Factsheet on Tanzania’s blood services: 2014

Every year, an estimated 289,000 women die worldwide from complications related to pregnancy and childbirth\(^1\). Nearly two-thirds of these maternal deaths (62\%) occur in sub-Saharan Africa\(^1\) with severe bleeding as the leading direct cause accounting for 24.5\% of maternal deaths in this region\(^2\). Out of all these maternal deaths from severe bleeding in sub-Saharan Africa, an estimated 26\% are directly related to a lack of an emergency supply of blood\(^3\).

Key interventions to reduce maternal deaths from severe bleeding are skilled birth attendance, which includes the enabling environment to provide skilled care (e.g. availability of all essential drugs, supplies and equipment), and ensuring the availability of quality emergency obstetric care\(^3,4\). Blood is needed for caesarean sections and blood transfusions; two essential components of comprehensive emergency obstetric care\(^5\).

Women who haemorrhage while pregnant or around the time of delivery are at high risk of dying because once bleeding has started death can occur in around two hours\(^6\). It is crucial for women to have rapid access to adequate, safe, and affordable blood for transfusion\(^3\), among other strategies to prevent maternal deaths from haemorrhage.

This is why Evidence for Action Tanzania has prioritised regional and national engagement with the Tanzanian National Blood Transfusion Services (NBTS), and the Tanzania Red Cross Society to engage with communities on the vital importance of voluntary blood donation, to ensure greater survival for Tanzania’s mothers.

The World Health Organization’s integrated strategy for safe and effective use of blood includes\(^7\):

- Establishment of a centralised, nationally-coordinated blood transfusion service
- Collection of blood only from voluntary unpaid blood donors from low-risk populations
- Testing of all donated blood, including for transfusion transmissible infections
- Reduction in needless transfusions through the effective clinical use of blood

Go to www.who.int/bloodsafety for more on WHO’s recommendations on blood safety, developing a national blood system, and the clinical use of blood

Tanzania needs more up-to-date and publically accessible information on:

- The amount of blood units required to meet the total need
- The amount of blood units used, including for mothers and babies
- The distribution of blood to meet local need
- The donor population, including break-down of voluntary unpaid, paid, and family-replacement
- Blood safety and screening
- The organisation of the Blood Transfusion Services: whether it is centralised\(^*\) or decentralised\(^†\)
Achievements:\(^\text{15}\):
- NBTS has more than \textit{doubled} the total collection of \textbf{blood units} between 2005 and 2013 from 52,000 to 140,000 units
- There has been a \textbf{reduction in transfusion-transmissible infections}:
  - Prevalence of HIV reduced from 7% in 2004 to 1% in 2012
  - Both syphilis and Hepatitis C stand at less than 1%
- Development of important \textbf{guidelines} such as Guideline on the Clinical Use of Blood and Blood Products

Challenges that remain, and the action being taken\(^\text{15}\):

**Sustainability:** NBTS operations are currently funded for the most part by the US President’s Emergency Plan for AIDS Relief. A self-sustainability plan is needed

**Actions being taken to address challenge:**
- Developing cost recovery plans, proposals to new donors and private-partnership plans
- Working to collaborate with Regional, District, and Council Health Management Teams
- Working to transform NBTS to an autonomous body

**Unmet need for blood:** It is estimated that only 30% of all blood need is currently being met

**Actions being taken to address challenge:**
- Working to increase blood components production to 100%
- Working to open more satellite blood collection points in Tanga, Mara, Ruvuma and Kigoma regions
- Strengthening collaboration between partners to support the collection and distribution of blood
- Strengthening community campaigns

**Lack of legal framework:** There is currently no legal framework in place to enable NBTS to authorise effective legislation to govern the operation of blood services in Tanzania, and to take action to protect and promote the health of blood donors and of recipients of blood

**Actions being taken to address challenge:**
- NBTS is working with the Ministry of Health and Social Welfare and other partners to develop and implement a roadmap to transform NBTS into an autonomous body

**Prevalence of Hepatitis B:** Hepatitis B stands at approximately 5% (2013)

**Actions to address challenge:** Not known

| Organisation of the Tanzania National Blood Transfusion Services (TNBTS) |
|-------------------------------------------------|-------------------------------------------------|
| Established national policy                     | Yes, in 2005\(^\text{8}\)                         |
| Enacted legislative framework                   | In development\(^\text{†, 10}\)                   |
| Blood system: centralised or decentralised      | Largely centralised; coordinated through seven zonal centres\(^\text{8}\). TNBTS was established in 2004\(^\text{11}\) |
| Blood supply by Tanzania’s NBTS                 |                                                 |
| Total population in the country                 | 44,928,923 (2012)\(^\text{12}\)                   |
| Estimated blood needed (units)                  | 450,000 units\(^\dagger\)                         |
| Blood units collected by NBTS                   | 140,000 units (2013)\(^\text{10}\)                |
| Estimated blood needed                          | 10 units per 1,000 population\(^\dagger\)          |
| Blood units collected by NBTS                   | 3.1 units per 1000 (2013)\(^\ddagger, 10\)        |

| Donor population                                |                                                 |
| Voluntary unpaid donors                         | Within the Tanzania National Blood Transfusion Services network it is about 96% (2013)\(^\text{10}\) |
| \textbf{WHO recommendation: 100%}               | No data on voluntary unpaid donors in hospitals\(^\text{10}\) |
| Family replacement donors                       | Within the TNBTS network it is about 4%\(^\text{10}\) |
|                                                                                         | No data on voluntary unpaid donors in hospitals\(^\text{10}\) |

**Blood use towards maternal, newborn, and child health**

**Percentage of safe blood used for maternal, newborn, and child health**

Approximately 80%\(^\text{13}\)

**Blood Safety and Screening**

**Blood tested for transfusion-transmissible infections**

Yes, blood screened for HIV, Hepatitis B and C, and syphilis\(^\text{14}\)

Notes:

* Blood collection, testing, and distribution are co-ordinated centrally e.g. via NBTS
† Blood collection, testing, and distribution are co-ordinated at the hospital level
‡ Calculated from the World Health Organization’s recommendation that the minimum level of blood needed is 1% of the population or 10 units per 1,000 population\(^\text{13}\)
‡‡ Calculated using the total population estimate from the 2010 census\(^\text{12}\) and estimated blood units collected in 2013 NBSG\(^\text{11}\)
References


To find out more about Tanzania’s Blood Services and where you can donate blood, please visit: [http://www.nbts.go.tz/](http://www.nbts.go.tz/)

**Acknowledgements:** Mama Ye! Thanks Tanzania’s National Blood Transfusion Services for their support in developing this factsheet

This factsheet was produced in June 2014