Annual Report of The Director of Infection Prevention & Control for 2011/12

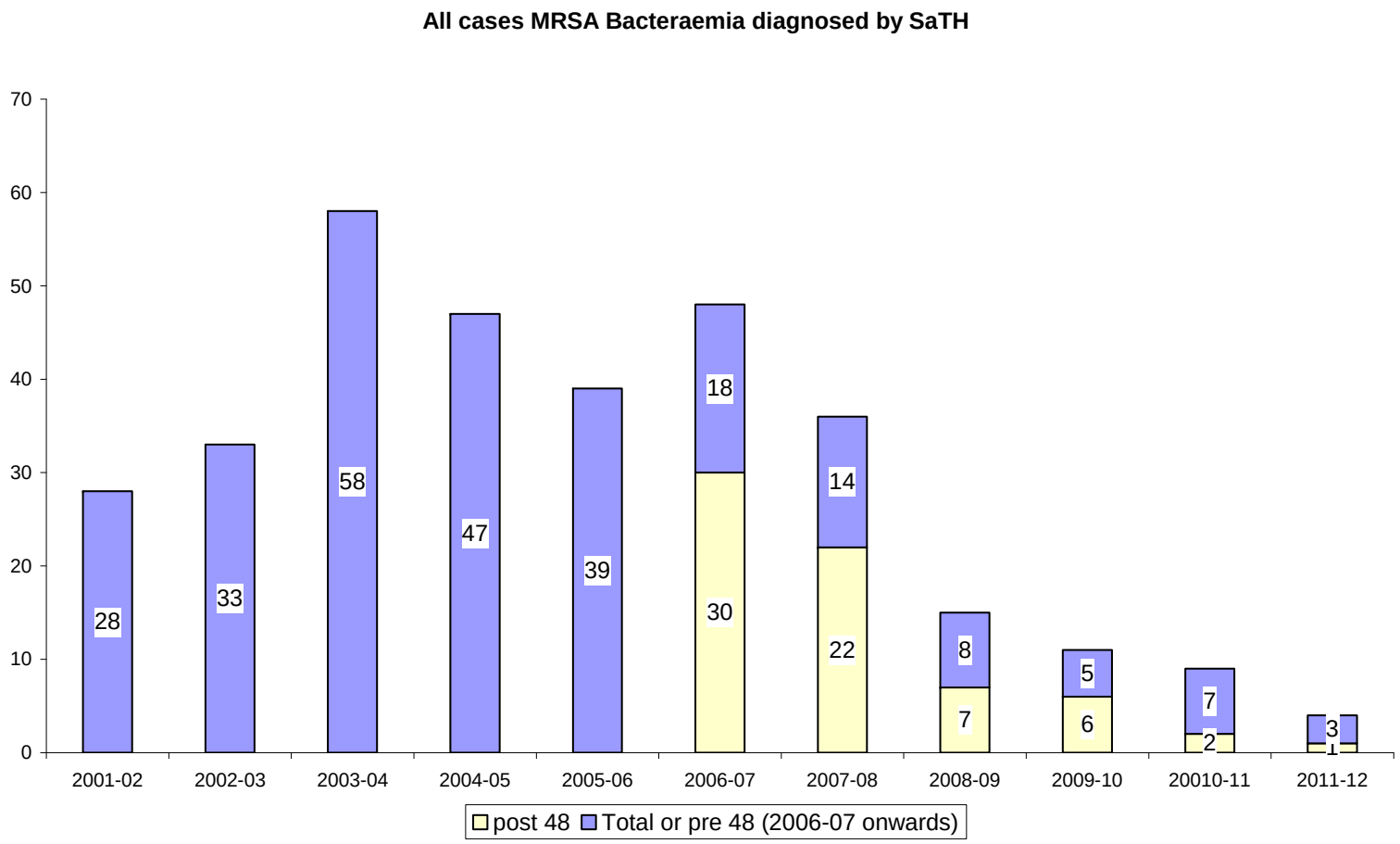
Dr Patricia O'Neill and the Infection Prevention and Control Team

Putting Patients First	Honesty And Integrity	Being a Clinically-Led Organisation	Working and Collaborating Together	Encouraging Individual Ability and Creativity	Taking Pride in our Work and our Organisation

Overview 2011/12

- Another successful year in combating MRSA and C difficile with further reductions
- Continued improvement in compliance with Hand Hygiene and other care bundles
- New challenges with focus on MSSA and E coli bacteraemia
- Teaching and audit key with another well attended annual conference

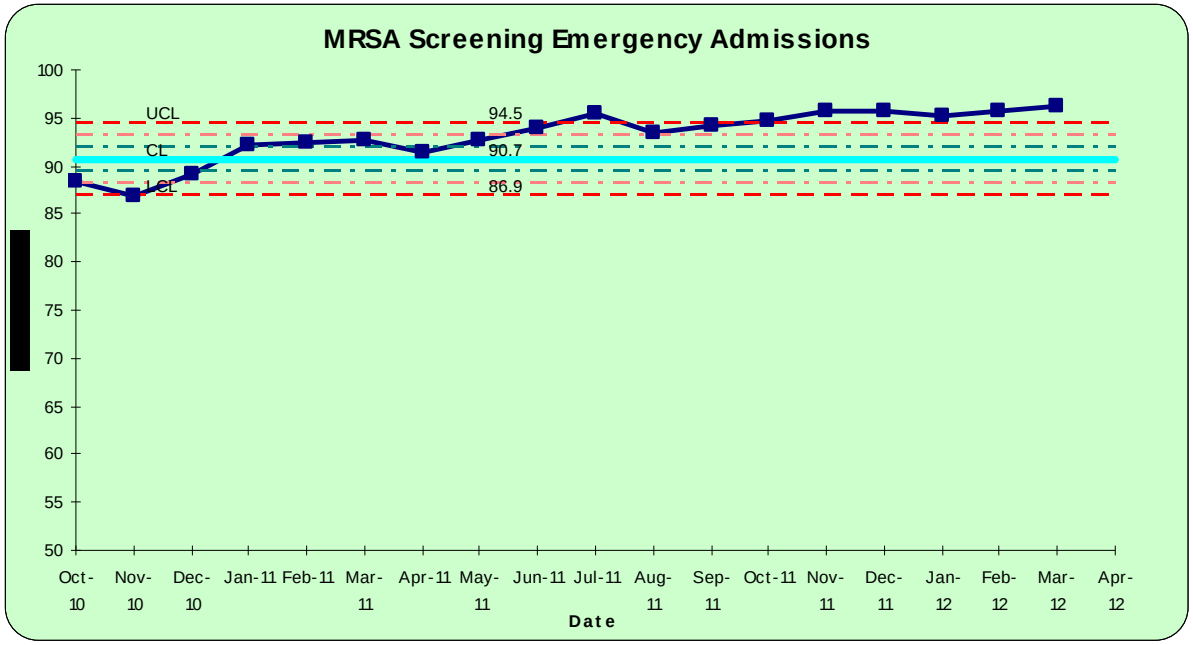
MRSA Bacteraemia 2001-11



MRSA

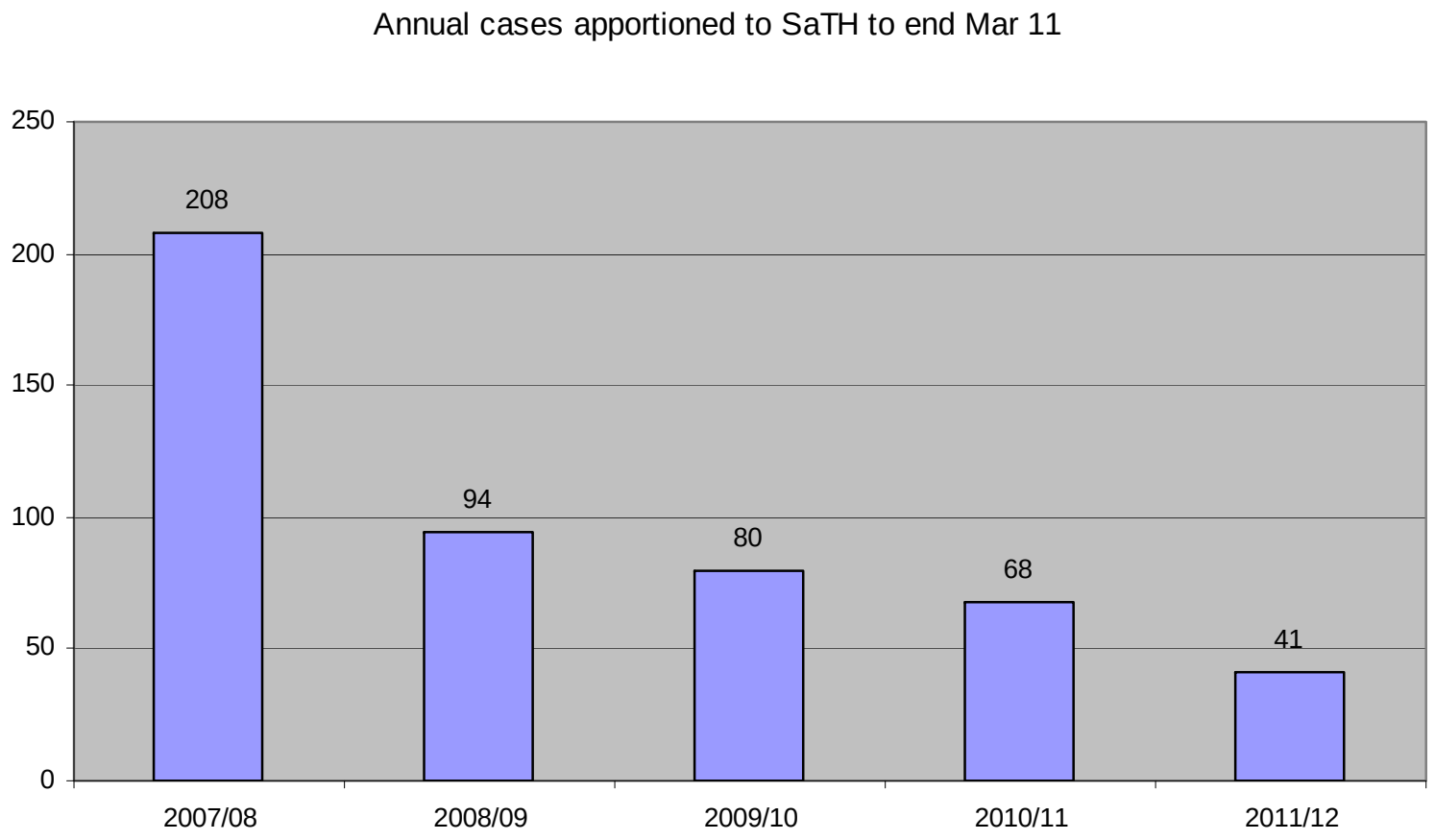
- MRSA Bacteraemia cases dropped again to one case in 2011/12 vs target of 2
- This is a 93% drop since the peak in 2003/04
- The case was thought to be due to contamination while taking the sample
- We have also seen a significant drop in non bacteraemia cases of MRSA
- 2012/13 target also not more than 2

Compliance with emergency admission screening



Compliance with emergency admission screening for MRSA was over 95% for whole year

C difficile SaTH Apportioned Cases

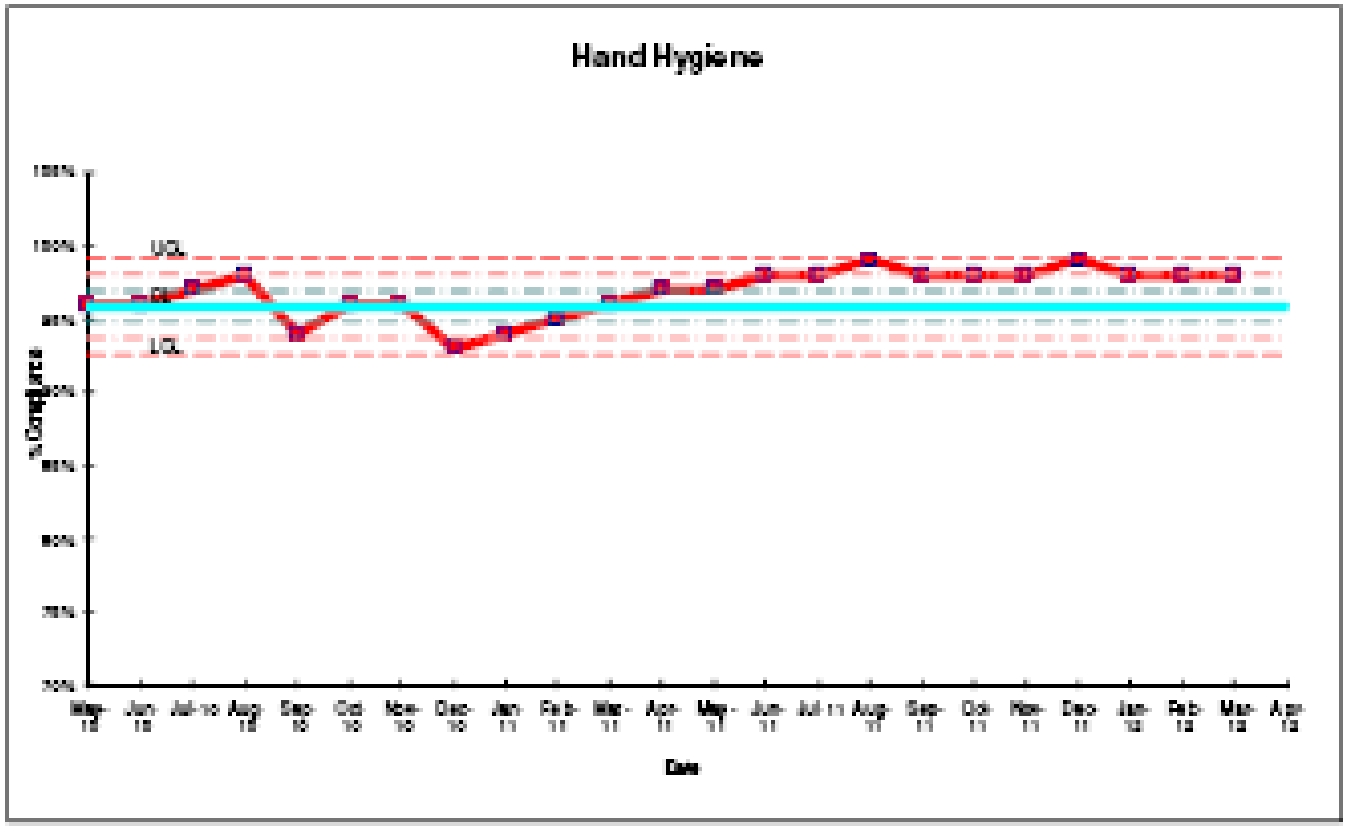


C difficile

- In 2011/12 – we had 41 SATH responsible cases (post 72 hrs) vs target of 54
- This is a drop of 80% since peak in 2008/09
- All cases were typed and no cross infection was found
- The commonest cause was antibiotic use – not usually avoidable
- 2012/13 target is 45 – new lab methods may cause artificial rise in numbers

Hand Hygiene Compliance

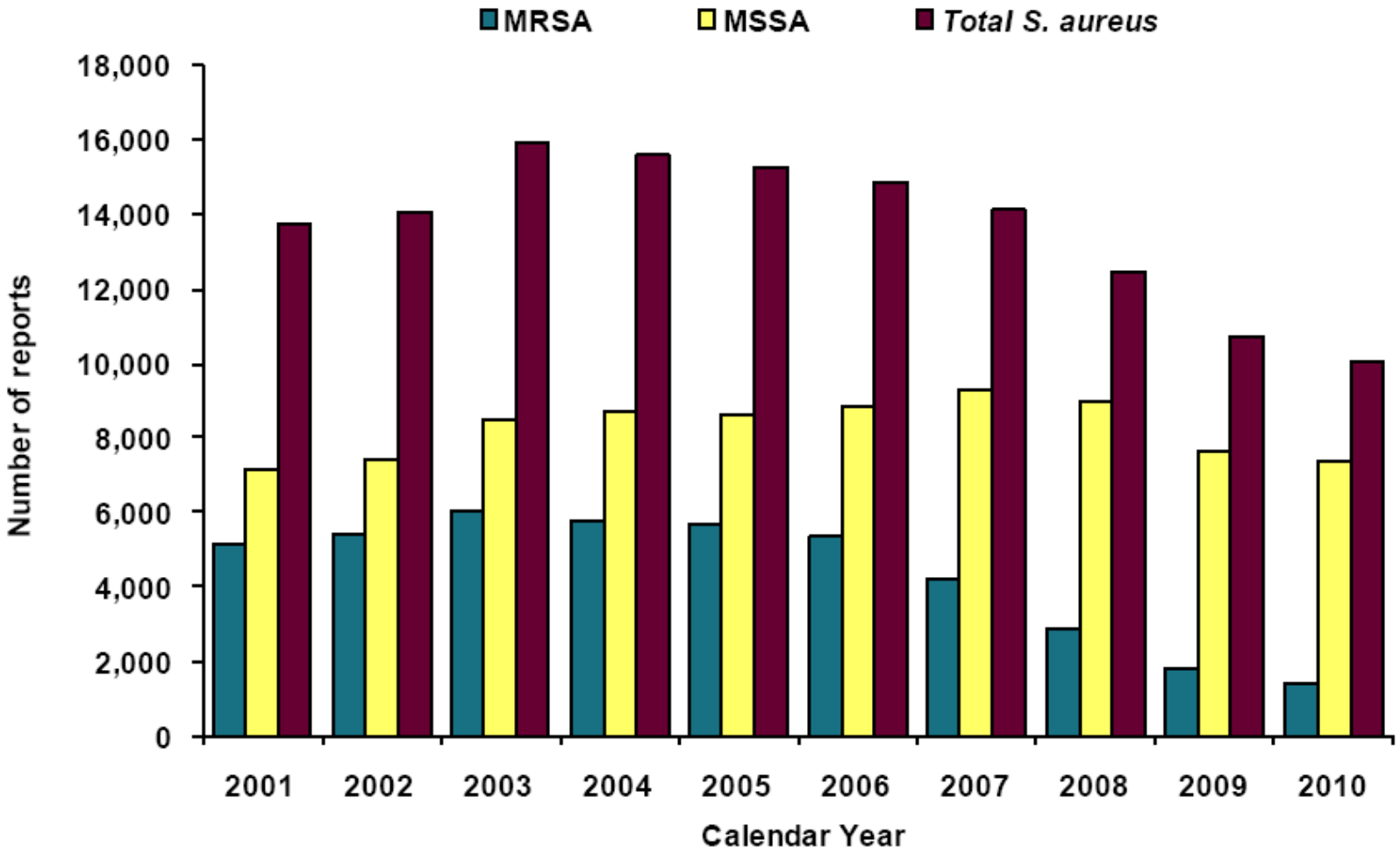
Sustained improvement in hand hygiene compliance – above 95% target for whole year



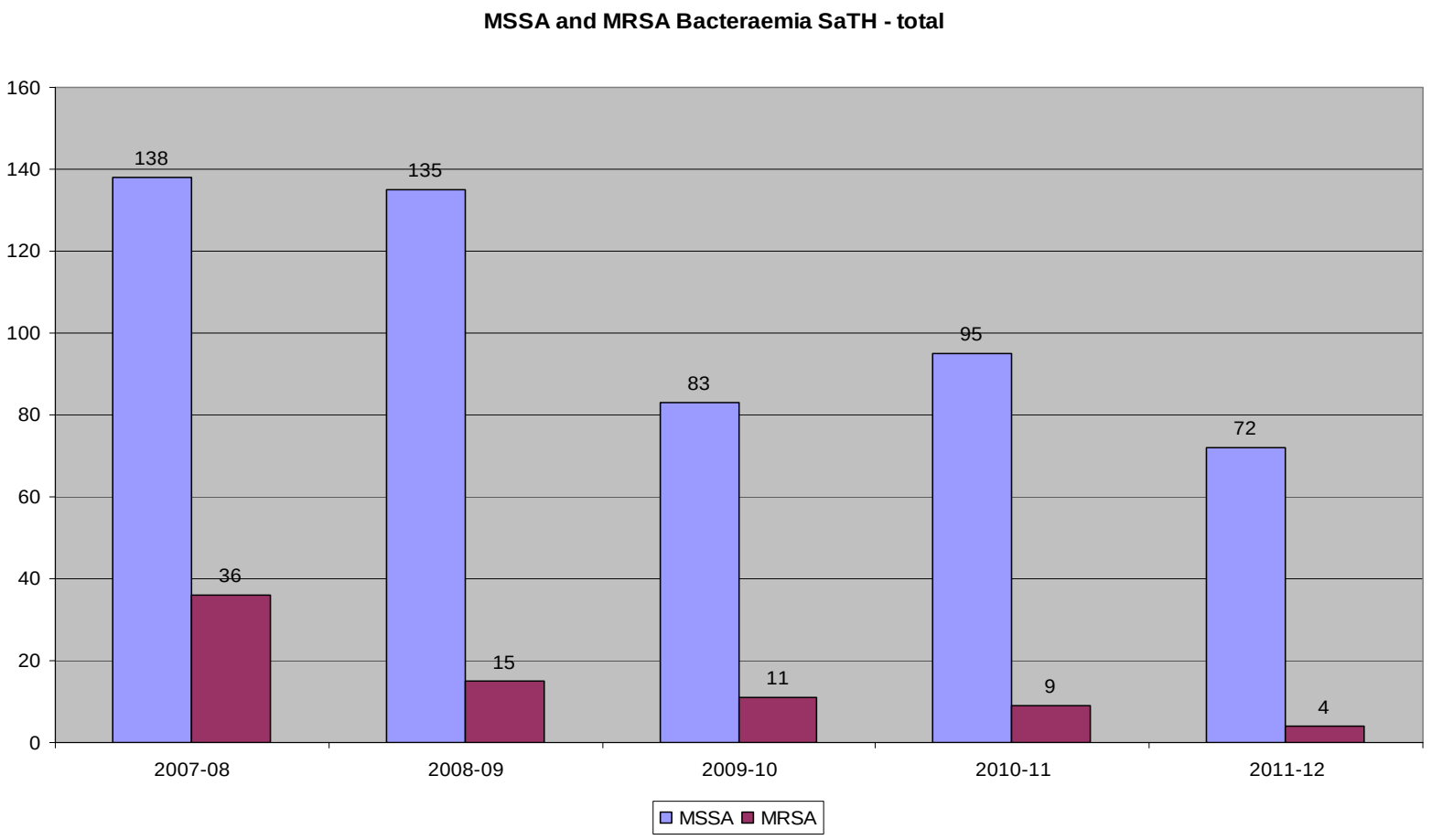
MSSA Bacteraemia – new target

- MSSA is methicillin sensitive strain of Staph aureus ie the “normal” strain
- Very common in community and 25% of us are colonised in the nose – mostly harmlessly
- A lot of infection will come in from community but can also be HCAI
- Nationally one third HCAI, two thirds community acquired
- HCAI cases - similar issues to MRSA ie lines, augmented care

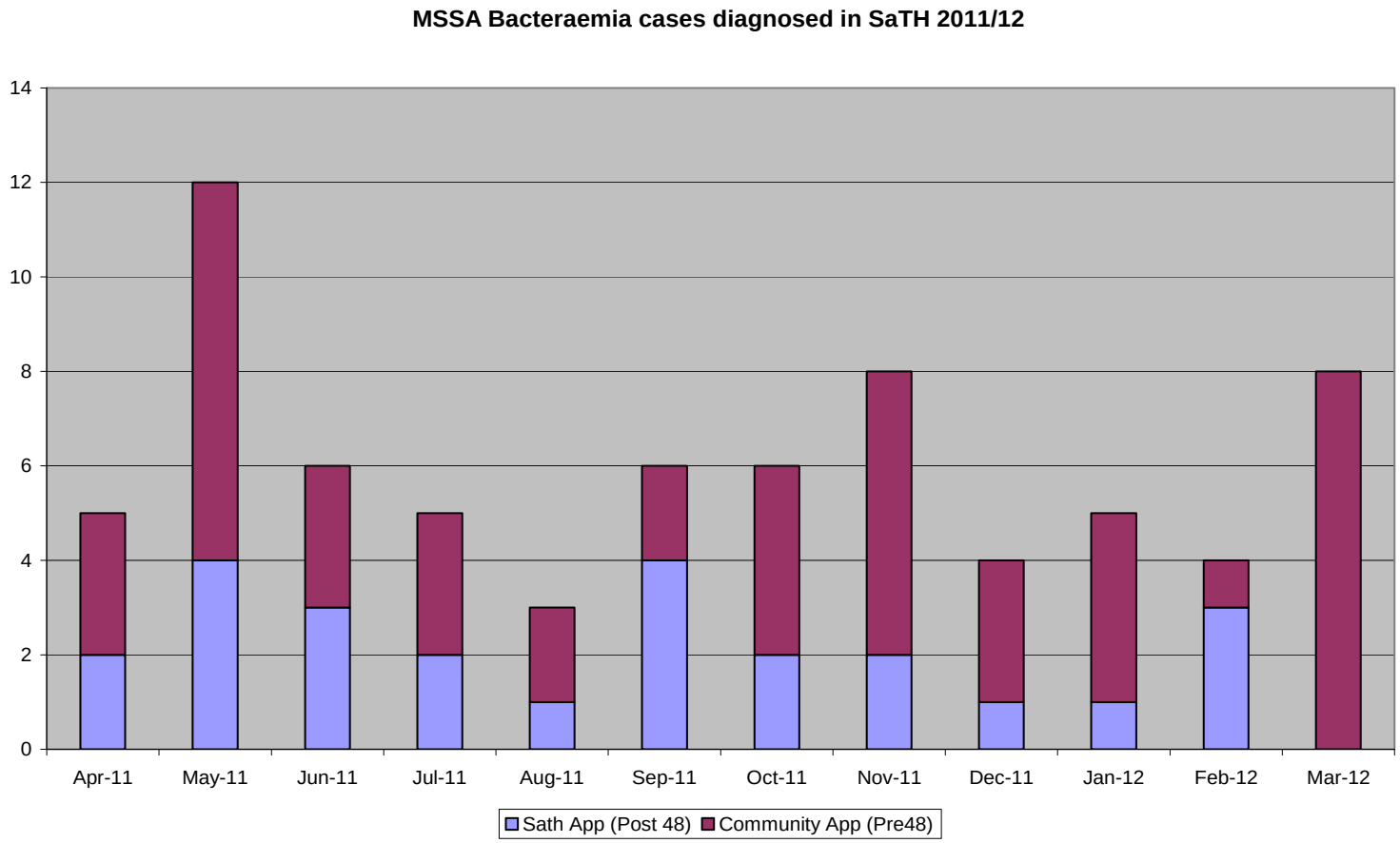
Figure 1: Trend in *Staphylococcus aureus* bacteraemia laboratory reports and meticillin susceptibility (voluntary reporting scheme): England, Wales and Northern Ireland 2001-2010*



MSSA vs MRSA bacteraemia SaTH – pre AND post 48



MSSA SaTH cases 2011/12



24 post 48 hrs: 48 pre 48hrs – one third: two thirds

So two thirds community acquired

Conclusion

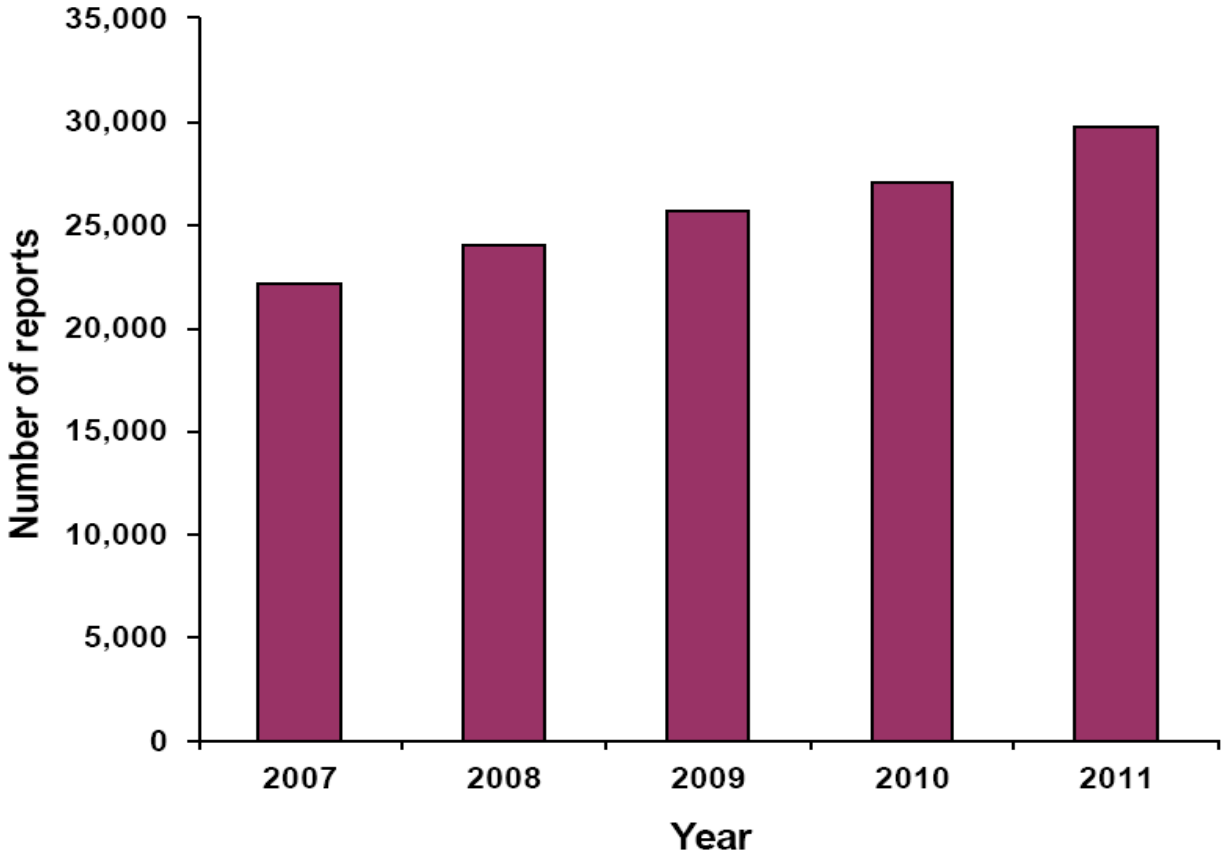
- Probably correct that only about one third of MSSA bacteraemias are health care acquired so more difficult to prevent
- Total numbers have halved but HCAI numbers still significant – 24 last year
- Health care infections – similar sources to MRSA ie lines and other devices
- Control? – can't screen and clear (except perhaps in specialist units eg renal dialysis)
- Care of lines and hand hygiene, wound care, and other care bundles critical
- High quality care essential

E coli Bacteraemia

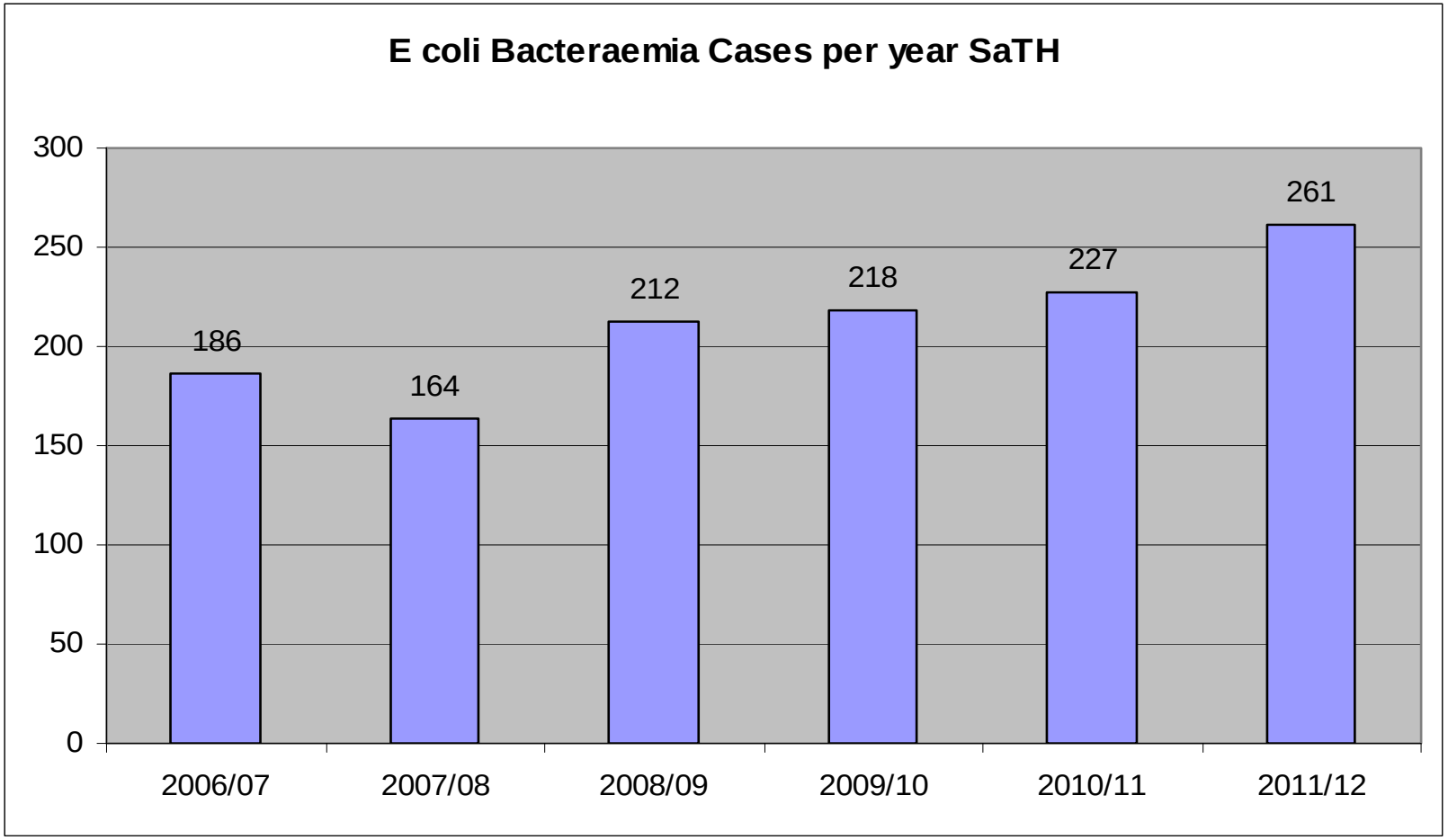
- E coli is normal bowel flora
- Common cause of UTI and gut sepsis
- Nationally 2,600 cases of E coli bacteraemia per month cf 800 MSSA and 70 MRSA
- Nationally and internationally bacteraemia cases have been increasing for last few years - 43% in E,W&NI 2004 to 2010
- ?Why - ?Increasing health care interventions – esp urinary catheters
- ?Related to increasing resistance

National Data – E coli Bacteraemia

Figure 1. *E. coli* bacteraemia reports, England, Wales and Northern Ireland: 2007 to 2011*



E coli Bacteraemia SaTH



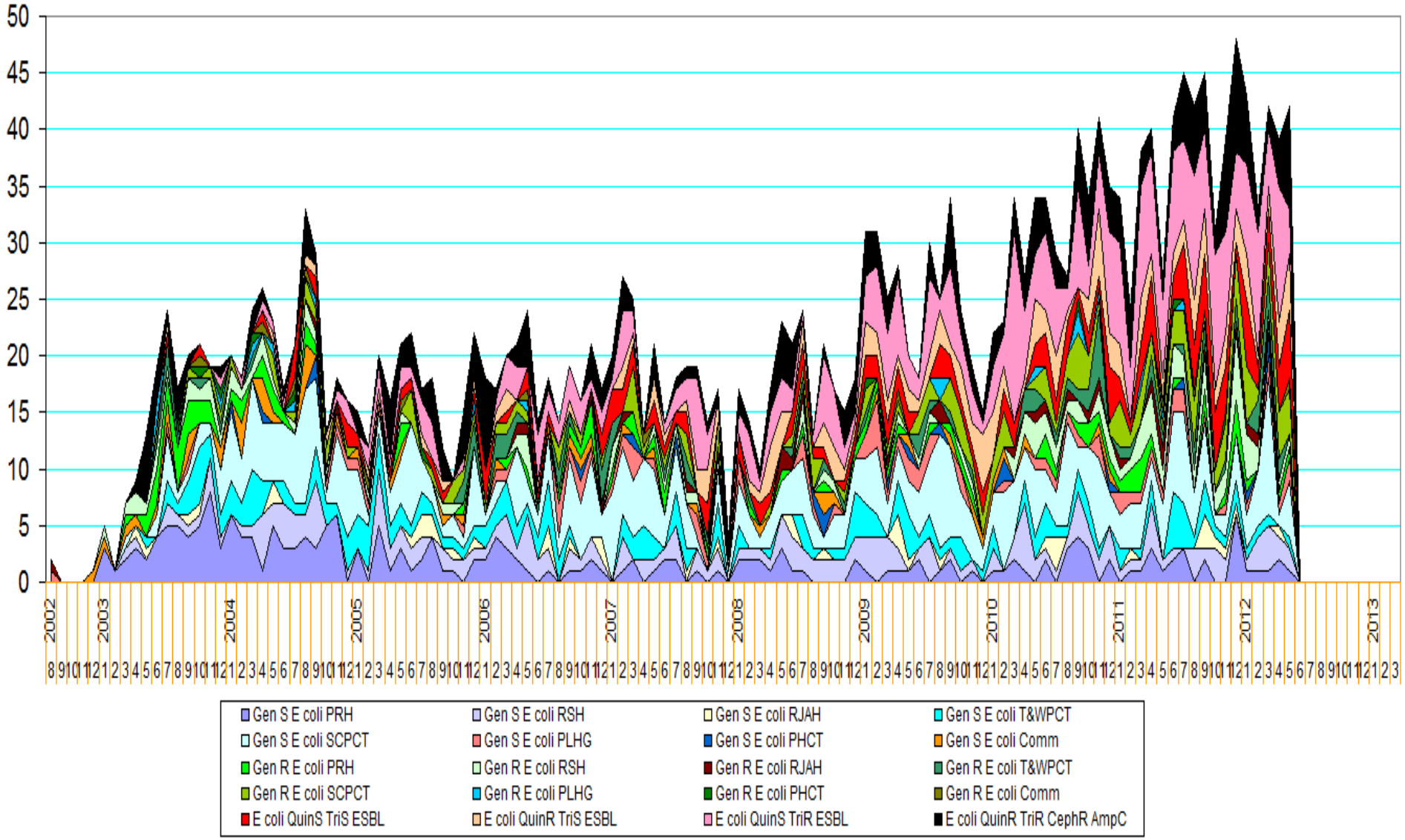
Causes SaTH

- Mandatory surveillance started June 11
- 01/06/11 to 31/03/12 we had 211 cases
- 168 (80%) were diagnosed within 48 hour of admission – probably community acquired
- 43 cases (20%) post 48 hours so probably hospital acquired
- No comparable national data yet
- Study Barking 2007 to 2010 29% hospital acquired (53% urine infections as in SaTH)

Conclusions from RCA

- Most E coli bacteraemia cases are NOT health care acquired
- Overall urine infections commonest cause 108 out of 211 (51%) - mostly NOT health care acquired
- But 34 of the 211 patients (16%) had a urinary catheter either from hospital (16) or community (18)
- Low percentage but still quite high numbers
- Catheter care and avoidance of catheters both in hospital and in the community is the most important factor in preventing health care acquired E coli bacteraemia
- Multiply resistant E coli also a problem – antibiotic control required in hospital and community

Cephalosporin multi-resistant E.coli in health economy (urine samples).



Conference – Sustaining Quality Improvement in Infection Control

- 117 delegates attended
- Topics included:
  - Change management
  - IV access
  - Care bundles
  - Aseptic catheterisation
  - Pressure sore prevention
- Also huge amount of teaching outside this

Compliance with Care bundles

Peripheral Intravenous Cannula care		Urinary Catheter Care		Ventilator associated pneumonia		Renal Haemo-dialysis		Central Venous Catheters		Hand Hygiene
Insertion	Ongoing	Inser-tion	Ongoing	Continuing care	Regular obs	Insertion	Ongoing	Insertion	Ongoing	All Wards
95.8%	91.9%	99.4%	92.6%	100%	93.3	100%	100%	92%	98.6%	96.8%

	Peripheral Cannula ongoing care %	Peripheral Cannula insertion %	Urinary Catheter ongoing care %	Urinary Cathe-ter inser-tion %	Care of ventilated patients - continu-ing care %	Care of ventilated patients - regular obs %	Central venous catheter insertion care %	Central venous catheter ongoing-care %	Renal dialysis catheter insertion care %	Renal dialysis catheter ongoing care %	Decon of Equip-ment %
Mar-12	92.50	97.59	98.57	100	100	73.33	98	100	100	100	90.3
Feb-12	93.09	92.83	100	100			87	100	100	88.89	97.3
Jan-12	95.71	96.81	100	100			88	100	100	100	86.4
Dec-11			77.17	98.41	100	100	90		100	100	89.7
Nov-11	84.35	89.69					97				
Oct-11	96.43	100	100	100			97	100	100	100	
Sep-11	87.5	95	88.8	96.6	100	100	92		100	100	92.4
Aug-11	95.3	97.8	75	100			95		100	100	
Jul-11	83.3	100	94.4	100			97	62.22			
Jun-11	100	100	100	100	100	100	93				90.1
May-11	91.3	89.2					85			100	
Apr-11							85				

Key	
	No results submitted for this month/audit wasn't due

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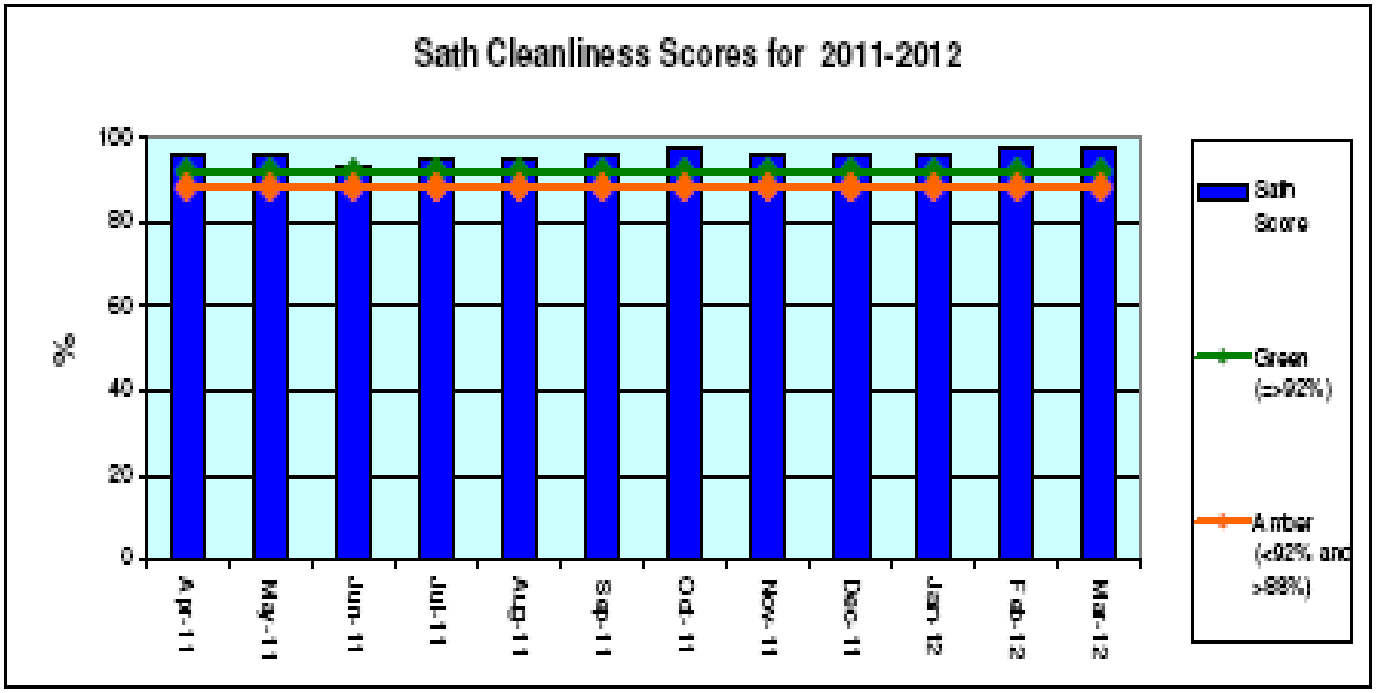
Cleanliness Scores



Challenges for 2012/13

- Aims
  - Improve on already impressive reductions in HCAI
  - Increase compliance with elective admission screening for MRSA
  - Use new methods to detect carriers of C difficile
  - Focus on antibiotic usage
  - Improve compliance with care bundles
  - Monitor and reduce urinary catheter related infections
  - Improve feedback on performance to Centres
- Challenges
  - Cohort ward now closed – victim of it's own success
  - Reduced bed base also effects isolation
  - Need to make most effective use of siderooms – daily liasion between IPC and site managers
  - Reduced IPC team
  - Difficult times for NHS – maintaining commitment