COUNTRY COVID-19 INTRA-ACTION REVIEW (IAR)

REPORT

REPUBLIC OF SOUTH SUDAN





South Sudan Juba, 05-06/08/2021

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1. EXECUTIVE SUMMARY

The Intra-Action Review (IAR) was an important exercise that have reviewed the South Sudan Coronavirus disease-2019 (COVID-19) national preparedness and response best practices and challenges, and developed recommendations to maintain and institutionalized best practices and address challenges. The IAR reviewed the COVID-19 vaccination deployment and roll-out process, epidemiology and surveillance, and laboratory testing capacity at the national and sub-national levels. The review was conducted in two days (05-06 August 2021) using the World Health Organization (WHO) working group IAR methodology. The participants of this COVID-19 IAR were drawn from partners and government agencies at all levels who are currently involved in COVID-19 vaccination, epidemiology and surveillance and laboratory testing in South Sudan. The review involved an interactive, structured methodology using user-friendly materials and interactive facilitation techniques both onsite and online. Three virtual breakout rooms (vaccination, surveillance, and laboratory) and one common platform were created to facilitate the interaction between onsite and online participants.

During the review exercise, several best practices and challenges were identified leading to the development of appropriate actions that would be implemented immediately, and in the mid to long-term periods. The best practices include: availability of surveillance system -Early Warning, Alert and Response System (EWARS) for Acute Respiratory Tract Infection (ARI) alert reporting and verification; regular daily and weekly briefings among COVID-19 response team; activation and reformation of Rapid Response Teams (RRTs) at national and sub-national levels; contact tracing formation and activation; availability of teams to conduct contact listing and follow-up (for the epidemiology and surveillance pillar); availability of sample management SOPs; trained laboratory staff at all levels with well structured modules and professional experts; monitoring of quality of testing in the private laboratories by the National Public Health Laboratory (NPHL); decentralization of COVID-19 testing to the states through repurposing of GeneXpert machines to test for COVID-19; efficient stock management system that prevented stock out of reagents and other consumables (for the laboratory pillar); effective vaccaination planning from the Ministry of Health (MoH) in coordination with partners culminating in the development of the National Deployment and Vaccination Plan (NDVP); development of vaccine distribution plan based on approved microplan and prioritized health facilities (mapping) endorsed by the MOH; leveraging of existing supply chain infrastructure (Partnership approach with United Nations Humanitarian Air Services (UNHAS)) to deliver the vaccine with Standard Operating Procedures (SoPs); and, joint supportive supervision visits conducted by MOH, and partners especially for pilot hosptials and health facilities in Juba (for the vaccination pillar).

The challenges identified includes: not all community calls successfully connected to the call center; denial of results by patients thus resulting in provision of wrong numbers/physical addresses; community screening and testing are hindered due to shortage of funding to support the sentinel surveillance sites; limited number of cases detected through the existing health system, health care facilities and community surveillance system (for the epidemiology and surveillance pillar); lack of quality assurance system at GeneXpert sites for COVID-19 testing; trained laboratory staff deserted the National Public Health Laboratory (NPHL) in search of better paying jobs especially following the opening of private COVID-19 testing

laboratory in Juba; lack of in-country COVID-19 genomic-sequencing surveillance capacity; donation of laboratory commodities with short expiry duration, including Antigen Rapid Diagnostic Testing (Ag-RDT) kits (for the laboratory pillar); non-completion of Adverse Event Following Immunization (AEFI) reporting forms for serious and non-serious AEFIs; inadequate supervision to monitor data quality; non allocation of funds for supportive supervision; lack of training handouts for vaccinator trainees; and, non inclusion in the COVID-19 Technical Team of members from the Drug and Food Control Authority (DFCA) from whom regulatory support was not available regularly (see table below).

The respective technical working groups with MoH leadership developed recommendations and a way forward for the implementation of the recommendations. The recommendations include: enhance risk communication and community engagement to increase alert notification, investigation and contact tracing; increase the number of hotline service providers by engaging new telecommunication companies such as Digitel to accommodate increased calls; procure additional phones with long-lasting battery; strengthen daily and weekly response briefings at national and sub-national levels; institutionalize the concept of RRTs to respond to all hazards; establish COVID-19 information management and data flow through the District Health Information System (DHIS2) platform; train RRT and contact tracing team on data management tools including Case Investigation Form (CIF); enhance coordination within and between pillars; enhance community testing to determine the level of transmission at sentinel surveillance and GeneXpert sites (for the epidemiology and surveillance pillar); roll out Antigen Rapid Diagnostic Test (Ag-RDT); mobilize funds to support the COVID-19 laboratory human resources; enroll GeneXpert sites into the DHIS2 or E-governance platform; establish quality assurance system for the Polymerases Chain Reaction (PCR), GeneXpert and Ag RDT platforms; establish genomic surveillance capacity in South Sudan (for the laboratory pillar); conduct surveys and research to explore community and health workers' perception on COVID-19 vaccination; establish national and state AEFI committees; engage with the Drug and Food Control Authority (DFCA) on their roles in vaccine pharmacovigilance including reporting AEFI; scale up vaccination in 80 Counties; and, integrate COVID-19 vaccination in Routine Immunization (RI) services (for the vaccination pillar (see the table below).

The COVID-19 Vaccination, Surveillance, and Laboratory Technical Working Groups (TWGs) lead and co-leads will continue working with the National Steering Committee (NSC) secretariat to institutionalize the best practices; address challenges and implement prioritized recommendations in the immediate and medium to long term to improve preparedness and response. Moreover, the state ministry of health and partners were part of the IAR process; hence, the final IAR report will be shared with them to oversee and monitor the implementation of the recommendations. The IAR report incorporated a timeline and indicators to monitor the progress of implementation and provide timely feedback.

2. CONTEXT OF THE COVID-19 RESPONSE AND OBJECTIVES OF THE IAR

2.1 Context of the COVID-19 situation and response

The World Health Organization (WHO) declared COVID-19 a Public Health Emergency of International Concern (PHEIC) on 30th January 2020 and characterized it as a pandemic on 11th March 2020. Since its outbreak in Wuhan city in China, COVID-19 has continued to

spread around the world with major health and socio-economic impacts1. By the 31st of July 2021, cumulative confirmed cases around the world had reached 203 million, meanwhile, over 4.3 million people had died representing a case fertility rate of 2.1%. The Africa region has confirmed over 5 million cases and 120,100 deaths across 47 countries within the continent according to the latest WHO COVID-19 Global Situational Update. While the Africa region initially showed staggered COVID-19 statistics, recent epidemiological trends associated with the third wave indicate a resurgence of COVID-19 infections in several countries across the continent and the existence of several variants including the Alpha, Beta, Gamma and the deadly Delta variant. South Sudan is one of the countries affected by COVID-19 with widespread community transmission reported across the country. Recent genomic sequencing results confirmed circulation of the deadly Delta variant in the country, which could lead to a resurgence of cases.

South Sudan confirmed its first COVID-19 case on the 5th of April 2020. As of 30th July 2021, 11,056 cases have been confirmed out of tests performed by private testing laboratories, the National Public Health Laboratory (NPHL), and other decentralized Public Health Laboratory Networks in the country. One hundred and nineteen (119) people have died of COVID-19, representing a case fatality rate of 1.1%, and 10,799 have recovered. The Ministry of Health and response partners have developed the COVID-19 response plan around different pillars namely: country-level coordination, planning and monitoring; risk communication and community engagement; surveillance; points of entry; laboratory networks; infection prevention and control; case management; and operational support and logistics. In addition, the 2021-2022 National Strategic Preparedness and Pesponse Plan (SPRP) added essential health services and vaccination pillars per the WHO guidance document. The National Steering Committee and its 10 Technical Working Groups, chaired by the COVID-19 Incident Manager will providide strategic and operational guidance and the COVID-19 state taskforce committees will coordinate the frontline implementation of recommended COVID-19 interventions.

The aim of the intra-action review (IAR) was to assess the functional capacity of the public health and emergency response strategy and to identify practical areas for immediate intervention or continuous improvement of the current response to the COVID-19 outbreak. The IAR entailed a qualitative review of actions taken so far to respond to the current COVID-19 pandemic to identify best practices, challenges, and lessons learnd.

2.2. Objectives:

Overall Objective

The overall objective of the IAR wass to review the ongoing COVID-19 vaccination, surveillance and laboratory testing in South Sudan and document the best practices and lessons learned to improve the ongoing response.

Specific Objectives

¹ COVID-19 Public Health Emergency of International Concern (PHEIC) Global research and innovation forum, Available at: https://www.who.int/publications/m/item/covid-19-public-health-emergency-of-international-concern-(pheic)-global-research-and-innovation-forum

1. To share experiences and collectively analyse the ongoing in-country COVID-19 vaccination, surveillance, and laboratory testing by identifying challenges and best practices;

2. To facilitate consensus building among and the compiling of lessons learned by various stakeholders during the implementation of vaccination, surveillance and laboratory testing to improve the current response by sustaining best practices that have demonstrated success and by preventing recurrent errors; and,

3. To document and apply lessons learned from the vaccination, surveillance and laboratory testing efforts to date to enable health systems strengthening.

3. METHODOLOGY OF THE IAR

Date(s) of the IAR	05-06/08/2021
activity	
Location(s)	Country: South Sudan
	Province/State: Central Equatoria State
	City: Juba
Set-up	
	\boxtimes Mixed (online and onsite)
Participating	Ministry of Health, World Health Organization, United Nations
institutions and	Children's Fund (UNICEF), Centers for Disease Control and
entities	Prevention (CDC), John Snow Inc. (JSI), Health Pooled Fund
	(HPF), Care International, United Nations High Commissioner for
	Refugees (UNHCR), Civil Society, United States Agency for International Development (USAID), ICAP-Colombia University,
	Private Laboratories, and Global Fund and Country Coordination
	Mechanism.
Total number of	
participants and	
observers (if	34 participants onsite and 60 participants attended online.
applicable)	
Period covered by	(01/01/2021 - 31/07/2021)
the review	
Response pillar(s) reviewed	Country-level coordination, planning and monitoring
revieweu	□ Risk communication, community engagement, and infodemic
	management
	Surveillance, case investigation and contact tracing
	Points of entry
	⊠ National laboratory system
	□ Infection prevention and control
	□ Case management and knowledge sharing about innovations
	and the latest research
	□ Operational support and logistics in the management of supply

chains and workforce resilience	
□ Strengthening essential health services during the COVID-19	
outbreak	
COVID-19 vaccination	
□ Vulnerable and marginalized populations	
□ National legislation and financing	
Public health and social measures	
\boxtimes Vaccination Other possible topics and cross-cutting issues	
(please specify):	

4. FINDINGS

For each of the three pillars reviewed as part of South Sudan IAR, we present the best practices and challenges along with the corresponding recommended actions in the immediate and mid to long term implementation for institutionalizing and maintaining best practices, as well as for addressing the challenges to improve response to the ongoing COVID-19 pandemic. In addition, for each recommended action, timeline, responsible focal point ,estimated budget and financial resources required, and monitoring indicators were developed and incorporated in the IAR report (see the table below).

4.1. Surveillance, case investigation and contact tracing			
Observations			
	 Availability of surveillance system –Early Warning, Alert and Response System (EWARS) for Acute Respiratory Tract Infection (ARI) alert reporting and verification. 		
	 Regular daily and weekly briefings are undertaken by the COVID- 19 response team. 		
	 Activation and reformation of RRTs at national and sub-national levels and improved adherence to the guidelines and Standard Operating Procedure (SOPs). 		
Best practices	 Contact tracing formation and activation; teams are available to conduct contact listing and follow-up. 		
	 Existence of functional "hotline 6666" managed at the Public Health Emergency Operation Center (PHEOC) call centre. 		
	 The existence of sentinel sites for influenza in national and sub- national had increased ARI screening and testing. 		
	 Availability of COVID-19 guidelines, SOPs, and protocols which allowed the contact tracing team and RRT to timely response investigate and follow up confirmed cases and their contacts. 		
	 Coordination between National RRT/National Public Health Laboratory (NPHL) with State RRT lead to improved reporting 		

	and information sharing between the NRRT, NPHL and SRRT and therefore improved engagement with the states.		
	- Challenges of receiving calls from the community by hotline/call centre staff (i.e., not all community calls connected to the call centre).		
	 Denial of results by the patient resulted in the provision of wrong numbers/physical addresses of cases and contacts. 		
	 Community screening and testing are hindered due to a shortage of funding to support the sentinel sites. 		
Challenges	 Delayed test results, submission of incomplete Case Investigation forms (CIFs), and laboratory results going missing for several weeks. 		
	 Inadequate coordination and response mechanism at the state and county levels during weekends and public holidays. 		
	 A limited number of cases are detected through the existing health system, health care facilities and community surveillance system. 		
Prioritized actions			
a. For imm	ediate implementation:		
 Enhance risk communication and community engagement to increase alert notification, investigation and contact tracing. 			
	ncrease the number of hotline service providers by engaging new elecommunication companies such as Digitel.		
- F	Procure additional phones with a long-lasting batteries.		
	- Strengthen daily and weekly response briefings at the national and sub- national levels.		
 For mid to long-term implementation to improve the response to the ongoing COVID-19 outbreak: 			
 Institutionalize the concept of RRTs to respond to all hazards at both national and sub-national levels. 			
 Establish COVID-19 information management and data flow through District Health Information System (DHIS2). 			
	 Increase community testing to determine the level of transmission at sentinel surveillance and GeneXpert sites. 		
	 Train RRT and contact tracing team on data management tools including CIF. 		
- E	Enhance coordination within and between pillars.		

4.2. National laboratory system			
Observations			
Best practices	- Availability of sample management SOPs.		

	-	
	- Trained laboratory staff at all levels (national and sub-national) with well-structured modules and professional experts.	
	- Reviewed training materials with the surveillance team.	
	- The National Public Health Laboratory (NPHL) monitored quality control testing in private laboratories.	
	- COVID-19 testing decentralized to the states through GeneXpert testing sites.	
	- Efficient stock management system; the NPHL did not experience stockout of reagents and other consumables.	
	- Samples received past 6:00 pm are tested the next day.	
	- No quality assurance system at GeneXpert sites for COVID-19 testing.	
	- Trained laboratory staff deserted the NPHL in search of better- paying jobs especially following the opening of a private COVID- 19 testing laboratory in Juba.	
Challenges	 No COVID-19 genomic-surveillance sequencing capacity in South Sudan. 	
	 Donation of laboratory commodities with a short expiry date including Antigen Rapid Diagnostic Testing (Ag-RDT). 	
	- Lack of integration of COVID-19 surveillance system at the health facility with laboratory testing that leads to low sample collections; hence, low GeneXpert utilization.	
Prioritized action	ons	
a. For imme	ediate implementation:	
- R	coll out Antigen RDTs to 30 health facilities across South Sudan.	
- V	alidate, print and distribute SOPs.	
- N	lobilize funds to support the COVID-19 laboratory human resources.	
 Review and finalize the national COVID-19 laboratory supplies guidance document to guide acquisition and utilization of laboratory commodities. 		
b. For mid to long-term implementation to improve the response to the ongoing COVID-19 outbreak:		
 Enrollment of GeneXpert sites into District Health System (DHIS2) or E- governance. Establish a quality assurance system for the Polymerases Chain reaction (PCR), GeneXpert and Ag-RDT platforms. 		

4.3. Vaccinat	tion		
Observations			
	 Effective planning from the Ministry of Health in coordination with partners (WHO, UNICEF, HPF, JSI, and other implementing partners) culminating in the development of the National Deployment and Vaccination Plan (NDVP). Development of vaccine distribution plan based on approved micro plan and prioritized health facilities (mapping) endorsed by MOH. 		
	 Leverage existing supply chain infrastructure (Partnership approach with UNHAS to deliver the vaccine with Standard Operating Procedures (SOPs). 		
Best practices	 Adaption of WHO guidelines and SOP to prepare training materials for vaccinators. 		
	 Joint supportive supervision visits were conducted (MOH, and Parties) especially for pilot hospitals and health facilities in Juba. 		
	 Use of existing integrated community mobilization network (ICMN) in all states for sustained messaging to target audiences using the messaging developed in consultation with the Risk Communication and Community Engagement (RCCE), EPI and COVAX technica; working groups. 		
	 Evidence generation on health worker perception through Health Worker Survey on Hesitancy on COVID-19 vaccine uptake using Internet of Good Things (IoGT) UNICEF's platform. 		
	 Supply of Adverse Effect Following Immunization (AEFI) kits to all Health Facilities (HFs). 		
	 Non-completion of AEFI reporting forms for serious and non- serious AEFIs. 		
	 Inadequate supervision to monitor data quality. No funds were allocated for supportive supervision. 		
	- Lack of training handouts for vaccinator trainees.		
Challenges	- The difficulty of timely preparation and packaging of COVID-19 vaccine in early hours (at 5-6 am on daily basis) before the normal working hours due to limited time given by the flight schedule and distribution period.		
	 The COVID-19 Technical Team did not include members from Drug and Food Control Authority (DFCA) from whom regulatory support was not available regularly. 		
Prioritized action	ons		

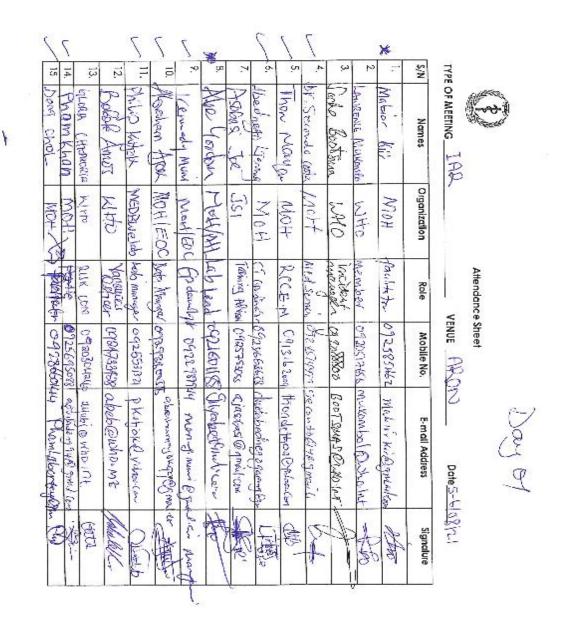
- a. For immediate implementation:
 - Allocate adequate resources for joint supportive supervision.
 - Conduct cascade training at County levels.
 - Develop and disseminate appropriate training materials for various vaccine candidates in the Country.
 - Printing of outstanding data tools for vaccination (including AEFI reporting forms),
 - Replenishment/procurement of complete set of AEFI kits for all vaccination sites according to micro-plan (2 kits per site).
 - Strengthen supportive supervision at all levels
- b. For mid to long-term implementation to improve the response to the ongoing COVID-19 outbreak:
 - Transition COVID-19 data into DHIS2.
 - Conduct surveys and research to explore community and health workers perceptions on COVID-19 vaccination.
 - Establish national and state AEFI committees.
 - Engage with DFCA on their roles in vaccine pharmacovigilance including reporting AEFI through Vigiflow.
 - Scale-up vaccination in 80 Counties.
 - Integrate Covid-19 vaccination in Routine Immunization (RI) services

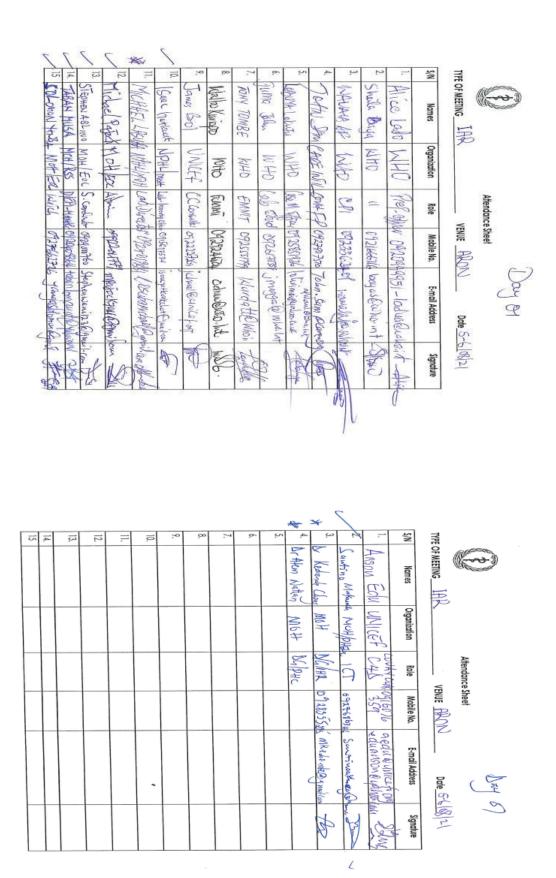
5. THE WAY FORWARD

- 1. The COVID-19 Vaccination, Surveillance, and Laboratory Technical Working Groups (TWGs) lead and co-leads will continue working with the National Steering Committee (NSC) secretariat to institutionalize the best practices; address challenges and implement prioritized recommendations in the immediate and medium to long term to improve the preparedness and response. Moreover, the state ministry of health and partners were part of the IAR process; hence, the final IAR report will be shared with them to oversee ad monitor the implementation of the recommendation. The IAR report incorporated a timeline and indicators to monitor the progress of implementation and provide timely feedback.
- 2. The final IAR report will be presented to the National Steering Committee and eventually to the National Taskforce for COVID-19 for endorsement to facilitate the implementation of the recommended actions to improve the current national COVID-19 preparedness and response. Moreover, the report with recommended action will be shared among higher MoH leadership, donor community, bilateral and multilateral organizations, and partners.
- The IAR findings and recommended actions will be used to inform discussions on updating the current National COVID-19 Strategic Preparedness and Response Plan (SPRP) to ensure immediate and medium to long term sustainability of national COVID-19 preparedness and response actions.

6. ANNEXES

Annexe 1: List of participants and Intra-Action Review (IAR) team





Annex 2: Agenda of the review





<u>Intra action review for covid-19 Epi-surveillance, Vaccination and Laboratory TWGs in</u> <u>Aaron Hotel-Juba Central Equatoria South Sudan; 5th-6th August 2021.</u>

Time	Session	Responsible Person
08:30-09:00	Registration and administrative formalities and instructions	Admin
09:00-9:15	Opening Remark	MoH-IM/WHO-IM
09:15-09:25	Introduction of the participants	Participants
09:25-09:45	Intra-Action Review methodology	IAR coordinators
09:45-10:15	Introduction: Response plan and actual timeline of the response	IAR coordinators
10:15-10:45	Coffee Break	Admin
10:45-12:30	Session 1 - What worked well? what worked less well? And Why? Participants work to identify the challenges and best practices of the response.	Three TW Groups With Facilitators
12:30-13:30	Lunch	Admin
13:30-15:00	Session 1 (Continued) - What worked well? what worked Less Well? and why? Participants work to identify the Challenges and best practices of the response.	Three TW Groups With Facilitators
15:00-15:15	Coffee Break	Admin
15:15-17 :15	Session 2 - What can we do to improve the covid-19 response? Participants work to identify what can be done to strengthen the ongoing covid-19 response	Three TW Groups With Facilitators
9:00-10:30	Session 3 – The Way Forward: Discussion on the best way To implement these activities moving forward.	Three TW Groups With Facilitators
10 :30-10 :45	Coffee Break	Admin
10:45-12:30	Session 3 – The Way Forward: Discussion on the best way To implement these activities moving forward	Three TW Groups With Facilitators
12 :30-13 :30	Lunch Break	Admin
13 :30-15 :30	Presentation and discussion by each group	Three TW Groups With Facilitators
15 :30-15 :45	Coffee Break	Admin
15 :45-16 :15	Presentation and discussion by each group	Facilitators And Participants
16 :15-17 :15	Feedback and wrap-up	

Annex 3: Completed note-taking template



South Sudan South South Sudan IAR_ IAR_Surveillance NotSudan-IAR-Notes-Va(National Laboratory S