

Infection Prevention and Control



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Foundation Trust Members Meeting
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Infection prevention and control: Aims

- Prevent patients and staff acquiring infections (in hospitals)
- Control infections once they have occurred



Some Facts!

- 8% of hospitalised patients acquire an infection during their stay (*HIS 2006*)
- Risk increases with age and length of hospital stay



Concerns about infections

- Severity of disease
- Effectiveness and availability of treatment
- Speed of spread
- Preventability
- Many spread by hands

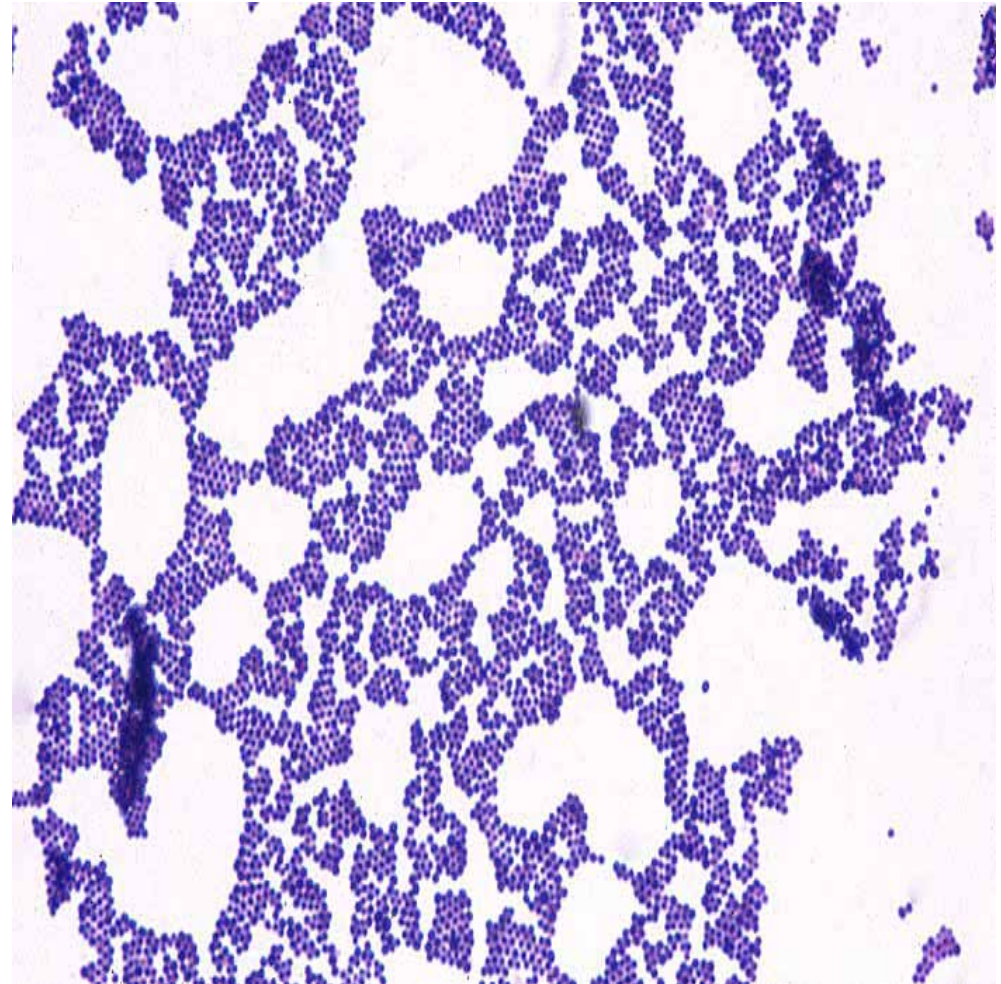




Some germs that cause Healthcare Associated Infections (HCAIs)

MRSA /MSSA

- Meticillin Resistant Staphylococcus Aureus (MRSA)
- Meticillin Sensitive Staphylococcus Aureus (MSSA)



Clostridium difficile



- Forms spores
- Spores survive in soil and environment
- Not killed by alcohol
- Causes a range of symptoms



Clostridium difficile: Did you know...

- >60% babies under 1 carry it without disease
- 3% of healthy adults carry it with no symptoms
- 30% of hospitalised patients over 65 years carry it
- Reducing 'good' gut bacteria increases risk of disease eg antibiotics
- Range of symptoms
- Relapses are common



Norovirus

- Winter vomiting disease
- Spreads very quickly through vomit/stool
- Not killed by alcohol
- Causes massive hospital disruption





Cost of Healthcare Associated Infections (HCAIs)

- Range of symptoms from minor discomfort to severe disability and/or death
- In 2007: 9000 deaths due to C.difficile and MRSA (ONS 2008)
- HCAI's prolong hospital stay and recovery time
- Health Care Associated Infections (HCAI's) cost the NHS £1 billion p.a. in England (NAO 2000)
- Litigation
- Public confidence

30% of HCAs preventable



What are we doing at Mayday to prevent and control HCAI

- Supportive Management structure
- Clinical engagement
- Infection control team activities
- Root Cause Analyses
- Adverse incident reporting and Learning from them
- Clostridium difficile management team
- Motivated cleaning team
- Antibiotic prescribing monitored and controlled



***Clostridium difficile* management & control**

- **S**uspect
- **I**solation – all patients with suspected C.difficile are admitted into single rooms.
- **G**loves and aprons, signage
- **H**and washing with soap and water emphasized
- Root cause analysis
- **T**reatment – C.difficile management team



Members of *C.difficile* management team



***Clostridium difficile* control**

- Antibiotic pharmacist in place
- Antibiotic steering group
- Pocket size antimicrobial guidelines
- Ward based posters about the guidelines
- Compliance monitored
- Non-compliances addressed



MRSA control

- Swab (nose and groin) of patients
- Antiseptic skin wash and antibiotic nasal cream
- Isolation of those found positive
- Audit



MRSA control

- Root cause analysis of blood stream infections
- Guidelines
- PCT infection control team involvement



HCAI control through review of deaths

- Train doctors to include MRSA or C.diff or other HCAI on death certificate
- Deaths due to MRSA and C.diff = Serious Untoward incident (SUI)
- All HCAI SUIs have root cause analyses
- All discussed at Mortality Review panel
- Risk management committee informed
- Reported to NHS London

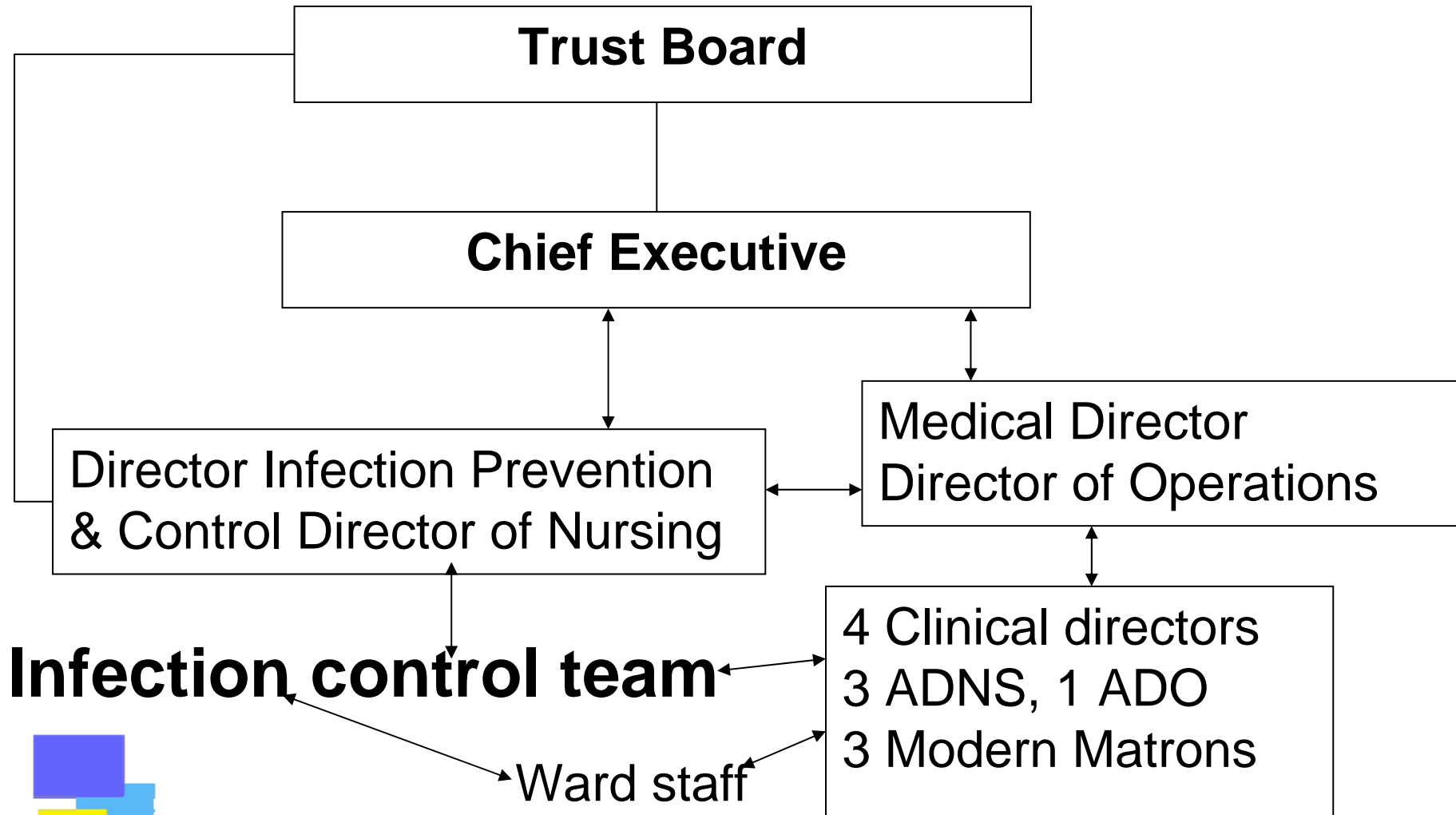


Infection prevention and control (IPC)



Arrangements at
Mayday Hospital
Board to Ward

Management structure



The infection control team

- The DiPC
- Infection control clinical lead – a consultant microbiologist
- 2 Senior infection control nurse specialists
- One Infection control development nurse
- A surveillance nurse (P/T)
- 2 Junior matrons for infection control



The Infection Control Team



Working together
to protect our
patients and staff

Clean hands clean surroundings
clean equipment



Message given to all staff: You are the difference!

- Your Attitude
- The way you Behave
- How you Communicate infection control is everybody's responsibility



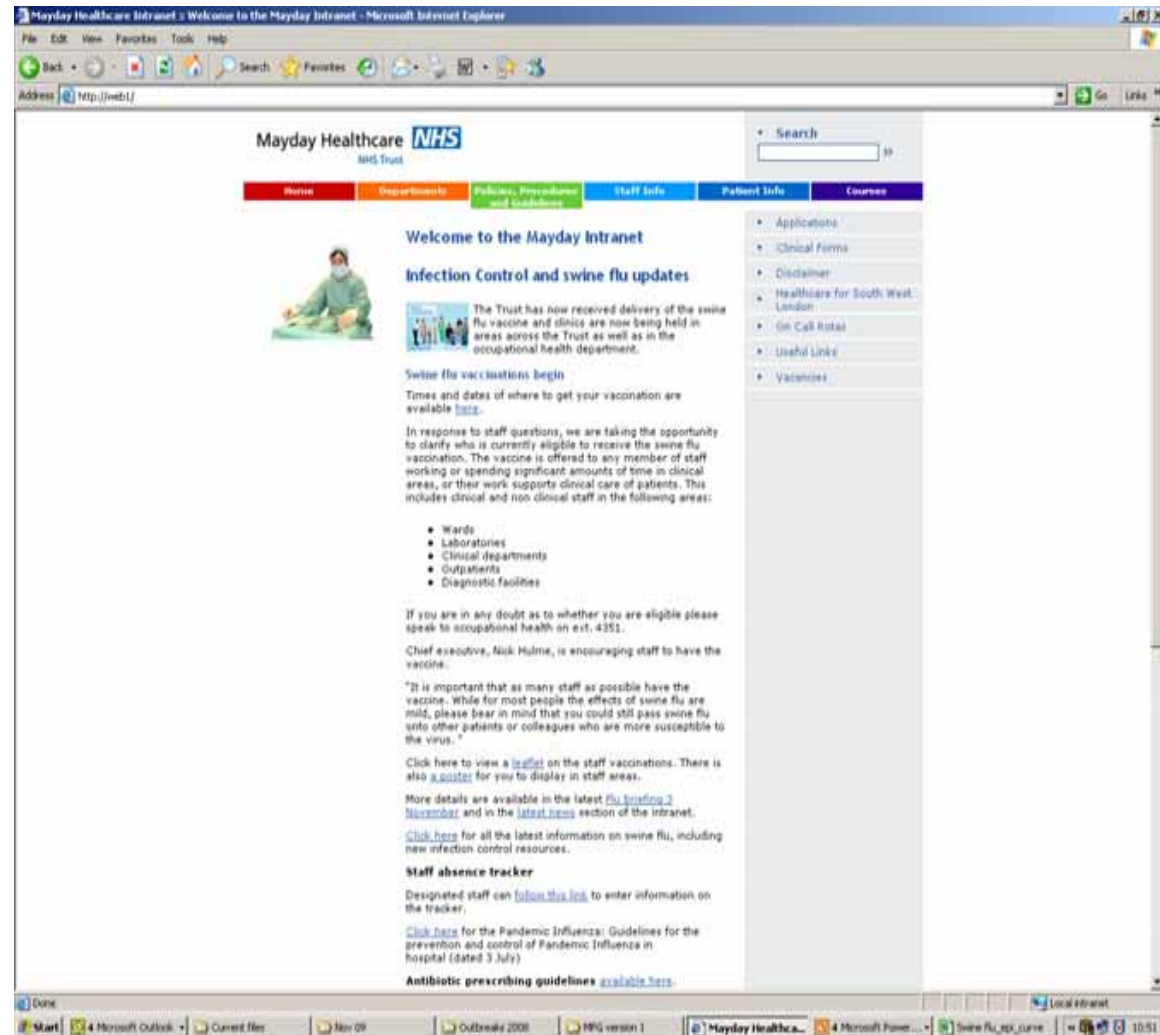
Key Roles and responsibilities

- Chief Executive – Ensures that the arrangements in place are effective in preventing HCAIs
- DiPC – Infection control strategy and Action Plan (with other members of ICT)



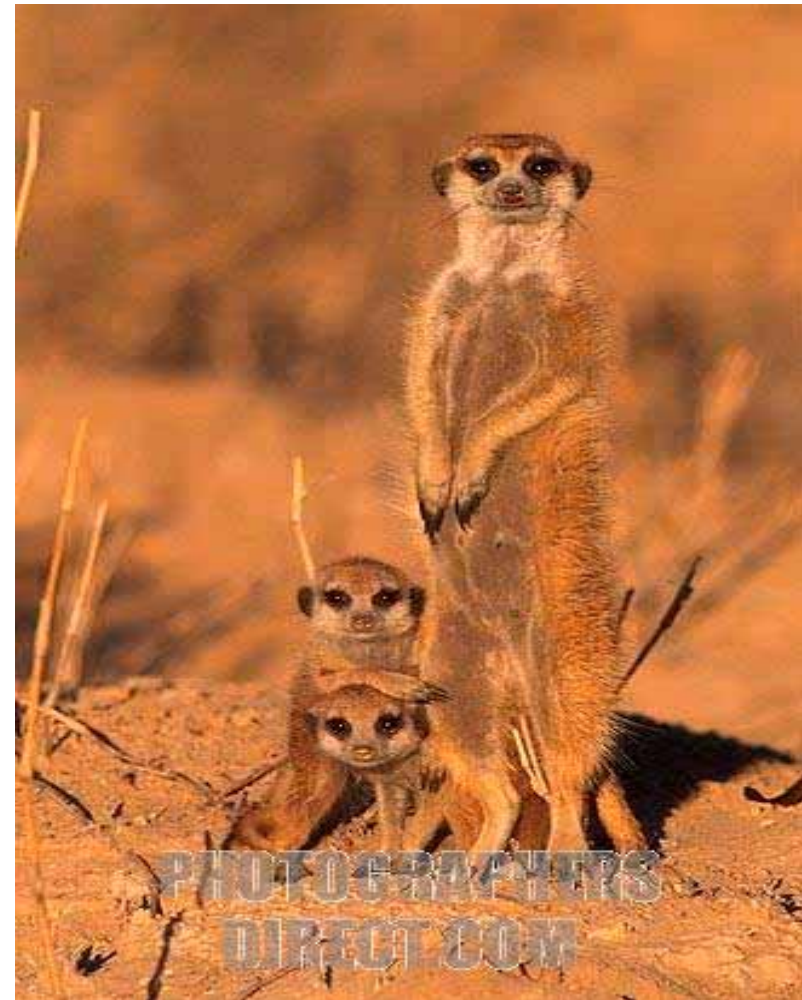
The infection control team

- Provide specialist advice and support to the Trust



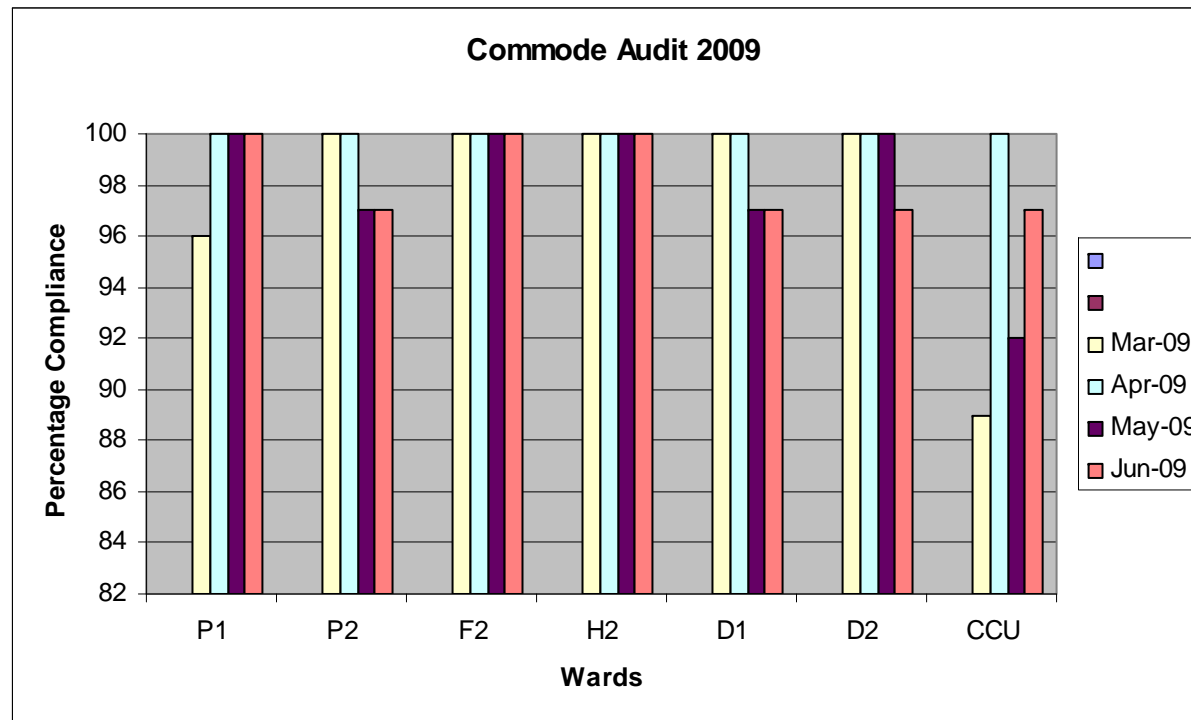
Infection control team

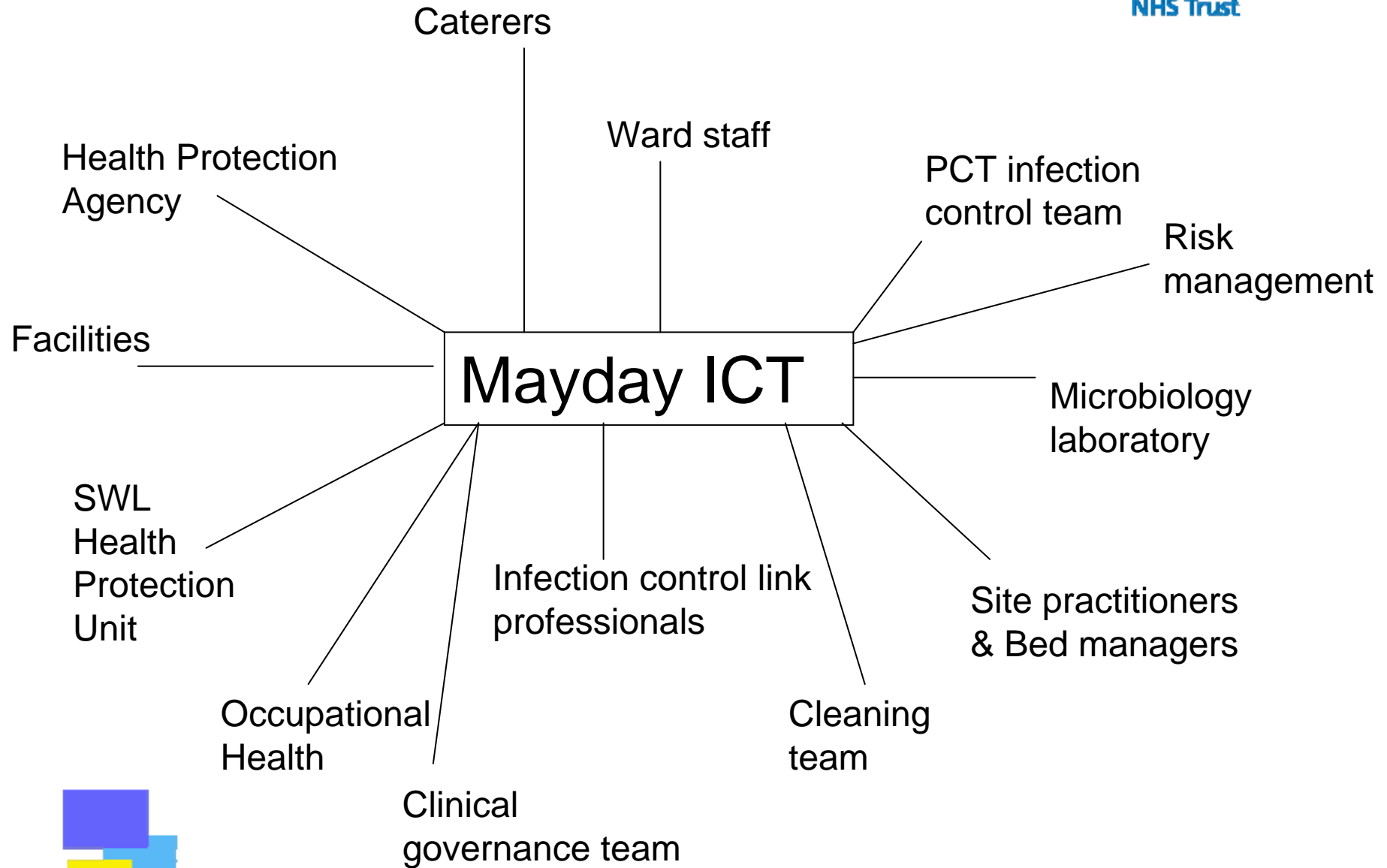
- Look out for infections (Surveillance) and advise appropriate actions



Infection control team

- Audit and feed back







Practical Infection Control at Mayday

And how you can help

Standard Infection Control Precautions

- Hand hygiene
- Personal Protective Equipment
- Safe use and disposal of sharps
- Cleaning - the environment and equipment
- Waste disposal
- Linen Handling





Hand hygiene

The single most effective measure for preventing the spread of infection

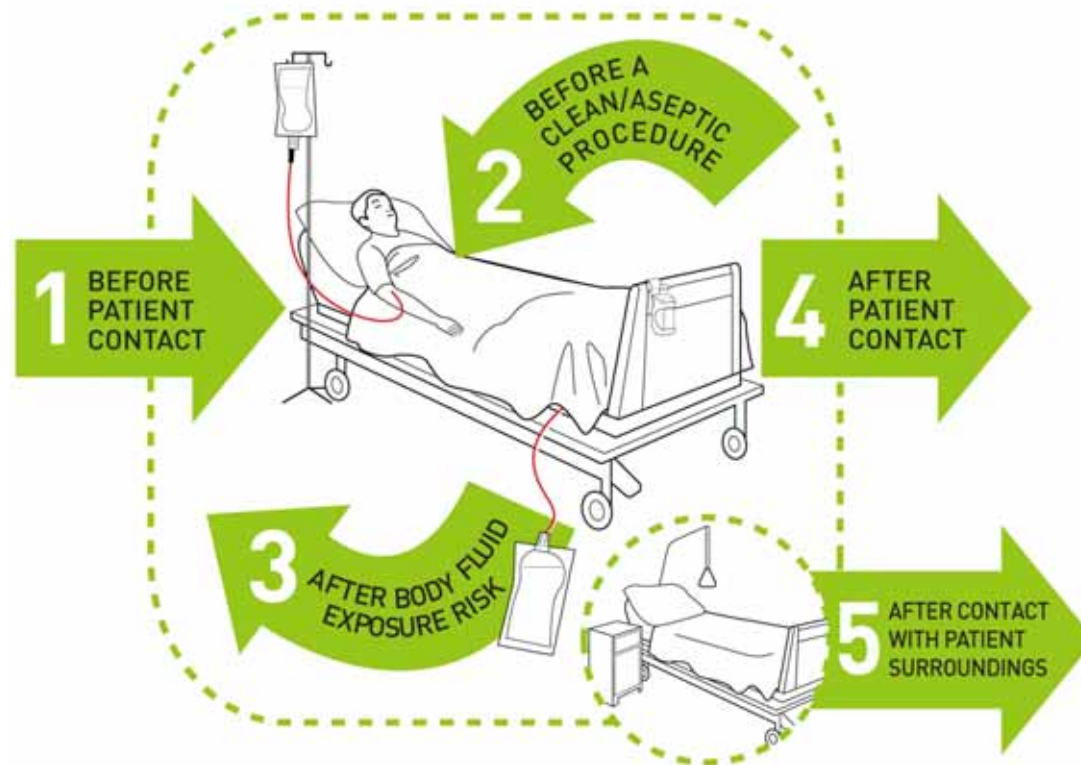


When & Where?

Which product?

Technique

Hand Hygiene Right Place – Right Time



Your five
moments for
hand hygiene

Based on WHO poster 'Your 5 moments for hand hygiene' and reproduced with their kind permission



Which Product Should I use? Alcohol hand rub or Soap and Water?

Alcohol hand rub is the recommended product for staff to use except when:

- Hands are **visibly soiled** or there is direct hand contact with **body fluids**.
- The patient is experiencing **vomiting or diarrhoea**.



.....Then **Soap and Water** must be used



Be careful or you'll miss bits!

Front



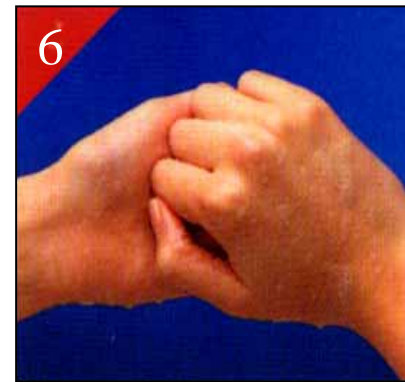
Back



Least frequently missed
Less frequently missed
Most frequently missed



Correct Technique for Hand Hygiene



1. Wet hands & apply one measure of soap
2. Rub palm to palm
3. Right palm over back of left hand & vice versa
4. Palm to palm fingers interlaced

5. Rotate right hand around left thumb & vice versa
6. Rub backs of fingers to opposing palms
7. Rotate left hand around right wrist & vice versa
8. Rinse hands and dry thoroughly

Bare below the elbows




Personal Protective Equipment

- Risk Assessment
 - What protective equipment do I need to wear?
- Patients with specific known infections
- Correct removal



Isolation of patients with specific infections

- 72 single rooms
- Prioritization according to level of risk
- Gloves and apron on entry for most infections





Mayday Healthcare **NHS**
NHS Trust


Isolation Notice
for all Staff & Visitors


 **STOP - NO ENTRY**
Report to the nurse in charge or seek advice from the nursing staff before entering this room

Before entering the room:

-  **please clean your hands**
-  **put on gloves and apron**

Before leaving the room:

-  **remove gloves and apron**
-  **wash hands with soap and water**

 **Please keep door shut**



Cleaning

- *Healthcare Initial* – cleaning contractors
- Monitoring Officers
- “Step up cleaning” during outbreaks
- “Deep cleaning”



Cleaning and disinfection of Equipment

- Blood pressure cuffs, commodes, mattresses, infusion pumps
- Cleaning products
 - Chlorine based disinfectant
 - Detergent wipes
- Disposable equipment where possible e.g. hoist slings
- On-site Sterile Services Department



What can you do to help?

- Please do not visit if you have a cold or are feeling unwell, especially if it is diarrhoea.
- Clean your hands before visiting the ward, particularly after going to the toilet.



What can you do to help?

- Do not touch dressings, drips, or other equipment around the bed.
- Do not sit on any beds.
- Avoid bringing in food that needs to go in the fridge.
- It's okay to ask. Busy staff can sometimes forget simple things like cleaning their hands before examining a patient.



Achievements and future targets



Inspections by external bodies

- September 2008: Healthcare Commission: Compliant
- March 2009: Annual PEAT inspection: Good rating
- December 2009: Care Quality Commission:
No breaches were found



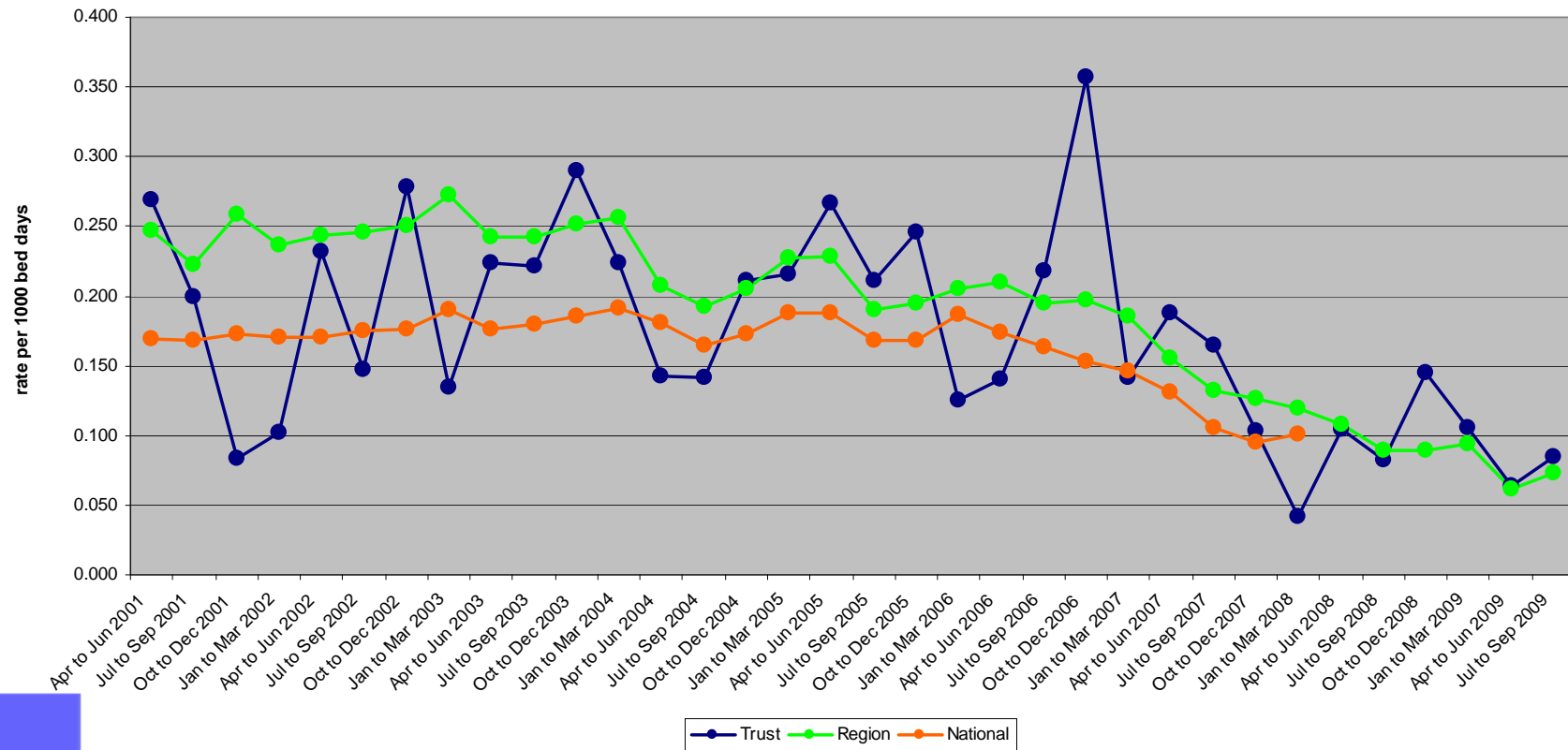
Department of Health Targets

- 2008-11: Reduce Clostridium difficile by 30%
- 2004-8: Reduce MRSA bacteraemia by 50%
- Zero MRSA bacteraemia in critical care
- MRSA screening targets



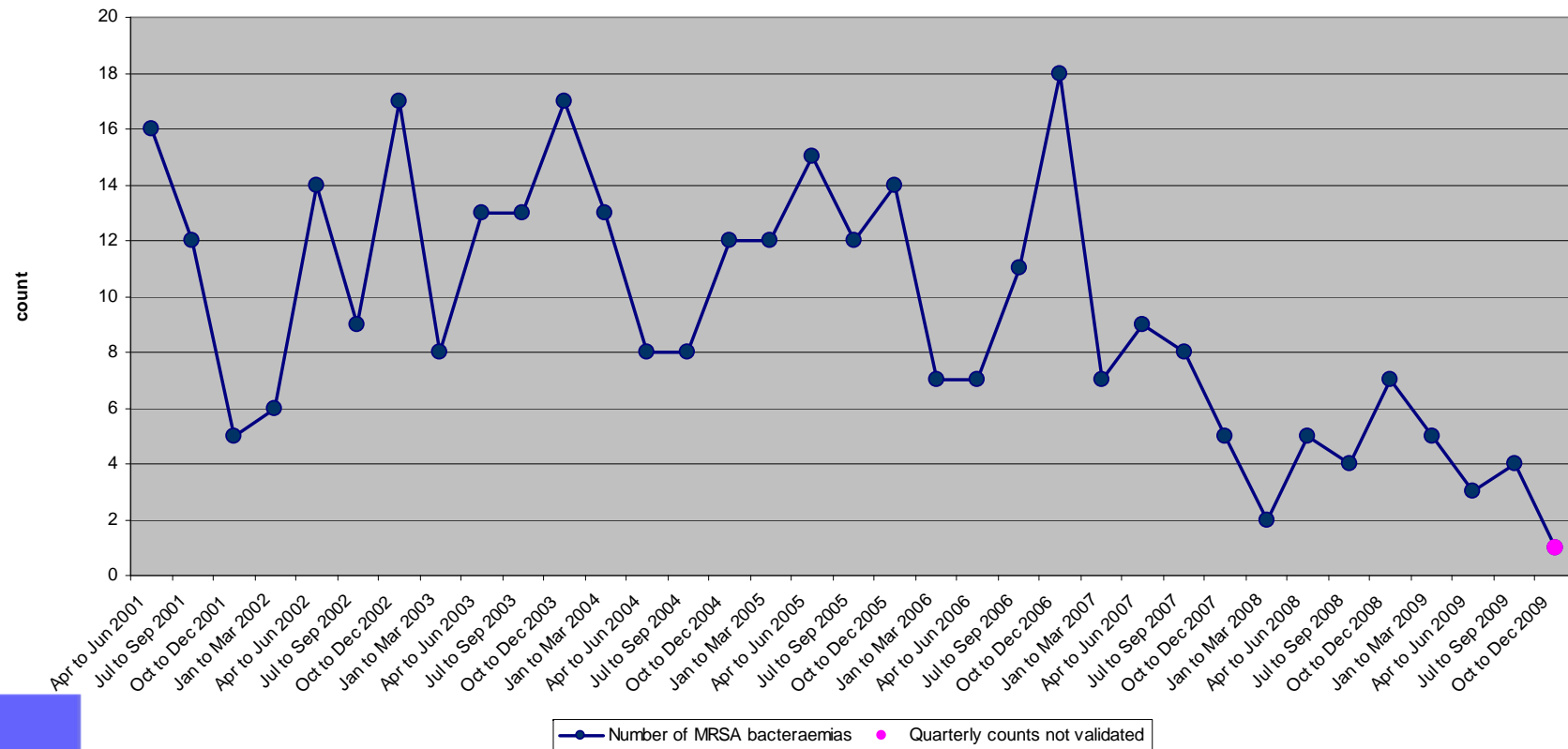
MRSA blood stream infections

Figure 7: Comparison with national and regional trends for MRSA bacteraemia rate

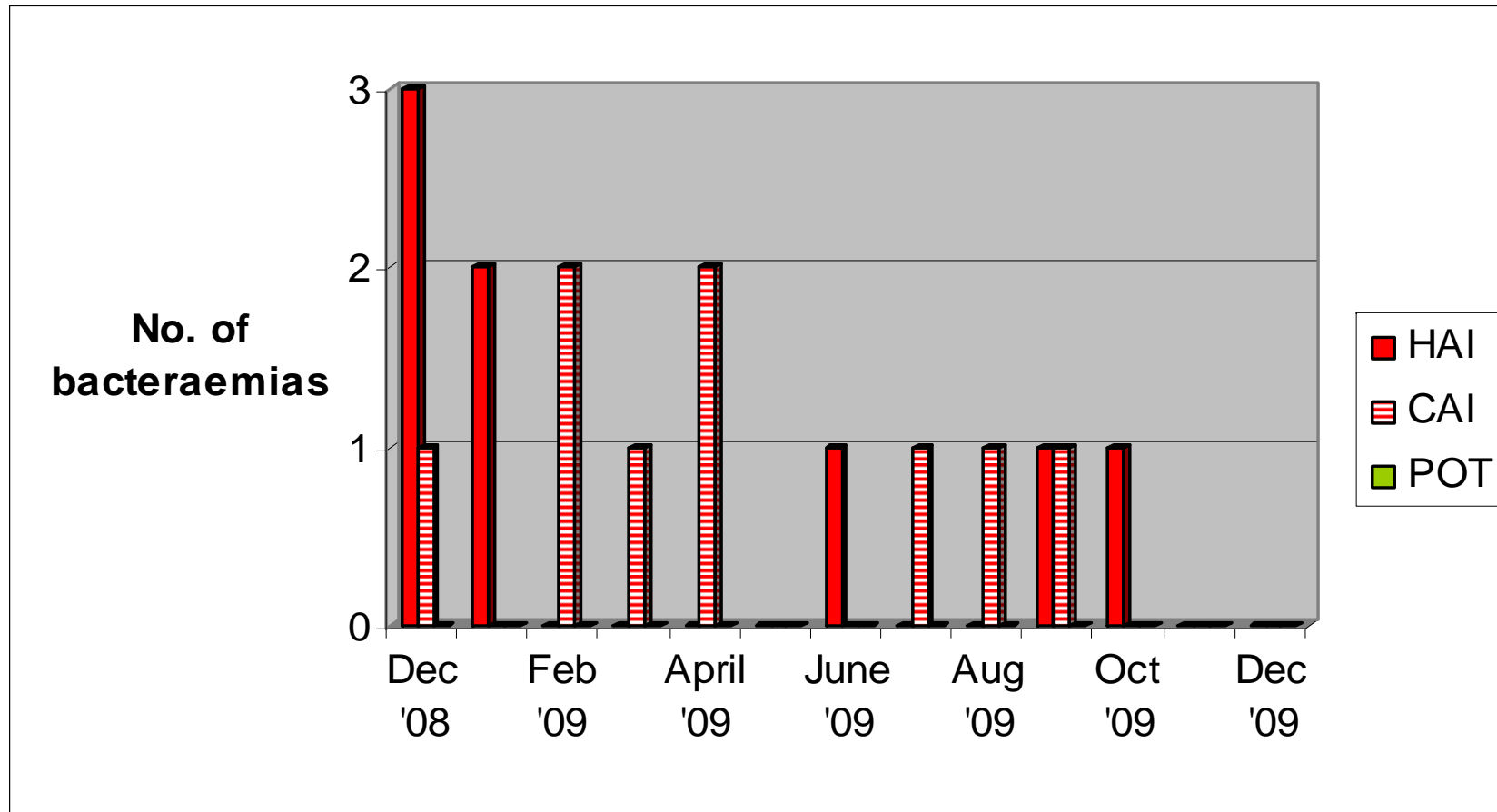


MRSA bacteraemia

Figure 3: Quarterly MRSA bacteraemia counts since April 2001



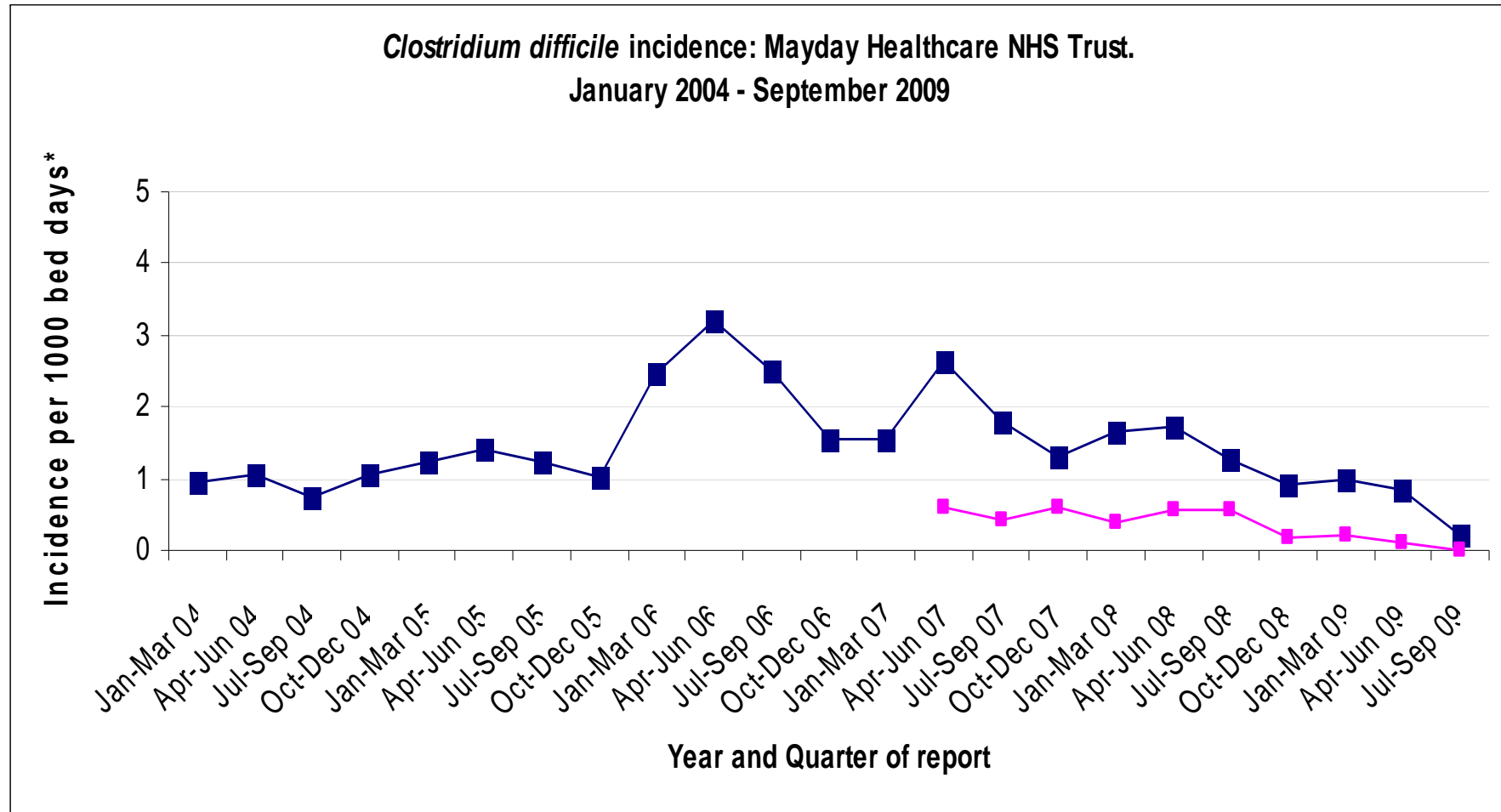
MRSA blood stream infections



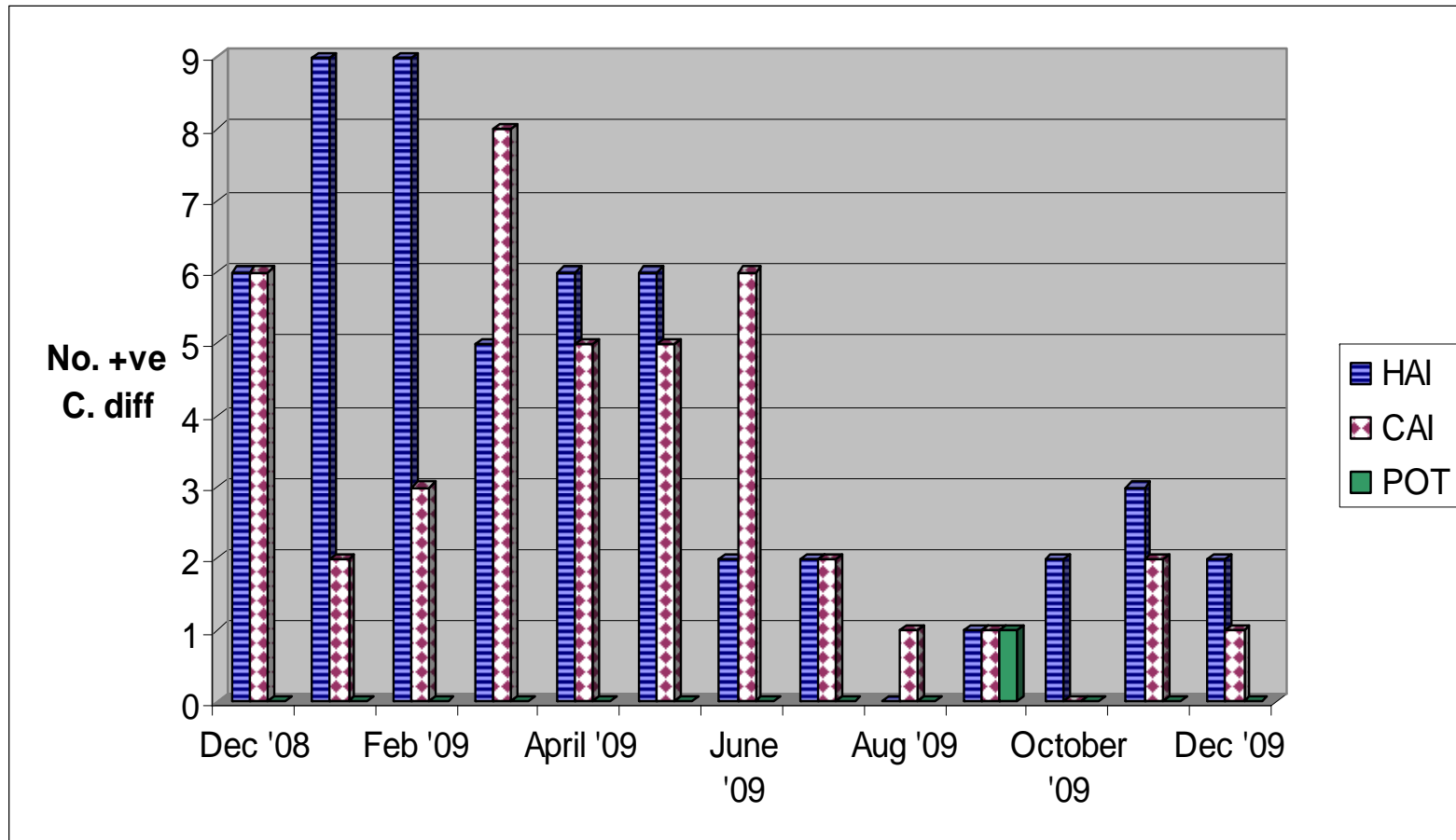
April 09 – March 2010: <22

Actual now 8

Clostridium difficile infections

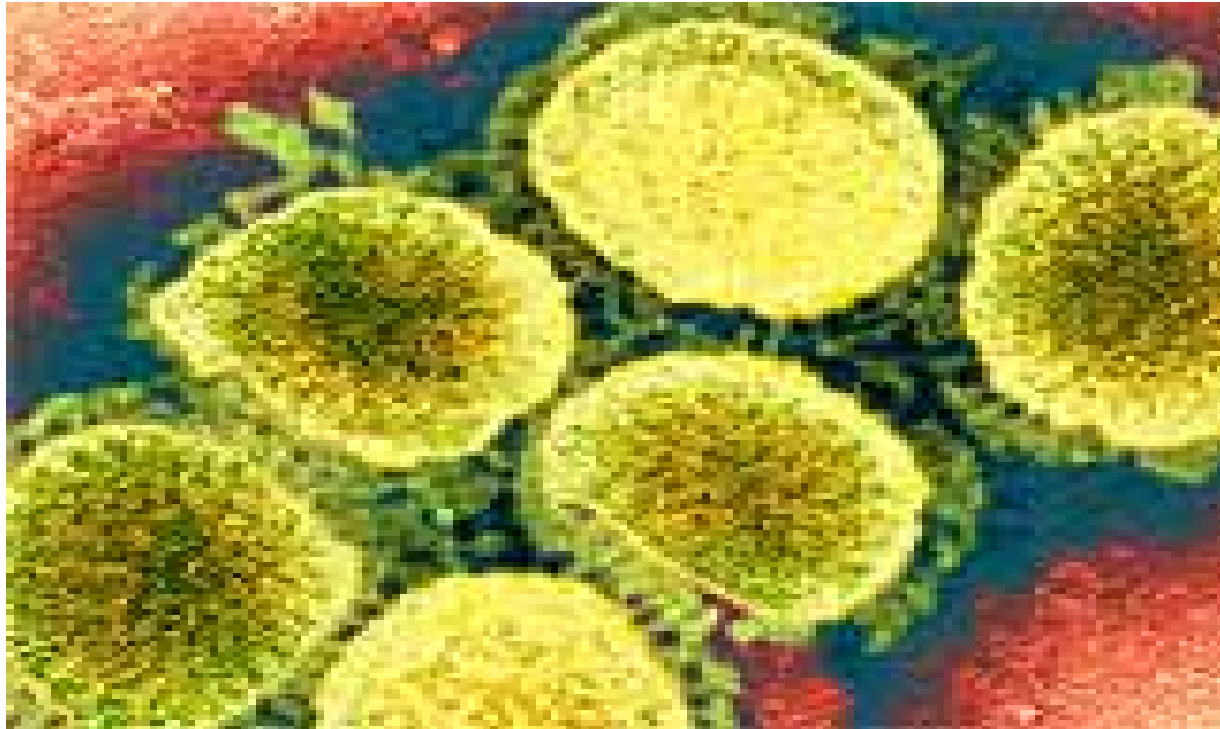


Clostridium difficile



April 09 – March 2010: 154 HAI. Actual: 26

Swine (H1N1v) influenza pandemic



Mayday Hospital Experience

April 2009

- April 09

It is here

Are we prepared?

Teleconferences

Meetings

Writing/Updating guidelines

Changing guidelines

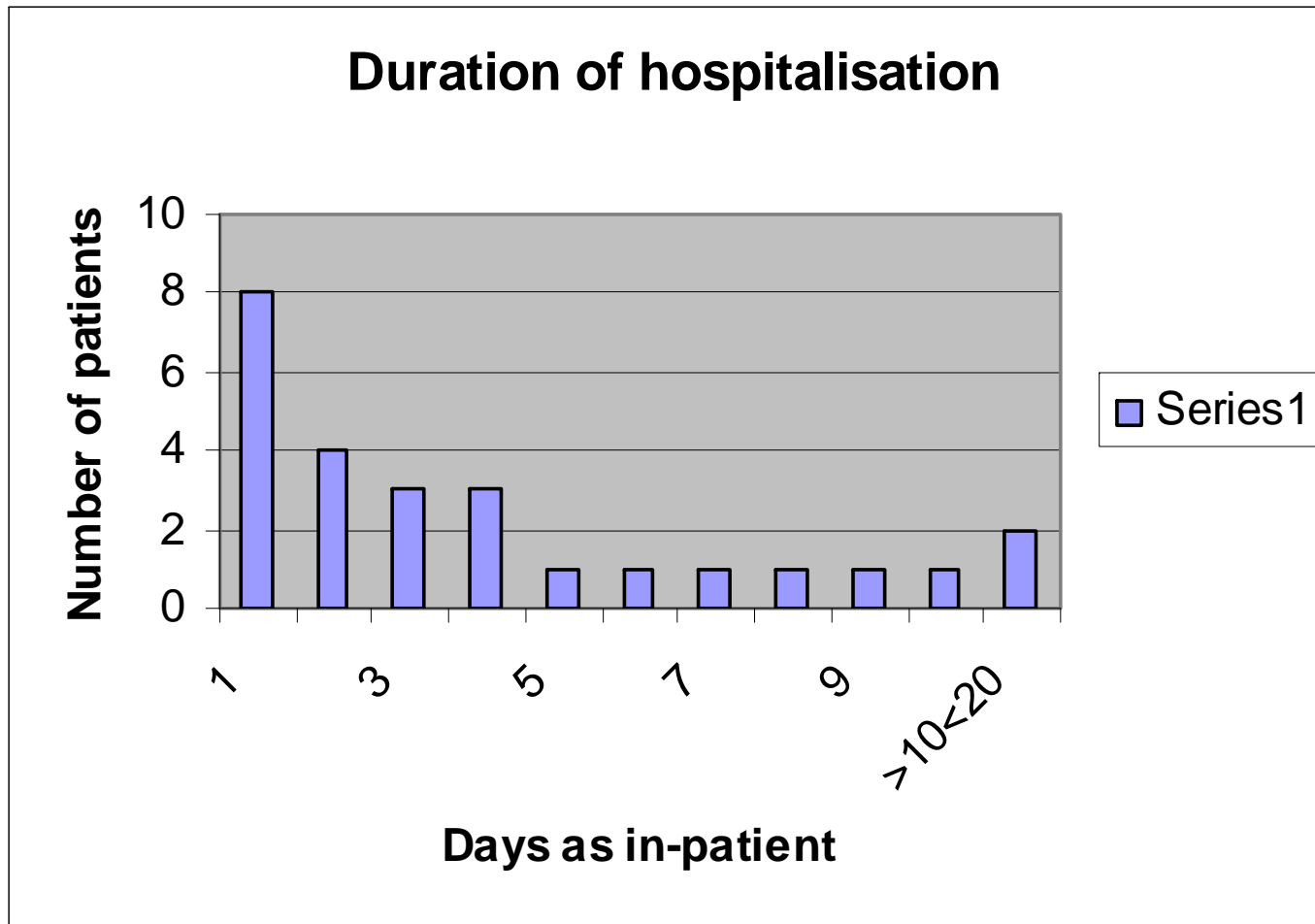
- June 09

Community cases/outbreaks

Parent (staff) anxious



Mayday patients: In-patient days



No deaths
3 ITU/HDU admissions
No current inpatient

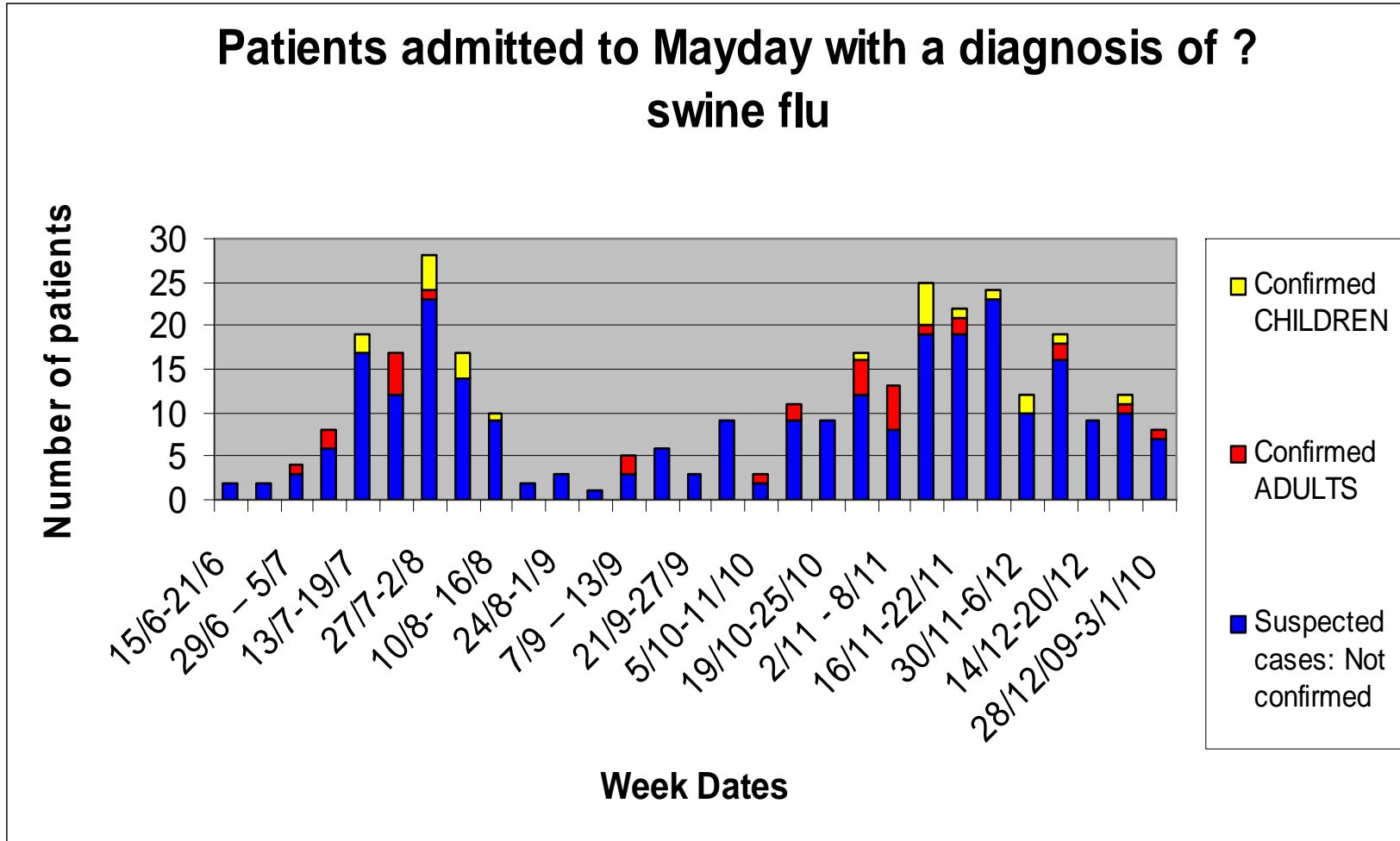


H1N1 now....

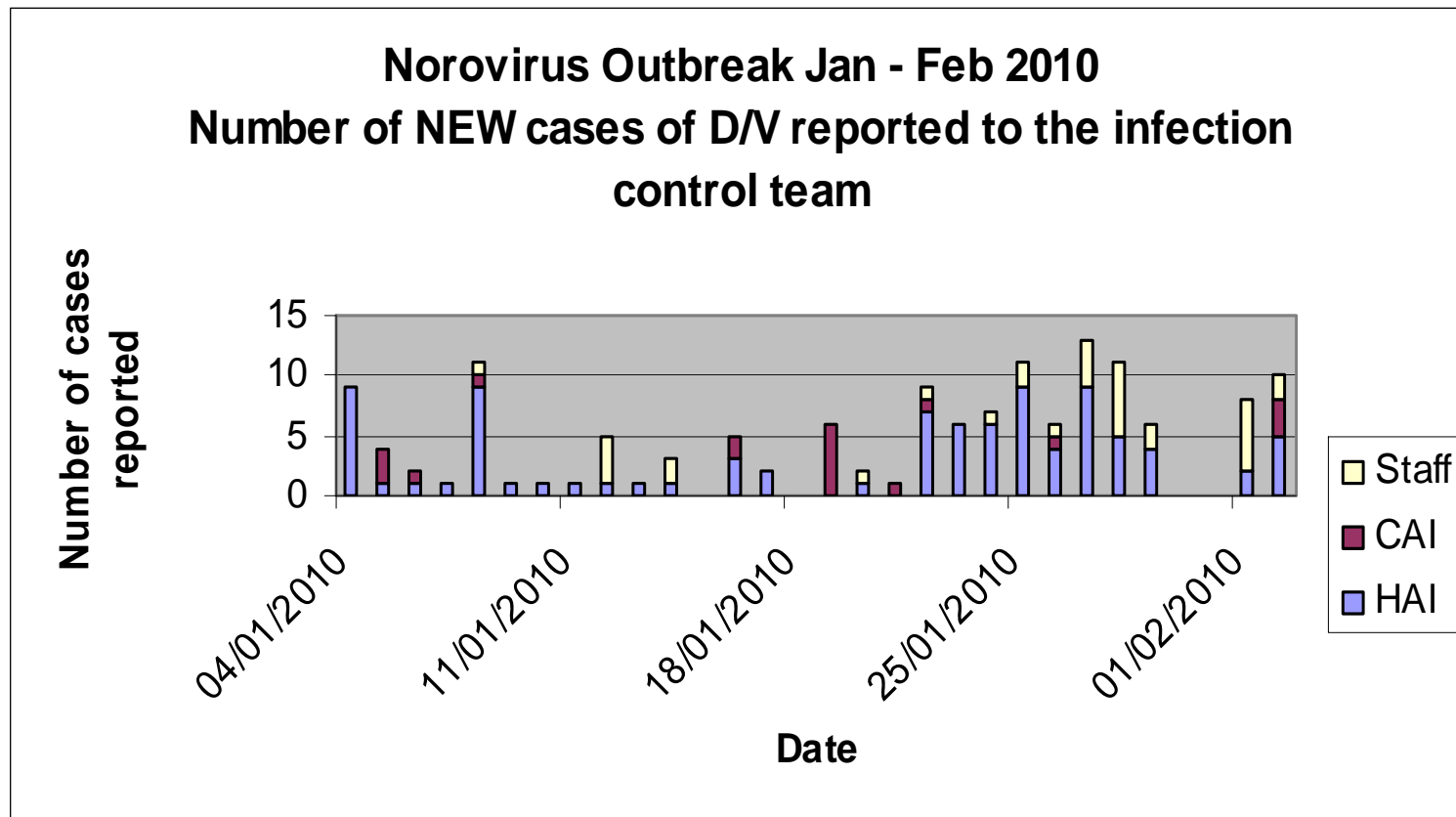
- Staff vaccination in progress
- Trust guidelines and updates
- Protective wear for staff
- Facilities for lab diagnosis –
- Antiviral treatment for patients



H1N1v (Swine flu)



Norovirus – current



The future

- Close working with community
- Build on progress to reduce our HCAs further



Mayday Annual infection control report

- **Annual Report of the Director of Infection Prevention and Control reporting on the period April 2008 to March 2009**

http://www.maydayhospital.nhs.uk/uploads/docs/infection_control_annual_report_08_09.pdf

