



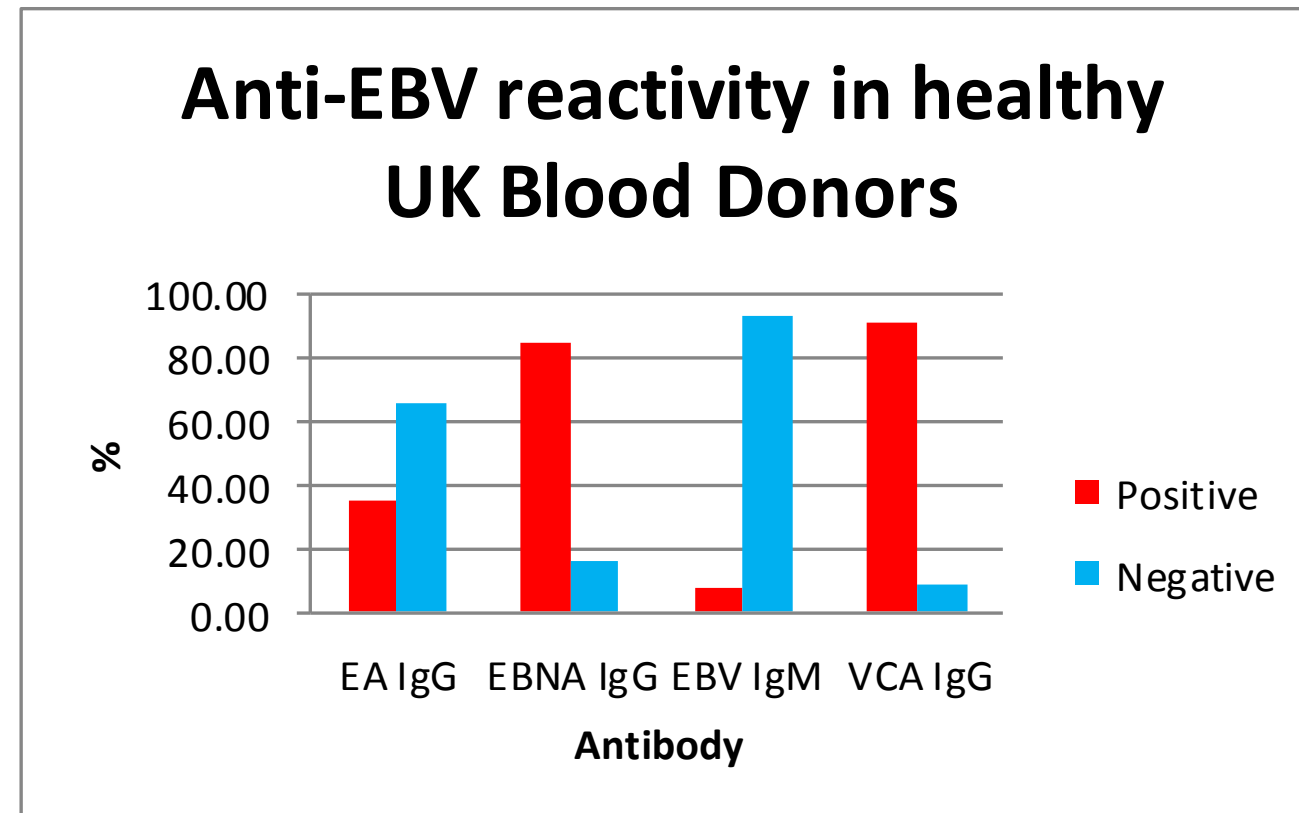
**INTRODUCTION**

- Epstein-Barr Virus (EBV) is a largely asymptomatic infection and affects a significant proportion of the population
- Infection in immunocompromised persons can progress into serious conditions such as Guillain-Barré.
- The optimal algorithm for serological diagnostic testing is still unclear.
- QC reagents are used in the good practice of diagnostic testing.
- NIBSC is preparing EBV quality controls for each target analyte.

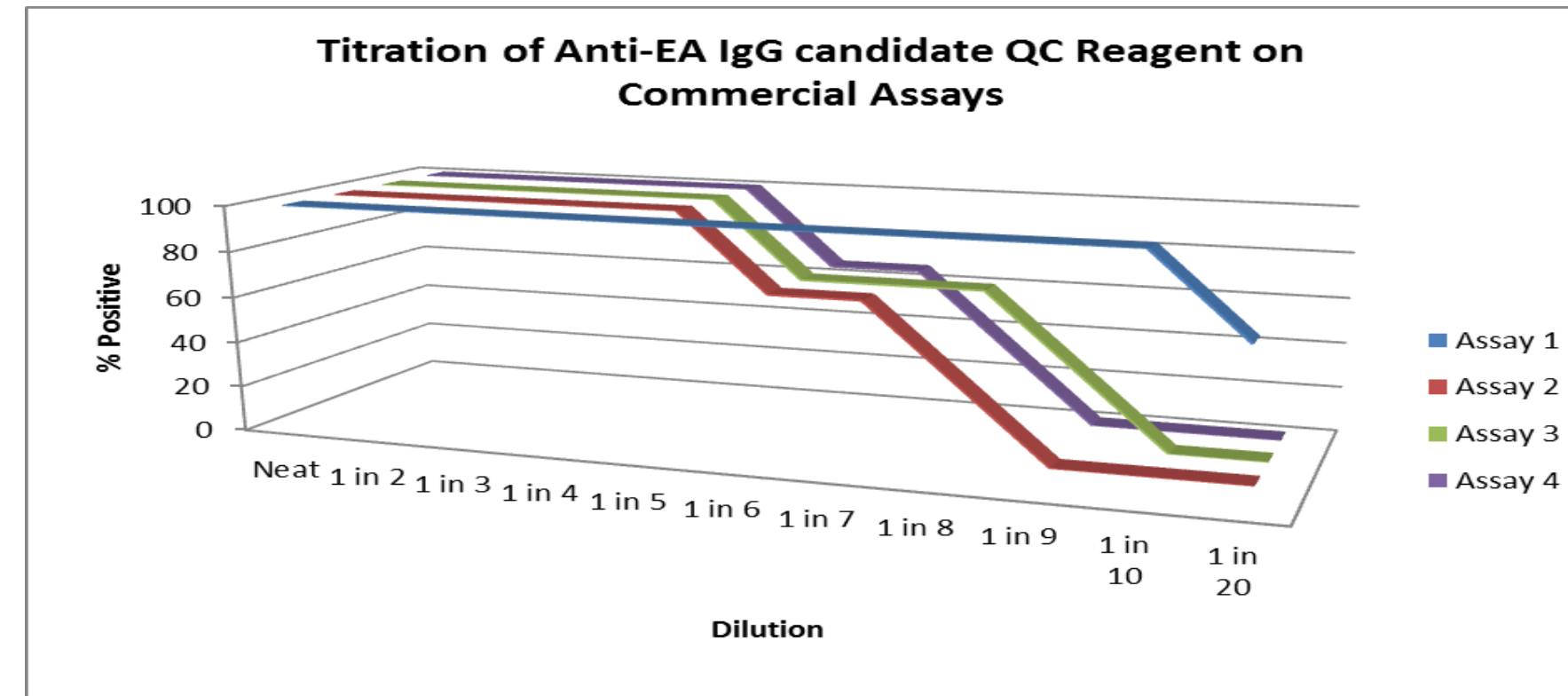
**RESULTS**

- Over 250 plasma packs were evaluated using the DiaSorin Liaison XL for serological profiles of EBV
- Highest titre packs were selected and pooled.

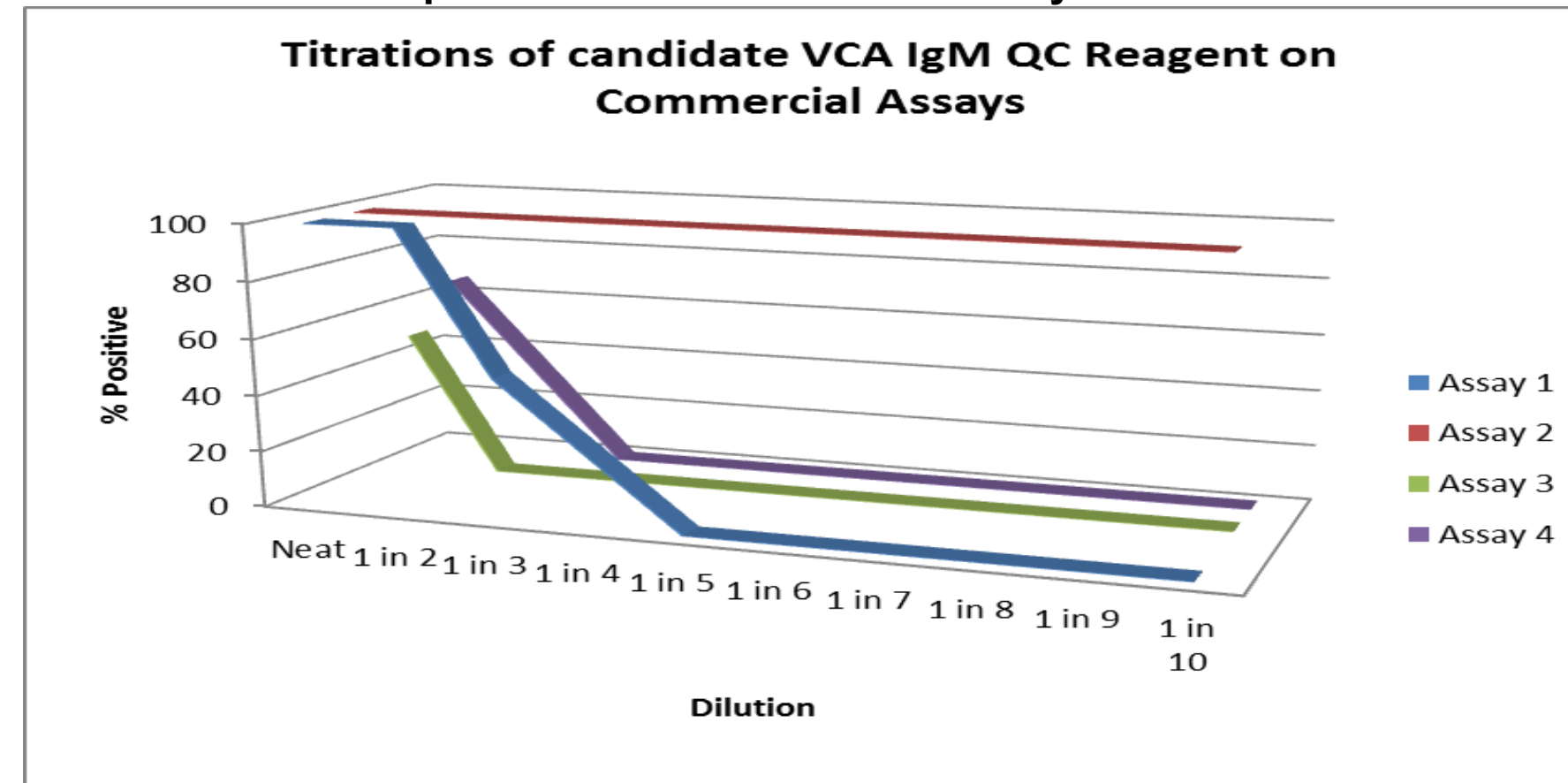
**Figure 1 - Proportion anti-EBV response in healthy blood donors on the DiaSorin Liaison XL**



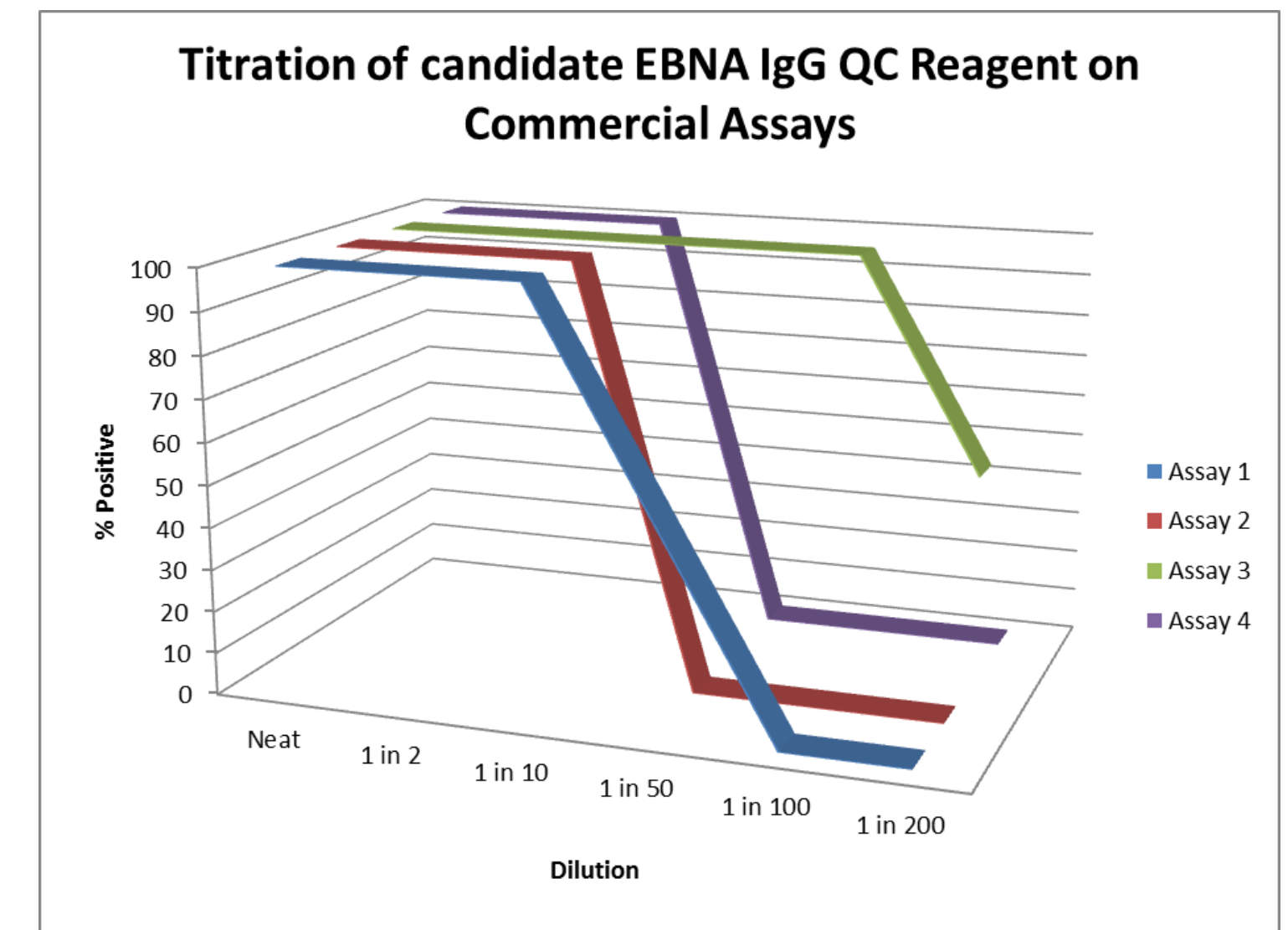
**Figure 2 - Proportion of positive EA IgG results from a dilution series performed on commercial assays**



**Figure 3 - Proportion of positive VCA IgM results from a dilution series performed on commercial assays**



**Figure 4 - Proportion of positive EBNA IgG results from a dilution series performed on commercial assays**



**CONCLUSIONS**

- Titrations of the candidate QC Reagents revealed differentiation in the dynamic ranges of these assays.
- There is a risk of misdiagnosis of a patient's EBV status depending on the assay being used.
- In the absence of an International Standard for anti-EBV serology, QC Reagents can contribute to the harmonisation of assays.
- In order to help combat this, NIBSC is producing EA IgG, EBNA IgG, VCA IgG and VCA IgM reagents, as well as an EBV Negative, for laboratories to use in the routine diagnostic testing and allow them to have a greater confidence in their testing methods.

**ACKNOWLEDGEMENTS**

We would like to extend our thanks to Mr Nicholas O'Flanagan at Royal Sussex County Hospital and Mary Mellor at Poole Hospital for their cooperation and diagnostic insight.