YEMEN NUTRITION INFORMATION SYSTEM REFLECTION AND IMPROVEMENT WORKSHOP

Amman, Jordan 30th May -2nd June 2022

Table of Contents

EXECUTIVE SUMMARY

Nutrition Information and surveillance systems are crucial to inform on the changes and trends over a period in a specific area for appropriate planning of Programs. Dissemination of information from properly executed monitoring systems (surveillance) are important for planning nutrition programs and development of policies. Implementing nutrition programs, tracking nutrition intervention and provision of reliable estimation of people in need in such a complex situation require reliable, cost effect and consistent nutrition information system to identify potential program gaps and to monitor trends in malnutrition across the country.

A four-day workshop was held in Amman from 30th May -2nd June 2022. This was the first opportunity post COVID to bring together stakeholder in person to provide support to Yemen NIS and for wider global applications in other fragile and conflict-affected states. The workshop included reflection on the existing NIS in Yemen, identification of data collection gaps, and further development of practical and cost-effective nutrition data collection and analysis methods.

The objectives of the workshop were as follows:

1. Identify nutrition and nutrition-relevant data gaps in the current nutrition information system.
2. Develop criteria for global IPC AMN updates, based on the Risk Monitoring framework and data gaps from the most recent IPC AMN analysis in Yemen (February 2022).
3. Develop a strategic approach to data collection in Yemen.
4. Review preliminary results from data collection and analysis withing the RMF and the way forward.
5. Review latest time trends in acute malnutrition based on SMART surveys and other available data.

The workshop discussed key thematic areas namely: Risk Monitoring Framework, IPC and SMART survey lessons learnt, trend analysis of SMART surveys conducted in Yemen, comparison of the two pathways of caseload estimation, comparison of FSLA MUAC between 2020 and 2021 and between FSLA 2022 and SMART survey 2022, analysis of to explore merging of SMART survey livelihood zones to reduce the number of SMART surveys conducted in the country, WHO surveillance system. A set of recommendations were developed to improve the Nutrition Information System and overcome some of the outstanding barriers to robust nutrition surveillance and analysis. However, a further in country advocacy meetings of key Government decision makers in both Sana'a and Aden is necessary to update them as well as seek necessary approval to some of the key recommendation from the NIS workshop.

Workshop Background and Justification

Nutrition Information and surveillance systems are crucial to inform on the changes and trends over a period of time in a specific area for appropriate planning of Programs. Dissemination of information from properly executed monitoring systems (surveillance) are important for planning nutrition programs and development of policies. Implementing nutrition programs, tracking nutrition intervention and provision of reliable estimation of people in need in such a complex situation require reliable, cost effect and consistent nutrition information system to identify potential program gaps and to monitor trends in malnutrition across the country.

A Yemen task force was created in 2021 as a sub-group of the Global Thematic Working Group on nutrition information systems (NIS), as part of the GNC Technical Alliance, to provide technical support to the Yemen country team on NIS. The task force has been meeting bi-weekly online since its inception. A two-day virtual task force workshop was organized in July 2021 to develop a nutrition Risk Monitoring Framework. The overall objective of the Nutrition RMF is to monitor early warning indicators at district level as part of nutrition surveillance to inform timely action.

This June 2022 four-days workshop was the first opportunity to bring together task force members in person to provide support to Yemen NIS and for wider global applications in other fragile and conflict-affected states. The workshop included reflection on the existing NIS in Yemen, identification of data collection gaps, and further development of practical and cost-effective nutrition data collection and analysis methods. The workshop also supported development of a strategic approach to mitigate the outstanding challenges for the NIS in the current context of Yemen.

Objectives

The objectives of the workshop were to:

6. Identify nutrition and nutrition-relevant data gaps in the current nutrition information system.
7. Develop criteria for global IPC AMN updates, based on the Risk Monitoring framework and data gaps from the most recent IPC AMN analysis in Yemen (February 2022).
8. Develop a strategic approach to data collection in Yemen.
9. Review preliminary results from data collection and analysis withing the RMF and the way forward.
10. Review latest time trends in acute malnutrition based on SMART surveys and other available data.

KEYNOTE ADDRESSES

Keynote opening remarks were given by the following

- Hassan Ali - ACF
- Alina Michalska - UNICEF HQ
- Najwa Rizkallah - UNICEF
- Dr Oleg Bilukha - CDC
- Aashima Garg - UNICEF RO
- Dr Hamoud - Director of Nutrition -North
- Dr Mahfoud - Direct of Nutrition -South
- Ahmed Al Saidi - Director of Information and Research

All stressed on the need for honest and fruitful discussion in the meeting. They acknowledged how far the NIS in Yemen has come and room for further improvement. They highlighted the need for a robust and accurate nutrition surveillance system in Yemen for better evidence-based planning and targeting. They stated that in the last few years, data dialogue started in Yemen which has also attracted a lot of interest from Government, Donor, nutrition partners. However, despite the initiation of this data dialogue, nothing is perfect yet in Yemen and there are still challenges. They also wished for a fruitful discussion and support for Yemen NIS in developing solutions to some of the outstanding challenges facing NIS.

KEY FINDINGS OF THE WORKSHOP

The discussion of the workshop was structured under these main key areas namely: Risk Monitoring Framework, IPC and SMART survey lessons learnt, trend analysis of SMART surveys conducted in Yemen, comparison of the two pathways of caseload estimation, comparison of FSLA MUAC between 2020 and 2021 and between FSLA 2022 and SMART survey 2022, analysis of to explore merging of SMART survey livelihood zones to reduce the number of SMART surveys conducted in the country, WHO surveillance system.

The four days discussion has generated a lot of interest both in terms of the content of the topics discussed and as well as the excellent participation of all participants. There were discussions on the need to replicate such workshop in other crisis affected countries and to include more time for programmatic nutrition-relevant data. Although the participants felt the need to have an advocacy meeting in country to get approval for some of the recommendations raised, the general feeling was the actions points suggested were realistic in the context of Yemen.

RECOMMENDATIONS ON THE WAY FORWARD

Action point	Timeline	Responsible
Organise two advocacy workshops (one in North, one in South), that cover several topics including assessment planning and data quality.	July 2022	▪ UNICEF ▪ In collaboration with government authorities and all
Create a national data validation group, to increase accountability and commitment to timely data, including to address delays in data analysis and dissemination.	Before next assessments (end July 2022)	▪ NITWG
Reinforce training for assessments and participation of data analysts to ensure timely report writing	Before next assessments (end July 2022)	▪ SMART ▪ UNICEF
Develop a two page on data quality from 2021/22 assessments (SMART, FLSA) based on the analysis to support in the advocacy and corrective action in the future	June 2022	▪ UNICEF
Summarise zones categorised by IPC AMN phases and by seasonality	June 2022	▪ UNICEF
Summarise the support for the zone prioritisation approach for future assessments into a short advocacy document for the North	June 2022	▪ UNICEF ▪ Support from NIS GTWG
Summarise the support for the domain approach (including implications of shifting to a domain approach) into a short 1-page advocacy document for the South.	July 2022	▪ NIS GTWG ▪ Support from UNICEF, SMART
Conduct data collection during the lean season, between the months of July and October.	June/July 2022	▪ UNICEF)
Develop a data collection decision tree for Yemen.	July 2022	▪ NIS GTWG ▪ Support from UNICEF, SMART
Remove MUAC from FSLA assessments	July 2022	▪ Head of agencies UNICEF, FAO, and WFP
Investigate the issues with MUAC data for FSLA in the North in 2021/22 and have transparent conversations with key stakeholders involved	July 2022	▪ FAO to provide data ▪ NIS GTWG
Explore alternative funding sources for assessments	June 2022	▪ Head of Agencies
Calculate whether "poor" estimates for both methods are over- or underestimations (this will have implications for nutrition response).	June 2022	▪ NIS GTWG
Calculate programme data vs. formula vs. higher of the two (by optimal/ suboptimal/ poor) to illustrate how South Sudan method compares	June 2022	▪ NIS GTWG
Repeat the comparison between two caseload calculation approaches (formula vs programme	February 2023	▪ NITWG

data) at the end of 2022 with actual admissions, to inform 2023 caseload calculation		
Develop an RMF accountability framework as part of the institutionalisation process.	Draft in June 2022	▪ NIS GTWG (EO/ACF lead)
Continue RMF analysis including development of cut-offs and updating of PowerBI dashboard	Ongoing	▪ UNICEF ▪ Support from FAO, WFP, WHO and Cluster
Explore using monthly WHO facility-based surveillance data as a source of data for the RMF.	July 2022	▪ NIS GTWG ▪ Support from WHO, CSO
Organise a meeting to coordinate and collaborate between nutrition and food security (RMF, JMF/ proposed WBG FS risk monitoring	June 2022	▪ UNICEF ▪ Support from FAO, WFP, WHO and Cluster
Restructure and re-design the SMART Questionnaire by removing any indicators that are already included in other assessments. These include Food security indicators and WASH indicators.	June 2022	▪ NIS GTWG ▪ NITWG (to validate)

WORKSHOP NOTES

Session 1: IPC and SMART survey lesson learnt

The SMART and IPC AMN analysis, lesson learnt were discussed under the following subheadings

- What worked?
- What can be improved?
- Identification of data gaps
- Analysis challenges

The need to improve on data availability and early release of SMART surveys was a key discussion point. The feeling was while SMART surveys were conducted in the whole country, the release of survey results was delayed hindering a prompt response by humanitarian agencies. Furthermore, the pressure to conclude that certain areas were in a worse phase in IPC AMN despite clear protocols for IPC AMN classification was noted in the north leading sometimes to stalemate of the analysis.

Group work

Four groups were formed to discuss on the challenges and mitigation measure to SMART survey and IPC AMN.

Group 1 and 3: Challenges of SMART survey implementation and mitigation measures.

Challenges

- Delays in planning and survey implementation
- Permits took a long time to be given, especially from the North. The requests were made late, more delays were due to the changes in the government personnel hence the request redone from scratch.
- Ensuring seasonality is considered when planning surveys. 2021/22 surveys occurred in December/January, but surveys should take place in the peak lean season, between July and October.
- Difficulty in accessing raw data
- Many people trained, but only a single person was writing multiple survey reports - challenges with capacity to do data analysis and recruiting for report writing
- Unnecessary bureaucracy-after validation, results were not released for response planning.
- MoPIC takes up an active role in the implementation of SMART surveys/ Advocacy
- NIWG – not utilised well as their role of validation is taken by SMART technical committee
- Cost of survey high – Sustainability of this assessments is a challenge

Mitigation measures

- Need for an integrated approach to implementing the SMART survey, advocacy to the government on the importance of the SMART survey data for the country (more focus is on the advocacy)
- Early planning of surveys for both approval process as well as budget process. Start the approval process earlier, maybe 2 months before the projected time to start the surveys.
- Advocacy workshop incorporating all agencies and Governments involved in SMART surveys (For North and South). One day on South and North authorities bringing the key decision makers and provide a run through of SMART surveys methods and why quick clearance is important. Ensure to include decision makers from MoPIC and SCMCHA in this advocacy meeting.

- Focus on getting early clearance for conducting SMART surveys (timely development of the assessment plan)
- Simplify the payment procedures (UNICEF) to ensure prompt funds transfer, (direct payment, increase the percentage for initial payment) to avoid delays as a result of late disbursement
- Explore simpler options for funds transfer (using reliable partners for the implementation)

- Negotiation to have flexibility in sharing of raw data for further review and analysis
- The data should be available to the SMART TC two weeks after completion of data collection.

- Agree on a timeline for release of survey results (preliminary, final report)

- Progressively grow capacity of the MoPHP, CSO for analysis and reporting (additional layer of SMART survey training for analysis, reporting and validation)

- Consider consolidating geographical areas to reduce the number of assessments being conducted in the country.

- Negotiation to have flexibility in sharing of raw data for further review and analysis
- The data should be available to the SMART TC two weeks after completion of data collection.

Additional notes from members

- There is low representation on the SMART technical committee except from the government. The technical committee was expanded to include national NGO members, but the members have not been active in engagement
- There is need to strengthen the national team to validate survey data from Yemen.
- There is need to train on the additional data collected in SMART surveys. The SMART questionnaire is big with many additional indicators (seems like a booklet). There may be needed to review the SMART questionnaire and remove the additional unnecessary indicators.
- There is minimal attention to the additional data collected in SMART survey (less usage)

- There is no need to train more survey managers. There were agreements to train ToTs but not happened yet despite the participants being selected (the MoPHP still need it)
- Identify a few experienced survey managers for a refresher training, probably a workshop outside Yemen for Dr Oleg to attend. Apprentice program to pair new survey managers with the experienced survey managers for learning and lessening the work of the experienced managers. This will ensure continuity as well.
- Advocacy workshops are needed including governorate officials, MoPIC, MoPHP, CSO, and every other partner who is key (this is an urgent activity to be done in both north and south)
- Formation of a National Validation Group (NVG)

IPC AMN Group 2 and 4

Challenges

- IPC started before the SMART surveys were completed.
- Raw data for SMART available but data cleaning and analysis took time; raw data not available
- Lack of coordination between government and partners/agencies
- Lack of IPC AMN experts (more FS experts than AMN)
- There was lack of coordination between Government and partners
- Limited data on additional indicators in some districts and governorates - with issues of data quality as well.
- Improvements needed on data quality (WASH, vaccination, malaria, ARI)
- Lack of translation to Arabic
- Lack of updated demography data
- Not all staff participating in IPC AMN is trained and/or certified
- Not all staff participating in IPC AMN is trained an/or certified
- FS decision can bias AMN decision
- Accessibility of the data (FSLA - North)
- Validation of the data (FSLA - North)
- Need better understanding of seasonality of wasting
- Inaccessible areas missed by SMART/ FSLA
- Consideration of new / additional shocks (e.g., locust infestations, COVID-19, war in Ukraine)
- There are concerns that all governorates were looking to upgrade their classification to a higher level due to the knowledge that intervention can only occur if you are on a certain level.

Mitigation

- Plan for IPC AMN process to start after the completion of SMART surveys
- IPC projection analysis puts into consideration the new and expected shocks, in addition to what is already happening in the country
- Need to build capacity on IPC AMN analysist as most capacity is in the AFI
- Composition of IPC AMN analysis (representation of different agencies)
- Support the MoPHP to build the NIS.
- Need to standardize indicators for all surveys

- All IPC AMN material and presentations should be translated
- Partners need to on a plan to update the demography data in their areas
- AFS and AMN need to be done concurrently so that there be two different analysis teams so that teams do not do an analysis influenced by either AFI or AMN.
- Better understanding of seasonality of wasting
- In areas that are inaccessible and missed by SMART/FSLA – short term assessment missions to be explored for analysis??
- Increase the number of training days for both AMN and AFI.
- The IPC analysis should be done at the same time and ensure everybody who participates in the training is certified.
- There is need to develop a document to decision makers to understand that there is no relationship between the classification level and intervention

Session 2: Operational and Technical Lessons Learned on 2021 Assessments and IPC - Comparison (SMART, FSLA)

Part 1; Presentation of FSLA and SMART Data

- Comparing the MUAC estimates from the last round of SMART and FSLA
- SMART: 41 surveys (41 zones) complete; FSLA: 33 districts
- SMART survey range of GAM by WHZ was **1.9% - 15.2%** (Sana'a) and 1.3-18.4% (Aden)
- FSLA survey range of GAM by MUAC was **1.5%-81.1%** (Sana'a) and **0-33.6%** (Aden)
- Major data quality issue in Sana'a
    - In Sana'a, ~40% districts showed implausible data of >20% GAM by MUAC, up to 80%)

Part 2: Presentation of FSLA 2020 vs 2021 MUAC Data

- Sana'a mean GAM by MUAC in 2020 was **7.7%,** in 2021 was **24.4**%
- Data for almost half of data in Sana'a in 2021 was implausible for 2021
- Likely possibility of data manipulation although further analysis of raw data is required to proof with 100% certainty

In conclusion of the data comparison between MUAC FSLA in 2020 and 2021 showed glaring quality concerns in FSLA esp from the North. The mean prevalence of malnutrition based on MUAC in the North between 2020 and 2021 has increased by 4 folds with 7.7%, and 24.4% respectively. Almost half of the data from the Sanaa hub was of unacceptable quality. The other half can be of questionable quality. The FSLA MUAC data in the North had clear evidence of manipulation (not necessarily a quality issue). Daily data quality check was not possible during data collection and accessing data at the end of the exercise was extremely difficult. This needs to be addressed. There needs to be good coordination between MoPHP, UNICEF and WFP and daily data quality checks as well as access to final data set need to be improved otherwise it will be difficult to continue including a measurement in the FSLA that the technical team has no control over it. The participant however suggested that since there is SMART data at the time of IPC analysis, there is no need to collect MUAC data in FSLA. Furthermore, the IPC AMN technical teams need to explore other sources of data collection in the event there is no SMART survey in a particular area. The technical team also suggesting getting raw MUAC data from the 2021 FSLA and in the worst-case scenario get data from the location with implausible results.

Session 3: Review of latest time trends in acute malnutrition based on SMART surveys and other available data

Presentation: Acute malnutrition trends using current and historical SMART data

- Looking at malnutrition trends in different areas of Yemen in the last 5-6 years
- Two potential reasons for changes in trends:
    - 1) Seasonality (months done in different months). July - September is generally considered the lean season.
    - 2) Actual change in nutritional status (not associated with seasonality)
- Western Coastal Tihama is the worst region in the country, and in the region Hodeida is worst off, stable high wasting ranging between 22.6% and 25.1% in the harvest season - may be worse off in lean season
- Aden - survey should be August 2022 to check assumptions (situation has improved since 2015 vs artefact of seasonality)
- Suggested peak lean seasons by ecological zones:
    - Western Coastal Tihama: August - September
    - Arabian Sea: July - August
    - Western Tihama Highland: July - September
    - Mid-Northern Highland: No seasonality in the north, not clear in the middle of the zone, and seasonality in the south (months?
    - Northern Plateau: Insufficient data to make a conclusion on seasonality
    - Middle Mountainous Region:
    - Southern Internal Highland: July - August
    - Internal Plateau: Insufficient data to make a conclusion on seasonality
    - Mountains of Taiz: Insufficient data to make a conclusion on seasonality
- Generally, the data indicate seasonality between July and September.
    - Survey implementation recommended to be in the lean season (July - October).
- Suggestion to use an increase/decrease of wasting by 2.5-3% for projections (up/down depending on timing of assessments and of projection period).
- No significant deterioration of wasting in Yemen/ no major increase in malnutrition trends - prevalence of wasting is relatively stable from 2018-2021.
- However, there are concerns of zones in IPC AMN Phase 4 or in high IPC AMN Phase 3.
- The evidence shows that some ecological zones are stable with low wasting, while others are higher.
- Need to that the focus is not solely on assessments but on nutrition data collection generally

The trends of SMART survey conducted in Yemen from 2015 to 2021/2022, was presented per livelihood zones from 2018- 2021. Generally, the data indicate seasonality between July and September and therefore the need to observe the seasonality pattern in country during assessment. The team suggest using an increase/decrease of wasting by 2.5-3% for projections (up/down depending on timing of assessments and of projection period). Looking at the trend over the last 4-5 years, there was no significant deterioration of wasting in Yemen/ no major increase in malnutrition trends - prevalence of wasting is relatively stable from 2018-2021. However, there are concerns of zones in IPC AMN Phase 4 or in high IPC AMN Phase 3. The

evidence shows that some ecological zones are stable with low wasting, while others are higher. This raised the issue on whether we should continue doing SMART surveys in Governorates/Livelihoods zones that have showed stable and low prevalence of acute Malnutrition. Experts suggested that areas with low prevalence of malnutrition and stable over a period could be excluded in the assessment plan for 2022. It was suggested that this trend analysis forms the basis of SMART survey prioritization for 2022 in the North. For the South the experts suggested to pilot a domain system explained below.

Session 4: Comparison of the two pathways of caseload estimation

Presentation: Looking at the projected and then actual admissions numbers in treatment programs and discussing the most accurate method of calculating PIN or projected caseload

- Retrospective analysis covering 2019-2021 data
- Overview of two proposed approaches / pathways for acute malnutrition caseload calculations (number of children in need):
    - 1) Using programme data (admissions x change pop x change prev x change coverage)
    - 2) Using formula [pop x prevalence x (1+ K)]
- Both methods have many assumptions
- Traditionally, method two (formula) has been used in Yemen
- Compared actual admissions for severe and moderate wasting to the two methods of caseload calculation
- Conclusion: using 2019-2021 data, programme data approach is more optimal than formula.

Discussion

- Concern about population estimates
    - Even with imprecisions in the populations, this will not change the final estimate significantly.
    - Yemen population is growing, but only by ~3% annually. Even with mistakes in population, it will not affect the estimate significantly. Using programme data compares from one year to previous years; using formula, one estimate.
    - Only very large changes in the population (e.g., 30% change) will have an effect
    - Compare to K - could change the estimate by a factor of two,
- No admissions previous year?
    - Understand reasons (No population in previous year and now population returned, or no programmes in previous year, or no reporting) and address them accordingly (e.g., use neighbouring area)
    - In instances where either of the methods underestimate or overestimate the targets?
    - Would it be advisable to use a hybrid approach like used in South Sudan where both were calculated using the two pathways? After comparisons, the highest number was chosen (bias)? Response from Dr Oleg and Douglas: maybe add a column to have the highest of the two calculations?

In conclusion, the two pathways of estimating caseload for malnutrition were compared with data from 2015 to 2021. The two pathways are: using the prevalence of malnutrition from SMART survey to calculate the caseload while the other pathways use admission data and factor population growth and coverage. Both systems were found not to be perfect in estimation of caseload. However, the use of program data was better than the prevalence pathway. The use of hybrid method of both pathways was suggested, and further analysis will be conducted including also comparing the change of incidence factor with the 2022 admissions.

Session 5: Strategic planning for nutrition data collection 2022/23

- Looking at methodological approaches to conducting ONE sub-national level SMART survey for the whole of South Yemen in 2022 instead of governorate level surveys and potential for the same approach to apply in North Yemen in 2022/23
- Surveys are expensive and time consuming, and not necessary at zonal level every year (in 2021/22, 44 SMART surveys were undertaken).
- This presentation proposes a way forward on rethinking survey planning in Yemen
- One option: combine similar zones together into one single survey.
- Due to access to data, this analysis / proposal focuses on the South
    - One challenge for Abyan (previous year the data was done at a different time than Lahj)
- One survey covering 8 domains
    - Sampling for each domain (8 surveys feeding into one South centrally coordinated estimate), all surveys done at the same time
    - This approach will provide estimates at domain level and for all of the South
    - If needed, re-analysis can be done at zonal level
- Discussion on rethinking some of the groupings. For example:
    - Marib City and Hadaramoud were grouped together, however there is a zone between them that may need to be added
    - Coastal grouping (Shabbah)

The need to reduce the number of SMART surveys conducted per year to cut cost of assessment and avoid the bottleneck to getting approval of conducting assessments, was explored. Previous SMART surveys were analysed, and the homogeneity of population compared. The total SMART surveys were therefore reduced from 16 surveys to 8 surveys in the South. The combination of livelihood zones with similar characteristics was named domain system. The participants recommended to first pilot the domain system in the South before rolling out to the North. The participants appreciation of resource implications / lower costs and HR for fewer surveys in the proposed domain approach. However, the grouping of zones required a further in country discussion and approval. In the meantime, the prioritization based on the trends will be used to conduct SMART surveys in the North.

Session 6: Risk monitoring framework (RMF)

Presentation: Yemen Nutrition Risk Monitoring Framework

- Presentation is an overview of preliminary results from RMF data collection and analysis, identify gaps, discuss the way forward

- July 2021 A total of 9 indicators were selected for the inclusion in the RMF; selection was based on relevance, feasibility, and quality and interpretability:
    - Health (3): Acute watery diarrhoea (AWD), acute respiratory infection (ARI), measles, mumps, and rubella (MMR) vaccination (FYI in Yemen it is only measles vaccination, not MMR)
    - Nutrition (3) : MAM, SAM, and TFC (therapeutic feeding centres/ severe wasting with complications) - monthly admissions
    - Nutrition access to services (1): Number of health facilities offering nutrition services (facility rate) (expressed per 100,000 children)
    - Conflict (1): Humanitarian access analysis
    - Humanitarian assistance (1): Food assistance
- Access to data:
    - No challenges on timely access to wasting admissions data (Nutrition)
    - Challenges on accessing health data (Health sector)
        - No data received from health cluster
    - Challenges on humanitarian access (OCHA)
        - Only one data point on access received for analysis
        - Regularly is also unclear (if monthly or quarterly?)
    - Challenges on humanitarian food assistance (Food Security sector)
        - No data on food assistance (analysis based on 8 indicators)
        - Data is sensitive and delayed (not available monthly)
- Analysis based on 33 months of data (All of 2019 and 2020 + 9 months in 2021/up to September 2021)
- Indicator 1: AWD
    - Average of 3-4 cases of AWD per 100,000 children using routine surveillance
    - Compared to SMART survey data, the routine data indicates extreme underreporting and no correlation with prevalence in SMART surveys
    - AWD from routine surveillance is not considered a valid source of data for RMF
- Indicator 2: ARI
    - Average of 2 cases of ARI per 100 children per month
    - Compared to SMART survey data, the routine data indicates extreme underreporting
    - AWD from routine surveillance is not considered a valid source of data for RMF
- Indicator 3: MMR vaccination coverage (in Yemen = only measles)
    - Proxy of access and quality of health services (routine vaccination)
    - MMR routine data is considered a valid source of data for RMF
    - However - lacking information on whether there were any supplementary immunisation activities (e.g., campaigns) - however, still seeing good correlation (seeing higher level of MMR in routine correlated with higher in SMART and vice versa)
    - Proposed cutoffs for classification by district:
        - Low coverage >20%
        - Moderate 20->50%
        - Hgh 50->120%
        - Outlier >=120%
- Indicator 4: Moderate wasting admissions
    - Average moderate wasting admissions: 1.2 per 100 children per month

    - Similar correlation as MMR
    - Moderate wasting admissions rom routine data is considered a valid source of data for RMF; however, because admissions vary monthly, a 3 month average will be used (current month + 2 previous months)
    - Proposed cutoffs for classification by district:
        - Low <1%
        - Medium 1-<3%
        - High >=3%
- Indicator 5: Severe wasting admissions
    - Average severe wasting admissions: 0.6 per 100 children per month
    - Slightly lower correlation than measles and moderate wasting
    - Severe wasting admissions rom routine data is considered a valid source of data for RMF; however, as with moderate wasting, because admissions vary monthly, a 3 month average will be used (current month + 2 previous months)
- Indicator 6: Severe wasting admissions - with complications (TFC)
    - Analysis did not show meaningful results
    - TFCs not present in every districts; those without, refer to neighbouring districts (total of 120 districts)
    - Further analysis needed using TFC catchment areas
- Indicator 7: Number of health facilities offering nutrition service
    - Quarterly indicator (vs monthly for rest)
    - 13 HFs with nutrition services per 10,000 children
    - Would expect to ideally have more HFs in areas where wasting is high; weak indicator (no statistical correlation)
    - Would expect more admissions if more HFS; however no correlation between number of HFs and severe or moderate wasting admissions.
    - Any changes in HFs in frontline areas
- Indicator 8: Humanitarian access analysis
    - Only one data point was made available for humanitarian access analysis
- Indicator 9: Food assistance
    - No data available?

In general, the presenter highlighted the importance of having an easy system of data flow to feed into the RMF regularly. He stressed on the need to engage other sectors including Government and WFP, FAO etc on health and food security data. There was a lot of emphasis on the need for strengthening routine nutrition programme monitoring (and not only relying on surveys but having surveys that complement a functional nutrition information system). The rollout of the DHIS 2 to other parts of the country will also be useful in providing some more data especially from the South. The participants reiterated the need to be very practical with the requirements in actualizing the RMF. There needs to be an accountability framework and the responsibilities clearly defined to allow smooth flow of data and analysis. The major challenge around the health data was discussed and the need to establish a good mechanism to have the flow of data without delays, also challenges with the humanitarian assistance data, data on access (from OCHA) which has not been regular. WHO surveillance was found useful to inform the RMF despite being facility-based data. Further re-analysis using the WHO surveillance data will be conducted. The need to link the RMF to the recently proposed FAO/WB food security crisis preparedness plan was thought to be mutually beneficial to both initiatives.

Session 7: SMART Questionnaire

Discussion on standardization of SMART survey questionnaire
The questionnaire has the mains sections

- Identifiers
- Demography
- Mortality
- Food Security (FCS, cCS, LCS)
- WASH (safe water, Water treatment, type of toilet, handwashing)
- Woman MUAC
- Child (anthro, diseases/morbidity, immunization, IYCF

In conclusion, there was little interest in the Food security and livelihood data as this is routinely and consistently collected by WFP and FAO and there is no need to collect it in SMART surveys. The technical team in country were also earged to further explore the WASH data collection use. UNICEF to meet with WASH section/cluster and determine whether the WASH questionnaire is necessary and if it is, then request them to review the questionnaire and reduce to bare minimum. The team discussed on the need to reduce the identifier question. The only needed information was date, team number and cluster number.

On the demography questions, the team suggested that instead of collecting all the information about summaries of all people, under five, women, etc, it is important to put the demography and mortality questionnaire at the start of the questionnaire and eliminate the extra questions are the start of the questionnaire that are again repeated in the mortality questionnaire. The questions on 1, 2 visit are not needed on the questionnaire but can be done on the cluster control form. The need to further review the women questionnaire was also highlighted since the current MUAC data does not give a good estimate of the malnutrition in women due to the lack of clearly defined international cutoffs. Other indicators on infant and young child feeding practices was suggested to be retained but questionnaire need to be aligned to the recently released UNICEF/WHO guidance.

Session 8: WHO surveillance system

Presentation: Overview of the WHO surveillance system in Yemen

After the presentation of the WHO surveillance system, there were a set of questions that were raise by the participants to further understand the surveillance system. Some of the questions raised are listed below

- Only health facility-based surveillance

- Children who are measured more than once only show up once in the surveillance - how avoid duplication?
- Quality checks using ENA
- How many sites, where are they? How is the geographical coverage?
    - 2022: 300 sites; ~ in 230 out of 330 districts
    - Most districts are covered, although inaccessible/insecure not included
- Is it still facility based or you have migrated to community based surveillance?
    - Mostly district hospitals
- How is the data collection made? What is the periodicity?
    - Monthly
- What information is collected?
    - Tracks four nutrition indicators (2025 WHA): stunting, wasting, EBF, and anaemia
- How do you monitor the quality?
    - Multiple visits by district focal point (government, part of the district health team), and district health officer, and WHO technical officers support quality process in parallel
    - Training of staff, supportive supervision by MoPHP and WHO monthly, plausibility check using ENA, on job menting, overall supervision by WHO central level nutrition team
- How is analysis made?
    - ENA
- Are there any challenges and how are they mitigated?
    - Institutionalization of this surveillance
        - Currently, ministry team undertaking advocacy on behalf of this surveillance
    - Functionality / readiness of health facilities (staff challenges, turnover, referral service, some services are closed)
        - Continue to re-train
    - Work burden (timely data, monthly data reporting, trend analysis in addition to other tasks)
- If data is collected periodically:
    - How many children have to be measured per round?
    - How are these children selected? Where are they measured (clinic or community)?
    - Are the same or different children measured every round?
        - All children are meant to be measured/ any child who is getting registered in hospital is measured (dedicated team of people for anthropometry, hemocues/anaemia and asking about EBF for 0-5)
        - This occurs during normal working hours for hospital (8am-2pm), data not captured outside normal working hours
- What is measured: MUAC or WH?
    - Both
    - Collect WHZ and MUAC, refer based on both, but estimates based on WHZ
- What is recorded: actual measurements of every child or only allies of red/yellow/green numbers?
- Is age and sex distribution of measured children reported?

    - Most of the children are <2 years (reflecting the expected facility-based trend for facility-based surveillance)
- What is the quality control of measurements?
    - ENA
- How is data transmitted and entered in the computer? On paper? Online?
    - Data entered on paper, then data entry into Excel by district focal point every 10 days
- Have this data ever been compared to other data sources, such as SMART surveys or FSLA?-No
- What concrete actions have been taken based on these data?
    - At district level, data is used for response
    - At central level, used for macro trends with other diseases (e.g., measles)
- Known bias for facility-based surveillance
    - 1) Age bias- many more children under 2 years compared to 24mo+). Can mitigate by analysing by <2 years and >=2 age group.
    - 2) Children visiting the hospital will be seriously ill - more likely to be worse off (anthropometry different than general population). WHO surveillance showing ~5% SAM, which is much higher than what we see in the community and surveys.
    - 3) Area selection bias - children who live close to hospital much more likely to visit the hospital (more urban, wealthier, better access to health)

The WHO surveillance data was commended in the absence of other community-based surveillance system. The need to work with other UN agencies to improve the surveillance system and improve in scope was highlighted during the discussion. Furthermore, the need to include some of the indicators collected in the WHO surveillance into the RMF and providing cutoff was suggested a good method to improve the use of the surveillance data

Participant

Name	Organization	e-mail
Elijah Odundo	ACF	eodundo@actionagainsthunger.ca
Hailu Wondim Yismaw	ACF	hwondim@actioncontrelafaim.ca
Hassan Ali Ahmed	ACF	hahmed@actioncontrelafaim.ca
Jana Daher	ACF	jdaher@actionagainsthunger.ca
Stephen Kimanzi	ACF	skimanzi@actionagainsthunger.ca
بسام احمد عبده سعيد	ACF	nutntm@ye-actioncontrelafaim.org
Oleg Bilukha	CDC	obb0@cdc.gov
Roselyn Adoyo	ECHO	roselyn.mullo@echofield.eu
Joel Makii Munywoki	FAO	Joel.Munywoki@fao.org
Douglas Jayasekaran	FAO- GSU	Douglas.Jayasekaran@fao.org
Ruba Atari	FCDO	ruba.atari@fcdo.gov.uk
Abdulkarim Nasser Ahmed ali	Government	krmnasser@gmail.com
Ibrahim Abdullatif Muhammad Al-Shawkaniابراهيم عبداللطيف محمد الشوكاني	Government_CSO	abryemen@gmail.com
Ahmed Mohamed Ahmed Qaedقائد أحمد محمد احمد	Government_MOPHP	ahmedqaid@gmail.com
Ahmed Nasser Ali Al-Saeedi أحمد ناصر علي السعيدي	Government_MOPHP	
Hamdi Hammoud Mohammed Al-Najjarحمدي حمود محمد النجار	Government_MOPHP	hamdialnajjar670@gmail.com
Hammoud Saleh Saleh Al-Muntasirحمود صالح صالح المنتصر	Government_MOPHP	hsalmontaser@gmail.com
Mahfoudh Moqbel Baqitمحفوظ على مقبل بقيط	Government_MOPHP	mahfoodali72@gmail.com
Nabil Yassin Said Abdullahنبيل ياسين سعيد عبدالله	Government_MOPHP	nalganadi@unicef.org

Aashima Garg	UNICEF	agarg@unicef.org
Ahmed Abduljalil Al-Shami	UNICEF	ahalshami@unicef.org
Alina Alexandra Michalska	UNICEF	amichalska@unicef.org
Henry Sebuliba	UNICEF	hsebuliba@unicef.org
Ismail Kassim	UNICEF	ikassim@unicef.org
Mary Kyalo	UNICEF	kkyalo@unicef.org
Mutahar Mohammed Ahmed Al-Falahi	UNICEF	malfalahi@unicef.org
Nagib Abdulbaqi Ali	UNICEF	nabdulbaqi@unicef.org
Najwa Rizkallah	UNICEF	nrizkallah@unicef.org
Waddah Mahmmod Alwan	UNICEF	walwan@unicef.org
Widan Madani	UNICEF	wmadani@unicef.org
Jehan Balba	USAID	jbalba@usaid.gov
Erin Boyd	USAID	eboyd@usaid.gov
Esmail Yahya Ali Al Yagori	WFP	esmail.alyagori@wfp.org
Garnier Gwenaelle	WFP	gwenaelle.garnier@wfp.org
Takudzwa Trust MLAMBO	WFP	trust.mlambo@wfp.org
Mireille AZIZ	WFP	mireille.aziz@wfp.org
COULIBALY-ZERBO, Ferima	WHO	zerbof@who.int
AL-FALAHI, Eshrak Naji Mohammed	WHO	alfalahie@who.int
ALAHNOUMY, Shafekah	WHO	alahnoumys@who.int

YEMEN NIS REFLECTION WORKSHOP- June 2022

Agenda for Yemen Nutrition Information Workshop (May 30 – June 2, 2022)

Day	Time	No	Topic	Description	Focal Point
	08:30 – 09:00	1	Opening remarks	Opening remarks from country team, regional team, and global team	Ismail (Najwa)
DAY ONE (May 30)	09:00 – 10:45	2	Operational and Technical Lessons Learned on 2021 Assessments and IPC	What worked? What can be improved? Identification of data gaps Analysis challenges	Nagib and Ismail Douglas
	Tea Break				
	11:00 – 13:00	3	Operational and Technical Lessons Learnt on 2021 Assessments and IPC	Comparing the MUAC estimates from the last round of SMART and FSLA and drawing some conclusions regarding preferred methods of data collection	Nagib and Ismail
	Lunch Break				
	14:00 – 17:00	4	Review latest time trends in acute malnutrition based on SMART surveys and other available data	Looking at malnutrition trends in different areas of Yemen in the last 5-6 years and drawing some lessons/conclusions	Nagib and Ismail
DAY TWO (May 31)	09:00 – 10:45	5	Testing assumptions of PIN and caseload calculation in Yemen	Looking at the projected and then actual admissions numbers in treatment programs and discussing the most accurate method of calculating PIN or projected caseload	Douglas UNICEF Yemen program team
	Tea Break				
	11:00 – 13:00	6	Testing assumptions of PIN and caseload calculation in Yemen (continued)	Looking at the projected and then actual admissions numbers in treatment programs and discussing the most accurate method of calculating PIN or projected caseload	Douglas UNICEF Yemen program team
	Lunch Break				
	14:00 – 17:00	7	Risk Monitoring Framework	Looking at preliminary results from RMF data collection and	Elijah and Hailu

				analysis, identify gaps, discuss the way forward	
DAY THREE (June 1)	09:00 – 11:30	8	Risk Monitoring Framework	Looking at preliminary results from RMF data collection and analysis, identify gaps, discuss the way forward.	Elijah and Hailu
	Tea Break				
	11:45 – 13:00	9	SMART Questionnaire	Discussion on standardisation of SMART survey questionnaire	Hassan and Nagib
	Lunch Break				
	14:00-15:30	10	2022/23 Strategic planning for nutrition data	Looking at methodological approaches to conducting ONE sub-national level SMART survey for ALL of South Yemen in 2022 instead of governorate level surveys and potential for the same approach to apply in North Yemen in 2023.	Douglas
DAY FOUR (June 2)	09:00 – 10:30	10	WHO Presentation on surveillance system	Overview of the WHO surveillance system in Yemen	WHO (Ferima) and Ismail
	Tea Break				
	10:45 – 12:45	11	2022/23 Way forward and Next steps for nutrition data	Operational and technical recommendations for NIS in Yemen (nutrition and nutrition-relevant data)	Ismail Hassan Alina
	12:45-13:00	12	Closing	Wrap up, Recommendations and Action points for Yemen NIS	Ismail and Yemen country team
	Lunch Break				