UNIVERSITY OF MANCHESTER NATIONAL PRIMARY CARE RESEARCH AND DEVELOPMENT CENTRE AND UNIVERSITY OF YORK HEALTH ECONOMICS CONSORTIUM
(NICE EXTERNAL CONTRACTOR)

Development feedback report on piloted indicator(s)

QOF indicator area: Smoking

Pilot period: 1st April 2010 – 30th September 2010

Potential output: Recommendations for NICE Menu

Contents

Additional information in relation to current smoking indicators

Please see
http://www.pcc.nhs.uk/uploads/QOF/Business%20Rules%20V16/smoking_ruleset_v16_0.pdf if you would like to understand the rule sets in detail.

The optimal frequency for recording smoking status in the general population was agreed historically by the negotiators at 27 months on the grounds that most people will have had an appointment with their GP during this time (hence the timeframe around records 23). There are also business rules in place about the recording of never smoked up to the age of 25 years- since someone who confirms "never smoker" status after they're 26 is unlikely to start and the need to record someone as being an ex-smoker on 3 consecutive years before you can stop asking them if they are still not smoking. Smoking 3 and Smoking 4 currently have a 15 month timeframe.

Current *Records 23* incentivises "the % of patients aged over 15 years whose notes record smoking status in the past 27 months (40-90%)". The rule set means the 27 month window comes into play after their 15th birthday e.g. I am 15 on the 1st Nov and there is no record of my smoking status. In order to be a success against records 23, I need to either have my smoking status recorded by the 31st of March or be exception reported. Assuming that my smoking status is recorded on the 1st March this would need to be updated 27 months later in order for me to continue to be a success against records 23. If the practice had recorded my smoking status prior to my 15th birthday this would be a success under records 23 so long as the record had been made within 27 months of the end of the QOF year in which I turned 15 i.e. when I was 12 years old.

Piloted indicators

1. The practice can produce a register of all patients 14 years of age and over whose notes record smoking status.

2. The percentage of patients 14 years of age and over whose notes record smoking status in the past 27 months.

3. The percentage of patients with any or any combination of the following conditions (coronary heart disease, PAD, stroke or TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective disorder or other psychoses) who have a record of smoking status in the previous 15 months.

Note: the difference between this pilot indicator and the current live QOF smoking 3 is the inclusion of PAD

4. The percentage of patients with any or any combination of the following conditions: coronary heart disease, PAD, stroke or TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective

disorder or other psychoses who smoke whose notes contain a record of an offer of support and treatment within the previous 15 months.

Note: the difference between this pilot indicator and the current live QOF smoking 4 is the inclusion of PAD and the fact that smoking 4 talks about 'advice or referral to a specialist service' and this indicator is focused on a record of an offer of support and treatment

5. The percentage of patients 14 years of age and over who are recorded as current smokers who have a record an offer of support and treatment within the previous 15 months.

6. The percentage of patients 15 years of age and over who are recorded as current smokers who have a record of an offer of support and treatment within the previous 15 months.

7. The percentage of patients 15 years of age and over who are recorded as current smoker who have a record that they have been offered support by an NHS Stop Smoking advisor within the previous 15 months.

8. The percentage of patients 14 years of age and over who are recorded as current smoker who have a record that they have been offered support by an NHS Stop Smoking advisor within the previous 15 months

Number of practices participating in the pilot: 26

- *20 in England/2 each on NI, Scotland and Wales respectively*

Number of practices withdrawing from the pilot: 10[1]

Number of practices where staff were interviewed: 21

- *(18 in England, 2 in Scotland, 1 In Northern Ireland)*

Number of pilot practice staff interviewed   45

- *(19 GPs; 16 PMs; 6 PNs; 4 others)*

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[1] 10 English practices withdrew from Pilot 2. 5 of these withdrew for internal reasons (i.e. the practice merged with another practice and could not focus on the pilot as they would have wished or there was a change in practice manager who had other priorities) and 2 practices for external reasons (i.e. barriers with piloting governance procedures that caused delays in practice visits). No reason was given by the remaining 3 practices that withdrew.

Assessment of clarity, reliability, acceptability, feasibility, and implementation

Clarity

- Indicator wordings as stated, rated as clear and unambiguous by the RAM panel
- The NHS IC has confirmed that they have been able to write Business Rules (and/or an Extraction Specification).

Reliability and Feasibility[2]

Feasibility	Reliability	Implementation
2/3	2/3	2/3

General comments from NHSIC

Comments	Response	NHSIC Summary
General	The smoking domain is already a very complex set. The feasibility, reliability and implementation of these indicators all depends on which indicators and registers are to be left in or replaced in the current smoking indicator set (which is based on morbidity) or Is there to be a completely new smoking indicator set with new registers	Possible major re-work of smoking rule set and registers

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[2] NHSIC provide guidance on whether the piloted indicators are, from a business rule perspective, suitable to become 'live' indicators. A notional 'scoring' system is used:
1. No problems to implement in live with other indicators
2. Minor re-work before it can go live with other indicators
3. Major re-work but do-able without recourse to anyone outside of the process
4. Major considerations to be made before the indicator can go live - possibly need to speak to CFH / suppliers
5. Not feasible

SMOKP201 Pragmatically for pilot this was defined as an indicator: Proportion of all patients 14 years of age and over who have a smoking status anywhere in the record. Is there any desire to have patients on this register who have an up to date smoking status, or is it ever? Should the register consider the 'complex' method for the three smoking status (current, ex and non) types and age?		
SMOKP202 This will have implications if implemented into live QOF. The intent of recording status every 2 years is different from the current situation of recording every year; considerations will have to be made about for example how ex-smokers are identified and how double payments are to be avoided. What does the effect of moving from an 'annual' (i.e. 15 months) check to a 2-year(i.e. 27 months) check do to the 'must record 3 years in succession'? What about the under 25 check?		
SMOKP203 This will have implications if and when implemented into live QOF. All age criteria have been taken out of the co-morbidity diseases for the purposes of the pilots.	Depending on which set of indicators and registers are to be implemented there will be the risk of duplicate payments, as patients with these morbidities will be recorded every 15 months and therefore will naturally be deemed as successful for 202 (unless a change was introduced to indicator 202 to exclude those patients who are being picked up by indicator 203).	

SMOKP204- SMOKP208 This will have implications if and when implemented into live QOF.	Need to clarify exactly what support and treatment options are to be implemented – is there a variation based on age? Referral to a 'stop smoking advisor', pharmacotherapy, brief support.	

Indicator 1:

- Pragmatically for piloting this was defined as an indicator: Proportion of all patients 14 years of age and over who have a smoking status anywhere in the record.
- Is there any desire to have patients on this register who have an up-to-date smoking status, or is it ever?
- Should the register consider the 'complex' method for the three smoking status (current, ex and non) types and age?

Indicator 2:

- This will have implications if implemented into live QOF. The intent of recording status every 2 years is different from the current situation of recording every year; considerations will have to be made about for example how ex-smokers are identified and how double payments are to be avoided.
- What does the effect of moving from an 'annual' (i.e. 15 months) check to a 2-year (i.e. 27 months) check do to the 'must record 3 years in succession'? What about the under 25 check?

Indicator 3

- This will have implications if and when implemented into live QOF. All age criteria have been taken out of the co-morbidity diseases for the purposes of the pilots.
- Depending on which set of indicators and registers are to be implemented there will be the risk of duplicate payments, as patients with these morbidities will be recorded every 15 months and therefore will naturally be deemed as successful for 202 (unless a change was introduced to indicator 202 to exclude those patients who are being picked up by indicator 203).

Indicators 4-8

- This will have implications if and when implemented into live QOF.
- Need to clarify exactly what support and treatment options are to be implemented – is there a variation based on age?
- Referral to a 'stop smoking advisor' pharmacotherapy, brief support.

Acceptability

- There was general acceptance of the importance of asking 14-15 years olds about smoking status and providing health promotion advice and, where necessary, smoking cessation advice.

- However, the role of the wider public health agenda and agencies as well as school (nurse) and parental support were emphasized by many practice staff as key providers of advice and support rather than primary care staff.

- Concerns were expressed about alternative methods that would be required to discover and record the smoking status for 14-15 year olds, other than during a consultation. These included postal questionnaires (probable low response rate) or telephone calls. In both cases there were concerns that parents would respond or might be upset by the approach and this may also cause problems within family dynamics and with the relationship between the practice and the family.

  "You might have to write to the parent for consent to write to them." (Pilot practice GP, West Yorkshire, practice 58.)

- Pilot practices that had sent out questionnaires to 14-15 year olds asking about smoking status had received a low response rate (in one example a 0% response rate from a pilot of 19 questionnaires).

- The majority of practice staff expressed concerns over the truthfulness of answers from a 14 year old about smoking status, particularly if consulting with a parent.

- Issues of competency were frequently raised, particularly for 14 year olds.

- A minority of staff referred to the importance of alternative quality improvement strategies such as DESs.

- Low thresholds would be required due to predicted low attendance/ recording rate.

- The 40% of practices that felt that 14 year olds should be included in smoking indicators cited the importance or normalization and their experiences of discussing smoking in certain specific clinical contexts.

- Many GPs and practice nurses said that in some contexts, for example discussion of contraception, the HPV vaccine and when talking to 14 year old young people with asthma, the subject of smoking was relatively easy to broach.

- However, the majority opinion within pilot practices (60% of practices) was not to include 14 year olds in the smoking indicators for the reasons outlined above.

- 15 year olds were seen as less contentious in terms of recording status largely because of practice experience of QOF indicator records 23.

   "You don't see a 14 year old on his or her own. And no 14 year old will own up that they are smoking in the presence of his or her Mum." (Pilot practice GP, London, practice 60).

   "It's hard to make it an incentivized question because it's often inappropriate to ask it in a clinical setting. We struggle to engage that age group anyway." (Pilot practice GP, Nottinghamshire, practice 53)

- There was some support of the 14 year olds indicator: *"What is it better to do? Avoid when it's awkward or actually do what's the right thing? Are you here to be nice or are you here to do what's right by the patient?"* (Pilot practice GP, Warwickshire, practice 44).

Specific comments: Indicator 1, 5 and 8

- See above.

Specific comments: Indicator 2

- 27 month indicator would operationalise asking an 11 year old about smoking status.

Specific comments: Indicators 3-4

- General acceptance of these indicators.

- The inclusion of PAD was seen as logical in both indicators. Support and treatment was seen in much the same way as 'advice or referral' in the current Smoking 4 indicator.

Specific comments: Indicators 6-7

- The general worries expressed about 14 year olds were still present but less so for 15 year olds, both in terms of competence, parental presence in consultations, likelihood of a truthful answer and above all practice experience through records 23. However a small number of GPs voiced concerns about the notion of an 'offer of support by an NHS Stop Smoking advisor' for a 15 year old.

Acceptability recommendations

Indicators 1-2, 5, 8

- There are barriers/risks/issues/uncertainties identified from the pilot *in terms of acceptability* that would preclude the indicator being published on the NICE menu of indicators.

<u>Indicators 6-7</u>

- There are barriers/risks/issues/uncertainties identified from the pilot that in themselves may not be sufficient to prevent an indicator being recommended by the AC, but require the particular attention of the AC.

<u>Indicators 3-4</u>

- There is a high degree of confidence that there are no major barriers/risks/issues/ uncertainties identified from the pilot *in terms of acceptability* that would preclude the indicator from being implemented.

Implementation

Assessment of piloting achievement:

Indicator 1- The practice can produce a register of all patients 14 years of age and over whose notes record smoking status.

	Baseline	Final	Number of practices uploading data at both baseline and final
Number of practices uploading data	**21**	**14**	**14**
Mean practice denominator[3]	**5984.2**	**5954**	
Mean score[4]	**91.7%**	**92.9%**	
To what extent is the baseline representative of the national baseline?	**Records 23 (which starts at age 15) is 84.6%**		

Assessment of piloting achievement:

Indicator 2 - The percentage of patients 14 years of age and over whose notes record smoking status in the past 27 months.

	Baseline	**Final**	**Number of practices uploading data at both baseline and final**
Number of practices uploading data	21	14	14
Mean practice denominator[5]	5984.2	5954	
Mean score[6]	81.1%	84.5%	
To what extent is the baseline representative of the national baseline?	Records 23 (which starts at age 15) is 84.6%		

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[3] The average number of people across practices eligible for inclusion in the indicator population
[4] The average achievement across practices for the indicator
[5] The average number of people across practices eligible for inclusion in the indicator population
[6] The average achievement across practices for the indicator

Assessment of piloting achievement:

Indicator 3 - The percentage of patients with any or any combination of the following conditions (coronary heart disease, PAD, stroke or TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective disorder or other psychoses) who have a record of smoking status in the previous 15 months.

	Baseline	Final	Number of practices uploading data at both baseline and final
Number of practices uploading data	20	15	15
Mean practice denominator[7]	1460.6	1521.2	
Mean score[8]	86.5%	91.2%	
To what extent is the baseline representative of the national baseline?		Live QOF Smoking 3 is 95.2%	

Assessment of piloting achievement:

Indicator 4 - The percentage of patients with any or any combination of the following conditions: coronary heart disease, PAD, stroke or TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective disorder or other psychoses who smoke whose notes contain a record of an offer of support and treatment within the previous 15 months.

	Baseline	Final	Number of practices uploading data at both baseline and final
Number of practices uploading data	20 135209	15 102495	15
Mean practice denominator[9]	224 4481/20	222.5 3338/15	
Mean score[10]	7.7% 6.89% 309/4481	11.1% 11.9% 398/3338*100	
To what extent is the baseline representative of the national baseline?		Live QOF smoking 4 is 92.8%	

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[7] The average number of people across practices eligible for inclusion in the indicator population
[8] The average achievement across practices for the indicator
[9] The average number of people across practices eligible for inclusion in the indicator population
[10] The average achievement across practices for the indicator

Assessment of piloting achievement:

Indicator 5- The percentage of patients 14 years of age and over who are recorded as current smokers who have a record an offer of support and treatment within the previous 15 months.

	Baseline	Final	Number of practices uploading data at both baseline and final
Population	139744	99553	
Number of practices uploading data	21	14	14
Mean practice denominator[11]	1144.6 24036/21	1132.5 15856/14	
Mean score[12]	3.18% 765/24036*100	6.5% 1035/15856*100	
To what extent is the baseline representative of the national baseline?	There are no relevant QOF related statistics.		

Assessment of piloting achievement:

Indicator 6- The percentage of patients 15 years of age and over who are recorded as current smokers who have a record of an offer of support and treatment within the previous 15 months.

	Baseline	Final	Number of practices uploading data at both baseline and final
Population	139744	99553	
Number of practices uploading data	21	14	15
Mean practice denominator[13]	1144 24024/21	1131.8 15845/14	
Mean score[14]	3.18% 765/24024	6.53% 1035/15845[15]	
To what extent is the baseline representative of the national baseline?	There are no relevant QOF related statistics.		

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[11] The average number of people across practices eligible for inclusion in the indicator population

[12] The average achievement across practices for the indicator

[13] The average number of people across practices eligible for inclusion in the indicator population

[14] The average achievement across practices for the indicator

[15] The % are low probably because of a coding issue i.e. offer of support and treatment was not something GPs routinely coded pre pilot.

Assessment of piloting achievement:

Indicator 7- The percentage of patients 15years of age and over who are recorded as current smoker who have a record that they have been offered support by an NHS Stop Smoking advisor within the previous 15 months

	Baseline	Final	Number of practices uploading data at both baseline and final
Population	139744	99553	
Number of practices uploading data	21	14	14
Mean practice denominator[16]	1144 24038/21	1142 15992/14	
Mean score[17]	21.9% 5264/24038*100	31.3% 5003/15992*100	
To what extent is the baseline representative of the national baseline?	There are no relevant QOF related statistics.		

Assessment of piloting achievement:

Indicator 8- The percentage of patients 14years of age and over who are recorded as current smoker who have a record that they have been offered support by an NHS Stop Smoking advisor within the previous 15 months

	Baseline	Final	Number of practices uploading data at both baseline and final
Number of practices uploading data	21	14	14
Mean practice denominator[18]	1145 224050/14	1143 16003/14	
Mean score[19]	21.9 5267/24050*100	31.3% 5006/16003*100	
To what extent is the baseline representative of the national baseline?	There are no relevant QOF related statistics.		

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[16] The average number of people across practices eligible for inclusion in the indicator population
[17] The average achievement across practices for the indicator
[18] The average number of people across practices eligible for inclusion in the indicator population
[19] The average achievement across practices for the indicator

Summary

- The pilot data show very high levels of recording of smoking status for indicator 1 at baseline (91.7%) and final (92.9%) and high for indicator 2 at baseline (81.1%) and final (84.5%) respectively almost certainly because of recording already incentivised with records 23.

- The recording of smoking status for those patients on a QOF register but also PAD (indicator 3) was high at baseline (86.5%) and final (91.2%). However, there were low levels of recording in relation to a record of an offer of support and treatment within the previous 15 months for those patients on a QOF register but also PAD (indicator 4) at baseline (7.7%) and final (11.1%) respectively and also indicators 5 and 6. This probably reflects the fact that this pilot indicator includes the offer of treatment and is therefore a coding issue.

- Pilot indicators 7 and 8 relating to a record of NHS stop smoking showed baselines of 22% rising to 31%.

Changes in practice organisation

General comments:

- Concerns about workload associated with the need to record the smoking status of 14 year olds by using phone calls or postal surveys with associated problems (see acceptability above). This should be seen in conjunction with the quantitative data in pilot practices at baseline and final for indicators 1 and 2 respectively.

- Most practices offered, and have a preference for, in-house smoking cessation support and also had NHS Stop Smoking accredited staff.

  "*When the age was brought in at 15 we called up, I mean we had to, we made something like a thousand telephone calls to various people and again if we got through to the parents, the parents were adamant that their children weren't smoking.*" (Pilot practice PM, Bury, practice 34).

Indicator 3-4

N/A

Resource utilisation and costs

General comments:

- Concerns expressed about the different ways smoking status can be coded and in particular dealing with people who gave up smoking 30 years ago.

- Concerns expressed about workload required to discover and record smoking status of 14 year olds and offer support and treatment.

Barriers to implementation

General comments:

- Concerns about attribution and responsibility for health promotion advice to 14-15 year olds with practice staff emphasizing the important roles of school staff, pharmacy staff and parents rather than general practice staff.

Indicators 1-2

- Concerns over workload associated with recording smoking status of 14 year olds in terms of phone calls, postal surveys etc. Potential for the activity to become a tick box without subsequent corresponding action being taken for those that smoke.

Indicator 3

N/A

Indicators 4, 5, 6

- Depends on how motivated a smoker is to stop smoking.

  "*Those who are motivated are the ones who are likely to succeed, if you're not motivated you're not going to do anything*". (Pilot practice GP, Essex, practice 55).

- High did not attend/complete rate in smokers attending the smoking cessation.

Indicators 7-8

- Most practices offered, and have a preference for, in-house smoking cessation support.

Assessment of exception reporting

Indicators 1-2, 5, 8

- High non response would be recorded as not recorded – so would need a low threshold or risk of high exception reporting.

Assessment of potential unintended consequences

General comments:

- Workload associated with "*having to make more phone calls, send out more letters, put more notes on to screens*". (Pilot practice PM, Bury, practice 34).

- High non response would be recorded as not recorded – so would need a low threshold.

- Some concerns expressed about undue focus on one aspect of health promotion/lifestyle behavior, however important, over others such as sexual practices and drug taking and alcohol.

Implementation recommendations

Indicators 1-2, 5, 8

- There are barriers/risks/issues/uncertainties identified from the pilot *in terms of implementation* that would preclude the indicator being published on the NICE menu of indicators.

Indicators 6-7

- There are barriers/risks/issues/uncertainties identified from the pilot that in themselves may not be sufficient to prevent an indicator being recommended by the AC, but require the particular attention of the AC.

Indicators 3-4

- There is a high degree of confidence that there are no major barriers/risks/issues/ uncertainties identified from the pilot *in terms of implementation* that would preclude the indicator from being.

Assessment of overlap with existing QOF indicators and potential changes to existing QOF indicators

Smoking 3: The percentage of patients with any or any combination of the following conditions: coronary heart disease, stroke or TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective disorder or other psychoses whose notes record smoking status in the previous 15 months. Except those who have never smoked where smoking status need only be recorded once since diagnosis (payment stages 40-90%) 30 points

Smoking 4: The percentage of patients with any or any combination of the following conditions: coronary heart disease, stroke or TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective disorder or other psychoses who smoke whose notes contain a record that smoking cessation advice or referral to a specialist service, where available, has been offered within the previous 15 months (payment stages 40-90%) 30 points

Organisational domain, Records 23: The percentage of patients aged over 15 years whose notes record smoking status in the past 27 months (payment stages 40-90%) 11 points.

Please note the following 5 issues:

1. If the AC decide to put indicators 6 and 7 forward, then records 23 should be logically removed from QOF.

2. This action would mean that the theoretical age of recording smoking status in QOF would rise from 12 in current QOF to 13.

3. If the AC decide to put indicators 6 and 7 forward as well as indicators 3 and 4, then there is the potential for double counting of people on

registers within indicators 6 and 7 (please also see comments from NHSIC).

4. NHS Stop Smoking services may not exist in their current form in 2013.

5. The concept of 'ex smoker' was explored during the qualitative interviews however no consensus was achieved on the definition, with practices suggesting e.g. 4 weeks, 2 years and 10 years.

Overall recommendations

<u>Indicators 1-2, 5, 8</u>
- There are barriers/risks/issues/uncertainties identified from the pilot that would preclude the indicator being published on the NICE menu of indicators.

<u>Indicators 6-7</u>

- There are barriers/risks/issues/uncertainties identified from the pilot that in themselves may not be sufficient to prevent an indicator being recommended by the AC, but require the particular attention of the AC.

<u>Indicators 3-4</u>
- There is a high degree of confidence that there are no major barriers/risks/issues/ uncertainties identified from the pilot that would preclude the indicator from being recommended for publication on the NICE menu of indicators.

Suggested amendments to indicator

- It should be noted that in order to be in line with the other indicator in live QOF, the phrase 'bipolar disorder' should be used rather than bipolar affective disorder.

Appendix A: Indicator details

Recommendation(s) presented and prioritised by the Advisory Committee

- Smoking register

- The percentage of current smokers whose notes record that referral to the NHS Stop Smoking service or pharmacotherapy with brief support has been offered in the previous 15 months.

Summary of Committee considerations (taken from the Committee minutes)

- The AC agreed that there would be a need for a smoking register to support the smoking indicator. The smoking register should be a register of smoking status. The AC noted that the smoking status age could be different from the referral age in the smoking indicator.

- The AC agreed that concepts such as 'ex-smoker' and 'current smoker' would need to be reviewed as part of indicator development.

- The AC recommended that this recommendation should be carried forward for indicator development. The AC noted the following key considerations:

- The age range for the indicator would need to be considered as part of indicator development. However it was noted that the evidence on which the AC prioritised this indicator at the June 2009 Committee meeting mostly related to adults who smoke

Pre-RAND indicators

1. The practice can produce a register of all patients 15 years of age and over who are current smokers.
2. The practice can produce a register of all patients 14 years of age and over who are current smokers.
3. The practice can produce a register of all patients 15 years of age and over whose notes record smoking status.
4. The practice can produce a register of all patients 14 years of age and over whose notes record smoking status.
5. The percentage of patients 14 years of age and over whose notes record smoking status in the past 27 months.
6. The percentage of patients with any or any combination of the following

conditions (coronary heart disease, PAD, stroke or TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective disorder or other psychoses) who have a record of smoking status in the previous 15 months.

7. The percentage of patients with any or any combination of the following conditions: coronary heart disease, PAD, stroke or TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective disorder or other psychoses who smoke whose notes contain a record that smoking cessation advice or referral to a specialist service, where available, has been offered within the previous 15 months.

8. The percentage of patients 14 years of age and over who are recorded as current smokers who have a record that smoking cessation advice or referral to a specialist service (NHS Stop Smoking service) where available or pharmacotherapy with brief support, has been offered within the previous 15 months.

9. The percentage of patients 15 years of age and over who are recorded as current smokers who have a record that smoking cessation advice has been offered within the previous 15 months.

10. The percentage of patients 14 years of age and over who are recorded as current smokers who have a record that smoking cessation advice has been offered within the previous 15 months.

11. The percentage of patients 15 years of age and over who are recorded as current smokers who have a record that pharmacotherapy with brief support has been offered within the previous 15 months.

12. The percentage of patients 14 years of age and over who are recorded as current smokers who have a record that pharmacotherapy with brief support has been offered within the previous 15 months.

13. The percentage of patients 15 years of age and over who are recorded as current smoker who have a record that referral to a specialist service (NHS Stop Smoking service), where available, has been offered within the previous 15 months.

14. The percentage of patients 14 years of age and over who are recorded as current smoker who have a record that referral to a specialist service (NHS Stop Smoking service), where available, has been offered within the previous 15 months.

Final indicators as piloted

1. The practice can produce a register of all patients 14 years of age and over whose notes record smoking status.

2. The percentage of patients 14 years of age and over whose notes record smoking status in the past 27 months.

3. The percentage of patients with any or any combination of the following conditions (coronary heart disease, PAD, stroke or TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective disorder or other psychoses) who have a record of smoking status in the previous 15 months.

4. The percentage of patients with any or any combination of the following conditions: coronary heart disease, PAD, stroke or TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective disorder or other psychoses who smoke whose notes contain a record of an offer of support and treatment within the previous 15 months.

5. The percentage of patients 14 years of age and over who are recorded as current smokers who have a record an offer of support and treatment within the previous 15 months.

6. The percentage of patients 15 years of age and over who are recorded as current smokers who have a record of an offer of support and treatment within the previous 15 months.

7. The percentage of patients 15years of age and over who are recorded as current smokers who have a record that they have been offered support by an NHS Stop Smoking advisor within the previous 15 months.

8. The percentage of patients 14years of age and over who are recorded as current smoker who have a record that they have been offered support by an NHS Stop Smoking advisor within the previous 15 months

Appendix B: Details of assessment criteria for piloted indicators

This appendix provides details for each of the assessment criteria used in the report to provide the basis of the pilot feedback, assessments and recommendations.

Clarity

Clarity measures whether the indicator wording is clear and unambiguous. This is assessed and rated by the RAM[20] panel, in terms of the ability to write business rules (and/or an extraction specification) for the indicator. Clarity may also take into account the attribution of the indicator, that is whether it is applicable to primary care and performed within the practice.

Reliability

Reliability measures how closely multiple formats or versions of an indicator produce the same result. Each indicator undergoes compulsory reliability testing (how closely multiple versions of a test produce the same result).

Data elements obtained through automated search strategies of electronic health records are verified against and compared with a reference manual review strategy for obtaining the data elements, and a report is compiled. Reasons for any discrepancies between electronic extraction and manual reviews are then investigated and documented. This procedure is undertaken for each indicator in a small number of practices.

During the analysis, development and execution of the extraction software, issues are documented and a statement on the level of change required to subsequent business rules is prepared.

Acceptability

Acceptability measures how acceptable the activity is to both the assessors and those being assessed, for example that the activity is perceived as good clinical practice without any major barriers, risks or issues. Assessment might examine any conflicts with national guidance, variation in preferences of engagement with patients, concerns in relation to exception reporting, frequency of prescribing or undue focus on one area of care.

Feasibility

Feasibility measures the ability of the clinical practice to interpret an indicator's definitions and technical specifications and integrate them into both clinical practice and health information systems, and generate performance reports within a reasonable time frame and budget. A technical feasibility

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[20] In the initial stages indicators in development go through a rigorous two-stage consensus process: a modified RAND/UCLA Appropriateness Method (RAM). This is the only systematic method of combining expert opinion and evidence (Naylor, 1998) and feeds consultation with experts in each clinical area as appropriate in to the development process.

assessment will include the ability to extract data from the pilot practices using business rules, and/or an extraction specification via an extraction software provider (PRIMIS+) at the appropriate times, using the technical solution for each extract.

Assessment will also include an outline of any exception reporting codes necessary or subsequent changes to the business rules for indicators to operate functionally in live QOF.

Implementation

Implementation measures several factors which may have an impact on a practice and/or patient during the piloting of an indicator.

An assessment of piloting achievement measures the current baseline and any changes in baseline including the degree of confidence that the baseline is representative of the expected national baseline. The assessment will also report if the baseline has been supplemented with GPRD/THIN[21] data.

Changes in practice organisation measures any necessary changes required to create, use, and maintain the capacity to report on an indicator. These changes might involve IT, staffing, workflow structure, processes, policies, culture, inter-organisational relationships, and physical or financial capital critical to the cost effectiveness analysis.

Resource utilisation and costs measures the resource impact the indicator has on a practice. This may require engagement and consultation with practices through qualitative face-to-face methods, for example work load diaries, interviews and focus groups or quantitative methods exploring the extracted data from the piloted indicators.

Barriers to implementation measure any major barriers which would make the indicator unreasonably difficult to implement in practices or in live QOF. This may include requirements to make fundamental changes to practice organisation, unfeasible data collection or any unacceptable impact of unintended consequences. Assessment might examine barriers encountered in data collection, whether there was a lack of existing templates, the completeness of data and any missing data, and whether the indicator requires the reporting of new data items or concepts that are not routinely captured as part of current practice.

The implementation assessment will also take into account the overlap with existing indicators, and the extent of any overlap. For instance, whether the indicator partly or completely duplicates activities covered by other indicators in the same or a separate clinical domain.

An assessment of exception reporting measures the susceptibility of an indicator to high levels of exception reporting. This may include engagement

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issues, relevance of the indicator to certain groups, contraindications, and the accessibility of patients (namely those who are housebound or in a nursing home). The rate of exception reporting for the piloted indicator will include the extent to which exception reporting levels are within the expected range.

Unintended consequences are unforeseen effects of QOF measurements on processes of care, patient outcomes, and/or the functioning of the wider healthcare system. They may be positive in nature, for example encouraging general quality improvement, or negative, such as diversion of effort, disruption to clinical or organisational workflows, susceptibility to monetary gain, potential harm to patients, inappropriate standardisation of care or local practice, and undue focus on process. This may require auditing of patient exception reporting and referral rates to other health and social care sectors, and exploration of the reasons for these at an individual level including patient socio-demographic variables if available.