NHS Information Authority

DSC Notice: 50/2002
Date of Issue: October 2002

Change required by the Department of Health (DH) and approved by the ROCR Steering Committee	Subject: **Smoking and Pregnancy**
	Implementation Date: **1st April 2003**

DATA SET CHANGE CONTROL PROCEDURE

This paper gives notification of changes to be included in the NHS Data Dictionary & Manual and the NHS CDS Manual as appropriate. These will be consolidated into the publications in due course.

Summary of Changes:
All Hospital Trusts to collect mandatory specified information on smoking from pregnant women in their care.

Change Proposal Reference No: ***n/a***

The packaging of standards document is under review. Any changes will be notified in due course.

Please note that the website address has changed, and that Data Set Change Notices are now located at:

http://www.nhsia.nhs.uk/dscn/pages/default.asp and on the NHSnet at:
http://nww.nhsia.nhs.uk/dscn/pages/default.asp

DATA SET CHANGE NOTICE 50/2002

Reference:	N/A
Subject:	Smoking and Pregnancy
Type of Change:	Mandatory collection of key data on the smoking behaviour of pregnant women.
Reason for Change:	To provide information to enable possible interventions to encourage pregnant women who smoke to give up, and to support the performance management process locally and nationally
Effective Date:	1 April 2003
Effect on NHS Data Dictionary & Manual:	None. The SaFF data collection is not currently supported by NHS data standards
Effect on Central Returns:	No effect, other than to support the requirements for the SaFF collection

Introduction:

1. Smoking during pregnancy harms both the mother and the unborn child, and is closely related to health inequalities between those in need and the most advantaged. The Scientific Committee on Tobacco on Health (SCOTH), which advises Government on smoking and health and tobacco control issues, said in its 1998 Report: *'Smoking in pregnancy causes adverse outcomes, notably an increased risk of miscarriage, reduced birthweight and perinatal death'*.

2. The Tobacco White Paper *Smoking Kills* (published December 1998) outlined a series of measures to tackle this issue, and contained a key target for reducing the proportion of women who smoke during pregnancy. This was 'to reduce the percentage of women who smoke during pregnancy from 23% to 15% by the year 2010; with a fall to 18% by the year 2005'. This target is monitored nationally at five-year intervals by the Infant Feeding Survey. However, the Infant Feeding Survey is based on a random sample of births across the United Kingdom and it cannot provide reliable information at a local level.

3. As a result of a commitment in *Smoking Kills*, NHS Smoking Cessation Services were rolled out in Health Action Zones in April 1999, and were extended across the country in April 2000. These include services to help pregnant women to give up smoking. In addition, on 29 January 2001 PS(PH) announced a £3 million initiative to bring together all services for pregnant women who want to give up smoking. This money was to fund specific services in each Health Authority to ensure that pregnant women receive the help they need to give up. This was followed by the announcement in December 2001

of an extra £3 million in funding to help reduce smoking in pregnancy.

Background:

4. Reliable data on smoking in pregnancy at a local level would be a valuable tool informing possible interventions with pregnant women who smoke. Local analysis of the information will enable better targeting of Smoking Cessation Services at those women most in need. The data will also enable local performance management of health services, allowing those GPs and Trusts who carry out the most successful interventions to be identified and local 'best practice' to be followed.

5. The target for reducing the proportion of women who smoke during pregnancy (given in *Smoking Kills*) is monitored at a national level by the Infant Feeding Survey[1]. In order to monitor the contribution made by local organisations towards the *Smoking Kills* target, smoking and pregnancy data were included in the 1999/00 SaFF (Services and Financial Framework)/CIC (Common Information Core) returns. These were then completed by all Health Authorities (the relevant lines of data from the 2002/2003 SaFF are contained in Annex B). The data collected under this DSCN would inform this process and would therefore play an important role in supporting the performance management of the health service.

6. The quality of the SaFF data has been low. In the first three quarters of 2001/2002 around 20% of Health Authorities submitted blank 'outturn' data, and there were several other instances where the data were incomplete or implausible. This provided strong evidence that many Health Authorities did not have adequate systems in place for monitoring smoking in pregnancy. Discussions with RO Smoking Leads have confirmed that this remains the case.

7. Although PCTs provide performance management information to Strategic Health Authorities, responsibility for monitoring smoking in pregnancy lies mainly with the maternity units of Hospital Trusts, since maternity data are routinely collected at Trust level. In 2001/2002 these data were aggregated at HA level to inform the SaFF return. In 2002/2003 data will be aggregated at PCT level to inform the SaFF return.

8. A pilot study carried out by West Midlands Regional Office in 1997/98 showed that the best way for Trusts to collect data on the smoking status of pregnant women at delivery is to include a compulsory 'screen' on the Patient Information System (PIS) computer in the maternity unit. The study found that data collected in this way were of better quality than data obtained from a manual collection. Their conclusion was that '*… the requirement to collect the data must become a mandatory national requirement, with a compulsory screen installed in all maternity unit patient administration systems.*'

Action:

9. All Hospital Trusts are to collect the following items of data for all pregnant women giving birth under their care. (This covers all women who give birth to one or more live or stillborn babies. Here, a stillbirth is defined as a non-live birth where the baby is of 24 or more weeks gestation). These collections are slightly wider than the SaFF

[1] The 2000 Infant Feeding Survey was published in May 2002, and is available at www.doh.gov.uk/public/infant.htm

collection requirements – for details of SaFF requirements, please see Annex B.

- Did the patient smoke cigarettes at all in the 12 months before the start of her pregnancy? *(Yes / No / Don't Know)*
- Is / was the patient a smoker at the time of booking? *(Yes / No / Don't Know)*
- Is / was the patient a smoker at the time of delivery? *(Yes / No / Don't Know)*

Notes (i) A smoker is defined as someone who smokes any cigarettes at all.
(ii) For this purpose the start of pregnancy is taken to be the date of start of the last menstrual period.

10. Where it is possible to record the data electronically in the maternity unit using a Patient Information System (PIS), this should be done. The data should be collected manually where this is not possible.

11. It is strongly recommended that the first two items are collected at the time of booking or the first hospital visit, and the third item should be collected around the time of delivery. This will enable smoking cessation advice to be given at the time of booking to those women who smoke to help them to give up smoking during their pregnancy. The collection of the data during the pregnancy is essential to support one of the key aims of this DSCN: the targeting of smoking cessation advice at pregnant women. If the collection of the data at these points is not possible, the data should be collected retrospectively. However, it should be recognised that the data will be of less local value if collected in this way.

12. Details of how these data could be analysed (for local and national purposes) are included in Annex A.

Argument:

13. Smoking in pregnancy is a major cause of health inequalities. The proportion of women smoking throughout pregnancy is four times higher among those in lower occupations than those in higher occupations[2]. The targeting of local initiatives at smoking in pregnancy is therefore likely to contribute to reducing health inequalities, a stated aim of the NHS Plan.

14. The data provided by this DSCN may be analysed at local level to inform local performance management and the targeting of initiatives and interventions on smoking in pregnancy. The analysis of smoking behaviour in pregnancy according to variables such as postcode and GP practice will support the work of the services within Strategic Health Authorities.

15. The availability of accurate and consistent data on the smoking status of pregnant women at booking will better enable the NHS to make interventions as required, and to monitor the effectiveness of these interventions. NHS Smoking Cessation Services (including services to help pregnant women to give up smoking) are now funded across the country and the availability of these data may result in more referrals of pregnant

[2] These socio-economic classifications follow the new ONS classification – the National Statistics Socio-Economic Classification (NS-SEC). See www.statistics.gov.uk/methods_quality/ns-sec/default.asp

women to these services.

16. Note that successful initiatives to reduce the proportion of pregnant women who smoke can reduce costs for local health services. *Smoking Kills* stated that '[helping pregnant women to give up smoking] *can also mean immediate cost savings for the NHS. This is because smoking in pregnancy leads to low birthweight babies who may need very costly intensive care treatment. Savings to the NHS can amount to between three and six times the cost of providing help to pregnant women to give up smoking'*. Successful initiatives will also contribute to meeting the target for reducing the proportion of women who smoke during pregnancy that was stated in *Smoking Kills.*

17. This change will make a major contribution to improving the quality of data on smoking in pregnancy at local level. This will enable local organisations to provide accurate performance management and planning information.

Clearance:

18. This DSCN has been circulated for comment as follows, and has been revised following receipt of comments: RO Smoking Leads, RO Midwifery Leads, Smoking Policy, PD-PA, Lesz Lancucki (Women's Health Statistics SD3G), Allen Davis (Finance and Information Directorate, WMRO), National Health Service Information Agency, Teenage Pregnancy Unit, Sure Start

Conclusion and Recommendations:

19. A reliable system for monitoring smoking in pregnancy is needed to enable targeting of interventions by the NHS on smoking in pregnancy and to monitor progress locally. It will also support national planning and performance management information. Interventions which lead to a pregnant woman successfully giving up smoking will deliver significant health gains to both mother and child, and will play a role in reducing health inequality. It is recommended the change is implemented as soon as possible to enable local organisations to use reliable management information and to satisfy the requirements given in the SaFF.

Please address enquiries about this DSCN to:-

Patsy Bailey
Statistics Division (Smoking, Drinking and Drugs)
437B Department of Health
80 London Road
Elephant and Castle
SE1 6LH

Telephone Number: 020 7972 5551

Annex A – Using the data for local and national purposes

Introduction

A1. The data to be collected for all pregnant women under this DSCN are as follows:

1. Did the patient smoke at all in the 12 months before the start of her pregnancy? *(Yes / No / Don't Know)*
2. Does / did the patient smoke at the time of booking? *(Yes / No / Don't Know)*
3. Does / did the patient smoke at the time of delivery? *(Yes / No / Don't Know)*

For this purpose the start of pregnancy is taken to be the date of the start of the last menstrual period. A smoker is defined as someone who smokes any cigarettes at all.

Developing local services

A2. There is considerable scope for using information at a local level to inform the provision of smoking cessation advice and development of smoking cessation services for pregnant women. Analysing the data according to factors such as a woman's GP or Hospital Trust will identify those sections of the local health service who are the most successful at intervening to help pregnant women give up smoking. It will then be possible to learn how this success is being achieved, and when these successful approaches are identified they can be applied elsewhere in the local health service.

A3. This approach may also be used to identify those sections of the population where the need is greatest. Analysing the indicators by not only GP, Trust, etc., but by factors such as the woman's date of birth or postcode would help to pinpoint areas where resources and interventions are needed. This would inform the targeting of local initiatives and link into to other community focussed initiatives eg Sure Start, and would also aid the work of the staff of local smoking cessation services.

Analysis for local performance management

A4. Based on the data collected under this DSCN (collated for women who delivered their babies in the care of the relevant organisation in a given period), it will be possible to obtain the following information:

Smoking status before pregnancy and at time of booking

A. Number of women known to have been smokers before or during pregnancy (*i.e. number of women for whom 'Yes' was recorded for data items 1 or 2*).

B. Number of women known not to have been smokers before or during pregnancy (*i.e. number of women for whom 'No' was recorded for data items 1 and 2*)

C. Number of women whose smoking status before or during pregnancy is unknown (*i.e. number of women not included at A or B*)

Smoking status at delivery

D. Number of women known to be smokers at the time of delivery (*i.e. number of women for whom 'Yes' was recorded for data item 3*)

E. Number of women known not to be smokers at the time of delivery (*i.e. number of women for whom 'No' was recorded for data item 3*)

F. Number of women smoking status at the time of delivery is unknown (*i.e. number of women for whom 'Unknown' was recorded for data item 3*)

Annex A – Using the data for local and national purposes

A5. Note that this summary of the data will provide two sets of information on the smoking status of pregnant women. Firstly information on smoking before or during pregnancy; secondly, information on smoking status at delivery. Therefore, they may be some women whose smoking status before or during pregnancy is known, but not smoking status at delivery (and visa versa). The total number of maternities (M) in the care of the organisation during the given period, is given by A + B + C = D + E + F.

Possible indicators

A6. This summary information can be used as a basis for local analysis. For example, it is possible to compare the data on smoking in pregnancy from the local area with the measure used in the *Smoking Kills* target on smoking in pregnancy, as follows:

- Number of women smokers before or during pregnancy = A
- Number of women smoking at delivery = D
- Number of women whose smoking status at delivery is not known = F

A7. The following indicators can then be calculated:

- Proportion of women smoking before or during pregnancy = A / M
- Proportion of women continuing to smoke during pregnancy = D / M

A8. The first indicator is the "proportion of women smoking before or during pregnancy". The proportion of pregnant women smoking before or during pregnancy is an important piece of planning information, indicating the likely level to which smoking cessation services will need to be provided for pregnant women.

A9. The second indicator, "proportion of women continuing to smoke during pregnancy", reflects the definition used in the target stated in *Smoking Kills*. This target is: *'To reduce the percentage of women who smoke during pregnancy from 23% to 15% by the year 2010; with a fall to 18% by the year 2005'*. Calculating the second indicator for each local area and trends over time will show the contribution that the organisation is making toward the national target (i.e. reducing the proportion of women continuing to smoke throughout pregnancy).

Women with smoking status "not known"

A10. It is possible that some women may have smoking status at the time of booking or delivery 'unknown'. If a high proportion of women have smoking status 'unknown' (at any stage) then it will not be possible to carry out effective interventions; action would be needed to improve local monitoring systems. The proportion of women whose smoking status is 'unknown' (and the likely reasons why the data are unavailable) should be considered carefully when analysis is being carried out.

A11. As discussed, if this proportion is high, particular care will have to be taken in the analysis.

A12. The proportion of women whose smoking status is unknown can be measured by the following indicators:

- Proportion of pregnant women whose smoking status before or during pregnancy is unknown = C / M
- Proportion of pregnant women whose smoking status at the time of delivery is unknown = F / M

A13. When analysing information about smoking and pregnancy (eg the indicators described in paragraph A7 above), information on those with smoking status not known (as described in paragraph A12) should be taken into account. For example, the proportion of women continuing to smoke during pregnancy (D/M) could be low because there are a high proportion of women whose smoking status at delivery is not known. This would be indicated by a high value for the indicator F/M.

Annex B – Service and Financial Framework (SaFF) lines for 2002/03 related to smoking in pregnancy

Data required

The data to be collected for all pregnant women under this DSCN are as follows:

1. Did the patient smoke at all in the 12 months before the start of her pregnancy? *(Yes / No / Don't Know)*
2. Does / did the patient smoke at the time of booking? *(Yes / No / Don't Know)*
3. Does / did the patient smoke at the time of delivery? *(Yes / No / Don't Know)*

Which women to include

For the purpose of completing the SaFF return, women that meet the following criterion should be included:

- Gave birth within the area of the relevant PCT (ie on a provider basis)
- Gave birth during the relevant financial year (1 April to 31 March)

Geographic coverage

For the SaFF, women should be included in the data for the PCT in which they gave birth.

This data can be used to derive the data for the 2002/2003 SaFF lines on smoking in pregnancy, as detailed below:

SaFF Lines

Line 4251: Number of women known to have been smokers before or during pregnancy

Number of women for whom 'Yes' was recorded for data items 1 *or* 2. This is equivalent to A, as defined on page 5 paragraph A4 of this notice.

Line 4252: Number of women known not to have been smokers before or during pregnancy

Number of women for whom 'No' was recorded for data items 1 *and* 2. This is equivalent to B.

Line 4253: Number of women whose smoking status before or during pregnancy is unknown

Number of women for whom 'Unknown' was recorded for data items 1 *or* 2. This is equivalent to C.

Line 4254: Number of women known to be smokers at the time of delivery

Number of women for whom 'Yes' was recorded for data item 3. This is equivalent to D.

Line 4255: "Number of women known not to be smokers at the time of delivery

Number of women for whom 'No' was recorded for data item 3. This is equivalent to E.

Line 4256: Number of women whose smoking status at the time of delivery is unknown

Number of women for whom 'Unknown' was recorded for data item 3. This is equivalent to F.

Further SaFF smoking lines for under 20's

There are a further six lines in the 2002/2003 SaFF collecting information on prevalence of smoking in teenage pregnancies. Lines 4257 to 4262 are defined in the same way as lines 4251 to 4256, but are collected only for women aged under 20 years old. Eg Line 4257 - Number of women under 20 years old known to have been smokers before or during pregnancy

This information is collected in the same way as lines 4251 to 4256, filtered for women who are under the age of 20 at the time of delivery. This means that if a woman was 19 at the time of booking, but 20 at the time of delivery she would be included in lines 4251 to 4256, but not in lines 4257 to 4262.

(Note that the above process assumes that if a woman has not smoked at all in the 12 months before the start of her pregnancy, or between the start of her pregnancy and the time of booking, she will not take up smoking between booking and delivery. While it is possible that some women may do this, the number of women involved is likely to be extremely small, and therefore the above process does not admit this possibility).

Target

There is a national target included in the Tobacco White Paper 'Smoking Kills' to reduce the proportion of women who smoke throughout pregnancy. This proportion is equivalent to D divided by the total number of women (M).

Annex C - Data required to facilitate local analysis and calculation of SaFF data

Data required

The data to be collected for all pregnant women under this DSCN are as follows:

1. Did the patient smoke at all in the 12 months before the start of her pregnancy? *(Yes / No / Don't Know)*
2. Does / did the patient smoke at the time of booking? *(Yes / No / Don't Know)*
3. Does / did the patient smoke at the time of delivery? *(Yes / No / Don't Know)*

Obtaining the total number of responses to each of data items 1-3 will not provide sufficient information to enable calculation of all of the SaFF lines.

The data required can be requested from IT departments in a number of ways – a table showing each possible combination of responses to the above data items, and the number of women giving these responses can be requested (see Annex D), or a number of derived variables (as follows) can be requested:

Data to request 2002/2003

1. The number of women who answered 'Yes' for either data item 1 *or* 2 (each woman is only to be counted once, regardless of how many data items recorded 'Yes').

This will enable calculation of SaFF line 4251. This is equivalent to A.

2. The number of women who answered 'No' to data items 1 *and* 2

This will enable calculation of SaFF line 4252. This is equivalent to B.

3. The number of women who answered 'Don't Know' for each of data items 1 *or* 2 (each woman is only to be counted once, regardless of how many data items recorded 'Don't Know').

This will enable calculation of SaFF line 4253. This is equivalent to C.

4. Numbers for data item 3, broken down by response (ie numbers responding Yes, No, Don't Know)

This will enable calculation of SaFF lines 4254-4256. These responses are equivalent to items D (number of 'Yes' responses), E (number of 'No' responses) and F (number of 'Don't Know' responses).

Annex D – Possible responses to questions All possible combinations of responses to the questions are shown below. If the number of women who gave each possible combination of responses is known, then this will enable calculation of the SaFF lines and derived variables, as shown.

Classifications of responses to the questions			2002/2003						Derived variables: combinations of responses used to calculate measures A-F					
Question 1	Question 2	Question 3	Count towards SaFF lines:											
Y	Y	Y	4251			4254			A			D		
Y	Y	N	4251				4255		A				E	
Y	N	Y	4251			4254			A			D		
N	Y	Y	4251			4254			A			D		
Y	N	N	4251				4255		A				E	
N	Y	N	4251				4255		A				E	
N	N	Y	4251			4254				B		D		
N	N	N		4252			4255			B			E	
D	Y	Y	4251			4254			A			D		
D	Y	N	4251				4255		A				E	
D	N	Y	4251			4254					C	D		
D	N	N			4253		4255				C		E	
Y	D	Y	4251			4254			A			D		
Y	D	N	4251				4255		A				E	
N	D	Y	4251			4254					C	D		
N	D	N			4253		4255				C		E	
Y	Y	D	4251					4256	A					F
Y	N	D	4251					4256	A					F
N	Y	D	4251					4256	A					F
N	N	D						4256		B				F
D	D	Y	4251			4254					C	D		
D	D	N			4253		4255				C		E	
D	Y	D	4251					4256	A					F
D	N	D			4253			4256			C			F
Y	D	D	4251					4256	A					F
N	D	D			4253			4256			C			F
D	D	D			4253			4256			C			F