



REDUCING SURGICAL SITE INFECTIONS IN TOTAL KNEE AND TOTAL HIP ARTHROPLASTY AT UHNBC

• **Location:** UHNBC, Peri-operative Services • **Contact:** Dr. Paul Van Zyl • **Date:** Jan 2024 - May 2025

► AIM STATEMENT

To decrease surgical site infections in elective THA to less than 2.5 % and TKA to less than 2% (NSQIP average) by May 2025.

► BACKGROUND

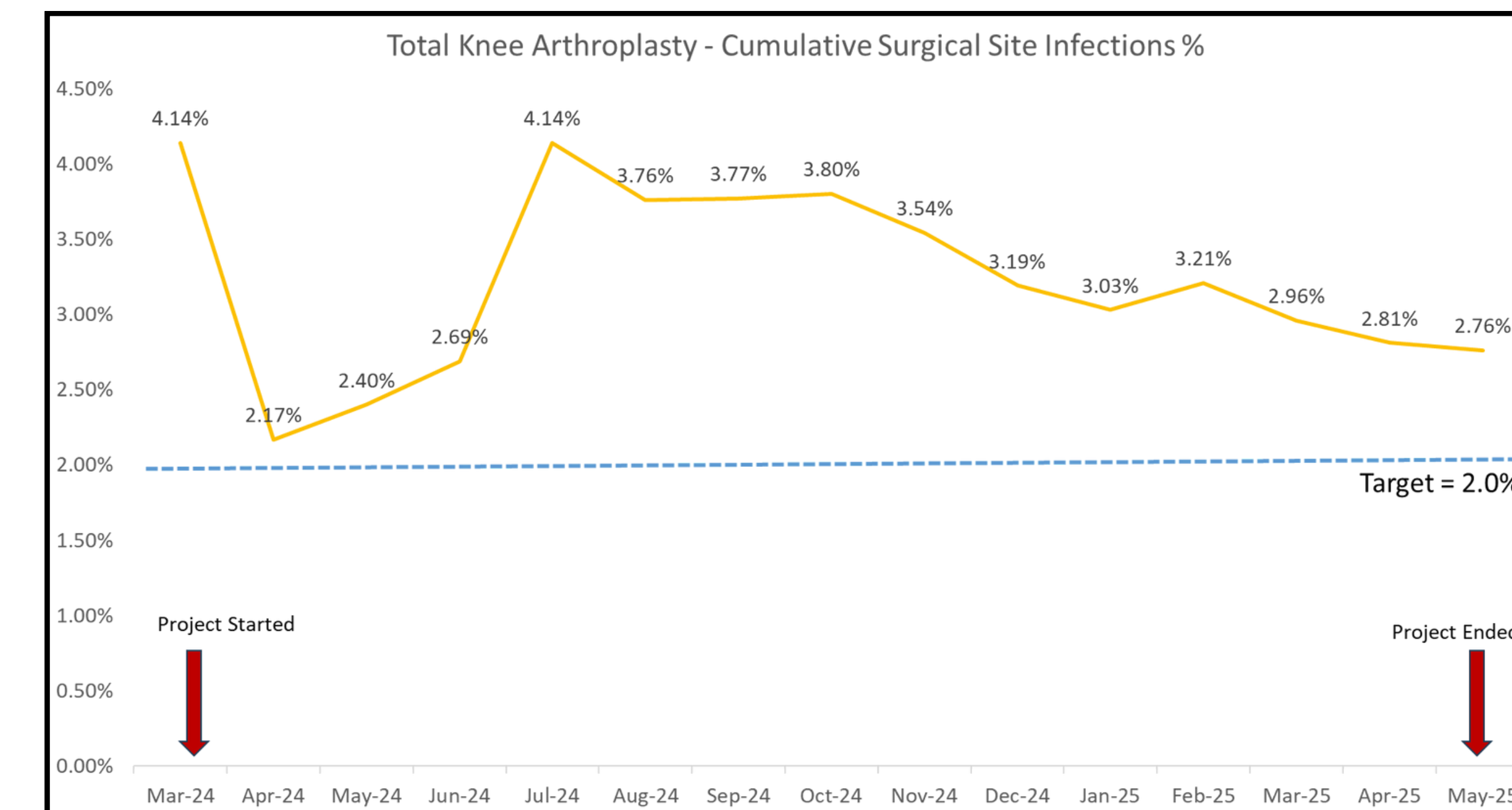
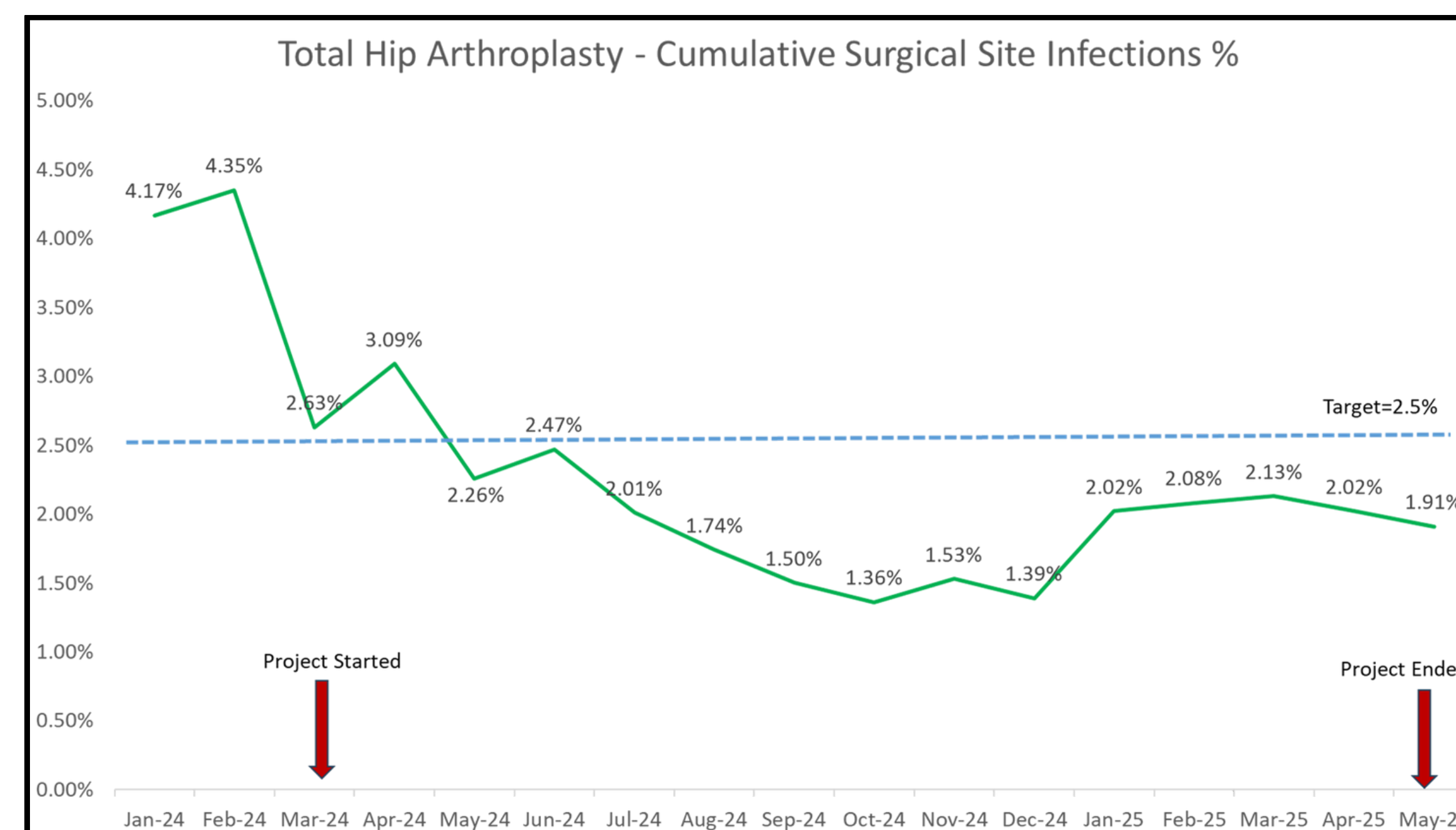
Recent NSQIP surveys flagged SSI in TKA and THA as needing improvement due to rates above expected. Also, reducing hospital harms has been identified as a priority by the latest BC Ministry of Health mandate letter for Northern Health, and is an operational priority at UHNBC.

► CHANGE IDEAS

Intervention Bundle:

- Use antibiotic impregnated sutures
- Implement SAGE antiseptic wipes pre-operatively
- Shave prep done outside OR
- Nasal Decolonization for all arthroplasty patients
- Use of Mepilex Silver Dressings (stay on for 14 days)
- Implement education to GP/ER doctors regarding infection criteria

► RESULTS



Sequential introduction of change interventions helped cut the SSI rate for THR from baseline 3.7% to 1.4% and TKR from 3.0% to 1.9% achieving their goals and exceeding provincial standards. PDSA interventions were antibiotic infused sutures, regular Sage wipe usage, Mepilex AG dressings, MRSA nasal decolonization protocols, improved shave prep and specific SSI education to ED and Family physicians.



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communication reduce costs collaboration
IMPACT
implementation
experience sustainability
change OUTCOMES
service delivery system education

► NEXT STEPS

- Continue to reduce the number of TKA and THA SSIs by monitoring NSQIP data for positive trends
- Maintain the strategies implemented in the intervention bundle
- Explore opportunities to expand the initiative to other services and potentially additional NH sites
- Provide re-education to ER/GP physicians as needed