Does a national NHS England incentive scheme to reduce inappropriate antibiotic prescribing in primary care deliver improvement?

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INTRODUCTION
Antimicrobial resistance (AMR) is a national and global threat to health and increasing bacterial resistance means infections are becoming harder to treat. The UK 5 Year Antimicrobial Resistance Strategy (2013-18) which is optimising antimicrobial prescribing practice. The English surveillance programme for antimicrobial utilisation and resistance (ESPAUR) reports 75% of antibiotic prescribing originates in primary care. The Advisory Committee on Antimicrobial Prescribing, Resistance and Healthcare Associated Infection (APRAHAI), which provides advice to the UK government, has agreed antimicrobial prescribing quality measures for primary and secondary care and national targets have been set to drive the reduction of inappropriate antibiotic prescribing in primary care in England.

The NHS England Quality Premium (QP) is intended to reward clinical commissioning groups (CCGs) for improvements in the quality of the services that they commission. Payment is based on CCG head of population, defined for each indicator, and is subject to NHS constitutional gateway sanctions; payments are paid in the following financial year. During the 2 year period April 2015-March 2017 the QP has supported the UK AMR strategy by rewarding CCGs to reduce inappropriate antibiotic prescribing in primary care, and we report the effectiveness of this scheme.

METHOD
The AMR QP adopted the use of existing indicators: Antibacterial items/STAR which reports volume of oral antibacterial prescriptions by antibiotic prescribing in primary care, and we report the effectiveness of this scheme.

RESULTS
All 130 CCGs participated in both years of the QP scheme, and CCG performance is reported in Figures 1, 2 and 3.

Table 1: Summary of achieving individual targets.

<table>
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<tr>
<th>Year</th>
<th>% of CCGs achieving individual targets</th>
<th>% of CCGs achieving overall targets</th>
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<tbody>
<tr>
<td>Year 1</td>
<td>53%</td>
<td>5%</td>
</tr>
<tr>
<td>Year 2</td>
<td>81%</td>
<td>6%</td>
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In Year 1 all CCGs had to achieve a reduction of 1% against their CCG individual baseline, whichever was the easier to achieve. In Year 2 CCGs had to achieve a reduction of 1% from the CCG individual baseline. In Year 1, with a reduction of 1% achieved by 59% of CCGs, and in Year 2 with 81% of CCGs achieving the target, the performance target was thought to be a more realistic target.

Figures 1 and 2 show how the CCGs performed against the targets in Year 1 and 2.

Figures 3 to 5 show the CCG performance trajectories against the targets for the three years the QP was in operation.

Figures 6 to 8 show the variation in performance per CCG, and how the performance targets were achieved.

Figures 9 and 10 show the variation in performance per CCG, and how the performance targets were achieved.

Figures 11 and 12 show the variation in performance per CCG, and how the performance targets were achieved.

Figures 13 and 14 show the variation in performance per CCG, and how the performance targets were achieved.

REFERENCES
6. NHS Business Services Authority (NHSBSA) and was extracted at CCG level for each 12 month period and was reported as: Year 1 (April 2015-March 2016); Year 2 (April 2016-March 2017); Year 3 (April 2017-March 2018).
7. The quarter average percentage of GPs (QAP) is defined as the percentage of prescriptions written by GPs, which were in the three months from the quarter average data, divided by the quarter average data for the year.
8. England mean value plotted red.