NICE National Institute for Health and Care Excellence

Identifying QOF indicators for review and possible reassessment

August 2015

Contents

1 Background

NICE is responsible for managing an independent and transparent work programme for developing and maintaining indicators that are suitable for inclusion within the Quality and Outcomes Framework (QOF). This involves developing new indicators and updating existing indicators to reflect a change in the underpinning evidence base.

In addition to developing and maintaining indicators NICE has been asked to identify when an indicator has 'run its course' and therefore requires reviewing. Reviewing an indicator may lead to its future modification (for example, adjusting payment thresholds), removal or replacement, these options are henceforth referred to as reassessment.

NHS England may use this report to help inform negotiations between NHS Employers and the General Practitioners Committee (GPC) of the British Medical Association (BMA) for the 2016/17 QOF.

2 Identifying when an indicator has run its course

2.1 Introduction

Pay for performance incentives are implemented in many countries and contribute to evaluations of clinical care[1] [2]. By linking performance to payment the intention is to strengthen quality improvement, improve patient outcomes and reward achievement.

For performance frameworks to remain effective the indicators need to be regularly reviewed. The frameworks cannot cover all clinical areas, and achievement on chosen indicators will eventually reach a ceiling beyond which further improvement is not feasible (Reeves et al. 2010).

The 2015/16 QOF in England includes 77 indicators with differing financial incentives attached. Generally each indicator has a lower and upper threshold (defined during negotiations) for which points will be received by an individual practice. As more points are earned across a range of indicators, the higher the score of points, the higher financial reward for a practice[3].

Practices may also be able to exception report on a given indicator. 'Exceptions' relate to registered patients who are on the relevant disease register or in the target population group and would usually be included in the indicator denominator, but who are excepted by the practice on the basis of one or more of the exception criteria[4]. Overall achievement of an indicator is inclusive of the exception reporting.

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[1] Reeves D et al. (2010) How to identify when a performance indicator has run its course British Medical Journal 340: c1717

[2] Lindenauer P et al. (2007) Public reporting and pay for performance in hospital quality improvement New England Journal of Medicine 356.5: 486-96

[3] National Institute for Health and Care Excellence (2015) Standards and indicators

[4] NHS Employers. 2015/16 General Medical Services (GMS) contract Quality and Outcomes Framework (QOF). Guidance for GMS contract 2015/16

2.2 Published literature

A search was conducted in healthcare databases. After title and abstract, and subsequent full text screening, 1 paper (Reeves et al. 2010) was identified that could help to inform this work.

Reeves et al. (2010) suggest that the performance of a QOF indicator should be assessed in at least 5 ways:

- average rate of achievement
- recent trend in achievement rate
- extent and trend in variation of achievement rate
- average rate and trend in exception reporting
- extent and trend in variation of exception rate.

Trend performance examinations can help identify indicators that have reached limits of achievement; which is denoted by consistently high performance. Reasons to suggest that an indicator has reached its full performance and therefore should be reviewed include: stable and high performance in terms of achievement and exception reporting which show that a high proportion of people who qualify are receiving the intervention, and low inter-practice variation because a wide variation in achievement suggests that some practices could still improve their performance.

3 Methods

Using the principles highlighted by Reeves et al. (2010), NICE undertook a review of the 2015/16 QOF indicators active in the English QOF. Using the Health and Social Care Information Centre's (HSCIC) QOF achievement data split by clinical commissioning group (CCG) for 2012/13 and 2013/14, and primary care trust (PCT) for 2011/12, an initial high level review was undertaken to examine which indicators had high achievement for 3 financial years.

Any indicators that had not been active for 3 financial years were therefore excluded from further analysis. High achievement was defined as achievement above the 2014/15 financial year upper achievement threshold. This initial sifting reduced the number of eligible indicators to 16, a full list of which is given in appendix 1 (with associated thresholds and points).

These 16 indicators were then analysed further to examine the extent and trend in variation of achievement rate, average rate and trend in exception reporting and extent and trend in variation of the exception rate.

An analysis of all 16 indicators using bar charts, to analyse the average rate of achievement and exception reporting, and distribution graphs to analyse the

variation among clinical commissioning groups for achievement and intervention rates (achievement minus exception reporting) was undertaken using Excel.

Of the 16 indicators that received this full analysis, 7 had high average achievement, with a recent trend of high achievement, low variation among clinical commissioning groups, low average exception reporting (below 5%), with a recent trend of low exception reporting and low variation in exception reporting.

The initial findings of this work were discussed by the NICE Indicator Advisory Committee in June 2015. The graphs for these 7 indicators are presented in figures 1 – 14 of this report.

Figure 1
CON003: The percentage of women, on the register, prescribed emergency hormonal contraception one or more times in the preceding 12 months by the contractor who have received information from the contractor about long-acting reversible methods of contraception at the time of or within 1 month of the prescription**.**

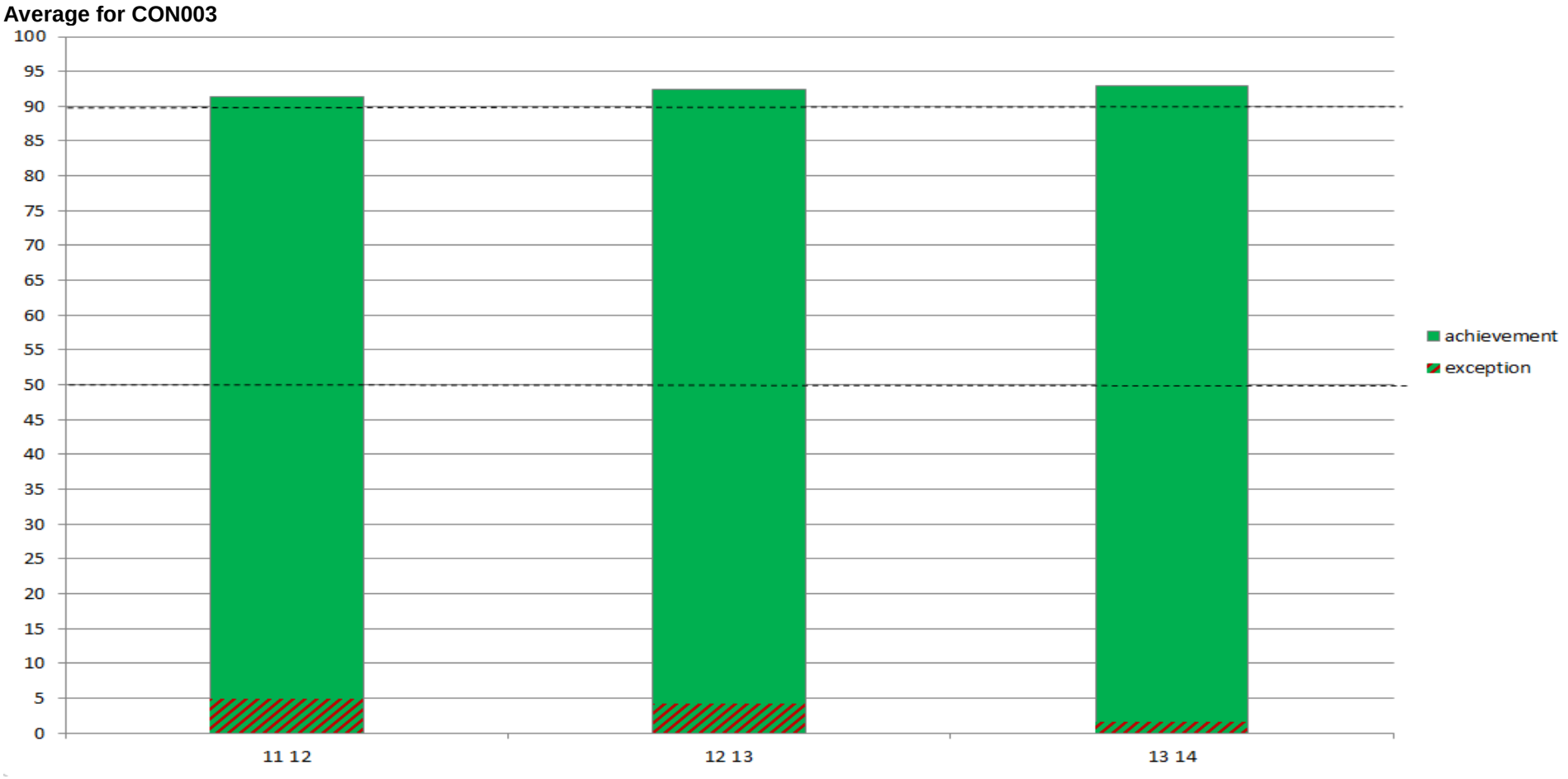

Figure 2
Spread for CON003

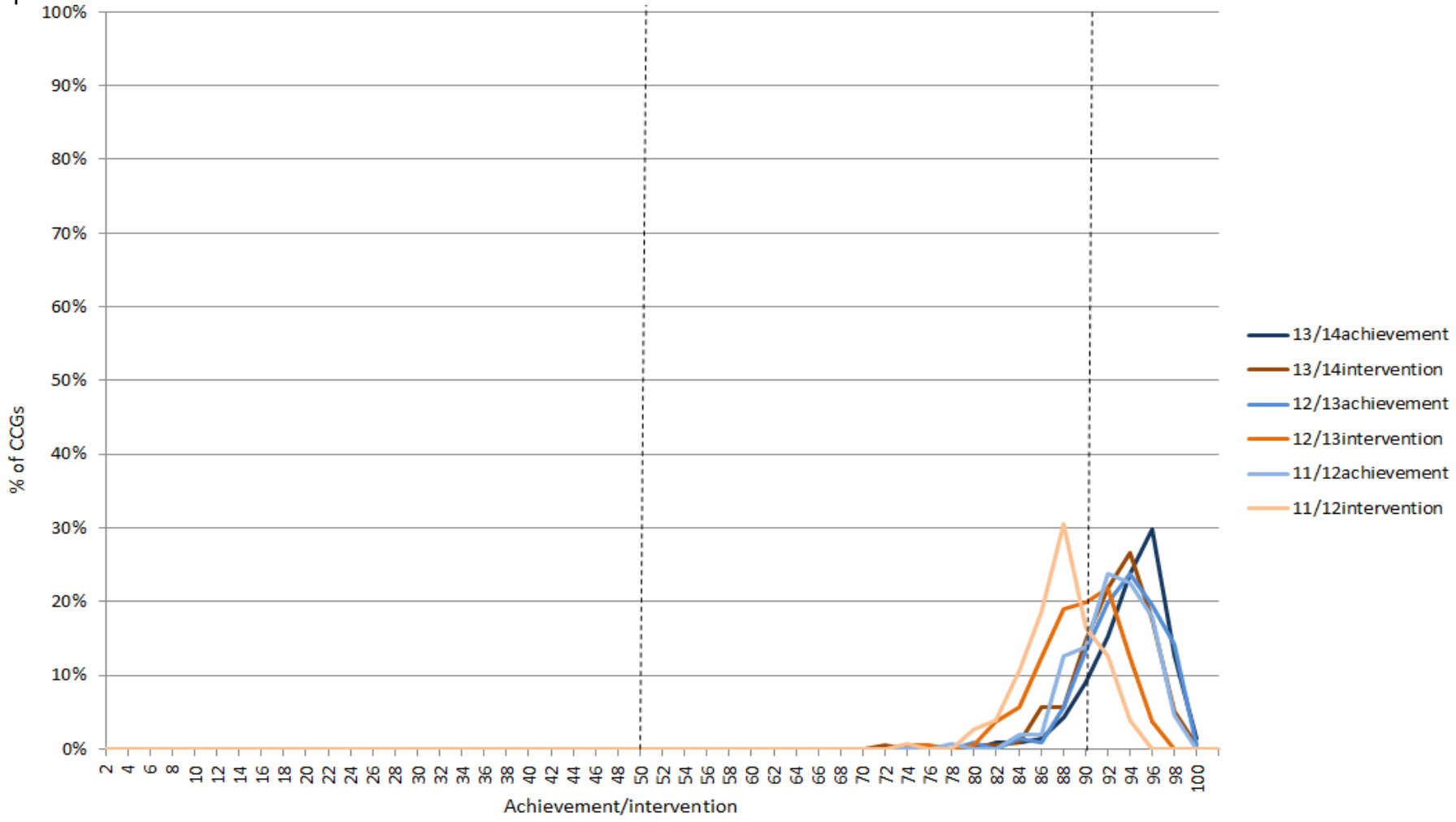

Figure 3
SMOK002: The percentage of patients with any or any combination of the following conditions: CHD, PAD, stroke or TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective disorder or other psychoses whose notes record smoking status in the preceding 12 months.

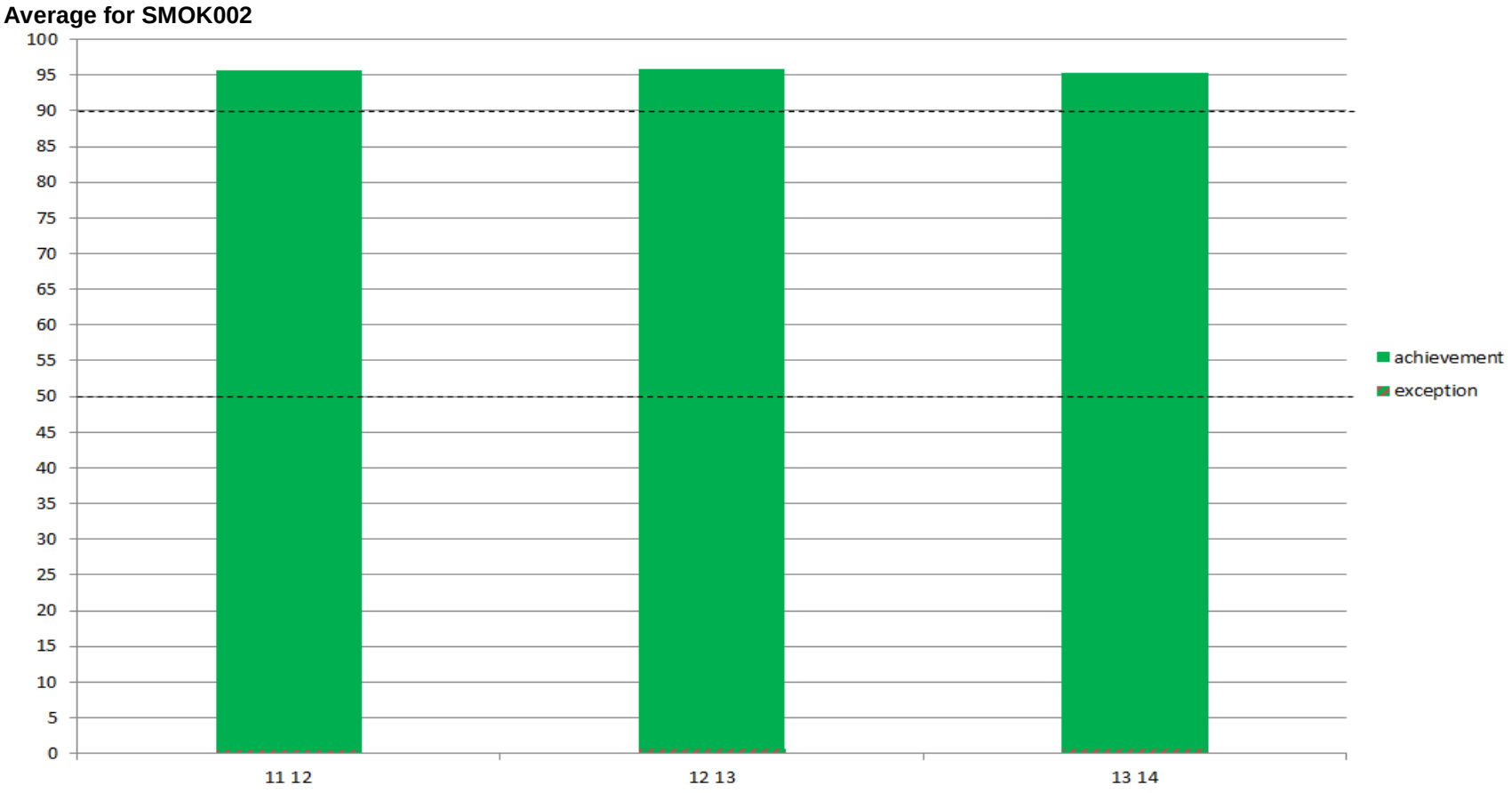

Figure 4
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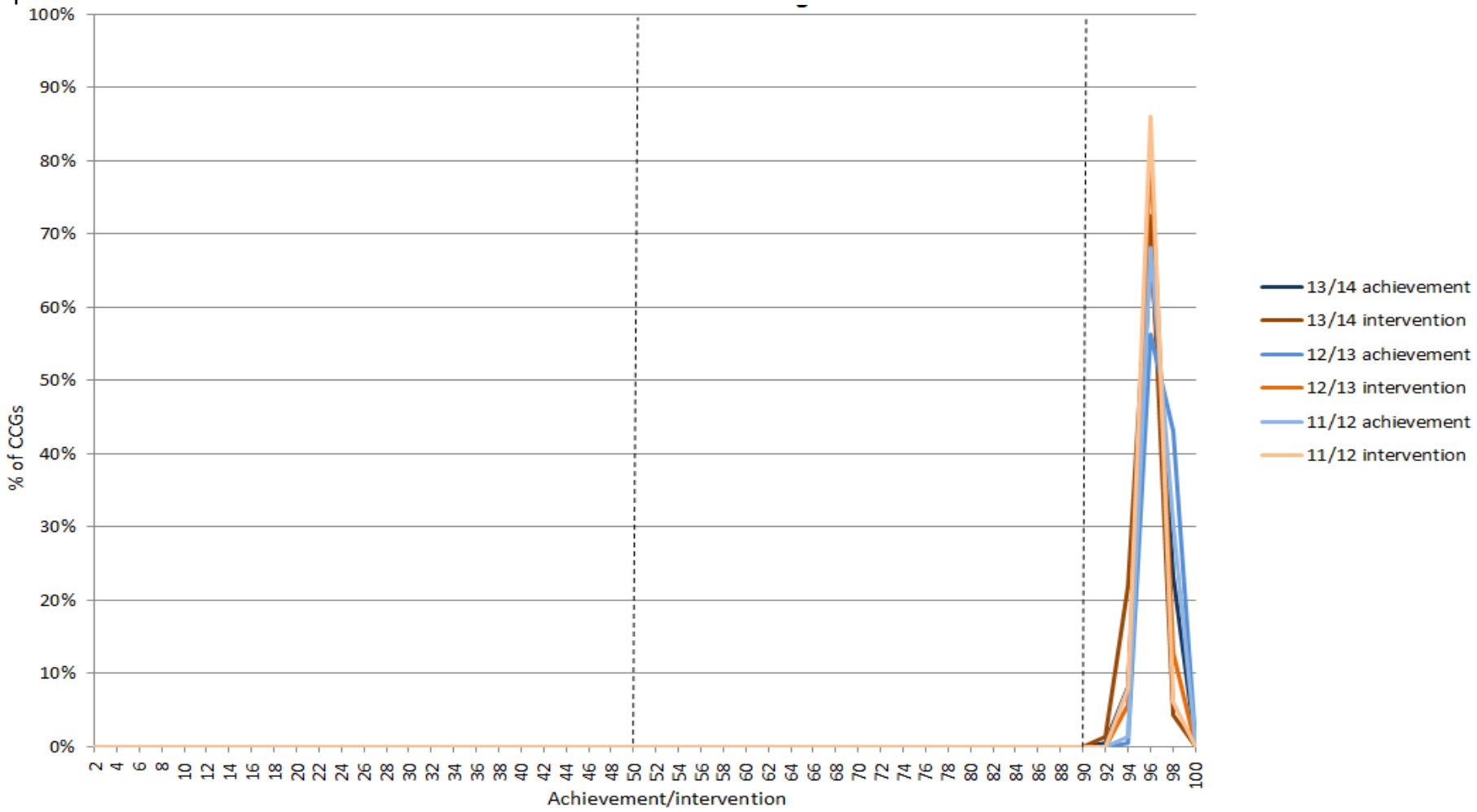

Figure 5
MH009: The percentage of patients on lithium therapy with a record of serum creatinine and TSH in the preceding 9 months.

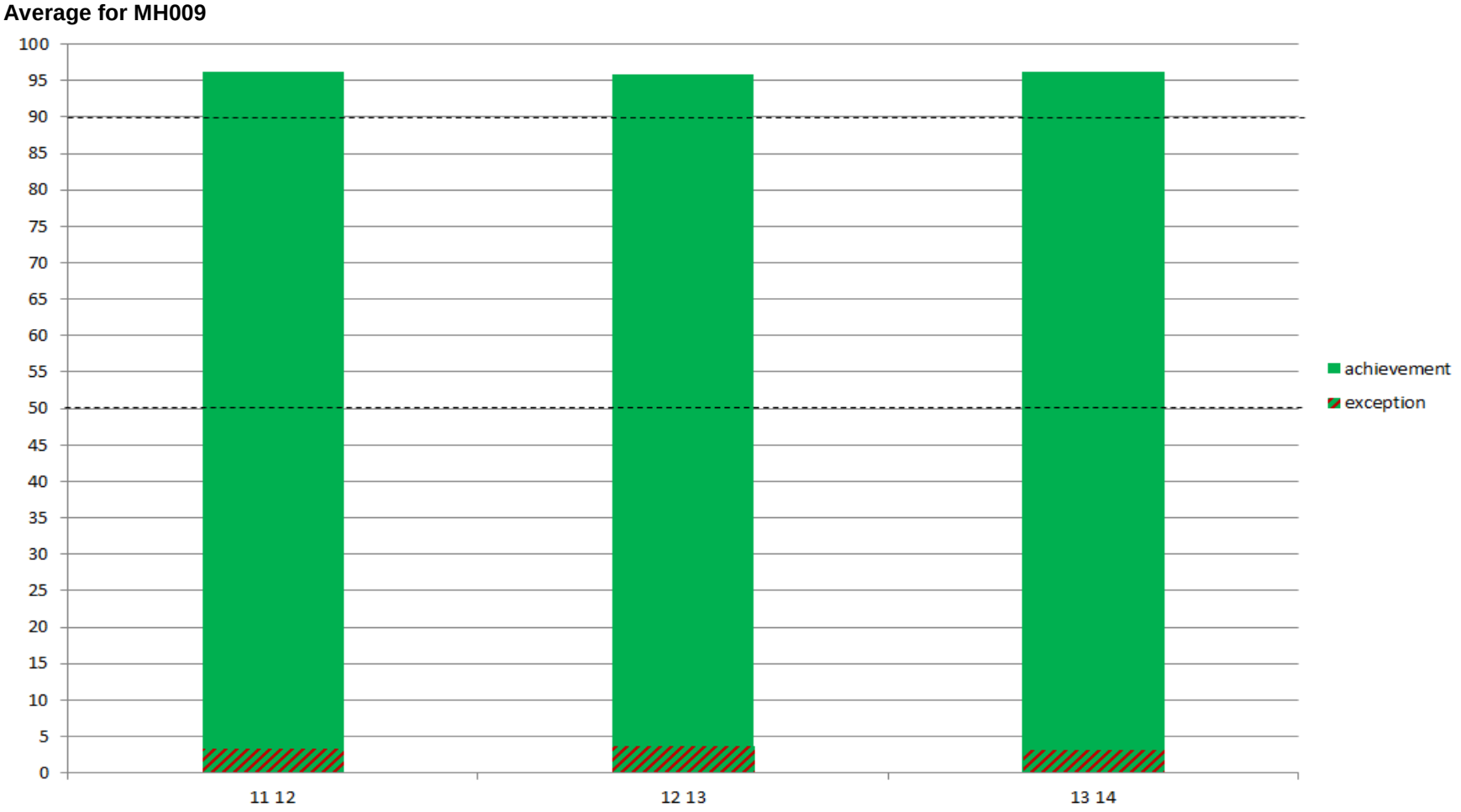

Figure 6
Spread for MH009

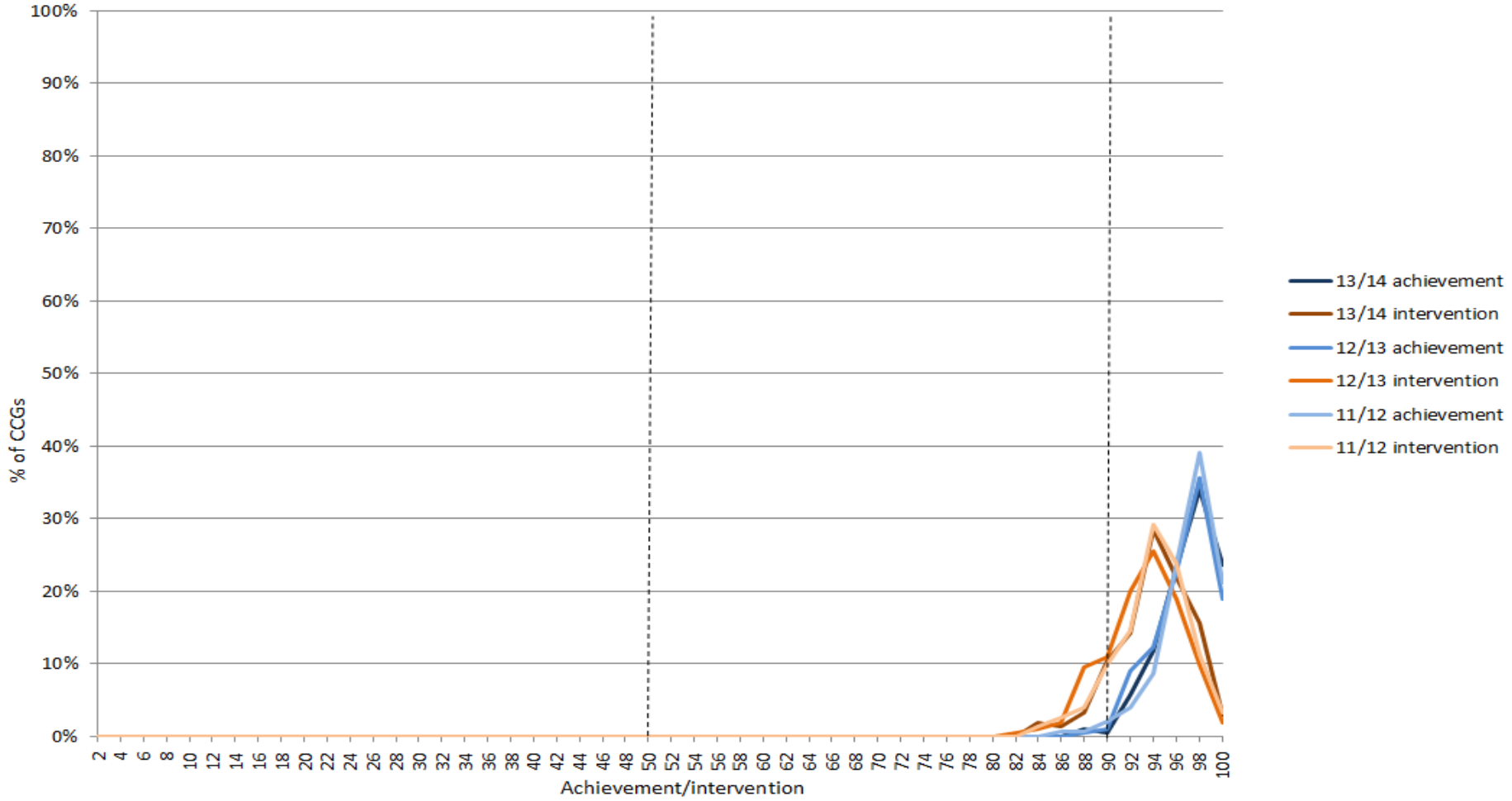

Figure 7
AST002: The percentage of patients aged 8 or over with asthma (diagnosed on or after 1 April 2006), on the register, with measures of variability or reversibility recorded between 3 months before or any time after diagnosis.

Average for AST002

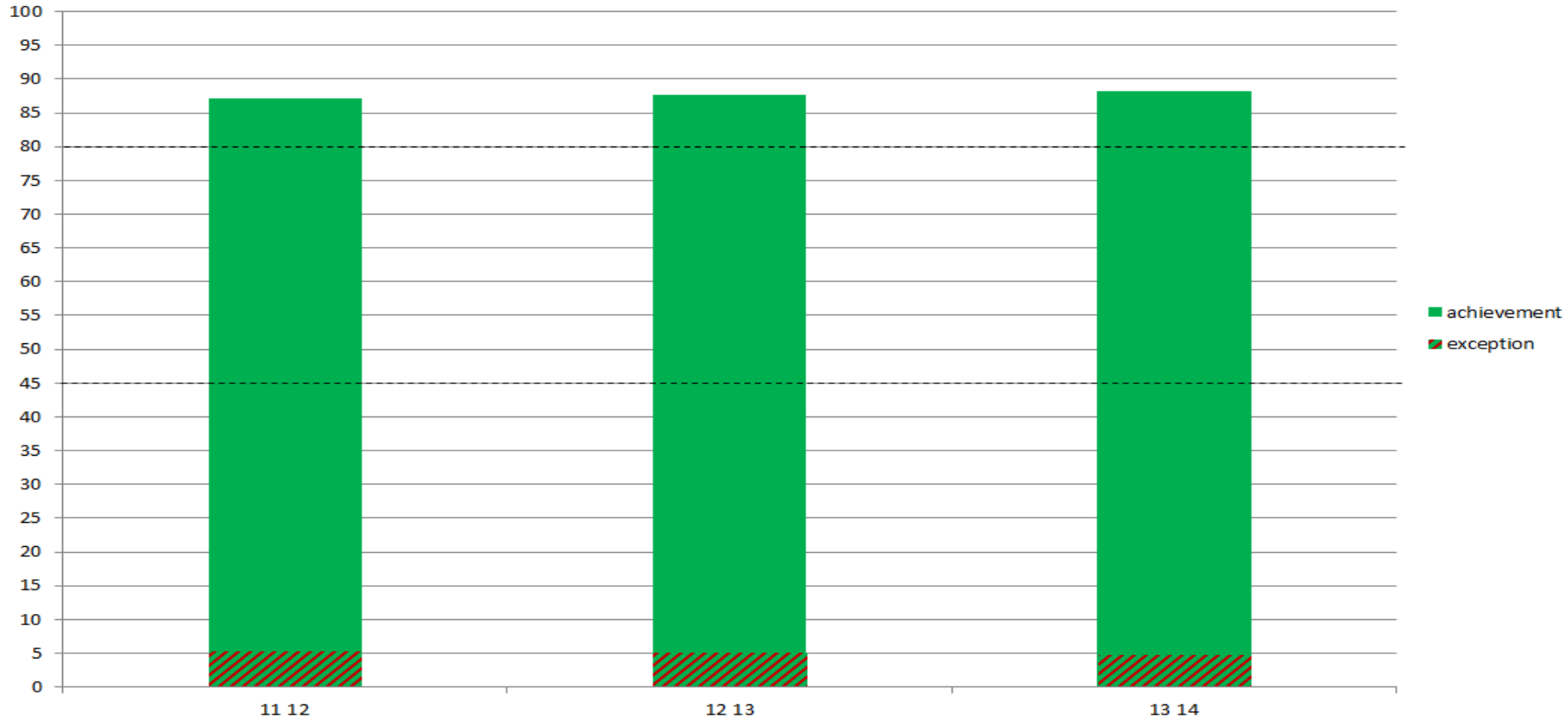

Figure 8
Spread for AST002

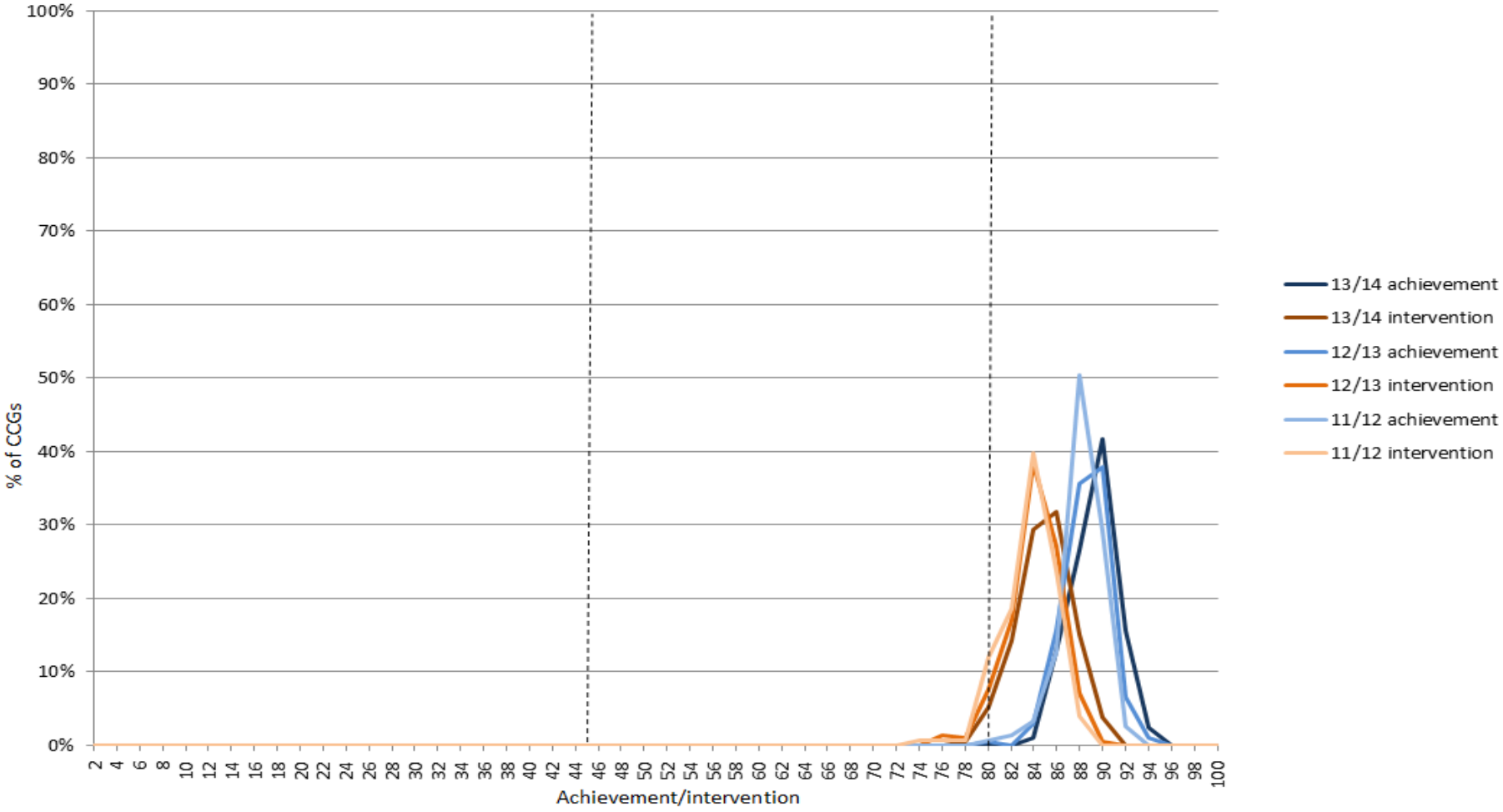

Figure 9
AST004: The percentage of patients with asthma aged 14 or over and who have not attained the age of 20, on the register, in whom there is a record of smoking status in the preceding 12 months

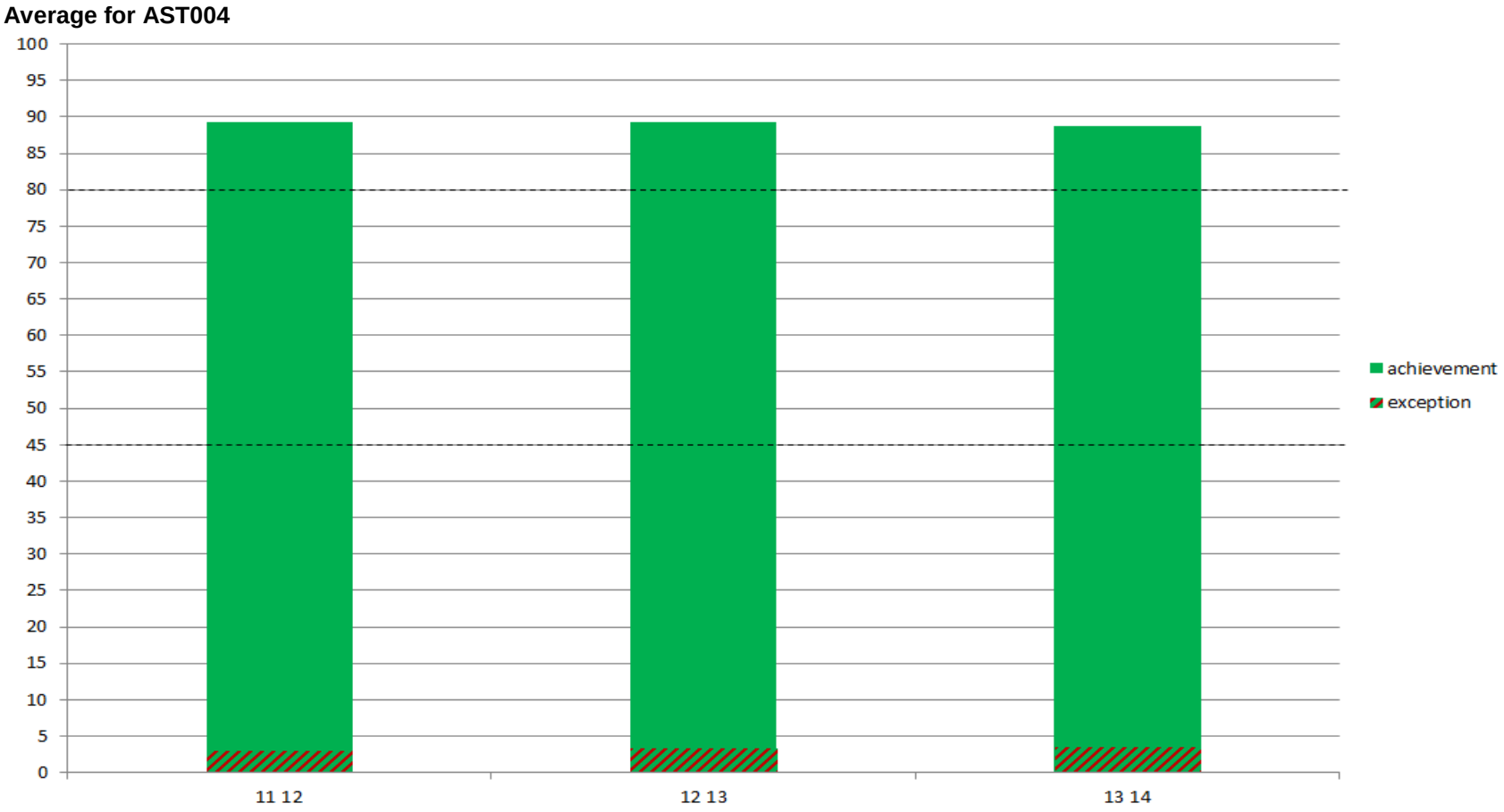

Figure 10
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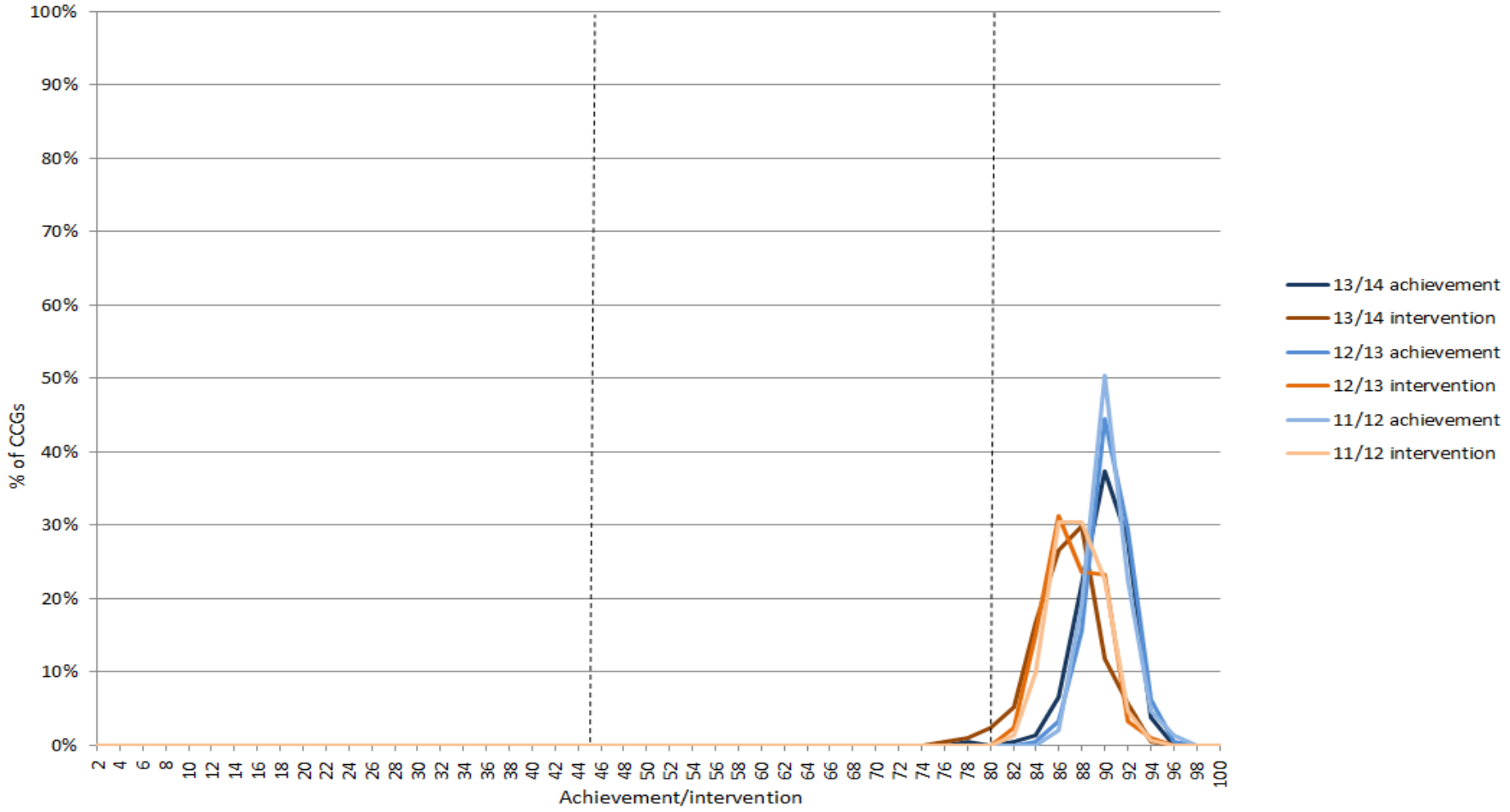


Figure 11
STIA003: The percentage of patients with a history of stroke or TIA in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less.

Average for STIA003

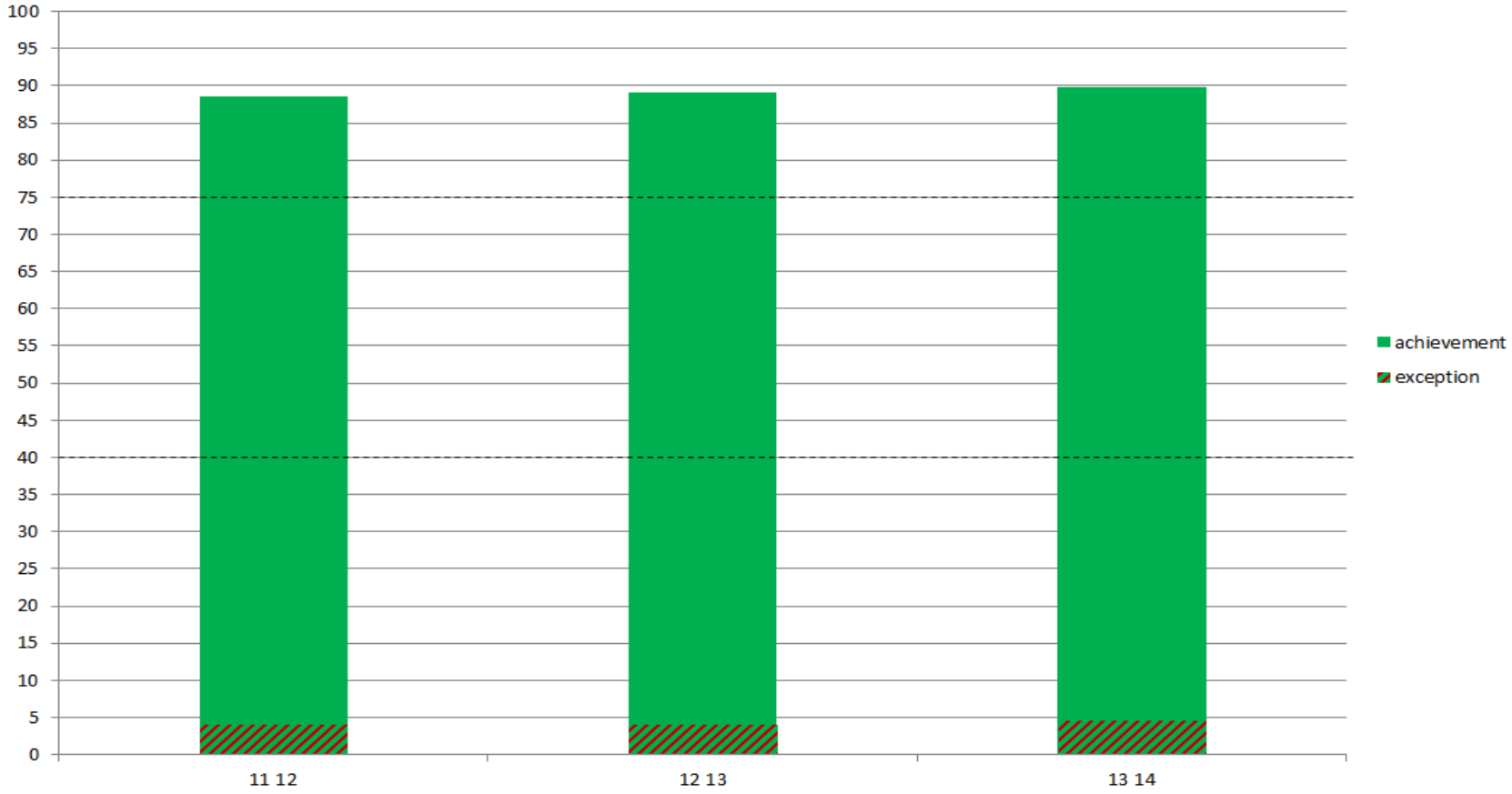


Figure 12
Spread for STIA003

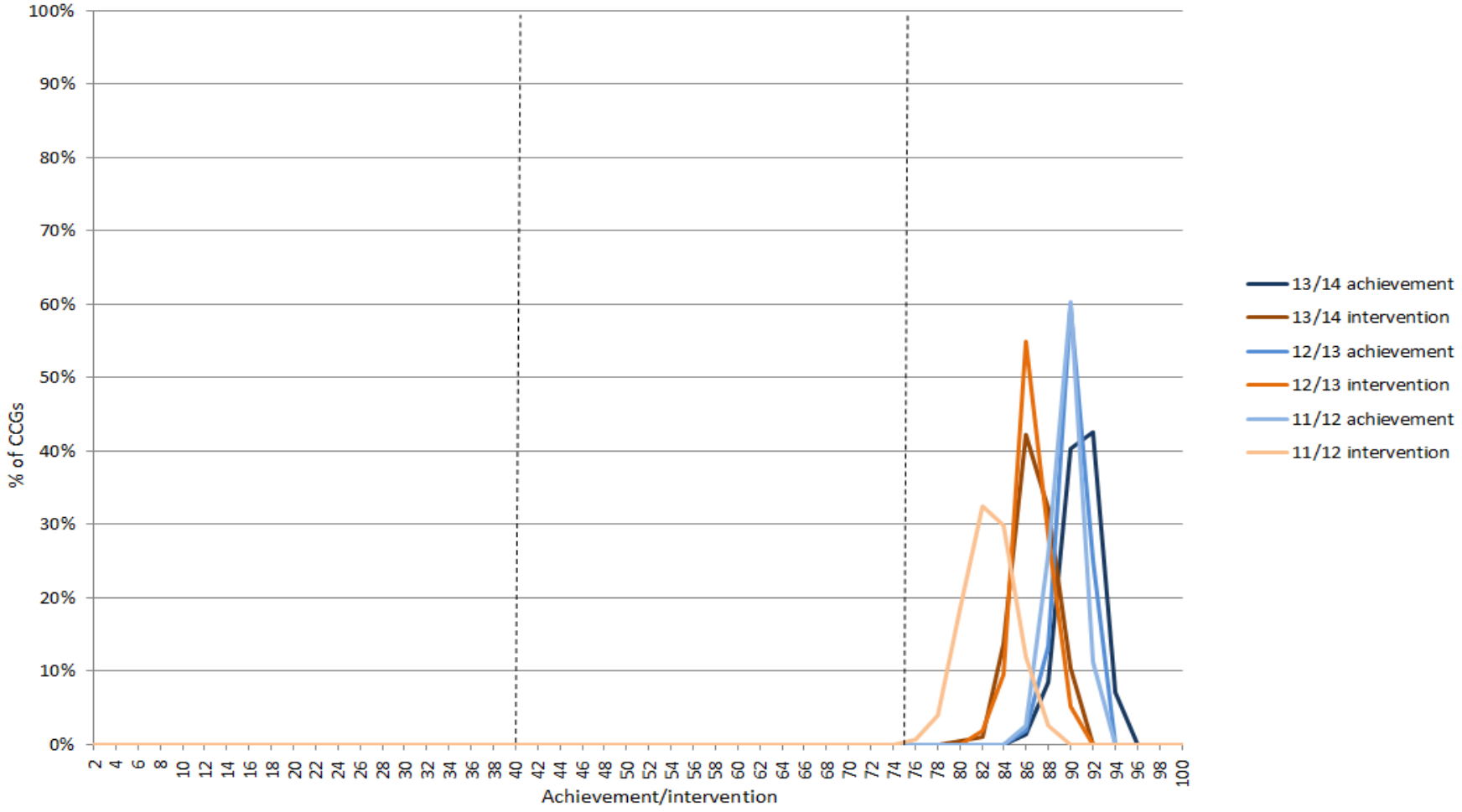


Figure 13
HF002: The percentage of patients with a diagnosis of heart failure (diagnosed on or after 1 April 2006) which has been confirmed by an echocardiogram or by specialist assessment 3 months before or 12 months after entering on to the register.

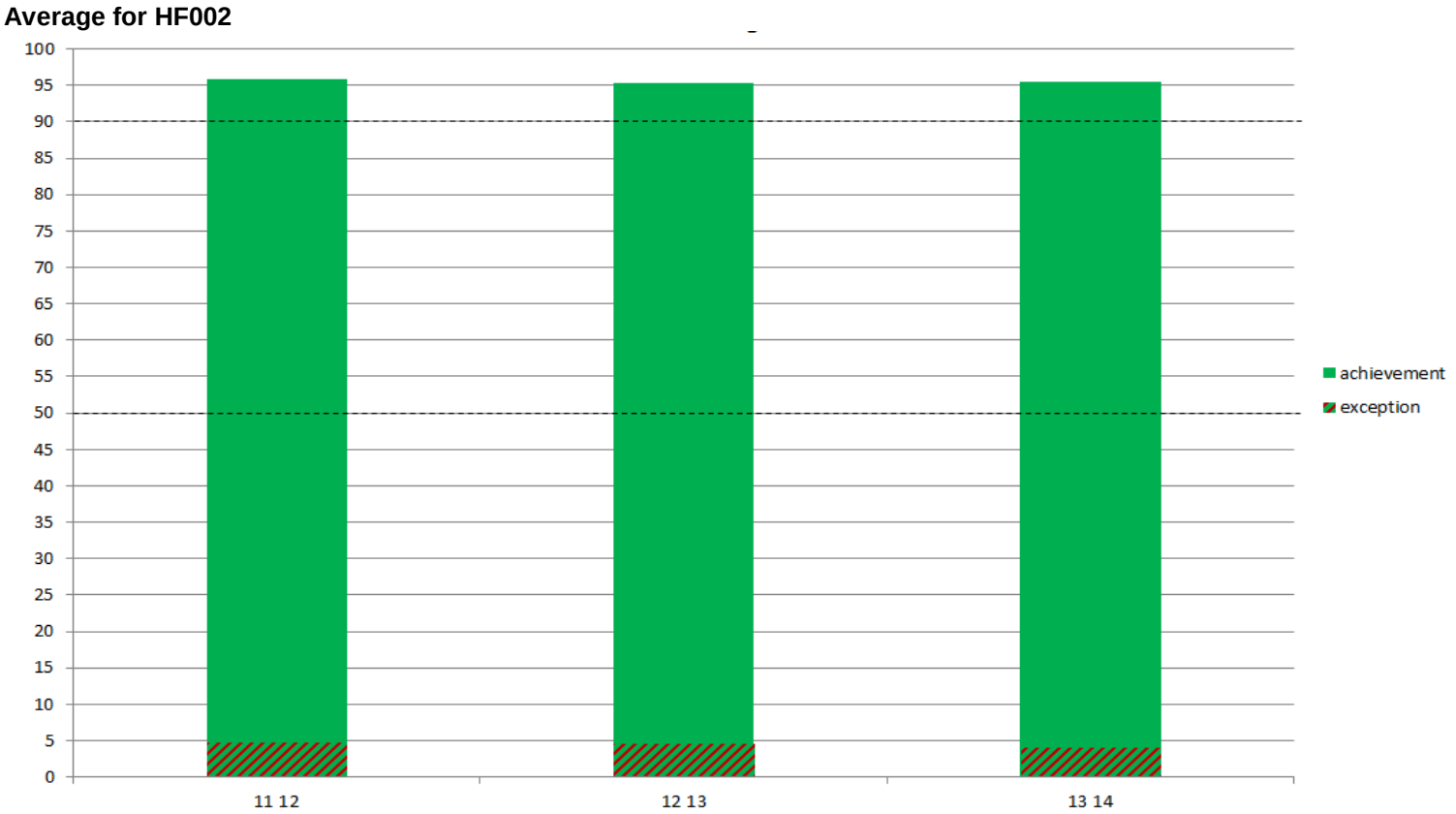
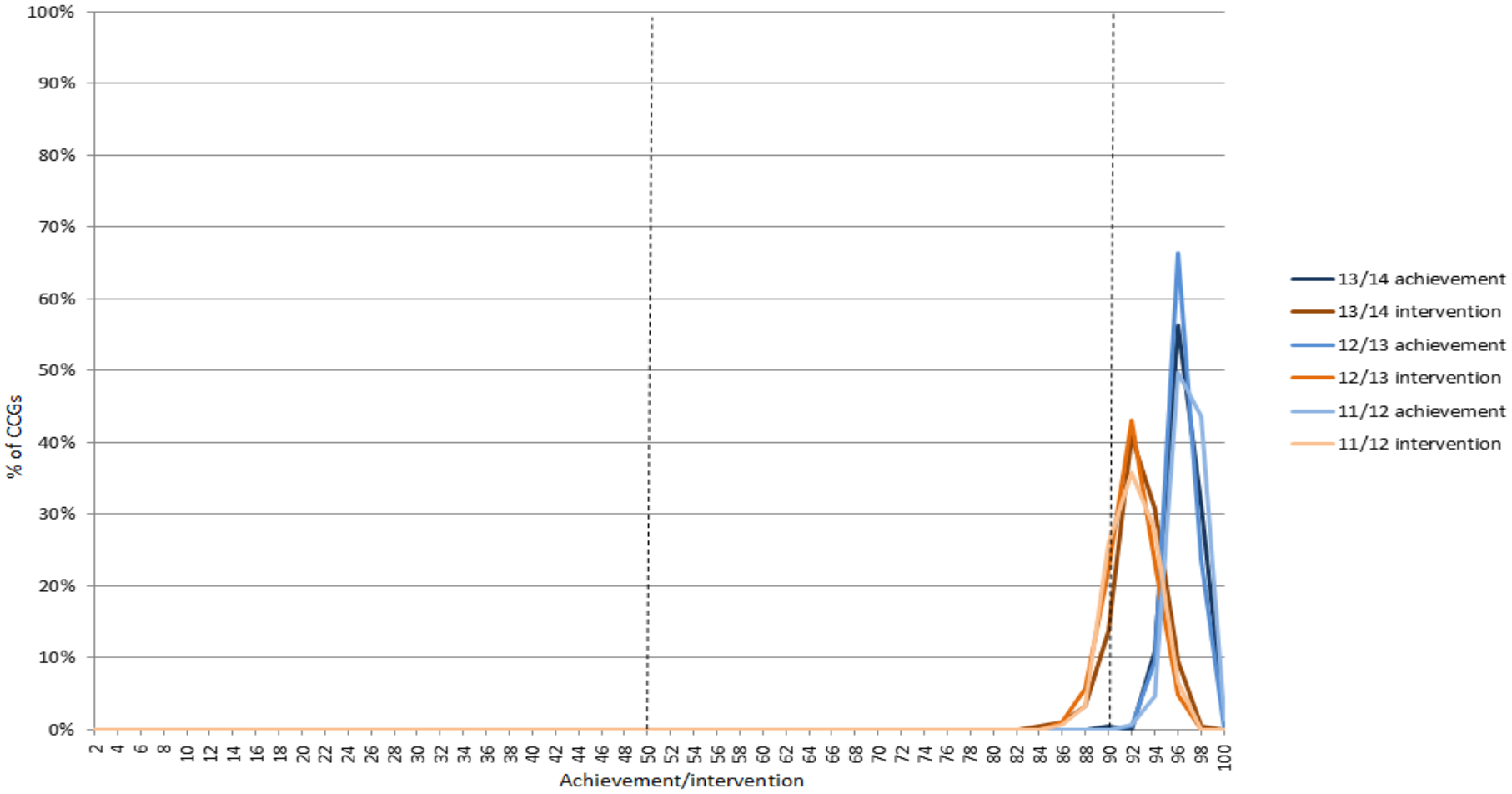


Figure 14
Spread for HF002



4 Findings

As a result of the above analysis the following QOF indicators may be suitable for reassessment:

- CON003 – long-acting reversible methods of contraception
- SMOK002 – record smoking status in the preceding 12 months
- MH009 – patients on lithium therapy with a record of serum creatinine and TSH
- AST002 – measures of variability or reversibility recorded
- AST004 – smoking status of patients with asthma
- STIA003 – people with stroke or TIA in whom the last blood pressure reading was 150/90 mmHg or less
- HF002 – diagnosis of heart failure confirmed by an echocardiogram.

Although the remaining 9 indicators are not identified for reassessment based on the 5 criteria, they may still be considered in light of their high average rate of achievement and recent trend (3 years) in high achievement rate.

- CS002 – record that a cervical screening test has been performed in the preceding 5 years
- MH003 – people with schizophrenia, bipolar affective disorder and other psychoses with a record of blood pressure in the preceding 12 months
- MH008 – women aged 25 with schizophrenia, bipolar affective disorder and other psychoses with a record that a cervical screening test has been performed in the preceding 5 years
- DEM004 – people diagnosed with dementia whose care has been reviewed in the preceding 12 months
- COPD002 – diagnosis of COPD by post-bronchodilator spirometry
- COPD004 – a record of FEV_1 in the preceding 12 months
- AST003 – an asthma review in the preceding 12 months
- DM004 – measured total cholesterol is 5 mmol/litre or less
- HF004 – currently treated with an ACE inhibitor or ARB, those people who are additionally treated with a beta blocker.

4.1 Limitations

The method for reassessing indicators is derived from using the 5 criteria specified in this report. These criteria include 2 key assumptions detailed below:

- the trend is reviewed over 3 years
- low exception reporting is classed as 5% or below.

A change in these 2 assumptions will lead to different indicators being identified for reassessment. For example, if the trend were to be observed over a longer period such as 4-5 years, 2 indicators, MH003 and MH008, currently included in the initial review (appendix 1), would not qualify because there are only 3 years of active data.

For the second assumption, if low exception reporting was classed as 10% rather than 5%, then CS002, M003, DEN002 and AST003 (detailed in appendix 1) would be classed as indicators for potential reassessment.

The report only contains analysed HSCIC QOF data and has not taken into account any contextual factors of identified indicators. This includes the 'knock on effect' that some indicators may have for other indicators, such as those that diagnose a specific disease or condition. Therefore, the implications of removing 1 indicator may directly affect other indicators.

It is recommended that NHS England work with the HSCIC to explore the relationship between any interrelated indicators.

The report does not contain any specific information on what impact removing an indicator may have on a particular patient group or clinical setting, although it does try to address some of these potential issues. This report aims to focus on indicators in light of whether they have had high achievement rates, not whether they are 'good' indicators.

4.2 The effects of removing a financial incentive

A possible outcome of reassessing a QOF indicator is the removal of the financial incentive. Removal of financial incentives has several rationales, including lack of initial effectiveness, lack of continued improvement and to allow the targeting of other priority areas (Guthrie and Morales, 2014)[5]

To explore the implications of removing a financial incentive a literature search was conducted. After title and abstract and subsequent full text screening, a small number of papers were identified, 4 of which are summarised in this report.

[5] Guthrie, B and Morales, D. (2014) What happens when pay for performance stops? British Medical Journal – Editorials 348: g1413

Lester et al. (2010)[6] evaluated the effect of financial incentives on four clinical quality indicators across pay for performance plans in the UK and at Kaiser Permanente in the United States. The study found that removing financial incentives for two quality indicators in Kaiser Permanente was associated with small declines in performance levels. The author's noted that "slightly lower levels of achievement in one area may be more than offset by improvements in care in a different clinical area to which incentives are shifted".

Peterson et al. (2013)[7] tested the effect of financial incentives to reward recommended care for people with hypertension in 12 hospital-based primary care clinics in the United States. The study found that the following removal of the financial incentive there was a significant decline in performance.

A 7-year cohort study in the USA (Benzer et al., 2014)[8] investigating quality improvement after the removal of incentives, found improvements in performance after implementing pay-for-performance schemes, but after removing incentives, performance neither improved nor deteriorated. Of the 7 performance measures used in this study, 6 measures showed improvements in performance after the introduction of incentives and before their removal. Similarly, in the year after removal, 6 of the 7 measures maintained performance levels for up to 3 years.

A retrospective cohort study from April 2004 to March 2012 by Kontopantelis et al. (2014)[9] was conducted using UK data from the Clinical Practice Research Database. The authors performed multilevel linear regression and interrupted time series analysis on 7 chronic conditions for which quality indicators had been included in the QOF and then removed. For indicators removed in April 2007, the mean performance remained relatively stable after removal. Similarly, for indicators for blood pressure monitoring, which were removed in April 2011, average performance remained high after removal and close to levels seen in previous years (92–94%). The study found no significant effect on short-term performance as a result of withdrawal of incentives. The study did acknowledge that the withdrawn indicators did remain incentivised through linked outcome indicators, and therefore an indirect incentive potentially remained.

The 4 studies summarised in this report suggest that questions persist about the sustainability of indicator performance once financial incentive schemes are removed. Further research is needed on long-term quality of care outcomes and performance after removal of financial incentives. The significant changes made to the 2014/15 QOF in England and the divergence of the QOF across the 4 countries of the UK may support further research.

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[6] Lester H et al. (2010) The impact of removing financial incentives from clinmical quality indicators: longitudinal analysis of four Kaiser Permanente indicators. British Medical Journal 340: c1898

[7] Peterson L et al. (2013) Effects of Individual Physician-Level and Practice-Level Financial Incentives on Hypertension Care. The Journal of the American Medical Association: 310 10 1042-1050

[8] Benzer J et al. (2014) Sustainability of quality improvement following removal of pay-for-performance incentives Journal of General Internal Medicine 29 (1): 127-32doi:10.1007/s11606-013-2572-4

[9] Kontopantelis E et al. (2014) Withdrawing performance indicators: retrospective analysis of general practice performance under UK Quality and Outcomes Framework British Medical Journal 348: g330

5 Conclusion

This report sets out a systematic approach for identifying current QOF indicators that may benefit from being considered for reassessment.

Identifying and reassessing QOF indicators that have reached a ceiling in their performance may allow new or improved indicators to be introduced with the potential to support improvements in quality in different areas of care

Appendix 1: QOF indicators considered in this review

14/15 ID	Indicator wording	14/15 Threshold (Points)
CON003	The percentage of women, on the register, prescribed emergency hormonal contraception one or more times in the preceding 12 months by the contractor who have received information from the contractor about long acting reversible methods of contraception at the time of or within 1 month of the prescription	50-90 (3 points)
CS002	The percentage of women aged 25 or over and who have not attained the age of 65 whose notes record that a cervical screening test has been performed in the preceding 5 years	45-80 (11 points)
SMOK002	The percentage of patients with any or any combination of the following conditions: CHD, PAD, stroke or TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective disorder or other psychoses whose notes record smoking status in the preceding 12 months	50-90 (25 points)
MH003	The percentage of patients with schizophrenia, bipolar affective disorder and other psychoses who have a record of blood pressure in the preceding 12 months	50-90 (4 points)
MH008	The percentage of women aged 25 or over and who have not attained the age of 65 with schizophrenia, bipolar affective disorder and other psychoses whose notes record that a cervical screening test has been performed in the preceding 5 years	45-80 (5 points)
MH009	The percentage of patients on lithium therapy with a record of serum creatinine and TSH in the preceding 9 months	50-90 (1 points)
DEM004	The percentage of patients diagnosed with dementia whose care has been reviewed in a face-to-face review in the preceding 12 months	35-70 (39 points)
COPD002	The percentage of patients with COPD (diagnosed on or after 1 April 2011) in whom the diagnosis has been confirmed by post bronchodilator spirometry between 3 months before and 12 months after entering on to the register	45-80 (5 points)
COPD004	The percentage of patients with COPD with a record of FEV1 in the preceding 12 months	40-75 (7 points)
AST002	The percentage of patients aged 8 or over with asthma (diagnosed on or after 1 April 2006), on the register, with measures of variability or reversibility recorded between 3 months before or any time after diagnosis	45-80 (15 points)
AST003	The percentage of patients with asthma, on the register, who have had an asthma review in the preceding 12 months that includes an assessment of asthma control using the 3 RCP questions	45-70 (20 points)
AST004	The percentage of patients with asthma aged 14 or over and who have not attained the age of 20, on the register, in whom there is a record of smoking status in the preceding 12 months	45-80 (6 points)
DM004	The percentage of patients with diabetes, on the register, whose last measured total cholesterol (measured within the preceding 12 months) is 5 mmol/l or less	40-75 (6 points)
STIA003	The percentage of patients with a history of stroke or TIA in whom the last blood pressure reading (measured in the preceding 12 months) is 150/90 mmHg or less	40-75 (5 points)
HF002	The percentage of patients with a diagnosis of heart failure (diagnosed on or after 1 April 2006) which has been confirmed by an echocardiogram or by specialist assessment 3 months before or 12 months after entering on to the register	50-90 (6 points)
HF004	In those patients with a current diagnosis of heart failure due to left ventricular systolic dysfunction who are currently treated with an ACE-I or ARB, the percentage of patients who are additionally currently treated with a beta blocker licensed for heart failure	40-65 (9 points)