



Case Study: Improving health service delivery transitions in public health emergencies utilizing a Health Service Delivery Exit Matrix Tool

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Background

Increased frequency and longevity of humanitarian crises and chronic complex emergencies due to disasters, forced migration, and disease outbreaks has left ~ 347 million people in need of assistance (i.e. 172 million people by armed conflict and 175 million people, by natural disasters each year, respectively).¹ Due to the cyclical nature of crises, there is a recognized need to improve the transitioning and exiting from humanitarian work to longer term routine services, once the crises has ended. Yet, few practical tools exist to guide these transitions and ensure progress to date is not jeopardized.² Moreover, little guidance exists on useful metrics to practically plan for transitions within the humanitarian-development nexus.^{3,4,5}

Recent attention by the global community on the 'nexus' between humanitarian and development work has been instrumental in the creation of CORE Group's Humanitarian-Development Task Force (HDTF), with support from the U.S. Agency for International Development (USAID), Office of U.S. Foreign Disaster Assistance (OFDA). This case study is part of OFDA-funded collaborative with CORE Group entitled "*Addressing Gaps in the Evidence for Health and Nutrition in the Humanitarian-Development Nexus.*" The purpose of this initiative is to increase global capacity for coordinating, integrating and transitioning community health and nutrition services in response to protracted crises and transition from crises to recovery and included the development of two tools (i.e. matrix exit tool and community health service delivery framework tool), accompanied by two prospective case studies and briefs, and one retrospective case study on health systems strengthening within the nexus. A literature review included published and grey literature on primary health care approaches (in the humanitarian development nexus) and identified existing tools and approaches used in health systems strengthening, monitoring exiting and transitioning, and the adaptation of development approaches that impact the community level for emergency settings (i.e. Care Groups and integrated community case management (iCCM)).

The literature review confirmed minimal evidence-based information, tools or guidance developed on use of exit indicator tools to guide humanitarian relief to development transitions, and guidance for

¹ Samarasekera, Udani et al. (2017) The Lancet, Improving evidence for health in humanitarian crises, Volume 390, Issue 10109, 2223 – 2224; DOI: 10.1016/S0140-6736(17)31353-3

² Gardner, A. Greenblott, K., and Joubert, E. What we know about exit strategies—practical guidelines for developing exit strategies in the field. C-Safe, September 2005.

³ URD. Quality Compass Companion Book. June 2009.

⁴ URD. Quality and Accountability Compass, 2018.

⁵ Relief International. Systems approach: Relief International's systems approach in fragile settings – integrating relief and development.

the adaptation of more developmental community-based health approaches in humanitarian emergency contexts.

The aim of this case study was to provide metrics to monitor contextual readiness to guide planning for transition from humanitarian to development health services. Following adaptation and roll out of the matrix exit tool, the usefulness of the adapted matrix exit tool for preparing and monitoring the transition from complex, chronic emergencies to long-term development health actors was assessed and documented in this case study. CORE Group partnered with Medair to specifically address the operational evidence gaps around health and nutrition in the humanitarian-development nexus and strengthen research around effective interventions or adaptations of tools.

The overall objectives of this case study were to:

1. Adapt an existing health service delivery exit matrix tool, which explored the necessary indicators and conditions for successful handover to MOH or NGO partners
2. Pilot its usage in several public health emergency contexts to determine its usefulness to program implementers in informing humanitarian exits and transitions within health and nutrition

Methods

A case study design was used to examine the use of the exit matrix tool (see appendix 1). There were several steps involved in development of this case study:

- Literature review of key documents, tools and global indicators
- Development of a matrix tool--a health service delivery exit “spider diagram” tool in Democratic Republic of Congo (DRC) (2012)
- Adaptation of the DRC tool for wider use in fragile settings in low and middle income countries with incorporation of a new exit indicator menu of options, which were gleaned from global and country specific indicator reviews⁶
- Selected country program staff in five countries were trained on the tool and completed exit tools for their intervention context, which were reviewed and discussed with Medair global advisors
- Collection of country feedback on their impressions of the tool:
 - Rapid key informant interviews (n=8) with countries (i.e. Middle East, Asia and Africa) following tool use (October/November 2019) and NGO partners (n=2) (December 2019)
 - Collection of feedback from ten country programs during the Medair workshop, Nairobi, Kenya (November 2019)
 - Qualitative analyses was conducted, via hand coding of transcripts and notes of recorded informant interviews

The Medair spider diagram tool was first developed in Democratic Republic of Congo (DRC) and aided implementers to visualize progress toward seven exit benchmarks: 1) security situation, 2)

⁶ Reviewed the following documents: Sphere, Interagency Standing Committee, WHO’s Global Reference List of 100 Core Health Indicators, OCHA Humanitarian Response Indicators Registry, People in Aid’s IndiKit, and internal documents: Medair Triggers for Response in DRC, Medair Transition and Exit Guidelines (Iraq), Medair Health Location Exit Benchmarks (Iraq), Medair Country Strategy Plans, and Draft Guidelines for Transition from Health Facilities to Development (S. Sudan)

financial capacity, 3) access to health services, 4) quality of treatment, 5) preparedness, 6) potential sustainability, and 7) measles coverage. Qualitative key informant interview data was triangulated with country discussions from the Medair workshop and analyzed according to the following themes: use of tool/plans to use tool, any unclear elements of tool, strengths of tool, weaknesses of tool, and suggestions for improvement.

Key Findings

Findings are summarized in **Table 1**, according to key themes. A summary of key reflections from countries are provided below.

How have you used or plan to use the tool?

DRC and Iraq country teams discussed how they used the tool to identify and prioritize areas for monitoring either at the health facility level or according to certain timepoints (i.e. quarterly).

For (the) DRC team we are using this exit tool at the health facility level to determine when is it suitable to exit the supported health facility. We have selected 10 indicators which reflect our context. This tool will help us to monitor (the) situation in regard to program performance at the health facility level.”

– DRC staff members

“The original scenario was applied to a main center PHC. Ideally we would want to do this at the start and then tracking it at every quarter and allowing us to identify which areas we are behind on and which we can catch up on. I think ideally things that we are struggling to progress on we need to review that particular indicator and see if that is 100% or if we can compromise and exit.”

– Iraq staff member

In terms of plans for using the tool, Bangladesh, Iraq and Somalia relayed how the tool was used for preparedness with partners and making decisions for exiting.

We will use (the tool) to make evidence based decisions to exit from projects or sectors/programs.” – Bangladesh staff members

“Plan would be to look at this for PHCs within the camps for exit. It will be nice, as it will show what DoH expectation and what our perceived ideal exit would be. It will give us clear boundaries of where to draw the line.” – Iraq staff member

“We can use the tool to determine how prepared are the local partners are to carry out activities without Medair support.” – Somalia staff members

Was there anything unclear about the exit tool?

While most countries stated that the exit tool was easy to follow with user-friendly indicators, it was largely dependent on country staff's use and understanding of Microsoft Excel.

"While for some people, (the tool) can be easy to use, it depends on how one understands Excel to be able to use the tool. If you are good at Excel, it's very easy to use. If you don't have an understanding of Excel and use less than 10 indicators, it is hard to apply the tool." – South Sudan team member

Countries discussed the need for more guidance on definitions of indicators and scoring (i.e. set target indicators to a 1-5 scale), distinguish between "program quality" vs. "quality", with additional guidance on the spider graph.

What were strengths of the tool?

The main strengths of the tool were that it allowed countries to visualize progress and make objective decisions about monitoring exit readiness. Countries also discussed the flexibility of indicators, and the ability to customize and change indicators to the context.

"One of the things that I liked about the tool, we've always been thinking about how to exit, but up until this point, we did not have a precise way of saying yes, we should be able to leave... How the data is displayed in the web provides a very clear picture. It also provides a way of understanding if we are not able exit, why we are not able to exit, and we can see the areas that we need to work on to improve or to take another direction. It's also pictorial, it's easy for everyone to see where we are at a certain point in time." – Somalia team member

"This is useful in programming transition to development as we are usually tracking indicators... though [it is] rare that there is a visual representation [of them]. As we start out [activities] in health facility and then after 3 months if we need to stay or move onto another site with displaced populations...this [tool] would be useful for visualizing and showing MOH why we are moving to new area." – USA NGO advisor

"Exiting from clinics is something we've done in the last year and a half, and it's nice to have a tool that can guide us through that process and make it a bit clearer from the start what the target is." – Iraq team member

Other strengths mentioned were that the matrix exit tool can create greater accountability among country teams for assessing progress and ensuring quality of implementation of interventions and the tool can help understand why interventions succeed or not. In addition, the matrix exit tool creates a formal process for monitoring/evaluation which can be reused for different interventions and can aid in determining which indicators to focus on for exiting. Importantly, countries discussed that the tool can foster preparedness at the earliest timepoint possible. Another positive was the auto-filling function of the spider chart.

What were weaknesses of the tool?

Reported weaknesses of the tool varied and included complexity of selecting/adapting indicators to the time/training for tool, the need to harmonize/compare indicators across countries, as well as the limitations of measuring indicators within short timeframes (e.g., GAM rate).

“In 3 months, it is not easy to improve things in health facilities. That is the main issue with the tool.” – DRC team member

“The weakness I can see for now is in the application of the tool. I have not yet had a chance to train my staff on the application of the tool, so I’m imagining, if I were to leave today, my staff may not necessarily be able to carry on. The tool requires some sensitization for everyone before they are able to use it, but once someone has been sensitized, it is easy to use.”

– South Sudan team member

How does the exit tool contribute to thinking through sustainability of interventions?

The exit tool was seen to be useful to show donors progress on exit criteria and demonstrate to partners on how to carry out services sustainably. Some drawbacks of the tool mentioned were: *“specifically selects and examines health and nutrition indicators only”*, insecurity or environmental factors or capacity of partners are not included, unless intentionally selected on exit. This reveals that not all countries were aware that the matrix tool indicator menu allows selection from customizable indicators and drop down timeframes (based on the particular emergency intervention) and that insecurity, context and partner capacity, and short and longer term emergency intervention indicators are included in the tool.

“For health, you need to hand (an intervention) over to another partner. So, if there is an outbreak, there has to be some other partner providing services. So, exit criteria should be based not only on these key indicators, but should be based on availability of other partners in your catchment... you need to make sure someone else is taking over for sustainability reasons.”

– Bangladesh team member

What is the ideal timeline for using the exit tool?

Countries relayed that the exit tool was ideal for longer-term programs (e.g., minimum 6 months), rather than emergency, short term response efforts. A few countries also mentioned that the tool can be useful for determining exit indicators at the beginning of interventions.

For a long project, like 1 year to 3 years, (the tool) could be very useful... For long-term projects, it’s okay to use this tool so we can know when to exit, but for short-term projects of 3 months, it could be very difficult to say we’re going to evaluate in 3 months. It’s better to have an evaluation first, then have an evaluation a month and a half after to see how we’re progressing, and to be very aggressive in terms of addressing all the indicators that are slacking.” – DRC team member

Do you have any suggestions for improving the tool?

A few countries mentioned that additional instruction/clarifications on scoring indicators was needed. Other country staff suggested incorporating weekly/monthly monitoring, as well as harmonizing and standardizing indicators across countries. In addition, refining the indicators for the specific emergency context was considered key to feasibility.

Other suggestions for sustainability, included adding an action planning component (e.g., for planning discussions with partners, for planning tasks to accomplish at different time points before exiting, and for coordination with partners. It was suggested that the ability to show progress/ share with partners through automated link to a printed PDF would be an asset). Countries suggested that additional content be included such as the creation of two tools - one for acute emergency responses and another for chronic complex multi-year emergency projects - and clarification regarding poor-quality data and in the future, create an additional advocacy tool to use with donors in establishing needs for funding.

“A useful application or add-on for the tool is using it for action planning. So, if there’s some kind of way to link our progress... with different actions we want to take along with the different indicators we have. If there were an action plan – something to address we want to achieve during the different quarters, especially when it comes towards the end when it comes to hand over discussions, negotiations, it could be helpful to plan that in advance.” – Iraq team member

Table 1- Findings of Key Informant Interview and Workshops Discussions on Matrix Exit Tool, by theme

Theme	Description	Findings (+)
<i>How have you used/how do you plan to use the exit tool?</i>	How exit tool has been used in countries or plans for countries use the exit tool.	<i>See above.</i>
<i>Was there anything unclear about the exit tool?</i>	Ease of use and understanding the exit tool. Issues in understanding the exit tool.	<p>(+) Tool is easy to follow/user-friendly. (I-4, W-6)</p> <p>(+) User-friendly indicators. (I-2, W-1)</p> <p>(+) Helpful to read through the menu of indicators. (I-1, W-1)</p> <p>(+) Explanations are clear. (W-1)</p> <p>(-) Looks complicated at first glance. (I-2, W-1)</p> <p>(-) Unclear how to set target indicators to a 1-5 scale. (I-2)</p> <p>(-) Unclear if indicators out of Medair’s scope of control should be included. (I-1, W-1)</p> <p>(-) Unclear of the difference between indicators “program quality” vs. “quality.” (I-1, W-1)</p> <p>(-) Unclear how to capture/quantify qualitative indicators. (W-2)</p> <p>(-) Confusion over definitions of indicators and scoring. (W-2)</p> <p>(-) User-friendliness depends on understanding of Excel. (I-1)</p> <p>(-) Unclear if tool is practical for understanding progress beyond program management. (I-1)</p> <p>(-) Unclear if there is a global/Medair standard for “minimum WASH in facilities.” (I-1)</p> <p>(-) Spider diagram was unclear. (W-1)</p>
<i>What are the strengths of the exit tool?</i>	Positive aspects of the tool	<p>(+) Visually appealing / can use the tool to visualize progress. (I-3, W-7)</p> <p>(+) Can help make objective decisions about monitoring/exiting. (I-5, W-4)</p>

		<p>(+) Flexibility of indicators/ can customize/change indicators. (I-2, W-2)</p> <p>(+) Holds teams accountable for assessing progress/ensuring quality of interventions. (I-2)</p> <p>(+) Can help to understand why interventions succeed or not. (I-2)</p> <p>(+) Creates a formal process for monitoring/evaluation. (I-2)</p> <p>(+) Novelty of tool/ there are currently no other exit strategy tools. (I-1, W-1)</p> <p>(+) Can be reused for different interventions. (W-2)</p> <p>(+) Can use the tool to justify increasing funding/staffing. (I-1)</p> <p>(+) Can help to determine which indicators to focus on. (I-1)</p> <p>(+) Can help to foster preparedness at the earliest time possible. (I-1)</p> <p>(+) Can be used at a variety of different levels (e.g., a high-level programmatic scale or for one specific catchment). (I-1)</p> <p>(+) Includes a wide range of indicators. (I-1)</p> <p>(+) Spider chart auto-fills. (W-1)</p>
<p>What are the weaknesses of the exit tool?</p>	<p>Negative aspects of the tool</p>	<p>(-) Indicators cannot always be measured within a limited timeframe (e.g., GAM rate). (I-3, W-1)</p> <p>(-) Indicators listed are not always easy to measure. (I-2, W-2)</p> <p>(-) Bias in selecting indicators / indicators not comparable across organizations. (I-2, W-2)</p> <p>(-) Requires time/training to use the tool. (I-2, W-2)</p> <p>(-) Some of the indicators out of Medair teams' scope of control. (I-1, W-3)</p> <p>(-) Complexity of selecting/adapting indicators. (W-4)</p> <p>(-) Bias/subjectivity in scoring/interpretation. (I-2, W-1)</p> <p>(-) Scaling indicators on a 1-5 scale is a challenge. (I-2, W-1)</p> <p>(-) Requires technical capabilities (e.g., Microsoft Excel). (I-2, W-1)</p> <p>(-) Requires knowledge of nutrition for interpretation. (I-2, W-1)</p> <p>(-) Some indicators seem to overlap. (I-1, W-1)</p> <p>(-) The data cannot always be obtained with limited funding. (I-1)</p>

		<p>(-) Has limited potential to monitor changes in indicators in short-term interventions. (I-1)</p> <p>(-) Technical challenges when using under 10 indicators. (I-1)</p> <p>(-) Certain indicators require the HH survey. (W-1)</p> <p>(-) Indicators have different timelines. (W-1)</p> <p>(-) The tool doesn't address program funding. (W-1)</p> <p>(-) We have other M&E tools and don't want to confuse staff. (W-1)</p> <p>(-) Additional reporting burden on staff. (W-1)</p>
<i>How does the exit tool contribute to sustainability of interventions?</i>	Perceptions of how the exit tool may impact their ability to design and implement sustainable strategies.	<p>(+) Can show donors progress on exit criteria. (I-3, W-3)</p> <p>(-) Only looks at health and nutrition, not insecurity or environmental factors. (I-1, W-1)</p> <p>(-) Doesn't assess the capacity of partners who will replace humanitarian teams after they exit. (I-1, W-1)</p> <p>(+) Can show partners how to carry out services sustainably without external help from Medair. (W-1)</p> <p>(+) Can help team think about sustainability at the earliest time possible. (W-1)</p> <p>(-) Unclear how to communicate about this tool with partners since this is an internal tool with Medair's own definitions/methodology. (W-1)</p> <p>(-) There is a mismatch in standards of quality between Medair and partners, making it difficult to maintain benchmarks post-exit. (W-1)</p>
<i>What is the ideal timeline for using the exit tool?</i>	Perceptions of the ideal timeline for using the exit tool.	<ul style="list-style-type: none"> - Ideal for longer-term programs (e.g., minimum 6 months), rather than emergency responses. (I-3) - Helpful for determining exit indicators at the onset of an intervention. (I-2, W-1) - Can be used in long-term and short-term interventions, but it has to be used strategically in short-term interventions. (I-1) - Can only be used effectively for certain short-term interventions (e.g., vaccine campaigns). (I-1)

		<ul style="list-style-type: none"> - Can be easily adapted to short-term and long-term interventions, based on selected indicators. (I-1) - Should be used more frequently close to exit. (W-1)
<p><i>Do you have any suggestions for improving the exit tool?</i></p>	<p>Suggestions for improving the exit tool.</p>	<p><i>Indicators:</i></p> <ul style="list-style-type: none"> - Include more instruction/clarifications on scoring indicators. (I-2, W-1) - Clarify how to select indicators. (I-2) - Refine the indicators for emergency context to make them more feasible to measure. (I-2) - Allow for the use of proxy indicators. (I-1, W-1) - Include more quantifiable, country-specific sustainable indicators/thresholds. (W-2) - Include pre-selected indicators for certain interventions (e.g., nutrition, maternal health, vaccination campaigns). (I-1) - Combine monthly and weekly monitoring into the tool. (I-1) - Include guidance that program teams should agree upon indicators as a group to reduce bias. (I-1) - Include a way to track multiple indicators on a weekly basis. (I-1) - Include a way to compare progress month-to-month, not just compared to baseline. (I-1) - Standardize the range of measurement for the CMAM Quality Tool and the CMAM Supervision Checklist / conduct a review of the CMAM Supervision Checklist to assess its quality. (I-1) - Achievement timeline could be customized for indicators. (W-1) - Harmonize scoring and weighted indicators to address bias. (W-1) - Standardize scoring and indicators to reduce setup time. (W-1) - Include additional indicators specific to middle-income countries. (W-1)

		<ul style="list-style-type: none"> - Include cross-cutting indicators. (W-1) - Include indicators related to medication-supply and training. (W-1) <p><i>Sustainability:</i></p> <ul style="list-style-type: none"> - Include an action planning component (e.g., for planning discussions with partners, for planning tasks to accomplish at different time points before exit). (I-1, W-1) - Require users to select at least 1 tool that represents sustainability. (I-1) - Include a weight for financial input (e.g., tying each indicator to a price to determine cost-effectiveness). (I-1) - Include coordination with partners in the tool. (W-1) - Include additional animations to show progress to partners. (W-1) - Include an automated link to print a PDF of the chart for easy sharing. (W-1) <p><i>Additional content:</i></p> <ul style="list-style-type: none"> - Put the tool in an open data kit (ODK). (I-1, W-1) - Create 2 tools: One for emergency responses and another for multi-year projects. (I-1) - Clarify what to do with poor-quality data. (I-1) - Make the tool more country/context-specific. (W-1) - Create an additional advocacy tool to use with donors in establishing needs. (W-1) - Include instructions for different versions of Excel. (W-1) - Include guidance to complete the exit strategy before using the tool so that baseline data is available and easy to monitor from the beginning. (W-1)
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I = key informant interview
W = workshop
= number of times mentioned during interview
Boldfaced = was mentioned at least 3 times

Lessons Learned

- Guide emergency preparedness and exiting from an emergency to routine health services, through use and application of an exit tool
- A matrix exit tool was considered valuable, in the following ways:
 - For preparedness planning, in selection of evidence-based indicators for protracted, complex emergencies
 - For the collection and use of indicator data to guide future exiting efforts, monitoring and evaluation; as well as elucidate what has/what hasn't worked on a routine basis
 - To advocate with government and implementing partners to explore and advance synergies and partnerships to ensure continued quality implementation and continuation of services
- Create dialogue and advocate with the government, implementing partners, and donors to identify and meet needs of the population, in transitioning from emergency to development, through use of the information from a matrix exit tool
- Invest in key actions for sustainability, which is needed for action planning and advocacy, and to build on achievements, and to ensure continued health and nutrition services

Conclusions

A matrix exit tool can provide guidance and focused outcome metrics to maximize efforts on exiting from humanitarian to development efforts. Use of a matrix tool can provide information and data on transitioning from the humanitarian to development nexus, which is critical, and can be shared and utilized with key nexus stakeholders.

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