

# Vancomycin Resistant Enterococcus in the Neonatal Intensive Care and Special Care Nursery



Ming Chen<sup>1</sup>, Patiyan Andersson<sup>2</sup>, Fiona Kimber<sup>3</sup>, Wendy Beckingham<sup>3</sup>, Margaret McLeod<sup>4</sup>, Margaret Broom<sup>4</sup>, Nicholas Coatsworth<sup>3</sup>

1 Department of Paediatrics. Centenary Hospital for Women and Children Woden ACT 2606 2 Health Emergency Management Branch. Department of Health Canberra 2601 3 Department of Infection Prevention and Control. Canberra Hospital Woden ACT 2606 4 Department of Neonatology Centenary Hospital for Women and Children, Woden ACT 2606

## Introduction

Vancomycin Resistant Enterococci (VRE) is most commonly reported in Neonatal Intensive Care Units (NICU) in infants whose clinical specimens have shown a colonisation of VRE, the precursor to a potentially life threatening infection.

Routine screening at another hospital detected a positive VRE on an infant on rectal swab who was transferred from the NICU. Within the next month, three further infants tested positive at our institution. A nursery wide screening program was then commenced.

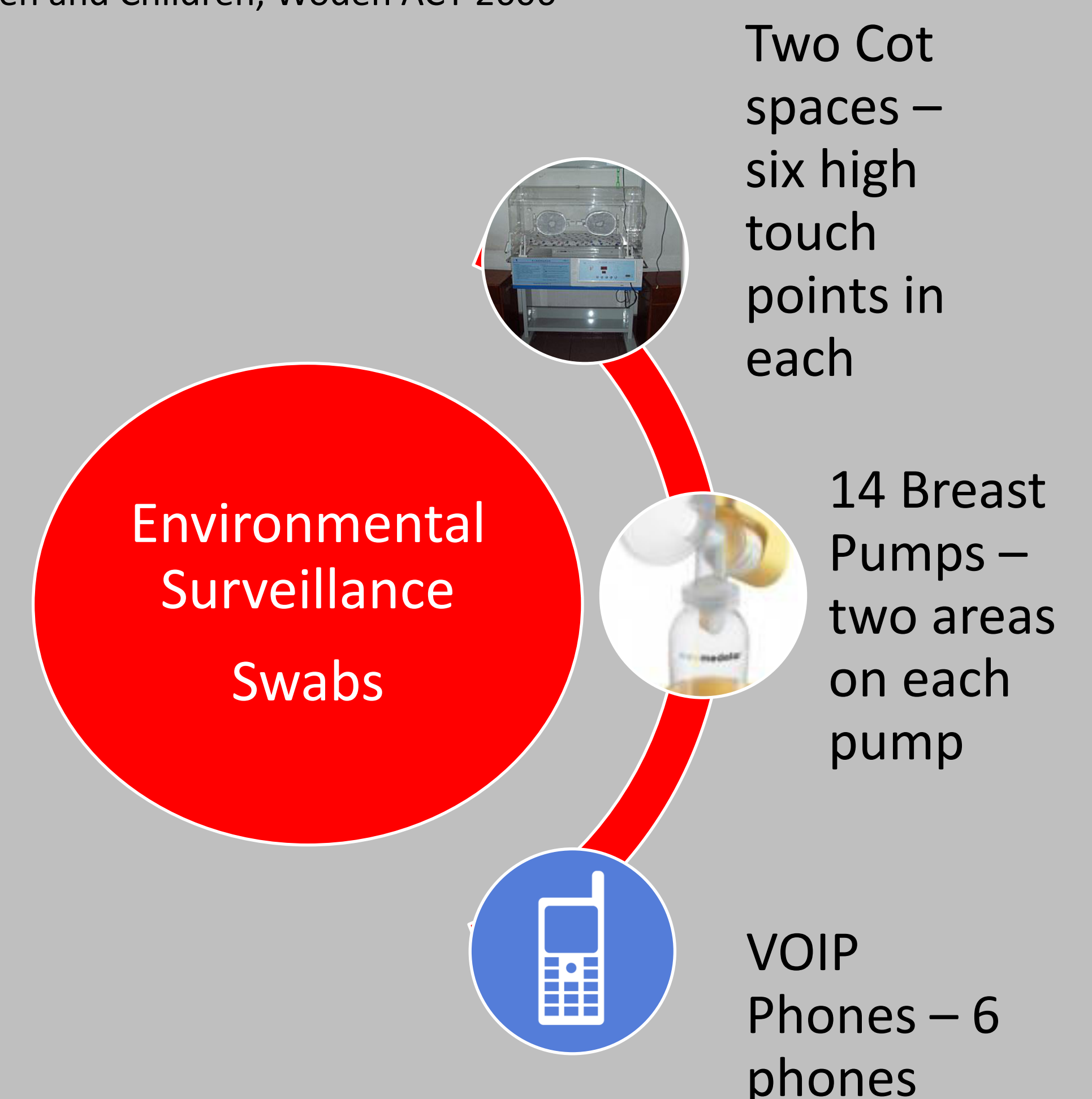
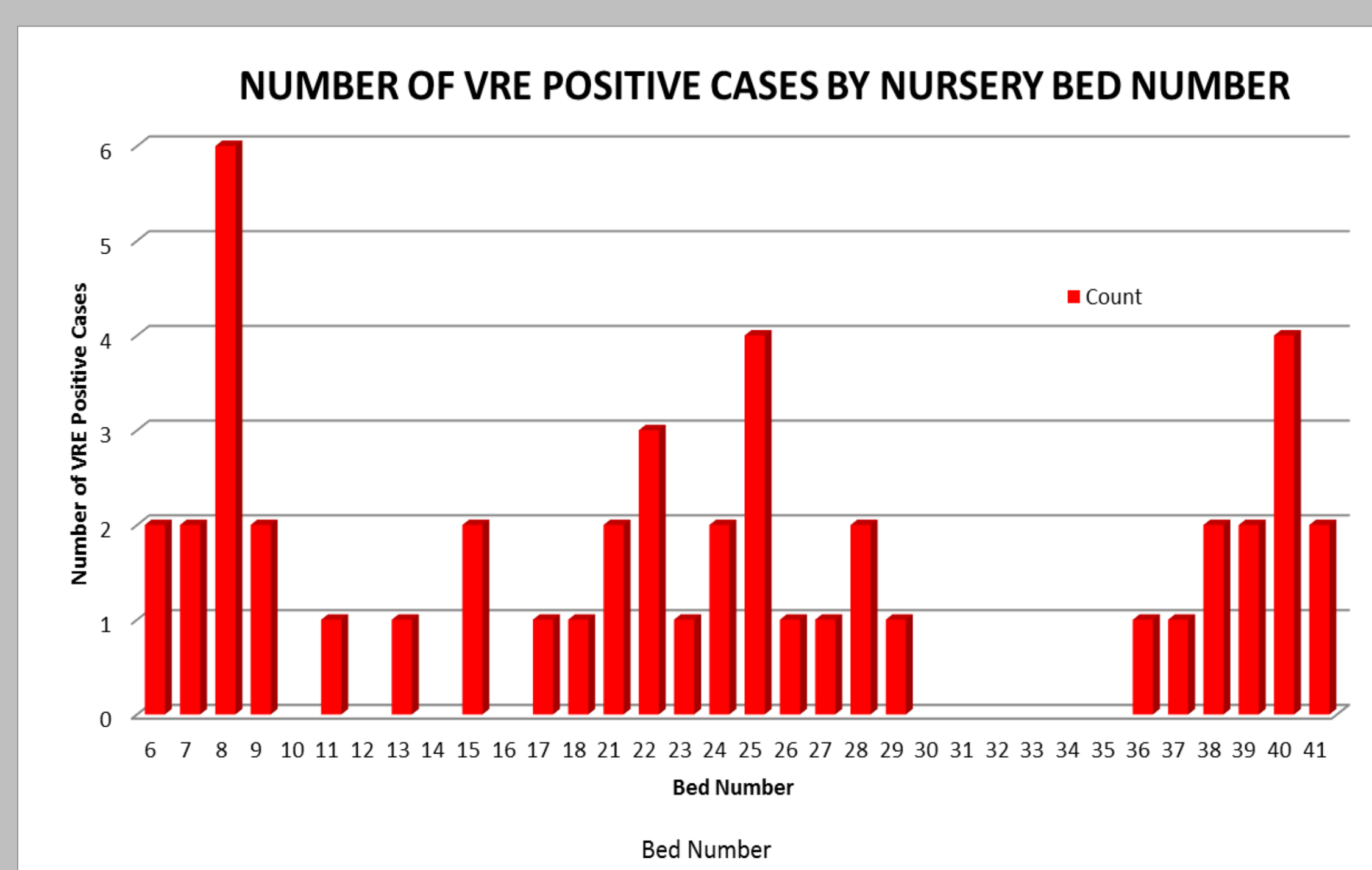
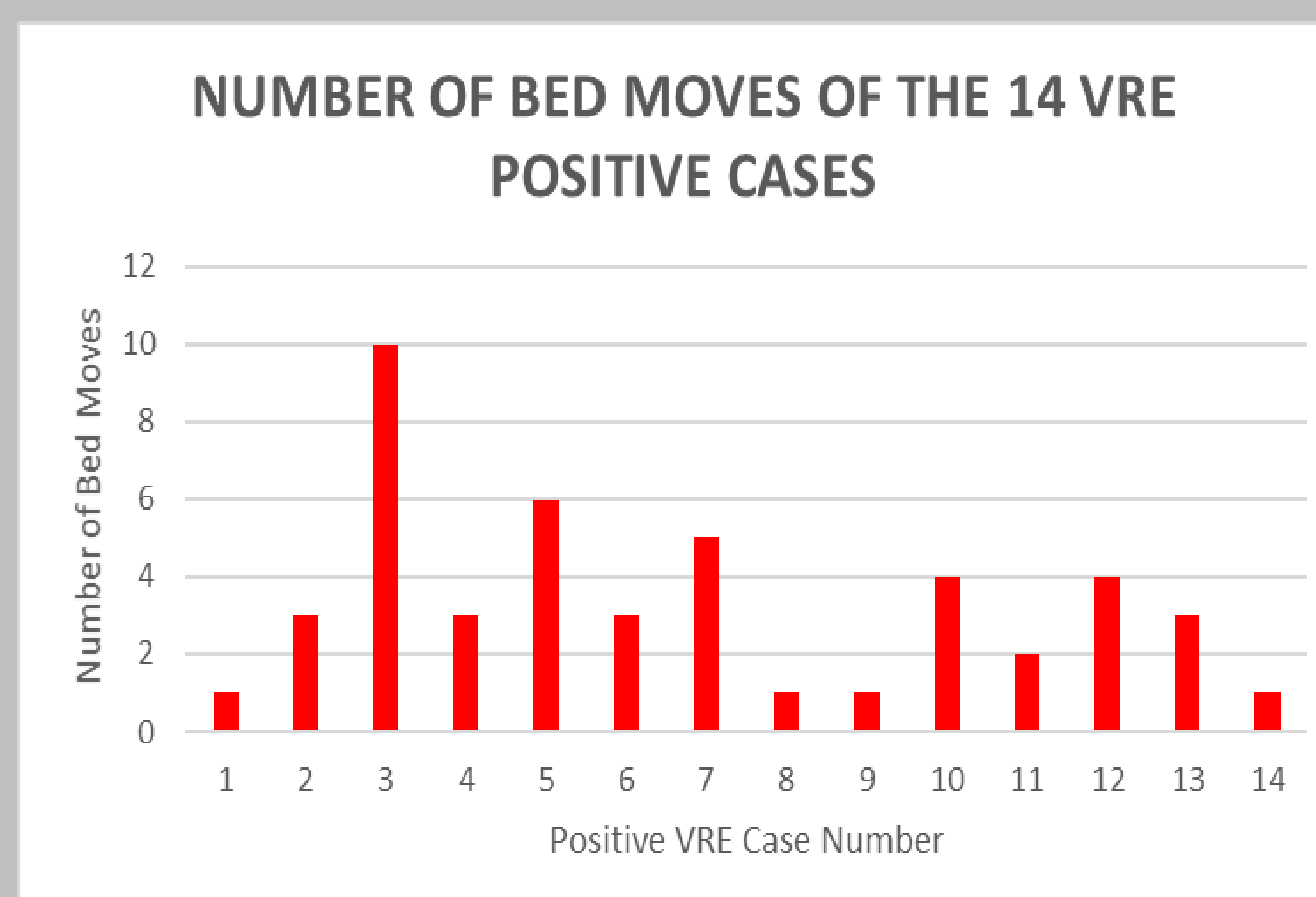
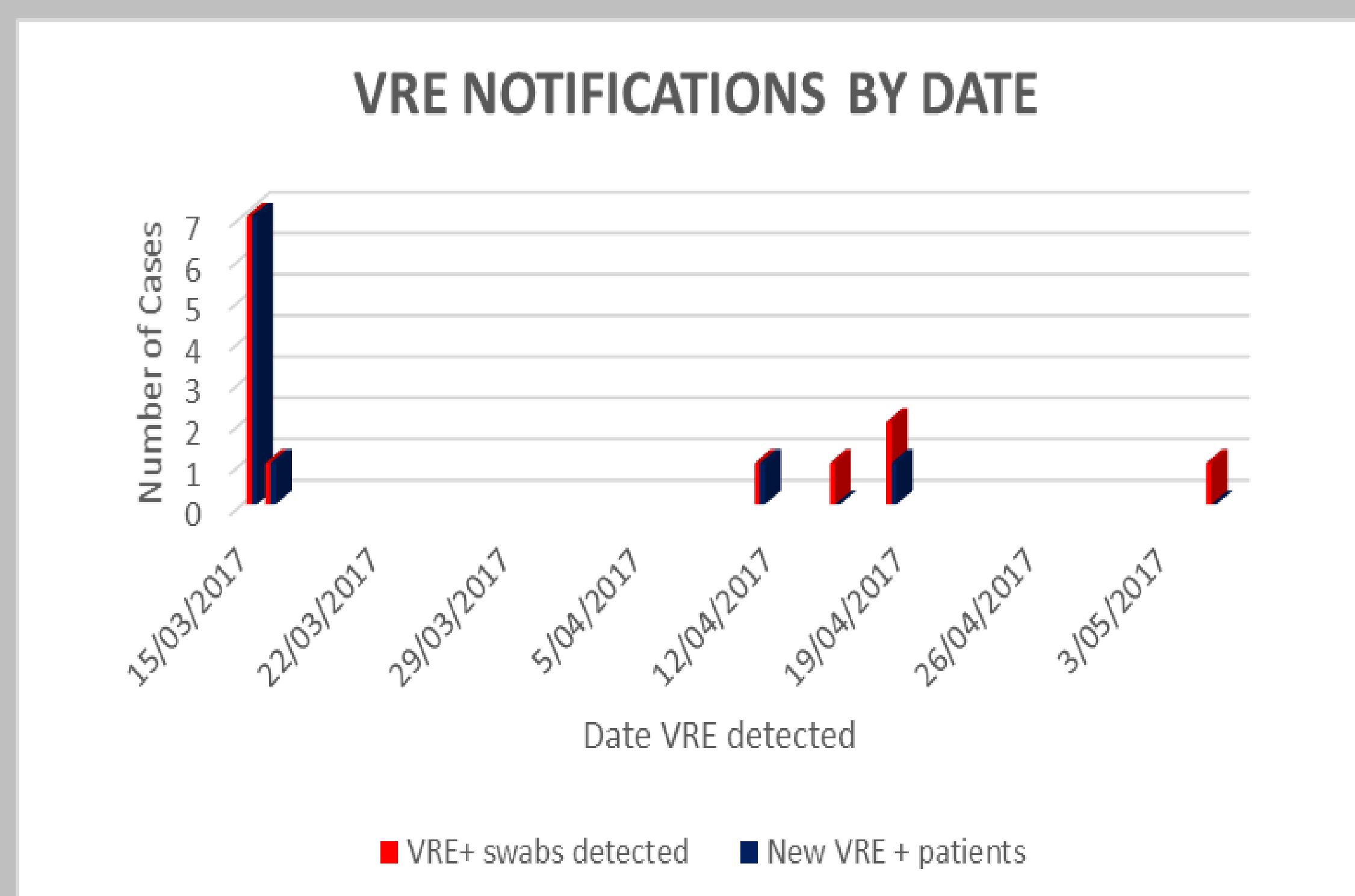
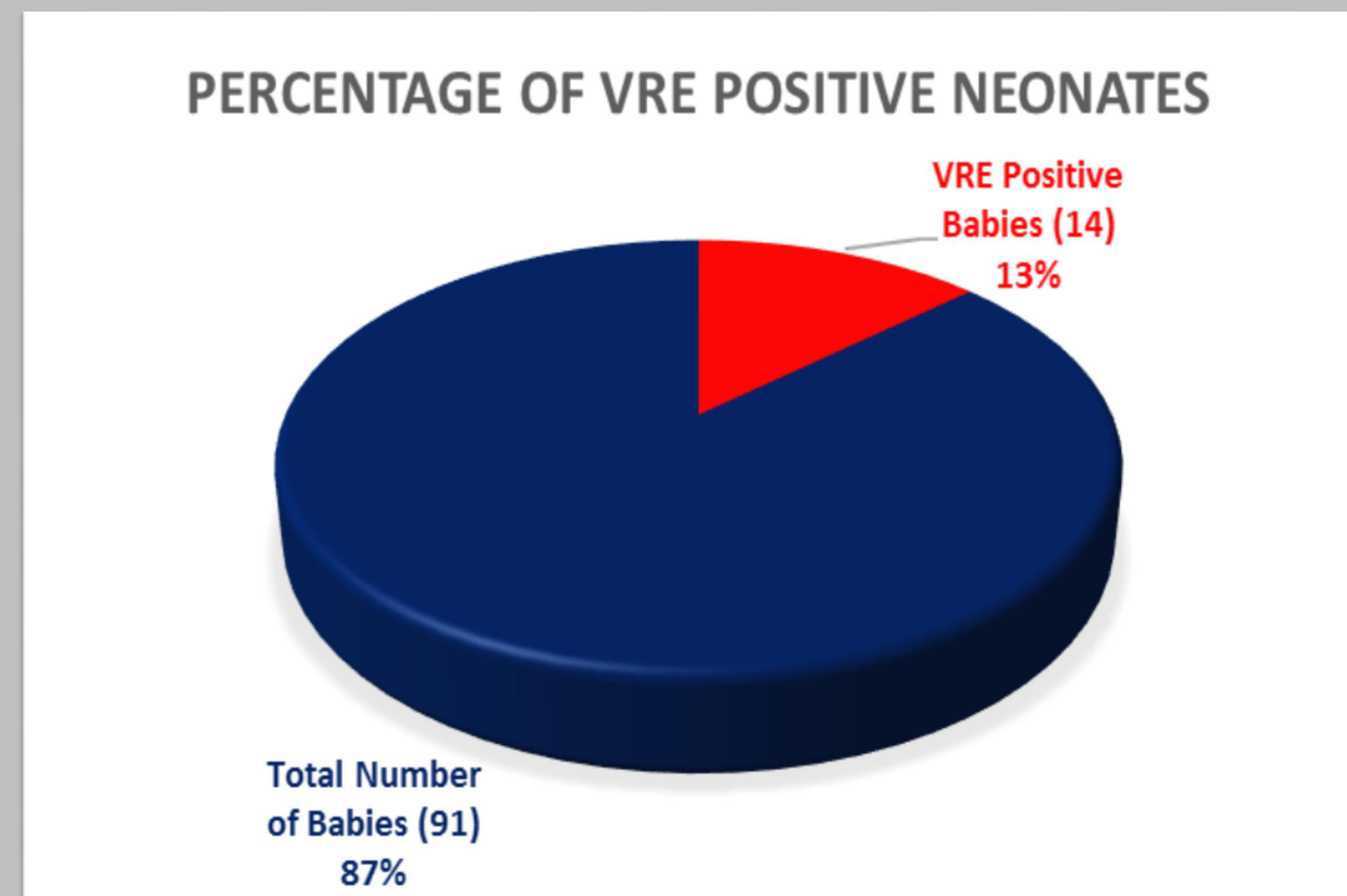
## Aim

We describe this episode of VRE colonisation and outline the screening program undertaken and data collected.

## Method

Governed by a high level multidisciplinary management team a screening program was completed which included:

- Point prevalence screening of all babies in the Special Care Nursery and Neonatal Intensive Care Nursery
- Screening repeated on weekly basis
- Screening ceased after ten weeks when no new VRE positive babies detected for two consecutive weeks.
- Environmental swabs collected from 'high touch' points
- Bed Movements of all babies throughout admission were recorded



## Results

- A total of 255 VRE swabs were undertaken over the 10 week period
- Total of 91 individual babies were tested with 14 VRE positive babies detected (four babies were positive prior to point prevalence screening and further ten babies were positive during the screening program)
- During the first week of screening, 8 babies were detected to have VRE
- A further two babies were positive in the following weeks. One baby was negative on initial screening but became positive four weeks later. The other baby was not swabbed in NICU but was positive on a subsequent SCN swab.
- Environmental surveillance did not detect any isolates of VRE

## Conclusion

A total of 14 babies were detected to be VRE positive during this outbreak. The bulk of cases were detected in week one of the surveillance program. Whilst no environmental sources were identified, findings suggested a disproportionate amount of bed moves for some patients which may have contributed to the transmission of VRE to the two cases detected in week six and seven of the surveillance program.