



UK Health
Security
Agency



Infections in Critical Care Quality Improvement Programme

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Central venous catheter bloodstream infections

- CVC are common
- 1.3 per 1000 ICU CVC days
- CVC-BSI associated with 2.75 higher odds of death
- Higher hospital length of stay
- Higher cost
- Catheter-associated BSI (CABSI) vs Catheter-related BSI (CRBSI)

Michigan Keystone Project, 2006

The NEW ENGLAND
JOURNAL *of* MEDICINE

An Intervention to Decrease Catheter-Related Bloodstream Infections in the ICU

Hand washing

Full-barrier precautions during insertion of CVCs

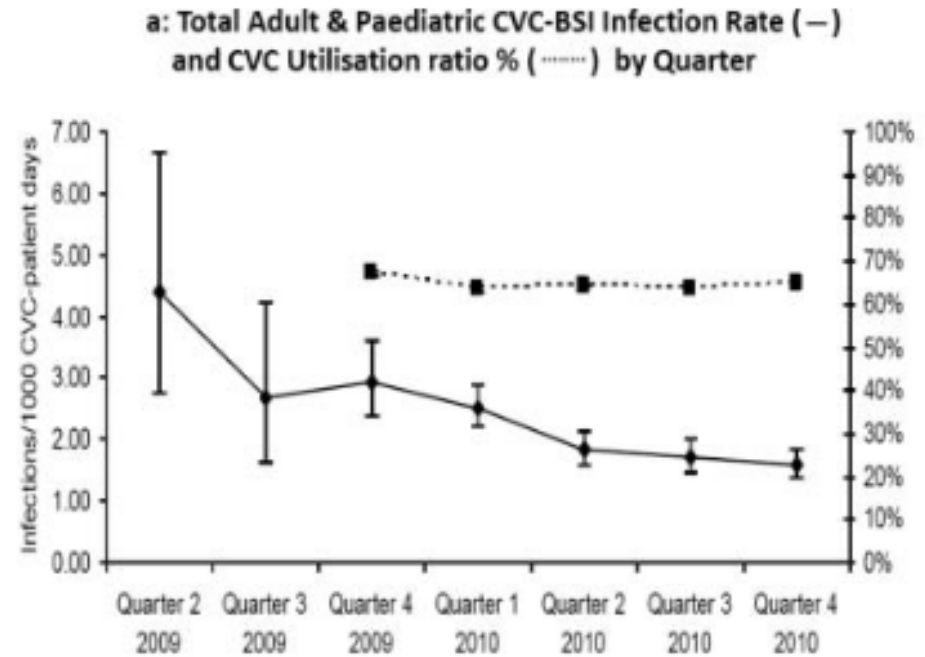
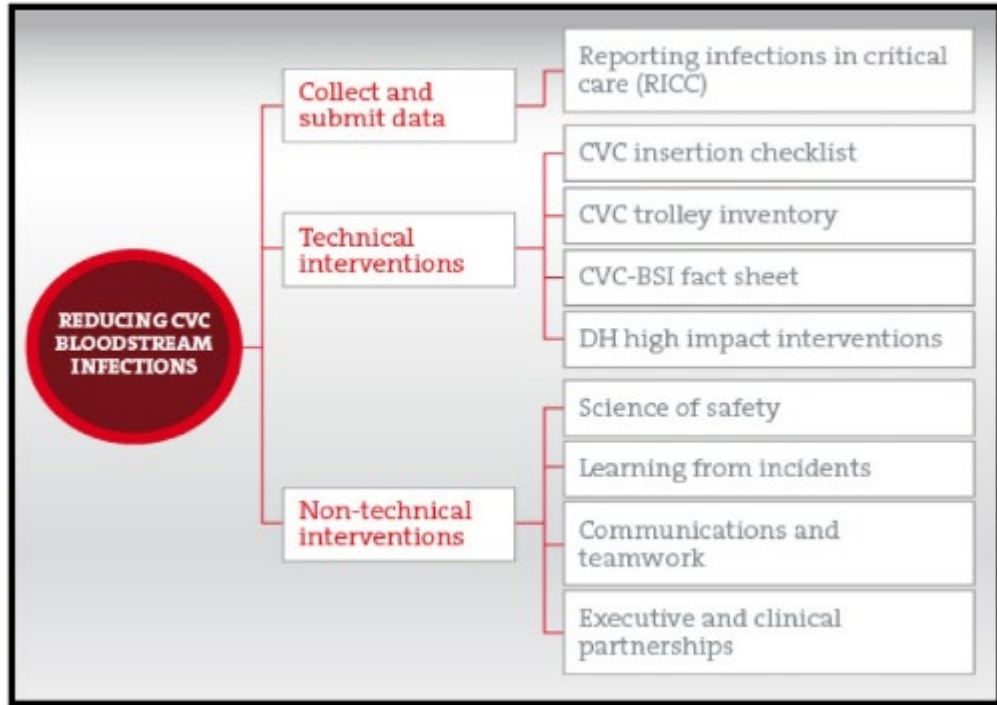
Chlorhexidine skin cleaning

Avoiding the femoral line when possible

Removing unnecessary CVCs

- 103 participating ICUs
- CRBSI reduced from 2.7 per 1000 catheter-days to 0 after implementation to 18 months
- Sustained reduction at 3 years

Matching Michigan



Michigan Keystone vs *Matching Michigan*

- Michigan Keystone

- Pressure to conform
- Densely networked community
- Characteristics of a social movement
- Multiple interventions to shape cultural commitment
- Using infection data as a disciplinary force
- Soft tactics (persuasion), limited use of hard tactics (sanctions)

- *Matching Michigan*

- Variable response – transformed, boosted, low impact
- Programme fidelity – matched components but delivery was less immersive
- Viewed as top-down gov initiative
- Gov rather than professional ownership
- Variable local leadership

What is ICCQIP?



Surveillance
programme

and quality improvement

of
infections



bloodstream
caused by any microorganism



in critical
care units

NHS
adult, paediatric, neonatal

in England



Who leads ICCQIP?

Oversight Group with representatives from:

Intensive Care

Infection and
Microbiology

Infection
Prevention and
Control

Epidemiology

Policy and
oversight

Audit
programmes



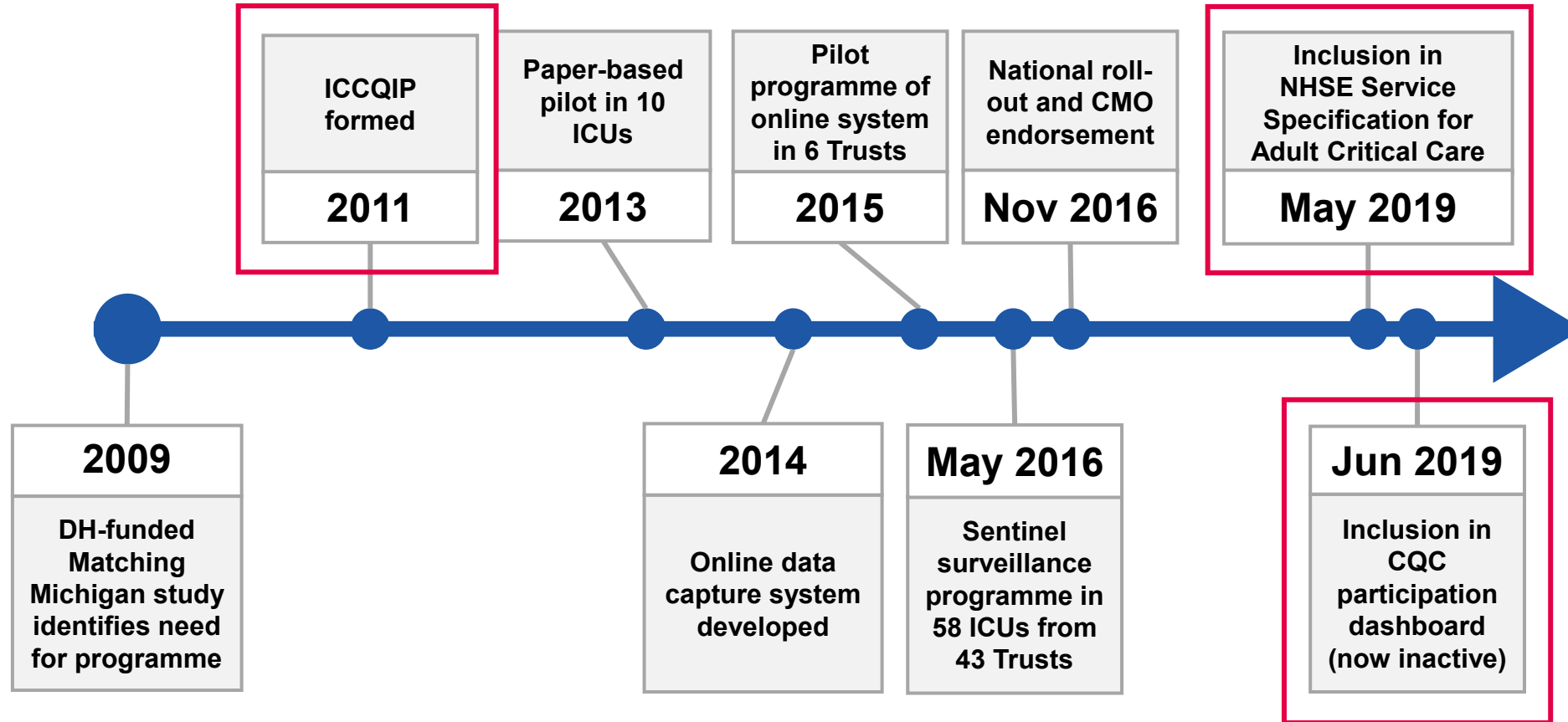
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Social Care



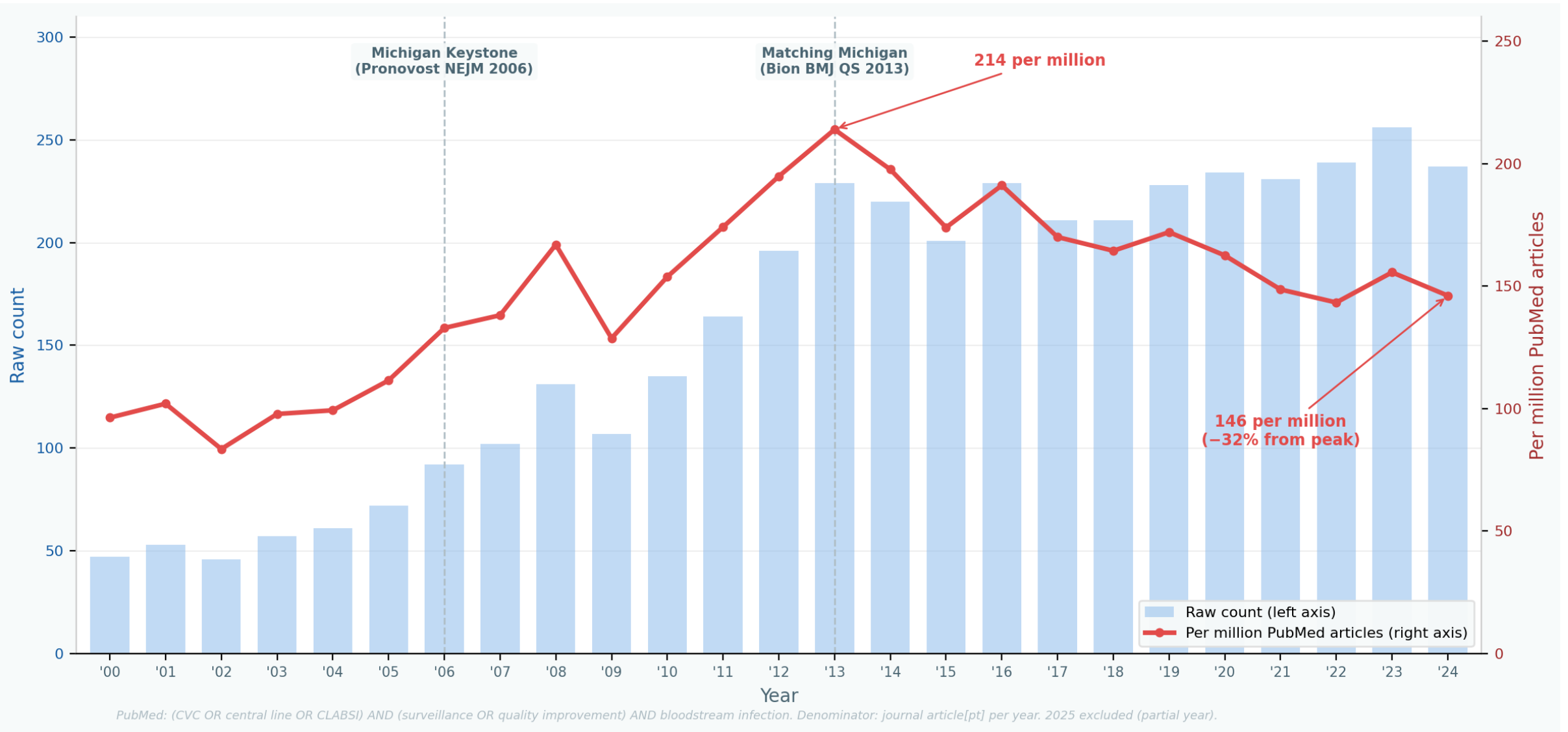
Timeline of ICCQIP



Challenges

- Programme running for 9 years
- 49% adult ICU participate
- 13% of paediatric and 2.6% of neonatal ICUs participate (existing national audits)
- Survey of participating sites:
 - Overlap with other national audits
 - Data collection burden
 - Awareness of ICCQIP
 - Scope of surveillance
 - Clinical utility
 - Resource allocation

Has CVC Surveillance Research Fallen Off the Agenda?



Future directions

Short term

Retire CRBSI to reduce data collection burden

Module on MEDICUS to simplify data

Data sharing with Paediatric and Neonatal systems

Engaged with clinical community

Medium term

Exploring ICNARC and ICCQIP integration

Piloting methodology for VAP

Linkage with UKHSA laboratory data

Promote strategies for QI

Long term

Additional infections (e.g. VAP)

Additional projects of value to clinical community

Widespread participation

Summary

- Established English ICU surveillance programme
- Working to meet the requirements of clinical community and improve engagement
- Plan to expand scope of infection surveillance
- Need surveillance to track performance, benchmark, drive improvement
- Need to get surveillance back on the agenda!



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Thank you

Questions?