



Analysis of confirmed norovirus cases at North Cumbria University Hospital, January-February 2017



North Cumbria University Hospitals NHS Trust

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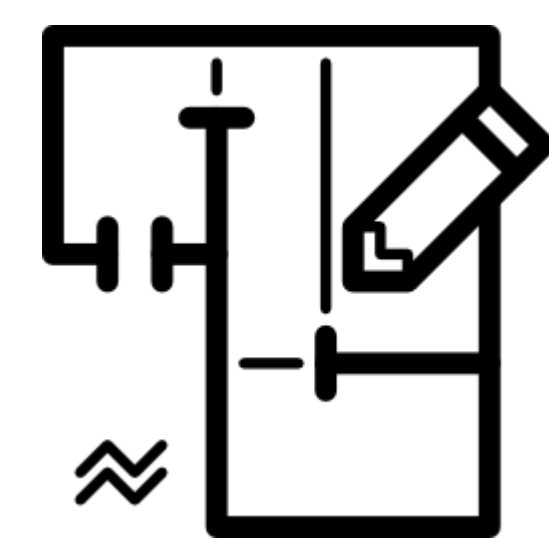
1 Introduction

Norovirus outbreak late 2016 and early 2017



Hospital closed to visitors as infection prevention measure 25 Jan - 1 Feb

Analysed the impact of the restriction on the spread of the outbreak



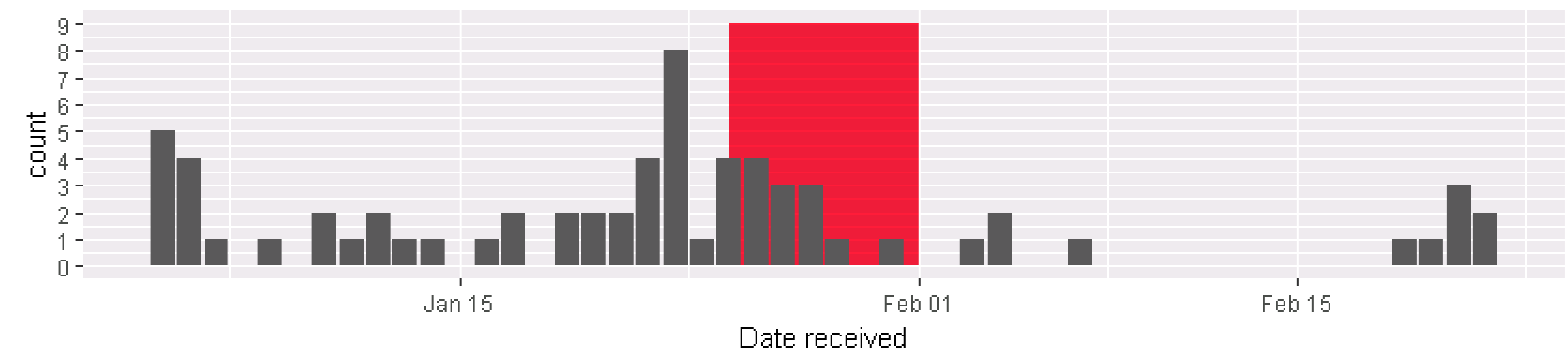
Poor ward design and layout made control difficult

Visitors not complying with voluntary restrictions



2 Methods

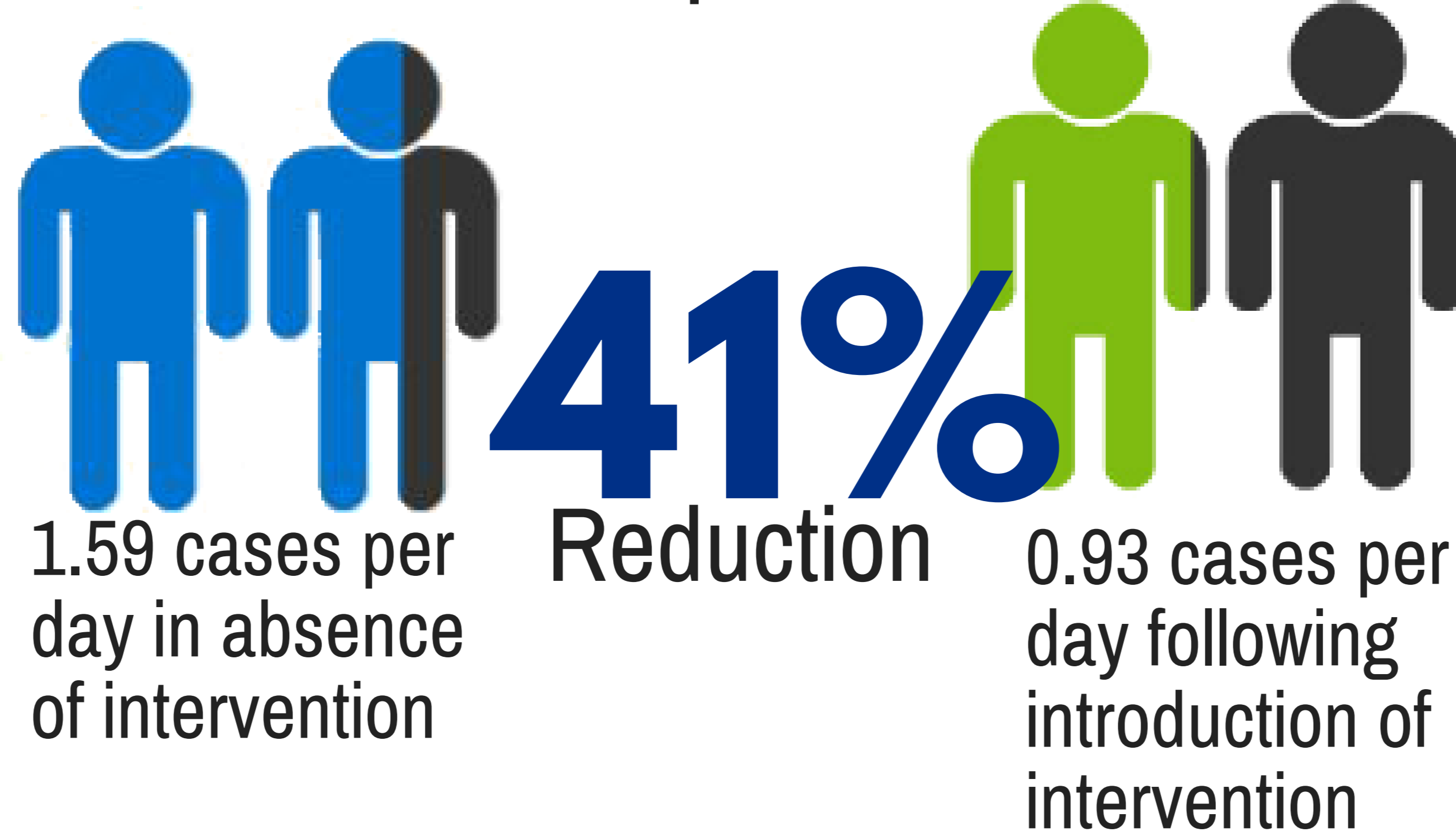
Data on confirmed norovirus cases in January-February 2017 at the Trust were extracted from laboratory information system.



We carried out interrupted time series analysis using a Bayesian [1] structural model to identify the possible impact of the intervention.

3 Results

The model predicted:

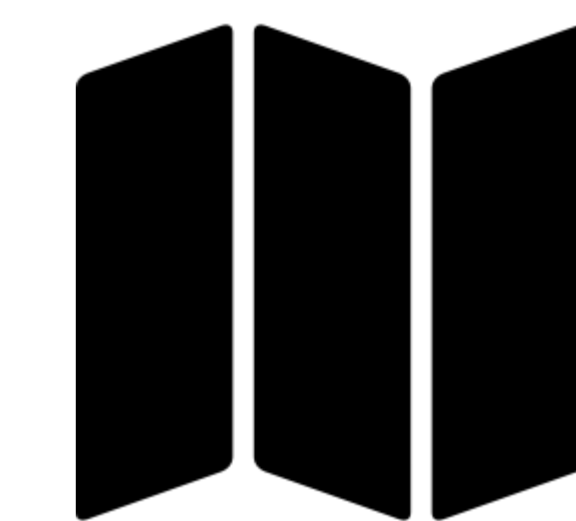


1.59 cases per day in absence of intervention

0.93 cases per day following introduction of intervention

Probability of observing the difference by chance was 10.8%

4 Conclusions



The intervention was followed by a non-significant reduction in cases. Further analysis including non-confirmed cases could increase the power of the comparison.

References:
1. Brodersen, K.H., Gallusser, F., Koehler, J., Remy, N. & Scott, S.L. inferring casual impact using Bayesian time-series models. Ann. Appl. Stat. 9,247-274 (2015).