



Smoking and Pregnancy: April '04 – March '05

Ali Reid, Senior Public Health Development Advisor, Smoking and Pregnancy
 Manchester Stop Smoking Service
 Manchester Public Health Development Service
 0161 861 2916

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Introduction

The report is based on monitoring forms, relating to the report period April '04 – March '05, returned to the Manchester Stop Smoking Service by Specialist Stop Smoking Advisors and Stop Smoking Service trained intermediate advisors.

Background

The report of the Scientific Committee on Tobacco and Health (SCOTH) concluded that 'smoking in pregnancy causes adverse outcomes, notably an increased risk of miscarriage, reduced birth weight and perinatal death.'¹ The Government set a target for England in the White Paper 'Smoking Kills' (1998) to reduce the proportion of women who continue to smoke during pregnancy from 23% in 1995 to 15% by the year 2010, with a fall to 18% by 2005. The baseline figure of 23% was taken from the 1995 Infant Feeding Survey.²

The latest Government figure for England, 2000, shows that 19% of mothers smoked throughout pregnancy.³

In Manchester the proportion of pregnant women smoking is much higher:
'04 – '05:

North Manchester General Hospital (NMGH): smoking at booking 26%

St Mary's: smoking at booking 22%

South Manchester University Hospitals Trust (SMUHT): smoking at delivery (Quarter 4) 34%

In November 2002 a full time equivalent project worker was employed by Manchester Stop Smoking Service to develop services for pregnant women across North, South and Central PCT areas. There was a history of pregnant women who smoked being referred into the Manchester Stop Smoking Specialist Service; the rate of failure to take up appointments was extremely high. Accessing appointments gave rise to transport and childcare difficulties.

Work has focused on the provision of training at intermediate support and brief advice levels across North, South and Central Manchester NHS Primary Care Trusts (NPCT, CPCT, SPCT) and three acute trusts; Pennine Acute Trust, Central Manchester & Manchester Children's University Hospitals Trust and South Manchester University Hospital Trust, providing maternity services at the three hospitals, North Manchester General Hospital (NMGH), St Mary's Hospital and Wythenshawe Hospital (SMUHT). Support has been given to health professionals and others working with pregnant women, and to organisations working with pregnant women. Resources have been produced and disseminated; Manchester Stop Smoking Service pregnancy and smoking leaflets, pregnancy and smoking packs, Nicotine Replacement Therapy protocol for smoking and pregnancy, smoking and pregnancy posters, credit card sized referral cards for St Mary's health education team and midwives' local drop-in clinics, Manchester's Smoke Free Homes Scheme registration forms, posters and packs, and various relevant NHS resources. A best practice flowchart for working with women who smoke in pregnancy has also been developed and distributed across the city (available from the Service, or at www.stopsmokingmanchester.co.uk). Co-ordination of the Manchester smoking and pregnancy network has continued to meet quarterly; the group, consisting of

midwifery managers, midwives, health visitors, Sure Start staff and other interested parties, is well attended and is used to spread good practice, discuss development and inform the work of both practitioners and the Stop Smoking Service.

In spring 2005 it was decided that three audits relating to smoking and pregnancy should be undertaken. The first would examine all Stop Smoking Service monitoring returns for pregnant women. The second would examine all Smoke Free Homes Scheme Registrations. The Smoke Free Homes Scheme encourages Manchester residents to register their home as Smoke Free; all resident smokers and visitors who wish to smoke then step outside to have a cigarette. The scheme is used to raise awareness of the negative health impact of breathing second hand smoke and is targeted particularly at pregnant women and families. The third audit would look at relevant work being undertaken through Manchester Sure Starts. All three would relate to the same time period; April '04 – March '05. It was hoped that understanding of current practice would be increased, best practice could be shared and the recommendations of the three reports, combined with any new government guidance and the outcome of a pilot evening home visiting scheme for SPCT to take place in Autumn 2005, would inform future service provision and development in Manchester.

This is the report based on all monitoring forms for pregnant women received by the Stop Smoking Service April '04 – March '05. Monitoring forms are returned to the service by all intermediate trained and specialist stop smoking advisors. A £7 incentive payment is made by the Stop Smoking Service to the relevant departmental budget, for every monitoring form returned by an intermediate advisor, irrespective of whether the client has quit or not.

Context: Numbers of pregnant women setting a quit date & quitting through the Manchester Stop Smoking Service '01 – '05

The Stop Smoking Service collects monitoring forms from all specialist and intermediate advisors which record information from clients setting a 'quit date' i.e. the day on which they are going to stop smoking. Data from these forms is returned to the Department of Health. The monitoring forms record whether the client is pregnant.

i) Pregnant women setting a quit date by PCT '01 - '05

The number of pregnant women setting quit dates has risen year on year.

	'01-'02	'02-'03	'03-'04	'04-'05
North PCT			71	148
Central PCT			55	58
South PCT			44	68
City-wide	44	85	170	274

All clients who set a quit date are contacted four weeks later to see whether they have quit. Specialist advisors verify this with a carbon monoxide monitor reading.

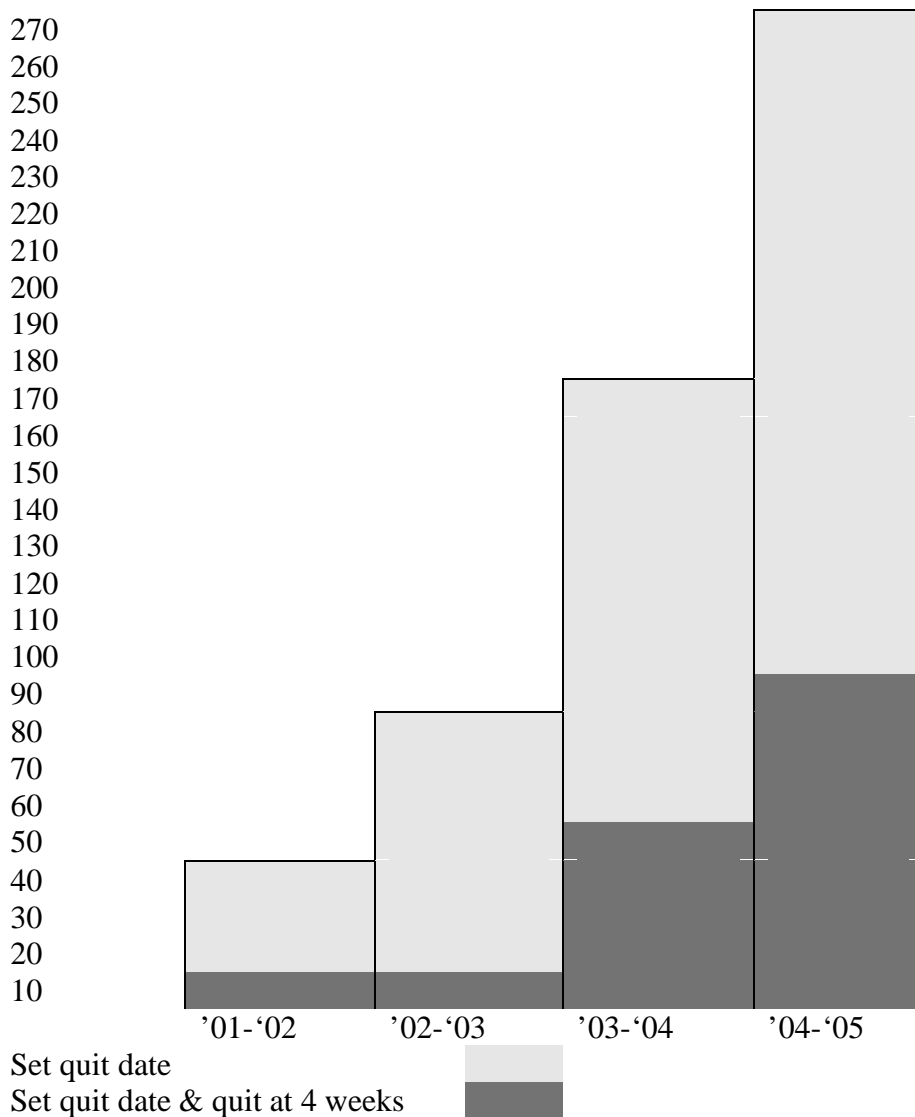
ii) Percentage of pregnant women setting a quit date and quit at 4 weeks by PCT '01 – '05

The % of pregnant women quit at 4 weeks also continues to rise.

	'01-'02	'02-'03	'03-'04	'04-'05
North PCT			39%	41%
Central PCT			31%	31%
South PCT			23%	23%
City-wide	18%	15%	32%	34%

The figures show that the Service is becoming more successful, both in terms of encouraging pregnant women to set quit dates and in supporting them to quit, particularly in the North of the city.

iii) Pregnant women setting a quit date & quit at 4 weeks '01 – '05



Analysis of monitoring returns '04 – '05:

iv) Pregnant women setting a quit date and quitting by hospital

	SMUHT	St Mary's	NMGH	Total - hospitals	M/C residents
Live births 2003					5956
Hospital births 2004	2678	4412	2178	9268	
<i>Non smokers</i>	1768	3441	1612	6821	4407
<i>Smokers 2004-2005⁸</i>	910	971	566	2447	1549
Set quit date via service '04-'05:					
No.	68	58	148	274	232
% of smokers	7%	6%	26%	11%	15%
Quit via service '04-'05:					
No	16	18	60	94	85
% of smokers	2%	2%	11%	4%	5%

The total number of hospital births is higher than the total for Manchester residents as many women from outside the city give birth in the three hospitals.

Of the live births to Manchester women in 2003, 1549⁹ would have been to women who smoked during pregnancy. This is the number of women needing to be encouraged to use the Stop Smoking Service, through provision of easy to access services, skilled brief and intermediate intervention, and the development and dissemination of appropriate resources. In 2004 – 2005, 232 (15%) of Manchester residents who smoked during pregnancy set a quit date through the service. 34% of these women were successful in quitting (i.e. 5% of the pregnant smokers overall). Once women are engaged with the Service, they have a good chance of making a successful quit attempt and improving their own health and that of their baby and any other children in the family.

NMGH shows high levels of activity and of quitting, and this is reflected in figures returned by midwives from appointments at discharge:

v) Pregnant women smoking in North Manchester by ward '03 – '05

All women at discharge

Area	Smoking rate '03 – '04	Smoking rate '04 – '05	12 month change
Harpurhey & Collyhurst	41% (of 283)	36% (of 327)	-5%
Miles Platting & Ancoats	30% (of 136)	24% (of 246 151 N M/c)	-7%
Newton Heath	43% (of 204, 151 N M/c)	31% (of 172)	-12%
Moston	16% (of 143)	14.5% (of 165)	-1.5%

Crumpsall	Not available (of 356)	Not available (of 436)	-
Cheetham	16% (of 348)	9% (of 329)	-7%
Beswick	31% (of 223)	25% (of 243)	-6%
Openshaw	32%	28%	-4%
Clayton	44% (of 270)	33% (of 302 107 N M/c)	-11%
Blackley	Not available (of 450)	26% (of 346)	-

The figures show a dramatic drop in smoking rates at discharge returned by midwives. This may reflect the combination of the high priority given to smoking and pregnancy in North Manchester over the last three years, the high level of partnership working between the Acute Trust and North Manchester Sure Starts, and the larger number of people now quitting, either spontaneously or with the support of the Manchester Stop Smoking Service. NMGH has a Senior Midwife, Public Health, in post, part of whose role has been to coordinate and mainstream the midwifery activities of the North Manchester Sure Starts. There is no equivalent post at St Mary's or SMUHT. Pennine Acute Trust, of which NMGH is a part, also employs a Consultant Midwife, Public Health, perhaps reflecting a comparatively high priority given to the public health agenda within the Trust, and giving capacity for driving it forward at a senior level. The idea that there is not time to undertake smoking cessation work seems not to be expressed by community midwives at NMGH.

vi) Pregnant women smoking in Central Manchester '03 – '05

All women at booking

Information by ward is not retrievable from St. Mary's.

Area	Smoking rate '03 – '04	Smoking rate '04 – '05	12 month change
St Mary's	24% (of 4468)	22% (of 4715)	-2%

For the period April '04 – March '05 the drop in smoking between booking and delivery at St Mary's was 4%. Specialist Stop Smoking support is currently available at St Mary's from the Health Education Team midwives, available in daytime hours by phone or bleep. The team has a high level of experience and expertise. Posts within the team are filled on a secondment basis and funding is due to end in March 2006. It is important that new funding is identified and that the team continues to provide this service. Staff shortage has sometimes meant Health Education Team Staff working on the antenatal clinic instead of on their specialism. There has been comparatively little intermediate training of community midwives at St Mary's, and very little monitored activity by those who have been trained, although training may have led to more appropriate referrals to the Health Education Team.

vii) Pregnant women smoking in South Manchester by postcode '03 – '05

Manchester residents only, at delivery

Information is not available from SMUHT for '03 – '04 or for the first three quarters of '05. Postcode information for smoking status at delivery for quarter 4 of '04 – '05 is available:

Postcode	Smoking rate '03 - '04	Smoking rate '04 – '05 (quarter 4)	12 month change
M12	Not available	0% (of 2)	-
M14	Not available	17% (of 6)	-
M15	Not available	100% (of 1)	-
M16	Not available	0% (of 13)	-
M18	Not available	100% (of 1)	-
M19	Not available	18% (of 11)	-
M20	Not available	18% (of 38)	-
M21	Not available	7% (of 27)	-
M22	Not available	37% (of 163)	-
M23	Not available	30% (of 81)	-
M40	Not available	0% (of 1)	-

There is a clear need to target skills and resources in the M22 and M23 areas. Much has been achieved through close ties between the Stop Smoking Service and the Wythenshawe Sure Start projects; many staff are trained intermediates; regular smoking cessation meetings are held; stop smoking and Smoke Free homes information has high prominence in projects and at events; the midwives have been key in the creation of innovative ways of working, particularly in their regular presence in a local supermarket offering stop smoking advice and making contact with women early in pregnancy.

Work with the community and antenatal midwives at SMUHT was delayed by difficulties in staff attending training. Most midwives are now intermediate trained, including all team members covering M22 and M23 and the teenage pregnancy midwife, and it is to be hoped that there will be a consequent rise in activity and successful quit attempts in the coming year.

Data gathering

The Acute Trusts are now required by the NHS information authority to collect mandatory specified information on smoking from pregnant women in their care.

Data to be collected is 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*)

The three Manchester Acute Trusts are now collecting this information, which should enable us to identify local need and change and to manage services better.

The additional collection of data by ward or postcode, or the ability to analyse it in this way, across the whole city, would clearly be extremely useful. This could be done, as at NMGH, by an additional return from the midwives, or, possibly more accurately, as at SMUHT, via access to computerised information.

Ward level data

viii) Pregnant women setting a quit date & not quit/quit/unknown (lost to follow up) by ward '04 – '05

Ward	Not Quit	Quit	Unknown*	Grand Total	% Quit
Ancoats and Clayton	6	3	7	16	19
Ardwick	1	1	3	5	20
Baguley	2	2	2	6	33
Bradford	6	4	1	11	36
Brooklands	2	1	3	6	17
Burnage	4		3	7	0
Charlestown	2	3	2	7	43
Cheetham	2	6	4	12	50
Chorlton	1		3	4	0
Chorlton Park	1	1	4	6	17
Crumpsall	2	4	1	7	57
Didsbury East	1	1	2	4	25
Fallowfield		1	1	2	50
Gorton North		5	4	9	56
Gorton South	2	2		4	50
Harpurhey	7	18	6	31	58
Higher Blackley	4	3	4	11	27
Hulme	3	1	2	6	17
Levenshulme			2	2	0
Longsight	2	1		3	33
Miles Platting and Newton Heath	2	3	3	8	38
Moss Side	2			2	0
Moston	3	10	1	14	72
Northenden	8	3	4	15	20
Old Moat		2	3	5	40
Rusholme	2	3	2	7	43
Sharston	4	3	2	9	33
Whalley Range		1	1	2	50
Withington	2	1		3	33
Woodhouse Park	3	2	3	8	25
North PCT wards	34	54	29	117	46
Central PCT wards	14	16	22	52	27
South PCT wards	26	15	22	63	24
#N/A (not Manchester City)	16	9	17	42	21
Grand Total	90	94	90	274	34

*All 'unknowns' are returned to the Department of Health as 'not quit'

Citywide; 34% of pregnant women setting quit dates are quit at four weeks; 33% of pregnant women setting quit dates are not quit at four weeks; 33% of pregnant women setting quit dates are 'unknown' at four weeks, and therefore counted as 'not quit'. For comparison, the overall service quit rate for the same period was 39%.

There is a wide variation in both the overall level of activity (total number of quit dates set) and the outcome (% quit).

North PCT shows both a much higher level of activity than Central or South PCTs and a much higher quit rate. There are a large number of intermediate trained and highly motivated and innovative community midwives in the area.

There are Sure Starts with smoking and pregnancy targets in seven areas of NPCT. The level of activity in NPCT is also higher for all quit attempts, not only those of pregnant women. This may reflect overall higher levels of smoking, higher awareness of a longer established Stop Smoking Service or the 'snowball' effect of health professionals undertaking more of the work, seeing the success, becoming more confident and then more effective. Local people also see their friends and family quit successfully with support and decide to make quit attempts themselves. Certainly this effect is often reported anecdotally in NPCT.

Successful initiatives have included the production of credit card sized cards directing women to local midwives' drop in clinics early in pregnancy. The cards have the wording 'Pregnant? Advice about: Stopping smoking...Any other pregnancy worries' and details of local clinics. The cards have been distributed via family planning clinics when women have had a welcome pregnancy confirmed and pharmacies when women have bought a pregnancy test. Peer breastfeeding supporters have also been trained as Community Stop Smoking Supporters by the Stop Smoking Service in East Manchester Sure Start and have proved effective, first in signposting to the midwives, then running information stands at community events, and progressing to running a regular, drop-in stop smoking group at the Wells Centre. One of these Community Advisors now has a job with the Service.

Some of the ward level activity differences will reflect local populations e.g. lower levels of women smoking in pregnancy, difficulty in disclosing smoking status. Other areas may be showing low activity through other factors e.g. lower levels of trained staff, lower levels of staff motivation, poor working relationships inside and between organisations, lower levels of awareness of local women of the importance of stopping smoking in pregnancy. Despite the delivery of intermediate training and ongoing support to three Central Manchester Sure Starts; Hyde Road, Longsight, and Moss Side, Rusholme and Fallowfield (MRF), very little Sure Start based smoking cessation activity has occurred to address either cigarette smoking or the use of paan in pregnant women or their families. The Service has continued to work with the three Sure Starts to try to stimulate this activity. Meanwhile all three have encouraged many Smoke Free Homes Registrations.

Harpurhey and Moston show an outstandingly high level of activity (45 women setting a quit date) and of quit rate (62%). Analysis shows that in these areas a high number of midwifery and Sure Start staff have been trained at intermediate level, that women are asked about smoking at every contact, told how important it is to quit, and offered support to quit. Stopping smoking is a standard item on local health group agendas. Against a background of high levels of staff awareness, and very high smoking rates, most of the support is being undertaken by community midwives, a Sure Start family link worker and a health care assistant.

One of the community midwives in the area helped 10 women to set a quit date with a 100% quit rate. The midwife reported that this was *not* a particularly time consuming activity. She described her approach as 'I have to give you this information whether you want to hear it or not'. The midwife 'gets husbands and partners on board where [she] can', and commented 'As a midwife maybe

they think we know a bit more; the women have great faith in us.’ This is borne out by research showing 79% of pregnant women who smoked in pregnancy remembering advice given by midwives about smoking – more than remembered advice from any other source.⁸

ix) Pregnant women setting a quit date & not quit/quit/unknown by locality

Locality	Not Quit	Quit	Unknown	Grand Total	% Quit
SPCT area*	26	15	22	63	24
Ancoats, Clayton, Miles Platting and Newton Heath	8	6	10	24	25
Bradford and City Centre	6	4	1	11	36
Charlestown and Higher Blackley	6	6	6	18	33
Cheetham and Crumpsall	4	10	5	19	53
Chorlton and Whalley Range	2	2	8	12	17
Gorton and Levenshulme	2	7	6	15	40
Harpurhey and Moston	10	28	7	45	62
Hulme and Moss Side	5	1	2	8	13
Longsight and Ardwick	3	2	3	8	25
Rusholme and Fallowfield	2	4	3	9	44
#N/A (Not Manchester City)	16	9	17	42	40
Grand Total	90	94	90	274	34

x) Pregnant women setting a quit date by PCT and occupation of advisor

North PCT

Occupation	Not Quit	Quit	Unknown	Grand Total
CSSA		1		1
Denny		1		1
Fam linkwker	1	5		6
Faye*	10	6	11	27
Hazel*	1		2	3
HC Asst		1		1
Health Visitor	2	4	2	8
HET	8	3	6	17
Other/not known			1	1
Pharmacist	2	5	5	12
Practice Nurse	10	6	13	29
M/W	20	34	2	56
	46	60	42	148

Central PCT

CSSA			1	1
Debbie*	2		2	4
Eve*	5	4	5	14
Faye*	1		1	2
GP	4			4
HC Asst		2	1	3
Health Visitor	3			3
HET**	4	2	3	9
Other/not known	1			1
Pharmacist	1	4	7	12
Practice Nurse	2	1	3	6
M/W	5	3	1	9
	28	16	24	68

South PCT				
Anne Marie*		2	2	4
Eve*	1		1	2
Faye*		1		1
HC Asst		2		2
Health Visitor		2	2	4
HET**	13	8	13	34
Other/not known		1	2	3
Pharmacist	1	1	1	3
Practice Nurse	1		1	2
M/W		1	2	3
	16	18	24	58

N + C + S Totals

Occupation	Not Quit	Quit	Unknown	Grand Total
Anne Marie*		2	2	4
CSSA		1	1	2
Debbie*	2		2	4
Denny*		1		1
Eve*	6	4	6	16
Fam linkwker	1	5		6
Faye*	11	7	12	30
GP	4			4
Hazel*	1		2	3
HC Asst		5	1	6
Health Visitor	5	6	4	15
HET**	25	13	22	60
Other/not known	1	1	3	5
Pharmacist	4	10	13	27
Practice Nurse	13	7	17	37
M/W	17	34	5	54
Grand Total	90	94	90	274

*All Stop Smoking Service Specialist Advisors

** St Mary's Health Education Team

The St Mary's health education Team is contributing to quit dates set and successful quit attempts by women across the city, reflecting the specialist nature and central location of the hospital.

xi) Percentage of pregnant women setting a quit date and quit at 4 weeks by occupation of advisor

Occupation	Number setting quit date	% Quit
Sure Start link worker	6	83
Health care assistant	6	83
Midwife (Sure Start + community)	54	59
Community stop smoking advisor	2	50
Health visitor	15	40
Pharmacist	27	37
Stop smoking specialist advisors	58	24
St Mary's health education team	60	22
Other/unknown	5	20

Practice nurse	37	19
GP	4	0
Total	274	34

The highest quit rates (over 50%) are being attained by women setting their dates with and supported by community and Sure Start midwives, Sure Start link workers and health care assistants; all these staff work with the woman on a range of issues during pregnancy and visit her in her own home. The easiest to access service is one which is already being accessed; if a woman is seeing her community midwife, Sure Start midwife, linkworker or health care assistant and this worker is trained and willing to offer high quality stop smoking support, then, it seems, the woman is more likely to make a quit attempt, and more likely to be successful.

Recommendations

Aim of future work

Increase the number of pregnant women setting quit dates and quitting successfully with the support of Manchester Stop Smoking Service trained intermediates and specialists. Make a significant contribution to a fall in the rate of women smoking in pregnancy in Manchester.

1. There is a need to spread the high levels of motivation and activity found in some areas of the city, through better sharing of best practice.
2. There is a need for an ongoing programme of full day intermediate stop smoking training for midwives at each acute trust and midwives should be enabled to attend it and supported to use it.
3. There is a need for mandatory brief intervention smoking and pregnancy training of at least half a day for all new staff at each acute trust, and annual update training.
4. There is an urgent need for an increase of smoking cessation activity for pregnant women in Wythenshawe. An increase in activity by the trained midwives in the area would likely be an effective, immediate contribution to this.
5. Consideration should be given to the creation of Senior Public Health Midwifery posts at St Mary's and SMUHT.
6. There is an urgent need to identify funding to support the continued smoking cessation work of the Health Education Team at St Mary's.
7. The working time of the Health Education Team at St Mary's should be protected. Staff should not be asked to cover other areas of work.
8. There is a need for closer and more productive working relationships between the three central Manchester Sure Starts and St Mary's.
9. Higher priority needs to be given to smoking cessation activity by the Sure Start projects which have not begun concerted work in this area.
10. Care needs to be taken that follow up is undertaken as effectively as possible, in order to reduce the 33% 'unknown'.
11. Consideration of the provision of a 'two tier' system of intermediate and specialist advisors for pregnancy in line with the generic Stop Smoking Service.

Notes

1. Poswillo D. Report of the Scientific Committee on Tobacco and Health, London Stationery Office, 1998
2. Office for National Statistics, Infant Feeding – UK – 1995, London Stationery Office, 1995
3. BMRB International, Infant Feeding Survey 2000, London Stationery Office, 2002
4. From total number of births, ONS Birth Extracts 1997-2001; Vital Statistics Table V52 2001 (Crown copyright June 2002)
5. Last available ward level data for general smoking rate. Nationally smoking rates have fallen 1996-2003 by 2%.
6. Italicised sections where boundary changes necessitate using closest ward / combining wards.
7. Lawrence T, 2003, Smoking & Pregnancy Training for Pip Mason Consultancy, University of Birmingham
8. As collected at booking NMGH 26% & St Mary's 22%, at delivery SMUHT(Q4) 34%
8. Figure is an approximation owing to collation of one year's live births with the following year's smoking statistics.