Three young boys detected with hanging worms in Dhok Pam Magot village, Gogrial East County during guinea worm disease active case search in June 2012.

This report summarizes achievements, challenges and the way forward for the WHO South Sudan activities covering the period April – June 2012 and focuses on 9 programme areas.
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1.0 Background

1.1 The general context in the Republic of South Sudan.

Almost one year on from Independence, South Sudan continued facing deteriorating humanitarian and health conditions. The humanitarian situation in South Sudan was somewhat unstable during the period in focus as aerial bombardments continued in some parts of the states bordering with Sudan though this was at less rate compared to the first quarter. The influxes of refugees from South Kordofan and the Blue Nile as well as the high numbers of returnees from Sudan were seen this reporting period. As a result of the isolated bombings, a considerable number of persons were wounded and killed while a big number of others displaced.

Inter-tribal clashes continued in some states between the Rebel Militia Groups (RMGs) and the Sudan People’s Liberation Army (SPLA) in Upper Nile state. In Jonglei state, the disarmament exercise that was initiated in the first quarter kicked off this quarter. The exercise was aimed at curbing inter-tribal clashes that happened in the Jonglei state. But the sporadic tribal clashes took place in different counties within Jonglei state in this quarter.

However, amidst all the reported tensions with others leading to mass casualties requiring medical care and support, WHO maintained its support by providing leadership to the health partners (UN agencies, NGOs, Civil societies and MOH) in emergency and crisis preparedness at the national and sub national levels. 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. Together with the MoH/RSS, the organization participated in several Joint health Assessments in states affected by different emergencies.

1.2 The Current situation in the states

The second quarter of 2012 continued to present many challenges that shaped WHO's work in the Republic of South Sudan. Key among these was the increased number of over 10,000 returnees airlifted from Kotsi in north Sudan, the refugee influx from the Blue Nile and South Kordofan areas entering in to Upper Nile and Unity states and inter-tribal clashes in some states. This coupled with the ongoing militia groups in Upper Nile state posed a significant threat to the lives and livelihoods of the civilian population. As a result of the increasing numbers of refugees and returnees, the social and health care services have been over stretched, predispose both the incoming and host communities to unfavorable health conditions likely to spark disease outbreaks. This situation
becomes more delicate with the dire state of poor sanitation and lack of safe drinking water & sanitation facilities in the settlement areas.

During this quarter alone an estimated at 40,000 refugees were registered in Yida and 104,000 registered in Maban camps. Assessment reports conducted this quarter indicate that Upper Nile and Unity states continued to register the largest concentration of refugees approximating 144,000. The repeated sporadic tribal clashes in high risk states like Jonglei, Warrap, Unity, Lakes and Upper Nile took place during this quarter continued during this quarter.

During this quarter, WHO participated in a number of activities to increase the visibility of the organization in country. Among them; the organization participated in World Health Day, World Malaria Day and World. WHO supports the ministry of health with programmes geared towards attaining millennium development goal 6 of combating HIV/AIDS, malaria, and other diseases.

Picture below shows the WHO-Head of Office Dr. Abdi Aden Mohamme delivering a key note address during the World Malaria Day April 25, 2012.

During this quarter, over 10,000 returnees were airlifted to South Sudan from Kortsi in Sudan. These returnees first settled in to Juba, the capital of South Sudan before being transported to all the states in the country. While in the transit site, the returnees were provided with support including medical care, food and non food items. WHO supported the Central Equatorial state with medical supplies to support returnees after conducting several health assessments.

Picture below shows the WHO- head of Office in company of the deputy minister of Health Republic of South Sudan … and other partners visit the Teacher Training Institute one of the transit sites to conduct an assessment of the health situation of the returnees in the camp.
2.0 WHO's Major Achievements in The 2\textsuperscript{nd} quarter. (April to June) 2012

2.1 Emergency Humanitarian Action (EHA)

In line with the four core functions of WHO in emergencies and its strategic objectives, the EHA unit continued working closely with the health authorities and health partners in the 2\textsuperscript{nd} Quarter of 2012. To do this, the programme continued providing technical support, identifying and filling critical gaps at the national and state levels; coordinating emergency health and humanitarian response in the crisis stricken parts of the country, and helping the government to develop capacity for emergency preparedness and response.

There was serious deterioration of the humanitarian situation at the beginning of this quarter. This resulted from continued bombardment of Unity and Warrap states by the Sudan Armed Forces (SAF), and the eventual fighting between SPLA and SAF in the Heglig area, all of which led to mass displacement and casualties. Overwhelmed with the number of causalities, the state health authorities were unable to cope with the high number of wounded patients. The border clashes also led to the expulsion of South Sudanese from Sudan and subsequent interventions by humanitarian agencies and the Ministry of Humanitarian Affairs to airlift over 11,000 returnees formerly stranded in Kosti in North Sudan into South Sudan.

Following fighting in the Blue Nile state of Sudan, mass influx of refugees reportedly moved into the Upper Nile state of South Sudan. As at the end of the second quarter, approximately 104,000 refugees were reported to be settled in the camps of Jamam (35,000), Yusuf Batil (26,000) and Doro (43,000), all located in Maban County. With this influx, severe water shortage, poor hygiene and sanitation coupled with the commencement of the rainy season, the alert level and public health risks like cholera and other water borne disease outbreaks in the county raised a lot of fear among health actor in Upper Nile state.

With all the above mentioned emergencies coupled with the austerity measures of the government, the delivery of health services were affected. This impacted negatively on many health services like stock outs of essential drugs which strained timely provision of health services to the affected populations. To support the MoH at the central and state levels, WHO stepped in to provide technical, financial and logistics support while filling in critical gaps.

2.1.1 Emergency Health and Humanitarian Coordination

During this quarter WHO continued to execute its functions as the lead agency for health. To do this, the organization ensured that most vulnerable populations continue to access health services. At the commencement of the airlifting of over 11,000 returnees from Sudan into South Sudan, WHO supported the Central Ministry of Health to convene a series of Emergency Preparedness and Response meetings to discuss health emergency support for the returnees. During the meetings, it was agreed that immunization on arrival be conducted for all returnee children. Working groups were formed
to ensure nutrition, EPI, clinical management and referral for patients.

To make health service provision for the returnees a success, WHO ensured a regular drug supply/pipeline by providing drugs to the SMoH and partners, supported communicable disease surveillance, provided technical guidelines and reporting tools, and supported the operationalization of mobile health clinics by providing incentives and drugs for health workers running the mobile clinics. In addition, as a response to the over 11,000 returnees in Juba, WHO provided the SMoH-Central Equatoria State with financial and logistic support to operate a mobile clinic for emergency immunization services. As a result, a total of 6,269 children received various vaccine antigens, and 70% (4,433) of them measles. Measles vaccination in emergencies is one of the most cost effective way of preventing measles outbreaks, and South Sudan is currently experiencing prolonged measles epidemic.

In addition to EPI services, WHO supported International Medical Corps (IMC), an implementing health partner to manage one static health outpost in the transit site at Teacher Training Institute (TTI) that hosted over 11,000 returnees by providing drugs and medical supplies. Medical supplies and drugs that were donated to IMC include; One Interagency Emergency Health Kit (IEHK), assorted antibiotics, consumables and infection control materials. A total of 8,136 consultations were conducted in this quarter, 27% of all them were children under five years of age. The organization also maintained her support by ensuring that the population in Renk and Malakal transit points, Rebukona, Warlang and Jaac areas received emergency treatment for common illness. As such 67,622 consultations, most of them children were recorded.

WHO was also instrumental in the extension of emergency surgical services to the injured patients in Unity and other states. This was done by strengthening the capacity of the local hospitals on mass causality management and closely worked with other UN agencies to airlift emergency trauma kits to other referral hospitals following the fighting in the Heglig area. As a result, a total of 405 injured patients were treated in the Bentiu state hospital. WHO recruited and deployed One International surgeon in Bentiu hospital. The graph below provides the details of the surgical patients who received treatment from the state hospital.

In collaboration with the State Ministry of Health, the logistics cluster in Juba and UNMISS, WHO facilitated a medical evacuation for number of critically injured patients from Bentiu Civil Hospital to Juba Teaching Hospital.

2.1.2 Capacity building

The organization supported both the national and sub-national health authorities to enhance local capacity to respond to potential emergencies, while giving more emphasis on emergency preparedness and response. In Unity state, on job training was conducted for over 16 medical officers in the areas of surgical capacity, triaging and infection control for post
operative patients. In addition, an international surgeon was seconded to Bentiu state hospital and provided with incentives during his three month stay. The surgeon provided technical support to the hospital in the areas of; data collection and strengthening theater management of patients.

In addition to that, WHO supported the MoH-RSS, department of emergency preparedness and response with the deployment of ten medical officers and five nurses to Unity state on a rotational basis for two months as surge capacity support to the state hospital. This followed the influx of mass casualties in the hospital at the height of conflict and bombing in the Heglig oil fields.

To strengthen the partner’s response to the emerging emergencies in Maban county, WHO conducted on job training for health facilities run by NGO partners operating in Doro and Jamam Refugee camps. The training focused on measles and cholera surveillance and notification of priority diseases. The teams were taken through the process of collecting stool samples for suspected cholera cases and how to fill in case based investigation forms. The training was conducted in preparation of any emergencies of cholera and measles outbreaks in the two camps. Those trained were from health facilities supported by MoH, Relief International (RI), SIM, GOAL and Samaritan Purse.

To support Maban county health department on strengthening Integrated Disease Surveillance and Response reporting and enhance emergency preparedness with emphasis on cholera, WHO in collaboration with MSF-B and RI conducted five days training for health workers from 12 facilities in the county. A total of 30 health workers benefitted from the training that focused on the basic principles of epidemiology of diarrhea diseases and other epidemic prone diseases. This training will improve the skills and knowledge of health workers in prevention and control of epidemic prone diseases, cholera in particular.

The organization further conducted support supervision to a number of states to support health partners on emergency preparedness and response. Supportive supervision visits were conducted to Makal, Maban, Nasir, Renk, Longeck and Melut counties in Upper Nile state. During these supervision visits, emphasis was put on strengthening EPR activities at the way station and refugee camps. On job training for health workers was also conducted at the transit sites and way station in Upper Nile. At the way stations in Juba, Renk, and Rumbek, WHO conducted support supervision visits to assess the quality and availability of health services delivery. Challenges and gaps and appropriate response strategies were put in place on how to better improve service delivery at the county level and facility level.
WHO also supported the SMoHs to develop contingency and response plans for potential and acute emergencies based on the evolving humanitarian situation. The states that received this support include, the Central Equatoria State that was supported with the returnees response plan, Upper Nile state where the development of the response plan for refugee influx to Maban county, Renk and Walkang responses were supported. In Unity state the response plan for the Yida crisis was also developed, while in Warrap state the response plan focusing on the Abyei response was supported.

2.1.3 **Critical gap identification and filling**

In response to the health difficulties experienced by the returnees and refugees this quarter, the organization supported the filling in of critical gaps by providing drugs that were used to run mobile clinics as well as prepositioning of emergency medical supplies. Health kits and assorted drugs were also provided to IMC, INTER-SOS, Relief International, Goal International, MSF-Belgium and ACROSS to enable them provide emergency health care in camps within their areas of operation.

As shown in the table above, a total of thirty one (31) health kits were distributed to health partner across the ten states including 11 Emergency Health Kits (EHK), 12 Diarrheal Disease kits (DDK) for diarrhea treatment and 8 trauma kits. WHO also provided 10 outbreak investigation kits which were sent to areas with acute humanitarian crisis/affected areas. The total population that benefited from the WHO medical supplies is estimated at 110,000 people for a period of three months. Sixty seven thousand, six hundred and twenty two 67,622 people consultations were recorded in all the emergency areas. Similarly in her efforts to address the high prevalence of acute watery diarrhea cases in Maban County in Upper Nile state and in preparation for a possible cholera outbreak, four Diarrheal Disease kits were issued to partners and prepositioned at Maban county Health Department as shown in the table above.

2.1.4 **Emergency Health Assessments and Needs Assessment**

In a bid to maintain its mandate in emergencies, the WHO/EHA participated in a number of rapid health needs assessments in areas affected by different crisis. The following assessments were conducted:

- In Unity state where the humanitarian situation escalated, WHO together with other health partners from UN and NGOs, conducted a joint assessment to Pariang County. The assessment was meant to verify the numbers of returnees and Internally Displaced Persons (IDPs) situation in the
area and guide the response for the IDPS and returnees there.

- In Lakes state, WHO together with other partners from the UN and NGO’s visited Nyang way station & Shambe port in Yirol East County to verify the suitability of the area to host the anticipated returnees.
- The organization further participated in an interagency assessment in Malakal in an area where clashes between the Rebel Militia Group and the SPLA were reported. During the assessments, documentation of health needs and gap in the response in the areas of concern were underscored.
- As part of the preparation for over 12,000 returnees from Sudan, the organization participated in an interagency assessment to assess the potential sites that were identified for the settlement of returnees. A total of four sites were assessed and one the TTI recommended as the final area that hosted the 12,000 returnees. The area was identified as suitable as health conditions were found to be good evidenced by availability of adequate shelter, water sources and potential structures or the establishment of the health facility for the returnees.
- In Maban, the organization conducted an assessment in the areas of Maban and Renk to document the humanitarian needs of returnees in Mina, Abayok and Panyeur camps. Following the assessment and recommendations WHO responded by supporting with the distribution of emergency life saving drugs and supported the immunization vaccination week that achieved 98% of the target groups.

2.1.4 Challenges

- Irregular drug supplies for the MoH supported facilities and repeated drug stock outs hence strains on the limited stocks of WHO emergency preparedness unit and program
- The continued evolving humanitarian situation has impacted negatively on the planning process of the program especially in new conflict areas

2.3 Communicable Disease Surveillance and Response. (CSR)

Emerging and re-emerging communicable diseases remained a major public health concern in South Sudan, with the country experiencing recurrent outbreaks in the past few years. During this quarter, increased population displacement and influx of returnees and refugees in South Sudan continued to increase the risk of major epidemics caused due to lack of safe drinking water, poor sanitation and hygiene, overcrowding, malnutrition, inadequate vaccination coverage and low immunity to vaccine preventable diseases.

2.3.1 Coordination and Technical missions

In this quarter, the weekly Epidemic Preparedness and Response (EP&R) meetings were held at Juba level, attended by a number of the health partners and representatives of health. The meetings were chaired by the Ministry of Health, RSS with WHO providing secretariat work. It is important to note that the participation of partners steadily increased in this quarter. The meetings aimed at reviewing and discussing weekly surveillance data and provided necessary technical advice and support to the surveillance team and health partners on
outbreak verification and response. The EP&R task force is tasked with the responsibility of ensuring the proper flow of surveillance data for early detection of public health events and oversee the appropriate implementation of epidemic preparedness strategies, action plans and procedures.

Health cluster meetings were also held regularly attended by health partners and health officials. Issues on disease surveillance were discussed at the central and state levels.

During this reporting period, WHO recruited an International Consultant who worked with MoH-RSS to follow-up on the mid-term IDSR evaluation (MTE) findings and recommendations. In addition, the team supported the review and update of the IDSR tools. Some existing tools were revised and new ones developed and surveillance and public health officers trained on how to use them. The team visited Lakes, Western Bahr el Ghazal and Warrap states and reviewed surveillance activities, piloted the tools and trained staff. Following the completion of the mission to the states, WHO in partnership with MoH-RSS convened a two day debriefing meeting and training for all state surveillance officers, national public health officers and officials from the MoH-RSS during which revised tools were presented and endorsed by all participants.

In view of the recommendation from the mid-term evaluation, another International consultant with expertise and experience on integrated disease surveillance and related issues was recruited in June 2012 for 4 weeks assignment. The consultant worked with health authorities and WHO state teams to conduct training needs assessment and develop a training plan and materials. They visited Eastern, Central and Western Equatoria states to assess training needs of health workers, surveillance officers and other cadres by conducting interviews and focus group discussions. The overall objective of this assignment was to conduct a training needs assessment to identify gaps and needs of health workers in different states and counties in South Sudan so as to enhance their knowledge and skills on integrated disease surveillance, and to develop a training plan and materials suitable for different cadres.

2.3.2 Training and Capacity Building

Strengthening knowledge and skills among first line health care workers, surveillance officers, public health officers and health manager is one of WHO mandates and priority area for the IDSR project. This is key given that health workers and other health cadres require regular refresher trainings to strengthen their skills on reporting, investigation or response to outbreaks or other health emergencies. The duration for the IDSR training was increased to five days and the training programme was revised accordingly.

Twelve (12) trainings on integrated disease surveillance and response (IDSR) were conducted across the country this quarter one training for SPLA medical corps in Juba, 1 county level IDSR training for Pigi and Fangak
counties in Malakal, 5 trainings on referral hospitals and PHCCs, and 5 trainings for the polio staff (field supervisors and assistants), County surveillance officers, County Medical Officers, EPI managers etc in Lakes, WBeG, Jonglei, NBG and Warrap states. Three hundred and ninety nine (399) primary health care workers, surveillance officers, EPI managers, public health officers, health managers and field supervisors/assistants were trained. The trainings aimed at reorienting health workers, public health officers and the managers to integrate disease surveillance system. It also aimed providing new knowledge and skills needed to improve outbreak investigation, disease surveillance, reporting of early warning signals of impending outbreaks and help initiate an effective response in a timely manner. All trained participants received IDSR training package and IDSR technical guidelines for future reference.

a) Meningitis and cholera preparedness training: Three days refresher training to enhance surveillance and case management of meningitis and cholera was conducted in Yambio and Western Equatoria state. A total of 33 health personnel (surveillance officers, doctors, nurses, clinical officers and others) from all referral facilities and County Health Department participated in this training. The main purpose of the training was to sensitize health personnel on surveillance and case management for meningitis and cholera.

b) Malaria Sentinel Site Training: The National Malaria Control Programme, MoH-RSS together with WHO established 31 malaria surveillance sentinel sites across the county at hospitals and primary health care centers. The purpose of these sentinel sites are to collect accurate malaria data to monitor malaria trends in the county. WHO supported two capacity building trainings among health workers, malaria state coordinators and M&E officers in Juba and Rumbek. A total of 72 health care workers, malaria state coordinators and malaria M&E officers from sentinel sites in EES, CES, WES, Lakes, Jonglei, Upper Nile and Unity States were trained (Juba: 8 females and 64 males on malaria surveillance, case management, reporting procedure and diagnosis methods.

2.3.3 Surveillance and Epidemic Response.

i) Outbreaks Investigation

A total of fifty two (52) outbreak rumors/alerts were reported and verified by state rapid response teams during this reporting period. The majority of these outbreak rumors were measles, cholera and Influenzae Like Illnessness (ILI). Of these alerts, only six measles outbreaks in Pibor, Kapoeta East, Yambio, Raja, Morobo, Juba, Pariang Counties, and one rubella outbreak in Pibor counties were confirmed in the past three months, with all others being false alarm. The state rapid response teams conducted outbreak investigations within 3 days of notification for over 80% of all outbreak rumors. Other rumors investigated included ILI, cholera, malaria deaths, unknown illnesses, AJS and others. No cholera outbreak was confirmed in this quarter, despite increased number of watery diarrhea recorded in Maban and Yida refugee camps. All confirmed measles outbreaks were responded to through measles vaccination campaigns by the EPI department and health partners.

ii) Laboratory Specimen

A total of 83 clinical specimens (serum/blood, stool and CSF) were collected and analyzed at reference laboratories in Juba (for measles), CDC-KEMRI (for AJS/yellow fever) and
AMREF-Nairobi (for cholera and meningitis). Of these specimens, 40 blood samples tested positive for measles with the rest of the specimens tested negative for the suspected epidemic prone diseases (measles, cholera, meningitis, yellow fever, hepatitis E and others). Seventeen blood/serum samples were not analyzed due to inappropriate collection and inadequacy quality. Refer to table 1 for details of laboratory specimens.

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<th>Unconfirmed</th>
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<tr>
<td>Total</td>
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<td>17</td>
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</table>

### iii) Health Facility Reporting Performance:

The number of health facilities that submitted the complete weekly surveillance reports on time slightly increased this reporting period as compared to the same period in 2011 and 2010 (refer figure 1). The average timeliness rate by states increased to 80%, 60% by counties and 50% by health facilities. The average completeness rate of reporting by functioning health facilities decreased this reporting period to 48% as compared to 55% in the previous quarter.

### IV. Disease specific surveillance reports

#### a) Acute Watery Diarrhea (AWD): A total of 80,063 cases of AWD with 104 deaths (CFR of 0.1%) were recorded across South Sudan during this reporting period. Although there was no confirmed cholera and dysentery outbreak or cases, suspected cholera and dystestary cases were reported from health facilities in the refugee camps (Yida, Jamam, Doro and Patil). All stool specimens collected and cultured tested negative for Vibrio Cholera and ShigelloS. As shown in figure 3, the incidence rate of AWD cases per 100,000 population reported across the country slightly increased in week 14-26 of 2012 as compared to the same period in 2010 and 2011.

The rate of acute watery diarrhoea differs by age group, with the highest rate seen in children less than 5 years of age (58%) as compared to those over 5 years of age (42%). Table 2 shows that, Jonglei and Upper Nile states recorded the highest AWD incidence, while Jonglei state, NES and Unity states recorded the highest deaths due to AWD. The counties that recorded high AWD include Maban, Kapoeta North, Ayod, Akobo, payinjar, Ibba, Yambio, Nzara, Ezo, Iba, Maridi, Mvolo, Tambura, Mudiri East, Mundiri West, Nagero, Terekeka, Juba, Lainya, Yei and Morobo counties.
The deterioration of security situation in South Kordofan and Blue Nile states of Sudan displaced thousands of Sudanese refugees into South Sudan. Unity and Upper Nile states in particular. The number of refugees arriving to Yida and Maban (Jamam, Doro and Batil) camps increased considerably in the 2nd quarter of 2012 making the refugee camps congested with shortage of safe drinking water, poor hygiene, limited number of latrines and no natural shelter. As a result, the trend of AWD increased in all refugee camps, putting the population at high risk of cholera and other water borne outbreaks. The congestion in the camp is also leading to poor nutritional status among refugee children.

To ensure no notifiable disease is missed in these camps, early warning surveillance was enhanced in all camps and coordination among state health authority, health partners, UNHCR, WHO and others strengthened. Cholera contingency plans for the refugee camps and surrounding host communities were developed, and health parnters prepared to respond to any possible cholera occurrence. WHO and other partners prepositioned additional emergency supplies including diarrhea kits, specimen collection materials and others. As shown in figure 5, the trend of AWD in Maban refugee camps increased gradually from week 14 until week 26, but there was no confirmed cholera or other water borne disease outbreak.

| Table 2: Distribution of AWD cases and deaths by state (April – June 2012) |
|-------------------------|---------|---------|---------|
|                         | Cases   | IR      | Deaths  | CFR (%) |
| CES                     | 6837    | 619.5   | 18      | 0.3     |
| EES                     | 4612    | 509.0   | 8       | 0.2     |
| JNG                     | 13524   | 995.4   | 40      | 0.3     |
| LAKES                   | 5749    | 826.3   | 4       | 0.1     |
| NGBZ                    | 4934    | 684.4   | 7       | 0.1     |
| UNITY                   | 7310    | 1247.9  | 16      | 0.2     |
| UNS                     | 11164   | 1157.7  | 0       | 0.0     |
| WBGZ                    | 7110    | 2132.4  | 5       | 0.1     |
| WES                     | 9592    | 1549.5  | 6       | 0.1     |
| WRJ                     | 9231    | 948.8   | 0       | 0.0     |
| Grand Total             | 80063   | 969.2   | 104     | 0.1     |

b) Meningitis: Only Eighteen (18) suspected meningitis cases and two (2) deaths were reported in the this quarter with most sporadic cases recorded from CES (Juba and Yei), EES (Kapoeta South and Magwi), Lakes (Rumbek North and Yirol West), NGBZ (Aweil West), Upper Nile (Manyo), WBGZ (Wau), WES (Yambio), Unity (Leer) and Warrap (Tonj North) states. There was no confirmed outbreak during this reporting period, and all CSF specimen tested negative for Neisseria Meningococcal. As shown in table 3, all reported cases were sporadic from different counties and none of these counties crossed the alert or epidemic threshold. The majority of the suspected meningitis cases were in children below five years of age. Surveillance has been enhanced and health authorities and partners are well prepared to respond incase of any outbreak during the meningitis season. WHO and MoH-RSS prepositioned laboratory supplies and drugs to high risk states, and refresher trainings on meningitis surveillance, case management, and meningitis epidemic preparedness and response conducted in different states.
c) **Measles.** A total of 528 suspected measles cases and five (5) deaths were reported across the country through the weekly surveillance reports. Of these reported cases, 467 suspected measles cases were investigated and line listed by state rapid response teams. Over 70% of the line listed cases were in children below 5 years of age, with 80% of line listed measles cases were not vaccinated. The incidence of measles cases reported in this quarter was two fold compared to the same period in 2011.

| Table 3: Distribution of meningitis cases and deaths by state (April – June 2012) |
|-----------------|-------|-------|--------|
|                 | Cases | IR    | Deaths | CFR (%) |
| CES             | 3     | 0.3   | 1      | 33.3    |
| EES             | 4     | 0.4   | 0      | 0.0     |
| JNG             | 0     | 0.0   | 0      | 0.0     |
| LAKES           | 2     | 0.3   | 0      | 0.0     |
| NBGZ            | 2     | 0.3   | 0      | 0.0     |
| UNITY           | 1     | 0.2   | 0      | 0.0     |
| UNS             | 1     | 0.1   | 0      | 0.0     |
| WBGZ            | 2     | 0.6   | 1      | 50.0    |
| WES             | 1     | 0.2   | 0      | 0.0     |
| WRP             | 2     | 0.2   | 0      | 0.0     |
| **Grand Total** | **18**| **0.2**| **2** | **11.1** |

As shown in figure 6, the trend of measles slightly decreased this quarter as compared to the previous quarter within 2012, but still the incidence rate was higher compared to the same period last year.

**Figure 6:** Epidemic curve by week of onset of rash and by classification (Since the pre-referendum period – Oct 2010 to end of the reporting quarter – June 2012)

Table 4 shows, measles cases recorded in various states with Western Equatoria, Jonglei and Central Equatoria states recording the highest number of cases, followed by WBeG, NBeG, and Warrap states. Sixty six (66) blood specimens were collected and referred to CDC-KEMRI and Juba measles reference laboratories for confirmation, 40 of the specimens tested positive for measles IgM, while 7 tested positive for rubella IgM. Following the measles investigations and laboratory specimen confirmation, only six measles outbreaks were reported in Pibor, Kapoeta East, Yambio, Raja, Morobo, Juba and Pariang Counties, with one rubella outbreak in in Pibor counties in the this quarter Appropriate public health responses were implemented including effective case management trainings, strengthened surveillance, community awareness campaigns and measles vaccination campaigns.

d) **Malaria:** A total 246, 476 malaria cases (2,984 cases per 100,000 population) and 411 related deaths (CFR of 0.2%) were reported across South Sudan during this reporting period.
Figure 8 shows that the incidence rate reported during this quarter is slightly higher as compared to the same period of 2010 and 2011. The case fatality rate (CFR) was quite high this quarter as compared to the same period in 2011 (0.2% vs 0.03%), with most deaths occurring in children below 5 years of age. Of these reported cases, 45% were children below 5 years of age and 55% adults.

The malaria situation in the country is still considered an emergency situation. Many health facilities continue recording high malaria cases. WHO is currently supporting the establishment of 31 malaria sentinel sites through the National Malaria Control Programme, MoH-RSS for the purpose of collecting more accurate data on malaria and monitoring the trend of malaria very closely. Shortage of anti-malaria drugs were reported across the county, and WHO and USAID procured and donated over 1 million doses of anti-malaria drugs to the Ministry of Health. The distribution of these donated drugs is currently ongoing. The organization further supported a series of capacity building trainings among health personal on malaria case management and laboratory diagnosis.

Figure 9 & Table 5 show that Central Equatoria state reported the highest incidence of malaria cases and deaths, followed by Western Equatoria, Eastern Equatoria, Warrap and Upper Nile state.

e) **Cutaneous Anthrax:** During this quarter, a total of sixty two (62) clinically confirmed cutaneous anthrax cases were recorded with no deaths from Jur River and Gogrial west counties. Over 70% of all the reported cases were in children below 17 years of age with 65% being females. All the affected patients treated responded well to the antibiotic treatment. The cutaneous anthrax outbreak that began in early 2011 has affected two counties in Jur River, WBeG and Gogrial West, Warrap state. By the end of this quarter, the cumulative number of cases recorded were 158 cases and 2 deaths. The outbreak is believed to be attributed to the consumption of meat from infected dead animals, health authorities in WBeG and
Warrap in collaboration with WHO conducted intensive health education and community awareness campaigns in the affected communities to discourage people from eating dead animals.

f) Acute Jaundice Syndrome: A total of 71 suspected AJS cases and 20 related deaths were reported from nine states during this reporting period. Western Equatoria state recorded the highest AJS cases (34 cases) Most of those who tested positive with AJS tested positive for hepatitis B. Other states that recorded recorded AJS include CES, EES and WBGZCES, EES and WBGZ.

g) Yellow fever: No suspected cases of yellow fever and other types of VHF’s were recorded in South South this quarter.

h) Influenzæ Like Illnessness (IL1): Eighteen (18) suspected cases of influenza like illnesses was reported from Panyikang (Upper Nile) with no death. The incidence rate of the reported cases was 1.9 per 100,000 population. No laboratory specimens were collected. Investigation by the rapid response teams confirmed that 61% of cases were children with influenza like illnesses, however they were all reported to have fully recovered

2.3.4 Challenges

1. More returnees and refugees arrived South Sudan during this reporting period negatively impacting on the availability and accessibility of social services including health, education and water and sanitation.
2. Insecurity and bad roads in Jonglei, Unity and other areas delayed the implementation of key surveillance activities including supervision visits and trainings.
3. High staff turnover at facility, county and state levels may negatively impact on the continuity of health services and surveillance activities.
4. The ongoing austerity measures put in place by the government may severely impact on service delivery and staff motivation.
5. The weekly health facility reporting gradually decreased this quarter. Some states and counties still lag behind and require additional efforts by the state and county health authorities and partners on the ground.
6. Shortage of reporting tools at facility level still exist and WHO alone cannot print adequate registers.

2.3.5 Recommendations

1. In collaboration with partners, the state and county health authorities, increase timeliness and completeness of reporting from health facilities, county and states.
2. Allocate more resources to implement recommendations and plans of action as agreed during the IDSR consultation meeting.
3. Print revised IDSR tools and other materials to strengthen surveillance activities.
4. Continue to enhance early warning surveillance in refugee camps and preposition adequate diarrhea supplies.
5. Strengthen and advocate for greater integration of vertical surveillance activities into the IDSR programme.

2.4 Polio Eradication Initiative (PEI)

This report outlines activities implemented during the second quarter April to June 2012 of the by the polio eradication activity.

During this period, WHO continued to support routine AFP surveillance activities with a focus on active search for cases, investigation and collection of specimen. Acute Flaccid Paralysis surveillance was intensified this time with all
surveillance indicators kept at optimal level. No case of wild polio virus was detected during this period making it a total of 36 continuous months since the last case was reported.

### 2.4.1 Surveillance

During this quarter, the PEI, maintained AFP Surveillance sensitivity within admitted standards by focusing on active case search, investigation and collection of stool specimens from AFP index cases as well as from respective contacts. As a result by the end of June 2012 (week 26), 131 AFP cases were identified, investigated and reported and stool samples collected from 358 contacts.

![Chart 1: NPAFP Cases Distribution by Month South Sudan 2010-2012](image1)

However the distribution of these by month indicates a decline of notification as compared to the same period in 2011; this would partially be explained by the current security situation in Upper Nile, Unity, northern areas of Warrap and Northern Bahr El Ghazal states. But since other states do not face insecurity and yet were reporting declining case detections; corrective measures were set by the EPI/Polio Team through regular communication and community samples collection in counties with zero notification in the last six months. Despite the decline of notification, major AFP surveillance indicators remained within admitted threshold at national level (Non-Polio AFP rate stands at 3.22, Stool Adequacy 93%, NPEV 10%), as well as at the first administrative level; most states reached reported AFP cases with a rate above 2 per 100,000 population with the exception of Unity and Warrap States (Non Polio AFP rate reached only 1.90 and 1.92 respectively – See table #1)

![Chart 2: Non-Polio AFP Rate and Percent AFP Cases with Adequate Specimens by Year / 2004-2012](image2)

The virological classification of the 131 AFP cases detected during reporting period included 106 Non-Polio AFP cases, 5 pending for Expected Review Committee plus 19 pending for laboratory results.

![Table 1: AFP Surveillance Indicators– Summary 2012/ South Sudan](image3)

### 2.4.2 Measles Surveillance

At the end of the reporting quarter, a total of 1186 suspected measles cases were reported from January 2012. Out these, 62 cases were
confirmed, 55 by lab & 7 by epidemiological link whilst the rest were clinical cases.

Two major outbreaks were reported in this quarter from Pibor of Jonglei state and Gogriel West county of Warrap State.

a) Measles Laboratory

In May 2012, WHO sponsored a medical doctor from KEMRI to visit Juba Teaching Hospital to conduct an assessment. The assessment was meant to assist establish a system for measles and rubella serological testing with the following objectives; to have hands on experience in conducting both measles and rubella testing procedures; develop Quality Assurance (QA) measures that can check and ensure quality is maintained for testing; develop necessary documentation tools for laboratory procedures; harmonize some tools with focal persons in the EPI program and other stakeholders and conduct a refresher orientation of two MoH Laboratory technicians trained in 2011 in Nairobi to run the measles laboratory. The refresher module consisted of 4 main topics including principles of measles/rubella IgM testing; test procedures, potential sources of errors (when performing at test) and specimen type (handling). As results, the measles and rubella IgM testing became operational at the Laboratory of Juba Teaching Hospital. As at the end of the 2nd quarter, 64 serological tests for measles were conducted, 36 of which turned positive (IgM+).

b) Measles Outbreak Response

The Roll-over of measles follow-up campaign that was started in August 2011, was completed this quarter in the 10 States. The final results from of which indicate that: 1,892,279 children aged 6-59 months were vaccinated (Admin data) by end of the 2nd quarter. During this time, a number of outbreak response activities were conducted in areas reporting high number of cases.

Micro planning for the response to Kapoeta East outbreak was also done during this period; logistical preparations and funds were mobilized, these are currently in the final stages of completion.

2.4.4 Routine Expanded Programme for Immunization (EPI)

During this reporting period, the programme finalized the EPI coverage verification survey, initiated in the past quarter. The exercise conducted at the national and state levels were finalized this quarter. The verification exercise was conducted using the WHO 30x 7 Cluster Survey method with the objectives of assessing; the childhood immunization coverage for all antigens among children aged 12-23 months; maternal care: ANC coverage; TT immunization coverage and care at delivery among mothers of children aged 0-11 months; quality and access to immunization services (main reasons for immunization failure; EPI service capacity) and others (nutrition support, malaria prevention and care, and diarrhea care).

The survey revealed good progress compared to findings in the latest House Hold Surveys and gives light on areas that need improvements. The table below shows the coverage per antigen.
Table #3: childhood & TT immunization coverage

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Card + History</th>
<th>Validated Estimate</th>
<th>Card only</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG</td>
<td>79.1</td>
<td>64.8</td>
<td>32.6</td>
</tr>
<tr>
<td>DPT1</td>
<td>81.3</td>
<td>64.8</td>
<td>32.6</td>
</tr>
<tr>
<td>DPT3</td>
<td>54.4</td>
<td>53.7</td>
<td>27.0</td>
</tr>
<tr>
<td>OPV3</td>
<td>59.2</td>
<td>53.7</td>
<td>28.3</td>
</tr>
<tr>
<td>MCV</td>
<td>62.1</td>
<td>48.3</td>
<td>24.3</td>
</tr>
<tr>
<td>Full (survey date)</td>
<td>47.4</td>
<td>38.0</td>
<td>19.1</td>
</tr>
<tr>
<td>Full (before first birthday)</td>
<td>30.4</td>
<td>29.4</td>
<td>14.8</td>
</tr>
<tr>
<td>TT1</td>
<td>77.1</td>
<td>-</td>
<td>26.0</td>
</tr>
<tr>
<td>TT2+</td>
<td>65.9</td>
<td>-</td>
<td>20.8</td>
</tr>
<tr>
<td>TT5</td>
<td>19.5</td>
<td>-</td>
<td>2.6</td>
</tr>
<tr>
<td>New-born protected at birth</td>
<td>57.6</td>
<td>-</td>
<td>20.3</td>
</tr>
<tr>
<td>BCG-MCV – Drop-out</td>
<td>21.5</td>
<td>25.5</td>
<td>25.5</td>
</tr>
<tr>
<td>DPT1-DPT3 – Drop-out</td>
<td>33.1</td>
<td>17.1</td>
<td>13.2</td>
</tr>
<tr>
<td>TT1-TT2 – Drop-out</td>
<td>14.4</td>
<td>-</td>
<td>20.0</td>
</tr>
</tbody>
</table>

The results of the survey revealed the following weakness in the routine EPI system:

I. Reasons for missing immunizations: In decrescendo scale mainly the lack of information; obstacles in the health system and inadequate motivation accounts for missing of immunization.

II. Seventy eight point seven percent (78.7%) of children below two years of age vaccinated in the most recent polio SIAs.

III. The quality of administrative data for RI remains questionable in a number of states (Eastern Equatoria, Lakes, and Warrap states). Thesurvey data is far below administrative data.

IV. Weak management systems (poor absorption and reporting on funding) and inadequate ownership of the EPI activities by government. (Largely perceived as priorities of UNICEF, WHO and partners) among fundamental reasons of weak immunization.

2.4.5 EMRO Vaccination Week

The programme conducted vaccination campaigns in all the states as part of the regions vaccination weeks. Special focus was put on measles. Follow up campaigns were conducted in Western Equatoria State while in Upper Nile state and Jonglei, implementation of the dry season acceleration campaigns were conducted in collaboration with the state ministries of Health and other health partners.

2.4.6 Operational support on Reaching Every County (REC) approaches

The WHO state teams continued conducting joint support supervision visits to health facilities and areas where vaccination campaigns were conducted, transport for vaccine distribution to fixed posts of vaccination and movements of vaccinators during mobile sessions was further provided. These ensured that the eligible population of children were reached.

Chart #7: Monthly DPT-1 and DPT-3 Coverage Monitoring South Sudan–2012

2.4.7 Coordination

The programme conducted and participated in the Inter-Agency Coordination Committee for Immunization services in South Sudan. Endorsing the GAVI Annual progress Report, the presentation of findings from the External EPI Review conducted in November 2011 plus

WHO consultant checks health facility records books for data on children immunized during routine immunization
preliminary draft of the EPI comprehensive multiyear plan were top on the agenda.

2.4.8 Capacity building

During this quarter, the programme assisted in the preparation of the up-coming Immunization & Field Epidemiology training in Kajo-Keji is planned to take place in the second scheduled to take off in July 2012. The training is meant to go for one-year practice and will focus on enhancing public health practice in EPI/RI management, Surveillance & reporting, Outbreak response & management. The training was intended to; increase the number of MoH staff cross-trained in EPI/RI and surveillance competencies; strengthen officers serving at the MoH and improve systems of surveillance, response, and EPI service delivery.

In the second quarter, the annual EPI-POLIO Review Meeting was held at Juba. The meeting attended by 90 senior staff from 10 States Ministry of Health and WHO state hubs including General Directors, Directors for Primary Health Care, State EPI Managers, WHO National focal points, WHO TIFPs plus Stop Team Consultants. Others in attendance were; representative from central level of MoH – RSS, WHO, UNICEF, partner NGOs like; CORE GROUP PROJECT, MSF-SP, MSF-F, WORLD VISION) and donor Agencies (USAID, CDC) was convened with the main objective of; reviewing activities of the past year and the first half of 2012 and plan for the rest of the year.

2.4.9 Challenges

- Restricted movement due to insecurity resulting to low and minimal supervision.
- Influx of refugees due to conflicts in South Kordofan and Blue Nile States.

- Increased measles cases and deaths, despite follow up campaigns, and limited availability of regular routine immunization in the affected areas
- The increased incidents of humanitarian crises due to conflicts either tribal (Jonglei) or in the border areas (Upper Nile, Unity and North Bahr Ghazal) which raised the workload on the Polio team.
- The rapid turnover still poses a challenge as WHO cannot compete due to the high salary rates offered in the market. This lead to the loss of experienced personnel. New members supporting the the IDSR and EHA team as a part of integration efforts still do not have the needed experience and continue working in vertical ways because they have not assimilated the integration concept.
- The deficiency of qualified nationals to be recruited to support the program still poses major challenges to the program.
- Poor infrastructure coupled with poor terrain deprives many parts of the country of health services.
- Sky rocketing costs of fuel and transportation, thus affecting performance of the programme.
- Lastly the persistent lack of accountability and ownership of the program from the health officials at different levels especially at the state and county levels, these usually break the success of any program.

2.5 Guinea worm Eradication Program

As we enter the peak of guinea worm disease transmission season in South Sudan, good progress has been made in eradicating the disease from the country. By the end of June
2012, South Sudan had reported a total of 328/387 cases representing a 52% reduction compared to 807 cases over the same period in 2011. A total of 69% of the cases reported this year were fully contained. Globally, only 4 guinea worm cases have been reported outside South Sudan (Ethiopia 2, Chad 1 and Mali 1) since January 2012. A total of 219/349 guinea worm rumours have been registered from guinea worm free areas during the period in focus, 204 of these rumours were investigated and 20 confirmed as guinea worm cases from Gogrial East County.

2.5.1 Workshops and training

In this quarter, the WHO Guinea Worm Eradication Program (GWEP) supported the Ministry of Health to conduct a training of Trainers (TOT). A total of 40 surveillance officers from the states of; Unity, Lakes, Western Bahr El Gazel, Northern Bhar El Gazel and Warrap benefited from this training. A co-training team was selected on merit and tasked to support health workers and community volunteer trainings in selected counties in the West of Nile Region. WHO also supported the training of health workers on Guinea Worm Eradication, drawn from the states of Warrap, Northern Bah-El Gazel, Lakes, Jonglei and Eastern Equatoria. Four hundred and seventy two (472) health workers benefited from this training. In addition, the program supported training of 136 village volunteers from the counties of Warrap (109) and Terekeka (27) county in Central Equatoria state.

2.5.2 Missions and field visits

The organization supported MoH GWEP to conduct guinea worm active case search in the counties of Ayod, Uror, Nyiror and Gogrial East. During this time, five guinea worm cases were detected in Dhok Pan Magot village in Gogrial East County, Warrap state. The infection has since spread to four of the five payams in the county. Given the magnitude of the problem, active surveillance was re-initiated in the four payams and interventions intensified to cope up with the outbreak.

2.5.3 Partnership

During this reporting period, WHO supported the South Sudan GWEP national task force to organize for a task force meeting in Juba and Eastern Equatoria state. The Juba Task Force meeting coincided with the 2012 mid-year
review meeting. During the mid-year review meeting, delegates from WHO office in Geneva and the carter Center Atlanta Office participated in the meeting, this was also attended to by the Minister of Health, The Undersecretary and all partners supporting the South Sudan GWEP.

2.5.4 Challenges

Population movements in cattle camps and continued low safe water coverage in endemic villages posed daunting operational challenges to more rapid eradication of Guinea Worm disease in Southern Sudan. There are also uncertainty and concerns in achieving good surveillance in parts of Jonglei because of poor road network and high insecurity during the second quarter of the year.

2.5.5 Way forward

- Support a communication workshop to develop a national guinea worm communication strategy to be implemented and monitored between now and the end of the year 2012.
- Continue to strengthen guinea worm disease surveillance by supporting surveillance officers with fuel for their motorbikes and supervision allowances.
- Conduct community based volunteers training in Western Bahr El Gazel state, lakes state and Movolo county in Western Equatoria state
- Conduct health workers training on guinea worm disease and reporting in Central Equatoria, Upper Nile, Western Bahr El Gazel, Western Equatoria, Pochalla and Pibor in Jonglei state
- Support guinea worm disease surveillance in the military community using the military medical corps.
- Continue to support monthly South Sudan GWEP Task Force meeting
- Embark on health education campaigns by distributing guinea worm disease posters, health awareness messages using the local mobile phones, FM Radio station and TV.
- Conduct the GWEP Mid-year Review meeting for all the states west of the Nile

2.6 Human Immune Deficiency Virus (HIV)

a) Strengthening monitoring and evaluation in HIV response: Updating HIV care/ART patient monitoring tools

Over the last five years, the Ministry of Health with support of the WHO have been scaling up HIV treatment, care and prevention interventions. Within this context, clinical guidelines and monitoring and evaluation tools were developed to enable health providers offer better quality services to Persons Living with HIV (PLHIV). However as the global guidance constantly changes, it influences revisions and updates at the national level. The national guidelines and monitoring tools need to reflect changes in clinical practice and report on key priority national indicators. As such, WHO agreed to provide technical assistance to the MoH to update the national HIV care/ART patient monitoring guidelines and tools.

During the last quarter, the organization supported the HIV Division of the Ministry of Health to organise a meeting to review, update tools and build consensus among stakeholders so as to strengthen the national HIV care/ART patient monitoring recording and reporting. This was attended to by national and international partners including various
departments of the Federal MoH, among them; The national TB programme, South Sudan AIDS Commission, UNICEF, UNAIDS, USAID and CDC. The State Ministries of Health were also represented by providers at health facilities. Discussions on the current clinical guidance and challenges in the national HIV care/ART patient monitoring reporting system was made. Tools and training guidelines for the national HIV care/ART patient monitoring system were reviewed and updated. And a consensus on national indicators and tools for reporting on HIV care including ART patient monitoring were reached. In addition a plan to strengthen patient monitoring including the finalization of tools, conducting refresher trainings using revised HIV care/ART patient monitoring tools, mentoring and quality assurance visits and analysis and publishing of reports were also developed.

The workshop participants selected a technical working team to finalize the tools, and once finalized and printed the tools will be used by health workers to provide quality services to PLWHIV in South Sudan.

b) Strengthening HIV surveillance: Mapping Female Sex workers in South Sudan.

Though the HIV situation in South Sudan is regarded as low, the generalized epidemic prevalence is estimated at a prevalence of 3.1%. An ANC survey conducted in 2009 found that HIV prevalence varies across states, communities and many sub-populations. For instance; 0% to 1% in Akobo, Cueibet and Leer, 6.7% in Maridi, 7.4% in Boma, 11.1% in Pacholla and 12.1% in Tambura. A few other studies like the prevalence study in military, qualitative studies among special groups and the house-hold survey all have contributed to the understanding of the general HIV situation in the country. However, the HIV surveillance information isn’t comprehensive enough to mount a sustained HIV response. Gaps and challenges still exist in data of vulnerable populations such as prisoners and high risk sub-populations like sex workers and men-having-sex with men who are often hidden and marginalized.

With support of partners, the Ministry of Health developed a plan to strengthen the surveillance system to periodically monitor the prevalence and trends of HIV/AIDS. Various studies and analysis of data from routine monitoring and evaluation was established to track the HIV epidemic in the country. A second round of ANC survey supported by CDC is underway.

In order to further strengthen the HIV surveillance during the last quarter, WHO supported mapping and population size estimation of sex workers in South Sudan. Previous studies conducted indicate that sex work is a major driver of HIV transmission and is responsible for many new infections in the country. Experience from other parts of the world has shown that HIV epidemics can quickly expand within vulnerable key populations like sex workers in turn affecting the wider population through “bridge populations” usually men who have sexual partnerships with both members of higher risk key populations and lower risk partners. Therefore, to prevent the establishment and potential expansion of the HIV epidemic in South Sudan, a key strategy will be to reduce the potential for transmission in important networks of vulnerable key populations, particularly where such networks are large, dense and prone to rapid HIV transmission within and from these networks. To develop
targeted interventions for vulnerable key populations, there is need to first assess their location, size and basic operational characteristics. Experience in diverse settings has shown that structured mapping can provide accurate estimates of the size and location of key populations thereby providing guidance for the scoping and targeting of HIV prevention programs and services.

To support the MoH develop targeted interventions, WHO worked alongside the MOH to conduct a mapping study of key populations in South Sudan using a mapping methodology that was developed and has successfully been applied globally. The WHO support will be used to complete a geographic mapping of two selected locations of female sex workers i.e urban and semi-urban centers in South Sudan. This will in turn be used to develop local capacity to conduct mapping studies for key population groups in the country, to develop national estimates of population sizes of risk populations, and to describe the operational typology and organization structures of key populations in each location.

The study currently taking place in Juba and Yambio will be followed with a similar mapping in other states and townships. A comprehensive report on the country situation will be available at the end of the 3rd quarter.

2.6.2 Challenges and lessons learnt

The HIV epidemic in South Sudan is not as explosive and generalized as in neighboring countries within the region. This has been maintained at relatively low levels by many socio-cultural factors. Strengthening HIV surveillance and monitoring and evaluation will go a long way in understanding the HIV epidemic in the country as this will help mount appropriate HIV responses and address the epidemic in the country.

Well suited strategy and cost-effective interventions need to be developed to reverse the HIV scourge. Tailored HIV prevention interventions and coverage of HIV treatment will increase with the availability of proper knowledge of affected population and the drivers of epidemic.

The description of HIV situation in the country will also assist in mobilizing resources to address the epidemic

2.7 Tuberculosis

During the second quarter, WHO South Sudan continued providing technical support to CUAMM (DOCTORS WITH AFRICA) to deliver TB services in Greater Mundri County, Western Equatoria State.

In collaboration with the National TB Control Programme, WHO trained 19 health care workers on TB recording and reporting tools. The training that took place April in Numule was conducted with the objective of improving knowledge of health care workers in completing accurate records, basic analysis of reports and monitoring and evaluation.

Eighteen (18) health care workers were also trained on TB recording and reporting tools. The training whose main objective was to improve knowledge of health care workers in completing accurate records, basic analysis of reports and monitoring and evaluation took place in April at Kajo-Keji, Central Equatoria State.
In addition, 20 health care workers were also trained on TB/HIV collaborative activities with a focus on Co-trimoxazole preventive therapy (CPT). This training held in Kapoeta, Eastern Equatoria State aimed at improving knowledge of the health care workers on TB/HIV collaborative activities and Co-trimoxazole prophylaxis.

To support the health education and promotion of the TB section, WHO printed various TB Information, Education and Communication (IEC) materials to and distributed them to 10 TB facilities in Lakes State and 10 others in Eastern Equatoria State.

The programme further supported the Ministry of Health with the development of MDR national guidelines and training materials for South Sudan. These guidelines are meant to strengthen programmatic management of Drug Resistant TB.

WHO continued providing support to the MoH for the development of draft protocol for the Drug Resistance Survey (DRS) to be conducted for the first time in South Sudan. This survey is meant to offer a better understanding of the magnitude of the disease in the country. Drug Resistant Tuberculosis (DR-TB) represents a major challenge and public health threat in South Sudan.

### 2.8 Secondary Health Care & Health Systems Development

The health systems development team implements activities that address WHO strategic objectives 10 and 11. This report outlines major activities accomplished.

#### 2.8.1 Human Resources for Health

During this period, WHO continued to proactively participate in monthly Human Resources for Health (HRH) coordination meetings as well as engage in the finalization of the development of a HRH policy and strategy.

WHO established contact with the new Ministry of Health Focal Point/ HRH TWG secretariat [VSO] and collaborated in convening and proactively participating in the monthly HRH technical working group [TWG] meeting. The major issue of concern included exploration of ways to harmonize salary structures of NGOs to ensure uniform pay for all cadres across NGOs. WHO was co-opted on a sub working group to review the current payment practices of NGOs and subsequently provide recommendations for salary harmonization.

In addition WHO participated in the project steering committee meeting and final evaluation workshop of JICA HRH project during which key lessons learnt and challenges were shared.

WHO held consultative meetings with the new HRH consultant of the European Union (EU) to explore collaboration and synergy between the upcoming EU HRH project and WHO HRH support to the MoH.
2.8.2 Development of the HRH Policy and Strategy

WHO supported the MoH to conduct a validation workshop for the HRH policy and strategy. Inputs from the workshop are currently being incorporated into the final document which will then be launched as soon as possible.

In recognition of support rendered by the Global Health Work Force Alliance (GHWA) towards the development of the HRH policy and strategy, WHO financially supported the Ministry of Health to participate at the launch of the second GHWA strategy in Geneva during the World Health Assembly.

2.8.3 Leadership and Governance

During the quarter, WHO continued to participate in and conduct activities that contributed to the strengthening of leadership and governance in the health sector. Key among them;

WHO, proactively participated in the monthly Health Sector Working Group (HSWG) meetings convened by the central MOH directorate of planning and donor coordination. During which the HSWG finalized the health sector budget and health sector health financing plan for the 2012/2013 fiscal year. Furthermore WHO was co-opted in a sub-committee and tasked with reviewing terms of reference of the HSWG with the view of making it more a practical forum for guiding sector policy and strategy implementation.

The organization also supported the re-establishment of the H4+(UNICEF, UNAIDS, UNFPA, WHO, WB) forum, a coordination mechanism for Maternal Child and Newborn Health (MCHN) actions among the UN agencies. This entails monthly coordination meetings that bring together all heads of the 5 agencies together to deliberate on issues of MCNH. The chair and secretariat for the H4+ forum is held on a rotational basis—a responsibility that WHO held in the last part of the quarter.

WHO continued to participate in the Health Development Partners monthly meetings convened by the Joint Donor Team. The main issue of concern during this period was the anticipated impact of the austerity measures on the health sector and the need for donor’s flexibility in re-aligning their support to meet the shortfalls in government allocations to the sector.

2.8.4 Development of Policies, Strategies and reports

In collaboration with the Directorate of Planning, Research and External Coordination, WHO continued to work with the other MoH directorates to develop the operational plan of the Health Sector Development Plan.

WHO proactively participated in the technical working group that developed the proposal for phase II of the health systems strengthening Global Fund grant in collaboration with the consultant deployed by UNDP. In addition the organization held dialogue with a team from the Global Fund headquarters, Geneva to explore the role and relevance of WHO in supporting implementation of the various GFATM grants in the country.

In collaboration with the Ministry of Health and UNICEF, WHO participated in producing the 2011 annual report of the GAVI alliance funded health systems strengthening project as a prerequisite for the disbursement of the second tranche of funding.
2.8.5 Strategic information

The agency participated in the monthly Monitoring and Evaluation Technical Working Group meeting that are convened by the central MoH department of Monitoring and Evaluation. WHO is engaged in dialogue with the department of monitoring and evaluation to explore ways of conducting a health information system strengthening strategy based on the health metrics network framework.

2.8.8 Maternal Child Neonatal Health (MCNH)

In order to strengthen the MCNH in the country, WHO convened and held the project steering committee meeting of the CIDA funded ‘strengthening emergency obstetrics care in hospitals in South Sudan’ project. During this meeting the annual report 2011-2012 and work plan for 2012-2013 was reviewed and endorsed.

In collaboration with the Ministry of Health-Reproductive health directorate, State Ministry of Health-Western Equatoria, WHO conducted an assessment of Yambio and Tambura hospitals as part of the process to determine the hospitals in which the CIDA funded project will be implemented in 2012-2013.

WHO also supported the Ministry of Health conduct training on Integrated Management of Childhood Illnesses (IMCI) in Malakal for 20 participants drawn from Unity, Jonglei and Upper Nile states. This training improved the skills of health workers in managing common childhood illness.

Finally, the organization proactively participated in the technical and planning meetings for the upcoming maternal mortality survey and emergency obstetrics care assessment for South Sudan. This meeting involved participants from UNICEF, UNFPA, MOH and SSBS.

2.9 Onchocerciasis Control (OV)

The African Programme for Onchocerciasis Control (APOC) continued to support the South Sudan Onchocerciasis Taskforce (SSOTF) in the bid 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 during this quarter. The CDTI strategy relied on community participation for the distribution of ivermectin to the targeted population. Project Coordinating Officers, County OV Supervisors, Staff from Front Line Health Facilities (FLHF) facilitated the CDTI process by organizing communities to participate in CDTI activities. Community selected Community Drug Distributors (CDDs) who were trained conducted community censuses, provided treatment with ivermectin and kept records of the households treated.

2.9.1 Fact finding mission on Onchocerciasis endemic areas.

A joint APOC management team made a field mission to the states to verify reports of poor performance of the CDTI projects. The team comprised of APOC team from Ouagadougou and Juba, Ministry of Health officials and a team of two from the lead NGO implementing onchocerciasis control, Christoff Blinden Mission (CBM). States visited included; Central Equatoria, East Equatoria, West Equatoria, Northern and West Bahr el Ghazal, Warrap and Lakes States. During these visits, interviews and focus group discussions with CDTI implementing staff and document review at different levels were done and meetings with state level officials held at the counties, payams, bomas and communities. A detailed mission report that includes outcomes of this meeting is yet to be shared.
2.9.2 Advocacy meeting with the Minister of Health – Republic of South Sudan

During this quarter, the programme held an advocacy meeting with the National Minister of Health – Republic of South Sudan with the objective of highlighting key findings from the joint fact finding mission to the states. The meeting also aimed at briefing the minister on the state of onchocerciasis control in the country and advocate for more government budgeting & funding, and active commitment and participation in all onchocerciasis control activities at all levels.

The meeting that had the representation of key ministry of health Director Generals and Directors discussed issues of: Leadership, Integration, Funds management & funds flow, Use of capital equipment, Accountability and Supervision of the onchocerciasis control program.

2.9.3 Onchocerciasis Control Stakeholders’ workshop

In this quarter, the programme organized for a stakeholders meeting to discuss the state of onchocerciasis control in South Sudan and suggest recommendations for the improvement of the programme in the country. The meeting had participation of the Ministry of Health at National and state level, WHO, APOC Centre for Neglected Tropical Diseases (CNTD), Christoff Blinden Mission, Malaria Consortium and Sightsavers international. During the meeting, it was agreed that;

I. The national onchocerciasis control programme be reorganized as part of the broader national NTD control programme.

II. CDTI projects be re-structured to 9 projects to suit the current administrative organization of the country.

III. CDTI activities be re-launched in South Sudan with particular emphasis in training, monitoring, supervision and reporting at all levels. Other areas agreed on were that;

IV. The national onchocerciasis control programme be strengthened in terms of human, financial resources and logistics.

V. Partnerships be strengthened by mobilizing and engaging more partners to support onchocerciasis and other NTD control activities at all levels in the state.

VI. Advocacy for the introduction of training on Community Directed Initiatives (CDI) in all Health Training Institutions in the country be conducted.

2.9.4 Annual Technical report compilation and submission to APOC Management and Technical Consultative Committee

During this period, the process of receipt and compilation of the 2011 training and treatment from the CDTI projects as well as updating of community data continued. Projects submission of reports and reviews continued through the reporting period. The reviewed report will be used when writing the annual Technical Consultative Committee reports.

2.9.5 Way forward

1. Commence with the 2012 mass drug administration (MDA) with mekitizan to all beneficiary communities.

2. Continued Technical support to the SSOTF and the CDTI project staff.

3. Planning for the re-launch of the CDTI projects for onchocerciasis control in South Sudan.
2.10 Health promotion and prevention and, advocacy and communication

During this reporting period, WHO participated in activities that promote the organizations visibility in the country. This was exhibited by participating in International health days in the country. These days included; The World TB Day, World Malaria Day and World Health Day (WHD). This Year’s theme for WHD was Good health adds life to years. Radio talk shows were hosted in 2 radio stations, a TV talk show and 2 press briefings were held to commemorate the World Health Day and World Malaria days. At the occasions WHO delivered speeches and urged government to treat health as wealth by allocating adequate resources to the sector.

The organization also continued supporting the MoH with health education and promotion (HEP) message validation. In addition to supporting the ministry of health with the coordination of health partners working in the area of HEP. Three meetings were held this quarter and Terms of Reference for the Communication Technical Group, an advisory group to the MoH on Behavior Change Communication finalized and submitted to the Director General for Public and Community Health for validation.

5.0 Conclusion

In the coming quarter, 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.