

# *S. aureus* bacteraemia surveillance

## Quarterly report

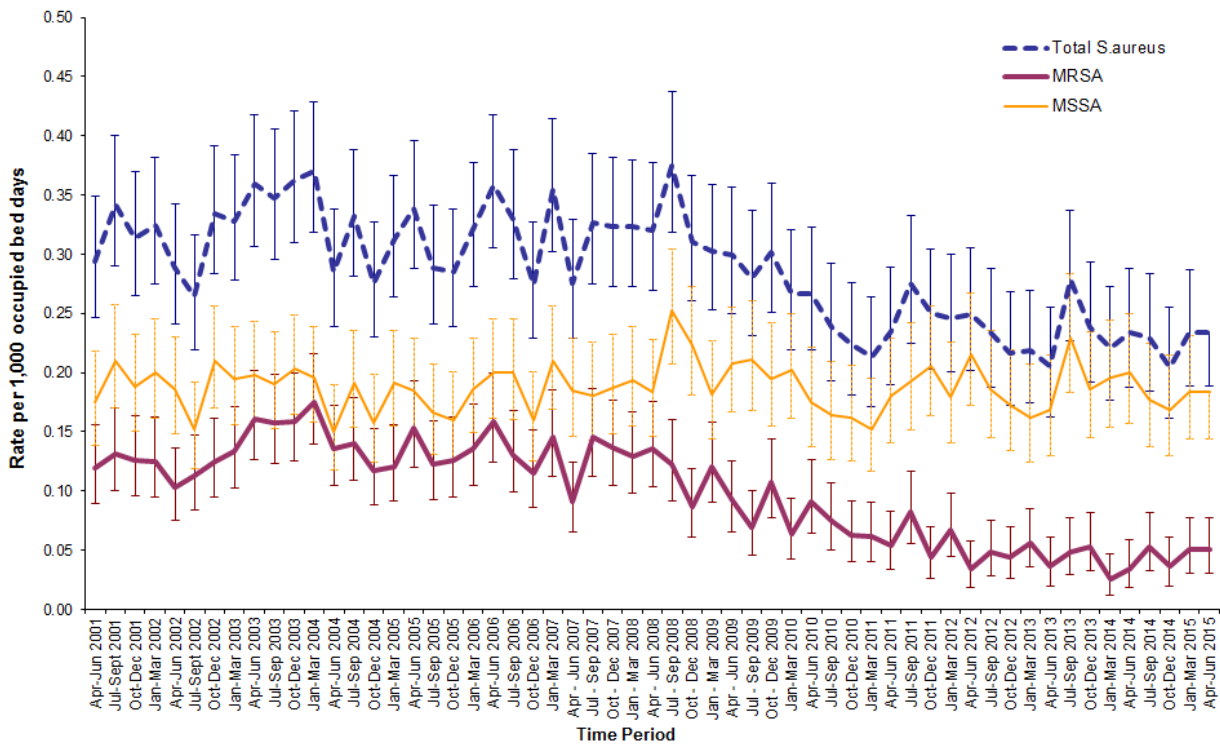
### April 2015 – June 2015

#### Key points

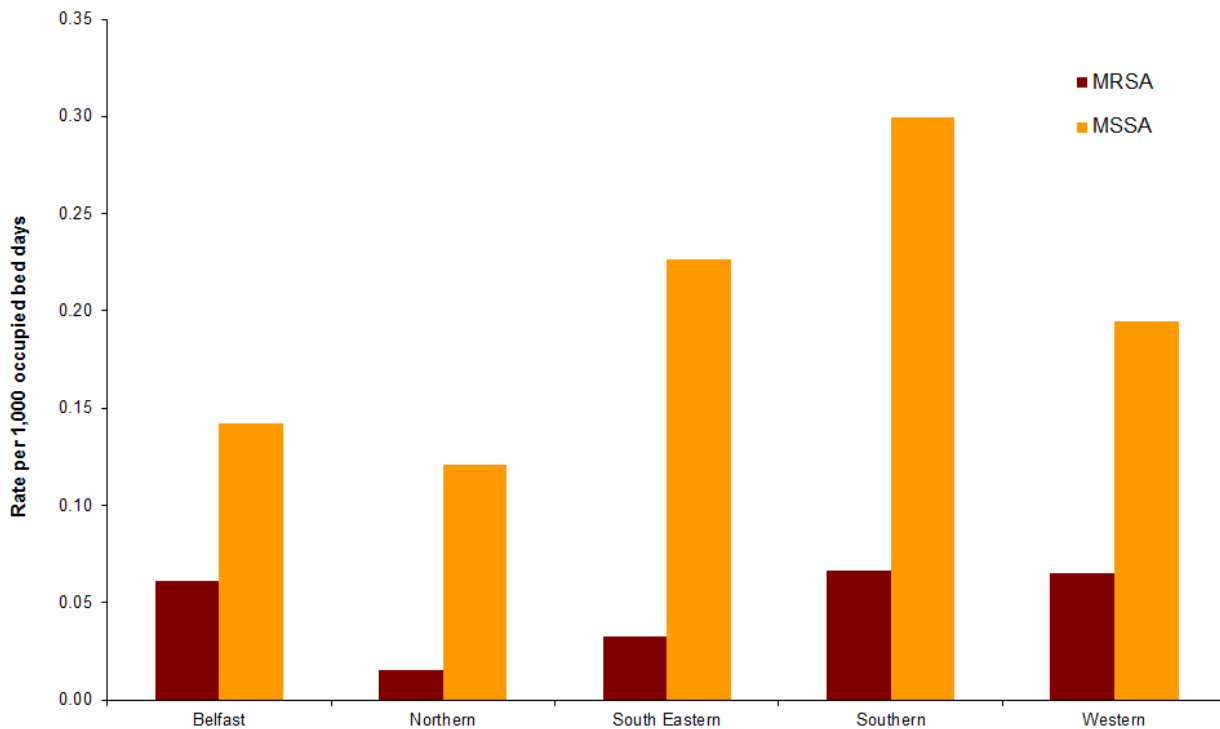
- Overall *S. aureus* (SA) rates for Northern Ireland (MRSA plus MSSA bacteraemias) increased by approximately 5% during April-June 2015 compared to January-March 2015.
- MRSA rates increased by approximately 4% during April-June 2015 compared to January-March 2015.
- MRSA reports during 2014/15 rose by 8% compared to 2013/14.
- MSSA rates increased by approximately 4% compared to January-March 2015.
- MSSA reports during 2014/15 decreased by 5% compared to 2013/14.
- MSSA rates remain within expected parameters on the SPC chart for Northern Ireland.

For further information or clarification on HCAI definitions, please refer to previous reports or contact [hcaini@hscni.net](mailto:hcaini@hscni.net)

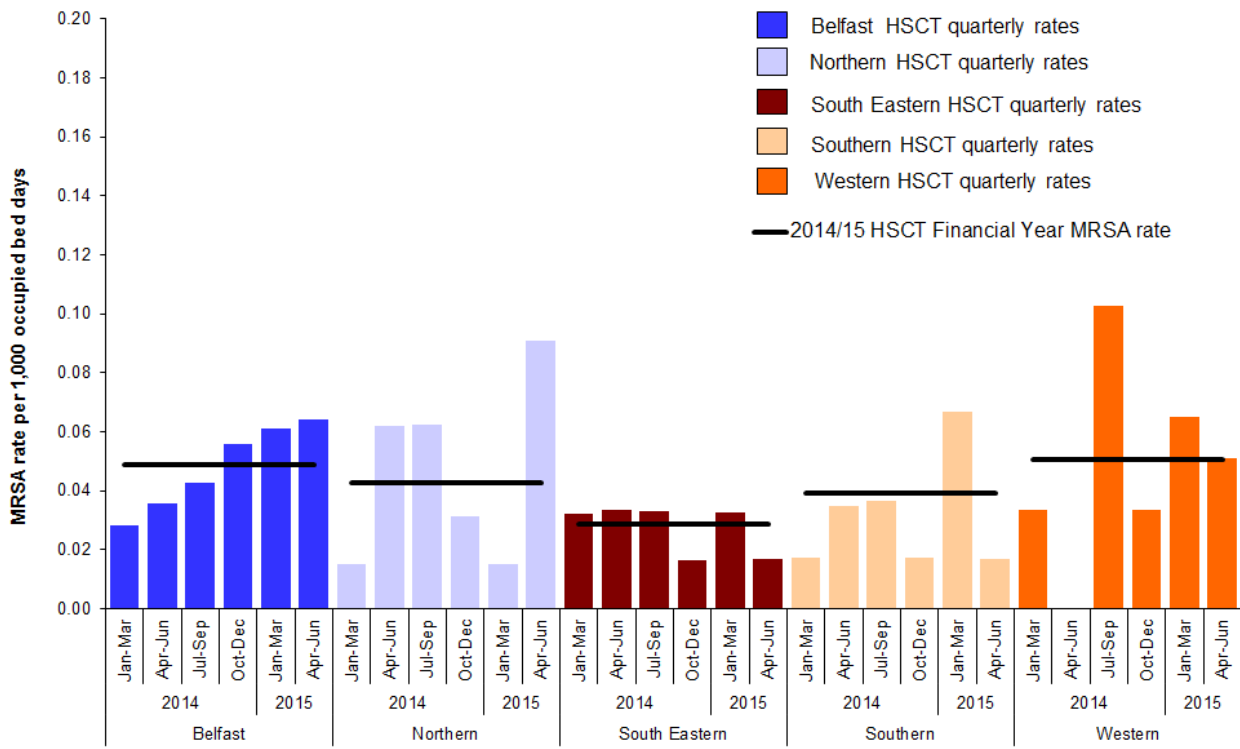
# S. aureus bacteraemia surveillance



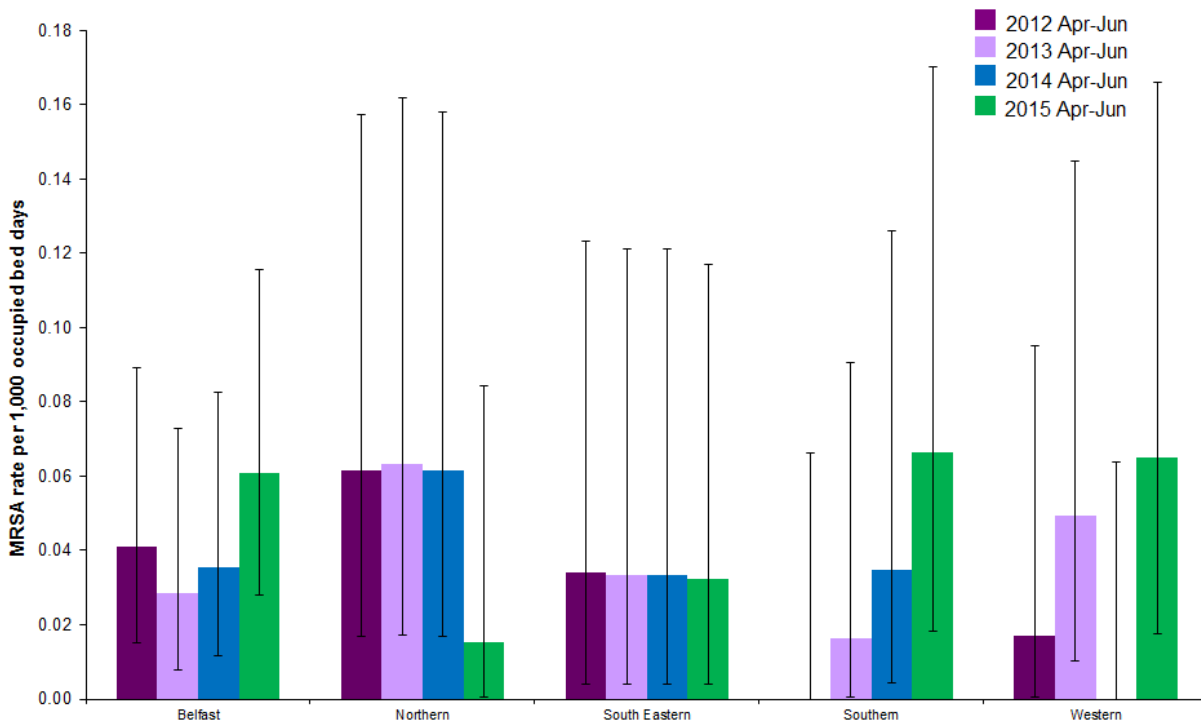
**Figure 1: MSSA, MRSA and *S. aureus* rates in Northern Ireland by quarter, with 95% confidence intervals, April 2001 – June 2015 (see Appendix 3)**



**Figure 2: MRSA and MSSA rates per 1,000 occupied bed days, by HSCT, April - June 2015**



**Figure 3: MRSA quarterly rate January 2014 – June 2015, by HSCT, with 2014/15 HSCT Financial Year MRSA rate**



**Figure 4: MRSA rate during April - June, by HSCT, from 2012–2015, with 95% confidence intervals**

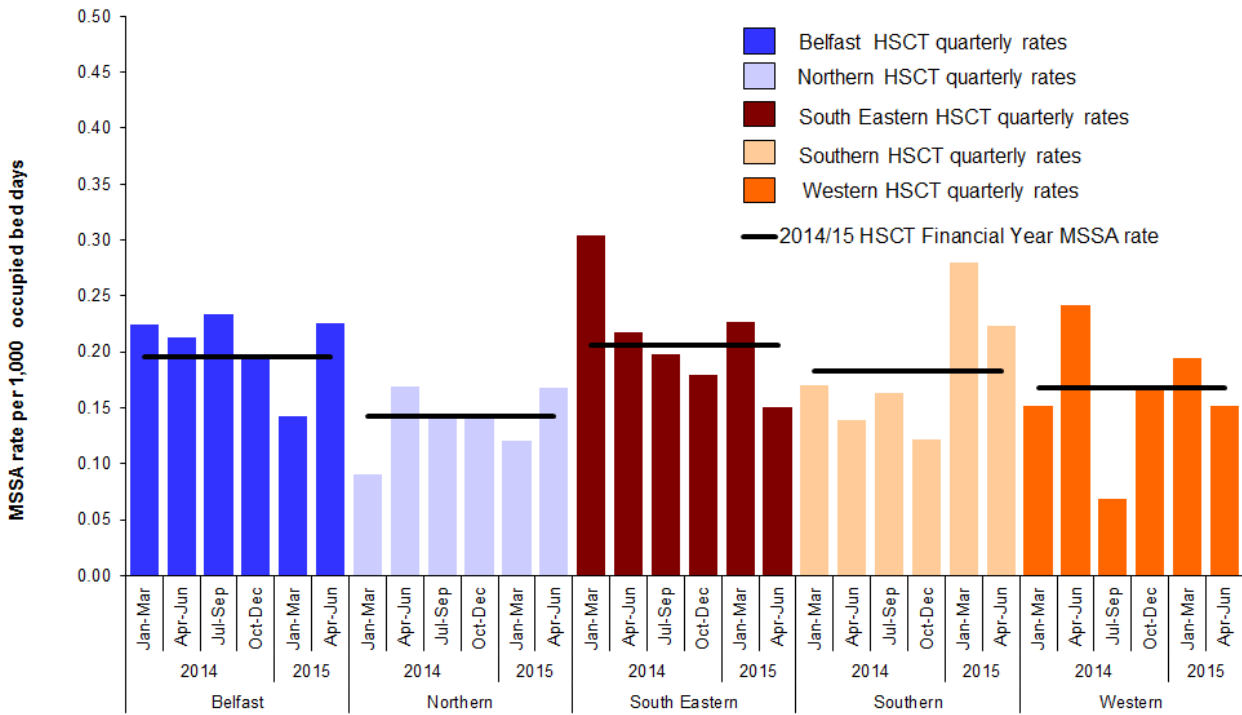


Figure 5: MSA quarterly rate January 2014 – June 2015, by HSCT, with 2014/15 HSCT Financial Year MSA rate

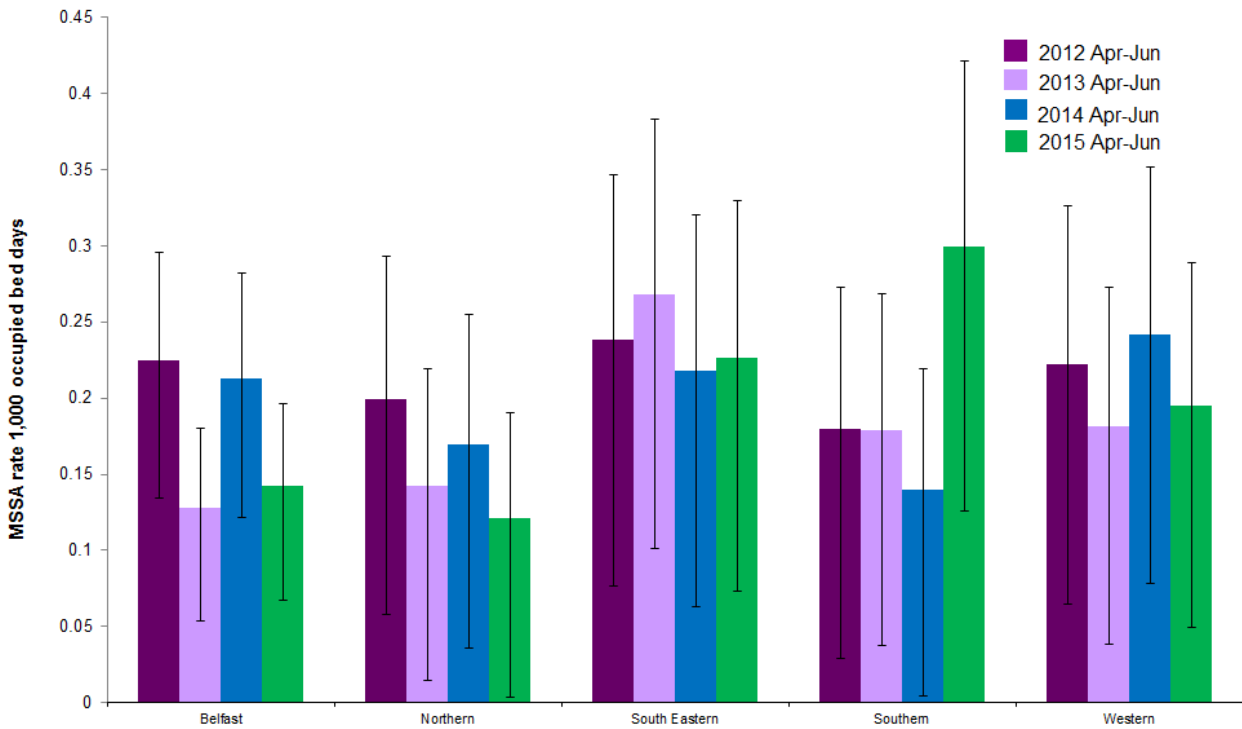


Figure 6: MSA rate during April - June, by HSCT, from 2012–2015, with 95% confidence intervals

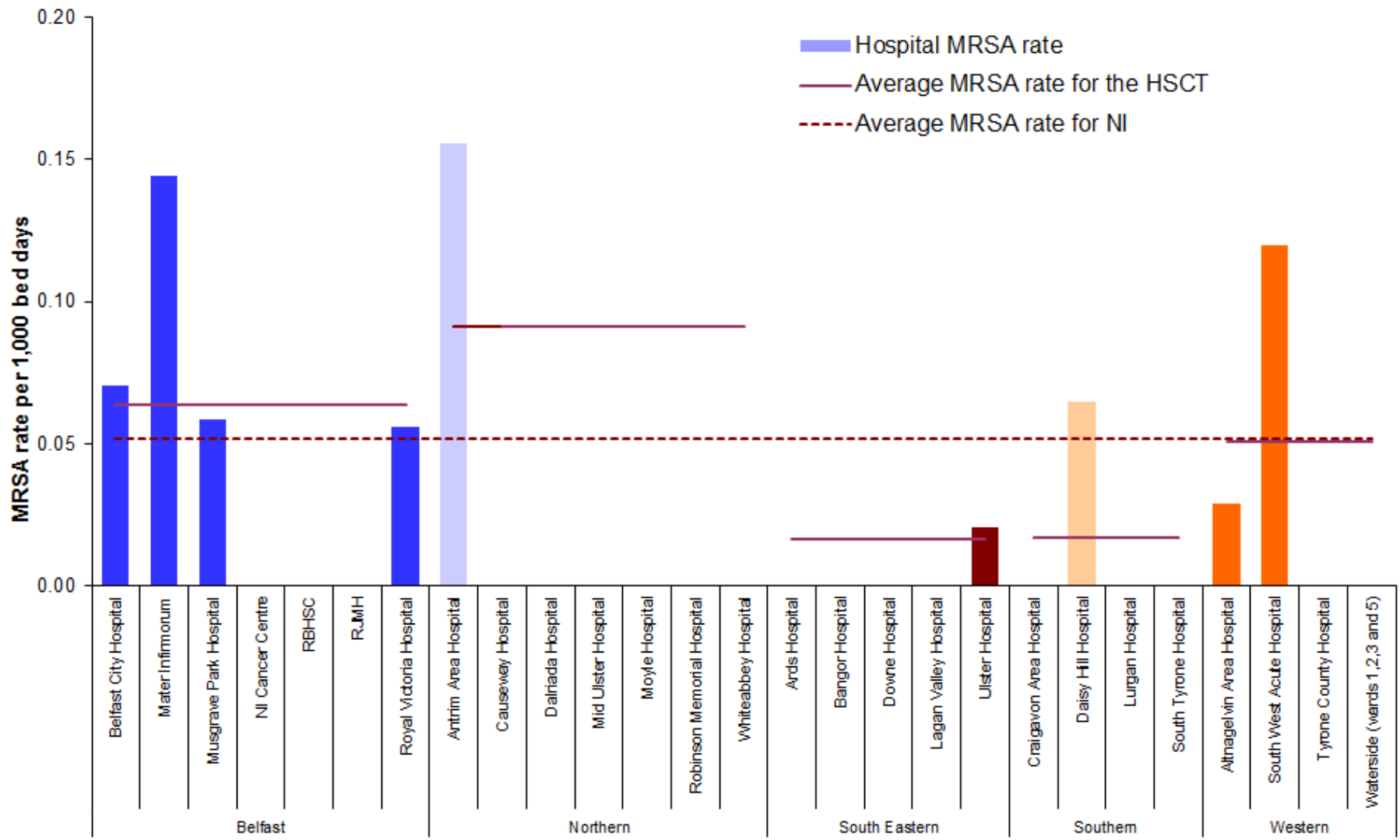


Figure 7: Rates of MRSA, April - June 2015 by individual hospitals, (gaps represent zero episodes), compared to April - June 2015 average rates for Northern Ireland and HSCTs

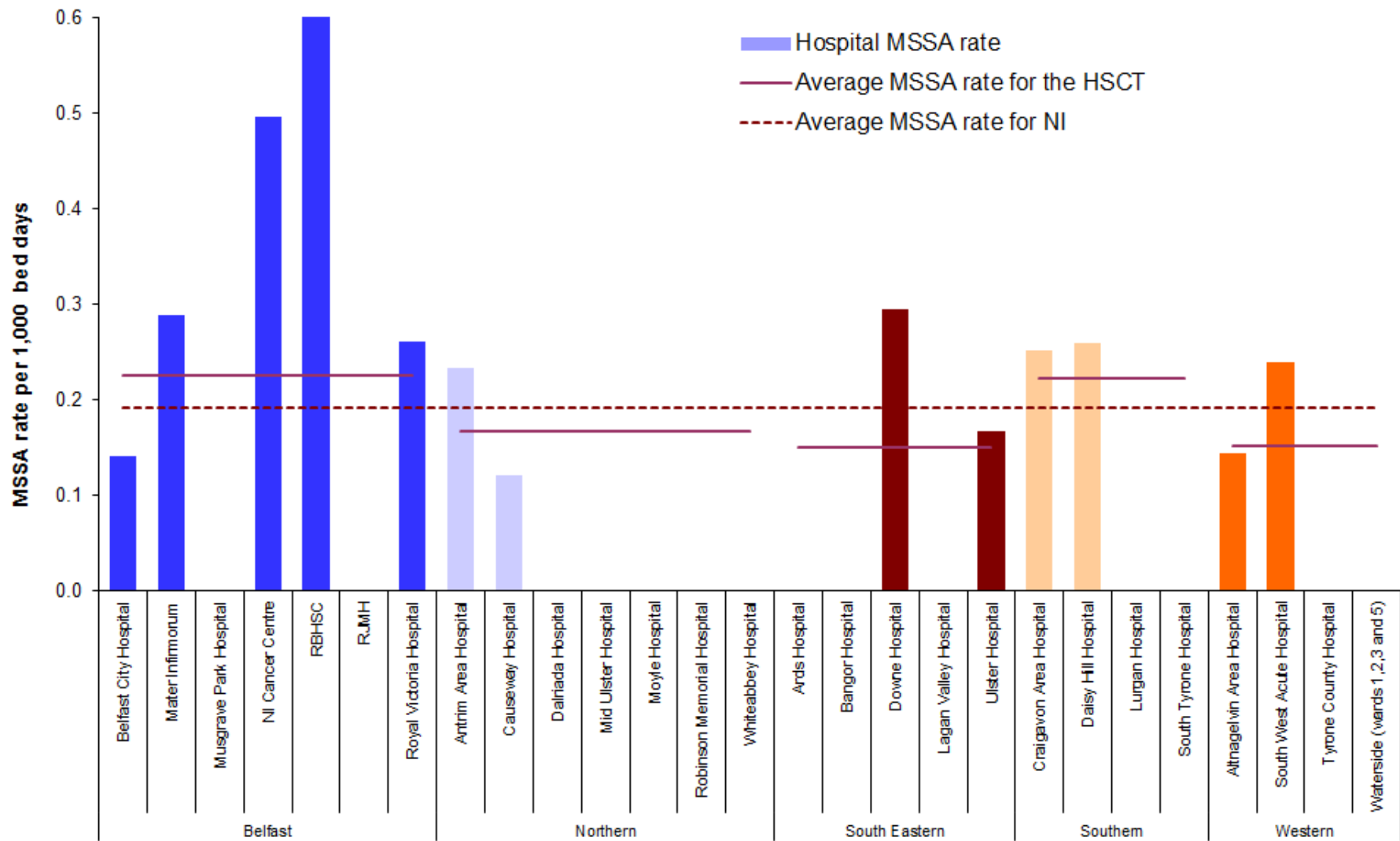


Figure 8: Rates of MSSA, April - June 2015 by individual hospitals, (gaps represent zero episodes), compared to average rates for Northern Ireland and HSCTs, April - June 2015

Figure 9a: Statistical process control chart for quarterly *S. aureus* rates in Northern Ireland

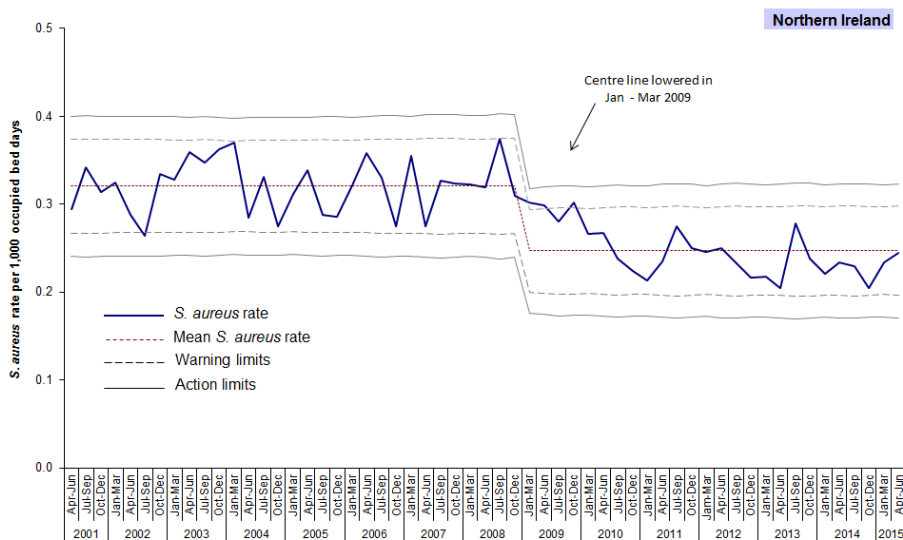


Figure 9b: Statistical process control chart for quarterly MRSA rates in Northern Ireland

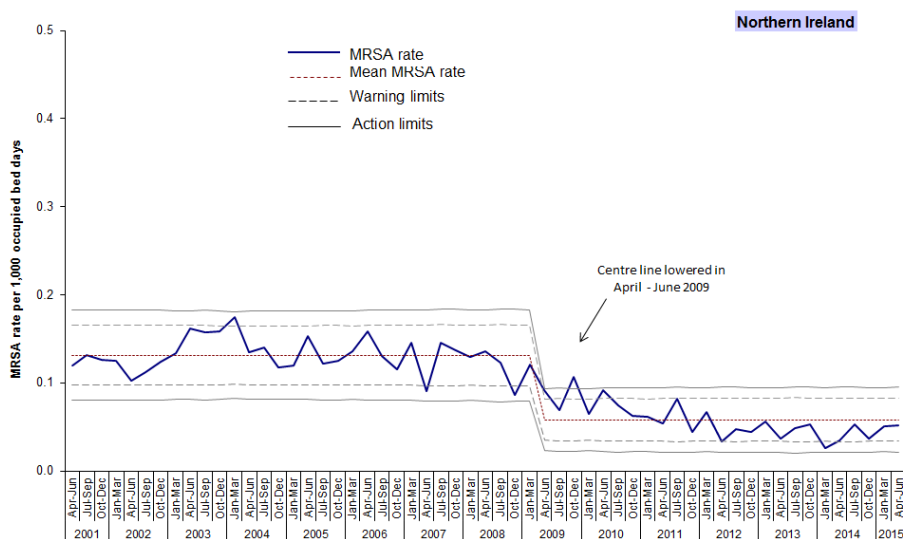
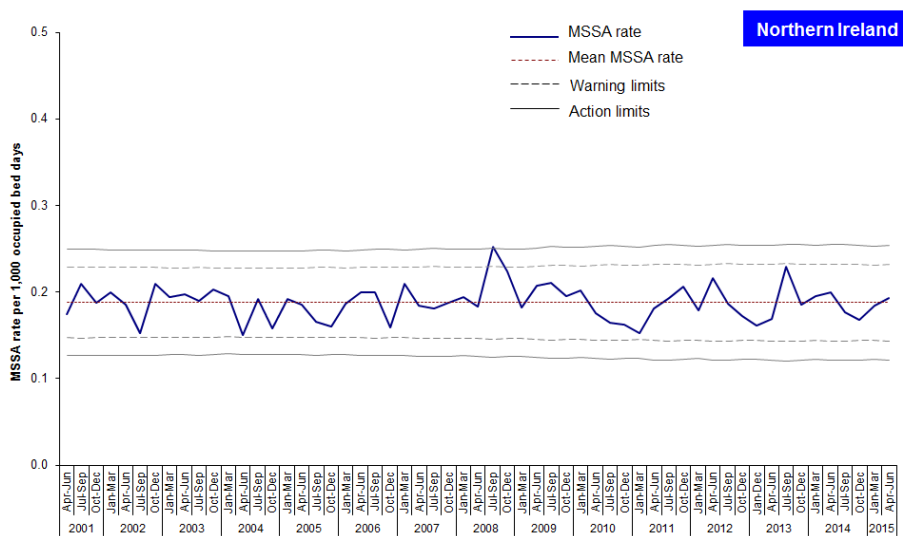


Figure 9c: Statistical process control chart for quarterly MSSA rates in Northern Ireland



## Appendix 1

**Table 1: Quarterly rate of MRSA patient rates, by hospital, July 2014 - June 2015**

Hospital	July - Sept 2014	Oct - Dec 2014	Jan-Mar 2015	Apr - Jun 2015
	Rate	Rate	Rate	Rate
Belfast City Hospital	0.035	0.067	0.033	0.070
Mater Infirmorum	0.050	0.049	0.191	0.144
Musgrave Park Hospital	0.000	0.000	0.000	0.058
NICCO (formerly at Belvoir Park)	0.000	0.164	0.325	0.000
RBHSC	0.000	0.000	0.000	0.000
RJMH	0.000	0.000	0.000	0.000
Royal Victoria Hospital	0.075	0.076	0.036	0.056
<b>Belfast HSCT</b>	<b>0.042</b>	<b>0.056</b>	<b>0.060</b>	<b>0.064</b>
Antrim Area Hospital	0.028	0.027	0.026	0.156
Causeway Hospital	0.180	0.062	0.000	0.000
Dalriada Hospital	0.000	0.000	0.000	0.000
Mid Ulster Hospital	0.000	0.000	0.000	0.000
Moyle Hospital	0.000	0.000	0.000	0.000
Robinson Memorial Hospital	0.000	0.000	0.000	0.000
Whiteabbey Hospital	0.000	0.000	0.000	0.000
<b>Northern HSCT</b>	<b>0.062</b>	<b>0.031</b>	<b>0.020</b>	<b>0.091</b>
Ards Hospital	0.000	0.000	0.000	0.000
Bangor Hospital	0.000	0.000	0.000	0.000
Downe Hospital	0.000	0.000	0.000	0.000
Lagan Valley Hospital	0.142	0.000	0.000	0.000
Ulster Hospital	0.022	0.021	0.041	0.021
<b>South Eastern HSCT</b>	<b>0.033</b>	<b>0.016</b>	<b>0.030</b>	<b>0.017</b>
Craigavon Area Hospital	0.030	0.000	0.082	0.000
Daisy Hill Hospital	0.068	0.066	0.063	0.065
Lurgan Hospital	0.000	0.000	0.000	0.000
South Tyrone Hospital	0.000	0.000	0.000	0.000
<b>Southern HSCT</b>	<b>0.036</b>	<b>0.017</b>	<b>0.070</b>	<b>0.017</b>
Altnagelvin Area Hospital	0.000	0.029	0.057	0.029
South West Acute Hospital	0.316	0.059	0.055	0.120
Tyrone County Hospital	0.353	0.000	0.344	0.000
Waterside Hospital (Wards 1-3, 5)	0.000	0.000	0.000	0.000
<b>Western HSCT</b>	<b>0.103</b>	<b>0.033</b>	<b>0.060</b>	<b>0.051</b>
<b>Northern Ireland total</b>	<b>0.053</b>	<b>0.036</b>	<b>0.050</b>	<b>0.052</b>

**Table 2: Quarterly number of MRSA patient episodes, by Trust, July 2014 – June 2015**

Trust	Jul - Sept 2014	Oct - Dec 2014	Jan - March 2015	Apr - Jun 2015
	Episodes	Episodes	Episodes	Episodes
Belfast Health & Social Care Trust	6	8	9	9
Northern Health & Social Care Trust	4	2	1	6
South Eastern Health & Social Care Trust	2	1	2	1
Southern Health & Social Care Trust	2	1	4	1
Western Health & Social Care Trust	6	2	4	3
<b>NI TOTAL</b>	<b>20</b>	<b>14</b>	<b>20</b>	<b>20</b>



## Appendix 1

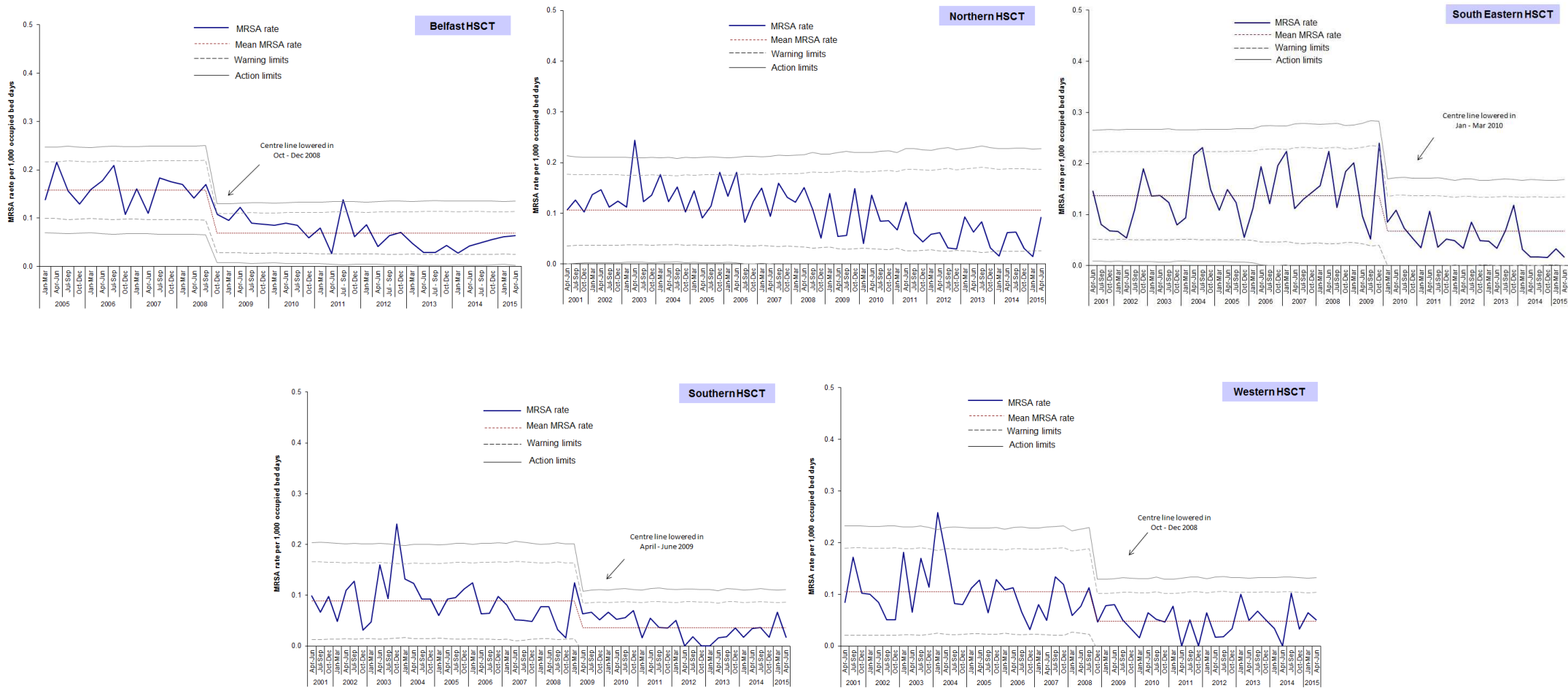
**Table 3: Quarterly rate of MSSA patient rates, by hospital, July 2014 – June 2015**

Hospital	Jul - Sept 2014	Oct - Dec 2014	Jan - March 2015	Apr - Jun 2015
	Rate	Rate	Rate	Rate
Belfast City Hospital	0.212	0.269	0.131	0.141
Mater Infirmorum	0.151	0.098	0.096	0.288
Musgrave Park Hospital	0.058	0.054	0.055	0.000
NICCO (formerly at Belvoir Park)	0.169	0.164	0.162	0.496
RBHSC	0.126	0.548	0.273	0.687
RJMHI	0.000	0.000	0.000	0.000
Royal Victoria Hospital	0.395	0.227	0.195	0.262
<b>Belfast HSCT</b>	<b>0.234</b>	<b>0.195</b>	<b>0.140</b>	<b>0.226</b>
Antrim Area Hospital	0.111	0.107	0.128	0.233
Causeway Hospital	0.240	0.248	0.189	0.122
Dalriada Hospital	0.000	0.000	0.000	0.000
Mid Ulster Hospital	0.000	0.000	0.000	0.000
Moyle Hospital	0.000	0.000	0.000	0.000
Robinson Memorial Hospital	0.000	0.000	0.000	0.000
Whiteabbey Hospital	0.272	0.263	0.000	0.000
<b>Northern HSCT</b>	<b>0.140</b>	<b>0.140</b>	<b>0.120</b>	<b>0.168</b>
Ards Hospital	0.000	0.000	0.000	0.000
Bangor Hospital	0.000	0.000	0.000	0.000
Downe Hospital	0.257	0.265	0.276	0.294
Lagan Valley Hospital	0.142	0.277	0.258	0.000
Ulster Hospital	0.217	0.168	0.226	0.167
<b>South Eastern HSCT</b>	<b>0.199</b>	<b>0.180</b>	<b>0.230</b>	<b>0.151</b>
Craigavon Area Hospital	0.151	0.141	0.330	0.252
Daisy Hill Hospital	0.204	0.132	0.253	0.260
Lurgan Hospital	0.000	0.000	0.000	0.000
South Tyrone Hospital	0.367	0	0.574	0.000
<b>Southern HSCT</b>	<b>0.164</b>	<b>0.122</b>	<b>0.300</b>	<b>0.223</b>
Altnagelvin Area Hospital	0.117	0.173	0.314	0.145
South West Acute Hospital	0.000	0.234	0.055	0.239
Tyrone County Hospital	0.000	0.000	0.000	0.000
Waterside Hospital (Wards 1-3, 5)	0.000	0	0.000	0.000
<b>Western HSCT</b>	<b>0.069</b>	<b>0.167</b>	<b>0.190</b>	<b>0.152</b>
<b>Northern Ireland total</b>	<b>0.177</b>	<b>0.168</b>	<b>0.184</b>	<b>0.193</b>

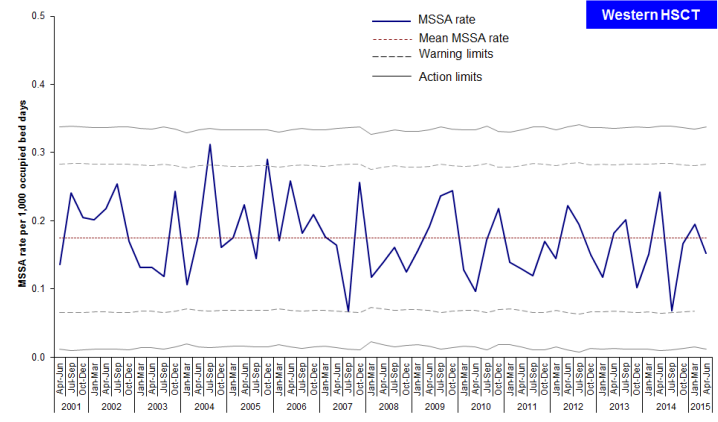
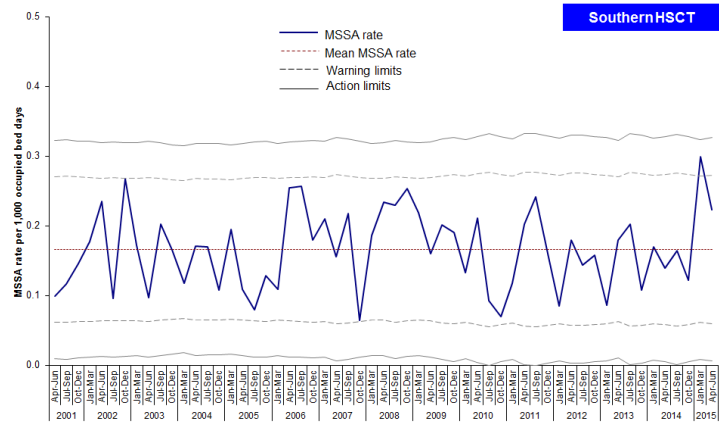
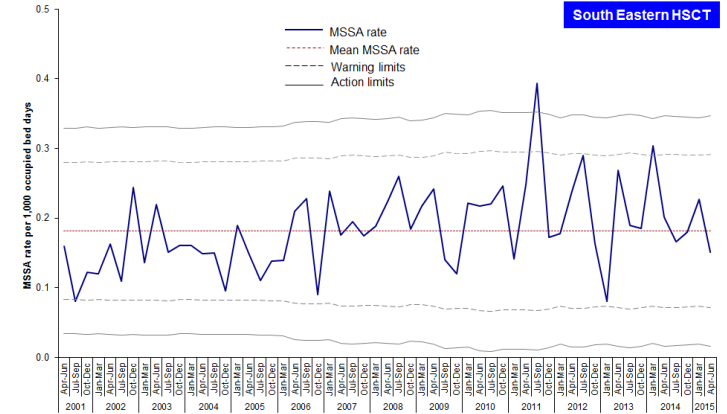
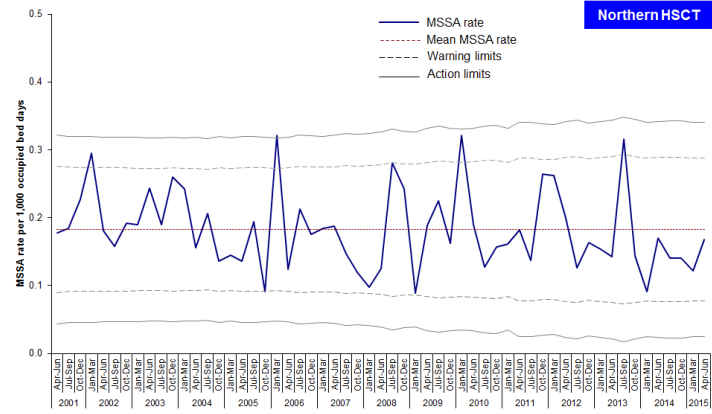
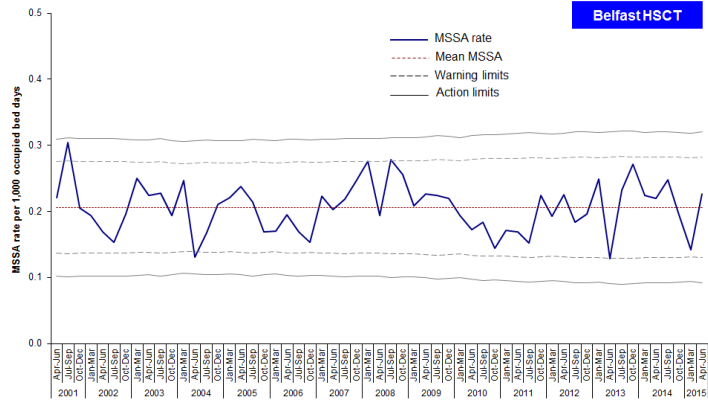
**Table 4: Quarterly number of MSSA patient episodes, by Trust, July 2014 – June 2015**

Trust	Jul - Sept 2014	Oct - Dec 2014	Jan - March 2015	Apr - Jun 2015
	Episodes	Episodes	Episodes	Episodes
Belfast Health & Social Care Trust	33	28	21	32
Northern Health & Social Care Trust	9	9	8	11
South Eastern Health & Social Care	12	11	14	9
Southern Health & Social Care Trust	9	7	18	13
Western Health & Social Care Trust	4	10	12	9
<b>NI TOTAL</b>	<b>67</b>	<b>65</b>	<b>73</b>	<b>74</b>

## Appendix 2: Trends in MRSA rates, by HSCT and quarter, 2001–2015



## Appendix 2: Trends in MSSA rates, by HSCT and quarter, 2001–2015



### Appendix 3

**Table 5: MSSA, MRSA and total *S. aureus* patient episode rates, and the percentage of *S. aureus* reported as MRSA, in Northern Ireland, Jan 2006 – June 2015**

Quarter	MSSA rate	MRSA rate	All <i>S. aureus</i> rate	% MRSA
Jan-Mar 2006	0.186	0.135	0.321	42.1
Apr-Jun 2006	0.199	0.157	0.356	44.1
Jul-Sep 2006	0.201	0.129	0.33	39.1
Oct-Dec 2006	0.159	0.115	0.273	42.1
Jan-Mar 2007	0.208	0.145	0.353	41.1
Apr-Jun 2007	0.183	0.091	0.274	33.2
Jul-Sep 2007	0.181	0.146	0.326	44.8
Oct-Dec 2007	0.187	0.137	0.324	42.3
Jan-Mar 2008	0.194	0.129	0.323	39.9
Apr-Jun 2008	0.184	0.136	0.32	42.5
Jul-Sep 2008	0.252	0.122	0.375	32.5
Oct-Dec 2008	0.223	0.087	0.31	28.1
Jan-Mar 2009	0.182	0.120	0.302	39.7
Apr-Jun 2009	0.207	0.092	0.299	30.8
Jul-Sep 2009	0.206	0.069	0.275	25.1
Oct-Dec 2009	0.195	0.107	0.302	35.4
Jan-Mar 2010	0.202	0.064	0.266	24.1
Apr-Jun 2010	0.175	0.091	0.267	34.1
Jul-Sep 2010	0.164	0.074	0.239	31.0
Oct-Dec 2010	0.162	0.062	0.224	27.7
Jan-Mar 2011	0.152	0.061	0.214	28.5
Apr-Jun 2011	0.181	0.054	0.235	23.0
Jul-Sep 2011	0.193	0.082	0.275	29.8
Oct-Dec 2011	0.206	0.044	0.250	17.6
Jan-Mar 2012	0.179	0.067	0.246	27.2
Apr-Jun 2012	0.216	0.034	0.250	13.6
Jul-Sep 2012	0.186	0.048	0.234	20.5
Oct-Dec 2012	0.173	0.044	0.216	20.4
Jan-Mar 2013	0.162	0.056	0.218	25.7
Apr-Jun 2013	0.169	0.036	0.205	17.6
Jul-Sep 2013	0.230	0.049	0.278	17.6
Oct-Dec 2013	0.188	0.053	0.241	22.0
Jan-Mar 2014	0.195	0.026	0.221	11.8
Apr-Jun 2014	0.200	0.034	0.234	14.5
Jul-Sep 2014	0.177	0.053	0.229	23.1
Oct-Dec 2014	0.168	0.036	0.204	17.6
Jan-Mar 2015	0.184	0.050	0.234	21.4
Apr-Jun 2015	0.193	0.052	0.245	21.3

## Appendix 4

**Table 6: MRSA patient episodes for each financial year, by HSCT**

HSCT	Financial Year									
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Belfast	118	115	109	86	62	48	46	32	18	28
Northern	46	47	42	35	22	27	19	14	12	11
South Eastern	32	49	34	46	28	15	14	13	15	7
Southern	27	19	14	16	15	11	10	1	5	9
Western	27	18	22	20	11	15	7	10	12	12
Northern Ireland	250	248	221	203	138	116	96	70	62	67

**Table 7: MSSA patient episodes for each financial year, by HSCT**

HSCT	Financial Year									
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15
Belfast	141	130	161	157	138	103	109	115	121	112
Northern	66	60	46	57	66	46	57	42	43	37
South Eastern	39	51	46	56	43	46	57	54	57	50
Southern	27	56	38	59	40	28	38	32	38	42
Western	52	51	37	37	49	39	34	40	38	40
Northern Ireland	325	348	328	366	336	262	295	283	297	281