MONITORING IN COVID-19 CONTEXTS:

A Lessons Learned Synthesis Report of UNICEF Country Office Adaptations

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Contents

Abbreviations

CASS	Social Sciences Analytics Cell
CERP	Climate, Environment, Resilience and Peacebuilding Section
CO	UNICEF country office
Covid-19	Coronavirus disease 2019
DAPM	Data, Analytics, Planning and Monitoring Division
EAPRO	East Asia and Pacific Regional Office
ECARO	Europe and Central Asia Regional Office
EMIS	education management information system(s)
EMOPS	Office of Emergency Operations
ESARO	Eastern and Southern Africa Regional Office
HAC	Humanitarian Action for Children
HCP	High Commission for Planning
HELS	Humanitarian Evidence and Learning Section
HIV	Human Immunodeficiency Virus
HQ	UNICEF headquarters
IOA	integrated outbreak analytics
KAP	knowledge, attitudes and practices
KM	knowledge management
ICT	information communication technology
INGO	international non-governmental organization
LACRO	Latin America and Caribbean Regional Office
LKE	learning and knowledge exchange
MENA	Middle East and North Africa Regional Office
MIS	management information system(s)
MoH	Ministry of Health
PG	Programme Group
PHC	public health centre
PME	planning, monitoring and evaluation
PPD	Public Partnerships Division

PPE	personal protective equipment
PV	programme visit
RAM	Results Assessment Module
RCCE	risk communication and community engagement
RO	UNICEF regional office
ROSA	Regional Office of South Asia
RPV	remote programmatic visit(s)
RTA	real-time assessment
RTM	real-time monitoring
SD	Supply Division
SEUM	supply end-user monitoring
SOP	standard operating procedure
T4D	technology for development
TET	technical emergency team
TPM	third-party monitor(ing)
WCARO	West and Central Africa Regional Office

Executive summary

This report is a synthesis of findings across [11 case studies](#) of assessment, planning, monitoring and evaluation (PME) adaptations by UNICEF Country Offices (COs) and their partners in response to Covid-19.[1] The case studies and this synthesis report were commissioned by the UNICEF Covid-19 PME Working Group. Together they demonstrate the success of COs in finding opportunity in the midst of the Covid-19 crisis by using agile, learning-by-doing approaches to find new ways of working in 2020 and beyond.

Three broad areas of adaptation were prominent in these case studies:

- Behavioural and qualitative data were increasingly used during the pandemic to help understand drivers behind trends noted in quantitative data (Azerbaijan, Republic of the Congo and Pakistan). Specialized technical expertise for behavioural and qualitative data generation and analysis is critical to success.

- Data systems were strengthened (Egypt, Indonesia, Morocco and Ukraine) through the way in which UNICEF introduced new data-collection methodologies, and incorporated the use of big data and public–private partnerships. This work leveraged investment in systems and relationships to create opportunities in response to changing contexts.

- Digitally supported remote programme monitoring (Cote d'Ivoire, Jordan, Kenya and South Sudan) empowered beneficiaries, community members, local consultants and implementing partners to undertake monitoring within their own communities and programmes. Used in combination with validation processes to correct for possible self-reporting bias, this represents a flexible model for field monitoring.

Determining PME approaches at country level highlighted the interdependency with programme management and the increasing importance of technology. In assessing methodological options, the risk tolerance of programme managers for more timely but less robust data was a critical determinant. PME teams also needed to be able to understand, compare and confidently manage non-traditional data collection, including phone surveys, messaging apps and big-data harvesting. Visualization of data analysis was very important in communicating findings and influencing decision makers.

The approach of these COs and the case studies themselves represent ways of working that PME teams, in UNICEF and beyond, might learn from. They present solutions that may be useful in many contexts, but are of particular relevance where a timely understanding of attitudes is critical, or where access to programme delivery locations is constrained.

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[1] UNICEF, 'Case studies of situation and programmatic monitoring adaptations during COVID-19', UNICEF, New York, <www.corecommitments.unicef.org/kbc/case-studies-of-%E2%80%8Bsituation-and-programmatic-monitoring-%E2%80%8Badaptations-during-covid-19%E2%80%8B>, accessed 29 October 2021.

Acknowledgements

Introduction

Why this work, and why now?

Data and analysis underpin decision making by UNICEF in delivering on its commitments in its Strategic Plan and Core Commitments for Children. Recent reviews, including in Strengthening UNICEF's Humanitarian Action The Humanitarian Review: Findings and Recommendations and Real-Time Assessment of UNICEF's response to Covid-19 have highlighted the need to invest in data generation, analysis and use to support humanitarian and development programming (*see Box 1*).[2]

UNICEF and its partners adapted situation and programmatic monitoring practices to support continued supply of, and demand for, critical services during the pandemic. Knowledge capture on lessons learned behind the adaptations is important in order to:

- support peer-to-peer learning
- harness the lessons to drive further policy, programming, advocacy and research in relation to situation and programmatic monitoring
- demystify the art and science around data for evidence-based decision making
- encourage efforts in innovation and knowledge-management making.

Knowledge capture is also in line with UNICEF's Global Knowledge Management Strategy.

> **Box 1: Data collection and analysis**
>
> *Perhaps the most important area for change is investment in linking contextual analysis, disaggregated data collection and performance monitoring more strongly. UNICEF needs to invest in better analysis and use of data to inform its programming, in both the planning and monitoring stages, to ensure its programmes are high quality, that its work addresses needs effectively and equitably, and that it holds itself accountable for its commitments to every child.*
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> *Humanitarian Review*, S6, Data collection and analysis, p.79

Methodology

The **primary objective** of the lesson-learning exercise was to scope, identify, document and present good practice and lessons learned in assessment, planning, monitoring and evaluation (PME) by UNICEF and its partners in response to Covid-19.[3]

Secondary **objectives** included:

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[2] UNICEF, *Strengthening UNICEF's humanitarian action - The Humanitarian Review: Findings and Recommendations,* UNICEF, New York, 2021 <https://www.unicef.org/media/108046/file/Humanitarian%20Review.pdf> accessed 29 October 2021; UNICEF, *Global Synthesis Report: Real-Time Assessment (RTA) of the UNICEF response to COVID-19,* UNICEF, New York, 2021.

[3] In referring to 'assessment, planning, monitoring and evaluation (PME)' we include 'reporting' as an integral part of this.

- documenting how UNICEF teams engaged with PME guidance to inform future guidance development
- informing 2021 PME practices and tools for the pandemic response
- increasing UNICEF's positive impact on the lives of affected populations through more agile PME practices and practitioners
- strengthening UNICEF's thought leadership on adaptive PME internally and externally through interagency platforms.

Scoping and identification

All Regional Offices (ROs) were consulted to identify existing learning and regionally relevant PME issues. Colleagues in the areas of PME, emergency, knowledge management (KM) and evaluation participated. ROs helped gauge regional- and country-level capacity for case study development. Colleagues in data, analytics, planning and monitoring (DAPM), programme group (PG) and Office of Emergency Operations (EMOPS) were also consulted to identify concerns, themes and existing learning (*see Annex II*).

Desk review included knowledge products (e.g. evaluations, assessments and case studies), response documentation (e.g. response plans, sitreps and annual emergency reporting), institutional reporting (e.g. annual emergency reporting and Results Assessment Module (RAM) reporting) (*see Annex III*). Global documents such as the real-time assessment (RTA), regional sitreps and regional RAM reports were reviewed to start the desk review.

Overarching questions for scoping included:

1. How did COs identify their new or additional data needs?
2. How did COs collect, analyse and use data to inform new and adapted programming?
3. How did PME decisions contribute to improved programming?
4. How did RO and HQ help or hinder adaptation?

Based on consultation and desk review, three themes emerged:

1. **Remote data collection for situation/context monitoring**

   a. How did Covid-19 influence assessments (scope, methodology, frequency) and information systems?

   b. How did COs identify and address their new or additional data needs?

2. **Data for planning and adaptation**

   a. How were data and analysis used for response planning and updating?

3. **Programmatic monitoring**

   a. What were the challenges and adaptations to structured field monitoring for corrective programmatic action?

Case study options were purposively sampled to cover all regions and contexts. COs were contacted in collaboration with ROs to invite participation. Some case studies were added to take into account COs'

capacity for participation, primarily in countries that had experienced increases in rates of Covid-19 during the development of the synthesis report.

Documentation and presentation

The data-collection template (*see Annex IV*) and case study template (*see Annex V*) were developed based on existing case study templates and aligned with UNICEF's Global Knowledge Management Strategy and current documentation practices. For conceptual clarity, the documentation work focused on lessons learned, as opposed to documenting 'emerging', 'good' or 'best' practice, which is increasingly being categorized according to the evidence, feasibility and replicability.

The **process of case study development** included:

- a literature search to identify themes and adaptations with CO teams
- calls with CO teams on pre-identified themes; calls were recorded to facilitate data capture
- development of a first draft based on the literature, calls and additional materials
- review in HQ for technical accuracy and focus
- review of the updated draft by the CO team, with a call for further clarification as needed
- development of an updated draft in draft design
- review in HQ for technical accuracy and focus
- review of the near-final draft by the CO
- finalization of the designed material and sign-off by CO teams.

Where possible, RO colleagues joined the call and had access to recordings of the discussions with the CO. Adaptations at RO and HQ levels that had provided an enabling environment for CO adaptations and that had been identified during case study development were also noted in the report.

The initial findings were discussed with the PME Humanitarian Evidence and Learning Section (HELS) team (2 June 2021). Summary findings were presented to the UNICEF Covid-19 PME Working Group (16 July 2021). Overall findings were shared in a global webinar with contributions from Jordan, Pakistan and South Sudan (27 July 2021).

Limitations and opportunities

What this is

The focus of this report is on actions taken by COs in their pandemic response. Observations on RO and HQ adaptations are included only in terms of describing the enabling environment.

The scoping and documentation processes were illustrative and purposive, without capturing all examples of adaptations to situation and programmatic monitoring. The intention was to identify

themes of adaptation and illustrate adaptations in PME across regions and contexts.[4] Tools, guidance and insights from countries where case studies were developed were identified and included in the case study documents as additional resources. Relevant information from the case studies, key informant interviews and the desk review that formed part of the scoping are synthesized in this report. This synthesis aims to identify issues for consideration that can be fed into relevant change-management processes.

Case study development used a light-touch approach because the Covid-19 pandemic continues. Case studies reflect the UNICEF internal agency perspective because they were based on discussions with UNICEF teams. It was not within scope to get partner perspectives on UNICEF data decisions. Some CO teams reflected that the case study process gave them an opportunity for teams to reflect and exchange perspectives on actions taken.

What this is not

The scope of this lessons-learned exercise is not comprehensive and exhaustive; nor did it aim to identify all examples of PME adaptations in the Covid-19 context. It does not cover:

- HQ or RO processes, such as coordination on the global sitrep or global institutional reporting
- assessment of methodological value or efficiency of PME adaptation
- assessment of KM processes
- assessment of interagency processes, such humanitarian country teams or cluster coordination.

The perspectives of partners and programme participants are important and have been captured in other documents, such as the real-time assessment (RTA).[5]

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[4] The focus was on adaptations that were made, rather than what stayed the same due to a system's resilience or the lesser impact of Covid-19 in a particular context.

[5] UNICEF, *Global Synthesis Report: Real-Time Assessment (RTA) of the UNICEF response to COVID-19,* UNICEF, New York, 2021 <https://www.unicef.org/evaluation/global-synthesis-report-real-time-assessment-rta-unicef-response-covid-19>, accessed 29 October 2021.

Results and discussion

Overall reflections

The Covid-19 pandemic has had direct and indirect impacts on data generation and use. Impacts varied across countries with limited data systems to begin with, existing ones that were slowed or stopped, ones where there were no modifications made and they remained functional, and ones that made adaptations or expansions. The need for adaptations to situation and programmatic monitoring seem to depend on several factors, including:

- extent to which COs could accommodate social distancing during in-person data collection
- impact of movement restrictions, in terms of timing or national or subnational geographic coverage
- government sensitivity (or lack thereof) around data
- government and partner demand for data
- capacity of government and partners to switch to remote monitoring (e.g. connectivity issues, familiarity with digital platforms)
- existing capacities in the CO for data generation, analysis and use.

At the same time, it was possible to strengthen, adapt and introduce new ways of working for PME during Covid-19. The pandemic has in some cases supported the acceleration of data systems. New software, tools and systems were put in place. Existing systems were pivoted. New data-collection methodologies were introduced. New partnerships were also established with non-traditional partners, such as marketing companies, for the implementation of phone-based surveys. The urgency for acquiring data to monitor the spread of Covid-19, to identify who was most affected, and what support was required created some space to expand data systems in some countries (e.g. Egypt, where cumbersome government processes were streamlined to enable use of RapidPro). In other cases, governments were more sensitive to the handling of data, and information that had previously been made public was no longer reported.

An agile, learning-by-doing approach was adopted by many CO teams, which supported situation and programmatic monitoring. The changing context of Covid-19 required processes that could take into account how data needs changed over time. It wasn't possible to fully define all requirements for a system or data-collection tool and then build it. That would have taken too long and would have been irrelevant by the time it was in place. Multiple countries built short-term, workable solutions while long-term systems were put in place in order to have information to act on. Country teams made pragmatic decisions around optimizing speed, quality, depth, statistical representativeness and cost around data in order to take action that was most fit for purpose.

Digital platforms supported adaptations in situation and programmatic monitoring. Digital platforms were used to conduct assessments and remote monitoring, as well as to communicate with partners and beneficiaries. When in-person household surveys were not possible, phone-based surveys were introduced. When in-person monitoring was not possible, partners on the ground were able to document observations with photographs, videos and checklists shared by email. Part of UNICEF's programmatic response in several countries included support to address the digital divide with partners

and programme participants (e.g. providing tablets and internet access to families and children as well as government).

Digital platforms were relevant before Covid-19 and can address challenges of access and coverage in moving forward. The UNICEF East Asia and Pacific Regional Office (EAPRO) had already initiated a study on remote programmatic monitoring to address access challenges for in-person monitoring across thousands of small islands prior to the pandemic. Geographic access remains volatile in many countries due to conflict and natural disasters. Remote assessments and monitoring also align with UNICEF's commitment to mitigating climate change with reduced travel. The transition to digital platforms is not always smooth, and highlighted weaknesses in some offices in terms of keeping administrative information and information on partners up to date.

The broad adoption of digital platforms during Covid-19 and their relevance beyond the pandemic highlight **the importance of further collaboration between stakeholders involved in the digital space,** so that digital platforms are used appropriately. Critical stakeholders beyond DAPM, EMOPS and the Programme Group in UNICEF include Innocenti (data and ethics), Technology for Development (T4D) and Innovation teams (coordinating and documenting innovations), and Supply Division (on procurement of software and hardware). Other stakeholders include social inclusion and humanitarian cash (supporting families to address the digital divide), partnerships (engaging with the private sector) and information communication technology (ICT) (data safety and security).

The of digital platforms also brings implications that need to be considered in UNICEF's ways of working. The digital divide was challenging to address and limited the ultimate reach of data collection for situation and programmatic monitoring. Moving forward, it will be important to incorporate digital connectivity in:

- vulnerability analysis
- preparedness efforts
- addressing the digital divide with programming support
- ensuring teams are grounded in data and ethics
- promoting interoperability of systems between cluster and programme accountabilities.

It will be important to have a clear stance on what support should be provided to address digital divide gaps in relation to other actors and UNICEF's comparative advantage.

Opportunities may exist to maximize the coherence and interoperability of data systems and guidance around PME adaptations. There was little mention of cross-region and cross-country coordination around situation and programmatic monitoring, except for regional data-collection efforts. There are examples of cluster and programme teams collaborating on situation and programmatic monitoring guidance (Nutrition and the Global Nutrition Cluster)[6] and structures that promoted a consistent adaptation across cluster and programmes (disability). There were also examples of interagency discussions on data and assessments, where UNICEF was only able to be represented by one person, often from programmes, who was often not equipped to provide the cluster perspective. The

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[6] Briefs #1and2: Nutrition Information Management, Surveillance and Monitoring in the context of Covid-19 | Nutrition Cluster

institutional assessments and evaluations around Covid-19 did not systematically consider both the programmatic and cluster coordination functions, which creates space for disconnect and reputational risk for the agency.

Behavioural and qualitative data power up quantitative analysis. Countries used behavioural and qualitative data to help understand drivers behind trends noted in quantitative data. Some work was country specific (e.g. Azerbaijan, the Republic of the Congo and Pakistan), and some was part of Community Rapid Assessments.[7] The examples highlight the importance of understanding social and behavioural trends in order to shape the responses. The examples also highlight the importance of accessing specialized technical expertise for behavioural and qualitative data generation and analysis. Use of behavioural data seems to be an emerging area of work in UNICEF that is relevant for Covid-19 conditions and beyond. Further communication and coordination between different parts of the agency working with behavioural and qualitative data may be beneficial, so that there is institutional clarity on how to generate and use it well.

There was an increase in the **use of social media data to shape the response.** There does not seem to be clarity around terminology (social listening, social media monitoring) and how social media data should be used for decision making in terms of PME. Its use in informing risk communication and community engagement (RCCE) seems to be clearer, for example as documented in the Eastern and Southern Africa Regional Office (ESARO).[8] There may be a benefit in delineating if, how and when to use social media data to support PME.

Countries referred to their systems as **'real-time', but the actual time lag between data generation and availability for use varied from 24 hours to 3 months**. The context-specific use of the term was defined in each case study. There may be value in developing common definitions or ways of speaking about real-time monitoring (RTM) as this space is further developed in UNICEF.

Triangulation of data was an important part of turning data into usable recommendations. Remote data collection relied in many cases on self-reporting, which can be prone to bias. When triangulated with observational studies (as in Pakistan), it was clear that people responding to the surveys were over-reporting their adherence to mask-wearing behaviours. There are limitations in remote data collection for situation and programmatic monitoring, ranging from self-reporting bias, inability to probe deeply and build trust, and the challenges of collecting sensitive information without the human component to read body language. Triangulation of data was also important because data streams were at times erratic, and the accuracy and reliability of data were reduced in some cases. Also, there may not have been adequate pre-pandemic data to support trend analysis.

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[7] Time Series Community-Sourced Data for Rapid Assessment of Behavioral Changes, Coping Strategies and Evolving Needs During Covid-19 | A collaboration between: EO, C4D, ESARO, ROSA and the Harvard Humanitarian Initiative Research Collaboration.

[8] Sommariva, S., J. Mote, H. Ballester Bon, H. Razafindraibe, D. Ratovozanany et al., 'Social listening in Eastern and Southern Africa,: a UNICEF risk communication and community engagement strategy to address the COVID-19 infodemic', Health Security, 19(1) 2021, Mary Ann Liebert, Inc.
<https://www.liebertpub.com/doi/pdf/10.1089/hs.2020.0226>, accessed 29 October 2021.

Adaptations at Country Office level

Examples of country-level adaptations were noted during the consultancy, along with coding on what type of adaptation was made. This material is summarized below:

- Management information systems (MIS) were adapted at the level of coding and function, as well as linking new forms and documents to existing systems.

- New methodologies of assessment were introduced, including use of phone-based data collection and introduction of data collection by partners, to track the impacts of Covid-19 on families and individuals.

- New types of data (behavioural, qualitative, big data) were tapped into.

- Non-traditional data collectors were introduced as third-party monitors (local consultants in Argentina, U-Reporters in Cote d'Ivoire).

- New partnerships were established with the private sector (market research companies, mobile network operators).

- Hybrid approaches for remote monitoring created space for sustained monitoring based on whichever agency (UNICEF or partner agency) was best placed to accomplish on-site monitoring, grounded in decentralized planning.

- Data visualization with dashboards was introduced, which promoted transparency around data and enabled the identification of areas to support the quality of data and data systems behind the visualization.

Factors that **supported adaptations** included:

- existing investments in data-savvy teams

- existing partnerships (with agencies) and working relationships (with individuals)

- a sense of team and trust, especially in partnerships

- in-house expertise on digital platforms

- repurposing expertise in-house between sections

- drawing on local expertise, which as opposed to expertise that might have been sourced internationally pre-pandemic

- senior management support

- simplified procedures for hiring and contracting

- authority and support for teams to adapt as needed with light-touch procedures, in particular those related to hiring and contracting that enabled securing additional needed expertise in a timely manner

- support for remote working by UNICEF ICT for the UNICEF team.

Factors that **did not support adaptations** included:

- the high-stress, high-demand situation, which strained the human element in the response

- limited capacity of partners (in terms of availability) and staff turnover (and associated loss of institutional memory), which required additional time and flexibility from UNICEF teams

- limited experience with remote data collection within UNICEF, which required securing additional expertise from individuals and institutions

- limited experience of humanitarian contexts or limited humanitarian response capacity, which required technical assistance and augmentation of skilled staff

- limited influence on data generated by partners (e.g. if not collected with disaggregation), which underlines the importance of investments in data, data capacity and data systems at national level

- limitations in methodologies (e.g. self-reporting bias in phone-based surveys)

- strained data processing capacities in-house at CO and RO levels, which could be alleviated by investments in standing capacity

- limitations in phone and internet access, as part of the digital divide.

Guidance notes and sources of technical assistance

Timely access to the right information in the right format at the right time to support an action is critical. Technical assistance was sourced from colleagues in other offices, from partners, from RO and HQ offices, as well as via MS SharePoint. There was limited mention of the guidance notes from HQ and those developed at RO level in initiating PME adaptations, or it was reported that they had arrived after action had been taken and were used to refine work in progress. On guidance notes:

- Guidance that touched on data, data collection, monitoring practices and data systems was issued in **global guidance notes from multiple divisions**. This created challenges for CO teams to absorb and apply the information these contained. The establishment of the cross-divisional UNICEF Covid-19 PME Working Group was an important action to create space for exchange and to build coherence across the guidance provided.

- **It is possible to generate global guidance quickly with inputs from staff closer to CO needs**; however, that seems to depend on already established working relationships and perhaps the type of guidance being developed. For example, Nutrition Information Brief 1 was developed with input from cluster and programme teams, and some colleagues in RO and COs suggested by the RO. These inputs helped shape the guidance, after which feedback from CO teams and quick learning on its use informed the updated Brief 2. Dissemination of guidance was done jointly between cluster and programme, which also collaborated with ESARO in webinars on how to apply selected guidance notes.

- UNICEF **does not have a system for tracking the use** of **guidance**, although **this capacity can powerfully close the learning loop and improve the way in which UNICEF communicates the practical application of guidance to the required standards**. Some efforts are under way to develop a system to do so between the Child Protection and the Knowledge and Learning Exchange teams. The Global Nutrition Cluster conducted a survey with cluster partners (July 2020) on awareness and the use of adapted Covid-19 cluster and programming guidance. The EAPRO survey on remote programme monitoring also included questions on awareness and use of selected guidance.

- Most **guidance documents were developed in English**, which required translation (conceptual and linguistic) in COs. In many countries, HQ-issued guidance was translated into more action-oriented formats and locally relevant languages. Visuals, such as workflows, and checklists with accessible language were noted as helpful components of guidance.

- There were **mixed preferences on prescriptive versus principle-based guidance.** All guidance requires some level of adaptation and translation to context, since it is not possible to define every scenario and factor that may be encountered in humanitarian crisis, much less a novel pandemic.

- **The use of a collaborative web platform, MS SharePoint, played a role in getting information to the right people at the right time**. HQ and RO collaboration for Covid-19 was well linked this way. The organization and types of information shared varied by RO. At the same time, it was **challenging to identify what was most relevant for action** because of the sheer amount of content. Materials are also taken down and may not be accessible over time, which can make access to content challenging over time. Active curation of content and an emphasis on synthesizing available information will help knowledge to transfer more quickly in future.

RO support for CO adaptations

ROs supported COs in making changes in situation and programmatic monitoring. Some adaptations include:

- **establishment of new coordination and communication structures within ROs**. These addressed existing silos between sections and expertise. In one case, they mentioned that it was difficult to maintain this 'joined-up approach' as Covid-19 work was being mainstreamed

- **investment in staff and systems to facilitate more rapid knowledge exchange around Covid-19 and PME issues with UNICEF, and in some cases with partners**. These included regular calls between COs on specific topics, as well as hiring KM staff in Regional Office for South Asia (ROSA). All ROs established a shared web-based platform, and regular calls fostered dialogue and exchange in a context in which the usual lag between identification of the need for learning and getting a deliverable through more traditional methods was not feasible.

- **coordination of the Covid-19 analytic agenda by ROs.** Actions included establishing frameworks, tracking analytic work at CO level, and providing technical support to COs in shifting from in-person to remote data-collection methods. In addition, several ROs coordinated and delivered regionally relevant analyses (e.g. in the Middle East and North Africa Regional Office (MENA), where multi-country, phone-based surveys on the impact of Covid-19 on children in five countries, and the Latin America and Caribbean Regional Office (LACRO) survey of 13 countries on the impact of Covid-19 on households with and without children.

Influences on data decision-making

Choices had to be made to adapt situation and programmatic monitoring, as well as to translate data into usable analysis. The case studies demonstrated how some COs weighed pros and cons to identify methods that were most fit for purpose at the time. There was no perfect answer and no prescriptive guidance that could define one. This is where the art and the science in PME were clear. Questions

included what it took for data to be 'good enough' to be used for action, and how much risk appetite there was around a specific decision (*see Figure 1*).

Pragmatic decisions needed to be made, because it was not possible to optimize all four parameters of cost, speed, quality and depth of data. Three primary influencers were identified in the process of determining methods and approaches as being fit for purpose at country level:

- knowing what is most technically relevant to collect to inform programming
- knowing the methodological options and their advantages and disadvantages
- the risk tolerance to use the information for action.

In some COs, this structure was already in place, while in others it was put in place. In other examples, lack of support from one of those areas could undermine data generation and use, for example where technically and methodologically sound systems were in place, but management did not support their development.

Figure 1: Schematic of three data decision influencers and four components for optimization
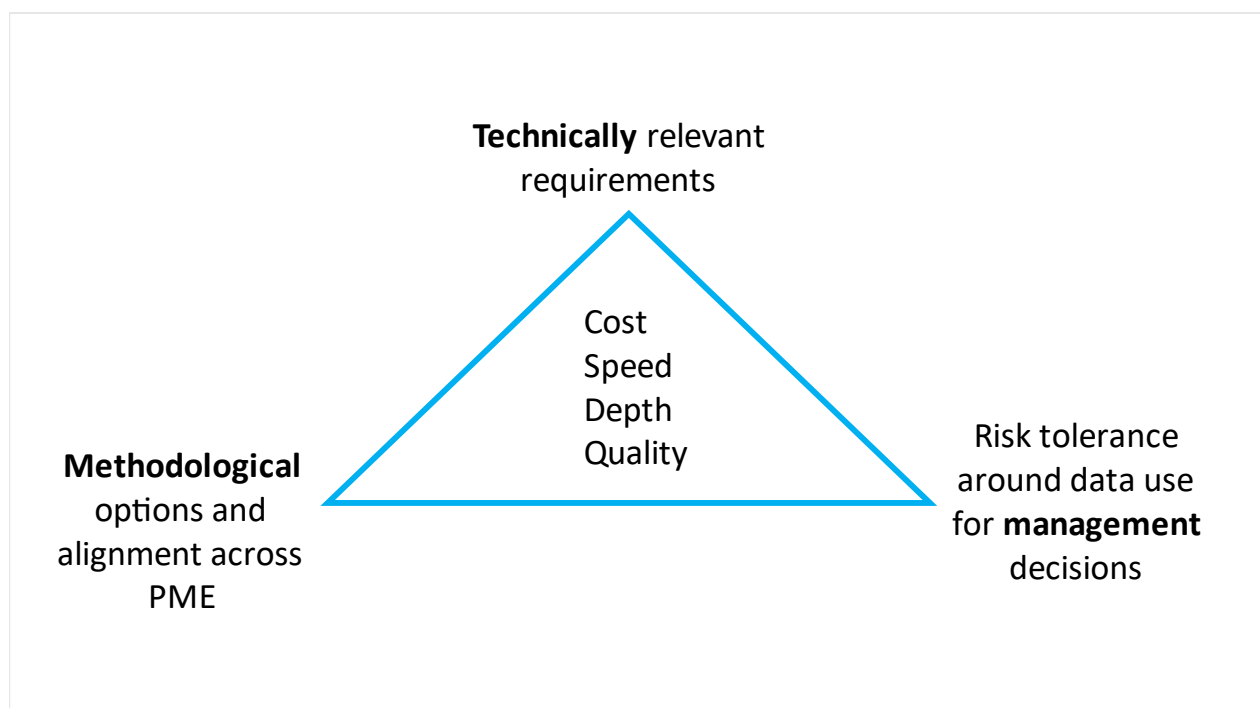
Key considerations

UNICEF has invested in scoping, documenting and learning from innovations to situation and programmatic monitoring in the context of Covid-19. The Covid-19 pandemic continues, and access (geographic and digital) will continue to vary by context. In moving forward, a few thoughts are offered below for consideration (*see also Box 2*).[9]

Build from what you have, with initiative and imagination. This includes partnerships, expertise and systems inside UNICEF and beyond. COs didn't have to have the most sophisticated systems to build from in order to effect pragmatic adaptations to situation and programmatic monitoring. Many COs said there was some doubt that things could be done until they were done. That said, those with more systems or expertise in place may have been able to adjust more quickly, underscoring that preparedness in terms of building data-savvy teams is a cornerstone for future action.

Remember the human element. We can automate data collection but not the analysis, which is a human process and will likely remain so. Data doesn't generate itself, and nor does it speak on its own. It is up to human beings to bring their analytic capacity, strategic insights and communication skills to translate data into actionable information. Data collection and use will be constrained if data needs are greater than the human

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Box 2: Data collection

As with other elements of humanitarian action, monitoring cannot have a one-size-fits-all approach if UNICEF is to remain agile. UNICEF has already invested a lot in its data-collection systems but it needs to adopt a 'menu' approach for COs, ROs and HQ to enable the right method to be used in the right context to facilitate larger, more coherent data sets to ensure that profiles of the needs of crisis-affected children are as rich as possible. Further investment in data partnerships will be important to make data on children's needs more widely available. UNICEF may not always be the best-placed agency to be the data 'innovator' or provider. By investing in collaborative ventures with universities and other academic thinktanks in areas such as predictive analytics, UNICEF can ensure that its data is child focused, and that appropriate data is made available to agencies working to address children's needs. While innovation is extremely important, UNICEF's focus for future data collection should be firmly based on need. The organization is often distracted by the latest data collection fad rather than asking enough questions about why data is needed, how it will be used and to what end."

Humanitarian Review, S6.2.2, Gathering data on humanitarian needs and the situation of children in emergencies, p.77

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expertise to respond to those needs. Since evidence-based decision making is a hallmark of UNICEF work, there is reputational risk in not having data-savvy teams and expertise commensurate with data needs.

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[9] UNICEF, *Strengthening UNICEF's humanitarian action - The Humanitarian Review: Findings and Recommendations*, UNICEF, New York, 2021, <https://www.unicef.org/media/108046/file/Humanitarian%20Review.pdf>, accessed 29 October 2021.

The approach of learning and adapting quickly is suited to humanitarian contexts and beyond. This type of approach is critical to building sustainable systems. It allows teams to be responsive to changes in context, in other information systems, and in what information is needed. It also allows adaptation in response to feedback from data users and programme participants. It is possible to lean into intuition, while staying grounded in values and priorities. Enabling conditions include delegated authority, simplified procedures for contracting, and investments in data systems and data-savvy teams.

Investigate and edit. Numerous adaptations were made in the data, planning, monitoring and evaluation space. The methodological value of some approaches is still to be validated. There is additional learning that can be captured and synthesized from existing documentation and through curated facilitated exchanges (*see Annex VI*). At the same time, just because UNICEF did something once doesn't mean that it must continue operating in that space in that way if it is not to the agency's comparative advantage. This is the moment of opportunity to assess what works and what doesn't, in a transparent manner. Assessment of methodological value dovetails with several initiatives within UNICEF, including the DAPM Data Collection Webinar Series. Review of methods and innovations may also be an opportunity to address UNICEF's programme and cluster accountabilities, if further learning and synthesis alongside methodological assessment are to be possible.

Complete the learning loop. Guidance and materials were sent to RO and COs. Actions were taken. The learning around data for decision making in the context of Covid-19, and situation and programmatic monitoring specifically, exists in various space and levels of development. Capturing learning in and of itself has little value if it isn't possible to close the learning loop through concretely bringing that information back to relevant change-management processes. Bringing the learning back into concrete next steps in policy, practice or learning, and communicating this widely, are important steps in closing the learning loop. This is also an opportunity to bring together the ecosystem within UNICEF around data for decision making.

And start again. Ad-hoc knowledge management undermines constant learning and improvement. This fact has been reiterated in numerous documents and is the foundation of the first three goals of the UNICEF Global Knowledge Management Medium-Term Strategy. A UNICEF Community of Monitors has been established to support situation and programmatic monitoring adaptations for action going forward.

Annex I. Case study abstracts and contact information

Behavioural data for situation and programme monitoring

Behaviour pattern analysis through anthropological and social data: Pakistan's experience with Covid-19

UNICEF Pakistan introduced new data-collection methodologies, research designs and analytical frameworks to monitor the changing situation of people's knowledge, attitudes and norms around Covid-19. UNICEF established an adaptable mechanism to generate, synthesize and use behavioural and social data to guide the Covid-19 response of the Government of Pakistan and its partners. It built from existing expertise in qualitative research, generated qualitative data through local and globally developed tools, and triangulated the data with additional quantitative and qualitative information, including triangulation of self-reported responses with observational studies. UNICEF's synthesis of data on behalf of partners and its engagement with partners created a shared understanding of sentiment, behaviour and the impact of Covid-19 on the population over time and supported actionable recommendations for policy, programmes, RCCE interventions and further research.

Integrated outbreak analytics: From Ebola to Covid-19 in the Republic of the Congo

 The integrated outbreak analytics (IOA) approach was developed during the 2018 Ebola outbreak by UNICEF, WHO, CDC and Epicentre, under the direction of the Ministry of Health (MoH). UNICEF led the Social Sciences Analytics Cell (CASS), which provided the platform for IOA to systematically complement epidemiological data and modelling with social science evidence in order to understand the epidemiological, behavioural and perception trends in relation to the outbreak and the response. Insights from the application of IOA in Ebola were quickly translated into recommendations for humanitarian responders in the Covid-19 pandemic in the Republic of the Congo and beyond.

IOA integrated epidemiological data, evidence on perceptions and factors influencing behaviours generated by the CASS team with healthcare services and other available data to explain trends in health outcomes and epidemiological trends. Recommendations were co-developed with technical and operational partners, and tracked transparently. IOA highlighted critical broader health impacts of the pandemic on communities, including the impact of Covid-19 on women and girls, which subsequently shaped response actions.

Phone-based surveys and social listening dashboards: UNICEF Azerbaijan

UNICEF used two new data-collection methods for situation monitoring to inform its response in Azerbaijan. Repeated bi-weekly phone surveys captured information on the population's knowledge, attitudes and practices (KAP) to Covid-19 and the impacts on well-being at household level. A social listening dashboard presented feedback collected from the population on policy and programme responses, public opinion and rumours, and personal experience of Covid-19 through media and social media. Data-collection methods and tools were adapted over time to meet evolving needs and to avoid duplication as other systems came online.

Data system building during the crisis

Real-time monitoring through phone-based surveys: UNICEF Egypt

UNICEF Egypt gathered information on child and family well-being in the context of Covid-19 during a lockdown through conducting surveys by phone for the first time. Four repeated cross-sectional surveys were conducted over a period of eight months. Results guided the response by UNICEF, other UN partners, and the Government of Egypt.

UNICEF contracted a nationally respected research firm to provide technical expertise in phone-based surveys. The real-time monitoring (RTM) surveys covered a nationally representative randomized sample of 1,500 families every other month over eight months and included a small sample of refugee families. UNICEF regularly shared summary findings with the Government of Egypt and key partners and provided additional findings upon request. As a result, the Government, development partners and other stakeholders were equipped with timely information about children and families during the Covid-19 pandemic to guide the response over time.

Investing in national data capacity: UNICEF Morocco

Covid-19 was a humanitarian crisis larger than others that Morocco had faced in recent years. Limited national data was available to guide the response as the pandemic progressed. UNICEF and the High Commission for Planning (HCP)collaborated to generate data on the impact of Covid-19 on children and families in Morocco. This was the first time that UNICEF and the HCP had collected data via phone in Morocco. Technical and financial investments in the national capacity for data collection and analysis were required. Two rounds of data were collected, and an additional child-focused analysis of the data was developed. The timely generation of data helped guide the responses by the Government of Morocco, UNICEF and partners. UNICEF's technical assistance and investment in the HCP addressed the immediate data needs and also laid the foundation for further assessments in 2020, and a third round of data collection in 2021.

Big data and polls to support learning continuity: UNICEF Indonesia

The UNICEF Indonesia team built from its existing expertise in digital platforms and data visualization, and generated data to support programming to monitor quality and access to services from school closure to the resumption of in-person school activities. UNICEF collaborated with the Ministry of Education and Culture and the University of Indonesia to harness data to support continuity of learning during the pandemic. This included:
- using existing Education Management Information Systems (EMIS) to track the immediate impacts of school closures
- gathering feedback from students, family members and teachers on the quality of remote learning and willingness to return to in-person schooling
- visualizing digital school connectivity to inform further infrastructure investments
- visualizing preparedness and progress in school opening.

UNICEF leveraged its existing capacity in digital platforms to create responsive solutions and expanded into the use of big data to strengthen available situation and programmatic monitoring.

Facilitating public–private partnership to develop national capacity for epidemiological situation monitoring: UNICEF Ukraine

UNICEF Ukraine collaborated with the Ministry of Health (MoH) and Public Health Centre (PHC) to establish an epidemiological situation-monitoring system for Covid-19. UNICEF proactively identified this area for collaboration with the MoH and PHC, even though UNICEF's previous work with national monitoring systems in Ukraine had been limited to Human Immunodeficiency Virus (HIV) registration.

UNICEF facilitated a public–private partnership to co-create the collection, processing, analysis and visualization of Covid-19's progression in Ukraine. Pragmatic application of simplified procedures enabled identification of requirements and adaptive development of solutions. Within one month, an interim solution co-created by the PHC, UNICEF, an IT company and the international non-governmental organization (INGO), REACH, was in place. Adaptations of the epidemiological software continued and the long-term system was rolled out. The interim solution had laid a foundation for further adaptive solutions by the Government of Ukraine.

Adaptive programme monitoring

U-Reporters in situation and programmatic Monitoring: UNICEF Cote d'Ivoire

RapidPro software, U-Report applications and youth engagement enabled UNICEF and the Government of Cote d'Ivoire to monitor and adapt programming in the context of Covid-19. U-Reporters and young bloggers were proactively engaged to identify and address false information around Covid-19 using the U-Report platform. Polls collected critical information, since in-person data collection methods (such as surveys and facility assessments) were not possible due to movement restrictions. U-Reporters, already skilled in digital platforms, were engaged in an innovative pilot as third-party monitors (TPM) during Child Health Day campaigns. They were based in their communities, equipped with knowledge from their communities and did not need to travel to traditional TPM.

U-Reporters as a TPM modality was found to be a cost-efficient option to explore further. The flexibility of RapidPro software, ability to adapt U-Report information-sharing and data collection, and engagement of U-Reporters contributed to an adaptive response over time.

Remote supply end-user monitoring: UNICEF Kenya

Supply-chain strengthening supports national systems to overcome barriers in the availability, quality and access to the critical supplies required for the provision of basic healthcare and social services. Supply end-user monitoring (SEUM) assesses whether programme participants access relevant supplies as planned. At the onset of Covid-19, UNICEF Kenya's SEUM had been based on in-person monitoring trips that were not possible due to movement restrictions. In addition, personal protective

equipment (PPE) such as masks were consumable and would not be possible to track in the same way as non-consumable supplies.

UNICEF adapted its guidance documents and tools to use available data and to collect selected additional data via remote platforms and communication methods that were already in place. UNICEF's experience highlighted that remote SEUM could support supply-chain function and remains relevant in Kenya where physical access is not guaranteed or is time-consuming.

System-level thinking for multi-sectoral programming: UNICEF Jordan

When *Makani* ('My Space' in Arabic) centres had to shift from in-person to remote service provision via digital platforms during Covid-19, the Bayanati Management Information System (MIS) behind it needed to adapt as well. The Bayanati IT system was rapidly modified to reflect both remote and in-person modalities. Remote programmatic field monitoring was also introduced, involving data validation through calls and virtual visits over Zoom videoconferencing software.

As a result of concerted efforts by the community, and from implementing partners, the Government of Jordan and UNICEF, *Makani* centers continued the service with minimal interruption. Rapid adaptation was possible due to UNICEF's investment in the Bayanati MIS, central database and dedicated Bayanati administration team, as well as clear procedures to address data quality, ethics and protection. Previous investments in localized data use capacity through data champions and transparent adaptations to monitoring procedures with implementing partners contributed to success. UNICEF's team, structure and processes facilitated adaptive management and administration of the Bayanati IT system, which contributed to the agility, evolution and improvement of the response over time.

Introducing remote programmatic visits: UNICEF South Sudan

UNICEF introduced a blended approach to programmatic field monitoring to address the movement restrictions introduced by Covid-19. The South Sudan team was already familiar with field monitoring using digital platforms. The nutrition programme developed a methodology based on the existing field monitoring standard operating procedures (SOPs) in May 2020. The Deputy Representative requested a task team of social policy, planning, monitoring and evaluation (SPPME) and nutrition to develop an updated SOP that covered both on-site and remote programmatic visits (RPV) in response to lesson learned following the RPV pilot.

The SOP was updated and adopted in September 2020. Language was introduced into partnership documents to institutionalize the blended monitoring approach as an option. A MS Power BI analytics dashboard was introduced to support the management of remote monitoring. The blended monitoring approach to PV remains relevant in South Sudan, where access may be limited by conflict, natural disaster and Covid-19.