REINFORCE
Leadership and governance	• Revitalisation of Health Management Committees with improved functionality of community structures; • Increased ownership by health facility staff as more relevant to causes of increases in workload; • Reinforces the importance of regular supervisions and coordination between regional and district health offices; • It encourages health facility staff to take time out from routine work to diagnose and conceptualise problems and share solutions with broader audiences, taking own initiatives on managing surges; • In certain contexts, there has been strong engagement and leadership at a DN/MOH level.	• Reinforce the importance of monitoring and formalising Surge actions; • Increase the involvement of the health district; • At a national level and as part of National CMAM Task Forces expand the involvement of key health actors/departments within and outside the Ministry of Health • Strengthen links with Disaster Risk Reduction (DRR) initiatives and Rapid Response Mechanisms (RRM)
Health financing	• Promotes innovative, local sources of funding and internal reorganisation of resources for local increases in caseloads; • Increased community engagement and reinforces links between the community, diaspora and health district – expanding beyond nutrition increases the relevance to more actors; • Surge action plan acts as an advocacy tool;	• Facilitate District Health Teams to take the lead; • Advocate for the inclusion of Surge actions in annual action plans at district health and national levels; • Build community awareness on the needs of the health facility; • Diversify donor support of the approach;
Health workforce	• Provides a framework for better use of existing human resources, identification of needs and ensuring quality is prioritised during peak periods; • Builds capacity of health facility staff to use local data and promotes routine monitoring; • Reinforces the participation of Health Management Committees	• Establish links with community health workers/relays, especially those trained to provide iCCM, during peak periods; • Increased involvement of Regional and District Health Teams in the reallocation of health facility staff; • Mobilise interns during peak periods; • Integrate the Surge approach into routine HF management support and other CMAM/IMCI trainings when relevant.

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16. Adapted from Deconinck and Hendrickx, Exploring the current and potential role of the CMAM and Health Surge Approaches in creating shock responsive health systems: setting the scene for collaborative learning. November 2021.

17. Several of the contributions are also observed with the 'CMAM Surge' approach

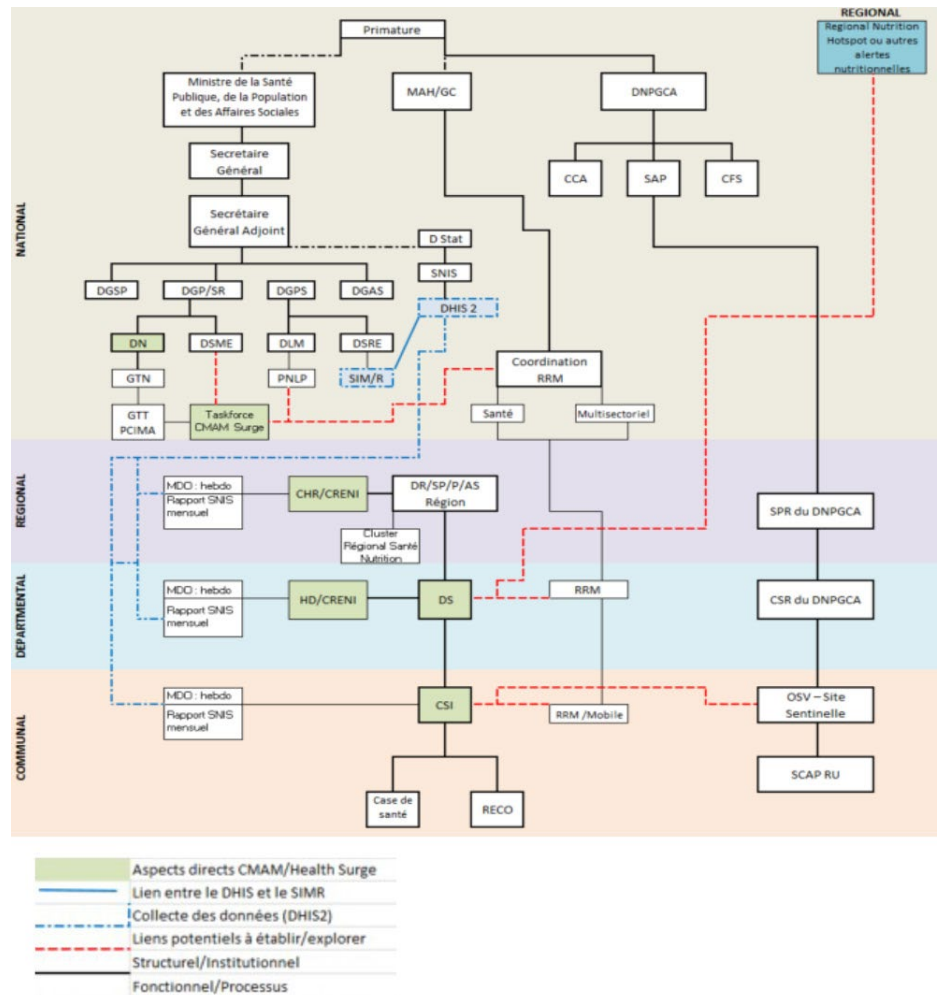| HEALTH SYSTEM BUILDING BLOCK	CONTRIBUTIONS[17]:	OPPORTUNITIES/ASPECTS TO REINFORCE
Service delivery	• Buildings the absorptive capacity of the health facility to effectively manage increases in the targeted morbidity (i.e. actions within the alert phase) without undermining other services; • It improves case management of top childhood illnesses (Acute Respiratory Infection (ARI), diarrhoeal diseases, malaria and malnutrition) by a more rational use of resources, planning and operational organisations; • It strengthens continuity of essential health services and referral mechanisms when planned as a surge action.	• Ensure that staff supporting implementation are trained on IMCI so standard protocols can be reinforced during coaching ; • Promote complementarity between IMCI and iCCM; • Use the Surge approach to advocate for the free management of malaria, ARI and diarrhoea.
Health information	• Promotes the analysis of routine data, tracking and verification of data quality prior to entering data into HMIS; • Encourages comparison of current data with historical data trends; • Improves monitoring and comparison of data with local events and seasonality; • Increased use and analysis of health data for decision-making.	• Ensure harmonisation with/and reinforce the use of standard case definitions; • Increase promptitude of relaying 'alerts' to district health teams increases the use of Surge;
Medical products, vaccines and technologies	• Support transportation of medicines and other medical supplies during peak periods; • Promotes accuracy of forecasting and ordering timely supplies at a health facility level;	• Link with the various initiatives to improve medical supply management. • Increased coordination with other actors supporting delivery of services to children; • Ensure Surge actions reinforce national policies and compliance to national therapeutic protocols/guidelines;

ANNEX 3: Mapping exercise completed in Niger (only available in French)

Image explanation:

The image below depicts four main levels within the health system (communal, departmental, regional and national – transversal band of colour).

The starting point is the health structure ('CSI' – Integrated health facility, 'CRENI' – stabilisation centre), as the point of intervention for the Surge approach. Following this the management structure of the health facility was added ('DS' – District; DR/SP/P/AS – Regional etc.) along with the data reporting line (blue dotted lines) – illustrating how data is relayed to the DHIS and IDSR (SIM/R).

In addition, other structure and organisation which are relevant or linked to the surge approach were included – such as the early warning and response system ('DNPGCA'), the Disaster Risk Reduction ('Coordination RRM') or the nutrition coordination ('GTN').