

Seroprevalence of HBV among blood donors. A case study of North Rift Region

Author: Reuben Tulel¹

Affiliation: KNBTS.

Correspondence: rtulel80@yahoo.com


Introduction

- ✓ HBV infection has a world wide distribution causing both acute and chronic disease.
- ✓ According to WHO > 2 billion people have been infected 240 million chronically with HBV.(HBsAg positive for at least 6 months).
- ✓ 780,000 people die every year due to complications of HBV infection- Cirrhosis and HCC.
- ✓ The serological markers of HBV are HBsAg, HBeAg, Anti-HBS and Ant- HBc
- ✓ HBsAg can be detected 30-60 days following infection.



Intro.

Transmission

- ✓ HBV virus can survive outside the body for at least 7 days during this time it can still cause infection.
 - ✓ It is transmitted through percutaneous and mucosal exposure to blood and body fluids. Sexual and mother to child transmission also occurs. Close household contact with an infected individual is also a risk factor.
 - ✓ HBV is an occupational hazards to health care workers.
 - ✓ The prevalence among blood donors in Kenya stands at 1.53% (KNBTS reports).
-
- 

Problem statement.

- ✓ The HBV seropositivity has lead to inadequate supply of blood putting at risk patients requiring transfusion.
- ✓ HBV has also lead to shrinkage of donor population and poses a threat to the general public.
- ✓ HBV challenges the efforts in blood safety as a TTI.



Study objectives

- ✓ The broad objective of the study was to determine the prevalence of HBV among blood donors in the North rift region focusing on the locality of the blood donors. The study covered 4 counties (Uasin Gishu, Trans Nzoia , Bungoma and Turkana)



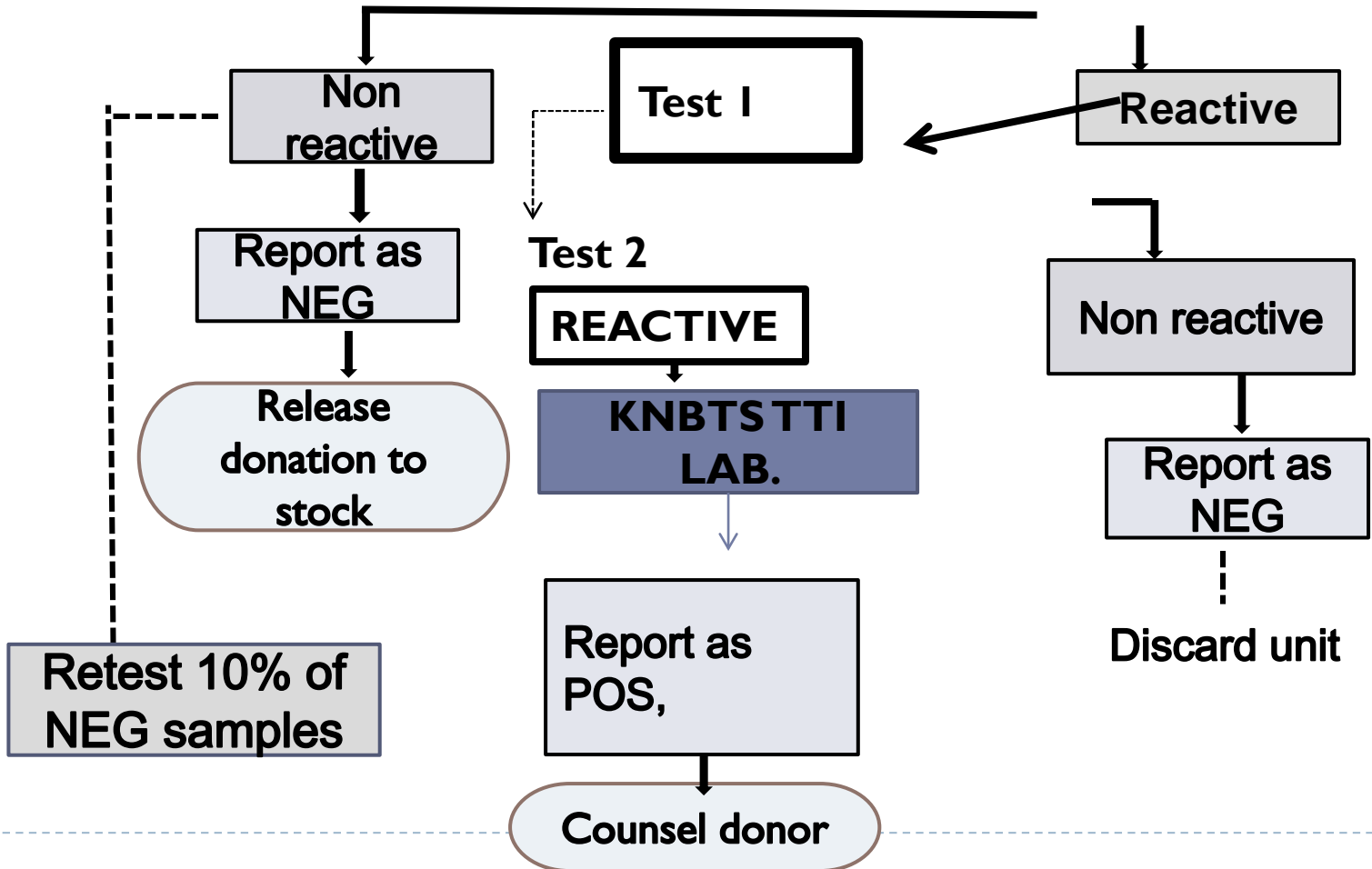
Study methodology

- ✓ The study was conducted in the month of December. Blood donors at the various KNBTS establishments in the region were prospectively included. The donor samples were collected and tested for HBsAg using Enzyme immunoassay technique, positive samples were referred to the KNBTS TTIs lab. The data was then analyzed to determine the prevalence of HBV in the region and respective counties.



Donor sample

Test Kit I



Results

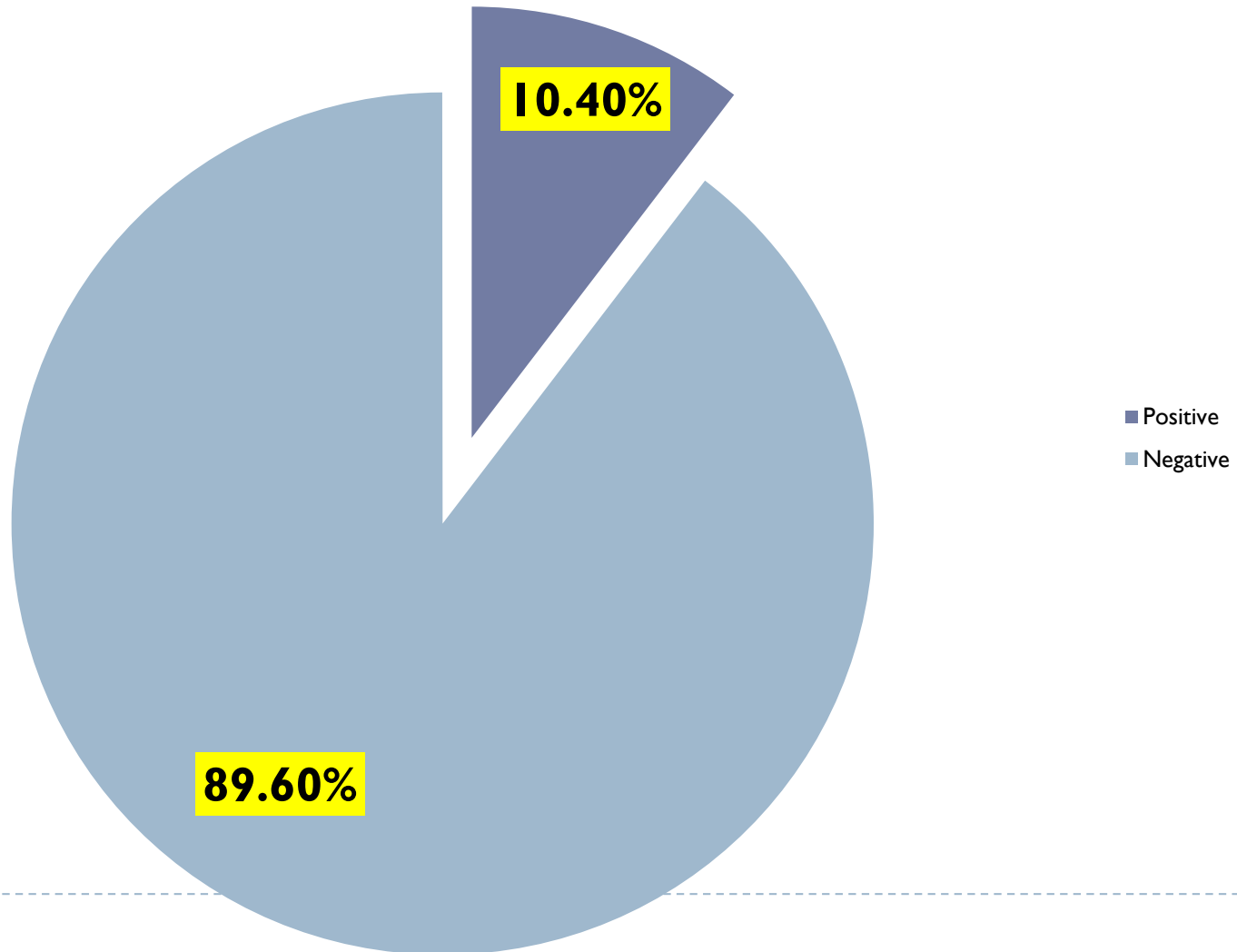
General prevalence of HBV among donors in North Rift

- ✓ Serological results of 510 blood donors were studied and 53 tested HBsAg positive.

HBsAg Results	No. of donors	%
+VE	53	10.4
-VE	457	89.6
TOTAL	510	100



Results contd.



Discussions

Blood donors are presumably healthy individuals. KNBTS has established rigorous donor selection procedures to ensure blood transfusion safety. HBsAg seropositivity in the study compares well with earlier studies conducted in the region especially in Turkana county. The study also confirms the WHO classification of Kenya as a HBV endemic area. In the current study the general prevalence of HBV among blood donors in the region was 10.4%.



Conclusion

From the results of the study, Much still needs to be done to reach out to prospective blood donors and the general public on HBV. The high prevalence of HBV in Turkana as compared to other counties may have been contributed to by the vastness of the county hampering access to health care facilities, information and vaccination programs. Cultural practices such as body scarifications also put the residents at an increased risk.



Recommendations

- ✓ More studies covering larger general populations in endemic areas and the country at large needs to be carried out.
- ✓ HBV vaccination and public education offers the best chance in the fight against the scourge.
- ✓ Strengthening vaccination and child immunization programs in endemic areas will go along way in bringing down the run away prevalence.
- ✓ Education of the general public on HBV, its mode of transmission and prevention is also key.
- ✓ Strengthening policies on student enrolment to institutions by making HBV a mandatory requirement.



Acknowledgements

My sincere gratitude goes to:

- ✓ KNBTS and MOH
- ✓ Colleagues at RBTC- Eldoret
- ✓ Rael Akiru- Satellite in charge –Lodwar.
- ✓ Thomas Wekesa- Satellite In charge – Bungoma
- ✓ Ann Seroney - Satellite in charge – Kitale
- ✓ IPNET Kenya,



References

- ▶ Mutuma ZG. et al. Prevalence of HBV associated HCC in Kenyans of various ages. African J HS 2011; 18:53-61.
- ▶ WHO. Hepatitis B fact sheet No 204 (updated July 2015) WHO website.
- ▶ WHO. HBV vaccine position paper. 2nd October 2009. <http://www.who.int/wer>



THANK YOU

