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1.0 Background

1.1 The general context in the Republic of South Sudan

In July 2011, the Republic of South Sudan (RSS) gained its independence becoming the newest country in the world marking the end of the six years Comprehensive Peace Agreement (CPA) interim period signed in 2005. But despite gaining the independence and the achievements that the country recorded during the CPA period including the census, presidential and parliamentarian elections, self-determination referendum to the independence celebration, the newest county continues to face a lot of pressing humanitarian challenges. With the enormous challenges, the RSS still needs support of the international community to overcome these challenges by becoming more peaceful, secure in order to meet the demands of its people.

During the third quarter, the humanitarian context in South Sudan continued to evolve and be worrisome, due to the increasing number of returnees and displaced persons. This was a result of the ongoing border insecurity, recurrent tribal clashes, flooding, food insecurity and persistent communicable disease outbreaks. By the end of September 2011, more than 420 conflict incidents had been reported for the period January to September 2011. This led to over 3,100 deaths (three times the number reported in 2010) and the displacement of more than 350,000 people, mostly women and children. There were also over 400,000 returnees from North Sudan and over 30,000 refugees from the DRC, Sudan and Ethiopia. This made the humanitarian situation in the country during this quarter precarious hence impacting on the existing weak health systems and increasing vulnerability in the remote and inaccessible areas in the country.

To respond to the myriads of the situations highlighted above, WHO continued to support and complement the RSS efforts in meeting the South Sudan National Health Policy (MOH/GoSS 2006) objectives. Technical and financial support was provided to the Government of the RSS and the states to implement key focused life saving health interventions while advocating for more attention and funding for the country.

WHO together with the MoH/RSS participated in the Joint Planning Process

1.2 Current situation in the states

The third quarter presented many challenges that shaped WHO’s work in the RSS. Key among these challenges was the influx of Internally Displaced Persons in the states of Warrap, Unity, NBGZ, Upper Nile which brought with them an increase in health problems/needs which further stretched the health partners’ capacity to respond to the humanitarian crisis and increased pressure on the already compromised health system and poor staffing levels. Then, there was a changing epidemiological profile that led to persistent communicable disease outbreaks among the vulnerable populations. The concentrations of the population in transit points compounded the already dire state of poor sanitation and lack of safe drinking water & sanitation facilities in the settlement area, predisposing returnees to outbreaks of water borne diseases. The repeated sporadic tribal clashes in high risk states like Jonglei, Warrap, Unity, Lakes and Upper Nile also posed a threat to the health system.
During the third quarter, WHO and the Ministry of Health, Republic of South Sudan, participated in the Joint Programme Review and planning mission with the objectives of having; planning and consultative process between WHO and Government of the Republic of South Sudan, Reflect on the country health needs, address the national programme strategic priorities and to strengthen the national capacity for achieving national health development objectives.

During the meeting, WHO together with MoH/RSS developed and agreed on of Organization Specific Expected Results and workplans and Identified accountability for of Organization Specific Expected Results.

From left to right: Dr Abdi Momin from EMRO, Dr Abdi Aden Mohamed, the head of WHO South Sudan Office, Dr Yatta Lori Lugor, deputy minister and Dr. Anshu the WHO Country Representative in Sudan, addressing MOH and WHO staff on the official opening of the JPRM 2011-2013 workshop at WHO office in Juba.

WHO team together with the ministry of health officials discussing the work plans of South Sudan during the JPRM.
2.0 WHO’s Major Achievements in the 3rd quarter. (July to September) 2011

2.1 Emergency Humanitarian Action (EHA)

The Strategic objective of EHA /WHO’s Unit is to reduce the health consequences of emergencies, disasters, crises and conflicts, and to minimize their social and economic impact. Through 2011, the programme committed to; building the capacity of the MoH and health partners in emergency preparedness, ensuring the national capacity was available for emergency response through training and establishment of surge capacity for emergencies. The programme also managed the health core pipeline and prepositioned life saving medical supplies and medicines at the central and state levels, all meant to respond to any potential outbreaks and health emergencies.

During the third quarter, the humanitarian context in South Sudan continued to evolve and threatened to worsen due to the ongoing conflicts in key states bordering North Sudan. Besides that, the repeated number of sporadic intertribal clashes in high risk states of Jonglei, Warrap, Lakes and Upper Nile made the humanitarian situation in South Sudan fluid. Being the newest country in the world to gain independence, the health humanitarian response continued to face enormous challenges.

The first three quarters of 2011 presented many challenges which shaped WHO’s work in emergencies, especially in conflict prone states. The biggest challenge for the WHO/MoH during the third quarter was the provision of health services to areas experiencing high numbers of returnees. As the population movement to the states continued, the population figures also increased, this raised the needs of the already strained and thin health services mainly in the states of Upper Nile, Unity and the Abyei Administration Area. The ongoing humanitarian situation in Southern Sudan has left at least 3.2 million people in urgent need of health services.

a) Support to access to emergency health services

This was enhanced in the third quarter as accessing people in need of humanitarian assistance became challenging as a result of population movement, conflicts and floods in most parts of the country. As at the end of October 2011, a total of 343,403 returnees had been registered and verified in South Sudan with Unity state reporting the largest number (24.7%) followed by Northern Bahergazel with 19% and Uppernile with 16%. WES has the least number of returnees with less than 1%. Renk County in Uppernile state faced an influx of the new wave of returnees. Three major settlement sites were faced with population explosion in the county, these were Mina site (7500), Abayok (12,000) and Agany (620). A total of 19,861 people benefited from the emergency treatment services across south sudan. WHO in collaboration with health partners IOM, Medair and IMA provided treatment services to the vulnerable population in Renk County. WHO supported partners to extend and provide essential medical services to the population. In response to Renk and Yida, a total of 9,432 patients/returnees received medical treatment in the third quarter in the three sites of Mina, Abayok and Yida. The responses were supported by Medair (61%), IOM (21%) and Care international (17%). Respiratory tract infections (21%) were the major causes of consultations, followed by Malaria (18%) and then watery diarrhea disease (9.2%).

A total of 38% of the consultations were under the ages
of five years. Of the host population in Renk County, a
total of 17,700 OPD consultation consultations were
registered in Renk county Hospital of which an estimated
70% were returnees.

b) Health assessments and gap identification

As part of her contribution to the MoH in identifying and
filling gaps, during this reporting quarter WHO supported
periodic assessments to areas affected by emergencies to
promptly identify health gaps however, it should be noted
that access to some areas was very challenging making it
difficult to document the actual needs. Results from the
assessments indicated an urgent need to restore health
services in the areas affected by floods and conflict and to
strengthen the local health system in areas with a massive
influx of IDPs, returnees through setting up of temporary
health facilities or mobile clinics, re-opening the closed
health facilities and diarrhea treatment centers in the
areas that are hot spots (high risk, hard to reach).

WHO/EHA continued to work with cluster members
and other UN agencies to provide technical support
during interagency assessments, worked with several
partners within and outside the health cluster to conduct
several joint assessments, rapid health assessments,
inventory of emergency supplies (outbreak investigation
kits, drugs levels) and conduct outbreak investigations. In
particular WHO supported the MOH in the assessment
of the Khalazar outbreak in Northern Jonglei, the
assessment also provided opportunity to improve the
case detection and reporting of epidemic prone diseases
through the establishment of a community surveillance
system. A similar system was established in Jur river
county and Gogrial west county that reported over 86
cases of Anthrax in the quarter. Other Assessments
participated in include inter agency assessments in Tonj
East county (tribal clashes), Melut/renk county (needs
assessment for returnees), Malakal county (UN country
team to asses preparedness and contingencies), Terekeka
county (flash floods), Akon North county (flooding and
returnees stranded), Nyang way station in Yirol West
county (EPI assessment), Wulu/Cuebet counties
(humanitarian needs of the displaced population
and Pibor county (following tribal conflicts).

c) Emergency Preparedness and
Response, filling critical gaps

Southern Sudan continues to be faced with slow
emerging emergencies. WHO continued to support the
MOH to strengthen preparedness for humanitarian
emergencies and filling in critical gaps.

As part of the emergency preparedness for the influx of
returnees through the border states, WHO supported
the SMOHs with the development of the health contingency plans with special emphasis on prepositioning of core pipelines (drugs) and surge capacity for the response. The health needs were enormous in the states of Unity (Yido camp), Upper Nile (Renk and Maban), Jonglei (Urol) and the Agok/Abyei Administration Area. In response to the over 20,000 returnees in Renk, WHO supported the county health departments with emergency drugs.; This was through the implementing partners on the ground who provided treatment of common illnesses in Renk County.

WHO supported the county health departments, IOM, Medair, RCC and IMA with emergency kits, assorted drugs and diagnostics for the response in Upper Nile state (Mina, Abayok, Agany) and barge movements. Other partners backstopped during the third quarter were Across (Lasu Ngorom refugee camps and way stations in Nyang and Rumbek), IOM clinic in Wau county, THESO (Guit and Gogrial East counties), SUK (Mvolo county), COSV and IMA (Khalazar response in greater upper Nile states), SMOH-Central Equatoria (Juba way station) and Merlin (Pibor county) among others. In response to the Abyei crisis (flooding and displacement) that has affected over 10,000 people, WHO swiftly airlifted emergency medical supplies to support the AAA MOH to respond to the health needs of the displaced persons.

To further reduce response time in the event of epidemic/outbreaks and other emergencies, sizable number of emergency cholera, diarrhea, interagency. Meningitis kits, laboratory and medical supplies were prepositioned in all our field offices in collaboration with the SMOH. This was done periodically based on the information received from the field. It should be noted that since the emergency response to the various humanitarian situations begun in early 2011, 65% of all the emergency kits were given directly to health partners and the rest as support to the SMOH health departments and county health departments. The table below shows the number of kits supplied to the implementing partners.

Table showing emergency supplies that WHO distributed to state field offices to support health emergency operations.

<table>
<thead>
<tr>
<th>Date</th>
<th>Supplies</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/7/2011</td>
<td>2DDK and 2IEHK to ACROSS in CES and Lakes</td>
<td>Support to the refugees in Ngorr, Lakes and Wau stations</td>
</tr>
<tr>
<td>4/7/2011</td>
<td>6DDK and 6IEHK to Upper Nile, Unity, Upl and Lakes</td>
<td>Prepositioning to the SMOH departments as part of preparedness and response in the emergency states.</td>
</tr>
<tr>
<td>4/7/2011</td>
<td>6DDK and 6IEHK to Min and Upl</td>
<td>Prepositioning supplies to the sick in the Upper Nile states</td>
</tr>
<tr>
<td>4/7/2011</td>
<td>1IEHK and 1DDK to Min and Upl</td>
<td>Prepositioning supplies to the MOH, backstopping NGOs in Unity State and Gogrial East County (THESO)</td>
</tr>
<tr>
<td>4/7/2011</td>
<td>1DDK to Unity MOH</td>
<td>Prepositioning supplies to the state, MOH,-backstopping NGOs</td>
</tr>
<tr>
<td>13/7/2011</td>
<td>1IEHK and 1DDK to Min and Upl</td>
<td>Prepositioning of supplies to the state, MOH,-backstopping NGOs</td>
</tr>
<tr>
<td>18/7/2011</td>
<td>Assorted drugs and supplies to Unity and Gogrial East county</td>
<td>Response to support the MOH, backstopping NGOs in Unity State and Gogrial East County (THESO)</td>
</tr>
<tr>
<td>20/7/2011</td>
<td>One IEHK, assorted Antibiotics, and consumables</td>
<td>Returns to Agok MOH, moles with over 600 returnees, Drugs airlifted to mobile clinics.</td>
</tr>
<tr>
<td>20/7/2011</td>
<td>IOM/RCC supported barges and mobile clinics</td>
<td>Returns to Agok MOH, moles with over 600 returnees, Drugs airlifted to mobile clinics.</td>
</tr>
<tr>
<td>19/8/2011</td>
<td>GB Basic Unit Kit</td>
<td>Returns to Agok MOH, moles with over 600 returnees, PFA health partner.</td>
</tr>
<tr>
<td>19/8/2011</td>
<td>Khalazar supplies and drugs</td>
<td>Returns to Agok MOH, moles with over 600 returnees, PFA health partner.</td>
</tr>
<tr>
<td>19/8/2011</td>
<td>IOM/RCC/Outbreak investigation supplies</td>
<td>Returns to Agok MOH, moles with over 600 returnees, PFA health partner.</td>
</tr>
<tr>
<td>18/7/2011</td>
<td>IOM/RCC/Outbreak investigation supplies</td>
<td>Returns to Agok MOH, moles with over 600 returnees, PFA health partner.</td>
</tr>
</tbody>
</table>

WHO also prepositioned a total of 6 IEHK, 5 trauma kits and 8 DDK directly with the MOH across the ten states. The unit also supported the MOH and partners (emergency flights) with logistic flights to deliver the supplies on a timely basis in the field.
d) Capacity building for emergency preparedness

Training for health workers in public health in emergences was conducted in Twic and Gogrial West counties, Warrap state. A total of 86 health care workers benefited from the trainings. These trainings among others are part of strengthening the communities to be resilient to be able to respond and manage emergencies at community level. This will also improve the case management of the common illnesses and epidemic prone diseases in the key states with population of humanitarian concern. The training was focusing on the concept of humanitarian health emergencies, risk assessments, communicable disease control with emphasis on EWARN, case management and developing emergency response plans in the post emergency periods. Mentoring of the health workers by state national public health officers in the counties affected by the emergencies was also done to enable the local health workers continue with monitoring of the health events with appropriate interventions.

EHA/WHO also supported the Ministry of Health at both central to conduct and hold coordination meetings. At central level, five coordination meetings were held successfully. Similar meetings (emergency and monthly) were held in Warrap State, Western Equatorial, Western Bahr el Ghazal, Northern Bahr el Ghazal, Lakes, Eastern Equatorial, Unity State and Uppernile state. The health coordination meeting brings together MOH, UN agencies and NGOs. The organization has also managed the health core pipeline on behalf of the other agencies UNICEF and UNFPA. This ensured adequate availability of emergency kits and reproductive health kits to the areas of critical need. Technical support continues to be given to the crisis/emergency committees at the state level.

e) Promoting Effective Health Coordination

During this quarter, WHO continued to work in close collaboration with the state ministries of health and other health cluster partners to achieve her objectives. WHO/EHA recruited and posted Public Health Officers (PHO) to Uppernile and Eastern Equatorial State to support the MOH with emergency preparedness and response and to support the ministry of health and partners capacity to deliver health services. It’s also envisaged that the newly recruited PHO will strengthen the presence of WHO at the state levels. This makes the total number of PHOs recruited since the start of the year to five, hence strengthening the organizations presence in the six emergency states (Uppernile, Warrap, Northern Bahr el Ghazal, Western Bahr el Ghazal, Uppernile and EES). Two more public health officers are to be recruited for Unity and Jonglei state by end of fourth quarter.
Emerging and re-emerging communicable diseases are becoming a major public health problem in South Sudan, despite improved surveillance and health services. Emerging from decades of civil war, the current health system and infrastructure is not capable of overcoming the humanitarian health emergencies. The increased number of returnees and displaced people has further placed pressure on health facilities in South Sudan. There is a severe shortage of qualified health workers, and very few training institutions that train doctors, nurses, midwives and other cadres. Although 80% of all the health care services are being provided by the humanitarian agencies, less than 30% of the population in South Sudan is accessing these health services. Communicable diseases prevalent in the country include malaria, meningitis, measles, yellow fever, whooping cough, river blindness, kala azar, sleeping sickness, cholera and others. WHO continued supporting the health authorities and partners to respond to the humanitarian health emergencies and improve accessibility and availability of the basic health services among the vulnerable people. The organization continued to assist and will assist the state and county health authorities to strengthen their emergency and preparedness and response capacity to tackle the deteriorating humanitarian situation and recurrent communicable disease outbreaks including measles, kala azar, cutaneous anthrax, malaria, and other diseases.

2.2 Communicable Disease Surveillance and Response (CSR)

WHO also supported a five days in-service training of thirty health workers (nurses, clinical officers and community health workers) from health facilities of Yei, Lainya and Morobo counties on case management of common illness and Integrated Management of Childhood Illness (IMCI). The training was conducted in collaboration with ACROSS an NGO that supports health services in Lasu refugee camp and nearby communities. The training was conducted with the main purpose of improving case management skills of healthcare personnel serving refugees, displaced people and host communities in the above counties and to strengthen disease surveillance at the same levels.

Seventy health workers were also trained on integrated disease surveillance in Kajokeji County, Abyei and Malakal county during this reporting period. The trainings were organized by the State Ministries of Health with technical and financial support of WHO. They aimed to improve skills and knowledge among front-line health workers on

a) Trainings/capacity building:

During the third quarter, WHO supported a three days training meant to build the capacity of 30 surveillance officers and data managers on the use of the new District Health Information System (DHIS) software which the Ministry of Health is using to manage all health data. The use of this software will be rolled out to all the states and counties in South Sudan. The training was conducted with the following objectives; to orientate the Surveillance officers of the DHIS; use the DHIS software for weekly surveillance data including data capture, validation, analysis, and export to higher level and producing standard reports and to have more cadres trained on the use of DHIS. Since the training, the use of the HMIS package has taken off in some states and counties. It is envisaged that the involvement of the surveillance officers in moving towards the use of the DHIS will improve their weekly reporting.
integrated disease surveillance including priority diseases, outbreak investigation and response, reporting tools, data analysis and dissemination of reliable information to guide decision makers on how best to respond to disease outbreaks or other health events.

Further still, the programme supported a training of forty nine laboratory technicians in Torit and Yambio on basic and advance laboratory techniques to diagnose common epidemic prone diseases, infection control and specimen package and transports. Other trainings supported by WHO during the 3rd quarter of this year included:

A training of twenty eight health workers from health facilities in Twic County on outbreak investigation and response as part of the county rapid response team;

A training on clinical management for rape and gender based violence of 25 health personnel from various health facilities in Upper Nile State. During this training, WHO provided technical assistance by facilitating at the workshop while The America Refugee Council (ARC) provided the financial and logistical support.

B) Communication and transport for IDSR activities

To strengthen surveillance and reporting performance at the county levels, WHO supported the installation of five long range HF Radio communications in Wuror county, Jonglei, Malakal county, Kapoeta county, EES, Gogrial West County, Warrap, and Upper Nile State Ministry of Health.

In addition, the programme donated five thuraya satellite phones and one motorcycle to county Surveillance Officers in Central Equatoria SMoH also aimed at improving surveillance and reporting performance and communication between county health departments and state or central surveillance unit.

c) Coordination and technical mission

During the last part of the quarter (25th September, 2011) four external consultants representing USAID and WHO visited South Sudan on a short mission to conduct a mid-term evaluation to determine how effective WHO is in implementing the core aims of the IDSR project and to recommend programmatic shifts if necessary to more effectively achieve the project’s ultimate goal and objectives.

WHO also provided technical and financial support to the central Ministry of Health and Jonglei State Rapid Response Teams to investigate suspected hemorrhagic fever outbreak in the SPLA barracks in Fangak County. 12 out 25 suspected cases tested positive for kala azar during the investigation and were provided with treatment at
Fangak Primary Health Care Centre (PHCC).

In the third quarter, the WHO technical officers at the central and state levels supported and participated in regular surveillance supervision visits to monitor surveillance activities and mentor health workers on reporting, data analysis, outbreak investigation and specimen collection.

**Disease surveillance in the 3rd quarter**

**a) Health Facility Reporting**

During the third quarter, an average of 468 out of the 993 (47%) health facilities transmitted weekly disease surveillance reports to the state and central levels. The average number of health facilities submitting the weekly reports gradually decreased during this quarter as compared to the second quarter of 2011. The reporting performance for most priority sites including hospitals and PHCC gradually improved this quarter; however more is still needed to improve the overall health facility performance. The majority of the health facilities not submitting the weekly surveillance reports on a regular basis are those facilities located in the peripheral sites with limited communication and transport to facilitate the surveillance reporting. WHO is currently working with health authorities and partners to identify key peripheral health facilities where HF radios will be installed as part of the IDSR expansion project.

| Table 1: Confirmed and Unconfirmed Laboratory Specimen by Disease in Southern Sudan (July - September 2011) |
|-----------------------------------------------------|-------------------------------------------------|-----------------|-----------------|
| Diseases                                            | Total Specimen Analysed | Confirmed       |
| AWD/Cholera                                         | 2 0                         | 0               |
| Meningitis                                          | 1 0                         | 0               |
| Measles                                             | 67 29                       | 29              |
| Rubella                                             | 7 7                         | 7               |
| VHF                                                 | 0 0                         | 0               |
| Hepatitis E                                         | 0 0                         | 0               |
| Yellow Fever                                        | 0 0                         | 0               |
| Dengue Fever                                        | 0 0                         | 0               |
| Chickenpox                                          | 7 0                         | 0               |
| Total                                               | 77 36                       | 36              |

**b) Laboratory Specimen**

During the third quarter, an average of 468 out of the 993 (47%) health facilities transmitted weekly disease surveillance reports to the state and central levels. The average number of health facility submitting the weekly reports gradually decreased during this quarter as compared to the second quarter of 2011. The reporting performance for most priority sites including hospitals and PHCC gradually improved this quarter; however more is still needed to improve the overall health facility performance. The majority of the health facilities not submitting the weekly surveillance reports on a regular basis are those facilities located in the peripheral sites with limited communication and transport to facilitate the surveillance reporting. WHO is currently working with health authorities and partners to identify key peripheral health facilities where HF radios will be installed as part of the IDSR expansion project.

**a) Acute Watery Diarrhea (AWD)**

During this reporting period, a total of 5303 cases of AWD with 39 deaths (CFR, 0.08%) were recorded across southern Sudan, of these cases, 57% were children below 5 years of age. The majority of the cases were reported from states hosting large numbers of returnees and displaced people. Despite the deterioration of the humanitarian situation in South Sudan in the first nine months of 2011, there was no confirmed cholera outbreak, although the quarter in focus reported a slight increase in the overall trend of AWD as compared to the previous quarters.
Some counties that recorded highest AWD cases this quarter included; Wau, Jur River, Gogrial West, Aweil West, Twic, Tonj East, Mayendit.

b) Meningitis

A total of 38 suspected meningitis cases with 11 deaths (CFR 28%) were recorded in the 3rd quarter of this year, 37% being children below 5 years of age. The majority of the cases were sporadic cases reported from different health facilities or counties. None of the CSF specimen collected from suspected cases tested positive for Neisseria Meningococcal bacteria through culture. Therefore no confirmed meningitis outbreak was reported during this reporting period.

As shown in figure 1, Northern Bahr el Ghazal (NBeG) reported the highest measles cases in the third quarter as compared to the previous quarters, and Aweil East and Center counties recorded the highest as compared to the other counties (refer to figure 2). WHO in collaboration with health authorities and partners supported mass measles campaign that targeted over 810,714 children between 6 months and 5 years. The organization and other partners have continued supporting other follow up campaigns for measles immunization targeting five states bordering with North Sudan that reported the highest measles cases in the last nine months. Key donors contributing to the ongoing measles follow up campaign include WHO/EMRO, USAID, ECHO and CHF.

c) Measles

Between July to September 2011, a total of 500 suspected measles cases with 1 death (CFR 2%) were recorded across Southern Sudan. Several states, including Unity, Warrap, WES, NBeG and Upper Nile continued reporting increased numbers of measles cases during this quarter compared to the same period last year with the measles outbreak confirmed early this year continuing to spread. Over 80% of measles cases recorded this quarter were children below 5 years of age. Approximately 67 blood specimens were collected from suspected measles cases this quarter; 43% of them tested positive for measles and 10% tested positive for rubella. The majority of the measles cases recorded this quarter were from; Rubkona, Aweil East, Aweil Center, Rumbek Center, Twic, Abye and Aweil South.
WHO supported a number of advocacy meetings with all stakeholders in the states to solicit for their support and participation in all AFP and measles surveillance and to strengthen routine immunization. As results, all stakeholders responded positively to control the measles outbreak in Northern Bahr El Ghazal, Unity, Warrap and upper Nile states. Massive support was also received from all the partners during the measles follow up campaign as a result of the advocacy meetings conducted.

d) Acute Jaundice Syndrome (AJS)

A total of 40 suspected AJS cases with 12 deaths (CFR 30%) were recorded across southern Sudan in the 3rd quarter of 2011. The majority of the reported AJS cases and deaths were adults from Juba, Toroti and Jur River counties. One confirmed yellow fever case was reported in Gulu district in Northern Uganda. The patient was a female who originated from Torit, EES. WHO continues to hold discussions with the MoH and other partners on a plan to conduct a yellow fever risk assessment survey in all counties bordering with Northern Uganda.

e) Malaria

During the third quarter, 310,369 malaria cases with 75 deaths (CFR 0.024%) were reported across South Sudan. The number of malaria cases reported during this quarter is extraordinarily higher compared to the previous quarters or the same period in 2010. Despite the rainy season, returnees and displaced people are not immune for malaria and yet are currently residing in malaria endemic areas. Malaria still remains a major public health problem in South Sudan. It accounts for over 80% of all morbidity data or consultations in health facilities. In the third quarter, 43% of all the cases and 59% of the deaths were children below 5 years of age. CES, WES, WBeG and NBeG recorded the highest malaria cases (refer to fig 3) in South Sudan.

Severe shortage of anti-malaria drugs was reported by health authorities and partners, during the third quarter. The Ministry of Health, WHO, PSI and key donors are trying to fill the gaps by procuring and distributing additional malaria drugs and testing kits to all health facilities.
F) Cutaneous anthrax Outbreak

A total of 90 cutaneous anthrax cases with two death were reported from Jur River and Gogrial West counties since the outbreak was first reported in February 2011. Of the 90 cases reported, over 75% were children under 2 years of age with all the cases having had a history of either eating or handling contaminated meat of dead animals. The latest preliminary analysis from blood specimens collected from suspected cases and sent to CDC-Atlanta did not confirm the presence of the bacteria that causes anthrax (bacillus anthracis), nonetheless previous results confirmed bacillus anthracis. WHO provided technical and financial assistance to the state and county health authorities to expand the outbreak investigations and appropriate response including training of health personnel on case management, ensuring availability of drugs, strengthening surveillance and reporting and intensive community mobilization to discourage the eating of dead animals. WHO also supported the coordination of the response interventions in collaboration with the veterinary department.

g) Kala azar outbreak

The third quarter also had 1689 new primary kala azar, 231 secondary kala azar cases and 307 defaulters with 58 deaths (CFR 2%) recorded from 24 treatment centers in Jonglei, Upper Nile, Unity and Eastern Equatoria States. The monthly admission rate at all the treatment centers remained very high although the total cases were slightly less compared to the previous quarter. Insecurity still remained a big challenge in northern Jonglei and Upper Nile with increased population movements. This has negatively impacted on the accessibility of patients to the treatment facilities. In August 2011, tribal clashes in Wuror and Nyrol counties in Jonglei led to the closer of a number of kala azar treatment centers and evacuation of medical personnel. At the same time, the increased number of military personnel deployed in northern Jonglei and Upper Nile, coupled with the big numbers of soldiers diagnosed with kala azar and admitted in different treatment facilities remained a challenge. At the end September, rebel militia in northern Jonglei looted the kala azar treatment center in Jiech supported by Medair, and threatened to attack Ayod PHCC which is the largest treatment center in Ayod county. The security situation in Ayod, Fangak, Khorfulus, Atar and some other counties in Unity State remained fragile during the quarter in focus as the government forces and militia groups continued fighting.

h) Human African Trypanosomiasis

During the this quarter, 108 new cases (35- stage one and 73 stage two) were diagnosed at 5 treatment centers compared to 98 (42 stage 1 and 56 stage 2) new cases in the same period in 2010. Refer to graph 2. The number of new cases treated this quarter was at 10% more than those treated in the same quarter in 2010. Forty five percent of these cases were seen in Yei civil Hospital. However there were new cases that came from endemic regions outside Yei County (Laniya, Mundri, Dolo and Morobo County).

The third quarter also saw 1050 patients being screened for Human African Trypanosomiasis (HAT) with a positivity rate of 10% in all HAT treatment facilities compared to 2301 (Active and Passive) positivity rate of
4% during the same period in 2010 indicating high prevalence among those screened during this reporting quarter. Important to note however was that all the treatment centers reported zero mortality rate although one case in Yei reportedly died of other ailments before receiving treatment from the health facility. The new protocol increased the patients’ compliance to treatment as patients only take treatment for a short period of 10 days. A few side effects have also been observed among patients since the start of the combination therapy in July 2010.

During this reporting period, WHO also supported the ministry of health with HAT and VL supplies. The table below gives a summary of the supplies that WHO provided to the ministry of health at both central and state levels. South Sudan Polio Eradication Initiative (PEI) has made a significant progress towards polio eradication by not isolating any case of the wild polio virus for 27 continuous months (July 2009 – September 2011) although all surveillance indicators are at optimal levels.

![Graph showing comparison of HAT new cases by months as of 30th September 2011](image)

As of surveillance week 39 (September 30, 2011), a total of 267 AFP cases were detected throughout South Sudan. In addition, 726 contact samples were collected. 95% of cases had at least 3 contact samples, showing a significant improvement compared to the same period in the previous years.

Analysis during the third quarter showed that annualized Non-Polio AFP rate was at 4.50. Stool Adequacy was at 93%, NPEV rate stood at 6.67% and Sabin-like isolate rate was at 2.25%.

![Graph showing AFP case rates](image)

**Routine Immunization**

The gains made in the first and second quarters in routine immunization were improved during the period under review with WHO providing funds and technical support to the MoH RSS as well as to the State Ministries of Health. The support was to provide routine immunization services to targeted South Sudan children. Defaulter tracing activities were also done in most states to retrieve children who were missed out in the immunization during the first and second quarters. As a result, DPT3 coverage had significantly improved during the 3rd quarter in 2011 compared to 27% during the same reporting period in 2010.

![Graph showing DPT3 coverage](image)
2.4 Guinea worm

The world Health Organization continued to support strengthening guinea worm disease surveillance in South Sudan by supporting training of health workers, advocacy workshops, production of surveillance tools, coordination meetings and surveillance.

The current epidemiological situations indicate a progressive decline in the number of guinea worm cases during the month of July to September compared to the year 2011. 187 cases have been reported during the 3rd quarter of 2011 compared to 810 cases over the same period in 2011.

<table>
<thead>
<tr>
<th>period</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>July</td>
<td>361</td>
<td>102</td>
</tr>
<tr>
<td>August</td>
<td>290</td>
<td>49</td>
</tr>
<tr>
<td>September</td>
<td>159</td>
<td>36</td>
</tr>
<tr>
<td>Total for the three months</td>
<td>810</td>
<td>187</td>
</tr>
</tbody>
</table>

The world health organization continued to support the National GWEP monthly task force meeting held in Juba on monthly basis.

In addition, the WHO supported training of 96 community volunteers in three counties of South Sudan.

The organization also supported the development, production and procurement of guinea worm disease guideline tools which were distributed to all the health facilities and all surveillance officers in South Sudan. The tools act as proper reference tools in guiding health workers on what has to be done whenever a guinea worm suspect or case is reported.

In addition, WHO supported the guinea worm advocacy workshops for community leaders in Northern Bahr El Gazal state, Jonglei state (among the military) and Eastern Equatoria state. Further support was given on health education campaigns in Western Equatoria state (Mundri East and Mvolo counties) and Lakes. Guinea worm disease sensitization workshop among the military in Bor town, Jonglei state.

WHO further supported the West and East of the Nile Midyear programme Reviews conducted in Kapoeta in Eastern Equatoria and Torit in Lakes state. The two meetings reviewed activities and challenges faced by the programme over the last months of the year and provided guidelines on the way forward.

The SPLM medical corps attend a training organized by the MoH/RSS with support from WHO.
WHO procured and donated 207 bicycles to strengthen community based surveillance in seven counties of South Sudan. The Bicycles have been handed over to volunteers to strengthen guinea worm surveillance between the community and health facilities in the guinea worm disease most at risk counties.

WHO South Sudan provides technical support in line with its global established priorities under five strategies for action towards achieving the universal access goals: Enabling people to know their HIV status; maximizing the health sector’s contribution to HIV prevention; accelerating the scale-up of HIV/AIDS treatment and care; strengthening and expanding health systems and investing in strategic information to guide a more effective response.

**2.5 Human Immune Deficiency Virus (HIV)**

WHO South Sudan provides technical support in line with its global established priorities under five strategies for action towards achieving the universal access goals. The current prevalence rate is estimated at 3.0% (according to the 2009 ANC survey). According to this survey, the HIV prevalence was highest in Western Equatoria State and lowest in Northern Bahr El Ghazel State. WHO/UNAIDS estimates that as at the end of 2010 there were 116,000 People living with HIV/AIDS (PLHIV) and 49,500 in urgent need of treatment in South Sudan.

With support from United State Government partners and WHO, the Republic of South Sudan continued to strengthen surveillance, monitoring and evaluation for HIV activities using a number of strategies to track the HIV epidemic including case reporting of HIV & advanced HIV through sentinel facilities and analysis of HIV in donated blood.

The third quarter, With support from USAID, a situational analysis and mapping exercise in 5 states was conducted during last quarter, to describe the behaviors most-at-risk groups, their distribution, networks and sizes.

**b) HIV care and treatment for PLHIV**

The Republic of South Sudan has a policy for free access of Antiretroviral therapy to PLHIV, yet only about 6% of those in urgent need are able to access this free treatment. Factors responsible for the poor access are multidimensional consisting of inadequate facilities for HIV testing and counseling especially among pregnant women, TB clients and those most exposed to risk; weak linkages between HIV testing facilities and programmes that offer HIV care and treatment; late initiation and weak patient retention mechanisms.

Preliminary surveillance identifies South Sudan as a generalized HIV prevalence country given that the HIV prevalence amongst the population exceeds 1%. The current prevalence rate is estimated at 3.0% (according to the 2009 ANC survey). According to this survey, the HIV prevalence was highest in Western Equatoria State and lowest in Northern Bahr El Ghazel State. WHO/UNAIDS estimates that as at the end of 2010 there were 116,000 People living with HIV/AIDS (PLHIV) and 49,500 in urgent need of treatment in South Sudan.

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To scale up access to treatment, the National AIDS Programme in collaboration with WHO and other stakeholders, is bridging the gaps through systematic consultative meetings, sensitization workshops, designing of new information systems and follow up support through peers to PLHIV. With WHO support, best practices on high retainer systems have been evidenced at some NGO partner facilities such as MERLIN-Nimule. PLHIV peer support groups have been formed at facilities that offer Antiretroviral treatment; these groups are Living positively and provide health education in hospital and through community outreaches.

WHO has continued to offer mentoring support in operationalising the 2010 WHO rapid advice for use by health workers in providing clinical care and Antiretroviral treatment for HIV infected Adults and Children. The guidelines embrace use of less toxic drugs, emphasize expansion of laboratory monitoring services for patients and an earlier start of treatment at CD4 count of 350/mm3. This has necessitated the expansion of HIV care and treatment for many PLHIV around the country.

The programme also supported the HIV sector to expand the HIV treatment by 3 more health facilities making a total of 19 in the country.

**Capacity building**

During the reporting quarter, WHO supported the Ministry of Health/National AIDS Programme in capacity building of health staff on how to identify and manage HIV in children. The training guidelines and tools was adapted from basic Integrated Management of Childhood Illnesses training with special considerations on the management of HIV/AIDS in children. The course targeted health workers working in facilities providing Antiretroviral therapy, building upon and complementing the existing national HIV integrated adult management course (IMAI). The course participants included 28 health workers among them; doctors, clinical officers, nurses and pharmacists from 20 out of 22 health care facilities providing antiretroviral therapy in the country.

### 2.6 Tuberculosis

The National Tuberculosis/Leprosy/Buruli Control Program (NTLBP) is a sub-recipient of the Global Fund Round 7 Phase II. The NTLBCP coordinates monitors and supervises the implementation of TB, Leprosy and Buruli Ulcer activities in collaboration with partners. The World Health Organization (WHO) continues to play significant roles in strengthening the NTLBCP capacity through technical assistance. The current estimate of TB incidence in South Sudan is not known. However, the WHO estimates the incidence of Tuberculosis (TB) in South Sudan at 79 per 100,000 for new sputum smear positive TB and 140 per 100,000 for all forms of TB. The Directly observed therapy (DOTS) coverage at the county level is
still low at 48%.

During the third quarter, WHO South Sudan continued supporting CUAMM (DOCTORS WITH AFRICA) technically and financially to delivery TB services in Greater Mundri County, Western Equatoria State.

The WHO in collaboration with the NTLBP conducted a training of health workers on the basic aspects of TB/HIV collaborative activities with a major focus on Co-trimoxazole preventive therapy (CPT). The main objective of the training was to improve the knowledge of the health workers on TB, TB/HIV collaborative activities and Co-trimoxazole prophylaxis. Thirty four health workers (general medical assistants, clinical officers, nurses and community health workers (CHWs) from Eastern Equatoria State (16) and the Greater Bahr el Ghazal (18) were trained. The 5 days training took place in Nimule, Eastern Equatoria State from 25th - 29th July 2011 and in Wau, Western Bahr el Ghazal, from 20th - 24th September, 2011.

The World Health Organization (WHO) also provided technical assistance through the Regional Office (EMRO) to facilitate a training of health workers (Including the State TB Coordinators, Training Officers, M&E Officer etc) on TB monitoring and evaluation (M&E) with focus on electronic reporting. The training that took place between 8th - 12th August saw 20 health workers being trained. WHO also supported the distributed IEC materials to the TB and TB/HIV service points.

2.7 Secondary Health Care

During this quarter, WHO sent an Anaesthesiologist-specialist to offer technical capacity building for Bor hospital, which is the pilot and one of eight hospitals

Benefiting from the CIDA-funded project to strengthen delivery of comprehensive emergency obstetrics and newborn care. The first deployment of the Anaesthesiologist covered 6 weeks, wherein the objectives and outputs were assisting the staff on triage procedures, performing pre-anesthetic and preparations, performing anaesthetic/surgical case management. The deployment is also meant to conduct on-the-job training and coaching for the medical officers and nurse anaesthetic assistants on anaesthesia procedures, and promoting the hospital’s best practices in general specifically in emergency medicine with reference to emergency obstetrics and newborn care. Clinical bed-side teaching, tutorials and teaching sessions for the medical officers, clinical officers and nurse anaesthetists on pre-operative, operative and post-operative care were employed, while operative interventions were demonstrated in theaters. Mostly seen during the month of the on-site training were obstructed labour that necessitated caesarean section, from initial attempts to deliver at home with the assistance of traditional birth
attendants that in most cases lasted 2-3 days. At least two intrauterine foetal deaths were recorded from a similar predicament which are issues that the project aims to address and increase the community’s awareness on.

The Anaesthesiologist assisted the hospital with casualty and trauma management, from the hospital surge experienced following a series of violence-related incidents in Jonglei state and bordering areas. In one incident, more than 35 simultaneous surgical emergencies were received, with almost half sustaining serious gunshot injuries.

Meanwhile, the preparatory phase for the construction component of the Maternity Block in Bor hospital was undertaken during the period. After detailed review and consultations at the MoH, and within the WHO regional and country office levels, all the architectural designs, technical specifications and the scope of work were finally completed and approved by end of August. The invitation to bid were posted and advertised in 3 leading newspapers in South Sudan and twelve companies submitted bids for the construction.

During the quarter, WHO also continued to support hospitals to manage critical surgical emergencies and potential mass casualties, through the funding support from the Common Humanitarian Fund.

In the previous quarter, WHO supported the deployment by the MoH of a Surgeon and Anaesthesiologist in both Malakal Teaching Hospital and Bentiu state hospitals when violent inter-tribal clashes happened in the respective states and more than 220 major surgical cases were managed during the period, 60% of which were casualties from the violence-related incident. This intervention continued through the third quarter, and in response to a violent inter-tribal conflict in Jonglei State, the WHO sent an Anaesthesiologist to Bor State Hospital (to work with the MoH-sent surgeon deployed at the hospital), while transport/flight and treatment was also provided for over
20 severely injured patients to Juba Teaching Hospital. The medical staffs including the management were also taught on triage and basic life support in a mass casualty scenario.

To reinforce the hospitals’ capacity to respond to these surgical emergencies and mass casualties, WHO provided trauma kits, while the procurement of surgical kits, anaesthetic kits, and transfusion kits were initiated during the year, to supply key hospitals (particularly in high-volume trauma states specifically Juba, Jonglei, Upper Nile, NBeG, and Unity) with full essential surgical tools and supplies. Coordination with able organizations (MSF and ICRC) on training, and pre-positioning of emergency surgical commodities are also continued to be undertaken by WHO.

### 2.8 Health Cluster Coordination

The Health Cluster continued to develop and strengthen over the third quarter responding to humanitarian emergencies and concerns in a timely manner.

Regular Health Cluster meetings took place in all the states on a monthly basis. In areas where humanitarian emergencies rose, cluster meetings were conducted on a more frequent basis e.g. weekly. Five health cluster meetings were conducted at the central level during this quarter all chaired by the Ministry of Health with over 20 agencies participating.

The situation of IDPs in the Abyei crisis area remained a major concern. By the end of August 2011, 100,000 people were to be displaced in Warrap State and Agok (Abyei Area). Until the political situation with North Sudan is resolved it is anticipated that IDPs will remain in South Sudan until early 2012.

A measles campaign was conducted in and around Agok in mid-August during which MSF led partners in the campaign. Despite large EPI interventions for the IDPs where all under 5s were immunised for measles and polio regardless some cases continued to be seen in Turalei and Mayen Abun. WHO and partners integrated response into the follow up campaign as in September.

In early September floods caused the displacement of
10,000 people. MSF, GOAL and Abyei Secretariat through the cluster were quick to respond by performing assessments and mobile clinics while WHO supported the Abyei Secretariat of Health with 3 months drug supplies.

In Upper Nile, the Health Cluster mobilized early in readiness for a large influx of anticipated returnees who could become stranded in Renk. Frequent health cluster meetings at Juba level plus the establishment of a Task Force in Malakal, Upper Nile and Renk allowed for a strong coordination and partnerships to be established for the response. Through strong cluster coordination, human resource challenges of international agencies were resolved. For instance partnerships between Medair and the County Health Department staff, and IOM and IMA with Malakal state ministry of health pooled human resources together. Medical supplies for partners and County Health Departments were supported by WHO and UNICEF. Initially the emergency EPI activities were being implemented by the County Health Departments with support from WHO and UNICEF through vaccine procurement, delivery and cold chain storage, however at present the activities are being implemented by IOM and Medair. During this reporting quarter, 1486 children were immunized, 740 by Child Health Days, 210 by IOM, and 536 by Medair.

The north south returns including the IDP centre organized bus movements from Khartoum, barge movements from Kosti, plus SSRRC / IOM / UNHCR barge assisted movements from Kosti precipitated strong and daily coordination between the Health Cluster and EHA WHO offices in North and South Sudan. The worrying health situation in Kosti, White Nile State (North Sudan) and its cross border impact with South Sudan including a measles outbreak in Kosti in mid July and high cases of acute watery diarrhoea resulting from poor water sanitation conditions necessitated strong and quick information flow between the two countries of South and North Sudan for appropriate response. Following the collaboration in the two countries, EPI activities were fortified in Renk. With increased timely coordination IOM was able to immunize returnees upon arrival, support of barge movements into South Sudan with medical supplies, and triage and treatment of sick passengers was provided at portside. Coordination meetings were also conducted with SSRRC, IOM, Ministry of Health and WHO at Juba level.

North Sudan twice organized movement of returnees by train via South Kordofan into Northern Bahr el Ghazal and Western Bahr el Ghazal. During this time humanitarian activities were coordinated by IOM, the state OCHA team together with the Health Cluster.

The returnees were received by county medical teams supported by WHO who triaged and treated sick passengers and conducted EPI activities by immunizing all children under 5 years for measles and polio on arrival.
Western Bahr el Ghazal once passengers wished to reside at the transit camp IOM conducted mobile clinics and follow up medical support.

Ad hoc barge movements from North Sudan posed high risks to the passengers on board after two children died due to diarrhoea enroute to South Sudan. Through the cluster, EPI teams were sent out via Yirol to support the immunization of the passengers while IOM provided medical teams to treat and assist passengers for onward transportation.

During the quarter, four SSRRC / IOM assisted barge movements were conducted from Kosti to Juba. Through strong field and Juba level coordination, medical supplies were delivered to barges running low on stocks in 2 movements in Malakal in Upper Nile state and Bor in Jonglei state. Coordination through the cluster, IOM, UNHCR, MoH and SSRRC allowed for immunization activities for passengers at the arrival point in Juba to ensure maximal coverage before passengers could integrate in the community. In total 380 children under five received vaccination against measles.

During the third quarter, multiple inter tribal clashes occurred in Jonglei state. Clashes in Pibor between Nuer and Murle occurred between 15th and 27th June 2011 leaving many wounded patients unable to access health care in Pibor or Gumruk. Wounded patients slowly presented to health facilities in July in Duk Padiet and Yei. Through supportive coordination of the Health Cluster partners, State Ministry of Health, Bor Hospital and OCHA anticipated gaps were met. Patients were assisted to access treatment in John Dau Foundation PHCU near Gadiang in Duk Padiet and medevaced to Bor Hospital. To support the response in Bor Hospital WHO replenished emergency medical supplies and MSF reviewed patients. In coordination with OCHA and UNMISS the medical assessment missions for medevacs were conducted in Yei.

In August 2011, over 600 people were estimated to have been killed with several others badly wounded in Uror following inter-tribal clashes. To support the wounded, IMC with the assistance of WHO medevaced 23 patients for surgical intervention at Juba hospital. Other health partners who supported the wounded were; Tearfund, and MSF in collaboration with ICRC. Tearfund moved over 30 patients to Walgak to be treated, and MSF treated over 100 wounded in Pierri and with the support of ICRC in Nassir in Upper Nile, medevaced and treated over 50 surgical patients.

2.9 APOC

APOC supports the South Sudan Onchocerciasis Taskforce (SSOTF) to establish effective and self-
sustainable community-directed ivermectin treatment (CDTI) throughout the onchocerciasis endemic areas in 9 out of 10 states in South Sudan. The CDTI strategy relies on community participation in the distribution of ivermectin to the targeted population. Project Coordinating Officers, County OV Supervisors, Staffs from Front Line Health Facilities (FLHF) facilitate the CDTI process by organising community in participating in CDTI activities. Communities select the Community Drug Distributors (CDDs) that are then trained to conduct a census of their communities, provide treatment with ivermectin and keeping records of the households treated. After the delivery of ivermectin to the states, counties and payams, the community members make the decision on when the ivermectin distribution should occur in their communities and then this is communicated to the CDDs and the other project staff.

At project level, the main activities done this quarter were: completion of the training for both new and old CDDs, commencement of the distribution of mectizan to the communities in the payams and bomas that already had received their annual supply of mectizan. All the states and counties covered by the 5 CDTI projects had their 2011 supplies delivered at their respective state ministries of health and county health departments this quarter. The task to treat over 6 million people with mectizan this year commenced during this quarter across the country.

A field visit was conducted to Western Equatoria CDTI project to monitor the progress of implementation of CDTI project activities; provide supportive supervision to the project and frontline health facility staff; have meetings with State and County Health authorities; and conduct community visits to meet with community members and leaders. Meetings to continuously advocate for support and involvement in CDTI work were held with the Director General for Health, the Director for preventive and community health and also with County Health Officers of the Counties of Yambio and Nzara. Communities were also visited for verification of CDTI data received and also for interaction with communities to find out how they are involved in CDTI work.

A two weeks exchange visit to the CDTI projects in Liberia was undertaken. There is a process going on to have the South Sudan projects re-launched since they have not performed to the required standard over the last 5 years and the visit to Liberia was aimed at experiencing best practices in a post conflict setting. Discussions were held with the Liberia APOC Technical Assistance (TA), meetings held with the Liberia NOTF, NGDO Partner Sightsavers, undertook field visits to a selected number of counties and met County Management Teams; and Officers In-Charge (OICs) and Community Directed Distributors (CDD) Supervisors and Community Directed Distributors in the implementation of CDTI activities.

APOC TA attended a one week meeting for National Onchocerciasis Task Forces (NOTF) that was held in Ouagadougou, Burkina Faso in September 2011. This annual meeting brings NOTFs from 19 countries where they present data on activities implemented during the previous year, have it peer critiqued, discuss challenges faced and suggest solutions to address challenges. It also provides a forum for National Onchocerciasis program staff to interface with APOC management staff so as to address any pending project related issues.
2.10 Health promotion, advocacy and communication

During the third, WHO supported the MoH Republic of South Sudan to organize for an IEC massage development and harmonization workshop to prioritize and streamline health promotion and education messages to be disseminated throughout the country, as a result;

Together with health partners from American Refugee Council (ARC), PSI, Save the Children, Malaria Consortium, UNICEF, Health Net, WHO and MoH massages were developed, validated and harmonized.

Reactivated the communication and health promotion working group to support MoH Republic of South to check and validate all health messages before printing and dissemination.

The program in collaboration with UNICEF and MSH supported the MoH Republic of South Sudan to develop and print IEC materials (posters, brochures, t-shirts and caps) used during the National Immunization Days (NID).

3.0 Challenges

a) EHA

The rapidly evolving humanitarian context, and unpredictable population movements constitute major challenges to accurate and effective planning for health services delivery, infrastructure improvements and staff deployment especially in the return areas of South Sudan which already has a weak health systems, poor infrastructure, drug stock-outs, lack of medical equipment, poor staffing and staff absenteeism. This is further compounded with the poor health funding at the state level.

In the states of Jongle, Warap, Uppernile, Lakes, and Unity the chronic insecurity due to cattle rustling and inter-ethnic clashes often compromises implementation of activities and increases the organizations operational costs.

The limited number of humanitarian partners and low staffing level of the WHO field office in state hubs vis-à-vis the number of states being supported also remains a huge challenge affecting the smooth running of WHO’s operations.

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b) CSR

The humanitarian situation in South Sudan continued to change, with increased numbers of returnees and internally displaced people.

Insecurity in the border areas and clashes in South Kordofan and Blue Nile states displacing thousands of
people and over 15,000 refugees settling in Unity State. This also affects delivery of services for Kala azar and VL.

On going measles, kala azar and malaria outbreaks.

c) **Polio Eradication**

Inadequate human resource

Inaccessibility due to insecurity, flood, poor road net work etc.

The influx of returnees

f) **Tuberculosis**

During the quarter, Difficulties in coordinating the transportation of samples from various TB facilities, given the short-time frame for the samples to reach Nairobi Reference Laboratory (NRL).

g) **Secondary Health Care**

The challenge in being able to identify and rapidly address the surgical (and other) gaps in hospitals is the lack of systematic reporting from the states/hospitals as well as coordination of data from the central level whether on a regular basis or during emergencies throughout the year.

h) **APOC**

The South Sudan Onchocerciasis Task Force (SSOTF) is still thin in regards to composition and capacity to effectively perform its roles. This leads to inadequate oversight over the project activities at State level.

The CDTI strategy is not evenly embraced across the CDTI project areas and this leads to inconsistencies between projects. Continuous training has to be repeatedly done for both the new and old staff.

Management of project resources (vehicles, motorcycles, equipment, work support items), monitoring their use and maintenance is still a challenge. Their dysfunction leads to negative impact to project outputs.

4.0 **Best practices**

a) **EHA and CSR**

Mainstreaming of emergency activities into all programmes of WHO has resulted into an integrated and joint response approach to health emergencies which is instrumental to the success achieved by WHO in effectively and timely responding to all health emergencies experienced during the year.

Forming partnerships with sister UN agencies and NGOs has resulted in better understanding of the mandate, technical capacity and comparative advantage of health cluster members which in turn is facilitating better information sharing and effective coordination.

Within the programme rotation of staff around the offices and other parts of the country to support specific tasks has not only expanded coverage of the supported activities but also improved the experience and the technical capacity of our staffs to support emergencies.
4.1 Way forward

a) EHA and CSR

The Emergency Humanitarian Action and communicable disease will focus on the following areas in the next quarter;

- Strengthen warehouse and supply chain management capacity within WHO operation in the field
- Recruit additional technical officers and national public health officers to support the health emergency response in high risk states.
- Strengthen the surveillance data management and reporting at central and state level through in-service training and mentoring.
- Improve the weekly reporting performance for health facilities in all states in collaboration with MoH-GoSS, SMoH and health partners.
- Promote the integration of early warning and response into integrated disease surveillance system
- Advocate greater involvement by the health authorities on disease surveillance, outbreak investigation and response.
- Distribution of LLINs to VL patients and host communities in endemic areas during the infection period as a practical preventive measure for vector control.
- Continue prepositioning Paromomycin to all treatment centres to maintain patients on combination therapy
- Need to support key treatment centres with Solar refrigerators to keep ambisome vials and DAT samples

b) Polio Eradication

WHO will continue to partner with MOH/RSS and development partners in the move to implement routine immunization micro plans aimed at increasing routine immunization coverage. More emphasis will be placed on technical support such as monitoring and supportive supervision as well as communication programmes to raise awareness about routine vaccination.

- Supplementary immunization activity (NIDs) will also be conducted in November and December 2011.
- Other areas that the polio program will focus on are;
  - Expert committee review meetings to classify pending Cases;
  - Conduct quarterly desk reviews to monitor sub national surveillance performance and rapidly implement field level reviews in areas with major performance gaps;
  - Provide continuous support through training to achieve high quality AFP surveillance;
  - Strengthen Measles Surveillance System and intensify response mechanisms against the surge of measles outbreaks though implementation of rollover follow up immunization campaigns next year;

Other areas that the polio program will focus on are;

- Finalize the GFATM PUDR reports, Global Drug Facility (GDF) mission with support from the Regional office and HQ;
- Finalize the disbursement of funds to CUAMM for the WHO South Sudan quarterly report. July - September 2011

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D) Tuberculosis

As a way forward, the program plans to:
- Finalize the GFATM PUDR reports, Global Drug Facility (GDF) mission with support from the Regional office and HQ;
- Finalize the disbursement of funds to CUAMM for the
implementation of TB/HIV collaborative activities in Greater Mundri County; Western Equatoria State; recruitment of a consultant under TB-CARE-1 to conduct an assessment and development of guidelines on patient centered approaches and follow up on the Drug Resistance Survey (DRS).

The program also plans to; collection of sputum specimens from the TB units for TB-retreatment cases which will be sent to Nairobi Reference Laboratory for drug susceptibility testing (DST) and culture, conduct two trainings for health workers on the basic aspects of TB/HIV collaborative activities, with main focus on co-trimoxazole preventive therapy (CPT), and two trainings for health workers on health management information system and (HMIS) and basic monitoring and evaluation (M&E), recruitment of a consultant for the development of guidelines for infection control in congregate settings and conduct support supervisory and mentoring visits to the TB and TB/HIV facilities.

**g) Secondary Health Care**

With the arrival of the 2 WHO project (International) staff who would be based in Bor permanently during the 1st year of project implementation in the hospital, i.e., an Obstetrician-Specialist and a Midwife, the on-the-job theoretical and practical raining for the doctors, nurses and midwives on the 9 signal functions of CEmONC would be fully implemented. Apart from the clinical training, technical expertise and support to Bor hospital staff and management would also be provided in improving and sustaining the referral system, in establishing and ensuring the application of standardized clinical protocols and training guidelines for CEmONC, in improving the organization and efficiency of services within the ANC center, labor room, delivery room, maternity ward, and operating theatre, in improving and ensuring compliance to universal precaution and infection control standards, and in establishing management supervisory and monitoring tools and systems, among others.

The technical and financial evaluation of the construction for the maternity unit in Bor hospital will commence by October, and the targeted date of site handover and start of the physical work is scheduled to start by 1st week of November.

In the coming quarter, led by the Directorate of Medical Services of the MoH together with the Secondary Health Care Unit of the WHO, a collaborative exercise would be undertaken with the partners to initiate the conduct of a Hospital Management Capacity Assessment for all the hospitals in South Sudan. The information that would be obtained from this assessment, that would hugely aid in directing interventions and support for hospitals would include: Operations, Medical Records Management, Financial Management, Nursing Standards and Practice, Human Resources, Quality Management, Patient Flow, Pharmacy Inventory and Warehouse Management, Equipment Management, Facility Management and Safety, Laboratories, Referrals Between Facilities, Governing Boards, and Infection Prevention and Control.

**H) APOC**

Monitoring and supervision mass treatment with Mectizan and the data collection process across the country in collaboration of SSOTF.
Surveillance and monitoring of adverse reactions to mectizan treatment across the country; but with especial attention to Western Equatoria CDTI project because of the existence of co-endemicity with loa loa.

Finally, the APOC programme will prepare 2012 mectizan application for submission to MERCK in January 2012. And continued providing technical support to the SSOTF and the CDTI project staff.

5.0 Conclusion

The health situation across South Sudan remains fragile characterized by; poor infrastructure, drug stock-outs and lack of medical equipment, poor staffing and staff absenteeism) and poor health funding especially at the state level further compounds the problem.

The problem is further escalated by the deteriorating humanitarian situation in the country coupled with the high influx of returnees and displacement from Abyei and other areas. The returnees living in the transit camps have also increased the risk of disease outbreaks. In addition low reporting rate from the health facilities due to long standing unpaid salaries and mobile population groups (especially pastoralists) all contribute to poor health indicators.

WHO will continue to invest her efforts in strengthening the governmental health system in South Sudan by providing technical support to the states and counties to implement life saving health interventions, improve the accessibility and utilization of services while continuing to offer technical support to the state health teams in emergency health planning, response, monitoring, supervision and coordination and, advocating for more support and attention to the states.