Paper 2b

NHS
Ayrshire
& Arran

NHS Ayrshire & Arran

Maternity Strategy

Fact file

2010 - 2015

Delivering excellence in maternity care in Ayrshire and Arran

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1. DEMOGRAPHY/ EPIDEMIOLOGY OF AYRSHIRE AND ARRAN

1.1. Geography of Ayrshire and Arran.

1.1.1. Ayrshire and Arran is located in the mid South West Scotland and is bordered by Inverclyde, East Renfrewshire, Lanarkshire and Dumfries and Galloway.

Chart 1 – map of NHS Ayrshire and Arran

1.1.2. NHS Ayrshire and Arran covers an area of 750,464 square hectares in the south west of Scotland, from Skelmorlie in the north to Ballantrae in the south and Muirkirk in the east. The area covers a mix of rural and urban development with an overall population density of 0.56 people per square hectare, slightly below the national average. Out of the total population of 367,510 people[1], around 80% live in community settlements of over 500 people.

[1] 2008 VPS survey

1.1.3. From 2001 census data[2] the key settlements within Ayrshire and Arran are

Ayr	46,431 people
Kilmarnock	43,588 people and
Irvine	33,090 people

1.1.4. Other settlements with a population of over 10,000 include; Kilwinning, Prestwick, Troon, Saltcoats, Largs and Ardrossan. Cumnock in East Ayrshire has a population of just over 9,000 people. There are also eight settlements with under 1,000 residents.

1.1.5. NHS Ayrshire and Arran boundaries are coterminous with those of the three local authorities, North, South and East Ayrshire Councils.

1.2. Demography of Ayrshire and Arran

1.2.1. Comparison between the census results of 2001 with that of 1991 indicated a reduction in the Ayrshire and Arran population of 1.03%, compared to an increase in the national average of 1.27%. The Voluntary Population Survey (VPS) in 2008 indicated a further fall of 0.2%.

1.2.2. The population in North Ayrshire has declined by under 0.7% between 1991 and 2008, while in South Ayrshire, the reduction was 0.9%. Over the same period however, the population of East Ayrshire has decreased by 2.1%.

1.2.3. Within settlements the changes are even more significant: Comparisons between 1991 and 2001 indicate changes ranging from a 20% reduction in population in Bellsbank and New Cumnock to a 26% increase in Coylton and a 58% increase in population in Loans[3].

1.3. Current Female population

1.3.1. Based on the 2008 VPS survey the age of female residents aged between 15-44, by local authority area are as follows:

[2] http://www.gro-scotland.gov.uk/files/setloc-ks01.xls

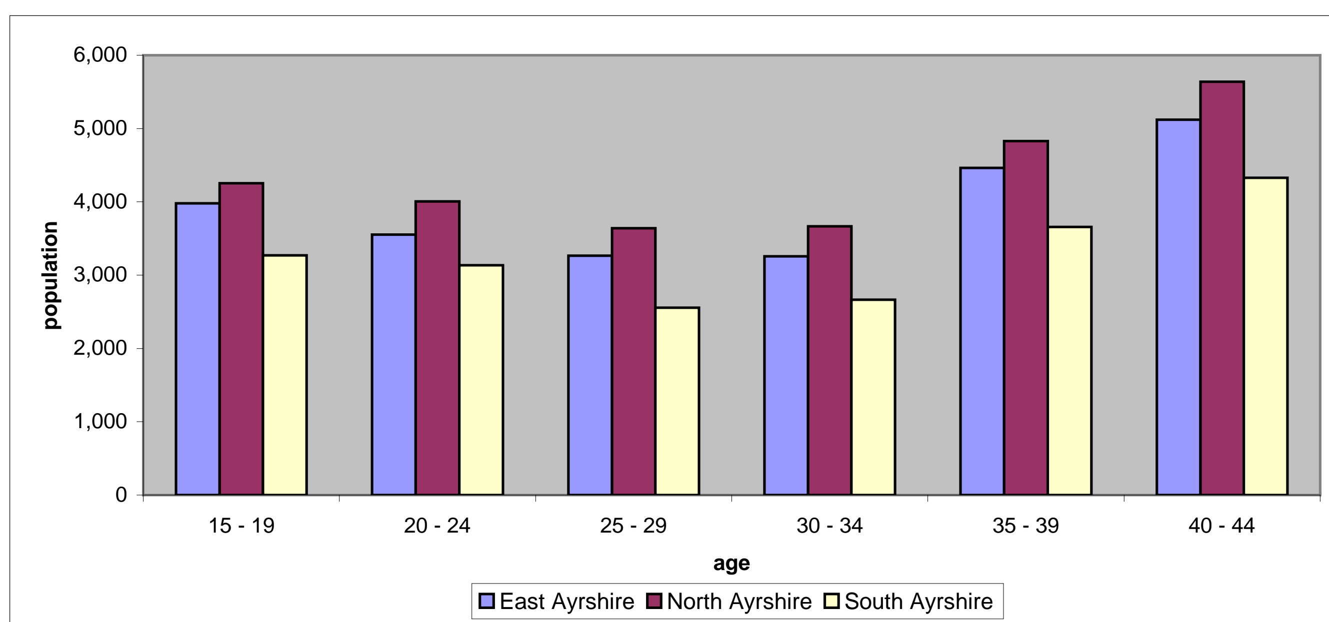
[3] http://www.scrol.gov.uk/scrol/analyser/analyser?topicId=1&tableId=&tableName=Usual+resident+population&selectedTopicId=&aggregated=false&subject=&tableNumber=&selectedLevelId=&postcode=&areaText=&RADIOLAYER=&actionName=view-results&clearAreas=&stateData1=&stateData2=&stateData3=&stateData4=&debug=&tempData1=&tempData2=&tempData3=&tempData4=&areaId=052&areaId=031&areaId=055&areaId=085&areaId=045&areaId=032&areaId=042&areaId=086&areaId=044&areaId=120&areaId=096&areaId=082&areaId=081&areaId=077&areaId=094&areaId=050&areaId=057&areaId=058&areaId=040&areaId=051&areaId=036&areaId=103&levelId=9

Table 1 - Estimated female population by age group and local authority; 30 June 2008[4]

Council areas	All Ages	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44
East Ayrshire	61,917	3,979	3,555	3,266	3,258	4,465	5,119
North Ayrshire	71,472	4,255	4,005	3,641	3,665	4,830	5,640
South Ayrshire	58,289	3,270	3,134	2,558	2,663	3,657	4,330
Ayrshire & Arran	191,678	11,504	10,694	9,465	9,586	12,952	15,089

1.3.2. Chart 2 shows that North Ayrshire has the highest number of young females in all age groups while South Ayrshire has the lowest.

Chart 2 - Young female population 2008 – by Local Authority Area



1.3.3. Projected changes in this group are as follows:

Table 2 - Change in female population in reproduction age group giving birth - Thousands[5]

Age 16-29

Local Authority	Year					
	2006	**2011**	**2016**	**2021**	**2026**	**2031**
East Ayrshire	9.453	9.896	9.217	8.195	7.678	7.648

[4]Source: GRO Scotland, June 2009. http://www.gro-scotland.gov.uk/files2/stats/population-estimates/mid-2008/08mype-cahb-t3.xls

[5] Source: GRO Scotland, June 2006 First published 22 January 2008 Revised 9 October 2008. http://www.gro-scotland.gov.uk/files1/stats/06pop-proj-scottishareas-table2.xls

North Ayrshire	10.814	10.945	10.264	9.27	8.82	8.843
South Ayrshire	8.151	8.623	8.436	7.66	7.131	7.029
Ayrshire & Arran	28.418	29.464	27.917	25.125	23.629	23.520

Change from 2006

Local Authority	Year					
	2006	2011	2016	2021	2026	2031
East Ayrshire	0%	5%	-2%	-13%	-19%	-19%
North Ayrshire	0%	1%	-5%	-14%	-18%	-18%
South Ayrshire	0%	6%	3%	-6%	-13%	-14%
Ayrshire & Arran	0%	4%	-2%	-12%	-17%	-17%

Age 30-49

Local Authority	Year					
	2006	2011	2016	2021	2026	2031
East Ayrshire	18.011	16.561	15.107	14.018	13.687	13.307
North Ayrshire	20.22	18.565	16.903	15.758	15.481	15.042
South Ayrshire	15.76	14.193	12.804	12.294	12.465	12.461
Ayrshire & Arran	53.991	49.319	44.814	42.07	41.633	40.81

Change from 2006

Local Authority	Year					
	2006	2011	2016	2021	2026	2031
East Ayrshire	0%	-8%	-16%	-22%	-24%	-26%
North Ayrshire	0%	-8%	-16%	-22%	-23%	-26%
South Ayrshire	0%	-10%	-19%	-22%	-21%	-21%
Ayrshire & Arran	0%	-9%	-17%	-22%	-23%	-24%

1.3.4. The estimated fall in the population is the most significant reason for the estimated long term fall in birth-rate outlined in the birth-rate section of this document.

1.4. Minority Ethnic population

1.4.1 The 2001 Census[6] indicated that that the proportion of the population in ethnic minority groups in Scotland was 2% in comparison to 1.3% in 1991. For Ayrshire and Arran, the corresponding figures were 0.68% in 2001 in comparison to 0.49% in 1991. Nevertheless NHS Ayrshire and Arran has the fifth lowest non European population in Scotland, with East, South, and North Ayrshire Council areas having the 5-7th lowest rates among the 32 local authorities.

1.4.2 The largest ethnic groups in Ayrshire and Arran are fairly similar throughout Ayrshire and Arran: Chinese (0.18%) and Indian (0.16%). However there is some variation in East Ayrshire compared to the other council areas with, an Indian population of 0.07% compared to a Pakistani cultural population of 0.14%).

1.4.3 NHS Ayrshire and Arran provides documentation and translation in any language, and interpreters, when required.

1.5. Religious affiliation in Ayrshire and Arran

1.5.1. In the 2001 census 53% of the population described themselves as being allied to the Church of Scotland. This level is the third highest of any Health Board area in Scotland. The proportion of people allied to the Church of Scotland is another confirmation of the cultural homogeneity of the Ayrshire and Arran population. Just over 24% of the population described themselves as having no religion, the fifth lowest in Scotland.

1.6. Socioeconomics of Ayrshire and Arran

1.6.1. Work done on the Scottish Index of Multiple Deprivation (SIMD), indicates that there are significant differences in socio-economic status and deprivation levels throughout Ayrshire; with areas of significantly high poverty close to areas of very low poverty. It is recognised, furthermore, that most people who are dependent on income related benefits or who are otherwise socially excluded live outwith recognised areas of poverty.

1.6.2. From the 2009 SIMD data[7], there are 480 recognised data zones in Ayrshire and Arran (out of a Scottish total of 6505). Of these a total of 28 are in the 5% most deprived areas of Scotland and another 28 in the 10% most deprived areas. In contrast there are 3 areas in Ayrshire and Arran that are among the 5% least deprived in Scotland and another 18 in the 10% least deprived[8].

1.6.3. The following tables demonstrate the significant inequalities between the most deprived areas in Ayrshire and Arran and the least deprived.

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[6] http://www.gro-scotland.gov.uk/files1/stats/key_stats_chareas.pdf
[7] Scottish Index of Multiple Deprivation http://www.scotland.gov.uk/Resource/Doc/289599/0088642.pdf
[8] Scottish Index of Multiple Deprivation http://www.scotland.gov.uk/Resource/Doc/933/0090601.xls

Table 3 - Percentage Population by data zone (%)

Rate	Local Authority Area			Ayrshire and Arran total
	East Ayrshire	North Ayrshire	South Ayrshire	
5% most deprived	7%	6%	4%	6%
5-10% most deprived	6%	7%	3%	5%
10-5% most affluent	2%	1%	8%	4%
5% most affluent	1%	0%	1%	1%
Grand Total	100%	100%	100%	100%

1.6.4. The proportion of the Ayrshire and Arran population by socioeconomic quintiles (using SIMD 2009) shows the population breakdown as follows.

Table 4 - Ayrshire and Arran total (%)

	1- least deprived	2	3	4	5- most deprived	total population
Total population	14.6%	14.1%	17.1%	27.7%	26.5%	100%
Working age population	14.5%	14.4%	17.3%	27.6%	26.1%	100%

1.6.5. The employment status domain[9] gives an indication of the level of deprivation of people of working age and shows that a total of 29 zones are in the 5% most deprived areas of Scotland and another 26 in the 10% most deprived areas. In contrast there are 5 zones in Ayrshire and Arran that are among the 5% most affluent in Scotland and another 18 in the 10% most affluent.

[9] http://www.scotland.gov.uk/Topics/Statistics/SIMD/background4employment2009

Table 5 - People of economic deprivation by data zone

SIMD Employment Domain Rank	Local Authority Area			Ayrshire and Arran total
	East Ayrshire	North Ayrshire	South Ayrshire	
5% most deprived	10	13	6	29
5-10% most deprived	7	16	3	26
10-5% most affluent	4	5	9	18
5% most affluent	1	2	2	5
Grand Total	154	179	147	480

Table 6 - Percentage of working age population who are economically deprived within identified data zones

SIMD Employment Domain Rank	Local Authority Area			Ayrshire and Arran total
	East Ayrshire	North Ayrshire	South Ayrshire	
5% most deprived	32%	34%	32%	33%
5-10% most deprived	26%	74%	26%	41%
10-5% most affluent	3%	3%	3%	3%
5% most affluent	2%	3%	2%	2%
Grand Total	14%	15%	12%	14%

1.6.6. In total, 15% of the population of North Ayrshire, 14% of the population of East Ayrshire and 12% of the population of South Ayrshire are employment deprived, the highest levels being within the most deprived data zones in Ardrossan, Irvine, Kilmarnock, and Ayr. The areas with the lowest level of employment deprivation were in the most affluent data zones in Kilmarnock, Largs and Ayr.

1.6.7. 21% of East Ayrshire; 22% of North Ayrshire and 16% of South Ayrshire are defined as Income Deprived. The level of income deprivation range from 70% (Kilmarnock) and 66% (Ayr) – the most deprived, to 1% (Kilmarnock) and 2% (Ayr) - the least deprived.[10]

[10] http://www.scotland.gov.uk/Resource/Doc/933/0090944.xls

1.6.8. From 2001 census data[11] the number of single parents by local authority area was identified. Overall 7% of total households in Ayrshire and Arran were occupied by lone parents ranging from 6% in South Ayrshire to 9% in North Ayrshire. 49% of male single parents and 42% of female lone parents were in some employment, although for 7% of males and 25% of females, this was part time. In total, 19% of single parents in East Ayrshire, 20% in North Ayrshire and 25% in South Ayrshire were in full time employment.

1.6.9. The individual localities with the highest proportion of lone parent households in Ayrshire and Arran were; Bellsbank (East Ayrshire) 14%; Stevenston (North Ayrshire) 12%; Ardrossan (North Ayrshire) 12%; Logan (East Ayrshire) and Saltcoats (North Ayrshire) both 11%. The localities with the lowest proportions of lone parents were Lamlash (North Ayrshire) Fenwick (East Ayrshire) and Dunlop (East Ayrshire) all 3%.

Table 7 – Households with dependent children[12]

Council area	All House holds total	All lone parent households with dependent children	Percentage of all households	Percentage in part time employment	Percentage in full time employment
East Ayrshire	50,346	3,400	7%	24%	19%
North Ayrshire	58,726	5,045	9%	23%	20%
South Ayrshire	48,748	2,788	6%	26%	25%
Ayrshire & Arran	157,820	11,233	7%	24%	21%

1.7. Epidemiology of Ayrshire and Arran

1.7.1. The 2009 SIMD data also measures the level of deprivation based on health factors alone[13]. Of the 480 data zones in Ayrshire and Arran, the most deprived area in terms of health is 43rd (in Irvine). The least deprived is 6388th (Troon). In total, measuring health deprivation the ranking of data zones in Ayrshire and Arran are as follows:

[11] http://www.gro-scotland.gov.uk/files/setloc-ks01.xls
[12] ibid
[13] http://www.scotland.gov.uk/Resource/Doc/933/0088625.xls

Table 8 – SIMD data zones in most deprived / affluent - Number of data zones

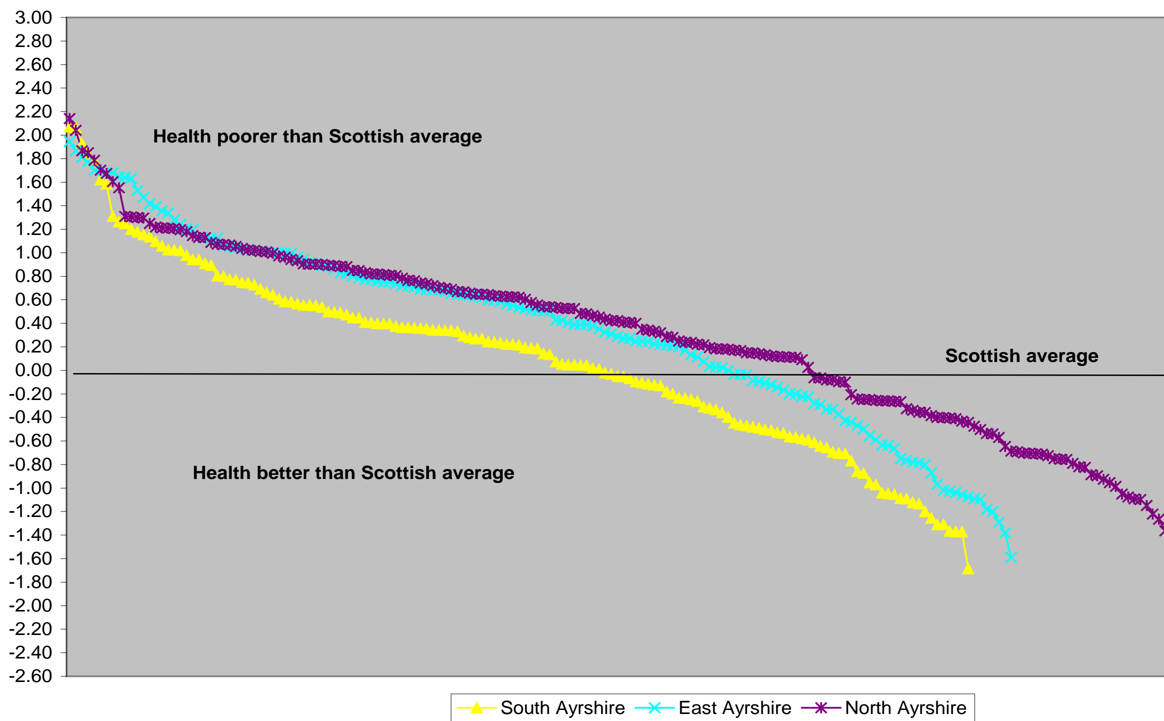
SIMD Health Domain Rank	Local Authority Area			Ayrshire and Arran total
	East Ayrshire	North Ayrshire	South Ayrshire	
5% most deprived	13	9	7	29
5-10% most deprived	12	14	7	33
10-5% most affluent	3	4	7	14
5% most affluent	2	0	3	5
Grand Total	154	179	147	480

Table 9 - Population by data zone (%)

SIMD Health Domain Rank	Local Authority Area			Ayrshire and Arran total
	East Ayrshire	North Ayrshire	South Ayrshire	
5% most deprived	8%	5%	5%	6%
5-10% most deprived	7%	7%	4%	6%
5-10% most affluent	2%	2%	4%	3%
5% most affluent	1%	0%	2%	1%
Grand Total	100%	100%	100%	100%

1.7.2. The range of health deprivation across the three Community Planning Partnerships can be seen in the following graph. This confirms that there is a significant range of health inequality across Ayrshire with a major weighting of poor health in both North and East Ayrshire. 50% of Scotland will be below 0 and 50% above 0 being higher deprivation.

Chart 3 – Health Domain Score by Local Authority



Source: SIMD 2009

1.7.3. A negative score indicates a lower level of deprivation. This shows that the majority of data zones have a higher deprivation than the national average (59% of the data zones in South Ayrshire; 69% of East Ayrshire and 66% in North Ayrshire) The highest level of deprivation is found in North Ayrshire, and South Ayrshire has a lower deprivation overall. However there are clear pockets of severe health deprivation in South Ayrshire and three of the six most health deprived data zones in Ayrshire are located in South Ayrshire (all in Ayr) .

Chart 4 – Health deprivation % of total data zones

Source: SIMD 2009

1.7.4. The 2001 census[14] asked for the first time a number of questions in relation to the health of people in Scotland including people with long standing illness, perception of own health and the number of carers.

1.7.5. The proportion of the working age population who reported having a limiting long-term illness was 16.6%, the third highest for a Health Board area in Scotland. Within Community Planning Partnerships the figures are as follows:

Table 8 – Limiting Long-term Illness - Census 2001

Local authority	% people of working age reporting a limiting long term illness	Position among 32 local authorities
East Ayrshire	17.2%	7th
North Ayrshire	17.3%	6th
South Ayrshire	15.3%	13th

[14] http://www.gro-scotland.gov.uk/files1/stats/key_stats_chareas.pdf

1.7.6. Seven of the 10 localities in Ayrshire and Arran that report the highest proportions of working age people with long standing ill health are in East Ayrshire, with the top three being Bellsbank (35%), Patna (28%) and Muirkirk (27.6%). The localities with the least reported long standing illness were Fenwick (11.4%), Troon (11.8%) and Coylton (11.9%)[15].

1.7.7. The proportion that reported that their general health was not good was 10.7% - again the third highest in Scotland. Within Community Planning Partnerships the figures are as follows

Table 9 – Health Not Good census 2001

Local authority	% reporting that health not good	Position among 32 local authorities
East Ayrshire	10.8%	10th
North Ayrshire	10.9%	7th
South Ayrshire	9.8%	12th

[15] http://www.gro-scotland.gov.uk/files/setloc-ks08.xls

2. MATERNITY RELATED ISSUES.

2.1. Birth Rate

2.1.1. The number of births in Ayrshire and Arran has shown an initial fall since 1998, however started to increase again in 2004. This is a consistent trend across the three Community Health Partnerships.

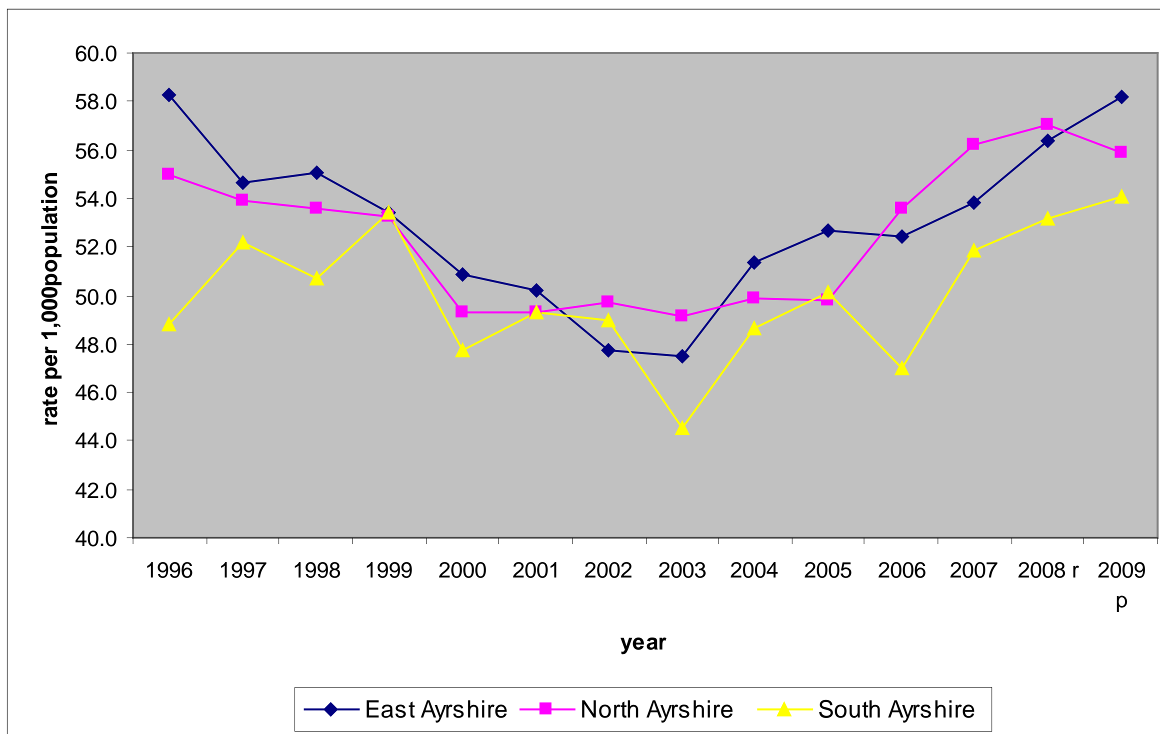
Table 10 – All births by local authority area over time (per 1,000 female population)[16]

Year	East Ayrshire	North Ayrshire	South Ayrshire	Total
1996	58.3	55.0	48.8	54.4
1997	54.7	53.9	52.2	53.7
1998	55.1	53.6	50.7	53.2
1999	53.4	53.2	53.4	53.3
2000	50.8	49.3	47.7	49.3
2001	50.2	49.3	49.3	49.6
2002	47.7	49.7	48.9	48.8
2003	47.5	49.1	44.6	47.3
2004	51.4	49.9	48.6	50.0
2005	52.7	49.8	50.1	50.9
2006	52.5	53.6	47.0	51.3
2007	53.8	56.2	51.8	54.1
2008 r	56.4	57.0	53.2	55.7
2009 p	58.2	55.9	54.1	56.1

p = provisional data

[16] ISD – SMR02
http://www.isdscotland.org/isd/servlet/FileBuffer?namedFile=mat_bb_table2.xls&pContentDispositionType=attachment

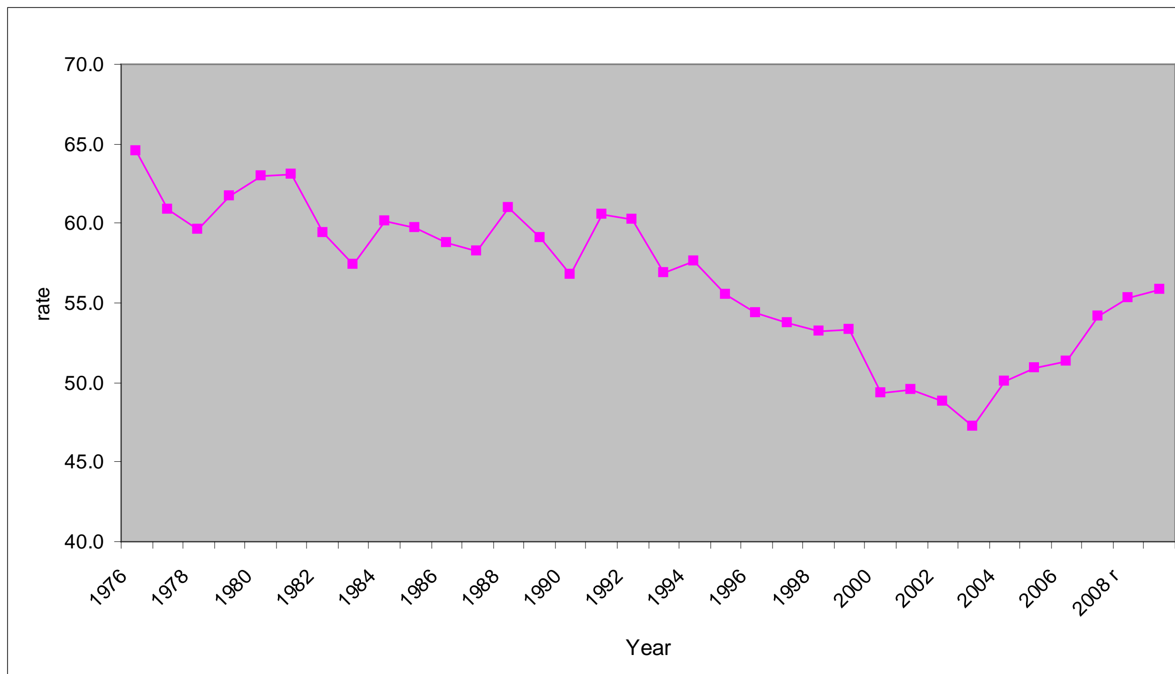
Chart 5 – Rate of live births per year



Source: ISD SMR02
r = Revised
p = Provisional

2.1.2. Since 1976, the birth rate in Ayrshire and Arran has fallen but the unexpected increase in the last five years has been significant enough to question the future projection of births in Ayrshire and Arran. Reasons for the recent growth are not clear, but may be related to a trend for mothers to have babies later in life, causing a greater dip than expected initially and a later rise as compensation. If this is the case then action birth rate will then return to the slow decrease initially projected.

Chart 6 – Birth rate for Ayrshire and Arran per 1000 women

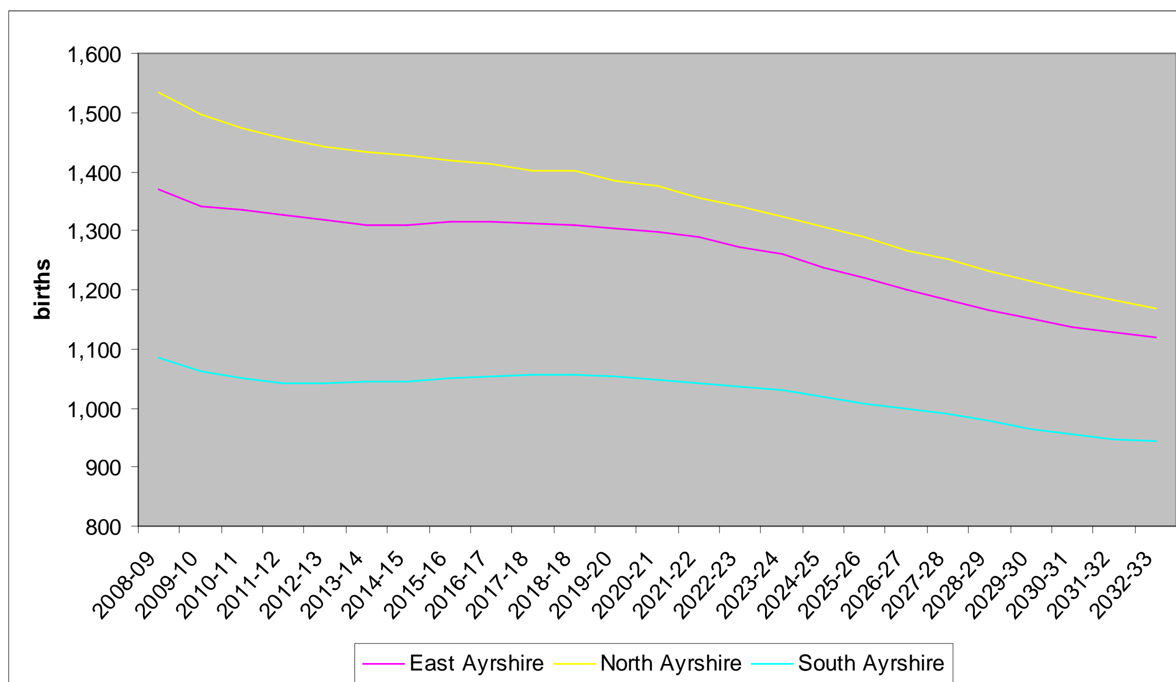


r = Revised
p = Provisional

2.1.3. Based on total population projections and the total fertility rate, the projected number of births in Ayrshire and Arran is predicted to decline across the three local authority areas from a figure of 3,988 in 2008-09 to 3,231 in 2032-33 (a reduction of 19% compared to 9.2 nationally).[17] The percentage falls over this period by Community Health Partnership area are East Ayrshire (18.2%); North Ayrshire (23.8%) and South Ayrshire (13.2%).

[17] GRO Scotland 2010. http://www.gro-scotland.gov.uk/files2/stats/population-projections/2008-based-pop-proj-scottish-areas/08pop-proj-scottishareas-table4.xls

Chart 7 - Projected births in Ayrshire and Arran by CHP area



2.1.4 However, a number of factors could influence actual future numbers. For example, the projected fall is less than predicted in previous years and the birth rate in 2008-09 was higher than previously predicted.

2.1.5 Specifically the point at which the strategy was written the British Economy was exiting a year long economic recession with future growth being assessed as unstable and potentially vulnerable to significant public sector spending reductions predicted to lead to significant levels of unemployment (especially amongst younger people), falling incomes and rising uncertainty about the future. It was speculated that this may have an affect of either reducing or increasing birth rates over the short to medium term.

2.1.6 Comprehensive research on data and literature review has indicated that recession and particularly unemployment and low consumer confidence leads to a small decline in the birth rate that last for 1-2 years after the period of recession or stagnation. These declines are not large however and may be overshadowed by other long term trends in fertility. The effects of recession of birth rate are more significant for younger adults at an early and more unstable career path[18].

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[18] "Economic recession and fertility in the developed world - A literature review" Tomáš Sobotka, Vegard Skirbekk and Dimiter Philipov, Vienna Institute of Demographyproduced for the European Commission (Demography Network of the European Observatory on the Social Situation and Demography).

2.2. Age of mothers

2.2.1. Overall figures[19] indicate that the age of mothers at first birth has increased. In 1978, 66% of first time mothers were in their twenties and 20% in their thirties. By 2008, this had changed to 48% in their twenties and 40% in their thirties.

Table 11a – Age of first birth over time - % (Ayrshire and Arran)

Year	Age of mother						
	All	under 20	20-24	25-29	30-34	35-39	40+
1978	100%	12%	32%	34%	16%	4%	1%
1988	100%	12%	31%	33%	17%	6%	1%
1998	100%	11%	20%	31%	27%	9%	1%
2008	100%	10%	22%	26%	24%	16%	3%

2.2.2. Overall, the birth trend in Ayrshire and Arran is that there has been a slight fall in women giving birth under 20 and slight rise in those over 40. However, the biggest change has been in the fall of those giving birth in their early twenties and rise in those in their 30s.

2.2.3. The numbers involved show that the numbers of women aged over 40 has doubled in eleven years, those in their late 30s has increased by 50% whilst those under 20 has fallen by 14% and those in their late twenties and early 30s have fallen by 17%.

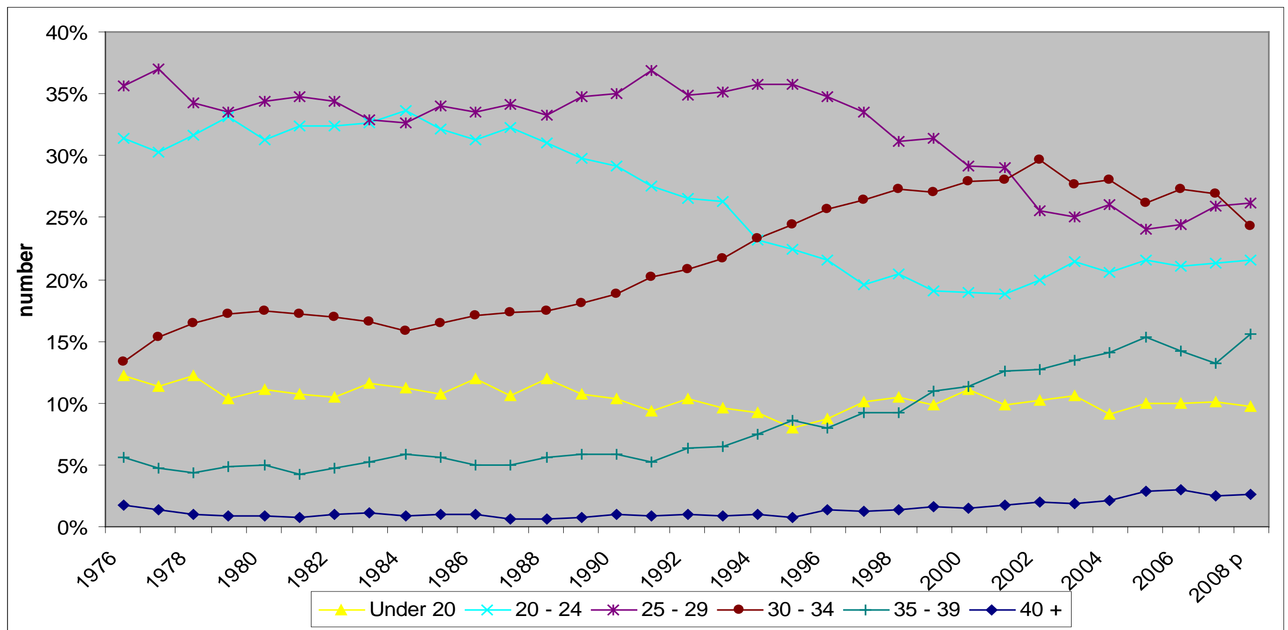
Table 11b – Age of first birth over time - % (Ayrshire and Arran)

	All [4]	Under 20	20 - 24	25 - 29	30 - 34	35 - 39	40 +
2009 [p]	3843	366	862	1038	901	568	108
2008	3835	377	831	1005	930	592	100
2007	3766	384	807	982	1011	489	93
2006	3604	364	765	879	979	510	107
2005	3599	363	779	871	938	546	102
2004	3571	327	740	929	1001	497	77
2003	3395	365	726	853	937	451	63
2002	3533	363	711	901	1048	442	68

[19] Data from ISD SMR02 - http://www.isdscotland.org/isd/1022.html

2001	3628	358	688	1049	1014	455	64
2000	3645	410	695	1068	1008	412	52
1999	3972	393	768	1243	1068	434	66
1998	4002	427	819	1254	1080	366	56

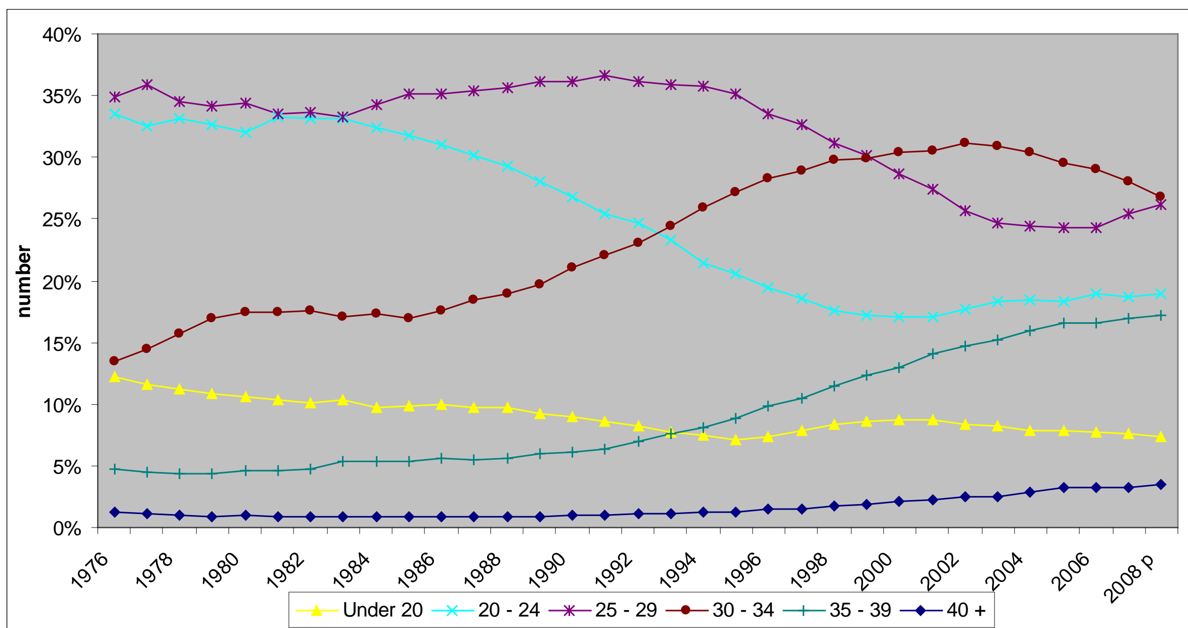
Chart 8 – Births by age of mother in Ayrshire and Arran



p = provisional

2.2.4. These are reflective of the situation nationally.

Chart 9 – Births by age of mother in Scotland



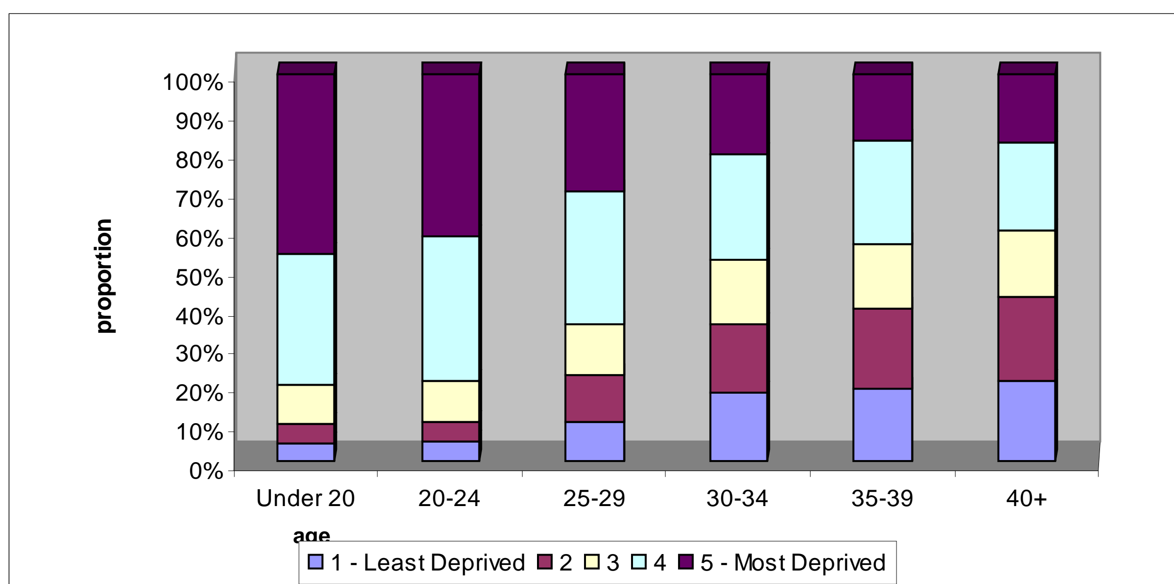
2.3. Deprivation status

2.3.1. Total births by deprivation status in 2008 show that around 60% of births are to mothers in deprivation quintiles 4 and 5, compared to 25% in quintiles 1 and 2. This compares to the range of the total population (as outlined in table 4), which has 41% of the population in quintiles 4 and 5, and 32% in quintiles 1 and 2.

Table 12 – Mothers by age and deprivation status Ayrshire and Arran Total births 2008 [20].

age range	1 - Least Deprived	2	3	4	5 - Most Deprived
Under 20	5%	5%	10%	34%	46%
20-24	5%	5%	11%	37%	42%
25-29	10%	12%	13%	34%	30%
30-34	18%	17%	17%	27%	21%
35-39	19%	21%	16%	27%	17%
40+	21%	22%	17%	23%	18%
All	**12%**	**13%**	**14%**	**31%**	**30%**
Total population	**17%**	**15%**	**27%**	**19%**	**22%**

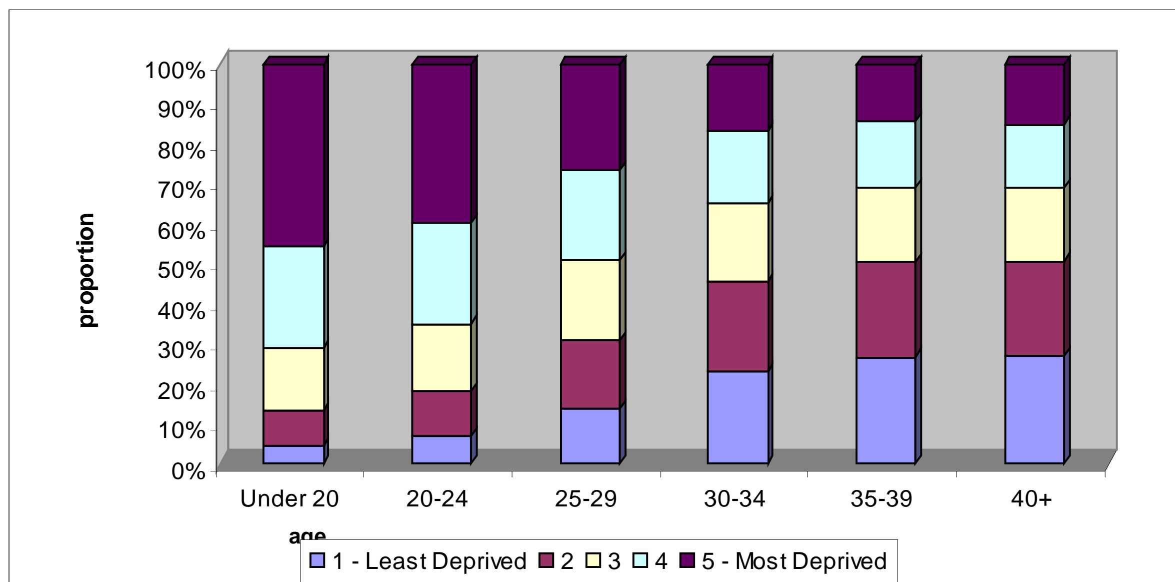
Chart 10 – Total births by deprivation status and mother's age 2008 – Ayrshire and Arran



[20] SMR02 data from ISD available at http://www.isdscotland.org/isd/1022.html. deprivation status based on Carstairs to 1997 and thereafter SIMD 2006.

2.3.2. This is largely similar to the national picture, albeit more marked.

Chart 11 – Total births by deprivation status and mother's age 2008 – Scotland



2.3.3. Examining the age at when the **first** birth occurs shows that 79% of mothers aged under 20 are in deprivation quintile 4 and 5. In contrast for older mothers aged over forty, 40% of first births are in deprivation quintile 1 and 2.

Table 13 First births by age and deprivation status in Ayrshire and Arran (2008 figures).

	Deprivation Quintile				
Age range	**1 - Least Deprived**	**2**	**3**	**4**	**5 - Most Deprived**
Under 20	5%	5%	10%	35%	44%
20-24	6%	6%	14%	35%	39%
25-29	14%	14%	15%	34%	23%
30-34	21%	21%	19%	25%	14%
35-39	20%	16%	19%	27%	16%
40+	18%	32%	32%	*	*
All	12%	12%	15%	32%	29%

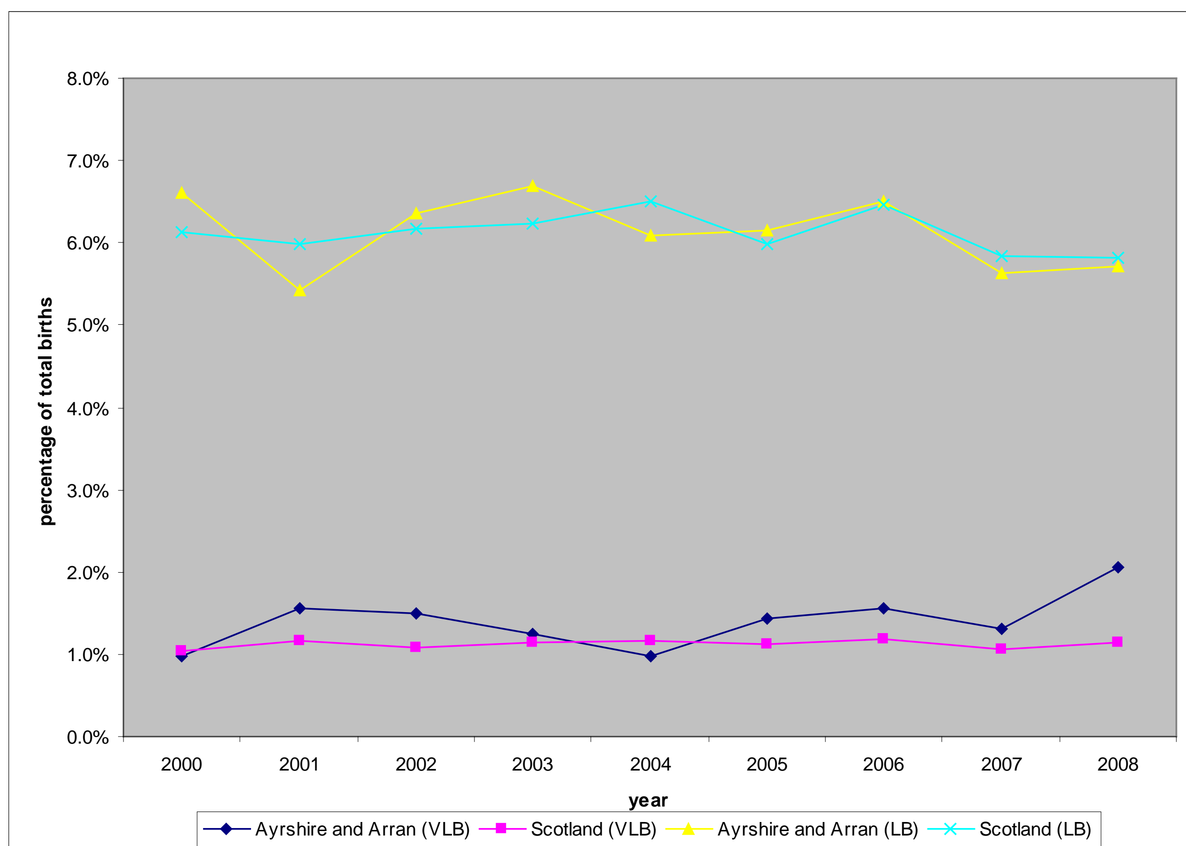
- Numbers too small to include

2.4. Low Birth weight

2.4.1. In 2008, the percentage of births featuring very low birth weight babies (weighing under 1500g) in Ayrshire and Arran was 2.1% compared to a national average of 1.2% This is the highest recorded percentage for a mainland NHS Board)[21]. However this was an exceptional year and subject to significant variation due to the small numbers involved. (80 babies). Between 2000 and 2004, the average rate of very low birth weight babies in Ayrshire and Arran was 1.4% compared to a national average of 1.1%.

2.4.2. In 2008, the percentage of low birth weight babies (1500-2499g) in Ayrshire and Arran was 5.7% compared to a national average of 5.8%. Between 2000 and 2008, the average rate of low birth weight babies in Ayrshire and Arran was 6.1% exactly the same as the national average.

Chart 12 – Percentage low birthweight and very low birthweight



2.4.3. There is a clear link between deprivation status and very low birthweight babies. This could be due to a number of factors including age of mother, maternal smoking, drug or alcohol use, which will be addressed later in this section. The link between deprivation and low birthweight babies, is less clear although still significant.

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[21] SMR02 data from ISD http://www.isdscotland.org/isd/1022.html

Table 14 – Ayrshire and Arran - Very Low birth weight rates (under 1500g) by SIMD quintile

Year	Total births	VLW births total	%of total	Deprivation Quintile percentage (1 – Least Deprived)				
				1	2	3	4	5
1998	4066	45	1.1%	15.6%	6.7%	20.0%	20.0%	37.8%
1999	4038	37	0.9%	13.5%	2.7%	5.4%	40.5%	37.8%
2000	3696	36	1.0%	11.1%	8.3%	8.3%	30.6%	41.7%
2001	3681	57	1.5%	5.3%	21.1%	3.5%	33.3%	36.8%
2002	3608	54	1.5%	11.1%	11.1%	20.4%	31.5%	25.9%
2003	3453	43	1.2%	4.7%	7.0%	14.0%	27.9%	46.5%
2004	3626	35	1.0%	8.6%	17.1%	5.7%	28.6%	40.0%
2005	3674	52	1.4%	15.4%	3.9%	19.2%	21.2%	40.4%
2006	3667	58	1.6%	1.7%	12.1%	12.1%	41.4%	32.8%
2007	3828	51	1.3%	9.8%	7.8%	9.8%	37.3%	35.3%
2008	3883	80	2.1%	6.3%	17.5%	17.5%	25.0%	45.0%
2009 p	3867	43	1.1%	2.3%	11.6%	7.0%	27.9%	51.2%

Table 15 – Ayrshire and Arran Low birth weight rates (under 1500 - 2499g) by SIMD quintile

Year	Total births	LW births total	%of total	Deprivation Quintile percentage (1 - Least Deprived)				
				1	2	3	4	5
1998	4066	242	6.0%	7.0%	12.8%	11.2%	34.3%	34.7%
1999	4038	225	5.6%	14.2%	11.1%	16.9%	28.9%	28.9%
2000	3696	243	6.6%	7.4%	9.9%	14.4%	32.9%	35.4%
2001	3681	199	5.4%	8.5%	14.1%	13.1%	29.2%	35.2%
2002	3608	228	6.3%	8.3%	9.2%	14.5%	36.8%	31.1%
2003	3453	230	6.7%	10.0%	10.9%	12.2%	25.2%	41.7%
2004	3626	220	6.1%	10.5%	11.4%	13.6%	27.3%	37.3%

Year	Total births	LW births total	%of total	Deprivation Quintile percentage (1 - Least Deprived)				
				1	2	3	4	5
2005	3674	224	6.1%	11.6%	10.7%	13.4%	30.8%	33.5%
2006	3667	237	6.5%	9.3%	10.1%	13.1%	32.1%	35.4%
2007	3828	214	5.6%	8.4%	14.0%	10.8%	28.5%	38.3%
2008	3883	222	5.7%	8.1%	11.3%	11.7%	29.7%	39.2%
2009 p	3867	206	5.3%	8.3$	12.1%	14.1%	23.3%	42.2%

Table 16 – Birth rates (2500+g) by SIMD quintile

Year	Total births	2500g+ births total	%of total	Deprivation Quintile percentage (1 - Least Deprived)				
				1	2	3	4	5
1998	4066	3749	92.2%	13.1%	13.0%	14.6%	30.0%	29.3%
1999	4038	3760	93.1%	14.3%	12.6%	14.7%	28.8%	29.6%
2000	3696	3398	91.9%	13.8%	12.7%	14.0%	30.1%	29.4%
2001	3681	3408	92.6%	14.8%	12.5%	15.0%	29.9%	27.8%
2002	3608	3306	91.6%	14.3%	12.7%	13.7%	30.0%	29.4%
2003	3453	3158	91.5%	15.0%	12.4%	14.2%	30.2%	28.3%
2004	3626	3352	92.4%	14.6%	13.5%	14.6%	30.4%	27.0%
2005	3674	3378	91.9%	13.4%	14.8%	14.3%	29.2%	28.4%
2006	3667	3352	91.4%	13.1%	13.6%	13.8%	30.5%	29.0%
2007	3828	3541	92.5%	11.6%	14.4%	14.5%	31.2%	28.3%
2008	3883	3577	92.1%	10.0%	13.9%	13.6%	28.0%	34.6%
2009 p	3867	3616	93.5%	10.1%	13.4%	14.7%	27.4%	34.4%

2.5. Still birth rate

2.5.1. The number of still births has remained consistent across Scotland for the last two decades at around 5.5 per thousand. This is reflected within the Ayrshire and Arran data, with the exception of 2007 when the rate increased to 6.9 per 1,000 births. This reduced back to 4.3 per 1,000 in 2008.

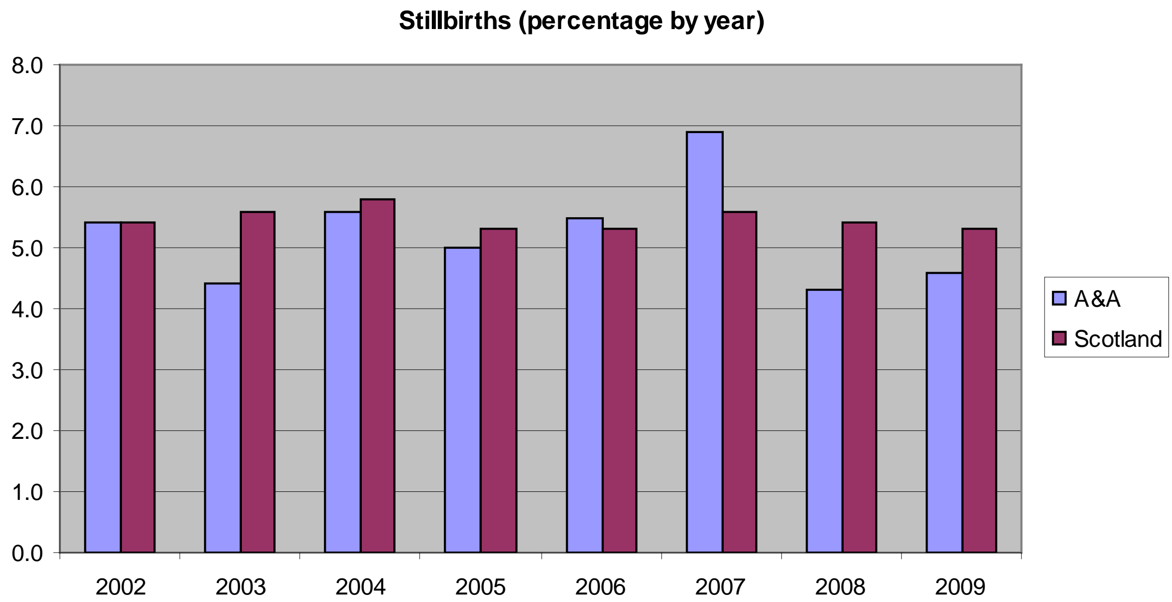
Table 17 – Still birth rate year ending[22]

Year ending 31 March	Ayrshire and Arran	Scotland
2003	4.4	5.6
2004	5.6	5.8
2005	5.0	5.3
2006	5.5	5.3
2007	6.9	5.6
2008	4.3	5.4
2009	4.6	5.3

Rate per 1.000 total births

[22] Scottish Perinatal and Infant Mortality and Morbidity Report 2008 http://www.isdscotland.org/isd/servlet/FileBuffer?namedFile=mat_spimmr_2008.pdf&pContentDispositionType=attachment plus GROS Estimated population, births, stillbirths, deaths and marriages, numbers and rates, by administrative area, Scotland, 2009 http://www.gro-scotland.gov.uk/files2/stats/births-marriages-deaths-preliminary/preliminary-09-tabs-2.xls

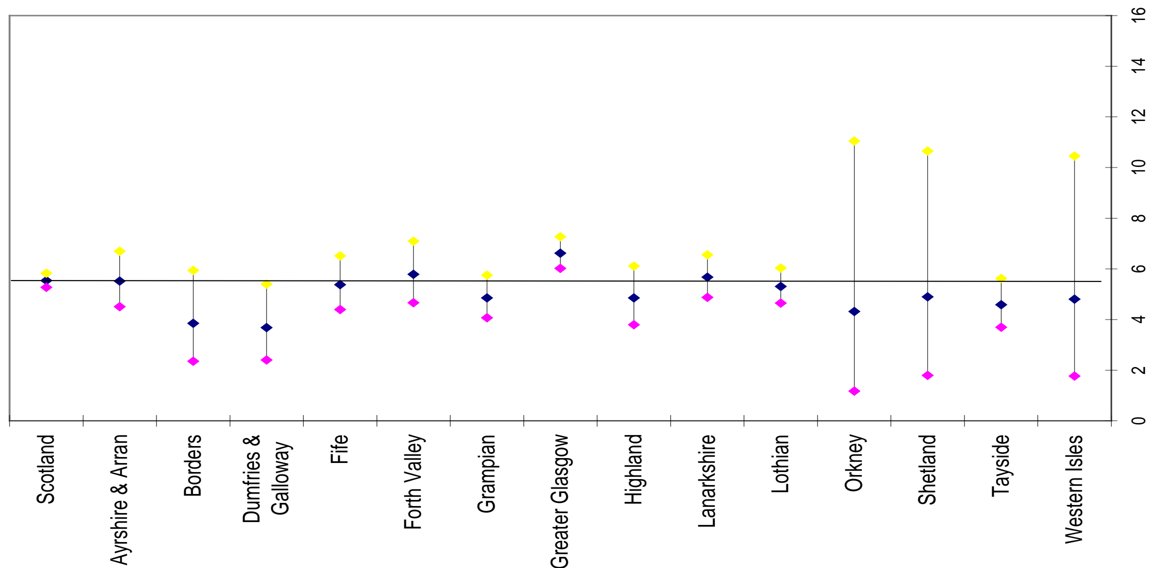
Chart 13 – Still births



2.5.2. Overall the figures for 2003-07 give Ayrshire and Arran a still birth rate at the national average.

Chart 14[23] - Stillbirth rates by health board of residence with 95% confidence intervals – 2003-07

This is an ISD Scotland National Statistics Release



Note:
Yellow = high confidence levels
Red = low confidence levels

Blue line = Board average
Black line = Scottish average.

[23] ISD Scotland National Statistics Release

2.6. Neonatal death rate

2.6.1. Neonatal mortality has decreased significantly since records began in 1974, with the biggest fall in the 1990s. This has been due to improvements in neonatal intensive care services. However, the rate has changed very little in the last decade, although there has been a small fall in mortality in the first week post-partum.[24] Large variations are accounted for due to the small numbers involved.

2.6.2. Ayrshire and Arran again has similar rates to the national average apart from again 2007, with a rate of 5.4 per 1,000. This returned to 2.6 per 1,000 in 2008. The 2003-07 rate in Ayrshire and Arran is slightly higher than the national average but the confidence interval is well within the national average.

Table 18 – Neonatal death rate[25]

	2002	2003	2004	2005	2006	2007	2008
Neonatal Deaths - A&A	2.9	3.6	2.2	3.9	2.6	5.4	3.8
Neonatal Deaths - Scotland	3.2	3.4	3.1	3.5	3.1	3.3	2.8
Rate per 1000 total births							

[24] Trends in Perinatal Mortality in Scotland - A review over 30 years NHS National Services Scotland 2009

[25] Scottish Perinatal and Infant Mortality and Morbidity Report 2008 http://www.isdscotland.org/isd/servlet/FileBuffer?namedFile=mat_spimmr_2008.pdf&pContentDispositionType=attachment plus GROS Estimated population, births, stillbirths, deaths and marriages, numbers and rates, by administrative area, Scotland, 2009 http://www.gro-scotland.gov.uk/files2/stats/births-marriages-deaths-preliminary/preliminary-09-tabs-2.xls

Chart 15 – Neonatal Deaths – rate per 1000 births

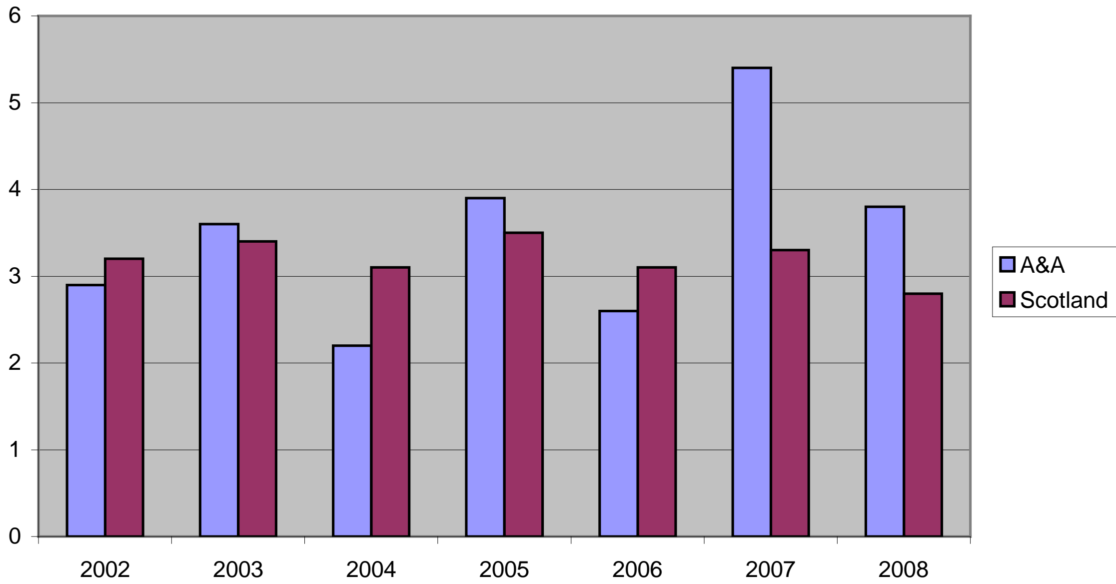


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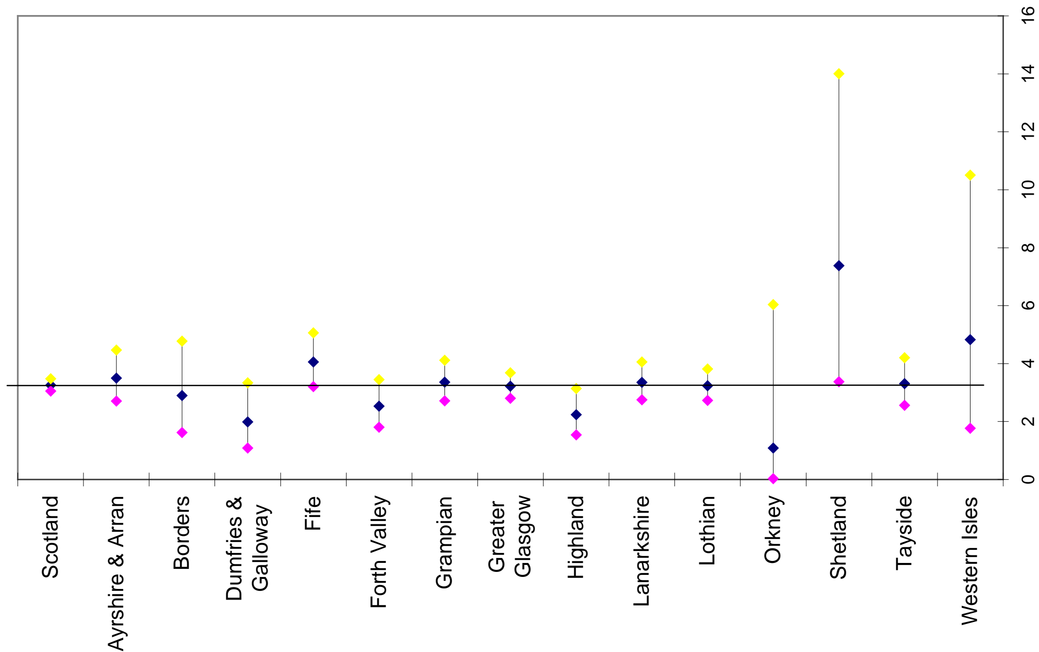
Chart 16 – Neonatal death rates by health board of residence with 95% confidence intervals: 2003-2007

This is an ISD Scotland
National Statistics Release



Source: ISD Scotland

Note:

Yellow = high confidence levels
Red = low confidence levels

Blue line = Board average
Black line = Scottish average.

2.6.3. As with still birth cases, each neonatal mortality is investigated thoroughly and the overall rate will continue to be monitored

2.7. Teenage pregnancies

2.7.1. Teenage pregnancy remains a major issue in Ayrshire and Arran and as outlined above is related to deprivation status. Between 1998/2000 and 2006-08, the proportion of under 20s who are pregnant had remained constant nationally at 55.7 per 1,000 aged 15-19 each year. In Ayrshire it has increased by 3% in East Ayrshire (to 61.8 per 1,000), 7% in South Ayrshire (to 56.6per 1,000) and 17% in North Ayrshire (to 73.6 per 1,000).

2.7.2. The rates of increase for women aged under 16 are even more dramatic with a rise of 5% nationally between 1998/2000 and 2006-08, to 8.0 per 1,000 women aged 13-15. However in Ayrshire and Arran the rate of increase has been 19% in East Ayrshire (to 11.2 per 1,000), 40% in North Ayrshire (to 10.5 per 1,000) and 50% in South Ayrshire (to 11.1 per 1,000).

2.7.3. Overall there seems to be a trend developing of increases in the rates for South Ayrshire and East Ayrshire for under 16's with the biggest increases in North Ayrshire being in the 16-18 years.

2.7.4. **Table 19 – Under 16 pregnancy (crude rate per 1,000 girls 13-15)**[26]

Financial Year	East Ayrshire	North Ayrshire	South Ayrshire	Scotland
1998-2000	9.4	7.5	7.4	7.6
1999-2001	7.5	7.4	7.0	7.1
2000-2002	8.6	8.8	7.5	7.1
2001-2003	7.8	8.0	8.0	7.0
2002-2004	8.2	8.7	8.2	7.3
2003-2005	7.1	9.0	7.0	7.2
2004-2006	8.6	11.1	8.4	7.6
2005-2007	9.9	10.9	9.2	7.8
2006-2008	11.2	10.5	11.1	8.0
Percentage change	**19%**	**40%**	**50%**	**5%**

[26] Information from SMR02 from ISD http://www.isdscotland.org/isd/2071.html#Detailed_Findings

Chart 17 – Teenage pregnancy rates for females under the age of 16

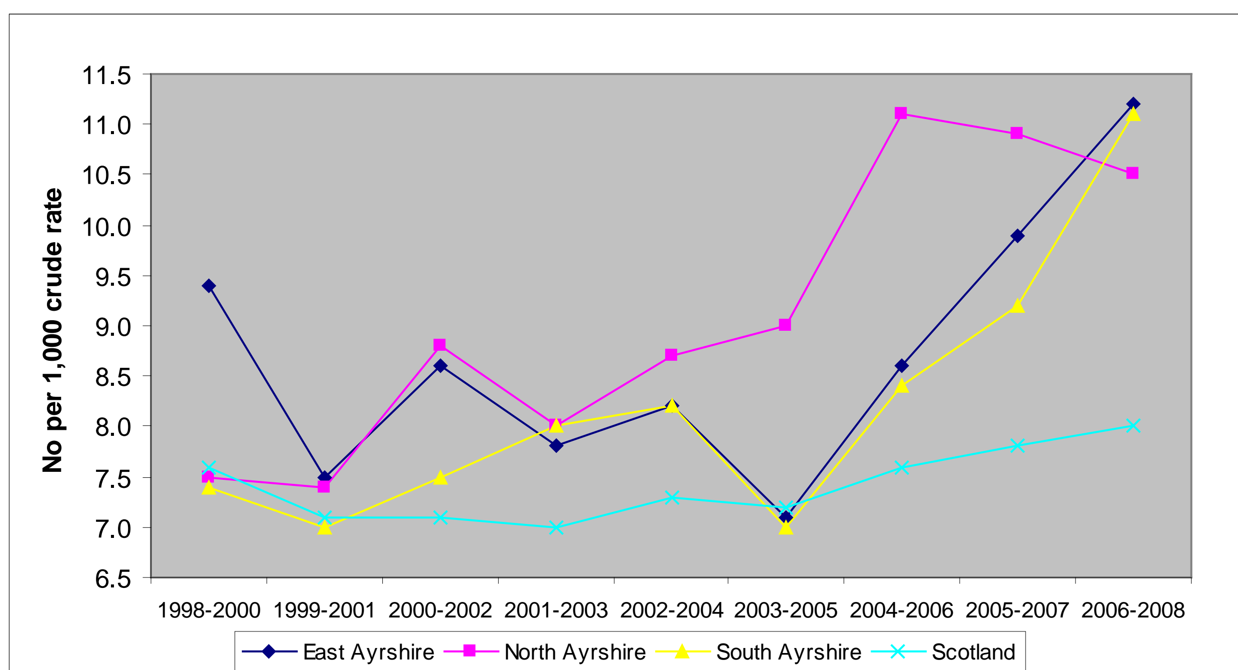


Table 20 – Under 18 pregnancy (crude rate per 1,000 girls 15-17)[27]

Financial Year	East Ayrshire	North Ayrshire	South Ayrshire	Scotland
1998-2000	50.3	43.1	44.2	43
1999-2001	44.4	44.6	42.2	41.1
2000-2002	41.9	43.3	40.9	40
2001-2003	41.3	42.2	38.4	39.8
2002-2004	42.4	38.6	38.6	40.4
2003-2005	42.7	42.3	38.3	41
2004-2006	44.6	48.9	41.9	41.4
2005-2007	44.1	52.5	40.5	41.8
2006-2008	45.3	52.1	42.9	41.4
Percentage change	**-10%**	**21%**	**-3%**	**-4%**

[27] Information from SMR02 from ISD http://www.isdscotland.org/isd/2071.html#Detailed_Findings

Chart 18 - Teenage pregnancy rates for females under the age of 20

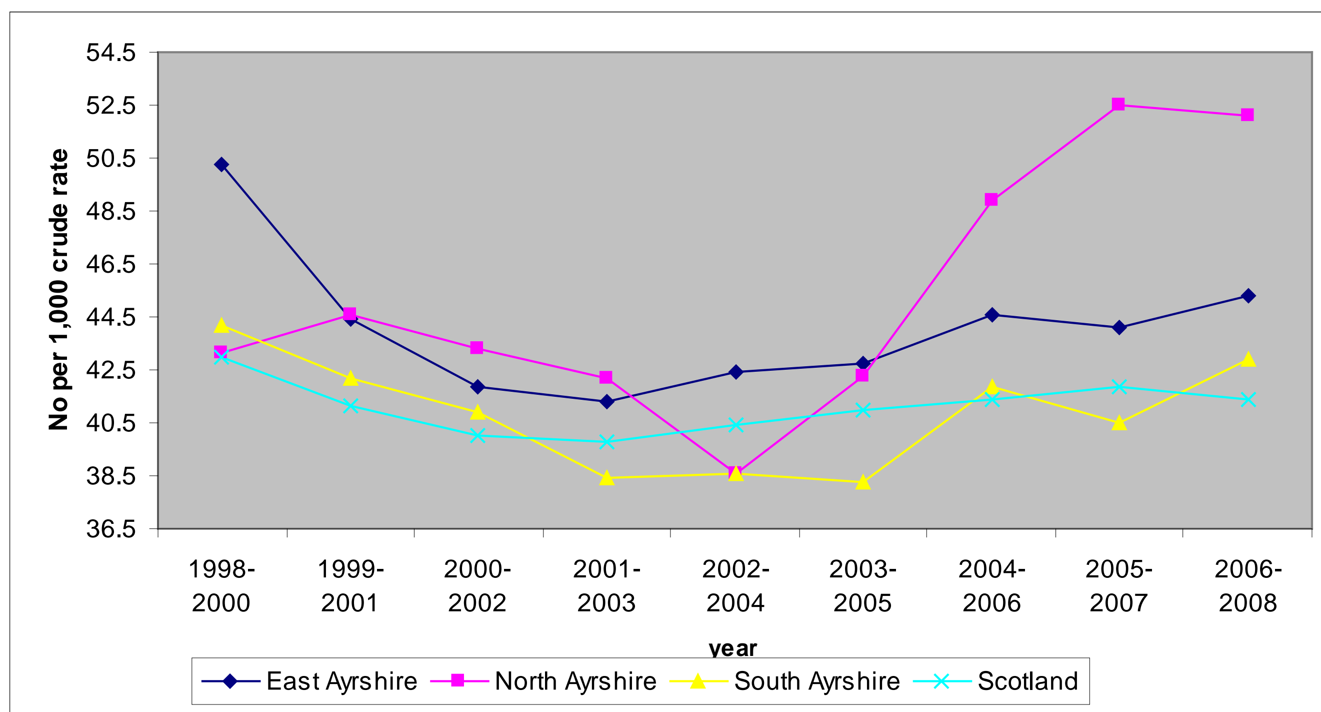
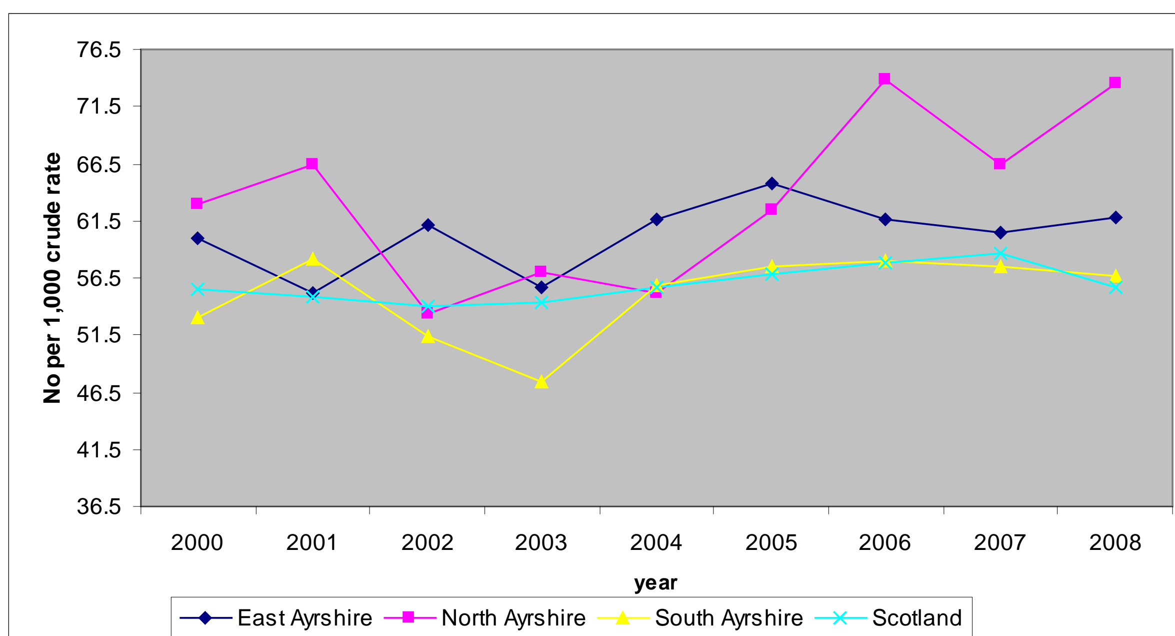


Table 20 – Under 20 pregnancy (crude rate per 1,000 girls 13-19)[28]

Financial Year	East Ayrshire	North Ayrshire	South Ayrshire	Scotland
2000	59.9	62.9	53.0	55.5
2001	55.2	66.5	58.2	54.9
2002	61.1	53.4	51.4	54.0
2003	55.6	57.0	47.4	54.4
2004	61.6	55.2	55.8	55.6
2005	64.7	62.4	57.5	56.9
2006	61.6	73.9	58.0	57.9
2007	60.5	66.5	57.5	58.6
2008	61.8	73.6	56.6	55.7
Percentage change	**3%**	**17%**	**7%**	**0%**

[28] Information from SMR02 from ISD http://www.isdscotland.org/isd/2071.html#Detailed_Findings

Chart 18 - Teenage pregnancy rates for females under the age of 20



2.8. Parental Smoking at first booking

2.8.1. Parental smoking during pregnancy is a significant factor in child healthy weight and future health. There is clear evidence that maternal smoking can directly lead to low birth weight (as much as 5% lower than non smokers). and stillbirth There is also some evidence that smoking during pregnancy could increase the risk of cot death and developmental delay.

2.8.2. The rates of maternal smoking have clear links with the level of deprivation and also the age of mother (itself linked to deprivation). Nationally in 2007, 40.3% of mothers aged under 20 were current smokers compared to 13.5% of those aged 35 or over. In the same year, only 7.4% of mothers who lived in SIMD 1 areas (least deprived) smoked compared to 33.4% of those in SIMD5 areas (most deprived).

Table 21 – Smoking at first booking by deprivation area Scotland 2008[29]

SIMD	Current		Not Known		Former		Never		Total
	N	%	N	%	N	%	N	%	N
SIMD1 Least deprived	632	6.7%	934	9.9%	733	7.8%	7088	75.5%	9387
SIMD2	1212	12.0%	1098	10.8%	932	9.2%	6878	68.0%	10120
SIMD3	1825	17.5%	1284	12.3%	1105	10.6%	6200	59.5%	10414
SIMD4	2798	24.1%	1489	12.9%	1125	9.7%	6175	53.3%	11587
SIMD5 Most deprived	4221	30.0%	3011	21.4%	1129	8.0%	5727	40.7%	14088

2.8.3. This is reflected in Ayrshire and Arran data.

Table 22 – Smoking by deprivation status[30]

Year	CHP	15% most deprived			85% rest of CHP		
		Current Smoker	All Mothers	% Current Smokers	Current Smoker	All Mothers	% Current Smokers
2002	**East Ayrshire**	111	246	45.1%	214	892	24.0%
	North Ayrshire	113	257	44.0%	318	1104	28.8%
	South Ayrshire	82	183	44.8%	162	741	21.9%
2003	**East Ayrshire**	128	257	49.8%	248	957	25.9%
	North Ayrshire	116	247	47.0%	294	1085	27.1%
	South Ayrshire	74	181	40.9%	153	785	19.5%
2004	**East Ayrshire**	135	256	52.7%	254	990	25.7%
	North Ayrshire	117	250	46.8%	328	1132	29.0%
	South Ayrshire	89	201	44.3%	175	810	21.6%

2.8.4. The numbers in Table 22 do not reflect total bookings as some data on deprivation status was not known.

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[29] SMR02 from SIMD
http://www.isdscotland.org/isd/servlet/FileBuffer?namedFile=mat_bb_Smoking%20at%20Booking.xls&pContentDispositionType=attachment

[30] SMR02 from ISD bespoke information gathered

2.8.5. However, there are clear indications of success in reducing the levels of smoking across Ayrshire and Arran. This drop is significantly below the national average, which has fallen from 25.5% in 2001-02 to 19.2%in 2007-08[31].

Table 23 – Maternal Smoking at booking (Current smokers)[32]

	Community Health Partnership							
Financial year	**East Ayrshire**		**North Ayrshire**		**South Ayrshire**		**Total**	
	Current smoker	**% smokers**	**Current smoker**	**% smokers**	**Current smoker**	**% smokers**	**Current smoker**	**% smokers**
2001-02	339	29.4%	440	32.4%	280	27.5%	1059	30.0%
2002-03	340	30.0%	434	32.4%	240	26.0%	1014	29.9%
2003-04	370	30.2%	418	30.8%	231	23.4%	1019	28.5%
2004-05	372	29.7%	430	32.1%	262	26.0%	1064	29.6%
2005-06	346	28.1%	421	29.6%	256	26.9%	1023	28.4%
2006-07	339	27.1%	429	28.9%	273	26.5%	1041	27.6%
2007-08	354	26.9%	420	28.4%	252	24.3%	1026	26.8%
2008-09	351	25.8%	408	28.5%	255	24.3%	1014	26.4%

2.9. Alcohol

2.9.1. Similarly, there is clear evidence that significant alcohol use during pregnancy, especially drinking to excess in the first trimester, leads to low birth weight, miscarriage, developmental delay and conduct disorder in older children. In the Scottish Government paper "Changing Scotland's relationship with alcohol: A discussion paper on our strategic approach"[33] the concern that the rate of diagnosis of Fetal Alcohol Syndrome was well below the actual numbers born with the condition. The Government have plans, therefore, to arrange a Scottish survey of the actual incidence.

2.9.2. SMR02 data includes information from mothers at time of giving birth, outlining what their weekly alcohol consumption has been. (SMR02 07-08 figures).

[31] SMR02 analysis from ISD http://www.isdscotland.org/isd/2911.html and http://www.isdscotland.org/isd/servlet/FileBuffer?namedFile=mat_bb_Smoking%20at%20Booking.xls&pContentDispositionType=attachment
[32]SMR02 from SIMD internally gathered
[33] Changing Scotland's relationship with alcohol: a discussion paper on our strategic approach; Scottish Government June 2008. http://www.scotland.gov.uk/Publications/2008/06/16084348/0

Table 24 – Self-reported alcohol consumption at birth[34].

Typical Weekly Alcohol Consumption (units)	Community Planning Partnership area			
	East Ayrshire	North Ayrshire	South Ayrshire	Total
0	75%	82%	71%	76%
1-5	17%	13%	19%	16%
6-10	5%	3%	5%	4%
11-15	2%	1%	3%	2%
over 15	1%	1%	2%	1%
Total	**1240**	**1337**	**968**	**3545**

2.9.3. This would imply that most mothers in Ayrshire and Arran follow a regime of total abstinence. However the largest areas of problem drinking (11+ units) would be in South Ayrshire. Although there are questions about the reliability of the data (as all figures are based on self-reporting), the figures would suggest that the proportion of women drinking any alcohol is higher in Ayrshire and Arran than other studies, which indicate that between 15-20% of pregnant women continue to drink alcohol at any level with 3-4% reporting binge drinking (defined as 4 or more units consumed on one occasion)[35].

2.9.4. Again there is some evidence that patterns of alcohol use during pregnancy are related to the levels of deprivation. Studies indicate that women with higher incomes and older women are more likely to report drinking during pregnancy, women with lower incomes and younger women or are more likely to report higher levels of alcohol use and binge drinking[36]. Different tactics may be required therefore in supporting women in alcohol use during pregnancy.

2.10. Drug misuse

2.10.1. Drug misuse during pregnancy is a small but significant issue requiring significant resource input and expertise.

2.10.2. Comparison of drug misuse recorded by NHS Board[37] indicates that Ayrshire and Arran has the highest levels of reported maternal drug misuse in Scotland and that the rates have increased significantly above the national average. There is some question whether other NHS Boards' data collection is complete; however, this does indicate that drug misusing mothers are a priority to address.

[34] SMR02 from SIMD internally gathered
[35] "Alcohol use during pregnancy: Prevalence and Impact" Chaya G Bhuvaneswar et al Prim Care Companion J Clin Psychiatry 2007; 9(6)
[36] "Alcohol Use and Pregnancy:An Important Canadian Public Health and Social Issue" Colleen Anne Dell and Gary Roberts Public Health Agency of Canada 2005.
[37] SMR02 data reported in "Drug Misuse Statistics Scotland 2008"

Table 25 – Drug misuse by NHS board and council area of residence

		Rate of drug misuse per 1000 Maternities				
		2002/03r	2003/04r	2004/05r	2005/06p	2006/07p
	Scotland [3]	6.7	8.4	9.2	9.3	10.4
by NHS board	Ayrshire & Arran	12.4	15.7	19.9	24.6	30.8
	Dumfries & Galloway	3.9	3.8	7.3	5.1	z1
	Fife	1.7	13.1	10.3	11.6	14.4
	Forth Valley	5.0	3.4	11.0	10.3	11.0
	Grampian	11.3	14.7	7.4	1.7	3.3
	Greater Glasgow & Clyde	6.8	7.8	6.9	7.2	6.4
	Highland	2.6	5.1	7.5	8.9	4.4
	Lanarkshire	1.0	3.0	4.9	6.6	5.3
	Lothian	7.9	8.1	12.3	14.1	15.4
	Tayside	14.4	11.6	12.2	8.2	17.3
by council area	Ayrshire East	15.9	16.3	24.7	24.3	35.9
	Ayrshire North	11.9	17.7	18.6	27.4	33.0
	Ayrshire South	8.7	12.2	15.8	21.0	21.3

r = Revised
p = Provisional
z1 Not shown where the number of discharges involving a specific admission type <5.

2.10.3. From SMR 02 data for 2007-08, of the total maternity, 97 were recorded misusing the following drugs:

Table 26 – Drug misuse by named drug[38]

Drugs Used includes those with multiple drug use	Frequency	Percent
Heroin	15	11%
Methadone - prescribed only	47	34%
Dihydrocodeine - prescribed only	2	1%
Diazepam - prescribed only	5	4%
Diazepam - other	3	2%

[38] SMR02 from SIMD internally gathered

Drugs Used includes those with multiple drug use	Frequency	Percent
Temazepam - prescribed only	1	1%
Other sedatives	2	1%
Amphetamines	1	1%
Other benzodiazepines	1	1%
Cocaine	5	4%
Ecstacy	9	7%
Other stimulants	2	1%
Hallucinogens	1	1%
Cannabis	34	25%
Other drugs	8	6%
Not recorded	1	1%
Total drugs reported	**137**	**100%**

2.10.4. Information on current and previous injecting drug users indicated the following:

Table 27 – Injectors[39]

Ever Injected Illicit Drugs	Frequency	Percent
No	5952	98%
Yes, during current pregnancy	21	0%
Yes, prior to current pregnancy	62	1%
Yes, but it is not known when	8	0%
Not known	18	0%
Total discharges	**6061**	**100%**

[39] SMR02 from SIMD internally gathered

2.10.5. Effects of drug misuse during pregnancy can include increased levels of pregnancy complications, including premature rupture of the membranes, meconium-stained liquor and fetal distress. Cocaine has been associated with placental abruption, particularly if taken around the time of delivery, and opiates increase the likelihood of antepartum haemorrhage. Prematurity and intrauterine growth retardation have also been associated with illicit drug use in pregnancy. Reductions in birthweight and head circumference appear most marked in infants of women taking cocaine or of those who are multiple drug misusers and the use of cannabis has been associated with a significantly lower gestational age at birth and a reduction in birthweight.[40]

2.10.6. Neonatal abstinence syndrome or withdrawal symptoms occur in 55–94% of neonates exposed to opiates in utero and commonly seen symptoms include irritability, high-pitched cry, tremors, hypertonicity, vomiting, diarrhoea and tachypnoea. Methadone, compared with heroin, causes more severe and more prolonged withdrawal.

2.11. Maternal Obesity

2.11.1. Maternal obesity is known to be associated with increased rates of complications in late pregnancy such as stillbirth, caesarean delivery, gestational diabetes and shoulder dystocia. Morbidly obese first time mothers are also at increased risk of all-cause preterm deliveries, neonatal death, delivery of an infant weighing less than 1000g (resulting in disability)[41] and in birth injury.

2.11.2. There is also clear evidence available that there is a two fold increased risk of fetal spina bifida in babies born to women with a BMI between 30 and 35 kg/m^2, but a five-fold increased risk of fetal spina bifida in a woman with a BMI greater than 40kg/m[42]

2.11.3. In addition, obese women have a significant excess risk for many complications during pregnancy, including gestational diabetes mellitus and pre-eclampsia, and increased risk of postpartum haemorrhage and genital lacerations. In a Confidential Enquiry into Maternal and Child Health (CEMACH) report[43] of 2007, over half of women who died in childbirth were overweight or obese.

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[40] Substance misuse during pregnancy Johnston et al British journal of Psychiatry 2003 183: 187-189.
[41] Maternal Obesity in Early Pregnancy and Risk of Spontaneous and Elective Preterm Deliveries: A Retrospective Cohort Study Gordon C.S. Smith, MD, PhD, Imran Shah, MSc, Jill P. Pell, MD, Jennifer A. Crossley, PhD and Richard Dobbie, BSc
[42] 2. Anderson, James L; Waller, D Kim; Canfield, Mark A; Shaw, Garry M; Watkins, Margaret L; Werler, Martha M. Maternal Obesity, Gestational Diabetes and Central Nervous System Birth Defects. Epidemiology, January 2005, Volume 16(1), p 87-92
[43] CEMACH Saving Mothers Lives: reviewing maternal deaths to make motherhood safer. 2003-2005. Published Dec 2007. The seventh report of the confidential enquiries into Maternal deaths in UK.

2.11.4. With the increasing general obesity in Scotland, it is assumed that this trend is also apparent among mothers. This is certainly the observed belief of clinicians and borne out in data provided by ISD. This indicates both a rise in mothers classified as obese or very obese presenting at booking (rising from 16.9% in 2004/05 to 19.0% in 2008/09), and also a small increase in underweight women presenting (3.2% in 2004/05 rising to 4.1% in 2008/09)[44].

2.11.5. This is a similar pattern to Scotland as a whole where the percentage of obese or very obese women presenting has risen from 17.4% in 2004/05 to 19.3% in 2008/09. The percentage of underweight women across Scotland has however remained stable at 2.9%.

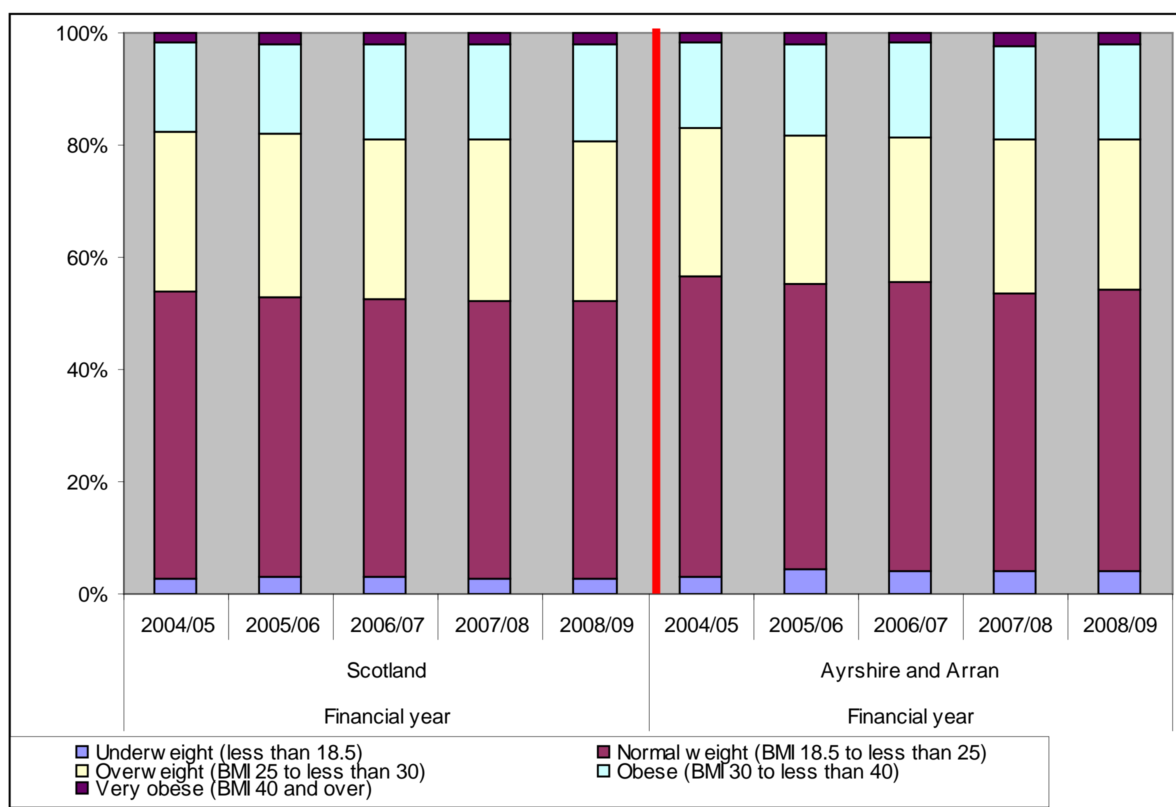
Table 28 – Weight at booking[45]

BMI at booking - Percentage	Financial year			
	2004/05		2008/09	
	Scotland	Ayrshire and Arran	Scotland	Ayrshire and Arran
Underweight (less than 18.5)	2.8	3.2	2.9	4.1
Normal weight (BMI 18.5 to less than 25)	51.1	53.4	49.3	50.2
Overweight (BMI 25 to less than 30)	28.6	26.5	28.4	26.6
Obese (BMI 30 to less than 40)	15.8	15.3	17.3	16.9
Very obese (BMI 40 and over)	1.6	1.6	2.0	2.1
Total	**100.0**	**100.0**	**100.0**	**100.0**

[44] Source: ISD Scotland, SMR02 Ref: IR2010-01173 (Please note that these data are under development. The quality and accuracy of maternal height and weight data recorded on SMR02 are currently being assessed by ISD.

[45] ibid

Chart 19 - Maternal weight by year



2.11.6. Other data on increasing levels of obesity in the general population backs up the initial conclusions[46].

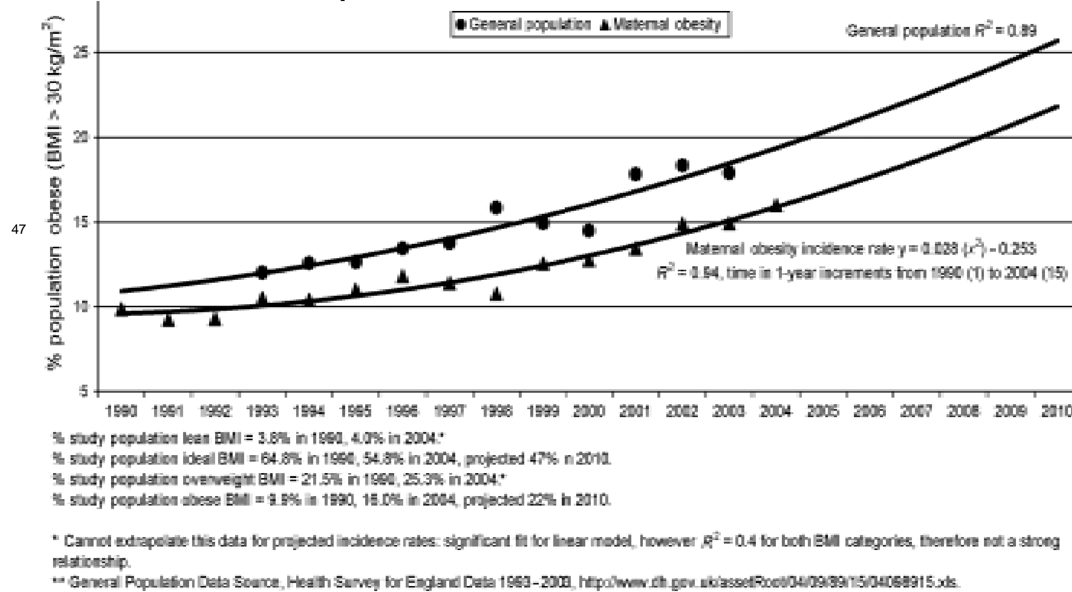
Table 29 – Changes in maternal obesity 1990- 2004 and projected to 2010 (% of total in year)

	1990	2004	Projected 2010
underweight	3.8	4.0	Not available.
normal weight	64.8	54.8	47.0
overweight	21.5	25.3	Not available.
obese	9.9	16.0	22.0

Note: Projected data for 2010 is not available for underweight and overweight.

[46] Trends in maternal obesity incidence rates, demographic predictors, and health inequalities in 36 821 women over a 15-year period - Heslehurst2006 BJOG -

Chart 20 - Maternal obesity [47]



2.11.7. NHS Ayrshire and Arran developed clinical guidelines for the "Management of Severely Obese Pregnant Women" in 2008[48]. These include:

- Informed of the risks to their own and child's health and if possible referred to a dietician to give further advice on a balanced diet and exercise
- Folic Acid 5mg should be recommended peri-conceptually
- All women with a BMI over 35 should be cared for by a named consultant
- Screen for diabetes as per SIGN guidelines
- Consideration should be made for the provision of antenatal and postnatal thromboprophylaxis, including the provision of Fragmin postnatally where risk assessment identifies 2 additional risk factors or where BMI≥40
- Screen for fetal abnormalities
- Arrange anaesthetic review to discuss delivery issues.

2.12. Breastfeeding

2.12.1. Breast milk is the best form of nutrition for babies. It is recommended that babies are fed only by breast milk for their first six months - with no water, other fluids or solids.

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[47] Trends in maternal obesity incidence rates, demographic predictors, and health inequalities in 36 821 women over a 15-year period - Heslehurst2006 BJOG -

[48] Management of Severely Obese Pregnant Women NHS Ayrshire and Arran 2008

2.12.2. The benefits of breastfeeding include:

- Reduction in infection rates
- Probable longer term health advantages in reduced levels of childhood allergies, obesity, eczema, diabetes, inflammatory bowel diseases, childhood cancer and a number of other conditions
- Probable benefits for mother include reduced levels of breast cancer.

2.12.3. The breastfeeding agenda is a major priority for Ayrshire and Arran and is a HEAT target for the NHS[49]. NHS Ayrshire and Arran has agreed an Infant Feeding Strategy for 2008-13, which identifies actions to address the low rates of breastfeeding in Ayrshire and Arran. These focus on a multi-agency responsibility and response including ensuring that the promotion of breastfeeding forms part of core business for health care professionals, is included in education programmes, is promoted in communities and that formula milk use is discouraged.

2.12.4. The rates in Ayrshire and Arran are extremely low compared to the Scottish average and in 2009, Ayrshire and Arran rates for first visit (exclusively breastfed) was 30.0%, the second lowest in Scotland (Lanarkshire being the lowest). The national average at this time was 36.9%.

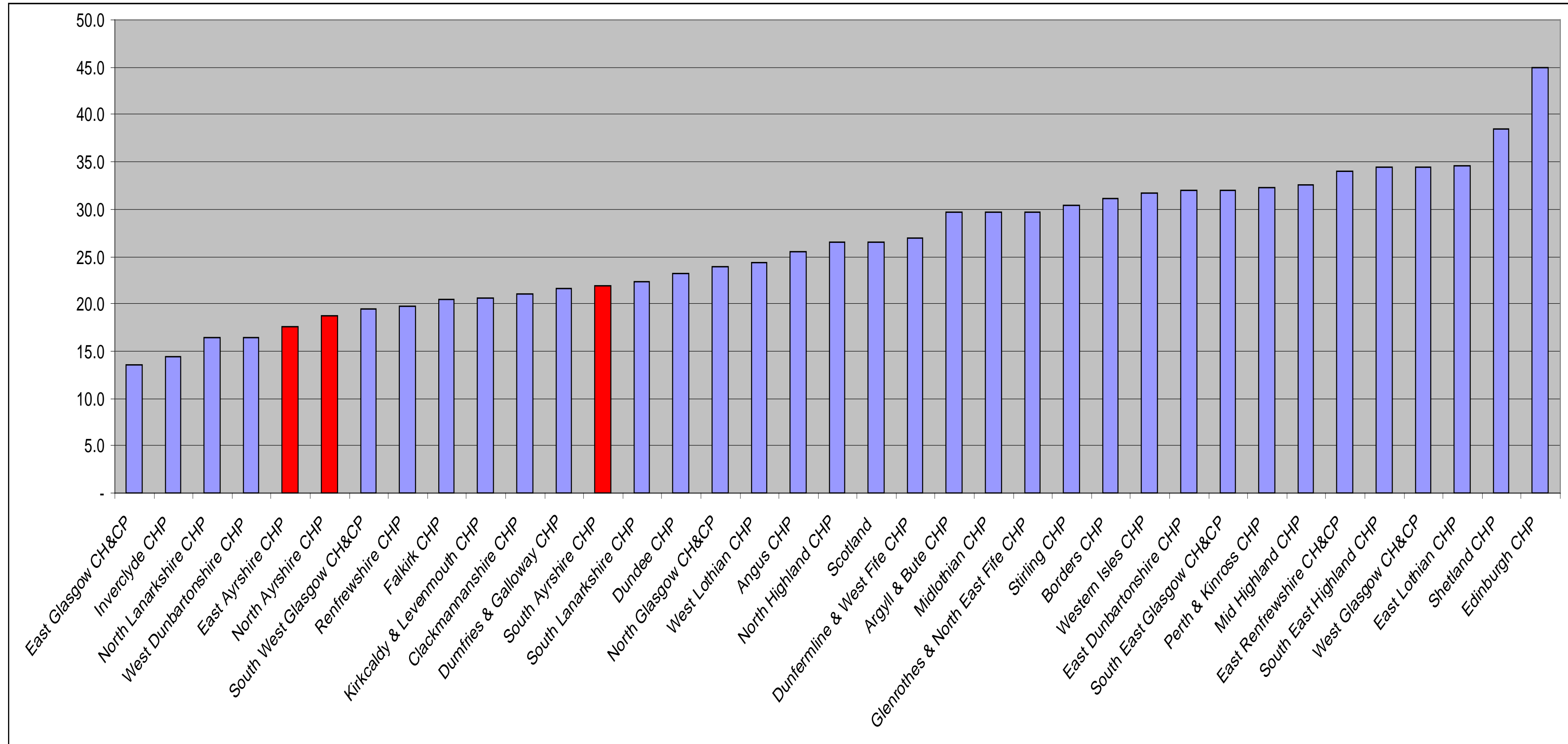
2.12.5. At the 6-8 week review 19.2% of babies were still exclusively breastfed, again only higher than Lanarkshire, compared to the national average of 26.5%.[50]

2.12.6. Of the 36 Community Health Partnerships in Scotland in 2009 – at the 6-8 week review, East Ayrshire has the 5th lowest exclusive breastfeeding rate (17.5%), North Ayrshire the 6th lowest (18.7%), and South Ayrshire the 13th lowest (21.9%).

[49] H7 Increase the proportion of new-born children exclusively breast fed at 6-8 weeks from 26.6% in 2006/07 to 33.3% in 2010/11

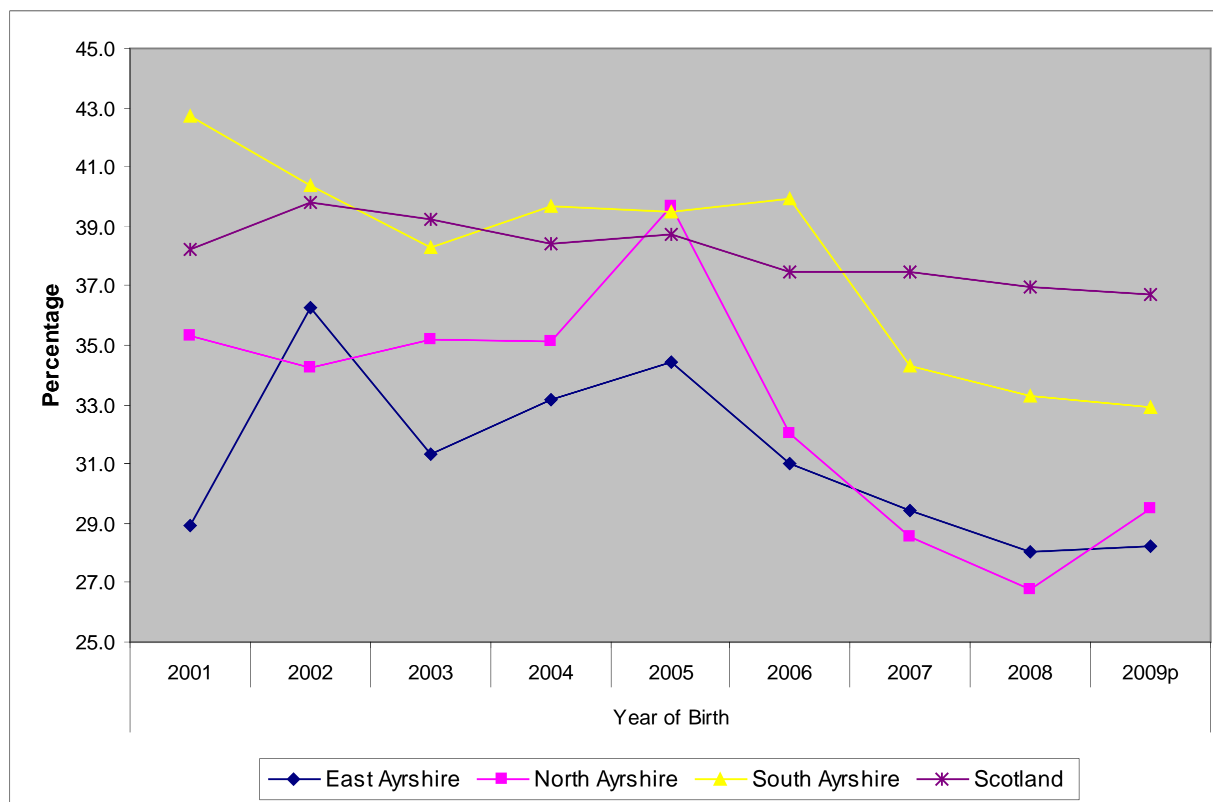
[50] ISD CHSP-PS Feb 09, http://www.isdscotland.org/isd/ch-breastfeeding.jsp?pContentID=1914&p_applic=CCC&p_service=Content.show&

Chart 21 – Exclusive breastfeeding at the 6-8 week review by Community Health Partnership and year of birth 2009



2.12.7. In addition, while the rates in Scotland have been declining slowly, the rates have been declining much more significantly in Ayrshire and Arran, particularly in North and South Ayrshire. In the latter, exclusively fed rates at birth were 4.5% **higher** than the national average in 2001 but by 2009 were running at 3.8% **below** the national average. North Ayrshire fell from 39.7% in 2005 to 26.8% in 2008 but with a rise to 29.55 in 2009

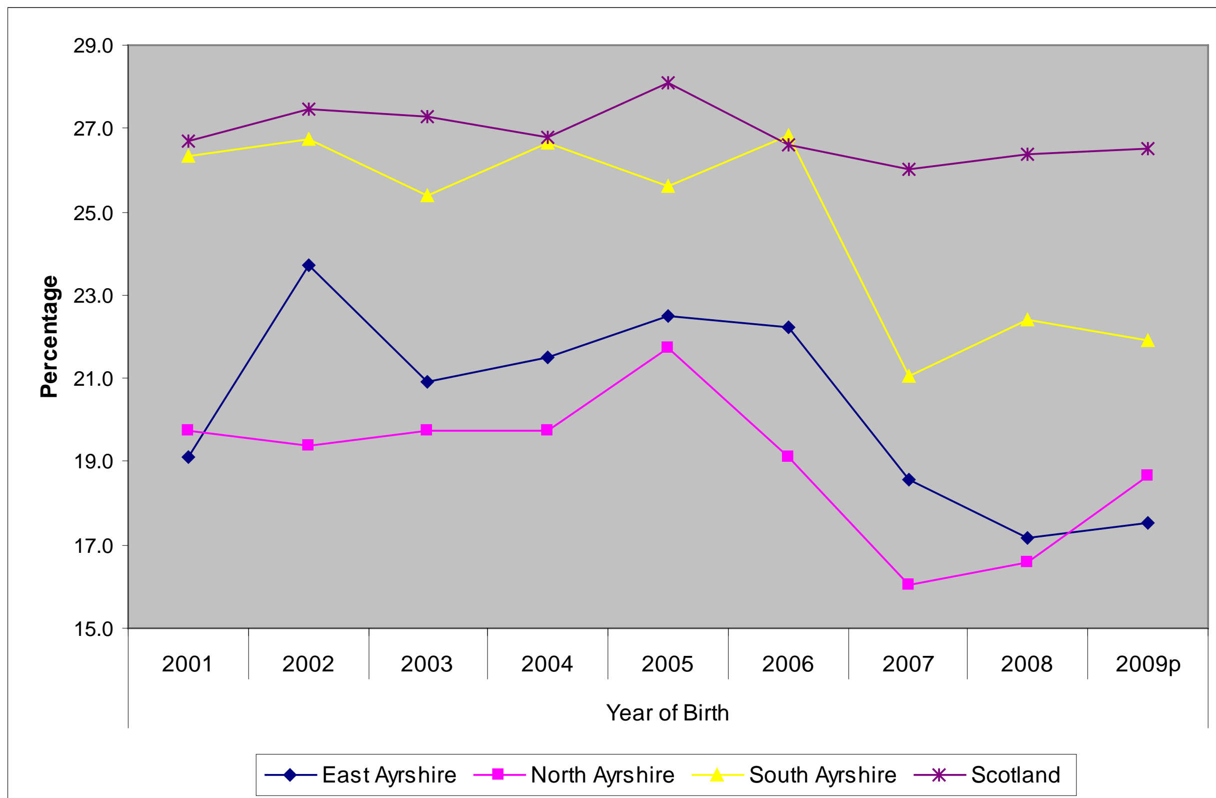
Chart 22 – Exclusively breastfed at birth



2.12.8. A similar pattern is evident at the 6- 8 week review with the national figures remain relatively unchanged between 2001 and 2009 (26.7 - 26.5%). However the rate of exclusively breastfed babies in North Ayrshire fell over that period from 19.8% to 18.7%, East Ayrshire from 19.1% to 17.5% and South Ayrshire from 26.3% to 21.9%[51]

[51] Graphs developed within Ayrshire and Arran using information from ISD CHSP-PS Feb 09, http://www.isdscotland.org/isd/ch-breastfeeding.jsp?pContentID=1914&p_applic=CCC&p_service=Content.show&

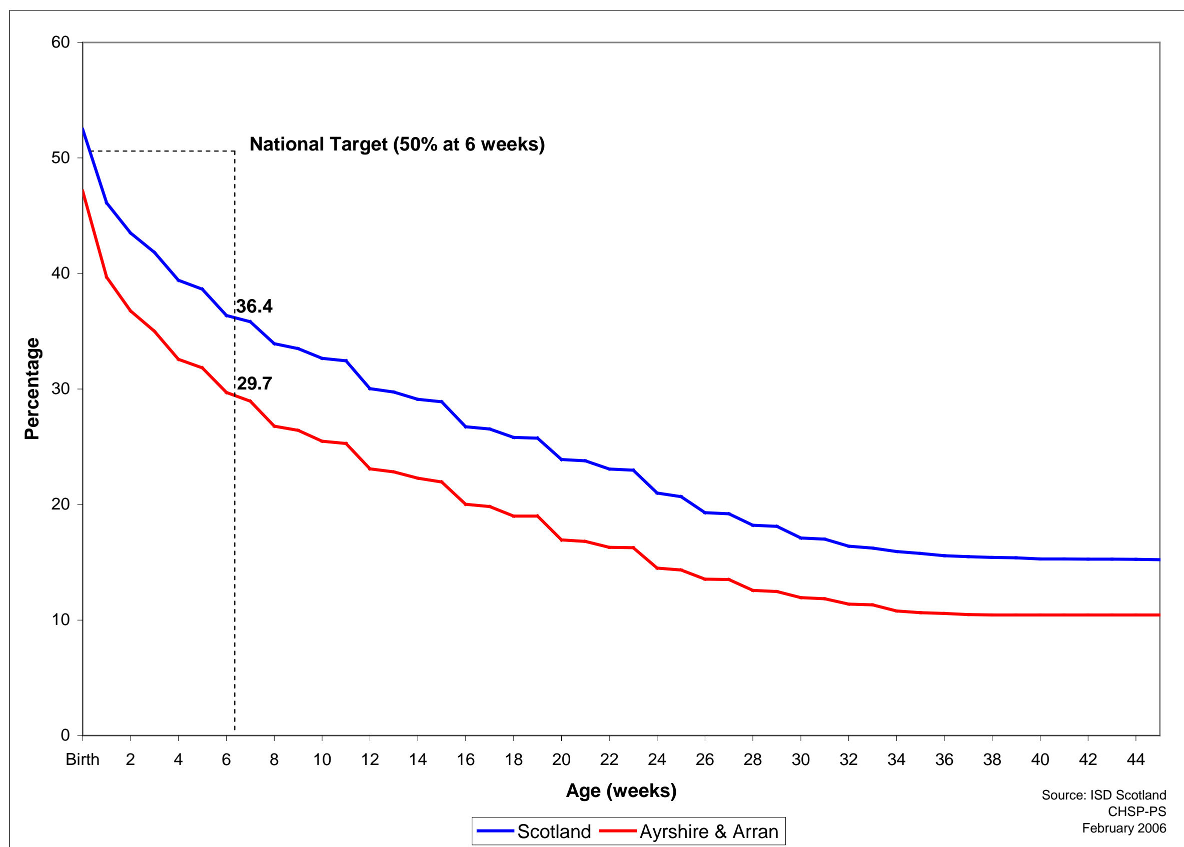
Chart 23 – Exclusively breastfed at 6-8 week review



The reduction continues through the first nine months with the Ayrshire and Arran rates continuing well below the national average (for 2004 figures)[52]

[52]ISD Scotland CHSP-PS February 2006 http://www.isdscotland.org/isd/files/Ayrshire_BF_Dur_%202004.xls

Chart 24 – Breastfeeding rates by age (weeks) recorded at the 8-9 month review; children born in 2004



Source: ISD Scotland – February 2006

2.12.9 Breastfeeding is one of the HEAT targets in the Local Delivery Plan 2010/11. Although the national target is to increase the proportion of new-born children exclusively breastfed at 6-8 weeks from 26.6% in 2006/07 to 33.3% in 2010/11, a revised target of 23.3% for Ayrshire and Arran was agreed with the Scottish Government by March 2011.

2.12.10 The following table extracted from the LDP 2010/11, shows the agreed trajectories from June 2010 to March 2011 to increase exclusive breastfeeding rates for Board areas in Scotland.

2.12.11 Action is being take to address the issue of low breastfeeding rates in Ayrshire and Arran and these are outlined in the NHS Ayrshire and Arran Infant Feeding Strategy 2008 – 13. http://www.nhsayrshireandarran.com/uploads/6557/IFstratfull.pdf

Table 30 – Heat target H7.KPM1: Exclusive Breastfeeding at 6-8 weeks[53]

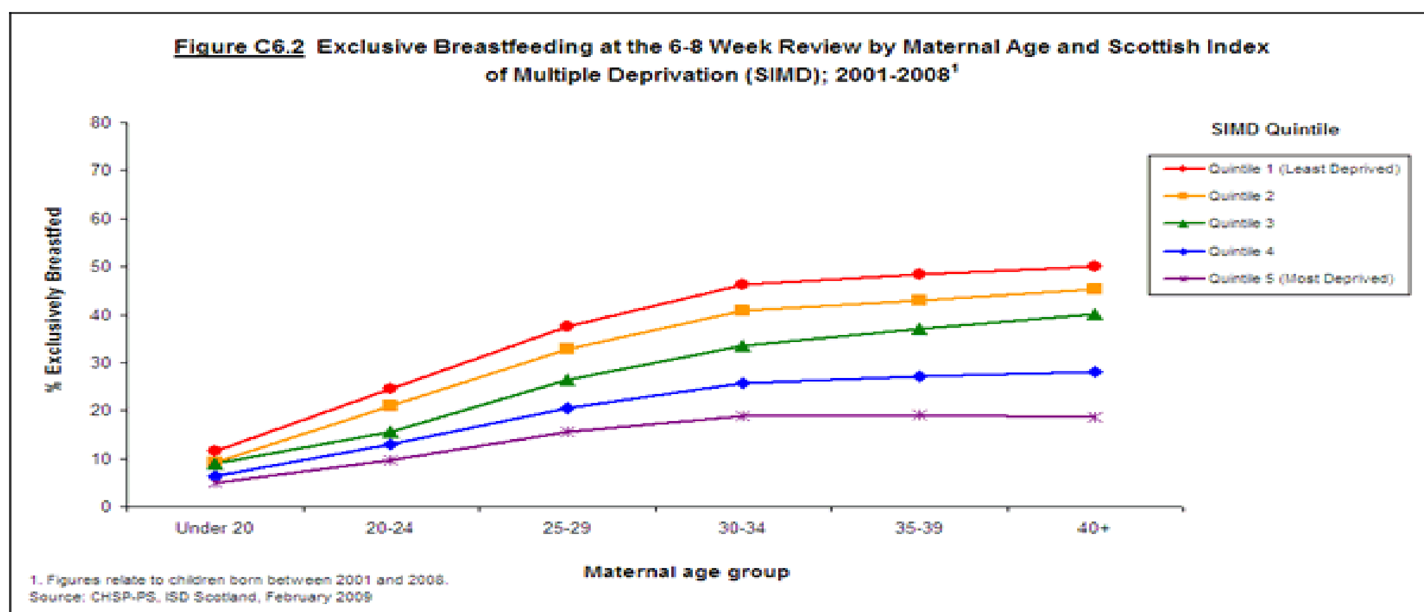
Year ending	Ayrshire & Arran	Borders	Dumfries & Galloway	Fife	Forth Valley	Grampian	Greater Glasgow & Clyde	Highland	Lanarkshire	Lothian	Orkney	Shetland	Tayside	Western Isles
Mar-07	21.7	32.6	23.2	27.8	22.2	33.0	24.0	28.2	18.9	35.0	60.0		28.5	29.3
Mar-08	18.2	29.7	24.0	28.3	24.0	35.0	23.0	32.8	18.9	36.0			26.9	24.7
Mar-09	18.7	32.1	23.3	26.4	25.8		23.6	32.7	18.4	36.7		44.9	26.6	34.1
Jun-10	21.0	33.2	28.0	32.0	26.7	39.6	28.7	34.7	22.7	40.0	64.0	56.0		33.9
Sep-10	21.6	33.2	28.5	32.0	27.1	40.1	29.0	35.2	23.0	41.0	64.0	57.0		34.8
Dec-10	22.2	33.3	29.0	32.0	27.4	40.6	29.5	35.6	23.3	42.0	64.0	57.0		35.8
Mar-11	23.0	33.3	29.2	34.8	27.7	41.2	30.0	36.0	23.5	43.7	65.0	58.0	35.3	36.8

Notes:

1. Grampian Orkney and Shetland are requested to include actual performance for financial years 2006/07, 2007/08 and 2008/09.

2.12.12 The Infant Feeding Strategy identifies particular issues of breastfeeding by maternal age with younger mothers and those in areas of higher deprivation being less likely to breastfeed than other groups. This would not explain the lower rates in Ayrshire and Arran but will evidence potential priority target areas.[54]

Chart 25 - Exclusive breastfeeding at the 6-8 week review by maternal age and Scottish Index of Multiple Deprivation (SIMD): 2001-2008



[53] NHS Ayrshire and Arran LDP submission 2010.

[54] ISD Scotland CHSP-PS for children born between 2001 and 2008, February 2009 http://www.isdscotland.org/isd/ch-breastfeeding.jsp?pContentID=1995&p_applic=CCC&p_service=Content.show&

2.13 Changes To The Pregnancy And Newborn Screening Programmes CEL 31 (2008)

2.13.1 The aims of pregnancy screening programmes are the detection of serious infections in the mother and prevention of transmission to the fetus and the early detection of abnormalities in the fetus, such as Down's syndrome and neural tube defects so that women and their partners can make an informed choice on the future management of the pregnancy. Newborn screening programmes aim to detect congenital conditions and offer early intervention and treatment to the affected infant.

2.13.2 A Chief Executive's Letter [CEL (2008) 31] issued in July 2008 outlined the following changes to pregnancy and newborn screening programmes to be implemented in full in Scotland by 31st March 2011. The changes to screening programmes take account of the recommendations of the NHS QIS Health Technology Assessment Report 5 and in summary require:

- First trimester combined ultrasound and biochemical (CUB) screening for Down's syndrome, through testing in first trimester and all women to receive a second trimester fetal anomaly ultrasound scan between 18 weeks, 0 days and 20 weeks, 6 days

- The introduction of a quality assured routine fetal anomaly scan for all women at 20 weeks of pregnancy by end December 2009

- Haemoglobinopathy screening in pregnancy and the newborn period and

- An additional test of medium chain Acyl CoA deficiency (MCADD) into the newborn bloodspot screening programme.

2.13.3 First trimester screening for Down's syndrome has been offered to all pregnant women in NHS Ayrshire & Arran from 1st March 2010. The recommended second trimester fetal anomaly scan for all women is currently offered in Ayrshire and Arran but additional views to cardiac outflow tracts were be included from end December 2009 to meet national recommendations.

2.13.4 This has involved specific training for the obstetric radiography and medical sonographers. This training has been completed but there are issues of resource for additional radiographer sessions/staff. There will be an effect on clinic numbers as this type of ultrasound assessment takes longer than a standard booking scan and therefore only 6 – 8 women can be scanned in a session whereas previously 12 women could be scanned during the session. Appropriate accommodation and trained personnel are required to deal with this. This has been addressed in the three Community Planning Partnership areas, North, South and East Ayrshire.

2.13.5 The timing of the introduction of haemogolobinopathy screening and Medium chain acyl dehydrogenase deficiency (MCADD) screening is dependant on national laboratory developments and are likely to be introduced during 2012.

2.14 Mode of delivery

2.14.2 The "Keeping Childbirth Natural and Dynamic" Programme (page 61) aims to maximise opportunities for women to have as natural a birth experience as possible through providing evidence based care, reducing unnecessary intervention, ensuring informed choice and developing multi-professional care pathways. There has been, in Scotland, a long-term trend for reduction of spontaneous deliveries, inductions and forceps deliveries with increased levels of caesarean and vacuum deliveries. This is not always fully reflected in NHS Ayrshire and Arran data.

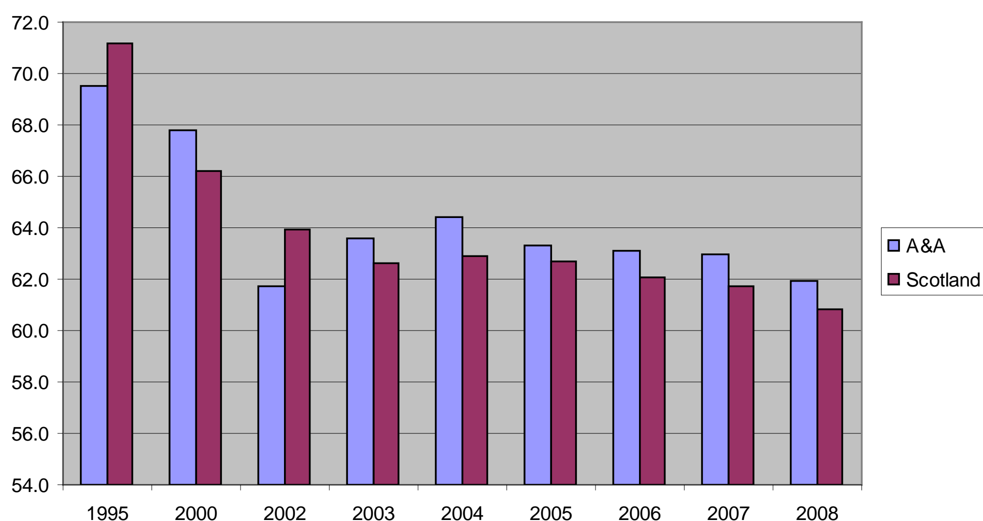
Spontaneous delivery

2.14.2 National trends over the last 15 years show a clear trend away from spontaneous delivery. Activity for recent years in Ayrshire and Arran reflects this national trend, although (apart from 2002), the levels of spontaneous deliveries in Ayrshire and Arran have consistently been higher than the Scottish average since 2005

Table 31 – Spontaneous delivery rates[55]

	1995	2000	2002	2003	2004	2005	2006	2007	2008
SVD – A&A	69.5	67.8	61.73	63.6	64.4	63.3	63.1	62.6	61.9
SVD - Scotland	71.2	66.2	63.9	62.6	62.9	62.7	62.1	61.7	60.8

Chart 26 – Spontaneous delivery (percentage by year)



Caesarean sections

2.14.3 In Ayrshire and Arran, the rates for both elective and emergency caesarean sections continue to be around the national average in 2008.

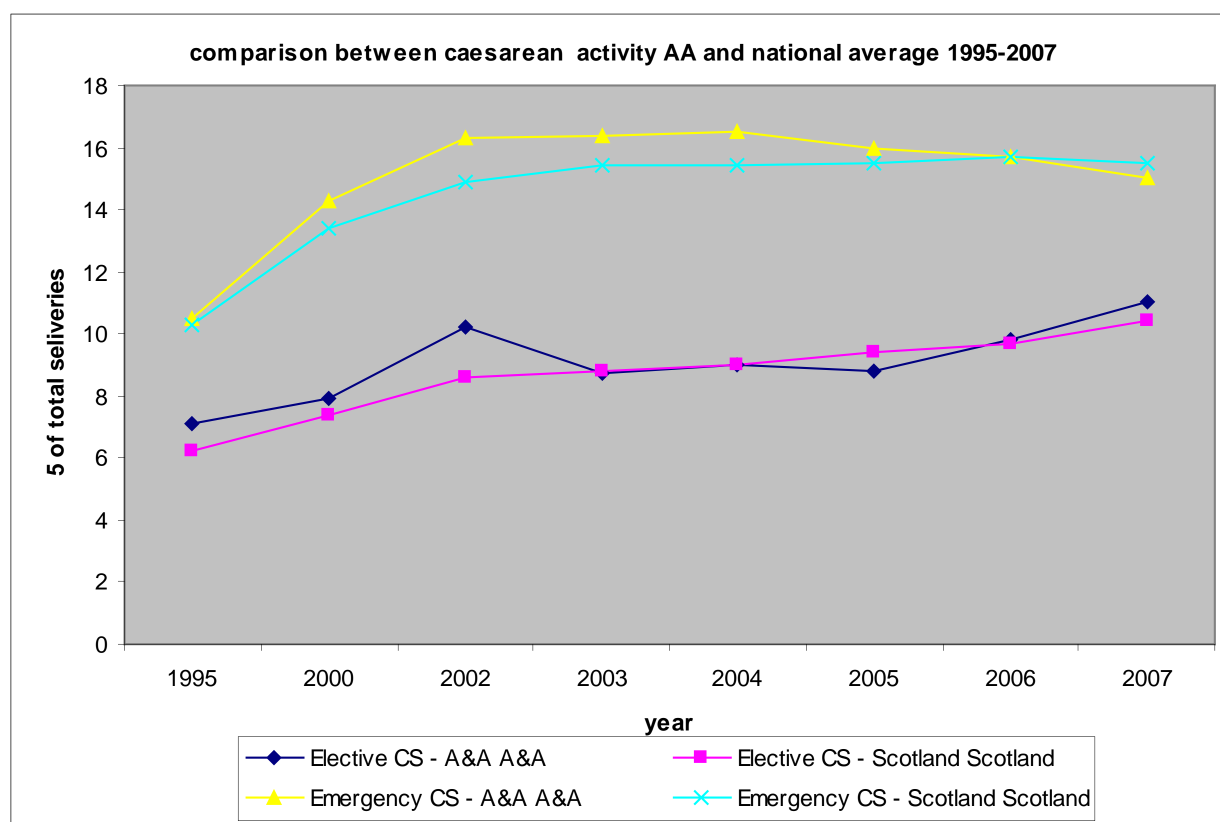
55 Ibid + local data

Table 32 – Caesarean section rates[56]

	1995	2000	2002	2003	2004	2005	2006	2007	2008
Elective CS - A&A	7.1	7.9	10.2	8.7	9.0	8.8	9.8	11.0	15.5
Elective CS - Scotland	6.2	7.4	8.6	8.8	9.0	9.4	9.7	10.4	15.2
Emergency CS - A&A	10.5	14.3	16.3	16.4	16.5	16.0	15.7	15.0	10.8
Emergency CS - Scotland	10.3	13.4	14.9	15.4	15.4	15.5	15.7	15.5	10.7

2.14.4 Nationally there is a trend for increasing elective caesareans and the increase in Ayrshire and Arran over the years is largely reflecting this national trend.

Chart 27 – caesarean comparison between NHS Ayrshire and Arran and National



Forceps delivery

2.14.5 Long term trends in Scotland for forceps delivery show a continuous fall but have risen again in the last eight years[57].

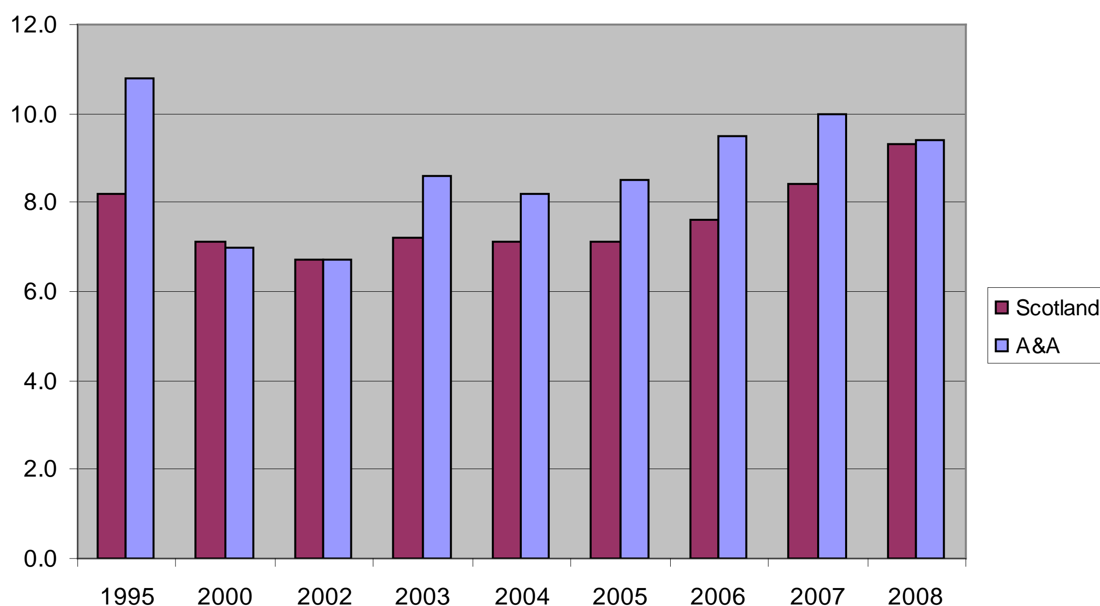
2.14.6 This form of delivery has been consistently slightly higher in Ayrshire and Arran than the Scottish average but has tended to reflect the national pattern.

[56] ibid
[57] ibid

Table 33 – Forceps delivery rates

	1995	2000	2002	2003	2004	2005	2006	2007	2008
Forceps - A&A	10.8	7.0	6.7	8.6	8.2	8.5	9.5	10.0	9.4
Forceps - Scotland	8.2	7.1	6.7	7.2	7.1	7.1	7.6	8.4	9.3

Chart 28 - Forceps (percentage by year)



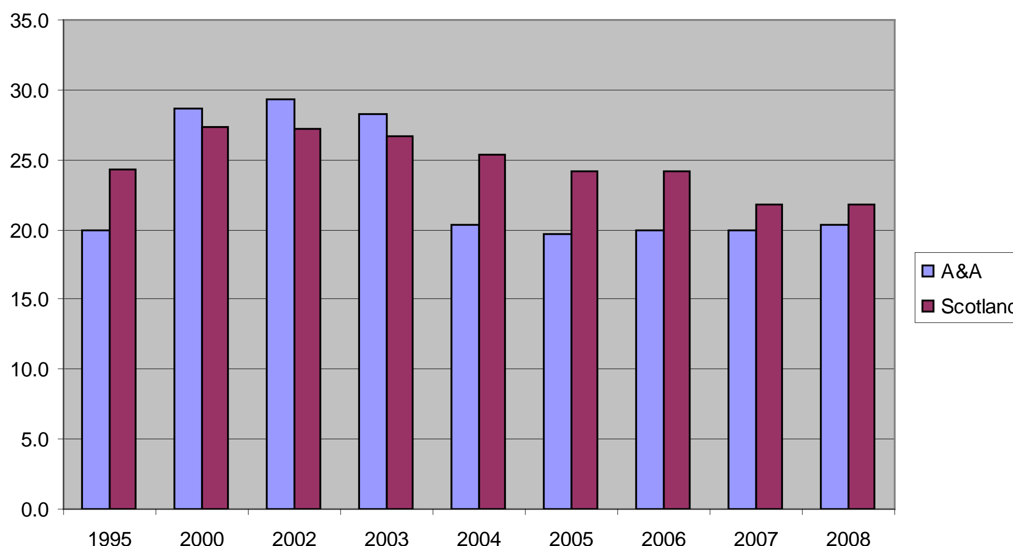
Induction of labour

2.14.7 Nationally, induced births have fallen significantly in the 70's and 80's from nearly half to just over a fifth and remained steady with year on year shifts since then[58].

2.14.8 Ayrshire and Arran activity has in the last few years remained consistently lower than the national average.

[58] ibid

Chart 29 – Induction of labour (percentage by year)



2.15 Length of Stay within the Ayrshire Maternity Unit

2.15.1 In 2009, the average length of stay in NHS Ayrshire and Arran was 2.5 days compared to a Scottish average of 1.8 days.

2.15.2 However, the length of stay within maternity hospital post birth can vary according to a number of factors including delivery type (vaginal birth or caesarean section) the patient's clinical risk factors and severity of any complications.

2.15.3 in 2008-09, the length of post natal stay in Ayrshire and Arran by mode of delivery was 98%[59] discharged in under 4 days compared to 98% in 1999/2000[60]. This appears to be effectively no change. However as the following table indicates, there has been a significant shift to same day or one day stay, although it remains lower than the English average[61].

Financial year	Length of postnatal Stay (days)								Total
	0	1	2	3	4	5	6	7 or more	
2000-2001	5.0%	22.4%	25.1%	18.1%	13.4%	7.4%	3.4%	5.3%	100%
2008-09	10.9%	31.7%	18.9%	20.9%	8.5%	2.7%	1.9%	4.4%	100%
Scotland 08-09[62]	11.2%	29.9%	27.0%	16.2%	7.3%	3.4%	1.8%	3.1%	100%

[59] SMR02 Internally analysed
[60] Expert Group on Acute Maternity Services: Reference Report 2003 http://www.scotland.gov.uk/Publications/2003/01/16018/15772
[61] Information from Hospital Episodes statistics Online 2008-09 NHS Information service. http://www.hesonline.nhs.uk/Ease/servlet/ContentServer?siteID=1937&categoryID=1041
[62] SMR02, ISD Scotland ref: IR2010-00643

2.15.4 The length of stay within maternity hospital post birth can vary according to a number of factors including delivery type (vaginal birth or caesarean section) the patient's clinical risk factors and severity of any complications.

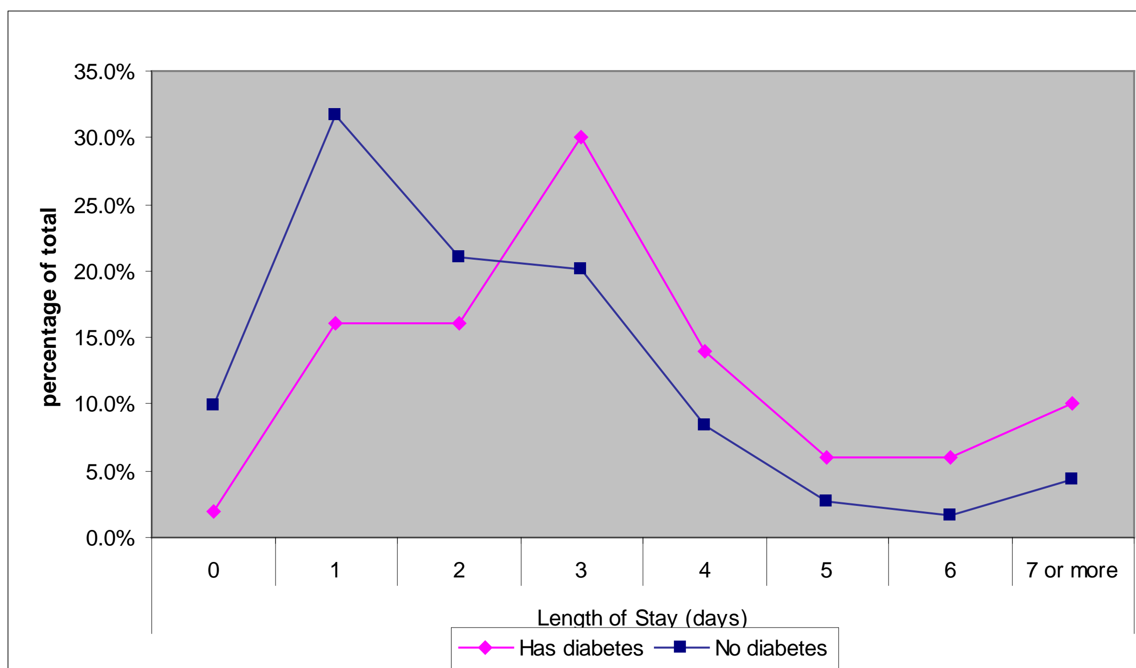
2.15.5 The 2008/09 length of stay by mode of delivery is as follows:

Mode of Delivery	Length of postnatal Stay (days)								Total	Average days
	0	1	2	3	4	5	6	7 or more		
Normal spontaneous	16%	47%	22%	6%	4%	1%	1%	2%	100%	1.7
Forceps	4%	35%	36%	9%	3%	4%	0%	8%	100%	2.3
Caesarean	0%	0%	12%	52%	19%	6%	4%	8%	100%	3.6
Total	**11%**	**32%**	**19%**	**21%**	**8%**	**3%**	**2%**	**4%**	**100%**	**2.4**
Average in England 08-09*	**18.5%**	**36.5%**	**23.0%**	**11.8%**	**4.3%**	**2.3%**	**1.4%**	**2.2%**	**100%**	

2.15.6 These show that lengths of stay are overall higher than in England particularly in the 4 or more stays. US figures suggest that the average loss for vaginal deliveries in 1998 was one day while for caesarean three days.[63]

2.15.7 The following charts show the duration of stay compared to particular lifestyles[64]. They indicate that there are clear links between mothers diabetes, drug misuse, mothers age and obesity to the postnatal length of stay. The figures for mothers drug misuse and length of stay are the most robust. It is suggested that related issues may influence the length of stay including the babies movement to neonatal care and concerns about child protection.

Chart 30 - Comparative length of stay – diabetes



[63] ... Approach - ...a, MD, MPH, American Journal of Public Health March 1998, Vol. 88, No. 3 http://ajph.aphapublications.org/cgi/reprint/88/3/377.pdf

[64] SMR02 Internally analysed **– indicators only in some areas numbers not large enough to be statistically significant.**

Chart 31 - Drug misuse

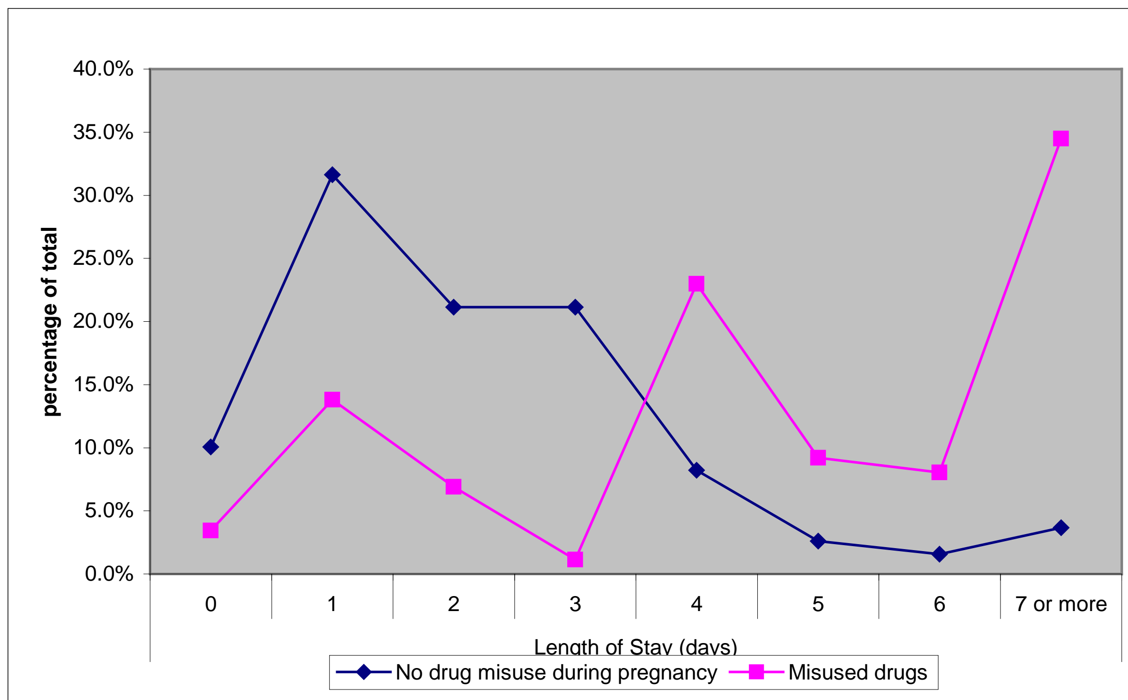


Chart 32 - Comparative length of stay – age of mother

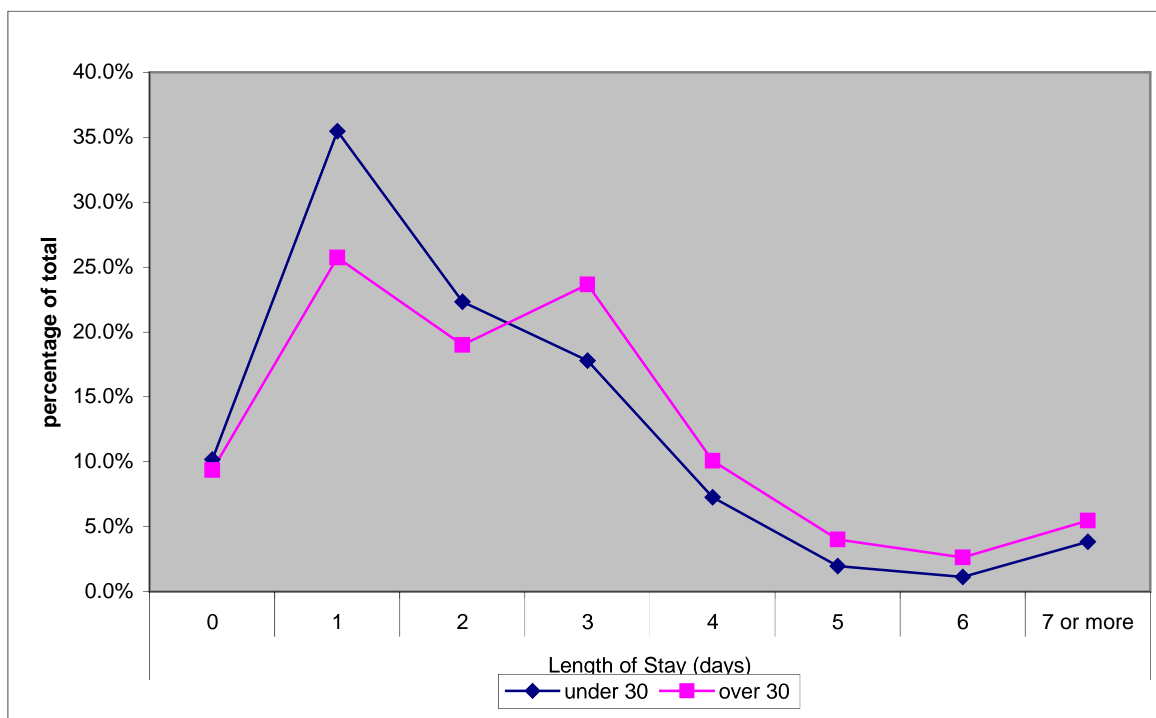
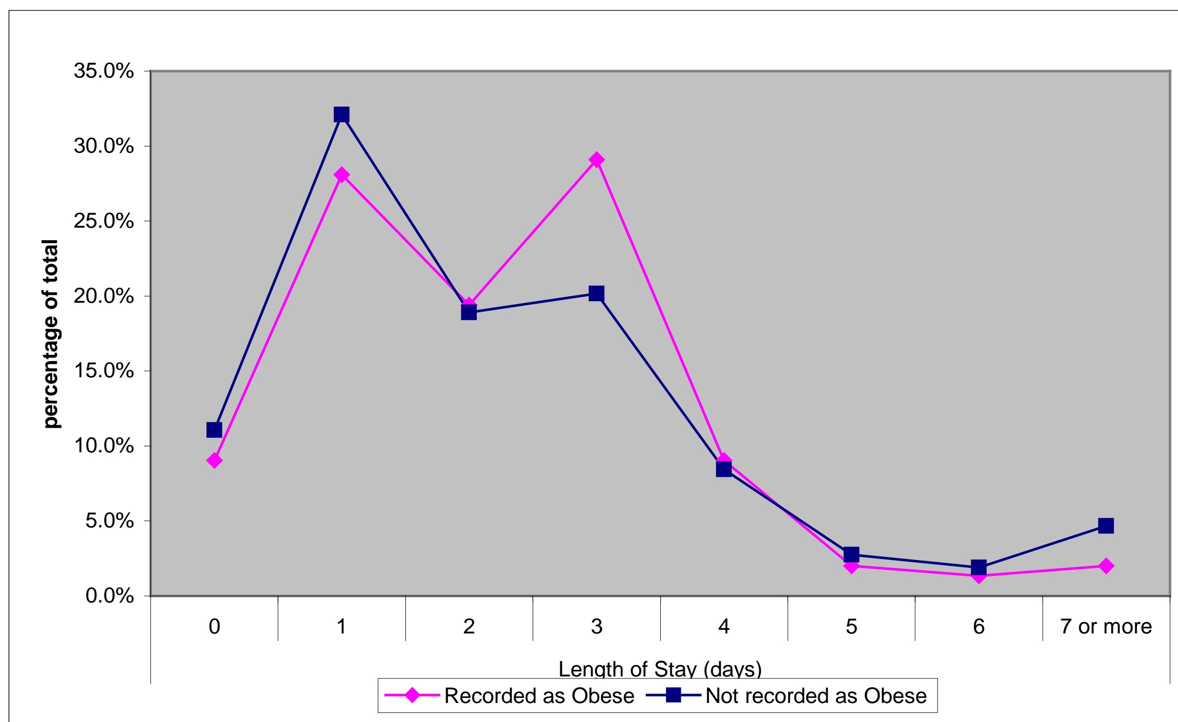


Chart 33 - Comparative length of stay – obesity recorded



2.15.8 Conditions such as level of deprivation of home location, maternal smoking during pregnancy or alcohol use, showed no difference in length of stay.

2.15.9 The length of stay can also be extended by inappropriate early admission or admission for people who live in relatively inaccessible localities requiring to be more accessible at later stages of pregnancy.

2.15.10 However as the following table indicates the rate of antenatal stay has significantly shifted since 2000-01 and is now comparable with the English average[65].

Financial year	Length of Antenatal Stay (days)								Total
	0	1	2	3	4	5	6	7 or more	
2000-2001	45%	45%	5%	1%	1%	0%	0%	2%	100%
2008-09	63%	27%	5%	2%	0%	0%	0%	1%	100%
Scotland 08-09[66]	60.1%	30.2%	6.1%	1.9%	0.6%	0.3%	0.2%	0.7%	100%

[65] ibid
[66] SMR02, ISD Scotland Ref: IR2010-00643

2.16 Child Protection

2.16.1 The Early Years Framework (Scottish Government 2008)[67] sets out the need for early identification and appropriate intervention where there is a risk to children's health and development. In addition year on year there is an increase in the identification of vulnerable unborn babies and this is demonstrated in Scottish Government published Child Protection statistics (Scottish Government 2009)[68], which report unborn babies represented 3% of all child protection referrals in 2008-09, an increase of 31% from the previous year's returns. Whilst there are several factors which may affect risk in unborns, parental substance misuse continues to be the significant and predominant factor. This upward trend in incidence and the developments in practice through implementation of policy have created a range of demands on maternity services.

2.16.2 Getting it Right for Every Child (GIRFEC) (Scottish Executive 2006) aims to ensure children get the help they need, at the right time and from the most appropriate person/service. These principles equally apply to unborn babies and require maternity and other services to identify situations of actual or potential harm at the earliest possible time and initiate a response to minimise or mitigate risk.

2.16.3 Policy and need requires maternity services to provide both a proactive and reactive response to increasing demand. In addition and importantly it also brings the opportunity to build on existing strengths to provide a high quality and responsive service which is underpinned by strong clinical leadership and effective use of skills and expertise to reduce risk and optimise the opportunities to meet the health needs of babies once they are born.

2.16.4 Staff in Maternity Services work closely with the Child Protection Team and staff in Social Services regarding any concerns. Specific guidance for Maternity Services is included in NHS Ayrshire and Arran's Child Protection Protocol Manual[69].

2.17 Domestic Violence.

2.17.1 "Health for All Children 4: Guidance on Implementation in Scotland"[70] has identified domestic violence as a significant issue for children's health and well being. The document also states that "Domestic abuse may begin, or become more serious during pregnancy and research into incidence in primary care populations has identified that domestic abuse may occur more often than physical conditions for which we routinely offer screening".

2.17.2 The document refers to "Guidelines for Health Care Workers in NHS Scotland in responding to domestic abuse[71]" for action related to the issues.

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[67] http://www.scotland.gov.uk/Resource/Doc/257007/0076309.pdf
[68] http://www.scotland.gov.uk/Resource/Doc/286274/0087183.xls
[69] NHS Ayrshire and Arran Child Protection Information, Guideline & Protocol Manual
[70] Scottish Executive 2005 http://www.scotland.gov.uk/Resource/Doc/37432/0011167.pdf
[71] Scottish Executive 2003 http://www.scotland.gov.uk/Resource/Doc/47034/0013863.pdf

2.17.3 Recommendations outlined in this document for maternity services include: where there is a history of domestic abuse within a family, or any indication of injury or assault upon an adult, professionals providing or contributing to programmes of additional or intensive support should be alert to and ask parents about the possibility of domestic abuse, and consider the potential for harm to any children involved.

2.17.4 Subsequently the Scottish Government issued CEL 41 (2008), "Gender-Based Violence Action Plan" for implementation between 2008-2011. Actions are outlined in four key areas[72]:

- Implementation of Routine Enquiry of abuse within priority settings
- Dissemination of revised guidance on abuse for staff.
- Production of an employee policy on gender-based violence.
- Multi-agency collaboration.

2.17.5 Within NHS Ayrshire and Arran, staff training is delivered on a regular basis as part of the midwifery study day. The training session is supported by a resource pack available throughout the hospital in each clinical base and also at central locations in the community. The basic resource pack is also available on a number of hospital based computers.

2.17.6 The training in total considers domestic abuse awareness and the impact on the physical and psychological implications for women and their children. It examines the subtleties of abuse, why women stay and the difficulties in disclosing. It also examines why there is a need to ask the question and staff attitudes surrounding this. The resource pack contains specific aide memoires about asking the question, documentation and common indicators of abusive relationships. The training acknowledges the child protection issues which also surround domestic abuse. It is increasingly interactive generating discussion and encouraging staff to share experiences. All the resources are based on professional recommendations, are supported by Women's Aid resources and comply with Scottish Government recommendations. With the support of the regional advisor, the training will change shortly to introduce workshops about asking the question and support staff further in their practice.

2.17.7 The maternity services have links with women's aid, child protection, the police domestic abuse liaison office, social work and housing via the midwifery staff and also through a number of multidisciplinary groups.

2.18 Mental Health

2.18.1 Babies are born 'pre-programmed' to seek out and adapt to the relationship that they have with their parents. Research has shown that support for parents during their baby's first year can significantly increase the proportion of babies who form secure relationships with their parents and this has lasting benefits for their subsequent development.

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[72] Scottish Government CEL 41 (2008) Gender-Based Violence Action Plan 29th September 2008 http://www.sehd.scot.nhs.uk/mels/CEL2008_41.pdf

2.18.2 A good beginning for young families is a protective factor in coping with life's inevitable stresses. Early intervention when there are difficulties can often prevent the development of mental health problems in later years. Active, satisfying and reciprocal relationships with parents create the 'taken for granted' basis of a sense of identity, self-esteem, appreciation of others and self-control. The quality and content of the baby's relationship with his or her parent(s) has a physical effect on the neurobiological structure of the child's brain that will be enduring.

2.18.3 Midwives, health visitors/public health nurses and general practitioners are accessed by the great majority of families and each has a unique role both in supporting the best conditions for all children and identifying those families for whom more intensive interventions may be needed.

2.18.4 Risks may reside in the baby, in terms of prematurity, illness, congenital and obstetric complications. The baby's temperament and personality may also potentially create problems. Equally the risk may reside in the nature of the environment the baby encounters: in poverty, parental mental or physical ill health or in the environment created by immature parents. Often, risks are multifactorial and involve characteristics in the parents, the child, the fit between parent-and-child and factors in the wider environment. Particular care needs to be given to those parents who are less likely to access readily available information or help. Families for whom literacy is a challenge or those for whom English is not their first language may have particular needs that put their babies at additional disadvantage and also prevent easy access to resources and services.

2.18.5 Opportunities to address infant mental health issues could arise at a number of stages in the life of the parent and the child. Personal and social development in the school curriculum before pregnancy is the first opportunity and almost universally delivered.

2.18.6 Antenatal and perinatal information and services are very significant also because of their almost guaranteed contact with families. The opportunity to identify families with additional needs will devolve to those who deliver these services. Community-based parenting programmes are also an important route to provide additional support.

3. NHS AYRSHIRE AND ARRAN STRATEGIC OBJECTIVES

Proposal

To move the organisation from good to great, it is proposed to adopt the following:

3.1 Mission – the healthiest life possible for the people of Ayrshire & Arran.

3.2 Vision – a leaner, fitter, healthier organisation.

3.3 Strategy – the transformation of the organisation into optimal, integrated care pathways which are clinically safe, effective and efficient. The organisation will become:

3.3.1 Leaner, through:

- Providing integrated patient-centred pathways, across the full spectrum of health improvement and delivery of health care in all service areas
- Providing a single integrated Electronic Patient Record (EPR) through the Patient Management System (PMS) and the Patient Portal so that practitioners can access patient records in real time
- Applying a lean approach to all the operations, ensuring these get it right first time, helping to increase productivity and eliminating the cost of failure
- Achieving financial targets, including reduction in expenditure by 10% over the next three years
- Improving patient care – best patient experience and best patient safety
- Dis-investing from underused and redundant land and buildings; selling off redundant assets, ensuring best value from purchasing
- Using the Integrated Resource Framework to move resources to follow patient need
- Using existing information and understanding of disease to support improvement in the health of the population, in particular addressing Ayrshire and Arran's public health priorities – alcohol, tobacco, obesity and mental health
- Maintaining safe and effective clinical services with 10% less workforce expenditure
- Addressing persistent adverse variations, e.g. productivity, prescribing.

3.3.2 Fitter, through:

- Putting self care at the heart of health care
- Getting the balance right between providing treatment and supporting health; providing specialist acute care in hospitals and supporting people to keep well, recover faster or live safely with long-term conditions in their own communities
- Developing community services, with consequential reduction in hospital admissions by 10 per cent where these are unnecessary or inappropriate
- Offering more health care services in the community, with consequential reduction in new outpatient referrals by 10 per cent where these are unnecessary or inappropriate.

3.3.3 Healthier, through:

- Improving quality of health care for all patients and carers while increasing productivity
- Improving the breastfeeding rates
- Reducing harm from alcohol and tobacco, reducing obesity and improving mental health
- Sharing responsibility for wellbeing and condition management between patients, carers and health professionals
- Embedding self management as the norm for patients who benefit from that approach
- Giving funding priority to providing services and procedures which are proven to be clinically effective, and disinvesting using ethical decision making processes from those which are not.

4 PRINCIPLES AND OUTCOMES FOR THE MATERNITY SERVICE

4.1 The following principles underpin this strategy:

P1 Women will receive a high quality, clinically effective and seamless service throughout the period from conception to childbirth and after, based on the available evidence about effective practice provided by a strong multi-professional team approach.

P2 Services for childbirth will be located as close to women's homes as is consistent with safe clinical care and informed maternal choice. Women will be informed about risk with unbiased, evidence-based information to help them decide where to give birth.

P3 Professionals at all levels of maternity care will be appropriately trained and will have access to regular continuing professional development (CPD) opportunities to equip them with the competencies and skills they need to provide high quality, safe care for women in childbirth.

P4 Service development will focus on reducing the inequalities gap between the best and worst health in Ayrshire and Arran, as well as the inequalities gap between Ayrshire and Arran and the rest of the UK.

The strategy will also be underpinned by the NHS Ayrshire and Arran Strategic Objectives and the outcomes against which the action plans will be measured will therefore be those of the NHS Ayrshire and Arran Strategic Objectives:

Meeting the health needs of our population

O1 We will continue to drive continual clinical improvement, with a clear focus on patient safety

O2 We will achieve the best possible health for individuals, families and communities by developing services which promote well-being and good health; prevent ill-health; provide equal and appropriate care and treatment for all; and ensure we plan for future health needs.

O3 We will provide clear information about the services people seek from their surgery and other community services, community pharmacists, dentists, optometrists, their local hospitals and how patients can get the right help in an emergency

An environment in which staff flourish

O4 We will ensure our staff have the appropriate skills and equipment

O5 We will strive to be an exemplar employer on matters of equality and diversity

O6 We will promote staff health and well-being

O7 We will focus on workforce re-design to achieve optimal support across the patient journey

08 We will ensure effective staff development

Effectively managing resources

O9 We will address challenges in maintaining financial balance through effective use of resources

O10 We will maintain essential services

5 NATIONAL POLICY DRIVERS

Key policy Drivers are:

5.1. Scottish Government - National Performance Framework[73]

5.1.1. The Scottish Government's purpose in developing the National Performance Framework is to focus the Government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth.

5.1.2. The key national outcomes of direct relevance to this strategy are[74]:

5.1.3. We realise our full economic potential with more and better employment opportunities for our people.

5.1.4. We are better educated, more skilled and more successful, renowned for our research and innovation.

5.1.5. Our young people are successful learners, confident individuals, effective contributors and responsible citizens.

5.1.6. Our children have the best start in life and are ready to succeed.

5.1.7. We live longer, healthier lives.

5.1.8. We have tackled the significant inequalities in Scottish society.

5.1.9. We have improved the life chances for children, young people and families at risk.

5.1.10. We live in well-designed, sustainable places where we are able to access the amenities and services we need.

5.1.11. We have strong, resilient and supportive communities where people take responsibility for their own actions and how they affect others.

5.1.12. We value and enjoy our built and natural environment and protect it and enhance it for future generations.

5.1.13. We take pride in a strong, fair and inclusive national identity.

5.1.14. We reduce the local and global environmental impact of our consumption and production.

5.1.15. Our public services are high quality, continually improving, efficient and responsive to local people's needs.

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[73] Scottish Government 2007 http://www.scotland.gov.uk/Publications/2007/11/13092240/9
[74] Ibid http://www.scotland.gov.uk/About/scotPerforms/outcomes

5.2. Single Outcome Agreements

The main source of reporting on the National Performance Framework will be through the Single Outcome Agreements[75]. There are three Single Outcome Agreements covering the NHS Ayrshire and Arran areas, based on local authority boundaries.

5.2.1 The outcome indicators that are most relevant to this strategy are:

5.2.2 Table 34 – Single Outcome Agreement for maternity - Ayrshire and Arran[76].

Agreed Outcome Indicator	local authority area		
	East Ayrshire	North Ayrshire	South Ayrshire
% of babies exclusively breastfed at 6-8 week review as a % of all babies receiving a 6-8 week review	Y	Y	Y
Increase exclusive breastfeeding rates at 6-8 weeks in areas displaying the lowest rates	Y		Y
Number of hospital admissions as a result of unintentional injuries for children(<15 years)	Y	Y	Y
Number of inpatient discharges with an alcohol-related diagnosis			Y
Number of general acute inpatient discharges with a diagnosis of drug misuse			Y
Number of people receiving an alcohol brief intervention line with SIGN 74 guidelines	Y	Y	Y
Rate of pregnancies among under 16 year olds per 1,000 relevant population		Y	
Teenage pregnancy rates in 15 – 19 year olds in the most deprived areas reduced	Y		
Integrated package of health, early education and care for vulnerable children aged 0-3 years	Y		
Number of child protection re-registrations in year	Y	Y	Y
Percentage of women smoking during pregnancy	Y	Y	
Mental health and well-being scores on Warwick-Edinburgh Mental Well-being Scale in regeneration areas* and in the rest of Community Planning Partnership area.		Y	Y
Number of Integrated Assessment Framework Assessments completed		Y	

[76] Information from Single Outcome Agreements from North, South and East Ayrshire provided bty NHS Ayrshire and Arran Department of Policy, Planning and Performance

5.3. Implementing A Framework for Maternity Services in Scotland - Overview Report of the Expert Group on Acute Maternity Services (2003). (EGAMS)[77]

5.3.1. The key messages identified in this document are:

- Women must receive high quality care during childbirth. The care should be based on the available evidence about effective practice and should be woman and baby-centred. A strong multi-professional team approach is vital for the delivery of a clinically effective and seamless service

- The principles in "A Framework for Maternity Services in Scotland" are robust and are based on best professional practice. All of the principles, including the tiered framework of levels of care provision at the time of childbirth (intrapartum) and for the new-born baby (neonate), should be fully implemented

- Maternity care professionals must work to promote the notion of pregnancy and childbirth as being normal life events, but must also have the skills to recognise when either the mother or baby is having problems

- One-to-one midwifery care should be the norm for all women during labour and childbirth

- The present provision and shape of acute maternity services is no longer sustainable in the light of changes in the number and locations of births in Scotland (demographic changes), training and workforce pressures, and the need to ensure clinically safe and cost-effective practice

- NHS Scotland should provide services for childbirth as close to women's homes as is consistent with safe clinical care and informed maternal choice

- Local planning and commissioning of maternity services, in particular childbirth (intrapartum) services, should take place within a regional context. This will help to ensure that local services reflect regional and national priorities

- There is no such thing as 'zero risk' for women who are pregnant or giving birth; an element of risk applies to all pregnancies and childbirth

- Women must be informed about risk with unbiased, evidence-based information to help them decide where to give birth. Professionals should balance maternal choice, demand and need against assessment of risks and available services

- Maternity care professionals should adopt risk-assessment and management skills as core responsibilities

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[77] Scottish Executive 2003 http://www.scotland.gov.uk/Resource/Doc/47021/0013919.pdf

- Professionals at all levels of maternity care must have appropriate training and should have access to regular continuing professional development (CPD) opportunities to equip them with the competencies and skills they need to provide high quality, safe care for women in childbirth (intrapartum care)

- Networks of services for intrapartum care should be developed on a consistent local, regional and national basis across Scotland, identifying entry points, referral pathways, levels of care, transport services and communication pathways

- Information management and communication should be developed to aid the planning, provision and monitoring of intrapartum care throughout Scotland

- All maternity units must describe the level of service they offer within the tiered framework of intrapartum care set out in "A Framework for Maternity Services in Scotland." This description should include the maternity unit's role and remit within the wider local and regional network of maternity services for childbirth, neonatal and maternal postnatal care.

5.3.2. The Core Principles of the provision of Acute Maternity Services are set out as follows:

- Care should be high quality and based on the best available evidence

- Care should be offered as close to the woman's locality as possible

- Continuity of care is a key goal

- Services should be planned to strike a balance between women's choices, risk and quality of care

- All women should be 'booked' by a midwife and assigned to the appropriate level of care, as defined by risk assessment and management principles

- A 'lead professional' for the woman's care should be identified. This can be any professional. Midwives are likely to be the lead professionals for 'normal' pregnancies and births

- Women should receive one-to-one care when in labour

- Services should be based on a multi-disciplinary approach to care

- Women and their partners should be well-informed about arrangements for their care and support throughout the pregnancy and beyond.

5.3.3. Specifically:

- Acute maternity services in Scotland should be planned and commissioned on a regional basis by Regional Service Planning Groups (RSPGs), taking account of NHS Boards' local plans. The RSPGs should monitor implementation of regional plans by NHS Boards and Trusts. They should also work in alliance with other regions

- RSPGs should set up appropriate mechanisms to involve stakeholders in planning and commissioning maternity services within regions, led by dedicated Regional Maternity Services Co-ordinators

- Networks of maternity services should be developed throughout Scotland at local, regional and national level

- Networks should devise a framework of tiered care for maternity services in Scotland through mechanisms for regional planning

- Each maternity network should develop risk management and assessment as core elements of practice. They should:

    - develop a risk management strategy

    - develop and implement protocols and guidance related to risk assessment and management

    - set up multi-professional labour ward forums to explore risk issues

    - develop critical incident reporting procedures

    - establish 'emergency-drill' procedures through which maternity care professionals are able to explore and rehearse responses to critical incidents

    - instigate processes of audit to monitor, assess and evaluate practice.

- Services should ensure that practitioners in Community Maternity Units (CMUs) and in remote and rural locations gain access to training on skills related to risk assessment and management

- Midwife-led settings for childbirth, including home births, CMUs attached to non-obstetric general hospitals and standalone CMUs, should have the same risk management strategies. These should ensure that women who experience complications during labour or postnatally, including those who need epidural analgesia, are transferred to consultant-led units

- CMUs should have appropriate risk assessment and management procedures in place to manage acute emergencies effectively

- In exceptional circumstances, remote and rural island hospitals may offer caesarean section if appropriate facilities and trained personnel are available

- Risk assessment should be based on exclusion rather than inclusion criteria
- In addition to clinical factors, services should also consider non-clinical factors in risk assessment
- Women should have access to the best available evidence relative to their care throughout their care episodes, delivered by experienced and knowledgeable maternity care and other professionals
- All services should ensure they have appropriate treatment and referral pathways in place to meet the needs of women and babies who become ill at any time during the pregnancy and after the birth
- Acute maternity services should ensure they have clear arrangements for access to adult intensive care facilities in a general hospital. Hospitals with consultant-led units should have ready access to adult intensive care, high-dependency and neonatal intensive care facilities
- Consultant-led units should have in place a maternal and neonatal resuscitation service, a full obstetric and anaesthetic service and access to epidural analgesia in labour
- All maternity units should ensure that their level of service is consistent with the risk assessment exclusion examples
- Maternity care professionals should assist the pregnant woman to understand the concept and nature of risk management to help her make a decision about where and how she should give birth
- Maternity care professionals working in units throughout Scotland should achieve the competencies appropriate for the level of care their Unit provides
- Maternity care professionals should identify present and required competencies within their individual job descriptions, personal development plans (PDPs) and continuing professional development (CPD) portfolios
- Small units and those in remote and rural areas should consider using computer technology to enable staff to update their skills, knowledge and competencies on a regular basis
- Staff in small and remote and rural units should be offered opportunities to take clinical placements/secondments in larger units as a means of updating skills, knowledge and competencies
- Maternity care professionals should share responsibility for their educational development, in partnership with their employing organisations. They should explore and undertake a variety of uni and multi-disciplinary CPD opportunities
- Maternity units and Regional Services should explore options for delivery of CPD activities within multi-disciplinary settings

- A national, post-registration, multi-disciplinary curriculum for maternity services in Scotland should be established. NHS Boards and Trusts, NHS Education for Scotland, professional bodies and education providers should form an alliance to plan and deliver the programme

- Lead Co-ordinator for maternity services education should be identified within NHS Education for Scotland to oversee the development, delivery and evaluation of the education programme

- Education curricula at post-registration level should reflect the competencies set and/or different types of maternity services delivery

- Integrated workforce plans for maternity services should be driven by the core competencies necessary for the safe and clinically effective delivery of services. The involvement of the full range of education providers in this process is crucial

- Opportunities for multi-disciplinary education and training should be maximised

- NHS Boards and Regional Service Planning Groups should work closely with Regional Workforce Co-ordinators on workforce development issues

- Specialist staff should be available to undertake some duties on a regional basis

- Maternity courses should be set up for midwives, obstetricians, GPs, paramedics and other health professionals working in remote and rural areas. This will help to ensure that these professionals receive the appropriate education and support to equip them to make decisions about care and know when to refer to specialist maternity care professionals

- GPs in rural and remote areas must be trained and competent to care effectively for pregnant women and their babies. Most GPs in remote settings will be involved (directly or indirectly) in the delivery of maternity care, especially in cases where the mother has an illness which may require GP input

- Other health professionals' role and competencies should be reviewed in relation to delivering a safe and effective maternity service in remote and rural areas

- The consultation processes on planning, delivery and evaluation of maternity services at local, regional and national levels should involve all key stakeholders – commissioners, providers and users of services and the general public

- The role of Maternity Services Liaison Committees should be strengthened

- The National Health Council should consider bringing together representatives of local Maternity Services Liaison Committees to form a body with a strong voice for maternity care at national level

- Maternity services should initiate or further develop ongoing audit in relation to:
  - modes of delivery of maternity services by location
  - clinical outcomes for mothers and babies
  - comprehensive transfer data
  - critical incidence reporting
  - complaints procedure
  - litigation costs.
- The Scottish Executive should facilitate the development of a national core dataset for feto-maternal medicine.
- Maternity services should explore the role of information technology and telemedicine in relation to:
  - training and education
  - developing professional support networks
  - developing clinical skills through, for instance, workshops, simulation laboratories and mannequins, computer-aided programmes for rehearsal of emergency responses and procedures
  - using video conferencing in direct patient care communicating within regional and clinical networks regarding advice, referral, transfer and network information transmitting medical diagnostic images, such as cardiotocograph (CTG) recordings, ultrasound scans and other test results
  - The use of information technology and telemedicine should be developed, especially in remote and rural and isolated communities, to enhance communication, service provision and education
  - Paramedic staff must be trained and skilled to provide effective emergency care to women before, during and after childbirth. Training should include early recognition and management of obstetric and neonatal emergencies
  - Paramedic staff should have access to multi-professional maternity care training
  - Training should be practical in focus, and should include ‘hands-on’ experience under the supervision of an experienced clinician in the hospital setting, such as a midwife or obstetrician

- Paramedical staff should receive ongoing training and refresher courses to maintain and enhance skills and competencies. Whenever possible, these activities should be multi-professional.

5.4. A Refreshed Maternity Services Quality Framework. (2010)

5.4.1. The Maternity Services Action Group have agreed to lead an exercise in refreshing the "Implementing A Framework for Maternity Services in Scotland" in order to provide a current policy context and evidence base.

5.4.2. The final refresh was not completed during the development of the Ayrshire and Arran strategy. However, initial outcomes from the refresh have been suggested as follows:

- Maternity services in Scotland are of high quality with equity of access and care experience, contributing effectively to a reduction in health inequalities for women and their babies
- High quality, safe maternal and neonatal care
- Improved antenatal access, care and experience for women in high risk groups
- Maternity service users will be involved in shaping maternity services improvement
- The experience of women with poorer maternal and infant health outcomes will be gathered and utilised for service improvement
- Maternity services play a small but significant part in partnership with others to improve maternal and infant health
- Improved health outcomes for women and infants in the short, medium and long term-focussing on a reduced health inequalities gradient
- The maternity workforce will be competent to deliver person-centred services that are safe, high quality, health improving and inequalities sensitive.

5.4.3. These are likely to be subject to reconstruction in the final refresh.

5.5. Building A Health Service Fit For The Future - A National Framework for Service Change in the NHS in Scotland (2005) (Kerr report) [78]

5.5.1. In planning the future of the NHS in Scotland we need to:

- **ensure sustainable and safe local services**; redesign where possible to meet local needs and expectations – specialise where required having regard to clinical benefit and to access
- **view the NHS as a service delivered predominantly in local communities rather than in hospitals;** 90% of health care is delivered in primary care but we still focus the bulk of our attention on the other 10% – our current emphasis on hospitals does not provide the care that people are likely to need
- **preventative, anticipatory care rather than reactive management;** the NHS should work with other public services and with patients and carers to provide continuous, anticipatory care to ensure that, as far as possible, health care crises are prevented from happening
- **galvanise the whole system;** more fully integrate the NHS (including the contribution of hospitals, general practice teams, social care providers, patients and their carers) to meet the challenges
- **become a modern NHS;** using new technology to improve the standard and the speed of care, connect clinicians, involve patients in their own care and support the research vital to future wellbeing
- develop new skills to support local services; generalists as well as specialists, nurses and allied health professionals as well as doctors – all with the right skills for patients
- develop options for change with people, not for them, starting from the patient experience and engaging the public early on to develop solutions rather than have them respond to pre-determined plans conceived by the professionals

5.5.2. Specific actions for maternity and neo-natal care are:

Promoting Normality

- High quality maternity care should be based on the available evidence about clinically safe and effective practice, and must be woman and baby centred
- A strong multiprofessional team approach is integral for the delivery of an appropriate seamless maternity service.
- The principles in “A Framework for Maternity Services in Scotland”, especially the tiered and incremental framework for antenatal, intrapartum, postnatal and neonatal care, should be fully implemented

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[78] Scottish Executive 2005 http://www.scotland.gov.uk/Resource/Doc/924/0012113.pdf

- The concept of risk assessment and management should be developed at all levels of maternity service provision
- The role of the midwife as the lead professional in low risk pregnancy, childbirth and puerperium should be promoted and supported
- One to one maternity care should be the norm in childbirth
- Community Maternity Units, where deliveries are midwife-led, should be developed, either standalone or co-terminous with a Consultant-led Unit
- All healthcare maternity professionals should have the appropriate skills and competencies to deliver the appropriate service at each level of care, supported by appropriate communication and explicit referral networks for required incremental care
- The rates of caesarean section and instrumental vaginal delivery should be regularly audited and reviewed locally and nationally.

Maintaining Local Services

- Regional Maternity Planning Groups must be established and maintained
- Maternity services should be planned regionally with the involvement of all relevant clinical disciplines, the Scottish Ambulance Service and consumers. Some specialist services should be considered nationally
- Local planning and commissioning of maternity services should take place within this regional context
- Local and regional referral pathways for increasing levels of all specialist maternity care should be developed
- Protocols and guidelines for women in labour and specialist neonatal care should be developed
- New models of service delivery, manpower roles and responsibilities and technological advances should be nationally evaluated and best practice disseminated through communication networks
- Formal communication and information networks should be developed between all maternity clinicians, both regionally and nationally
- The configuration of maternity units providing the various levels of intra-partum care should be agreed and developed regionally
- The configuration of maternity units providing the different levels of neonatal care should be agreed and developed regionally
- The three Regional Neonatal Transport Services should be developed and maintained to ensure a quick, effective and safe retrieval and transport of neonates to specialist care, when appropriate and required

- Neonatal surgery and the associated neonatal intensive care requires to be planned and delivered in conjunction with fetal medicine as an integral part of maternity services, taking the configuration of specialist paediatric services into account.

National Review of Services

- The National Maternity Services Workforce Planning Group should ensure the on-going monitoring of the service and workforce profile and assist Regional Groups to map current and future services.

- The Scottish Executive should continue to review national policy documents, in conjunction with NHS Boards and consumers and identify areas for action.

- Quarterly meetings between the Scottish Executive, NHS Health Scotland, NHS Education for Scotland, NHS Quality Improvement Scotland, National Services ISD and the Scottish Ambulance Service should be arranged to map and monitor national work to support maternity services.

User Involvement

- The Scottish Executive and NHS Boards should put in place systems to encourage and support user involvements in service development

- Maternity Service Liaison Committees should be developed and maintained within NHS Boards

- Women must be informed about risk with unbiased evidence based information to help them decide where to receive care and give birth. Professionals should balance maternal choice, demand and need against assessment of risk and the availability of services.

5.6. Better Health Better Care Action Plan (2007) (BHBC[79])

5.6.1. Addressing commitments to stronger public involvement, improving the patient experience, clearer patient rights and enhancing local democracy – Mutual NHS.

5.6.2. Targeted action in deprived areas to reach out with anticipatory care to prevent future ill-health and help reduce health inequality.

5.6.3. Concentrate specialised or complex care on fewer sites to secure clinical benefit or manage clinical risk.

5.6.4. A step change in the development of regional planning to ensure that Health Boards make regionally based decisions about the shape of hospital based health services.

5.6.5. Accident and Emergency Departments and Inpatient services for babies and children should be supported by the capability to provide – at least short term – critical care support for children.

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[79] Scottish Government 2007 http://www.scotland.gov.uk/Resource/Doc/206458/0054871.pdf

5.7. Equally Well - Report Of The Ministerial Task Force On Health Inequalities (2008)

5.7.1. Recommendation 3 - Reducing health inequalities should be a key outcome for the early years framework being developed jointly by the Government and COSLA.

5.7.2. Recommendation 4 - NHS Boards should improve the capacity of ante-natal services to reach higher risk groups and identify and manage risks during pregnancy.

5.7.3. Recommendation 5 - The Government should arrange a Scottish survey of the incidence of Fetal Alcohol Syndrome.

5.7.4. Recommendation 6 - NHS Boards should improve breastfeeding rates in deprived areas and among disadvantaged groups.

5.7.5. Recommendation 7 - The Government should lead the development of holistic support services for families with very young children at risk of poor health and other poor outcomes.

5.7.6. Recommendation 9 - The Government should continue to improve support for children at risk in households where alcohol or drugs are misused.

5.8. The Healthcare Quality Strategy for Scotland[80]

5.8.1. During the development of this strategy, the Scottish Government produced a consultation draft of its proposed Healthcare Quality Strategy Document.

5.8.2. The proposed strategy develops the policy direction outlined in "Better Health Better Care", with the aim to "make Scotland one of the leading countries in the world in healthcare quality".

5.8.3. The focus of the strategy will be to asses the contribution made by the various workstreams developed as a result of Better Health Better Care, to developing a world class quality service.

5.8.4. The draft strategy proposed three key patient drivers for the NHS and partners in health care as follows:

- Put people at the centre of care and ensure that all staff, patients and carers can report that they are supported to work together in a relationship which recognises their needs and plans to deliver care to meet those needs
- Improve clinical effectiveness, with a focus on reducing unnecessary and harmful variation in the models and methods of delivering care and treatment, and on the standards of care for long-term conditions
- Improve safety throughout primary, community, and acute services, achieving significant reductions in mortality and adverse events.

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[80] The Healthcare Quality Strategy for Scotland (Draft Strategy Document) Scottish Government November 2009. http://www.scotland.gov.uk/Resource/Doc/288367/0088167.pdf

5.8.5. In addition a further driver is to establish an effective and appropriate quality infrastructure which will ensure integration of programmes of work and ensure commitment to equity, efficiency and timely access and well as continuing to develop the “mutuality” agenda outlined in Better Health Better Care.

5.8.6. The final Quality Strategy is due to be published in the same period as this strategy and will form a core part of the work of the implementation of this strategy.

5.9. Scottish Government Response To The Report Of The Maternity Services Action Group On Neonatal Services; (May 2009).[81]

5.9.1. The 2001 British Association of Perinatal Medicine (BAPM) Standards and levels of care be adopted and fully implemented across NHS Scotland.

5.9.2. That neonatal services are planned and provided as Regional Networks.

5.9.3. As part of the regional service networks, regional Managed Clinical Networks should be established to agree pathways of care and protocols with maternity and neonatal surgical services.

5.9.4. The most ill and complex babies (especially <28 weeks gestation) should normally initially be cared for in a level 3 intensive care unit with 24 hour consultant neonatologist cover (The issue of whether consultants should be resident on call was not considered by the Neonatal-Sub-Group as it was not within their remit. The recommendations in this review do not imply that any dedicated consultant rota should be resident.)

5.9.5. Workforce planning takes into account the findings of the Nursing and Midwifery Workload and Workforce Planning Project (NMWWPP), and implements plans to accommodate anticipated changes in medical staffing availability.

5.9.6. Staffing levels in Level 3 units should be adequate to minimise the number of in-utero transfers required as a consequence of local capacity issues

5.9.7. When planning services, NHS Boards should take into account the need to release staff for training, this includes the need for back-fill.

5.9.8. The national neonatal transport service be sustained and supported.

5.9.9. This national neonatal transport service should provide both emergency transfers and the repatriation of babies to their local unit (back transfers).

5.9.10. An adequate and safe transport service must be provided for ‘in utero’ transfers.

5.9.11. There should be national guidelines for decision making regarding transfers and arrangements for identifying available cots.

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[81] Scottish Government 2009 http://www.scotland.gov.uk/Resource/Doc/271781/0081019.pdf

5.9.12. If babies are cared for away from the proposed local unit of delivery, their care should be actively planned to ensure that they are repatriated as soon as it is clinically appropriate to do so.

5.9.13. Regional planning, and regional network (once established) assess their local needs for special care cots and transitional care facilities, and implement their conclusions.

5.9.14. Regional managed clinical networks develop protocols for discharge planning and repatriation.

5.9.15. At booking, prospective parents should be given information about arrangements should mother or baby develop complications and require to be transferred from their planned local maternity unit.

5.9.16. All units should provide counselling services and a language support service for parents whose first language is not English.

5.9.17. There is a need for units to provide more long-term accommodation for parents, and other practical support (including financial and car parking), especially if they are a long distance away from their local maternity unit.

5.9.18. The collection of routine data on neonatal unit activity should be reviewed by ISD, and service providers, to assure the collection of valid activity data.

5.9.19. To facilitate clinical data collection, an electronically based neonatal database, along with appropriate administrative support, should be established in each unit.

5.9.20. This investment in IT should be undertaken in a co-ordinated manner between regions.

Government response

5.9.21. NHS Boards should be asked by Scottish Government to provide assurance that their levels of neonatal nurse staffing, and skill mix, are sufficient to ensure a high quality neonatal service, with clarification of the designated level of service that the unit provides. Staffing levels should ensure that nurses can be released for training, and that the unit can respond to peaks in demand with minimal numbers of transfers.

5.9.22. NHS Boards should assess their staffing levels by taking into consideration the BAPM recommendations on nursing staff ratios. They should do this by using the NMWWPP tool, once available, on a regular basis and use their findings to inform workforce plans.

5.9.23. Three regional Managed Clinical Networks were established in 2010.

5.9.24. To co-ordinate the approaches taken by the MCN's, and in recognition of the common issues that will be faced by the three regions an over-arching Expert Advisory Group should be established.

5.9.25. Early priorities for the MCN's should be development of clinical pathways (including both access to intensive care for very ill babies and early repatriation), service user information, and the establishment of audit.

5.9.26. The Scottish Government has agreed to commission a review to examine the value of providing a centralised service to locate a unit with an available, staffed, neonatal cot space and on the feasibility of an in-utero transfer service. MSAG welcomed this but recommended that these two objectives should be combined into a single review.

5.9.27. The neonatal transport service should be asked to advise on the feasibility of providing a service to repatriate babies to their local unit.

5.10. The National Standards For Maternity Services In Scotland (QIS 2005)[82]

5.10.1. There are clear lines of responsibility for the planning and delivery of maternity services, with evidence of public involvement.

5.10.2. All healthcare professionals are aware of the importance of risk assessment and management of pregnant women and take action to minimise avoidable adverse clinical incidents, including during transfer and access to services.

5.10.3. All women are fully informed of the different options available to enable them to take an informed and active role in planning their care and in the decision-making involved in providing this care. Healthcare professionals are skilled in supporting women in the decision making process.

5.10.4. All maternity services and healthcare professionals recognise the important role of the partner/family, and ensure that they are encouraged and supported to be involved in pregnancy and childbirth.

5.10.5. A structured and accurate record of all events during the antenatal, childbirth and postnatal periods is maintained for every woman and child (known as a 'unified record').

5.10.6. All women with a poor obstetric/medical history, a previous poor fetal/maternal outcome, or where there is a family history of significant illness, have access to specific pre-conception services.

5.10.7. All women who experience complications in early pregnancy have access to an early pregnancy assessment service.

5.10.8. All maternity services provide comprehensive programmes of education for childbirth and parenthood to women and their partners and families.

5.10.9. All women have access to screening services and antenatal diagnostic testing.

5.10.10. All maternity services provide antenatal care delivered by a network of professionals, such that each woman is managed by a midwife, GP or obstetrician according to her level of risk, and as locally as possible.

5.10.11. All women receive an agreed plan of care throughout labour in line with current professional standards consistent with their risk assessment and their chosen place for childbirth.

[82] Quality Improvement Scotland 2005
http://www.nhshealthquality.org/nhsqis/controller?p_service=Content.show&p_applic=CCC&pContentID=2228

5.10.12. All women, regardless of their specific location, are informed about, and offered the range of pain management techniques during childbirth, and are supported in their choice of pain control.

5.10.13. During childbirth all women have access to anaesthesia that conforms to current professional standards.

5.10.14. All women receive appropriate care and assessment from giving birth to the 6-week postnatal check.

5.10.15. Maternity services promote, support and sustain breastfeeding. Women are informed of its benefits, while being supported in their chosen mode of feeding.

5.10.16. All babies receive appropriate care and assessment from birth until 6 week s post birth.

5.10.17. The transfer of women and their newborn babies into the community is planned to facilitate continuing effective care.

5.11. "Keeping Childbirth Natural and Dynamic" (KCND)[83] (2006) – QIS Pathway (2009)[84]

5.11.1. The right of pregnant women to be provided with current evidence-based information and to be involved with decisions regarding their care and that of their baby.

5.11.2. Women and their families should be treated with respect, dignity and kindness with their views and beliefs being sought and respected at all times.

5.11.3. There is a shared explicit practice philosophy that supports, protects and maintains normality.

5.11.4. The midwife is the lead professional for healthy women with uncomplicated pregnancies.

5.11.5. There is consistent high quality communication with women, with relevant information provided at appropriate times.

5.11.6. Discussion with all women is facilitated to enable them to make decisions regarding care and birth preferences, including place of birth and to encourage women to document these preferences in their handheld record.

5.11.7. Women are supported to take a central, active role in their own care during pregnancy, labour and the postnatal period.

5.11.8. There is recognition of the impact of inequality and social exclusion on health and it is ensured that appropriate information, support and referral are provided to all women based on need.

[83] Scottish Government http://www.scotland.gov.uk/Topics/Health/NHS-Scotland/nursing/naturalchildbirth
[84] Quality Improvement Scotland 2009 http://www.nhshealthquality.org/nhsqis/4517.145.1123.html

Principles of antenatal care

5.11.9. Midwives' own belief in physiological birth should be explicit in their work philosophy and approach to care.

5.11.10. Care should be supported by evidence wherever possible.

5.11.11. Continuity of care/carer should be encouraged.

5.11.12. Promotion of woman's self-belief/confidence around normal birth.

5.11.13. Encourage family and wider community support around normal birth.

5.11.14. Provide a calm, positive environment.

5.11.15. Women should feel able to ask questions as they arise.

5.11.16. Additional visits may be required depending on the individual woman's needs.

Extra support that may be required for promotion of a normal birth

5.11.17. Additional one-to-one time for woman and/or her family.

5.11.18. Referral to community groups/networks.

5.11.19. Planned peer support.

5.11.20. Second opinion from other colleagues, senior midwife or supervisor of midwives.

5.11.21. Allied Health Professional Opinion (e.g. physiotherapist, dietician).

5.11.22. Counselling services as appropriate.

5.11.23. The pathway for normal maternity care is outlined as follows:

5.11.24. Green: midwife-led care – healthy women with uncomplicated pregnancies should be offered a midwife as their lead professional, being the first point of contact to confirm, book, assess and plan care, although it should be acknowledged that women may still choose to see their GP and/or obstetrician.

5.11.25. Amber: assessment required – Women with any potential medical/obstetric/social risk factors should be further assessed or referred to the appropriate health professional for further assessment or support. Following this assessment women may return to the green midwife led part of the pathway or be referred to the red maternity team part of the pathway for further specialist advice and care. A number of the amber criteria will require clear local guidelines with appropriate education and audit in place.

5.11.26. Red: maternity team care – women with significant medical/obstetric factors should have a consultant obstetrician as the lead professional, sharing care with midwives, GPs and other care providers as appropriate e.g. anaesthetists, diabetologists, cardiologists, neonatologists, psychiatrists and allied health professionals.

Reference: Ayrshire and Arran pathway

5.12. Getting It Right for Every Child (GIRFEC)

5.12.1. "Getting It Right For Every Child" was launched by the Scottish Government in 2005. It aims to improve outcomes for all children and young people through the development of a shared approach that:

- builds solutions with and around children and families
- enables children to get the help they need when they need it
- supports a positive shift in culture, systems and practice
- involves working together to make things better.

5.12.2. The focus of GIRFEC is on developing practice, enhancing partnership working and identifying what needs to be done in those particular areas to improve outcomes for children.

5.12.3. the key values for GIRFEC include: promotion of children's well-being; ensuring they are at the centre of care planning which should be holistic; should ensure that children are emotionally and physically safe, promoting their resilience; and working in partnership with families and other agencies.

5.12.4. Within maternity services the principles of GIRFEC are most important in involvement of parents in their maternity care planning; addressing concerns about child protection issues at an early stage and enabling early support for children with additional needs.

5.12.5. Practice issues for maternity services involvement in children's services planning including risk management plan.

5.13. Vulnerable Families Pathway Project (Draft Framework for consultation)[85]

5.13.1 The Scottish Government asked NHS Quality Improvement Scotland (NHS QIS) to lead the development of a national multi-agency and multidisciplinary programme of work to support vulnerable children and families from conception to age 1. The Government's overarching purpose is to create a more successful country with opportunities for all of Scotland to flourish, and has committed to strengthen support for vulnerable children and families.

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[85] Vulnerable Families Pathway Project – Draft Framework for Consultation 2010 - NHS Quality Improvement Scotland http://www.vulnerablefamilies.org/media/CLT/ResourceUploads/15739/Draft%20framework%20for%20consultation%20-%20FINAL.pdf

5.13.2 The Scottish Government seeks to ensure a shift from intervening only when a crisis happens, to prevention and early intervention, and to build capacity in communities, children and families to help them tackle their problems.

5.13.3 Agencies are being asked to work in closer partnership to provide responsive and effective services, particularly for those families most vulnerable to poor outcomes. The (GIRFEC) approach is to be seen as the key mode of delivery for all frameworks and policies for children.

5.13.4 This framework brings recent policy across various agencies together such as The Early Years Framework, Achieving our Potential: A framework to tackle poverty and income inequality in Scotland, Equally Well, Better Health Better Care, Getting it Right for Every Child and Health for All Children (HALL 4). It has been developed so that agencies can adopt a common approach for seamless assessment, care planning and service delivery and support the implementation of existing good practice and provoke critical reflection and change.

5.13.5 The aim of this framework is to ensure that vulnerable children (from conception to age 3) and families in all parts of Scotland receive equity of support that is proportionate, effective and timely.

5.13.6 The objectives are as follows:

- Develop a multiprofessional and multi-agency framework for pregnancy and early years to implement or enhance local pathways of support for children and families with additional needs.

- Support the delivery of GIRFEC as the common approach to ongoing seamless assessment and care planning from pregnancy through the early years within a multiprofessional and multi-agency context.

- Develop guidance to support a consistent approach to meeting the needs of children and families."

5.14 Scottish Patient Safety Programme[86]

5.14.1 "NHS QIS is leading and co-ordinating the Scottish Patient Safety Programme which embraces the principle that every patient in Scotland is entitled to expect that the treatment they receive is safe and meets the highest clinical standards.

5.14.2 The Scottish Patient Safety Programme is the first programme of work of the Scottish Patient Safety Alliance which brings together NHS Scotland, the Scottish Government, professional bodies and patients in a drive to reduce adverse events and improve patient safety.

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[86] Scottish Patient Safety Programme – NHS Quality Improvement Scotland
http://www.patientsafetyalliance.scot.nhs.uk/default.aspx

5.15. Workforce Management Issues Such As "Modernising Medical Careers"; Implementation Of European Working Time Directives And Training Opportunities For Midwives And Other Maternity Care Staff.[87]

5.15.1. **"Modernising Medical Careers"**[88] reforms the previous structure for doctors through a major reform of postgraduate medical education. The MMC principles include:

5.15.2. specialty training should be programme based and designed to deliver nationally agreed standards.

5.15.3. where appropriate specialty training should begin with broadly based programmes.

5.15.4. educational progression for individuals should be assessed by an annual review of the documented acquisition of competencies and clinical and professional competency.

5.15.5. training programmes should be time limited, extensions associated with problems with educational progression should be restricted.

5.15.6. the satisfactory completion of training should be marked by entry to the specialist or general register.

5.15.7. after entry to the specialist or generalist register, doctors will need access to continuing professional development to be able to respond to changes in clinical practice and allow for further professional development as well as revalidation, recertification and maintenance of professional regulation.

5.15.8. Training is provided on Foundation, then Speciality training. The foundation programme is as follows:

5.15.9. Foundation Year 1 (F1) - The first year of the Foundation Programme builds upon the knowledge, skills and competences acquired in undergraduate training.

5.15.10. Foundation Year 2 (F2) - The second year Foundation Programme builds on the first year of training. In F2, the focus is on training in the assessment and management of the acutely ill patient. Training also encompasses the generic professional skills applicable to all areas of medicine – teamwork, time management, communication and IT skills.

5.15.11. Specialty Training – runs around six years and offers initial core training followed by competition for higher speciality training. On completion of these training programmes, trainees will be awarded a Certificate of Completion of Training (CCT) and will be entitled to enter the Specialist Register or the General Practitioner (GP) Register as appropriate.

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[87] Implementing A Framework for Maternity Services in Scotland (2003) - Overview Report of the Expert Group on Acute Maternity Services http://www.sehd.scot.nhs.uk/publications/ifms/ifms.pdf

[88] Modernising Medical Careers The next steps - The future shape of Foundation, Specialist and General Practice Training Programmes April 2004 http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4079532.pdf Modernising Medical Careers Foundation Programmes http://www.scotland.gov.uk/Resource/Doc/25954/0013313.pdf

5.15.12. Effects as a result of the programme based training include reduced ability to provide the full service previously expected of doctors in training and less breadth of experience. Response to address this includes development of extended scope practitioners and nurse specialists.

5.16. European Working Time Directive[89]

5.16.1. The EWTD is a directive from the Council of Europe (93/104/EC) to protect the health and safety of workers in the European Union. It lays down minimum requirements in relation to working hours, rest periods, annual leave and working arrangements for night workers.

5.16.2. The requirement is for:

- 48-hour maximum working week
- A minimum daily consecutive rest period of 11 hours
- A minimum rest break of 20 minutes when the working day exceeds six hours
- A minimum rest period of 24 hours in each seven day period (or 48 hours in 14 days)
- A minimum of four weeks' paid annual leave
- A maximum of eight hours' work in any 24 hours for night workers in stressful job.

5.17. Nutrition Of Women Of Childbearing Age, Pregnant Women And Children Under Five In Disadvantaged Areas CEL 36 (2008)[90]

5.17.1. This letter from the Scottish Government followed up a national policy plan "Healthy Eating, Active Living – An action plan to improve diet, increase physical activity and tackle obesity (2008-2011)", allocated £19m nationally to specific areas available over the 3 year period to improve the nutrition of women of childbearing age, pregnant women and children under five in disadvantaged areas.

5.17.2. In NHS Ayrshire and Arran, a multidisciplinary group was formed to consider proposals for spending this money in line with Scottish Government guidance.

5.17.3. The group identified key areas which would benefit from these resources. These were chosen based on ability to address national and local clinical and strategic priorities and further prioritised against the following agreed criteria: evidence of effectiveness; whether the proposal could generate measureable outcomes; sustainability; focus on disadvantaged groups; ability to reach all target population; and best value.

5.17.4. The following projects were prioritised for implementation following discussion at director level:

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[89] CEL 14 (2009) Working Time Regulation Compliance Guidance http://www.sehd.scot.nhs.uk/mels/CEL2009_14.pdf

[90] Nutrition Of Women Of Childbearing Age, Pregnant Women And Children Under Five In Disadvantaged Areas - Funding Allocation 2008 – 2011 CEL 36 (2008) http://www.sehd.scot.nhs.uk/mels/CEL2008_36.pdf

- Campaign to support breastfeeding
- Community Food Workers
- Building Peer Support
- Expansion of Hospital Visiting
- Weaning Support
- Project Manager
- Resources
- Nursery Fruit
- Training
- Healthy Start
- Development of website with nutritional information.

5.17.5. The proposals all link to outcomes detailed in existing health improvement strategies and the work is being taken forward by a supervisory group.

5.18. Royal College of Obstetricians and Gynaecologists. Why mothers die (2000-2002): the sixth report into the Confidential Enquiry into Maternal Deaths in the UK (2004)[91].

5.18.1. The UK Confidential Enquiry into Maternal Deaths (CEMD) revealed psychiatric factors are implicated in a significant number of deaths in the first postnatal year and suicide is the leading cause of maternal death in the UK. There is also increasing evidence of the effect of untreated maternal depression on infant development.

5.18.2. Key recommendations from CEMD included:

5.18.3. Systematic enquiry into previous psychiatric history should be routinely made at the antenatal booking visit.

5.18.4. Increased communication between GP, Midwives / Health Visitors and Psychiatry.

5.18.5. Women with past psychiatric history of serious psychiatric disorder should be assessed by psychiatrist in antenatal period.

5.18.6. Women who suffered serious mental illness following childbirth should be counselled about possible recurrence of that illness in following pregnancies.

5.18.7. A management plan regarding high risk of recurrence following delivery should be agreed with woman, maternity team, GP and Psychiatrist antenatally.

[91] Why Mothers Die 2000–2002 - The Sixth Report of Confidential Enquiries into Maternal Deaths in the United Kingdom Royal College of Obstetricians and Gynaecologists 2004 http://www.cmace.org.uk/Publications/Saving-Mothers-Lives-Report-2000-2002.aspx

5.19. Pregnant women with complex social factors: a model for service provision NICE guideline Draft for consultation, February 2010[92]

5.19.1. This guideline published for consultation by the National Institute for Health and Clinical Excellence, has no official standing in Scotland but is available for consideration of good practice.

5.19.2. It is published as a development of NICE clinical guideline 62 – "Antenatal care: routine care for the healthy pregnant woman"[93] and identifies how the care recommended in the latter document can be targeted towards women with complex social needs. Four complex social need groups are specifically highlighted;

- women who misuse substances
- women who are recent migrants, asylum seekers or refugees, or who have difficulties reading or speaking English
- women aged under 20 years (teenagers)
- women who experience domestic abuse.

5.19.3. Action to address needs include;

- Ongoing audit of antenatal services to identify the proportion of women with complex social needs attending
- Staff training on psycho-social needs of women
- Provision of accessible information
- Multidisciplinary working including considering of co-location of staff

5.20. Better Together – Scotland's Patient Experience Programme[94]

5.20.1 Better Together is Scotland's Patient Experience Programme. It will support NHS Boards, frontline staff and patients in driving forward service improvement. The programme will also help best practice to be shared between different services and lead to changes at a national level.

5.20.2 **What will be covered:**

The Programme will initially focus on three areas:

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[92] 4.17. Pregnant women with complex social factors: a model for service provision NICE guideline Draft for consultation, February 2010 http://www.nice.org.uk/nicemedia/live/11814/47461/47461.pdf
[93] http://guidance.nice.org.uk/CG62/Guidance/pdf/English

[94] "Better Together – Scotland's Patient Experience Programme" NHS Scotland http://www.bettertogetherscotland.com/bettertogetherscotland/26.html

- People receiving hospital care (focused on inpatient)
- People who receive Primary Care (focused on GP Services)
- People with long-term conditions (including cancer)

NHS Boards will continue to develop the use of patient experience into service design and planning across all service areas in order to drive improvement.

6. LOCAL POLICY DRIVERS

6.1. Your Health; We're in it together ("Your Health")

6.1.1. "Your Health" is the primary care strategy for NHS Ayrshire and Arran agreed in December 2009 and is currently being implemented.

6.1.2. The key features of the strategy are

- Involving the Public at the heart of health and healthcare, including jointly assessing, diagnosing, designing and managing their health care;
- Focus on health improvement;
- Focus of getting it right in early years;
- Securing early mental health interventions
- Improving access to and consistency of services;
- Developing communities and tackling inequalities; and
- Shifting the balance of care to primary care where suitable.

6.2. Review of Community Nursing

6.2.1. The decision to undertake a Community Nursing Review was taken following consultation while developing 'Your Health' and is due for completion in late 2010.

6.2.2. Specific areas where the maternity service have or will be involved include;

- Utilising a structured evidence base, focussing the skills of maternity and health visiting services on ensuring adequate early parenting support, identification of needs and early intervention when problems arise;
- adopting the principle of 'Care at First Contact', ensuring frontline primary care staff are equipped with skills, experience, expertise and tools to assess, diagnose and treat individuals in the community;
- Involvement in support network for practice nursing to allow these staff to receive peer support on professional and career development as well as advocating their strategic role.

6.2.3. the key drivers for the review included;

- national policy including "Visible, Accessible and Integrated Care, Report of the Review of Nursing in the Community in Scotland, (2006)" which proposed a move to a generalist community health nursing service;
- The development of "Your Health" and its focus on shifting the balance of care towards community services and self care management;

- Recognition of future workforce pressures and the need to maximise efficiency of resources including the skills knowledge and experience of the nursing services delivered in the community;

6.2.4. Maternity services and in particular community midwives have been fully involved within the review. The outcomes of the review were due for discussion after the publication of the maternity strategy, but issues identified for community midwifery includes;

- Addressing formal professional supervision of staff involved in child protection issues;
- Addressing workforce issues such as skill mix, leadership and future proofing;
- Increasing early intervention to improve outcomes;
- Improving communication and joint working with potential to establish children and young people's locality teams, comprising community midwives, Health Visitors and school nurses , whilst maintaining specific skills and operational management of the community midwife service;
- Linking and integrating work with local authorities on the "Getting It Right for Every Child" process.

6.3. Ayrshire and Arran Infant Feeding Strategy

6.3.1. The aims of the strategy are:

- Aim 1: To have more teenage mothers and women from less affluent backgrounds consider breastfeeding as an option for themselves and their babies
- Aim 2: To promote social and attitude change so that breastfeeding becomes accepted as the normal feeding choice
- Aim 3: To adopt Breastfeeding Best Practice Standards for Professionals
- Aim 4: To promote and support delayed introduction of complementary foods and drinks until six months and to promote and support healthy weaning practices. This is based on Global and National recommendations made in the field of infant nutrition
- Aim 5: To monitor and disseminate breastfeeding rates and changes
- Aim 6: To provide appropriate support, resources and information for mothers who are not breast feeding to enable them to safely artificially feed their babies.

6.3.2. Actions include:

- Integrate breastfeeding training into inter-agency training programmes

- Ensure that the profile of the importance of breastfeeding remains high within the MIdwifery and Nursing professions and that breastfeeding skill's training is readily available to all midwifery and health visiting staff.

- Increase the numbers of young mothers and women from socio-economically deprived backgrounds initiating breastfeeding by midwives specifically targeting those groups of women

- Establish voluntary worker posts in maternity unit specifically to support breastfeeding initiation with women in socio-economic groups 5 & 6

- Breastfeed Happily Here scheme will be piloted and developed Ayrshire wide to raise awareness of the rights of breastfeeding women to feed in all public places and to raise awareness of the responsibilities of the private, public and voluntary sector to support women to breastfeed in public places

- Work with Health Promoting Schools staff to review potential to include Breastfeeding in the curriculum in primary and secondary schools

- Provide an opportunity for all women to have feeding options discussed with them and for the woman to be respected and supported in her choice of infant feeding.

6.4. Ayrshire And Arran Sexual Health Strategy

6.4.1. A national strategy for improving sexual health, entitled "Respect and Responsibility", was produced by the Scottish Government in 2005.

6.4.2. It is firmly based on the principles of respect for self, respect for others and strong relationships. In recognising the diversity of lifestyles in the population in Scotland, the action plan seeks to improve access to information and services whilst enabling flexibility for local services to respond to local needs.

6.4.3. Actions are geared towards:

- Improving the quality, range and consistency, accessibility and cohesion of sexual health services

- Supporting everyone in Scotland, regardless of faith, ethnicity, gender, age or disability, to acquire and maintain the knowledge, skills and values necessary for good sexual wellbeing and thus avoid sexually transmitted infections and unintended pregnancy

- Positively influencing cultural and social factors that impact on sexual health

6.4.4. Since this original strategy was developed, priorities for action have been further defined and extended through:

- The production of Standards for Quality Improvement Scotland (QIS)

- The production of Key Clinical Indicators (KCI's)

- A re-defined HEAT target

- A national stocktaking exercise which identified priorities for the immediate future.

6.4.5. To achieve these aims it sets out a range of actions for NHS Boards, local authorities, Health Scotland, Quality Improvement Scotland, Health Protection Scotland as well as for individual departments within the Executive. The actions have been monitored nationally on an annual basis.

6.4.6. Recognising that the aims of this strategy will be achieved through adopting a partnership approach which recognises that improving sexual health is a complex public health intervention, Ayrshire and Arran developed a local strategy which reflected national requirements, balanced with additional local needs. The local strategy has been updated as a result of the changing policy context and further definition and extension to the national document.

6.4.7. The broad objectives to be addressed in the local strategy will be achieved through implementing action to:

- Increase awareness of the factors which will improve sexual health and well-being

- Increase knowledge in relation to each of these factors

- Support people to adopt healthy behaviours through creating health promotion environments and policies

- Develop effective and accessible services, delivered by competent staff, across a range of agencies.

6.4.8. This strategy will continue to be implemented by the multi-agency Sexual Health Advisory Group.

6.5. <u>Tobacco strategy</u>

6.5.1. The NHS Board approved the NHS Ayrshire & Arran Tobacco Strategy and Local Action Plan (2006-1010) in November 2007.

6.5.2. The White Paper, “Working Towards a Healthier Scotland” (1999) was a key driver in influencing the development of this strategy together with the national strategy document “Towards a Non Smoking Scotland” (1995).

6.5.3. The vision for the strategy is “The healthiest life possible where the people of Ayrshire & Arran can live smoke-free and have access to support to realise this ambition.

6.5.4. This will be achieved through:

- Working in partnership with an holistic approach to ensure that an integrated approach is adopted to address tobacco prevention, control and cessation issues

- Sustaining the continuing downward trend in smoking rates through targeted action in communities and nationally identified target groups to reduce the impact that smoking has in contributing to health inequalities

- Reducing the impact of passive smoking by supporting the introduction of the ban on smoking in enclosed public spaces and through raising awareness of its harm and reducing contact of non-smokers to smoke in private spaces

- Supporting the continued implementation of tobacco control measures.

6.5.5. This strategy is implemented by a multi- agency Tobacco Strategy group.

6.6. Pregnancy and Newborn Screening

6.6.1. This report presented to the Public Health Governance Group in April 2010, outlined the background to and performance of existing and planned newborn screening programmes including :

- Fetal anomaly screening

- Haemoglobinopathy screening

- Hepatitis BHIVSyphilis

- Rubella Newborn screening - Congenital Hypothyroidism (CHT), Cystic Fibrosis (CF) and Phenylketonuria (PKU), Universal Newborn hearing Screening.

6.6.2. Identified issues are addressed in actions outlined in volume 1.

6.7. Alcohol and Drugs

6.7.1. Each of the three Alcohol and Drug Partnerships are in the process of developing strategies linked to Community Planning

6.8. Workforce Plan 2010/11

6.8.1. Workforce plans are developed for NHS Ayrshire and Arran on an annual basis, outlining the outline projections and initiatives for the following three years.

6.8.2. The work undertaken for the workforce plan both reflects the situation within Maternity services but also provides information on future direction of travel based on national policy and economic predictions; local policy drivers; and predicted changes in demography and workforce availability.

6.8.3. The current workforce issues and future predictions are outlined in section 8 of this volume.

7 CURRENT FACILITIES

7.1 Ayrshire Maternity Unit.

7.1.1 Ayrshire Maternity Unit (AMU) is a state of the art facility build in the grounds of Crosshouse hospital. It is attached to the District General Hospital by means of a link corridor.

7.1.2 The family friendly welcoming environment was planned in partnership with our service users as well as the multidisciplinary team. The aim was to provide a family friendly facility and at the same time ensure that all the requirements of a safe service were met. It is felt this objective has been achieved.

7.1.3 The service is delivered by a multidisciplinary team consisting of Midwives, Nurses, Obstetricians, Paediatricians, Anaesthetists and all the support services and staff too many to mention who are essential to the smooth running of this facility

7.1.4 Ayrshire Maternity Unit provides 24 hour Midwifery advice via the telephone to our service users. If required they are asked to attend the unit for further assessment. On arrival women have a full assessment carried out by a Midwife and if required a review by Medical staff. Decisions are then made re ongoing management. Antenatal monitoring of women with problems related to pregnancy are provided in the unit five days a week on a planned basis.

7.1.5 Labour Suite consists of a Midwifery unit, Obstetric Unit and Theatre Suite. The Midwifery Unit has eight rooms one of which has a birthing pool. There are seven delivery rooms in the medical side of the facility where Midwives, Obstetricians, Anaesthetists and Paediatricians all work in partnership to deliver the care required.

7.1.6 Adjacent to the Theatre Suite there is a 3-bedded post-operative recovery area in which care provision is supported by nurses and midwives.

7.1.7 On the first floor our dedicated early pregnancy services (EPAS) suite offers access to the service 7 days a week for women experiencing problems in the early stages. Women attend in the morning when scanning facilities are available. Following this ongoing decisions regarding their care are made and a plan discussed.

7.1.8 Our Inpatient facility consists of 46 mixed ante and post natal beds made up of 4,2 and single room accommodation all with en-suite facilities. A full support service is available in the area.

7.1.9 There is a 5 room hostel accommodation

7.2 Community Services

A community services we provide in Ayrshire and Arran are:

7.2.1 Antenatal, intrapartum and post natal care. (This includes a home birth service, and we also have a Midwife in the community who can carry out Routine Examination of the Newborn).

7.2.2 The provision of Midwife led care in the GP surgeries where all low risk women with uncomplicated pregnancies are cared for by the Community Midwife. The Midwife is often the first point of contact for women to confirm book, assess and plan care (Green Pathway).

7.2.3 Consultant antenatal clinics where women are referred if they have significant medical / obstetric factors (Red Pathway).

7.2.4 The provision of Breast Feeding Workshops working closely with voluntary groups such as the Breast Feeding Network.

7.2.5 The continued development of close liaison with Social Services in particular for Child Protection issues. Midwives refer directly to these agencies using the High Risk Pregnancy protocol for any women in their care for whom they have concerns.

7.3 Neonatology in Ayrshire and Arran

7.3.1 The Ayrshire and Arran Neonatal Unit is adjacent to the labour suite and allows smooth transition when required for babies.

7.3.2 The Unit with its own dedicated and highly skilled staff. It consists of 5 Intensive Care Cots, 4 High Dependency Cots and 9 Special Care cots and 2 Isolation rooms.

7.3.3 There are two family rooms, which are used for parents preparing to take their baby home.

7.3.4 With the publication of the MSAG report, the NHS Boards in the West of Scotland agreed to the development of a Neonatal Managed Clinical Network, which would link with the work of the national expert group on neonatal services.

- Issues for the regional MCN to address include:
- Learning from experience and sharing good practice
- Address workforce issues outlined in the MSAG report

7.3.5 NHS Ayrshire and Arran intend to play a full part in the development and subsequently the operation of the Neonatal MCN.

7.4 Fetal Services Midwifery Role.

7.4.1 A specialist post is in place to lead and co-ordinate the development and implementation of Government initiatives/services relating to antenatal and neonatal screening within the maternity services. The post works in collaboration with all clinical colleagues, laboratory staff and personnel within the regional and national screening agencies.

7.4.2 The postholder works as a member of a multi-professional team in order to provide specialist investigation and treatment to those couples at risk of a fetal abnormality. This includes counselling, support and follow-up services and antenatal care required for those couples with an identified fetal anomaly. This post is partially funded by CEL 31 (2008) and mainstream Maternity Services. The post was developed in response to Service need and CEL 31 (2008), national driver for the new antenatal screening programme.

7.5 Assisted Birth Practitioner

7.5.1 These practitioners work as a member of a multi-professional team to provide expert intrapartum skills at an advanced level to women under-going care in the Obstetric Unit, Theatre and the Midwifery Unit. These posts are funded through Modernising Medial Career monies and they were developed in answer to the reduction in junior doctors working hours and the programmed enhancement of clinical skills for midwives in the labour suite environment

7.6 Mental Health Services (e.g. postnatal and perinatal)

7.6.1 Within NHS Ayrshire and Arran there is a well established Peri-Natal Pathway, led by a designated Consultant Psychiatrist. The pathway delivers integrated care to pregnant women and new mothers across Ayrshire and Arran, who are at risk of mental health difficulties. The Maternity Liaison Service is a Consultant led service made up of an out-patient service (in the form of an out-patient clinic held in Ayrshire Maternity Unit) and a Maternity Liaison in-patient service.

7.6.2 The Maternity Liaison Out Patient Clinic has been running since approximately February 2007 and is Consultant led. This is primarily an antenatal clinic to offer advice on the use of psychotropic medication in pregnancy. It is a Pan-Ayrshire Service and referrals can come from Midwifery staff, Obstetricians, Psychiatrists, CPNs, GPs or Health Visitors.

7.6.3 The 3 main types of referral are:

- Preconception counselling for woman with mental illness who are on psychotropic medication
- Offering advice to women who are either on psychotropic medication who have discovered they are pregnant or who have had their medication discontinued on finding out they are pregnant and have noticed a deterioration in their mental health
- Women with a past history of Puerperal Psychosis or a diagnosis of Bipolar Affective Disorder to discuss development of an early post delivery management plan to reduce the significant increased risk of Puerperal Psychosis in this high risk group.

7.6.4 Recently Liaison Nurses have been able to follow up some women referred to the Maternity Liaison out-patient clinic, particularly if there is some work around anxiety management or coping strategies to help lift someone’s mood.

7.6.5 An additional benefit of the service is that following delivery, the Maternity Liaison in-patient service can follow up these women in the Ayrshire Maternity Unit and ensure any early post delivery management plan is put in place as well as co-ordinating timeous follow up on discharge.

7.6.6 The main criteria for the **Maternity Liaison In-Patient Service** are that the woman is an in-patient in the AMU and there are concerns over her mental health. This can be antenatally or post-natally.

7.6.7 A Service Level Agreement is in place with the West of Scotland Regional **Mother & Baby Unit (MBU)** (based in Glasgow) and a well established clinical network.

7.6.8 The lead liaison consultant provides the managerial link to the MBU should an Ayrshire and Arran patient require admission to the unit. Clinically, the aim is for the local Mental Health Team to have input to MDT meetings whilst the patient is in the MBU and ensure appropriate follow up locally on discharge.

7.6.9 The Maternity Liaison Service also provides regular mental health training to both Midwifery staff and Obstetricians. There are plans to further enhance this service with additional mental health nursing input.

7.7 Addiction Services to pregnant women and new mothers

7.7.1 Ayrshire & Arran have no midwives dedicated specifically to working with women who have a drug misuse issue. However, all staff are enabled to support women with addiction issues and the service works closely with the addiction service.

7.7.2 NHS Addiction Services have now been reconfigured into a Community Addiction Team (CAT) and Primary Care Addiction Team (PCAT) in each locality with a small number of area wide services for specific functions e.g. inpatient care, Prevention & Support and Drug Treatment & Testing Orders. The aim of the service is to provide a comprehensive and equitable Pan Ayrshire community based specialist drug and alcohol recovery service to individuals experiencing issues with alcohol and or drug related problems.

7.7.3 All PCAT and CAT referrals into Addiction Services for assessment and treatment packages will be routed via a single point of access and will be triaged by a worker in each identified base within each locality. The contact details and overview of CATS and PCATS are provided below.

Overview of Treatment Packages within CAT and PCAT

7.8 Community Addiction Team (CAT)

7.8.1 The CAT will incorporate the following treatment packages:

- Mental Health and Addictions
- Assessment and intervention for patients experiencing chaotic/problematic substance use and have co existing mental health problems
- Physical and Sexual Health

- Harm reduction strategies, minimise level of infection caused by blood borne viruses and promote good physical health

- Substitute Medication and Monitoring

- Assessment and treatment of patients experiencing substance misuse problems that are currently receiving or may require a substitute prescription.

7.9 Primary Care Addiction Team (PCAT)

7.9.1 The PCAT will incorporate the following treatment packages:

- Detoxification from opiates and alcohol

- Drug reduction and recovery

- Relapse management

- Medication monitoring and management

- Alcohol Brief Interventions

- Occupational Therapy interventions.

7.10 Loudoun House Addictions In-patient Rehabilitation

7.10.1 This service is currently undergoing redesign. Loudoun House will continue to operate as before in the interim period.

8 WORKFORCE

8.1 The maternity service operates on a multi-disciplinary basis to ensure that mothers and babies get the best service available. Staff operate within the community, the Neonatal Unit, maternity out-patients unit, the In-patient ward, Labour Suite and Theatres,

8.2 The service operates on a 24 hour basis including the provision of telephone advice as well as support provided in hospital and home . The range of staff working in the service include:

- Obstetricians
- Paediatricians
- Anaesthetists
- Anaesthetic Nurses
- Operating Department Practitioner
- Midwives Hospital and Community based
- Consultant Midwife
- Advanced Neonatal Nurse Practitioners
- Maternity Care Assistants
- Nursing Auxiliaries
- Midwifery Assistants
- Nursery Nurses

8.3 The community midwifery service is divided into three geographical areas mirroring local government areas i.e. North (including Arran), South and East Ayrshire.

8.4 The Neonatal Unit facility is responsible for caring for our most vulnerable babies and their families.

8.5 Medical Staffing

Trained Staff

8.5.1 The numbers of trained staff complement currently working within NHS Ayrshire and Arran maternity services are :

8.5.2 Consultants – 13 (12.75 WTE) working in Obstetrics and Gynaecology plus 2 (1.6 WTE) who work in Sexual Health services. These can detailed as follows.

- Male – full time – 6
- Male – currently 8 PA programme changing in November to 10PA i.e., full time

- Female – full time – 4
- Female part-time – 2

8.5.3 The consultant who are anticipated to retire over the next 5 years = 4 (3 male and 1 female, all full time)

8.5.4 There are currently 3 associate specialist doctors (all over 50) – 2 male and 1 female Of these one (male) is anticipated to retire during 2010 or early 2011 – There are no plans to replace post within Obstetrics and Gynaecology

Trainees

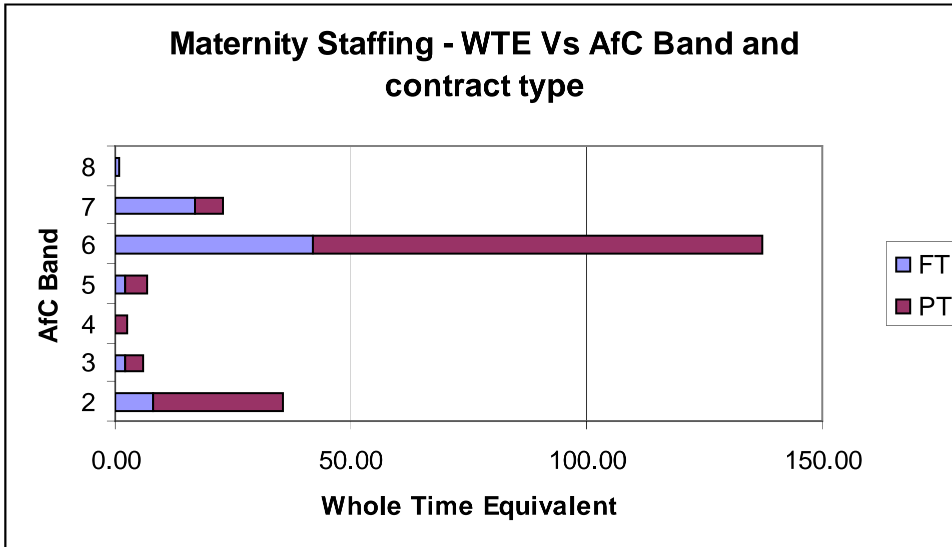
8.5.5 The numbers of trainee medical posts currently within maternity services are:

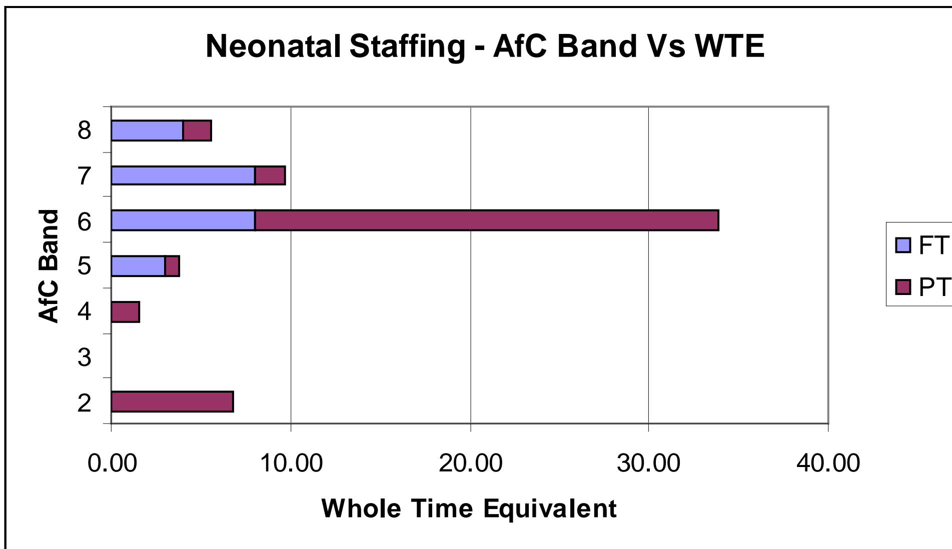
- 3 staff grade and associate specialist doctors working as clinical fellows – on trainee rota
- 8 Specialist Trainee Doctors at grades 3-7 and four at grades 1-2.
- 3 – 7 Specialist Registrar grade Doctors
- Three General Practice Specialist Trainee Doctors with availability for two further posts.
- 5 Foundation Year 2 doctors

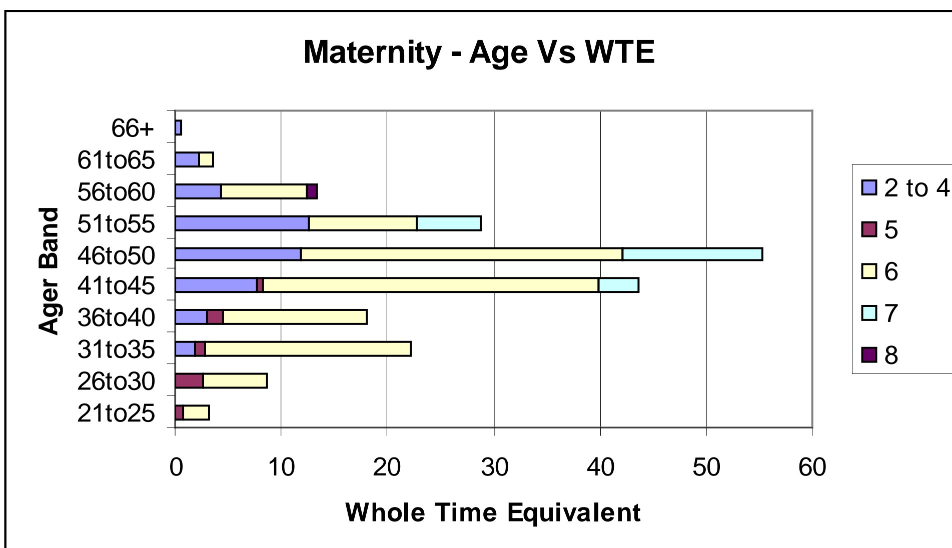
8.5.6 The driving force of government policy is that care will increasingly be delivered by trained staff. Therefore, during the duration of this strategy document, it is planned that there will be changes in the configuration of the medical staff delivering obstetric services. The number of trainee doctors is set to reduce by 40% in the ST 3 – 7/SpR grade and by 25% in the more junior grades.

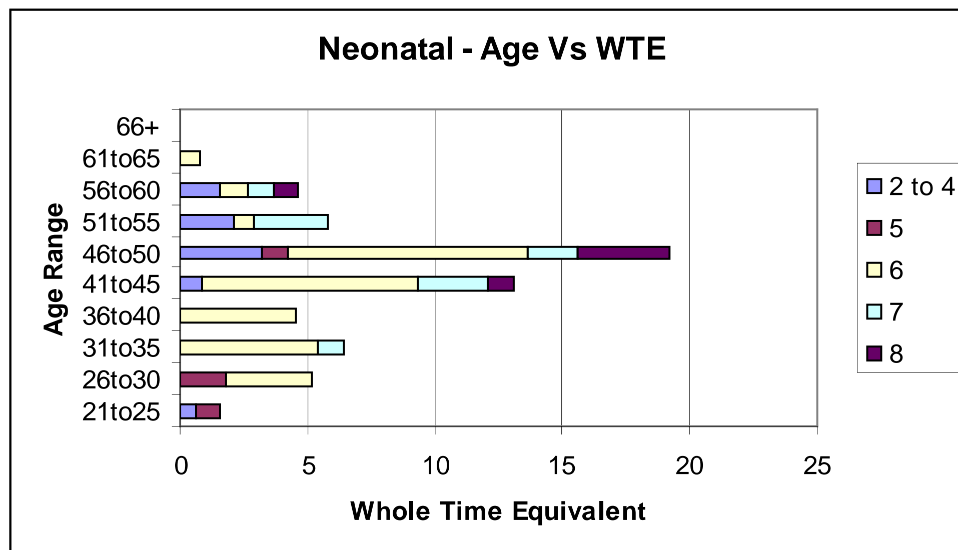
8.5.7 Within the maternity unit, the outcome of this change is that the numbers of consultant medical staff should increase to ensure delivery of obstetric services in a safe and caring environment; in particular to ensure continued consultant presence in the labour ward, current requirement being 60 hours per week. These staff will be complemented by a group of highly trained midwives with enhanced skills, so that all women will be cared for by the right professional at the right time and in the right location.

8.6 Baseline of current staffing levels within Maternity Services









8.6. Workforce Drivers

8.6.1. Drivers which will influence the shape, size and skill mix of the workforce are based largely on the demography, access / provision for training and education, political recommendations, employment law, financial climate, clinical quality outcome measures and professional groups' guidance. Ayrshire & Arran have an ageing population which is mirrored in the nursing and midwifery workforce with 43% of staff reaching retirement in the next 10-15 years.

8.6.2. The Scottish Government through NHS Education for Scotland are scoping the future provision for nurse and midwife education with a possible reduction in the number of Higher Education Institutions (HEI's) providing preregistration programmes. There has been an increased demand for HEI's to provide education for the Advanced Practitioner roles and maternity care assistants.

8.6.3. The National Nursing & Midwifery Workload and Workforce Planning Project of the Scottish Government Health Department have developed a series of workforce planning recommendations which include the use of evidence based workforce planning tools.

8.6.4. All staff contracted to the NHS should adhere to the working hours specified in the Working Time Regulations 1998.

8.6.5. The current financial climate has focused the NHS Boards on efficiency and productivity throughout the services provided, including workforce related costs.

8.6.6. The Professional Bodies have developed intercollegiate recommendations for developing quality standards for practice with many linked directly to workforce and skills required.

8.7. Midwifery planning tool Birthrate Plus®

8.7.1. The use of the midwifery planning tool Birthrate Plus® was implemented nationally and rolled out incrementally across the NHS in Scotland in 2007-2009. Birthrate Plus® is the internationally recognised workforce planning tool for midwifery and has been validated through several years or research and as

such is endorsed by the department of Health and the Royal College of Midwives (RCM), Royal College of Obstetrics and Gynaecology (RCOG) and Society of Perinatal Medicine.

8.7.2. The outcome of the study demonstrated the recommended workforce numbers matched the professional judgement of the midwives in large urban maternity units ; however the tool was not sensitive to midwifery practice in Scotland especially in rural areas and in departments such as Out-patient services.

8.7.3. It was therefore agreed by the NHS Nurse Directors and the Nursing and Midwifery Workload and Workforce Planning Project (NMWWPP) that a workforce planning tool sensitive to the maternity workload in Scotland would be developed . It is anticipated that this tool will be available within the next year.

8.8. Neonatal tool

8.8.1. The neonatal tool was developed by the NMWWPP in conjunction with the Scottish neonatal nurses group and representative form each NHS Board in Scotland. Earlier tools used predominantly medical modelled workforce recommendations ; however this tool encompasses previous tools whist embracing the distinct aspects of nursing care. The data produced by this tool from each of the NHS Boards is currently being used to inform part of the ministerial review of neonatal services in Scotland. The tool is currently undergoing further refinement.

8.9. Workforce for the Future

8.9.1. A vision of the future workforce within Maternity Services in Ayrshire has evolved, despite the absence of a definitive midwifery workforce planning tool, sensitive to midwifery practice in Scotland,

8.9.2. This vision encompasses the NHS Ayrshire and Arran strategic objectives and principles of integrated and seamless working across Maternity Services in Ayrshire, involving our partner agencies at all levels.

8.9.3. To be able to deliver the key principles of the Maternity Strategy the workforce within Ayrshire Maternity Services will require to alter to reflect the changing requirements of the population it serves.

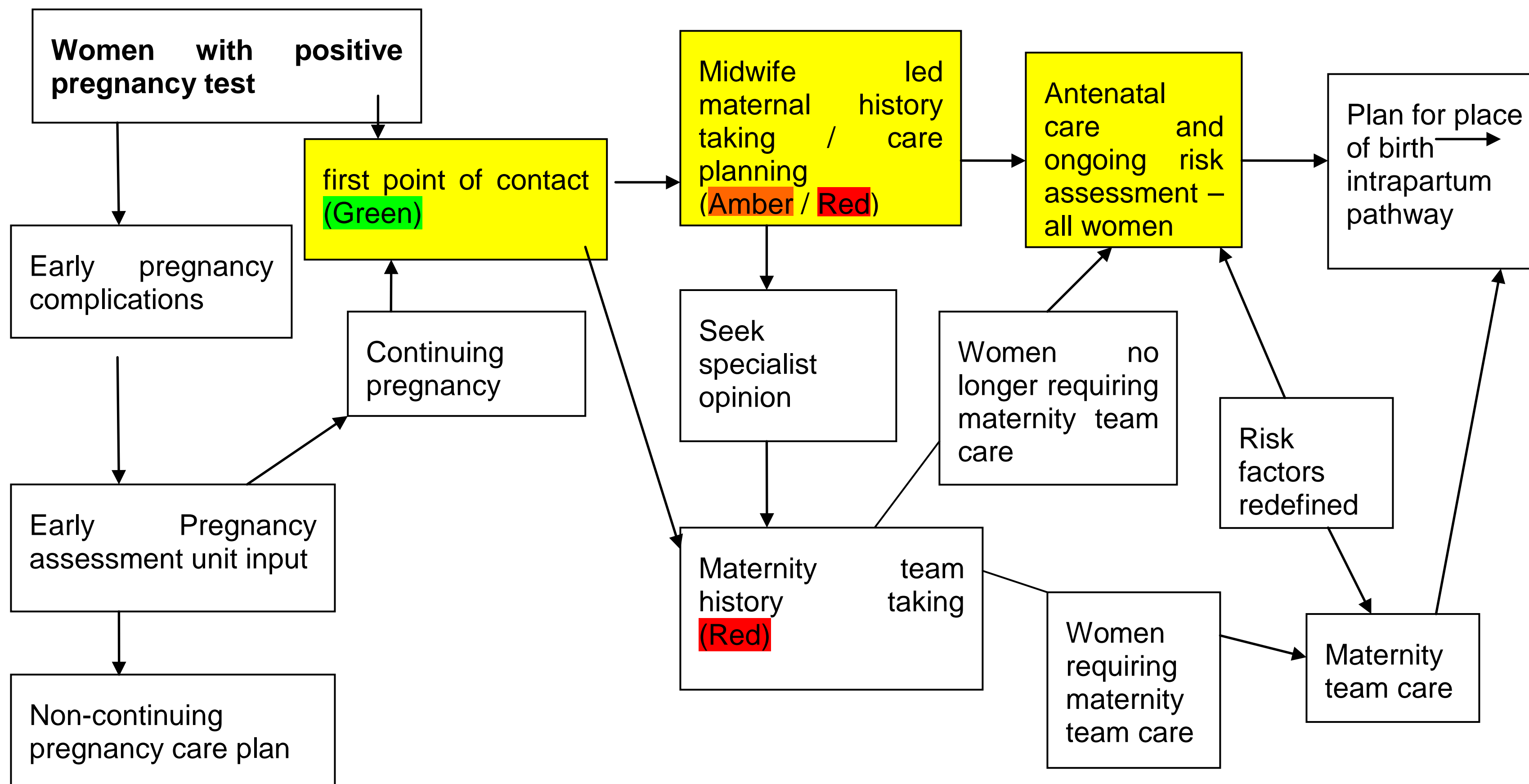
8.9.4. To enable the maternity services to provide a value for money service whilst protecting the quality of care provided to the women and their families in Ayrshire the introduction of several workforce developments are scheduled to take place which will enhance care provision to women and their families.

8.9.5. The continued development of extended roles for midwives in Ayrshire & Arran Maternity Services such as Acute Care Midwives, Assisted Birth Practitioners, Midwife Non-Medical Prescribers and Examination of the New Born all ensure that women and their families are cared for by appropriately trained midwives in the right place at the right time.

8.9.6. The role of the Maternity Care Assistant (MCA) is integral to this vision as the MCA is trained to assist the midwife deliver aspects of care including parenting skills, baby care, breastfeeding advice, physical and emotional support.

8.9.7. The introduction of these roles within Maternity Services has been in partnership with Medical Staff, Staff Side Representatives, Supervisor of Midwives and the staff themselves. It is envisioned that these will allow the shift in care provision which will release time for staff to care for each woman's individual needs.

8 THE MODEL OF MATERNITY CARE IN NHS AYRSHIRE & ARRAN



Green pathway	healthy women with uncomplicated pregnancies. Care given in the community setting usually by midwives
Amber pathway	women with potential medical/obstetric/social risks identified requiring further assessment or support. These women may be streamed onto the green or red pathways and may be asked to attend consultant clinic, or for out-patient monitoring
Red pathway	women with significant medical / obstetric risks identified (will require consultant clinic attendance, likely to require out-patient assessment or in-patient care)

Maternity Care Team - consultant obstetrician as lead professional sharing care with midwives, GPs and others as appropriate.

10. NHS AYRSHIRE AND ARRAN PERFORMANCE

10.1.1. Key Performance Standards have been developed for maternity standards for both Quality Improvement Scotland and also for implementation of this strategy.

10.2. <u>Quality Improvement Scotland</u>

10.2.1. National standards for maternity services were published in March 2005 and a peer audit review was undertaken in June 2006 and published in January 2007. This was before the transfer to the new Ayrshire Maternity Unit at Crosshouse in August 06, and comments are reflected in this.

10.2.2. In the audit, 58 of the 75 national standards audited were met.

10.2.3. Particular praise was given for:

- The level of public involvement in the planning of the Ayrshire Maternity Unit
- The robust system for handling complaints and comments as well as audits of the level of patient satisfaction
- The development of the diabetic pre conception services
- The use of the telemedicine link with Yorkhill hospital
- The high number of water pools available to provide analgesia for women in labour both in hospital and in the community
- The longstanding UNICEF/WHO Baby Friendly accreditation for breast feeding education
- The liaison group established between health visitors and midwives.

10.2.4. Recommendations for further action were outlined as:

- effective cascading of information on critical risks was noted as a challenge because of high junior medical staff turnover
- implementation of locally agreed written guidance for the transfer of women pre and postnatally throughout the Ayrshire mainland area
- the need to consider devising a system to ensure that all staff involved in delivering maternity care regularly attend mandatory updates in basic adult obstetric and neonatal resuscitation and immediate care
- the need to prioritise dedicated time for staff to attend scheduled domestic abuse training courses
- the need to introduce specific pre-conception services for women with a family history of other significant illness, for example epilepsy

- the need to address the fact that women who are initially assessed as requiring consultant-led care are, however, not routinely transferred to midwife-led care when their risk factors reduce

- the requirement to ensure that audit data is gathered to confirm that obstetric emergencies are managed within a 30 minute period

10.2.5. Recommendations were actioned as part of the move to the Ayrshire Maternity Unit or through other operational planning. All essential criteria are now met with the following exceptions:

- **1(c)4: all women are given the opportunity to reflect on their birth experience.** This has not been adopted as routine practice. However, any woman who has an operative delivery or requests a formal reflection is enabled to undertake this reflection.

- **2(a)2: There are specific pre-conception services for women with a personal or family history of significant illness(e.g. epilepsy, neural tube defect, chromosomal abnormality)** This criteria has not yet been met.

- **3(a)4: Parent education programmes include a postnatal reunion.** This criteria has not yet been met.

- **3(b) 2: The antenatal care and investigation of women conforms to the guidance set out in the Keeping Childbirth Natural & Dynamic Pregnancy Pathway which superseded Table 14, page 40 A Framework for Maternity Services in Scotland.**

- **4(c)5: There is a system in place to ensure that "decision to delivery" intervals and perceived urgency are monitored.** Insufficient evidence available and a re-audit is required in 2010.

- **4(c)6: The time from informing the anaesthetists to the start of an emergency operative delivery should not normally exceed 30 minutes except if there is a risk to maternal health.** A re-audit is required in 2010.

10.3. Key Performance Indicators

10.3.1. Key performance indicators for the service are included in the relevant areas of this document. These are directly compared with other NHS Boards and with the national average and are as follows:

10.3.2. Still birth rate - page 25 (Directly related to the work of maternity services).

10.3.3. Neonatal death rate – page 27 (Directly related to the work of maternity services).

10.3.4. Teenage pregnancy – page 29 (related to wider NHS and Community Planning Partners activity).

10.3.5. Parental smoking at first booking – page 32 (related to wider NHS and Community Planning Partners activity).

10.3.6. Alcohol misuse – page 35 (related to wider NHS and Community Planning Partners activity).

10.3.7. Drug misuse - page 36 (related to wider NHS and Community Planning Partners activity).

10.3.8. Maternal Obesity - page 39 (related to wider NHS and Community Planning Partners activity).

10.3.9. Breast feeding rate - page 43 (Directly related to the work of maternity services).

10.3.10. Screening - page 49 (Directly related to the work of maternity services).

10.3.11. Mode of delivery – page 50 (Directly related to the work of maternity services).

11. STAKEHOLDER INVOLVEMENT

11.1. Stakeholders were involved in a number of ways:

11.2. Key stakeholders within the NHS were involved in the strategy development group and contributed through commenting on drafts throughout the process and developing the action plans. The participants names and job roles are outlined in the following section.

11.3. Patients and staff were asked to vote on the vision statement for the strategy. A number of options were offered with a further option of providing an additional vision.

11.4. A paper was sent to the Ayrshire and Arran GP sub committee asking for comment on identified priorities.

11.5. The draft strategy was discussed and comments on identified priorities were sought from the three Children Officer Locality Groups. These involve partnership agencies within the three Community Health Partnerships within Ayrshire and Arran; North Ayrshire, East Ayrshire and South Ayrshire.

11.6. Details of the public consultation plan is outlined in the Appendices along with the results of the process.

11.7. The actions taken as a result of the consultation with stakeholders is summarised in Volume 1.

12. MEMBERSHIP OF NHS AYRSHIRE AND ARRAN MATERNITY STRATEGY GROUP

- Joanne Sharp, Health Care Manager Children's, Women's & Sexual Health Services (co-chair)
- Wendy Smith, Staff Side Representative Royal College of Midwives, (co-chair)
- Helen Bradford, Planning and Performance Officer
- Aileen Brown, Manager, Women's & Sexual Health Services
- Angela Cunningham; Head of Midwifery and Children's Nursing
- Carol Fisher, Health Care Manager Mental Health Services
- Ann Gow, Associate Nurse Director Primary Care Development
- Diane Graham, Patient Focus & Public Involvement Manager
- Isobel Laird, representing Directorate of Allied Health professionals
- Craig Lean, Workforce Modernisation Manager
- Elaine Melrose, Clinical Director for Obstetrics, Gynaecology and Sexual Health Services
- Diane Murray, Assistant Director Medical Workforce Development
- Louise Pollock, representative from GP community
- Stephen Sheach, Planning Manager
- Elaine Young, Senior Manager Health Promotion.

APPENDIX 1 - PROCESS FOR PUBLIC/SERVICE USER CONSULTATION JULY 10

This report was produced using VOiCE - Visioning Outcomes in Community Engagement

Developed by Scottish Community Development Centre (SCDC)

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Analyse

Title: **Delivering Excellence in Maternity Care in Ayrshire & Arran - Three Month Formal Public Consultation on Draft Strategy for the Future of Maternity**

Start Date: 01/10/2010

Review Date: 31/01/2011

Background:

NHS Ayrshire & Arran has updated its strategy for maternity care. The draft strategy document should be approved by the NHS Board on [date] for formal public consultation. NHS Ayrshire & Arran will engage with all stakeholders to the strategy to ensure the recommendations and actions meet the needs of stakeholders through a robust community engagement process.

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Our purpose for engagement is:

To ensure that maternity service stakeholder needs, views and opinions are fully considered and

addressed by the priority areas and specific action outlined within the revised maternity strategy

2010-2015 "Delivering Excellence in Maternity Care in Ayrshire & Arran".

Which is the right level for your purposes?:

Consultation.

Before we plan the process of engagement - what do we need to think about?:

What we know:

Volume 2 of the strategy provides detailed evidence as to the current demograhic profile of Ayrshire & Arran and epidemiological need, national and local policy drivers and current model of care.

The strategy does not propose any major service changes but many of the proposed actions should result in tangible service improvements that will be evident within those areas being prioritised.

The findings of an initial 'snapshot' engagement with service users during the drafting stage saw general support from those surveyed for the proposed priority areas and general strategic direction.

What we need to know:

We need to ensure that the service areas being identified for prioritised action are those areas where stakeholders themselves feel there is greatest need.

We need to ensure that the actions identified are the correct actions in order to result in the desired outcomes.

We need to ensure that no areas of priority (for stakeholders and service users) have been missed or have failed to be addressed by the proposed actions.

Who has an interest in our focus of engagement?:

Agency Stakeholders

- Health Board - Maternity Services
- Health Board - Paediatrics
- Health Board - GPs, Health Visitors & Community Nursing Staff
- Health Board - Public Health
- Health Board - Mental Health Services

- Health Board - AHPs
- Health Board - CHPs
- Health Board - Public Member Groups e.g. PPFs,
- NHS Partners e.g. Yorkhill, MCNs
- Local Authority - Social Work/Services
- Local Authority - Domestic Abuse Teams
- Local Authority - Community Planning Partnership
- Local Authority – Education (Schools & Nurseries)
- Scottish Health Council
- Voluntary organisations / Support Groups
- Travelling sites
- Homeless Hostels
- Ambulance Service

Community Stakeholders?

- All women of childbearing age
- Current patients (pregnant/postnatal women & women trying to become pregnant)
- Partners
- Carers
- BME
- Teenagers (particularly girls)
- LGBT
- Refugee and asylum seekers
- Travelling people
- People with disabilities (physical, mental, learning)
- Women with chaotic lifestyles / addiction problems

Who needs encouragement?:

- Women of childbearing age are the main stakeholders.
- Young women will be key to the consultation given the key focus on teenage pregnancy – teenagers will require focused attention to encourage participation.

- Those groups whose needs might not currently be considered within the strategy due to lack of engagement to date e.g. BME, LGBT, Refugee/Asylum seekers and travelling people.
- Women with chaotic lifestyles who do not traditionally engage with the service easily.
- Those stakeholders who do not engage with the service directly as patients e.g. partners, carers and family support of pregnant women.

Are there any conflicts of interest that might emerge?:

- Dominant view of health professionals
- The lack of voice from those groups who are not empowered to contribute may result in feedback being dominated by those groups who do traditionally engage with a public consultation.
- Could be conflict of opinion between agencies due to conflicting organisational priorities e.g. CHP/CPP/LA priorities could differ.

What locality or thematic group is this engagement targeted at?:

- All Ayrshire - South, East & North Ayrshire
- Outwith Ayrshire where links e.g. SLAs
- All Women of Childbearing Age
- Wider Community Stakeholders e.g. Partners, Carers, Family Members, Seldom Heard Groups
- Public, Voluntary and Private Sector Organisations

Postcode(s):

- Ayrshire-wide (North, South & East Ayrshire)
- Outwith Ayrshire (Where Relevant)

What is the engagement theme?:

Health and Wellbeing

What is the purpose of the engagement?:

Improve policy and agree strategic direction

What level of engagement are you seeking?:

Consult

Plan

What outcomes are Stakeholders looking for and what will success look like?

Outcome 1:

The opinions and expressed need of all potential stakeholders has directly influenced the future strategic direction of the service.

Outcome indicators:

Demographics of consultation respondees reflect the views of all identified stakeholder groups.

Documented evidence to show that stakeholder feedback has been responded to with documented evidence that clearly demonstrates where feedback or comments have been addressed and/or incorporated within final strategy document.

Outcome 2:

Stakeholder views and needs are reflected within all associated strategic action plans.

Outcome indicators:

Documented evidence to show that stakeholder feedback has been responded to with documented evidence that clearly demonstrates where feedback or comments have been addressed and/or incorporated within final strategy document.

What physical or financial barriers might affect anyone who should be involved?

Many barriers to participation need to be considered and addressed -

Existing Service users - lack of confidence to engage/offer opinion, literacy, language/cultural barriers, learning disability.

Promoting participation of seldom heard groups - physical, financial, cultural, language issues.

Lack of capacity of the service to take steps to pro-actively engage with those stakeholders not currently actively engaged with services.

What resources might be needed to overcome these barriers?

Careful consideration of consultation methods to ensure menu of options that can be tailored to the needs of specific groups and individuals.

Financial resources e.g. focus group participation will require out of pocket expenses to be reimbursed e.g. travel expenses, childcare etc.

Staff resources to undertake consultation with established community groups within those communities at times/locations convenient for stakeholder participants.

BME/Sensory Impaired communities may require communication support.

Consultation documents need to be developed with literacy and language needs of all potential stakeholders in mind and be tailored for particular stakeholder groups to clearly show potential stakeholders where they have a real stake/role in order to encourage their participation i.e. 'what does it mean for me'?

Is there a need for independent community development support or specialist advice and, if so, where would it come from?

A variety of staff (health, LA and Vol Org) 'gatekeepers' (from within and outwith Maternity

services) will need to be on board throughout the consultation in order to open up access and advocate for particular stakeholder groups e.g. Maternity staff, LDS, Social Work, Travelling Community/BME link workers, Breastfeeding Network, Support Groups, Schools/Youth Work, Homeless Hostels, Addiction Services, Health Visitors/District Nursing, GPs.

What resources are available to us? e.g. skills, experience, budgets, facilities, time etc.

- Maternity Service Staff
- Strategy Development Group
- Corporate Communications Team
- Patient Focus & Public Involvement Team
- Internal links to existing support groups e.g. Breastfeeding Network, SANDS, Miscarriage Support Group.
- Consultation budget needs to be confirmed.
- Adequate staff time needs to be dedicated to consultation with ownership and accountability for achieving consultation outcomes.

What methods will we use and what actions will be taken?

Method:

Corporate Communications Plan (Targeted actions to engage with Internal Decision Making Groups, Staff, General Members of the Public, Service Users, Media and Other Stakeholders) utilising usual methods, i.e. communications plan methods would usually include:-

Lead:- Maternity Services

- formal mailshot (full strategy document, executive summary, easy read consultation document)
- briefing papers
- presentations
- displays
- attendance at staff meetings
- AthenA

Lead:- Corporate Communications Team

- eNews bulletin
- Stop Press
- Team Brief
- Posters
- Dialogue magazine
- all staff e-mail

- noticeboards
- community radio (where possible)
- LCD screens
- text messaging
- podcasts
- Talk Well
- NHS Ayrshire & Arran public website
- media press release
- partner websites (e.g. LA, Vol Orgs)
- hospital radio
- Patientline
- community newspapers
- community vehicles (e.g. CHiP Van, Activator Bus)
- Healthwise

Lead:- Patient & Community Relations Team

- Public Groups (e.g. PPFs, Hospital Patient Council, Committee Lay Members)

What, who, when

What:- Drafting of strategy communications plan and consultation documentation

Who:- Strategy Development Group (Lead: L Christie)

When: - By 31/08/10

What:- Full implementation of strategy communications plan

Who:- See Above (Maternity Services / Comms / PCR Team)

When:- Immediate action required as soon as draft strategy is approved for formal public consultation by the NHS Board (envisaged to be October 2010 with formal consultation 1/11/10 to 31/01/11).

Method:

Targeted attendance at larger community events due to take place during consultation period (provisionally 1/11/10 to 31/01/11) to engage with wider community. Consultation very likely to be over Christmas period therefore likely to be a variety of community events taking place.

What, who, when

What:- Identify all suitable events taking place and arrange for staff to attend

Who:- TBC

When:- By 31/10/10

Method:

Identify existing groups of key stakeholders (including the seldom heard groups) and arrange for staff to meet with stakeholder groups / facilitate focused group discussion within those community settings e.g.

- Support Groups (e.g. Breastfeeding Network, SANDS, Miscarriage Support)
- Mother & Toddler Groups
- BME Communities
- Traveller Sites
- Homeless Hostels
- Youth Clubs
- Women's Refuges
- Maternity Service & Sexual Health Clinics
- Parents (Schools & Nurseries)

What, who, when

What:- Identify all existing groups where key stakeholders currently meet within the community, establish when they meet, and target those groups with information / attendance at meetings / focus groups where relevant.

Who:- TBC

When:- TBC

Method:

Develop a short online survey and seek feedback at main maternity service sites through siting of the CRT touchscreen in various key locations.

What, who, when

What:- Develop survey tool and publish to CRT equipment

Who:- Jacqui Stevenson, PFPI Officer

When:- Survey will be deployed to CRT equipment by 31/10/10 and equipment delivered and set-up within key public areas across pre-timetabled locations throughout November, December and January.

NHS Ayrshire & Arran

APPENDIX 2 RESULTS OF THE SERVICE USER /PUBLIC CONSULTATION JULY 10

Maternity Strategy Development Group

Friday 23 July 2010

Subject	**Initial Service User / Public Member Consultation**
Purpose	▪ **To provide the results of the recent service user / public member survey and provide details of the comments received on the draft maternity strategy vision & key priorities.** ▪ **To review and agree the draft consultation plan for the formal three-month public consultation.**
Recommendation	▪ **To consider the service user / public comments and agree any necessary amendments to the draft strategy document.** ▪ **To advise the PFPI Officer of any changes or additions required to the draft consultation plan.**

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1. Background

1.1 A short survey tool was developed and issued to a range of service users and lay members across inpatient and community clinic settings. A copy of the finalised survey tool is attached for your information.

2. Current situation

2.1 A total of 51 questionnaires were completed and returned as at 13 July 2010.

2.2 Four key questions were asked within the questionnaire:-

1. Do you agree that our vision (what we want to achieve) should be 'delivering excellence in maternity care in Ayrshire and Arran'?

100% of the 51 respondees agreed with the vision.

2. Do you agree that the key areas we have listed are the correct areas that we should focus on?

94% (48) of the 51 respondees agreed with the 14 key priority areas listed. Of the remaining survey returns only one person did not agree with a further two people unsure. The comments received were:-

- Focus on reducing stress of childbirth.
- Women should not be pressurised into breastfeeding.

- Wouldn't necessarily agree that it is appropriate to include support for pregnant teenagers and preventing unwanted pregnancy in the same area. Unwanted pregnancies often occur outwith teenagers. Would also consider changing 'unwanted' to 'unplanned'.

3. Are there any other key areas that we haven’t mentioned that you think should be included?

92% (47) stated that there were no other key areas that they felt should be included. The remaining 8% (4 people) felt that there were other areas that should be included and provided the following comments:-

- Reduce caesareans.
- Support for women who suffer miscarriages.
- Proper support and information re disability of fetus.

4. Is there anything else that you would like us to consider when updating our strategy for maternity care services?

Seventeen people answered this question of which 96% (15) stated that there was nothing else that should be considered. Two people offered the following suggestions:-

- I think it is important to support the mental health and wellbeing of women after the birth of their child/children.
- More money put into core care for women - not something temporary that ends after a year or so.

2.3 The final question within the questionnaire asked those responding to provide their contact details if they wanted to be kept informed as the strategy was developed. A total of 21 people provided their contact details (41%) indicating a high level of service user/public member interest in the draft strategy.

3. Proposal

3.1 There was overwhelming support for the vision and priorities from those service users / public members surveyed. However, full and proper consideration should be given to the comments provided and agreement should be sought from strategy development group members as to whether it is appropriate to amend the strategy (where relevant) in accordance with the feedback from service users.

3.2 It is essential that the service maintains contact with the 21 people who wish to be kept informed in order to ensure ongoing positive public relations. It is proposed that the 21 people be included within the formal consultation mailings once the strategy is approved by the NHS Board for formal public consultation. It may also be worth considering inviting the 21 people, given their evident interest, to a focus group discussion as part of the formal consultation process later in the year in order to get additional in-depth feedback from a public perspective.

3.3 It is recommended that early consideration be given to the consultation and engagement methods that will be implemented during the formal public consultation stage following NHS Board approval of the draft strategy. A draft consultation engagement plan has been produced and is attached for initial consideration. Initial thoughts, feedback, comments and suggestions can be forwarded to Jacqui Stevenson, PFPI Officer at StevensonJ@aapct.scot.nhs.uk (telephone 01563 826079).

4. Consultation on development of this report

4.1 The reported findings and results are based on an initial consultation with service users / public members. To date, 51 people have submitted their response.

5. Resource implications

5.1 Many of the methods outlined within the draft consultation plan will have resource implications (staffing and budgetary) e.g.

- Printing costs.
- Postal costs.

- Reimbursement of expenses (e.g. focus group attendees).
- Staff time to attend events and meetings in order to discuss the strategy.

5.2 The strategy development group should consider what budgetary and staffing resources can be provided to support the formal consultation period. The consultation plan can then be tailored accordingly in order to make best use of the available resources.

6. Risk assessment and mitigation

6.1 The ICMB and NHS Board will undoubtedly seek assurances that a full and proper consultation has been undertaken and that the views of all stakeholders to the strategy have been sought and fully considered during the formal consultation period. It is therefore essential that the group consider best practice and abide by the national standards for community engagement.

6.2 It is proposed that the Visioning Outcomes in Community Engagement (VOiCE) tool be used to plan, implement and evaluate the consultation process so as to offer assurances that the standards are adhered to throughout the consultation process, thereby mitigating the risk that the consultation process will be criticised as inadequate. The draft consultation plan has been prepared using VOiCE to ensure best practice.

7. Impact assessment and consequential changes proposed to mitigate adverse impacts identified

The draft strategy will require to undergo formal impact assessment prior to submission to the ICMB and NHS Board. The VOiCE tool (used to prepare the draft consultation plan) offers some additional assurances that the different needs of all potential stakeholders to the consultation have been considered.

8. Conclusion

8.1 The initial ‘snapshot’ survey of service users and public members in relation to the vision and priority areas had overwhelming support from the majority of respondents.

8.2 Early planning for robust patient, public and community involvement during the formal consultation phase later this year is highly recommended. It is hoped that early planning will facilitate a successful consultation period of a high quality during which all stakeholders to the strategy will have opportunity to input their views and suggestions.

Jacqui Stevenson, PFPI Officer

Patient & Community Relations Team

14 July 2010