

PMTCT Introduction

Sudan is considered among countries with intermediate HIV/AIDS prevalence according to WHO definition. The first case of HIV/AIDS in the Sudan was reported in 1986. The number of reported cases is increasing annually, and 600 thousands cases were reported in the year 2002 study (1.6%). This is probably an under reporting as HIV/AIDS is a social stigma. There is no data on the number of deaths related to AIDS.

Mother-to-Child Transmission (MTCT) is by far the largest source of HIV infection in children below the age of 15 years (95%). The risk of MTCT, without any interventions, varies between 15-20% in non-breast feeding women in Europe and 25-35% in breast feeding African population. Over 80% of HIV Mother to child transmission occurs late in the third trimester, during labour and delivery. The principal obstetric risk factors are vaginal delivery, duration of membranes rupture, chorioamnionitis, preterm delivery and breast feeding.

In a recent seroservalant study conducted in the Sudan among antenatal clinic attendants and some high risk group of people in 2007, the percentage among ordinary population is 0.14%, IDPs 0.27%, refugees 0.26% and rural is 0.33%. The overall percentage was 0.2%

MTCT could be effectively reduced by using antiretroviral therapy (ART), delivery by elective caesarean section or vaginal under certain precautions, and avoidance of breast feeding or exclusive breast feeding for six months. These measures are not within reach in most developing countries, where 95% of HIV/AIDS infections are present.

Sudan National HIV/AIDS Control Program has developed a national strategic plan to control HIV/AIDS including MTCT. The year 2005 was declared as the year for control of HIV/AIDS by the President of the Sudan, clearly indicating the Government will and commitment to take major steps for the combat of the disease. Management protocols were prepared. A

Pregnancy does not have an adverse effect on the natural history of HIV infection in most studies, although AIDS has become a leading cause of maternal mortality in some areas, as epidemic progresses Adverse pregnancy outcomes that have been reported in HIV

positive women include spontaneous early abortion, low birth weight babies., Stillbirths, Preterm Labour, Premature rupture of the membranes, other sexual transmitted diseases, bacterial pneumonia, urinary tract infections & other infectious complications.

It is well established that well advanced maternal HIV disease, low antenatal CD4 T-lymphocyte counts and high mean plasma viral loads are associated with an increased risk of mother to child transmission (14). Over 80% of HIV transmissions from mother to child occur late in the third trimester (from 36 weeks), during labour and delivery, and fewer than 2% transmissions occur during the first and second trimesters (15).

The principal obstetric risk factors for HIV MTCT are vaginal delivery, duration of membrane rupture, chorioamnionitis and preterm delivery; & breastfeeding (16). In breastfeeding populations up to 20% of infant born to HIV infected mothers acquire HIV through breastfeeding, depending on duration of breastfeeding, and other risk factors such as the presence of mastitis, breast abscess & other local factors (13) Formula feeding is associated with reduction of MTCT to around 14%. While breast feeding presents an ongoing risk, the highest risk period may be the first three months of life.

A pilot project of PMTCT was implemented in four different states in Sudan, aiming to examine the applicability of such an intervention before starting a nationwide implementation; The result of this project was 6593 pregnant women counceled,927 tested and 7 was found to be positive and the prevalence was 0.76%.

The initial results of the PMTCT pilot project are so far positive. In 2007 Seven PMTCT centres were made operational in August in the high prevalence areas of South Darfur, Khartoum, Kassala, North Kordofan and Red Sea, 7,848 pregnant women attending these ANC sites had access to PMTCT services by receiving routine counseling and testing. Some 19 per cent (or 1,563) of these pregnant women accepted HIV testing and all the 8 HIV positive women have started treatment. While the percentages reached are slightly lower than planned, the results are positive given that the PMTCT centres have only been operational since August/September 2007. The results were not completed for the follow-up, care and treatment for the HIV positive pregnant women and the deliveries.

Regular monitoring was undertaken through on-site visits and monthly reporting. Although initial reports are positive, the opt-out implementation still presents some challenges. This consultancy will aim at reviewing progress made in 2007, at identifying bottlenecks and proposing corrective actions. By doing so, a smoother implementation

will be ensured for the various PMTCT sites before a scaling up of the project to additional States. The prevalence of one year work from the seven functioning centers was 0,66%.

August 2008 another 7 centers were added to the service in six states Khartou, N Darfure, West Darfure, South Kordofan, Gadarif and blue Nile.

Timing and Risk of Transmission

	Transmission Rate
During Pregnancy	5 – 10%
During Labour & delivery	10 – 20%
During breast feeding	5 – 20%
Overall without breastfeeding	15 – 30%
Overall with breast feeding till 6 months	25 – 35%
Overall with breast feeding till 18 to 24 months	30 – 45%

Situation In PMTCT

**HIV Prevalence among women attending PMCT services in Sudan
from August 2007 to July to 2008**

Site	Total tested	Total positive	Prevalence %
Omdurman	525	12	2.28
Saudi	1159	1	0.086
Turky	1185	4	0.34
PortSudan	219	4	1.8
Kasala	994	8	0.8
Elobied	497	4	0.8
Nyala	727	2	0.27
Grand Total	5306	35	0.66

List of All PMTCT Sites

CENTERS STARTS 2007	STATE	NEW CENTER 2008	STATE	STARTING DATE
Saudi Hospital	Khartoum	Military Hospital	Khartoum	15/10/2008
Maternity	Khartoum	North Khartoum	Khartoum	N.S
Turkey Hospital	Khartoum	Damazine	Blue Nile	1/9/2008
Elobied Hosp.	N.K	Elfashir	N.D	13/8/2007
Nyala	S.D	Eljenana	S.D	1/9/2009
Kasala	Kasala	Kadogli	S.K	1/9/2008 *
Port Sudan	Red Sea	Elgadarif	Elgadarif	1/9/2008

The total number of clients counselled , tested and the positive cases

From 2007 to September 2008

<u>Year</u>	<u>Group Coun.</u>	<u>counselled</u>	<u>Tested</u>	<u>positive</u>
<u>2007</u>	<u>8466</u>	<u>2560</u>	<u>1608</u>	<u>8</u>
<u>2008</u>	<u>20693</u>	<u>6398</u>	<u>4889</u>	<u>38</u>
<u>Total</u>	<u>29159</u>	<u>8958</u>	<u>6497</u>	<u>46</u>

From January to September 2008

<u>Quarter</u>	<u>ANC</u>	<u>Group coun.</u>	<u>Counselled</u>	<u>Tested</u>	<u>Positive</u>
<u>1</u>	<u>13512</u>	<u>7170</u>	<u>2063</u>	<u>1465</u>	<u>9</u>
<u>2</u>	<u>10198</u>	<u>5496</u>	<u>2209</u>	<u>1708</u>	<u>13</u>
<u>3</u>	<u>13480</u>	<u>8027</u>	<u>2126</u>	<u>1716</u>	<u>16</u>
<u>Total</u>	<u>37190</u>	<u>20693</u>	<u>6398</u>	<u>4889</u>	<u>38</u>

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