

## What is sepsis?

Sepsis is caused by a severe infection which leads to blood poisoning and organ damage, and can be life-threatening. However most cases of sepsis in mothers and newborns are preventable and are easily treated with antibiotics for the mother, hygienic practices during birth (such as handwashing and clean equipment), and antibiotics for the baby<sup>1, 2, 3</sup>.

## How does it affect Tanzania's newborns and mothers?

Sepsis is the third leading cause of newborn and maternal deaths globally<sup>3, 4</sup>. Sepsis and other infections cause an estimated 20%\* of Tanzanian newborn deaths<sup>5</sup>, and 10% of maternal deaths across sub Saharan Africa<sup>4</sup>. The proportion of maternal deaths to Sepsis in Tanzania may be even higher, as half of women deliver at home, and those that deliver in a facility may not be receiving quality care under safe and hygienic conditions<sup>6, 7</sup>.

## What can be done to prevent sepsis?

Many of these deaths in mothers and newborns are caused by a lack of hygiene and infection control during and around delivery,<sup>8</sup> which could be prevented through simple interventions and by improving the quality of care around birth<sup>9</sup>.

Key life saving interventions are:

- @ Improve the use and quality of maternal and newborn health facilities, with early referral and treatment through quality delivery and postnatal care<sup>9</sup>
- @ Follow clean birth practices as recommended in the World Health Organization's six cleans<sup>9</sup>
- @ Avoiding infection is one of the best ways to prevent sepsis. In addition to the clean birth practices the following are also key<sup>9</sup>:
  - \* Provide access to clean water and improved sanitation<sup>10</sup>
  - \* Encourage good nutrition for mothers and early and exclusive breastfeeding for newborns to support a healthy immune system<sup>11</sup>
  - \* Ensure a good supply of essential drugs and intravenous antibiotics to treat sepsis<sup>9</sup>

## Solutions in Tanzania?

Studies in Tanzania have shown that simple solutions work! Using a low-cost clean delivery kit reduced newborn infections and sepsis (13.1 times less at risk of sepsis), and sepsis in mothers (3.2 times less at risk of sepsis) and was effective for both home and facility deliveries, in Mwanza.<sup>12</sup>

In 2014 Tanzania committed to the Every Newborn Action Plan<sup>13</sup> and the Sharpened One Plan<sup>14</sup>. These strategies set out the priority solutions, and call for a united effort to dramatically reduce maternal and newborn deaths, and preventable stillbirths. We must prioritise the evidence-based, cost-effective and feasible solutions in all health facilities that provide pregnancy and delivery services, as well as ensure better data collection on pregnancy outcomes to enable responsive action where it is most needed.

**If the Sharpened One Plan is delivered, it could save 9,400 newborn lives and avert 2,500 stillbirths, and prevent 1,400 maternal deaths by December 2015<sup>5</sup>**



### The World Health Organization's Six Cleans<sup>10</sup>

1. Clean hands of the attendant
2. Clean surface
3. Clean blade
4. Clean cord tie
5. Clean towels to dry the baby and then wrap the baby
6. Clean cloth to wrap the mother



## Sepsis in Tanzania

<b>Newborn deaths due to sepsis (and meningitis and tetanus)(2013)<sup>5,*</sup></b>	<b>20%</b>
Number of newborn deaths due to sepsis (2013) <sup>5</sup>	7,800
<b>Maternal deaths due to sepsis (sub Saharan Africa)<sup>4</sup></b>	<b>10%</b>
Antenatal care of four or more visits (2010) <sup>6</sup>	43%
<b>Skilled attendant at delivery (2010)<sup>6</sup></b>	<b>51%</b>
Births taking place in a water and sanitation-safe environment <sup>7</sup>	31%
<b>Mothers and babies who received postnatal care within two days of birth (2010)<sup>6</sup></b>	<b>31%</b>
Early initiation (within one hour) of breastfeeding (2010) <sup>6</sup>	49%
<b>Exclusive breastfeeding for infants in the first six months (2010)<sup>6</sup></b>	<b>50%</b>

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## Notes

\*Calculated using data from Liu et al. The estimated total number of newborn deaths is 38611, and newborn deaths due to sepsis infections is 7843.  $(7843 \div 38611) \times 100 = 20.3\%$  (rounded to 20%).