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1.0 Introduction

Decades of civil war severely impacted negatively on South Sudan’s health infrastructure and health indicators. Even after the signing of the Comprehensive Peace Agreement in 2005, the country still had a poor health infrastructure, which affected the health services delivery. To make the situation worse, the distance of states from the central and each other and the poor road networks makes the delivery of services and monitoring even more challenging. With all these challenges, the Government of South Sudan has stepped up her efforts and started rebuilding the healthcare system based on the vision of provision of community and essential healthcare services accessible to all the population and free at the point of care, equitable, efficient and of quality.

The Southern Sudan National Health Policy (MOH/GoSS 2006) operates with the following objectives: To reduce mortality and morbidity through a strategic approach under the overall stewardship of the MoH that ensures: Improved delivery of accessible, acceptable, affordable, sustainable, and cost-effective maternal and child health (MCH) interventions and nutrition programs; Enhanced and accelerated disease prevention and control programs; Strengthening the health system at all levels through adequate and fair financing, good governance, and accessible health services; Developing a comprehensive approach to human resource development including planning, training and continuous education, and management of personnel; and Institutionalizing effective partnerships with other stakeholders through coordination and other collaborative mechanisms. In translating these goals into actions,

Natural and man-made disasters such as the civil conflict in the South Sudan; cattle rustling, insecurity, floods and recurrent drought in the some parts of the country and the recurrent disease outbreaks in all parts of the country contribute significantly to the poor Health Development and Health Poverty Index (HPI) in the country. The effects of these disasters are often severe due to lack of early warning system for disasters especially at the community level, lack of preparedness, risk and vulnerability reduction mechanisms and inadequate human, financial and material resources needed to effectively prepare for and timely respond to these emergencies. The health consequences of these disasters often overwhelm and destroy the health systems and infrastructures in the country, which in turn results in high morbidity and mortality rates.

1.1 The general context in South Sudan

Although the signing of the peace agreement was done in 2005 and the country experienced a bit of relative peace, the republic of Southern Sudan continued to be in a state of complex emergencies hence impacting on the existing weak health systems and increasing vulnerability in the remote and inaccessible areas in the country. The 2nd quarter of 2011 was faced with a number of conflicts especially in the states bordering North Sudan. This resulted in to displacements and population movements hence affecting health service delivery in some areas that were already stressed. And as the crisis escalated an IDP influx into the neighboring states also increased. In addition outbreaks like measles, Acute Watery Diarrhea were also reported among the displaced populations.

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

1.2 Current situation in the states

The 2nd quarter presented many challenges that have shaped WHO’s work in South Sudan. Key among these challenges was the influx of IDPs 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 a resurgence of emerging diseases like measles and anthrax in 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 humanitarian context in South
Sudan continues to evolve and threatens to worsen due to the ongoing number of conflicts in the key states bordering north Sudan. This is compounded by repeated sporadic tribal clashes in high risk states like Jonglei, Warrap, Unity, Lakes and Upper Nile.

It is estimated that over 315,000 returnees as indicated in the figure below were registered in the south state between October 2010 to this 2nd quarter and the number keeps growing daily.

Currently the country continues receiving a second batch of returns and this number is expected to rise to over 100,000 returnees with many of them coming from the Upper Nile state in the Renk Axis over this quarter.

The heads of UN humanitarian agencies in South Sudan hold a brief discussion during an inter agency assessment mission to Turalei in Twic county. This mission follows the displacement of people from Abyei area.

The IDPs displaced from the Abyei area listening to the heads of UN humanitarian agencies in South Sudan during an inter agency assessment mission to Turalei in Twic county.
2.0 WHO's Major Achievements in the 2nd quarter (April to June) 2011

2.1 Emergency and Humanitarian Action

During the quarter, clashes between the north and south army forces in the contested Administration Abyei Area led to massive displacement of over 110,000 people. This affected Warrap, Western Bahr el Ghazal (WBGZ), Northern Bahr el Ghazal (NBGZ) and Unity states among others.

The emergency health needs continued to rise during this quarter due to the population explosion in the states that lie on that axis. The health facilities that existed were already inadequate for the host communities and with the increased number of the displaced population, it became severely overstretched affecting the capacity of the facilities in these areas to cope with the increasing need for life saving emergency health services.

To respond to the above, WHO together with state health authorities and partners: provided health emergency supplies; deployed medical officers to hot-spot areas; and strengthened surveillance and coordination at all levels. With the ECHO, USAID, Finish Government, Spanish Government and CHF financial contribution towards the referendum contingency plan, a considerable amount of core pipeline of emergency medical supplies (trauma, diarrhea, malaria and health kits) were prepositioned in eight states during the 2nd quarter of 2011, while additional medical supplies were distributed to referral hospitals. WHO also strengthened the early warning and response system in all the states as part of the integrated disease surveillance support.

### a) Rapid Health Assessments

Supporting the MOH in rapid assessments remains one of the key roles of WHO, during the 2nd quarter, the programme closely worked with several partners within and outside the health cluster to conduct several joint assessments. In Warrap, NBGZ, WBG, and Upper Nile affected states, WHO participated in the assessment of: inventory of emergency supplies, outbreak investigation kits, drugs levels and epidemic outbreak investigations.

Other assessment the organization participated in are: the yellow fever, measles, anthrax, acute watery diarrhea assessments conducted in the states of EES, Unity, WBG and NBGZ respectively. WHO also supported the state ministry of health in states of WBGZ, NBGZ, Unity and the Abyei-Agok area to conduct rapid health assessments in the areas of high return.


In South Sudan, the border states of the country are at high risks of conflicts, health emergencies and epidemic outbreaks. Drawing from the lessons learned from previous emergencies and outbreaks in the country, WHO/EHA supported the ministry of health to develop emergency preparedness plans to strengthen its epidemic response capacity during this quarter.

<table>
<thead>
<tr>
<th>State</th>
<th>IEHK</th>
<th>Trauma</th>
<th>DDK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uppernile</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Warrap</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>NBGZ</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>WBGZ</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Lakes</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>WES</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>EES</td>
<td>1</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>UNITY</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>ACROSS</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>SUK</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

To reduce response time in the event of disease outbreaks, health emergencies the organization pre-positioned a sizable number of emergency, cholera and meningitis kits, laboratory and medical supplies in all the field offices to
support the state ministries of health. The table above shows supplies that were prepositioned and utilized at state level during the 2nd quarter of 2011.

The organization also backstopped health partners with emergency supplies and an assortment of drugs to respond to localized emergencies in the states. Among the partners that received support from WHO during the quarter were ACROSS that runs health services in IDP camps and refugee settings in Lasu and Ngorom settlement camps in CES and Save the children UK in WES, Merlin in Jonglei.

In addition, Epidemic Preparedness and Response (EPR) training was conducted for over 100 health workers drawn from all the ten states so as to build their capacity to manage health emergencies. The trainings and stock piling of kits and medical supplies resulted in timely and effective investigations and response to many epidemic rumors of anthrax, cholera, ebola, meningitis, and measles or threats of other outbreaks.

The programme also worked with other cluster partners and UN OCHA to develop health cluster contingency plans for the flood prone areas in the states of NBGZ, Warrap and Uppernile and prepositioned supplies to support the counties in this area to strengthen disease surveillance during the flood period. Provision of weekly airtime to ease communication, on-job training, provision of standard IDSR reporting forms and frequent support supervision greatly enhanced the weekly IDSR reporting in all the states. This improved the completeness and timeliness of reporting and was sustained above 50% throughout the period of reporting in the 2nd quarter.

As part of strengthening the preparedness and capacity of hospitals to undertake surgical emergencies, surgical capacity mapping was completed WHO is currently procuring an assortment of surgical equipment/blood transfusion kits that will support state hospitals to strengthen their capacity to handle surgical and obstetric emergencies. WHO also supported 2 surgeons and 1 Anesthesiologist that were outsourced from Nairobi, Kenya, as part of the capacity building process to train and respond to surgical cases and trauma cases in the state of Unity (Bentiu State Hospital) during the Abyei related conflict that led to the fighting in Mayom Counties. A total of 265 patient with war related injuries were attended to in the hospitals in Bentiu, Agok and Bor.

WHO together with UNICEF and cluster members supported the scale up of EPI services and ensuring vaccination of all IDPs and returnees. Since the end of last year, Southern Sudan has experience increased cases of measles that are notably in the states that are hosting high returns and IDPs. WHO and UNICEF ensured that all children under one year are screened for routine EPI immunization status and given an opportunity to start or continue their infant series (BCG, DTP and OPV) and all children under 6-59 months of age are vaccinated against measles regardless of previous vaccination status.

<table>
<thead>
<tr>
<th>State</th>
<th>6-59 years</th>
<th>5-15 years</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unity (Mass Vacc)</td>
<td>31315</td>
<td>33876</td>
<td>65191</td>
</tr>
<tr>
<td>NBG (Mass vacc)</td>
<td>3752</td>
<td>18630</td>
<td>22382</td>
</tr>
<tr>
<td>NBG (Routine EPI)</td>
<td>8747</td>
<td>8747</td>
<td>17494</td>
</tr>
<tr>
<td>Warrap (Mass Vacc)</td>
<td>9615</td>
<td>13331</td>
<td>22946</td>
</tr>
<tr>
<td>Warrap (Routine EPI)</td>
<td>2769</td>
<td></td>
<td>2769</td>
</tr>
<tr>
<td>Total</td>
<td>56198</td>
<td>74584</td>
<td>130782</td>
</tr>
</tbody>
</table>

c) Building a Strong Health System for Effective Health Recovery

Following the referendum and the pre-independence period of South Sudan, the country saw marked improvements in the security situation in the border States resulting in population return. This posed a challenge to access to good quality health care services in the return areas as many health facilities in these areas were either abandoned or non-functional. To address these challenges, WHO closely worked with the State health teams to develop strategies for providing health services in the areas of return. In the border states, WHO supported the state teams to conduct mobile clinics and outreaches to return sites and IDP sites. A total of four mobile teams were supported to provide services in the
areas of Uppernile, Warrap, NBGZ and WBGZ states. Acute respiratory tract infections were the major causes of morbidity accounting for 22% while malaria accounted for 7% of all OPD consultations.

Technical and logistic support was provided to the state health teams to conduct joint and integrated technical support supervision to health facilities to improve the delivery of health care services in the states. The programme also supported the re-integration process and assessments to develop strategies on improving the provision of services in counties that were prioritized based on the high number of returns registered in states. The areas of assessed during the re-intergration exercise were: the health infrastructure, availability of human resource, functionality of the facilities, health financing mechanisms and the availability of medical products like drugs, sundries, EPI and outreach services. This is in line with the operational guidelines that were developed by the emergency return working group to ensure coverage of the minimum provision of essential health services for the returnees and IDPs who are being integrated in their areas of last destination.

WHO also financially supported the SMOHs departments of emergency response to mobilize and deploy health workers in the areas of the humanitarian crisis as part of the process for the provision of surge capacity.

d) Resource Mobilization

In collaboration with other health partners, WHO unit led the organizations participation in the mid-year review of the 2011 UN Humanitarian work plan. The review process had to put into consideration the evolving humanitarian situations in the states of Uppernile, Warrap, Unity among other. Regarding WHO activities, EHA managed to raise a total of 5,363,434 since the start of the year. Refer to graph below for details.

2.2 Communicable Disease

Communicable disease surveillance in South Sudan operates at the national, state and local levels with the overall goal of reducing the morbidity and mortality for communicable diseases in South Sudan. This focuses on diseases with special epidemic potential. During the second quarter, WHO continued supporting the communicable disease surveillance activities at all levels and substantial progress was made on strengthening and expanding the integrated disease surveillance to all states and counties.

Despite the routine surveillance system, emphasis continued on the improvement of the early warning and response network to detect, confirm and respond to outbreaks, while monitoring the disease trend. The upsurge of violence in Abyei, Unity, Jonglei and other areas during the 2nd quarter displaced thousands of people, coupled with the influx of returnees, severely created a humanitarian crisis. WHO as a health cluster lead worked very closely with health authorities and cluster partners to better coordinate the health response, while maintaining existing health services and strengthening the disease surveillance so to prevent and control potential communicable disease outbreaks.
a) **Trainings/Capacity Building:**

During the 2nd quarter, WHO South Sudan conducted the following trainings aimed at strengthening the integrated disease surveillance and response and Early Warning Alert and Response Network (EWARN):

**Integrated disease surveillance and response (IDSR) for Lakes, Warrap, Western Equatoria, Jonglei and North Bahr el Ghazal States,** in which 236 health personnel from 12 counties were trained on 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 respond to disease outbreaks or other health events. This saw improvements in reporting. For instance an average of 494 (494/993 or 50%) health facilities transmitted their weekly disease surveillance reports to the state and central level regularly during this reporting period (April – June). The average weekly health facility reporting sharply increased in this quarter compared to the previous quarter in 2011. Over 64% of priority health facilities (43 state/county hospitals and 213 PHCC) did submit the weekly surveillance reports more than 10 consecutive weeks between April – June 2011. Figure 1, shows the weekly transmission of health facility reports during the 1st and 2nd quarters.

**Figure 1: Number of Health Facilities submitting the Weekly Surveillance Reports to the Central Level, January-June 2011**

In-service trainings conducted in all the states to improve knowledge and skills among health workers when seeing and treating patients in referral hospitals and other facilities serving returnees and displaced people. The training was also meant to enable health workers correctly diagnose and manage common illnesses, and respond to many public health threats affecting the vulnerable people. This saw an improvement in reporting from health facilities. For instance during this quarter, as a result of the above training, more measles and malaria cases were clinically diagnosed by the trained health workers and the case fatality rate for measles and malaria was reduced as compared to the previous quarter.

**Figure 2: Average Number of Health Facilities Submitting the Weekly Surveillance Reports to the Central Level by Month (January - June 2011)**

Shipment of infectious substances training organized in collaboration with the Ministry of Health South Sudan and Geneva. The training was organized with the objectives of: Improving the participants understanding of the regulations governing packing and shipment of infectious substances; improving biosafety and biosecurity practices for the shipment of infectious substances in the region and...
beyond; Improving and strengthening: the global network functioning and practice within the region and among medical staff; and the infectious substance global shipping practice and virus sharing. Of the 25 laboratory technicians, state surveillance officers and public health officers trained only nine successfully passed the required examination and were certified. Other meetings organized by the programme during the 2nd quarter are:

Together with the Ministry of Health and Center for Disease Control and Prevention (CDC), USA, conducted training on outbreak investigation and response for 35 rapid response team members. Those trained comprised of State Surveillance Officers, Laboratory Technicians and Medical Doctors from the central level and all the states. Those trained are expected to organize cascade trainings in high risk counties aimed at having a strong network of rapid response teams at the central, state and county levels.

WHO financially and technically support the ministry of health to conduct an annual IDSR review meeting. The reviewed aimed at; reviewing the achievements and challenges of the implementation of integrated disease surveillance in all states and counties. These was attended to by the State Surveillance Officers, State level directors of preventive medicine, health officials from MoH-GoSS at Juba level, representatives from UN agencies, donors and other health partners.

b) Coordination and technical mission

During the quarter, a team from EWARN/IDSR EMRO and HQ visited Southern Sudan to review the functionality of EWARN within the IDSR programme and to identify key challenges for the integration of EWARN into IDSR in Southern Sudan. As a result of the mission and recommendations, EWARN functions to detect and confirm potential outbreaks for epidemic prone diseases in high risk states are expected to improve with the reduction of morbidity and mortality of these common diseases.

b) Disease surveillance data in South Sudan

a) Outbreak Rumors/Alerts

During the reporting quarter, 131 outbreak rumors/alerts were recorded and investigated across southern Sudan by state rapid response teams with technical and financial support of WHO. Of these, 7% were confirmed as outbreaks, and all confirmed outbreaks were measles in Aweil, Twic, Rubkona and Mayom counties, neonatal tetanus and hepatitis E. The table below shows all outbreaks reported and investigated in South Sudan.

<table>
<thead>
<tr>
<th>Disease condition</th>
<th># of Rumors/Alerts</th>
<th>Confirmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cholera/AWD</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Measles</td>
<td>93</td>
<td>3</td>
</tr>
<tr>
<td>Rubella</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Meningitis</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td>Anthrax</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>AJS</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Neonatal Tetanus</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Whooping cough</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>VHF</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Guinea worm</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>131</strong></td>
<td><strong>9</strong></td>
</tr>
</tbody>
</table>

**Table 1: Disease Outbreak Alerts/Rumors Investigated and Confirmed in Southern Sudan (April - June 2011)**

b) Laboratory Specimen

During this reporting quarter, 127 specimen of blood, stool, and CSF were collected and analyzed at reference laboratories in Nairobi through culture or advance testing. Of these specimen, only 42.5% tested positive for diverse type of pathogens, namely: measles, rubella, and hepatitis E. Over 85% of specimen were analyzed and received preliminary results within 7 days of collection, while 15% of the preliminary results received more than 7 days because of the long time processing requirement for viral pathogens. All viral pathogens are analyzed in CDC-Nairobi and Atlanta, measles specimen is precessed at KEMRI and all bacteriology specimen are processed at AMREF. Refer to table 2 below for more details information.

<table>
<thead>
<tr>
<th>Diseases</th>
<th>Total Analyzed</th>
<th>Specimen</th>
<th>Confirmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWD/Cholera</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Meningitis</td>
<td>7</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Measles</td>
<td>88</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Rubella</td>
<td>7</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>VHF</td>
<td>14</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Hepatitis E</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Yellow Fever</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Anthrax</td>
<td>17</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>127</strong></td>
<td><strong>54</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Table 2: Confirmed and Unconfirmed Laboratory Specimen by Disease in Southern Sudan (April-June 2011)**
c) **Acute Watery Diarrhea (AWD)**

A total of 48,356 cases of AWD with 78 deaths (CFR, 0.097%) were recorded across Southern Sudan in this 2nd quarter. Despite the deterioration of the humanitarian situation in the country in the first and 2nd quarter of the year, the 2nd quarter had no confirmed cholera outbreak although 30 suspected cases were reported from Akobo, Agok, Turalei and Mayen Abun of Twic counties but all stool sampled tested negative for V. cholera.

As shown in graph 3, Western Equatoria State reported the highest AWD cases compared to the other states in the past three months, followed by NBeG, WBeG, Warrap and EES states, while UNS reported the least AWD cases. In overall, the number of AWD cases reported in all ten states have increased this quarter compared to the same period last year with possibly reasons include influx of returnees, more displaced people and the improved reporting by the health facilities. To guide the health teams and other partners in responding to the outbreak in the future, a draft cholera preparedness and response protocol was finalized with inputs from health partners and ministry of health officials, it will be disseminated to all local health authorities and partners.

d) **Meningitis**

A total of 43 suspected meningitis cases with two deaths (CFR 4.6%) were recorded in the 2nd quarter of this year, with majority cases being sporadic. 70% of these sporadic cases were children below 5 years of age. None of the cerebral spinal fluid collected from suspected cases tested positive for Neisseria Meningococcal bacteria through culture. There was no confirmed meningitis outbreak in this quarter.

e) **Measles**

During the quarter, a total of 592 suspected measles cases with 12 deaths (CFR 2%) were recorded across Southern Sudan. Several states, including Unity, Warrap, WES, NBeG and Upper Nile experienced a sharp increase in cases of measles this year compared to the same period last year due to the massive influx of the returnees from North Sudan and massive displacement from Abyei and some areas in Unity and Jonglei states. Of these measles cases, 69% were children under 4 years of age, 26% aged 5-14 years and 5% were over 15 years of age. 88 blood specimen were collected from suspected measles cases in the past three months, 42 (48%) tested positive for measles IgM, 7 (8%) tested positive for Rubella and others 39 (44%) were negative, and majority of these positive cases were from Aweil, Maridi, Rubkonka and other counties (refer to map 1).
The measles outbreak is still ongoing since December 2010 in different counties or communities and the measles epidemic threshold has been surpassed in Aweil center, Aweil East, North and Rubkona counties, while measles cases are continuing to affect new areas in Unity, Warrap, NBeG, Upper Nile and other states. Ministry of Health together with WHO, UNICEF and cluster partners are planning to implement measles follow up campaign in high risk states in the next 2-3 months targeting children between 6 months to 59 months, while routine immunization targeting retunees and displaced children has been enhanced as well.

f) Acute Jaundice Syndrome (AJS)

Thirty eight (38) suspected cases of AJS with six deaths (CFR 16%) were recorded across Southern Sudan in the 2nd quarter of 2011. Majority of the cases were adults from Torit, Budi, Wau, Tambura and Rubkona counties. Seventeen specimen were collected from the suspected cases, five tested positive for hepatitis E, with no positive case of yellow fever or any other viral haemoragc fever.

g) Malaria

The 2nd quarter recorded a total of 190,156 malaria cases with 97 deaths (CFR 0.05%). The number of malaria cases reported during this quarter is unusually high compared to the same period of 2010. This could be due to the increased number of returnees and displaced people that may be non-immune or susceptible to malaria. Despite the increased number of health facilities reporting, malaria still remains a major public health problem in Southern Sudan. The number of malaria cases may be increasing year after year. Of the reported cases, 51% were children below 5 years and 49% adults. Health authorities in collaboration with WHO and other partners responded to this by distributing mosquito nets to all returnees and displaced people, and dispatching more anti-malaria drugs and rapid diagnostic kits to all health facilities in high risk areas.

h) Cutaneous Anthrax Outbreak

A total of 49 cutaneous anthrax cases with no death were reported from Jur River county in the past three months. Over 80% of reported cutaneous anthrax cases were children under one, with all cases having had a history of either eating or handling contaminated meat from dead animals. Seventeen blood specimens were collected and sent to CDC-Atlanta for advance testing and preliminary results have not yet been released. To respond to this outbreak, WHO provided technical and financial support to the state and county health authorities in order to expand the outbreak investigation using appropriate response like training of health personnel on case management, availability of drugs, strengthening surveillance and reporting and intensive community mobilization to discourage the eating of deadline animals.

i) Kala azar outbreak

In the 2nd quarter a total of 1605 new primary kala azar cases with 44 (CFR 2.7%) deaths were recorded from 24 treatment centers in Jonglei, Upper Nile, Unity and Eastern Equatoria States in the past three months. As shown on figure 7, the admission rate of new cases peaked on first 13 weeks then gradually declined in the following weeks until week 26. Nonetheless, the trend of the new kala zar cases in the first 26 weeks is much higher compared to cases reported in the same period of 2010.

j) Human African Trypanosomiasis

Human African Trypanosomiasis (sleeping Sickness) is endemic in WES, Some parts of CES and EES. Five (5) functional facilities for treatment of all stages of the disease had been frequently supervised and drugs distributed by WHO. Introduction of new combination therapy of 7-10 days mid 2010 has greatly improved the compliance and
reduced relapse rate (1%) among patients compared to the previous monotherapy regime of 14 days. WHO has distributed more than 15 kits this quarter. HAT new cases in 2009, 2010 and 2011 have loads of 215, 51 and 64 respectively. There is a sharp drop in number of cases not due to low prevalence but lack of active survey conducted those years (Graph below). Community sensitization, case management and active survey are among the planned activities next quarters to improve control strategies of the disease.

Apart from drug distribution, WHO also provided lab equipments (microscopes) to two of the treatment centers i.e. Juba Teaching Hospital and Yambio State Hospital.

Combination therapy for meningioencephalitic stage HAT (ornidyl & Nifurtimox).

### Chart #1: Illustrative graphs panel of qualitative impacts of NIDs

<table>
<thead>
<tr>
<th>Percent Non-polio AFP &amp; Contact cases (6-59 months)</th>
<th>Protected in 2010 (OPV doses)</th>
<th>Percent Non-polio AFP &amp; Contact cases (6-59 months)</th>
<th>Protected in 2011 (OPV doses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unprotected (0-3 doses)</td>
<td>31 %</td>
<td>Unprotected (0-3 doses)</td>
<td>39 %</td>
</tr>
<tr>
<td>Protected (4+ doses)</td>
<td>69 %</td>
<td>Protected (4+ doses)</td>
<td>81 %</td>
</tr>
</tbody>
</table>

Two rounds of National Immunization Days (NIDs) were carried out in Southern Sudan covering approximately 3 million children in all the 10 states in February & March and achieving an overall coverage of 94.7% & 95.8% respectively post campaign evaluators data. Major gains have been achieved since the inception of vigorous responses to the outbreak; immunity profile has improved, surveillance.

2.3 Polio

The Polio Eradication Initiative progress attained in the first quarter of 2010 was maintained into the second quarters of 2011 during which; in partnership with CDC, USAID UNICEF, Rotary Club, Southern Sudan MoH-RoSS and SMoH, WHO implemented the project activities through its State Hubs.

While moving closer to three years certification as polio free, the pace of different achievements has strengthened the fight against poliomyelitis, gaps in acute flaccid paralysis (AFP) surveillance closed and South Sudan reaching GPEI milestones on SIAs in all the states with less than 10% of missed children in the February and March rounds. With supportive guidance from the WR and EMRO, WHO South Sudan Office continued the coordination of the Polio Eradication efforts at all levels in collaboration with the MoHI/RoSS.

During the period under review, the following activities were implemented:

- Two rounds of National Immunization Days (NIDs) were conducted in Southern Sudan covering approximately 3 million children in all the 10 states in February & March and achieving an overall coverage of 94.7% & 95.8% respectively post campaign evaluators data. Major gains have been achieved since the inception of vigorous responses to the outbreak; immunity profile has improved, surveillance.

- AFP surveillance field review was conducted by independent evaluators to assess the ability of the system to identify any circulating poliovirus (wild or vaccine-derived), to detect timely an importation, and to make specific recommendations on how to achieve and maintain certification-standard. The findings of which showed that the surveillance system is very sensitive in accessible areas however there still pockets of inaccessible areas due to security impediments related to ongoing conflict, high migratory population amongst others contribute to surveillance gaps. Generally, the AFP Surveillance indicators have been maintained within International
standards (annualized Non-Polio AFP rate of 4.58, Stool Adequacy rate of 93%, NPEV rate of 16.22% and Sabin-like isolate rate at 3.38%).

For a second year, vaccination week as advocacy event to boost access to utilization of immunization service was successfully implemented in 10 states of South Sudan and micro planning trainings were completed during this reporting quarter. WHO also supported a comprehensive and integrated PC/social mobilization planning at the national and state level to support the Expanded Programme on Immunization (EPI) /Polio Eradication Initiative (PEI) programme; this has contributed to strengthening routine immunization service delivery. The table below shows routine immunization performance for the 1st and 2nd quarter of 2011.

**Routine Immunization performance From January June 2011**

- **Monthly DPT-1 and DPT-3 Coverage Monitoring Southern Sudan 2011**

<table>
<thead>
<tr>
<th>Month</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
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<tbody>
<tr>
<td>DPT-1 Target</td>
<td>40.0%</td>
<td>40.0%</td>
<td>30.0%</td>
<td>20.0%</td>
<td>25.0%</td>
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<tr>
<td>DPT-1 Performance</td>
<td>56.6%</td>
<td>56.6%</td>
<td>51.4%</td>
<td>21.2%</td>
<td>19.5%</td>
<td>15.4%</td>
<td>13.0%</td>
<td>10.3%</td>
<td>5.6%</td>
<td>10.0%</td>
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<td>20.0%</td>
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<tr>
<td>Monthly DPT-3 Coverage</td>
<td>25.2%</td>
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<tr>
<td>DPT-3 Performance</td>
<td>21.3%</td>
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Established measles control room and improved measles data management system. This ensuring provision of regular updates on the measles situation in the country within Integrated Disease Surveillance and Response framework; and adequately reshaped the outbreak response mechanism.

During the 2nd quarter, WHO in collaboration with MOH Goss and UNICEF also developed a communication action plan to ensure that high coverage is achieved in the upcoming National immunization days (November/December 2011). In the period under review, a number of stakeholders meetings were held aimed at bringing all agencies on board to ensure successful NIDS. As way of working at the lower levels, a number of micro planning meetings were held at the national, state, county and Payam levels. More than three hundred personnel attended these meetings. With the presence of our stop communication consultants, WHO collaborated with UNICEF and MoH/GoSS to train the newly recruited communication for development (C4D) officers for the ten states to support social mobilization activities.

**2.4 Guinea worm**

In the second quarter of the year 2011 (April June), the guinea worm programme reported more cases during the first two months of April (178 compared to 160 in 2011) and May (249 compared to 190 in 2011) compared to 2010. It is only in the month of June (130 compared to 241 in 2011) that the cases reduced.

A total of 123 guinea worm rumors were registered from guinea worm free areas over the same period, they were all investigated and three cases confirmed: One from Jur River County, one from Terekeka County and one from Gogrial East county.

During the quarter, the programme conducted a number of activities as way of responding and containing the guinea worm disease.

The World Health Organization facilitated two training of trainers course for States Surveillance Officers, County Surveillance Officers and the State guinea worm coordinators. The trainings was meant to enhance the capacity of trained participants to enable them train health workers and volunteers in their respective states and
counties.

To heighten surveillance of guinea worm within the military barracks, WHO facilitate the training of 26 SPLA medical corps from different military barracks in South Sudan. This has enabled the SPLM to share their reports with the programme, hence improving surveillance of the programme.

WHO also supported training of 99 community based volunteers in the counties of Mvolo, Yirol East, Yirol West and Cueibet in the 2nd quarter of 2011. The trained volunteers are expected to support guinea worm disease and integrated disease surveillance and response (IDSR) in their communities to enhance disease surveillance in the country.

Together with the ministry of health, WHO supported the development of guidelines appropriate response to guinea worm rumours and suspected cases in guinea worm free areas of South Sudan. The development of the guidelines will continue to the next quarter when it's expected to be out by August 2011. The agency will facilitate the production, printing and distribution of the tools to all health facilities in the country.

To strengthen and enhance integrated disease surveillance of guinea worm at the community level during the 2nd quarter, WHO procured 206 bicycles which were delivered to seven priority counties of: Cueibet, Yirol East, Yirol West, Terekeka, Jur River County, Mvolo and Hiyala payam In Torit County.

The programmes also facilitated 39 of Surveillance Officers with supervision allowances on monthly basis. Further support was provided in terms of fuel run their motorbikes on monthly basis. This saw a gradual increase in the weekly and monthly reporting.

The national team visited seven (7) health facilities in Western Bhar El Gazel state during the 2nd quarter. During this period, the team shared observations made in the field with health workers and the state officials. It was noted that although the health workers are filling the weekly reports fairly well, the reporting flow from the health facilities to the state was very weak. The county surveillance officers were not analyzing county reports and the percentage of health facilities reporting was very low in Western Bhar El Gazel (below 50%). Over the same period the national team visited Upper Nile and Eastern Equatoria to re-activate surveillance and reporting after realizing that the reporting rate in the state was very low. The team also discovered that most health facilities were either lacking the right reporting tools or didn’t have them. These observations were shared with the ministry of health and WHO offices in which some issues raised were addressed.

During the quarter, the organization facilitated the Ministry of health delegates to the World Health Assembly in Geneva in May 2011 to attend the WHA session on dracunculiasis eradication in South Sudan during which it was noted that South Sudan harboring more than 90% of the global guinea worm cases.

A total of 555 guinea worm cases were reported compared to 591 cases over the same period in 2010. Three of the cases were detected in guinea worm free areas.

2.5 HIV

With an average HIV prevalence rate at 3% of the total adult population (ANC Surveillance 2009), and approximately 116,000 people living with HIV/AIDS, 46,500 of whom are in urgent need of treatment, HIV remains a challenge in South Sudan. To address this challenge, the Republic of South Sudan has made political and financial commitments with increasing access to prevention, care and treatment services for communities most in need.

During the 2nd quarter a lot of progress was made with WHO’s technical support emphasizing HIV/AIDS care and treatment and prevention in health settings. Other areas of the agencies support were: technical and management...
assistance towards HIV response through advocacy and policy formulations at highest level; planning and resource mobilization; capacity building and quality assurance; monitoring and surveillance and strengthening health systems through fostering linkages and partnerships with other health services and partners.

Currently the Republic of South Sudan is making significant efforts in accelerating decentralized integrated prevention, care and treatment services. To support this scale-up, the World Health Organization (WHO) in collaboration with ministry of health with financial support from Global Fund to fight AIDS Tuberculosis and Malaria conducted the following trainings during the 2nd quarter:

A follow up and mentorship for health workers in 20 health facilities. As a result, 17 are fully operational and delivering HIV care and treatment services to the population.

Using the WHO Integrated Management of Adult Illness (IMAI) approach, 170 health care providers were trained on the comprehensive IMAI course. As a result of the organizations support, the Republic of South Sudan/ ministry of health adopted the IMAI approach featuring task-shifting, as a response to the critical shortage of doctors, particularly in the area of HIV care and treatment services.

To ensure quality of delivery of HIV care and treatment services, WHO continued conducting clinical mentorship visits to health facilities providing HIV care and treatment services. Health providers were able to initiate Antiretroviral therapy, utilize national IMAI operational guidelines, treat opportunistic infections including tuberculosis, conduct laboratory diagnosis of opportunistic infections and monitor CD4 counts of PLHIV in chronic care, maintain proper records and provide regular reports to the national level.

During last quarter, site visits were conducted to: Juba Teaching hospital, Kajo-Keji and Bilfam in central equatorial state; Yambio, Maridi, Lui and Nzara in Western Equatoria state; Torit, Nimule and Kapoeta in Eastern equatoria; Mapourdit and Rumbek in Lakes state; Wau in Western Bahr el Ghazel; and Bor in Jonglei. Due to insecurity challenges, the WHO team was unable to reach some sites in Renk in Upper Nile, Bentiu in Unity state, Ezo and Tambura in Western Equatoria state, however alternative arrangements were sought to communicate and dialogue with health providers in these facilities. As a result, access to antiretroviral therapy continued to expand rapidly. By the end of 2nd quarter (June), more than 3,000 people were receiving antiretroviral therapy, an increase of more than 434 (17%) compared to the end of first quarter (31st March). Western Equatoria state recorded the highest prevalence (7.2% according to ANC study 2009) and corresponding large numbers of PLHIV enrolled and initiated on treatment. In WES, 1,976 were initiated, of these 1,574 were receiving antiretroviral therapy by the end of the 2nd quarter of 2011.

In response, WHO in collaboration with the ministry of health supported the establishment of 5 ART sites in WES during the 2nd quarter. This adds to the 17 operating ART sites in the country. As a result, the numbers of PLHIV enrolled on ART in Western Equatoria rose and currently represents about 50% of total in HIV care and treatment.

To enhance the capacity of laboratory staff in monitoring long term treatments for PLHIV, training on CD4 measurement and maintenance of equipment was organized by MoH with support of GFATM/UNDP during this quarter. As a result, 25 laboratory technicians from various health facilities were trained for 5 days in Juba. The training is envisaged to address the frequent problems reported from many sites - chronic break down of CD4 machines, hence resulting in poor monitoring for patients.

During this quarter of reporting, WHO supported South Sudan by recruiting an expert to review the country’s progress in the implementation of national Blood safety services in health facilities in South Sudan. The expert carried out the review of organizational and management capacity of ministry of health in the delivery of blood safety services in the country; reviewed progress in capacity building including guideline development, training,
recording and reporting and effectiveness of supervisory activities conducted for blood safety; conducted an inventory on blood donations, distribution and availability of safe blood for transfusion of health facilities in the country; assessed the national coverage and limitations for quality testing of all donated blood for transfusion-transmissible infections, blood grouping and compatibility and study indications for clinical use and administration of blood and blood products. Following this review process, the expert made recommendations on strengthening the management system of blood safety and prepared a technical assistance plan that will be used in capacity building.

2.6 Tuberculosis

WHO estimates the incidence of TB in South Sudan to be at 79 per 100,000 for new sputum smear positive TB and 140 per 100,000 for all forms of TB cases. The National Tuberculosis/Leprosy/Buruli Control Program (NTLBCP) in collaboration with other partners coordinates monitors and supervises the implementation of TB, Leprosy and Buruli Ulcer activities. During the 2nd quarter, WHO continued playing a significant role in strengthening the NTLBCP capacity by providing financial and technical assistance in the following ways:

Supported CUAMM (DOCTORS WITH AFRICA) with the delivery of diagnostic and therapeutic TB services in greater Mundri county in Western Equatoria State.

The organization in collaboration with the NTLBCP, conducted a Laboratory assessment in Bentiu State hospital aimed at revitalizing TB activities in the state hospital. With the assessment, there were other discussions on TB recording and reporting, drug management and patient care.

During the quarter, the programme in collaboration with the NTLBCP supported the collection of 7 sputum specimens from Kuajok in Warrap State, Wau teaching hospital in WBGS and Padak in Jonglei State which were sent to Nairobi Reference Laboratory for Drug Susceptibility Testing (DST) and Culture.

The programme also distributed information, education and communication (IEC) materials to 8 TB/HIV service points in Eastern, Central and Western Equatorial States.

To further strengthen the TB services in Bor hospital during the 2nd quarter, the programme met with and held discussions with Director General of the state ministry of health in Jonglei State on the possibility of incorporating sputum microscopic services in Bor State hospital, this was later followed with a rapid assessment of the facility.

The programme further conducted support supervisory and mentoring visits to Wau in WBGS, Aweil, Gordhim and Nyamlell in NBGS, Pibor county in Jonglei State and Sika Hadid in Kuajok. In Aweil, Gordhim and Nyamlell the visits aimed at verification/validating TB/HIV data received from the TB units, identify gaps in data collection, analysis and reporting and improve the skills of health workers on data management.

Finally the programme also participated in a workshop for the integration of TB/HIV services into general Primary Health Care (PHC) service delivery and review of the current National TB Strategic Plan and supported the ministry of health with the development of the TB strategic plan (2011-15) for the National TB Control program in South Sudan.

2.7 APOC

The African Programme for Onchocerciasis Control (APOC) aims at establishing effective and self-sustainable community-directed ivermectin treatment (CDTI) throughout the onchocerciasis endemic areas within the geographic scope of the programme. 9 out of 10 states in South Sudan are onchocerciasis endemic. The CDTI strategy relies on active community participation in the distribution of ivermectin treatment to the targeted population. Staffs from Front Line Health Facilities (FLHF) in the catchment areas facilitate the CDTI process by organizing community meetings in close collaboration with community leaders. It is at such meetings that communities select individuals that they would like to have trained as Community Drug Distributors (CDDs). On receiving the mectizan, the community members take lead on deciding the date on which the ivermectin will be distributed and then communicate to the CDD and to the FLHF staff for implementation.

During this reporting period, the programme:

Conducted an evaluation of the sustainability of three CDTI projects in Western Equatoria, Eastern Equatoria and East Bahr El Ghazal which are in the 6th year of APOC
funding and CDTI implementation. The projects were scrutinized in such a way that we see whether they have become integrated into the routine health care services; if they have enough human, material, financial resources; if they are running cost-effectively; if they use simple, uncomplicated routines and procedures; if health staffs have accepted CDTI as a routine activity; if the communities support CDTI wholeheartedly; and if the projects are functioning effectively. Feedback sessions were held with the state ministries of health officials in the 3 states and with the Director General for Preventive Health and the National Coordinator for Onchocerciasis Control at the Ministry of Health Republic of South Sudan (MoH-RoSS) to provide them with preliminary findings and get their input to the process.

Received and disbursed mectizan for mass treatment to the states in South Sudan covering the CDTI projects of Eastern Equatoria, Western Equatoria, East Bahr El Ghazal, Upper Nile and West Bahr El Ghazal. Annual mass treatment with mectizan has already commenced in a number of counties across the country.

And conducted a monitoring and supervision visit to Northern Bahr El Ghazal state during which a meeting with the Director General for Health of North Bahr El Ghazal state was held. The DG was briefed on the CDTI strategy and his support for the OV control work sought. The DG pledged continued support to the OV program through at the state and county level. Visits to 4 out of 5 county health departments were conducted and also a number of staff from frontline health facilities were met. Technical and project management support were provided so that improvement is noted in the performance of the project.

### 2.8 Primary Health Care

The primary health care program in WHO Southern Sudan office covers a number of programs. These include: making pregnancy safer, integrated management of Childhood illnesses (IMCI) / integrated Essential Child health care (IECHC), Nutrition, Community based initiatives, eye care, health promotion and education, and mental health. The program also provides technical support to MoH, coordinates partners coordinates and collaborates with others in capacity building and program management.

During this quarter, the program participated in the inter-country meeting on promoting maternal and neonatal health in the Eastern Mediterranean region. As a result the WHO South Sudan office presented a progress report based on the recommendations of the making pregnancy safer (MPS) meeting held in Tunis, Tunisia, following this meeting and a work-plan for South Sudan was also developed.

As part of capacity building, the programme supported a nutritionist from the ministry of health in the Republic of South Sudan for a training course on the management of Severe Acute Malnutrition organized the WHO regional office. The programme also supported the Regional Advisor for nutrition on a trip to South Sudan, to enable him offer technical assistance towards the response on the ongoing humanitarian emergency response and food shortage in many parts of Southern Sudan.

To enhance collaboration, the program participated in workshop organized by ministry of health in collaboration with UNFPA to finalize the draft on Reproductive policy and strategy, the final draft of which was completed and is pending approval by senior management board of ministry of health.

### 2.9 Secondary Health Care

Designed to prepare hospitals within the referendum and post-Independence period, the WHO conceived a programme to support key state hospitals to enable them receive and appropriately manage critical surgical emergencies and potential mass casualties. As a result, the organization secured $525,000 from the Common Humanitarian Fund by the 1st quarter of 2011.

The programme is supposed to: collaborate with and support the central and state ministry of health to carry out on-the job training and continuous onsite mentoring for doctors and other medical staff at the state hospitals on clinical surgical care, and operational/organizational management of trauma surge; technical support in terms of improving nursing care and establishing/strengthening universal standard precaution procedures and infection (including post-operative) control in hospitals; provision of
essential drugs and supplies to improve surgical emergencies, anesthesia, laboratory and blood transfusion services; and supportive supervision and monitoring visits in the hospitals.

During the 2nd quarter, WHO had supported 2 Surgeons and 1 Anaesthesiologist outsourced by the ministry of health to Bentiu State Hospital and Malakal Teaching Hospital to handle mass casualties from Unity and Upper Nile states that the hospitals received. As a result, over 265 critical surgical cases from severe gunshot wounds and other serious traumas were received and immediately managed. This minimized referrals to Juba Teaching Hospital.

The deployment of the specialist in the 2 hospitals also resulted in on-the-job training for junior doctors (Medical and Clinical Officers) on common elective surgical conditions, emergencies, and trauma. Nurses and other paramedical staff were also trained on perioperative care of patients, aseptic techniques, surgical wound care and management of septic wounds. While anaesthetic assistants were trained on the proper administration of anaesthesia and how to monitor patients intraoperatively. The medical staff including the management benefitted on triage and basic life support in a mass casualty scenario.

During the period that the specialist were deployed at the 2 hospitals, WHO initiated and approved the procurement of surgical, anaesthetic, trans-fusion kits and full essential surgical tools and supplies. These were supplied to the 4 hospitals.

During the 2nd quarter, partnership between the WHO and the Canadian International Development Agency is directly addressing the excess maternal and neonatal deaths in South Sudan was formalized i project Grant arrangement for CIDA's funding of $19.4 million was signed. This is meant to equip 8 hospitals in 8 states over five years with technical, operational and organizational capacity to fully function as a comprehensive emergency and obstetrics newborn care (CEmONC) facilities.

To ensure 24-hour CEmONC delivery as well as improved quality of these services, the WHO is providing an Obstetrician and 2 nurses in each of the targeted hospital for at least one year. During the reporting quarter, the process for the creation of the Obstetrician post within the WHO system, the selection of the candidate, and the administrative processing for the recruitment for these 3 posts for Bor hospital was undertaken and completed. Deployment is expected within the coming period. Meanwhile, additional national staffs were to be recruited to also support the project Program Assistant, Procurement Assistant, and Logistics Assistant.

The procurement of all the essential list of CEmONC drugs, equipment, supplies and commodities were also initiated and approved through the WHO GSM system in the 2nd quarter.

As part of the Grant Arrangement with CIDA, all the proposed activities to be implemented will be subject to the WHO Environmental Management Procedure. Under this procedure, which is based on international good practice and standards in environmental impact assessment, all project sub-components will be screened for potential environmental impacts, and where relevant, environmental management plans will be developed to ensure that appropriate environmental mitigation (or enhancement) measures are implemented.

To undertake the above process, the programme received support from the Center of Environmental Health Activities (CEHA) which conducted a mission to Bor hospital. As a result an analysis of the project sub-components and potential environmental impact; analysis and recommendations for the Physical Works/Construction component of the project on environmental impact; and assessment and recommendations for water, sanitation and waste management for the hospital was carried out. An environmental impact assessment and Environmental Management Plan was also drafted for Bor Hospital in this quarter of reporting. During the same quarter, the full design of the maternity block was also drafted by the WHO Engineer and the CEHA, the project team and the state ministry of health hospital management of Bor. The identified project site for the construction of the maternity block along with the draft design were also appreciated and agreed with by the community in this quarter.
2.10 Health System Strengthening

South Sudan Health Sector Development Plan 2011 - 2015

The WHO South Sudan Country office was involved in close collaboration with the Ministry of Health and also the State Ministries of Health. WHO hired a consultant who led the process and also provided funding for review meetings and retreats at which consultations and full involvement of all stakeholders was strongly encouraged.

The Health Sector Development Plan (HSDP) provides the strategic intentions needed to transform the health services of South Sudan. It sets out the main objectives and priority areas for the period 2011-2015. It is a guide for strategic and annual operational planning by the Ministry of Health (MoH) and the State MoHs (SMoH).

The HSDP is based on the government's vision to contribute to a healthy and productive population, fully exercising its human potentials; and also on the government's mission to ensure basic health care for the population that is of acceptable standards, affordable, sustainable, cost-effective and particularly addressing those most at risk, women and children. The overall objective of the HSDP is to improve access, quality and utilization of health services and to strengthen health sector systems, including organizational, management and wider Institutional issues.

South Sudan Development Plan 2011 - 2013

The government of the Republic of South Sudan in collaboration with development partners developed the South Sudan Development Plan that will guide development of the country in the first 3 years post independence. One of the pillars of this development plan is the Social and Human Development Pillar under which the Health Sector falls. WHO South Sudan office and the MoH were involved in this process of a series of meetings and consultations by Co-Chairing the Social and Human Development Pillar, Co-chairing the health sector and having 2 Technical Officers fully involved in the process.

The Health sector aims at promoting public health, establishing basic health facilities and providing free primary healthcare for all citizens. The programmes in the sector largely derive from the Health Sector Development Plan (HSDP) 2011 - 2015, with the addition of an HIV/AIDS programme area designed to minimize the risk of a rapid increase in HIV/AIDS given the highly mobile population of the Republic of South Sudan and limited awareness of reproductive health. As a major priority, the health sector has set a target of reducing maternal and under-five mortality by 20 percent within the first three years of statehood.

2.11 Promoting Effective Health Coordination

The Health Cluster developed and evolved rapidly during the second quarter of 2011. Field visits were made to Northern Bahr el Ghazal, Warrap and Western Bahr el Ghazal States, meetings and discussions with various stakeholders were held coupled with the commencement of a dedicated Health Cluster NGO Co Lead.

During the quarter in focus, regular Health Cluster meetings were held at both central Juba and state level. Partner mapping across all 10 states of South Sudan was also performed and completed.

Coordination of the health sector greatly improved, critical humanitarian gaps were filled and support to the state health departments was strengthened to respond to emergencies.
To contribute to saving lives and reduce suffering of the local population, WHO did this by strengthening its presence in the ten states. Special consideration was given to Warrap, NBGZ, WBG, and Uppernile states where the humanitarian situation was precarious and populations underserved by deploying a national Public Health Officers, this strengthened and improved the health cluster coordination in these states and the technical support to the states. As a result, 26 health cluster meetings were supported and conducted in the ten states in the 2nd quarter. To improve information sharing within the cluster and to strengthen health coordination at the national and state levels, WHO supported the publication and distribution of weekly EHA news bulletin, developed the health cluster website and an internal google technical share group.

WHO also organized and held a cluster a capacity building workshop during this quarter in which all the Director Generals from the ten states of South Sudan, WHO focal points at states and other partners in the health cluster visited. This training focused on building the capacity of cluster members in coordination and emergency preparedness and response. In additional the EHA unit put up surge capacity of national public health officers in the juba office for rapid deployment to support emergencies.

The conflict in Abyei Administrative Area caused over 110,000 people to flee Abyei town into Agok and further south into Southern Sudan. The health cluster exemplified its mandate during the emergency in Abyei by ensuring that partner mapping, gaps and needs were adequately addressed in a timely and responsive manner.

The Health Cluster in collaboration with the ministry of health also immediately mobilized 2 emergency meetings at Juba level within the first 5 days of the onset of the conflict in Abyei. During these meetings, partners agreed on how best to determine future interventions and support for the displaced people, this resulted in coherence and better coordination of all humanitarian partners delivering support to the displaced persons.

The meetings also managed to mobilize health partners to immediately respond to the needs of the displaced ensuring populations had access to primary health care, surgical care for those wounded, immunizations for all children under 5, enhancing disease surveillance and early warning systems for disease outbreaks.

Information tools such as “Who is doing What Where plus” were produced, this tabulated the exact service provision and location by partners, but also documented medical stock supply, storage capacity, human resources, ability for surge capacity, logistical constraints and other gaps or concerns. The “Who is doing What Where plus” was updated every 3 or 4 days to accurately gauge the fluid and changing context of the emergency.

In collaboration with OCHA and the ministry of health, the cluster supported the production of health facility maps updated by health facility staff and other health cluster partners. The maps contained information on the service delivery in both static and mobile facilities. Coverage was determined ensuring areas where the IDP populations may exist were not being missed.

Displaced persons from the Abyei area load their property in to a truck
Regular meetings and coordination activities continued throughout the quarter and inter sectoral issues were constantly pursued including disseminating information on referral points for unaccompanied children highlighting WASH concerns provisions in IDP sites, nutritional status in Akon North and CMR mapping with the GBV Sub Cluster.

Finally, during the 2nd quarter, the health cluster alongside other clusters performed the Mid Year Review of the Humanitarian Work plan. A peer group composed of 2 NGOs, 2 UN agencies, the health cluster Lead and co-lead, reviewed the plan. This was in line with OCHA alterations which made the work plan better in reflecting the humanitarian situation and projected impact.

To strengthen this, the cluster, including NGO representatives held an active peer group reviews and workshops for both the Health Sector Development Plan and the GoSS Development Plan.

3.0 Lessons Learned

3.1 Challenges

a) Emergency and Humanitarian Action

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 Southern 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 Jonglies, 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.

b) Communicable diseases

Deteriorating humanitarian situation in Southern Sudan with high influx of returnees and displacement from Abyei and other area.

Returnees living in the Transit camps which will increased the risk of disease outbreaks especially cholera as the rainy season and flooding started.

Low reporting rate from the health facilities due to long standing unpaid salaries which led to demotivation among the health workers.

Insecurity in some areas hampered the delivery of health services and IDSR supplies.

Lack of commitment and ownership of the programme by health authorities at state, county and facility level.

a) Guinea worm

Low level of skilled health workers in the counties

Low numbers of facilities reporting on weekly and monthly basis. In addition, areas that are guinea worm free have low reporting because they are not getting direct support from the State Surveillance guinea worm eradication programme.

Insecurity in the northern Part of Jonglei and Unity States affects timely implementation of planned activities in Ayod, Wuror, Nyirol and Twic East countries, and between the Toposa and Jie in Eastern Equatorial State.

Lack of ownership and commitment of County health authorities in enhancing IDSR activities.

Poor road Infrastructure affects surveillance and supervision activities.

Mobile population groups (especially pastoralists).

C) HIV

Medical logistical shortages as a result of irregular supply for medicines (antiretroviral and opportunistic infections therapy), HIV test kits, and some commodities...
including laboratory reagents. This affected the delivery of services in the programme areas.

Reliable and timely reporting of data remains a critical bottleneck.

Due to poor security situation in some like Western Equatorial and some areas bordering Abyei and Kordofan in Unity state.

e) Tuberculosis

The TB program faced difficulties of coordinating transportation of samples from various TB facilities, given the short-time frame for the samples to reach Nairobi Reference Laboratory (NRL).

f) Secondary health care

The ability to identify and rapidly address the surgical gaps in hospitals is still a challenge. The lack of systematic reporting from the states/hospitals as well as coordination of data from the central level is also a problem. Because of the current set-up for the international procurement and local limitations, the expected length of time for delivery of essential list of CEmONC drugs, equipment, supplies and commodities is expected to go up to 2 months.

3.2 Best practices

a) Emergency and Humanitarian Action

Main streaming of emergency activities into all programmes of WHO has resulted in an integrated and joint response approach to health emergencies which is instrumental to the organizations success in effectively and timely responding to all health emergencies.

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

The rotation of programme staff to support specific tasks has not only expanded coverage of the supported activities but also improved the experience and the technical capacity of WHO staff to respond to emergencies.

b) Polio

Capacity building of health professionals is paramount to strengthening both the PEI and EPI programs.

The response to the Horn of Africa recommendation concerning surveillance sensitivity induced the increase of case detection hence consistency in supportive measures.

Implementation of the surveillance field review helped in the improvement of documentation and data quantity and quality.

Close monitoring of immunity gap as a consequence of low Routine Immunization coverage, the more frequent use of m-OPV in the past NIDs plus the decreasing number of SIAs (NIDs and sub-NIDs) helped to reshape South Sudan Outbreak Response during the reporting period.

Commemoration of vaccination week activities as a means of support to Routine Immunization conducted in the 10 states contributed to raising the coverage.

There remains more to be done on measles given that useful epidemiological data is still limited. This implies urgent need for undertaking efforts to improve Measles Surveillance (within IDSR framework) for better information flow that is useful for documenting disease burden and guiding program activities.

Appropriate communication and coordination are key elements in creating constructive environments for immunization services and integrating them within wider public health services, as well as attaining community support.
4.0 Way forward and conclusion

c) Emergency and Humanitarian Action and Communicable diseases

There is need to:

Recruit additional 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.

In collaboration with MoH-GoSS, SMoH and health partners, improve the weekly reporting performance of health facilities in all states.

Promote integration of early warning and response into integrated disease surveillance system.

Continue to advocate for greater involvement of health authorities in disease surveillance, outbreak investigation and response.

b) Guinea worm.

Procure supervision funds to support integrated disease surveillance for state and county surveillance officers.

Continue strengthening guinea worm disease surveillance by ensuring that every guinea worm rumour is registered and investigated within 24 hours.

Sensitization of the community through FM Radio stations and community leaders.

Training of surveillance Officers, and health workers on guinea worm free areas.

Continue training of health workers from the SPLA Medical Corps on surveillance of guinea worm disease sensitization of the Military on Guinea worm disease.

Conduct a mid-year review meeting SSWEP activities in Eastern Equatorial Warrap, Western Bahr Al Ghazal, lakes and Central Equatorial states.

Conduct cross-border field visit to assess existing surveillance structures.

Continue conducting monthly GWEP taskforce Meetings.

Together with the SSGWEP visit Kapoeta counties.

Continues carrying out guinea worm disease surveillance in all the counties of Southern Sudan.

c) HIV

Continue expanding care and treatment and strengthen mentorship programme to improve quality of care.

Continue fostering integration and strengthening of linkages with other essential health interventions e.g. TB, RH, CH and advocacy for provider initiated HIV testing and counseling to increase access for ART.

d) Tuberculosis

The program plans to: finalizing the Global fund for AIDS, TB and Malaria (GFATM) Progress and utilization of disbursement reports (PUDR); timely disburse funds to CUAMM for the implementation of TB/HIV collaborative activities in the greater Mundri county in Western Equatoria State; recruit a consultant under TB-CARE-I to conduct an assessment and develop guidelines on patient centred approaches and follow up on the Drug Resistance Survey (DRS).

Others are: Continue collecting sputum specimens from the TB units for DST and culture at Nairobi Reference Laboratory, equip and furnish the TB section of the newly established Public Health Reference Laboratory in Juba, support the formation of the TB/HIV coordinating body and training of health workers on health management information system (HMIS), basic Monitoring & Evaluation, and training of health workers on co-trimoxazole preventive therapy (CPT) and conduct recruitment of a consultant for the development of guidelines for infection control in congregate settings.
E) APOC

The bulk of the annual meitzan distribution will continue in to the 3rd quarter in all the CDTI projects. To strengthen this, monitoring and supervision of the distribution exercise will be done to ensure achievement of improved geographic and treatment coverage. Efforts will be made in collaboration with the South Sudan Onchocerciasis Task Force (SSOTF) to have more frequent field visits to provide support in facilitating the mass distribution exercise across the country.

The programme will also conduct close surveillance and monitoring of adverse reactions to meitzan treatment. Special attention will be given to Western Equatorial CDTI project since it is known to be co-endemic with loa loa. This co-infection increases chances of having severe side reactions to treatment with meitzan.

In addition to the supervision of the mass distribution exercise, routine supportive supervision and monitoring of the implementation of other CDTI project activities will continue in the third quarter.

f) Primary health care

The program plans to: conduct refresher trainings on Community based initiative for BDN area members in Rumbek, Provide IMPAC guidelines to ministry of health and partners. Provide IT equipments to ministry of health and Midwifery school in Juba.

h) Secondary health care

As part of the RHCF, WHO plans to support the reproductive health unit in the ministry of health by seconding an advisor to ministry of health on reproductive health issues.

In conclusion, although implementation of projects during the 2nd quarter had some challenges there were more successes compared to problems faced.