

Looking Back (and Ahead) at an Audit and Feedback Intervention to Reduce Unnecessary Laboratory Test Use in the Emergency Department

Jason R. Vanstone, PhD
Research Scientist
Stewardship and Clinical Appropriateness
Department



Presenter Disclosure

- Presenter: Jason Vanstone
- Relationships with financial sponsors: None to declare
 - Grants/Research Support:
 - Speakers Bureau/Honoraria:
 - Consulting Fees:
 - Patents:
 - Other:

Resource stewardship...



Local problem...



-Emergency Department in Regina has two emergency rooms (Regina General Hospital and Pasqua Hospital; ~700 beds)

-2017: ED Department Head approached our Stewardship and Clinical Appropriateness Department to ask for assistance in developing some quality improvement initiatives within the ED (e.g., antimicrobial prescribing, lab test use, etc.)

-after some initial discussions, we settled on developing an interactive clinician report to provide audit and feedback on the use of lab tests to the ED physicians

**Choosing
Wisely
Canada**



Psychiatry

- 5 Don't routinely order qualitative toxicology testing (urine drug screen) on all psychiatric patients presenting to the emergency room.**

There is no evidence to support ordering routine toxicology testing for all patients presenting to the psychiatry emergency room service. Furthermore, routine testing presents the potential for false positives and false negatives. Lastly, testing may delay psychiatric assessment and management.

The intervention...



Emergency Medicine Journal

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Development and implementation of a clinician report to reduce unnecessary urine drug screen testing in the ED: a quality improvement initiative

Jason Robert Vanstone ,¹ Shivani Patel,¹ Michelle L Degelman,¹ Ibrahim W Abubakari,² Shawn McCann,³ Robert Parker,¹ Terry Ross⁴



Key messages

What is already known on this subject

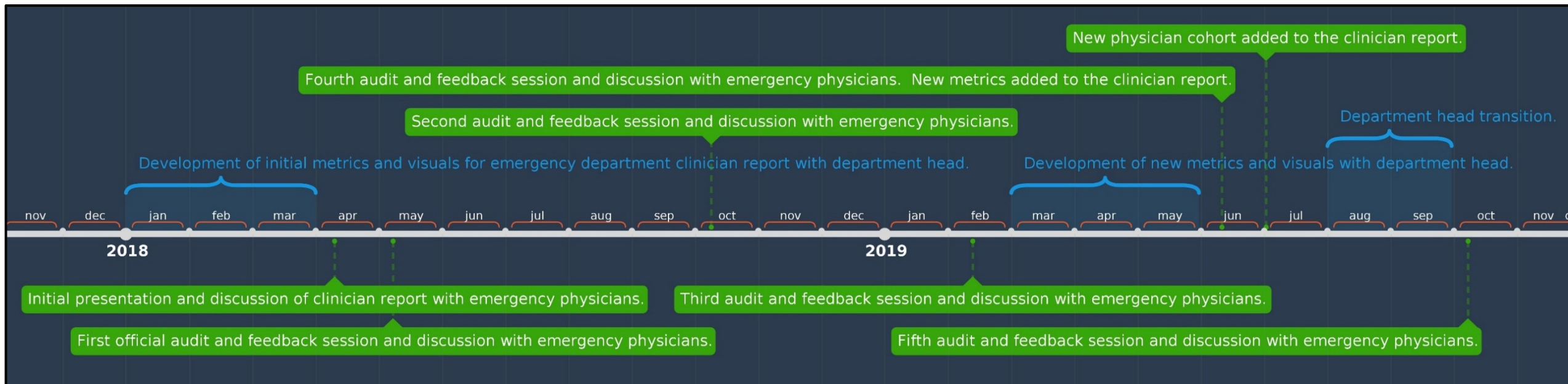
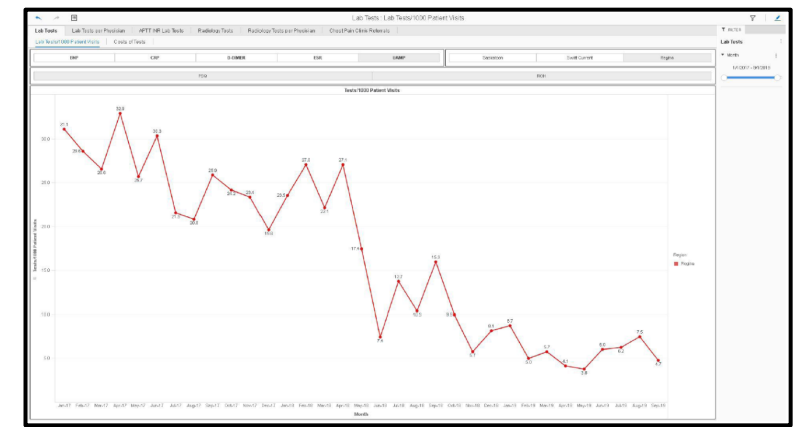
- ▶ Depending on the healthcare setting, an estimated 20%–70% of tests and treatments are unnecessary.
- ▶ Clinicians are aware of this but lack the tools and incentives to implement sustained behaviour changes.
- ▶ It is important to reduce unnecessary tests and treatments in order to address rising costs and the threat to healthcare sustainability.

What this study adds

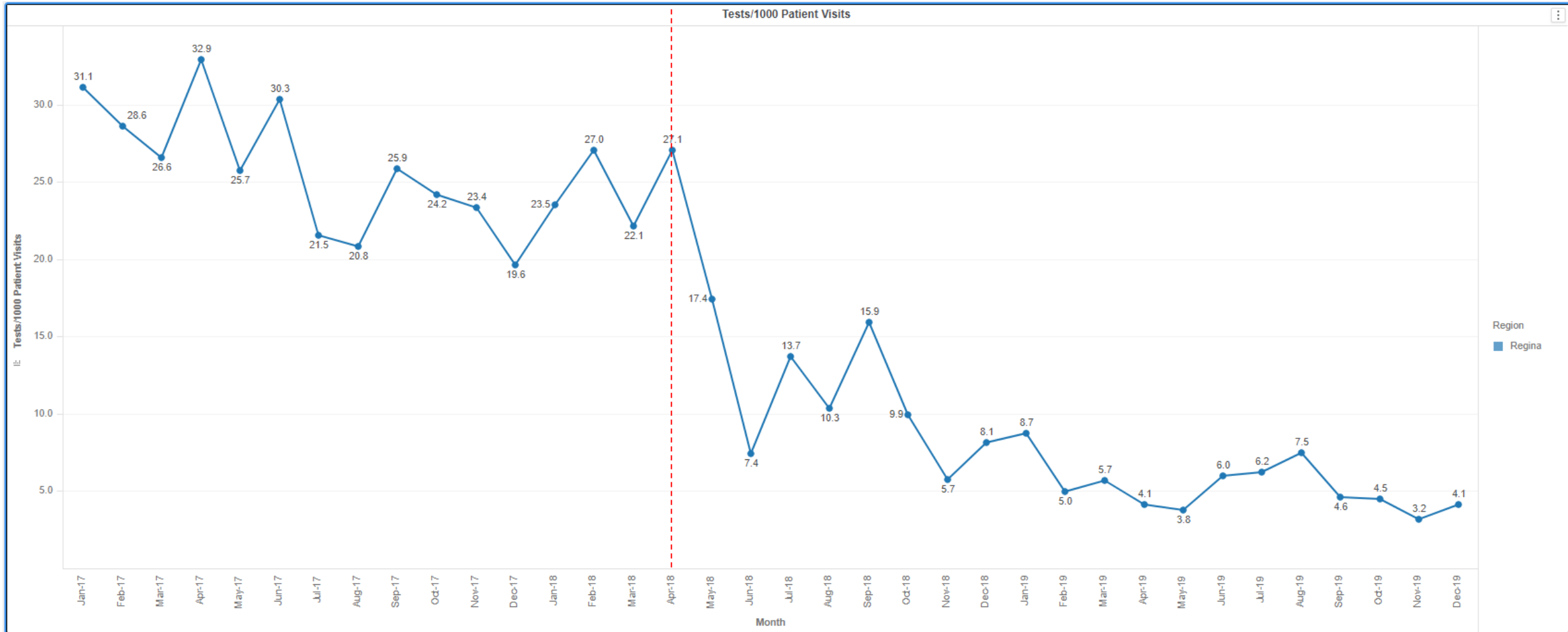
- ▶ ED culture (including leadership), education and ongoing audit and feedback developed with end users are key components of creating sustained behaviour change with respect to laboratory test use.
- ▶ In our study, these factors contributed to a sustained reduction in unnecessary urine drug screen use in an ED

Timeline overview...

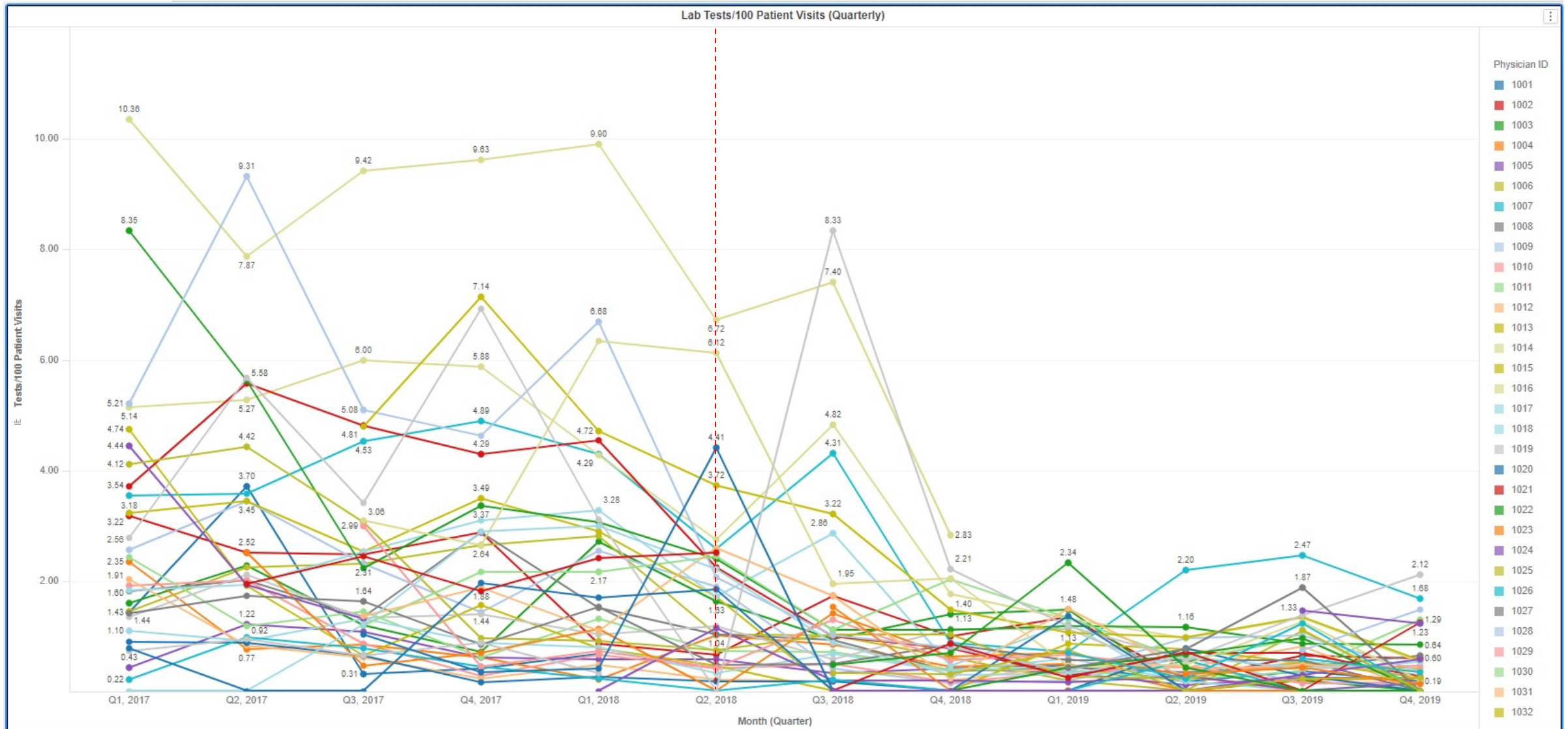
- initial development of clinician report with Department Head and creation of visuals in **MicroStrategy**
- initial presentation of clinician report to ED physicians and refinement of visual data presentation
- audit and feedback sessions with updated data occurred approximately every four months over the next 18 months
- new metrics and a new physician cohort were added after about one year



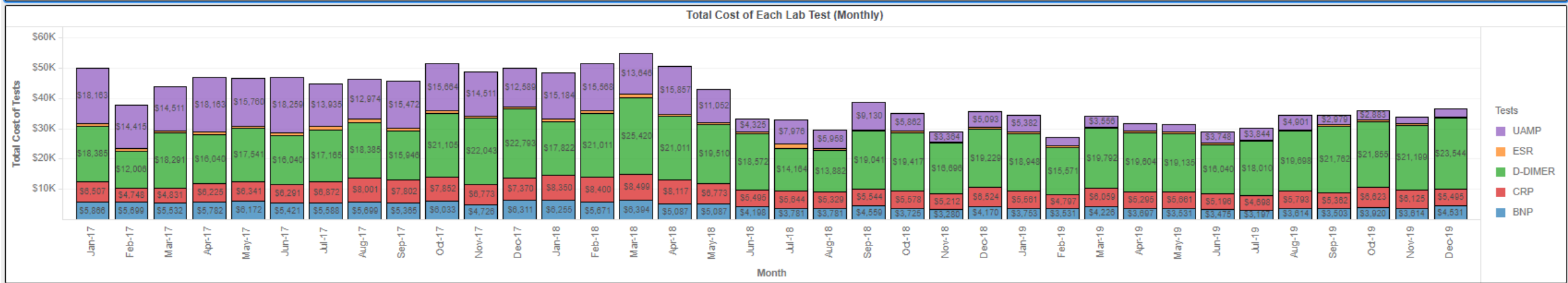
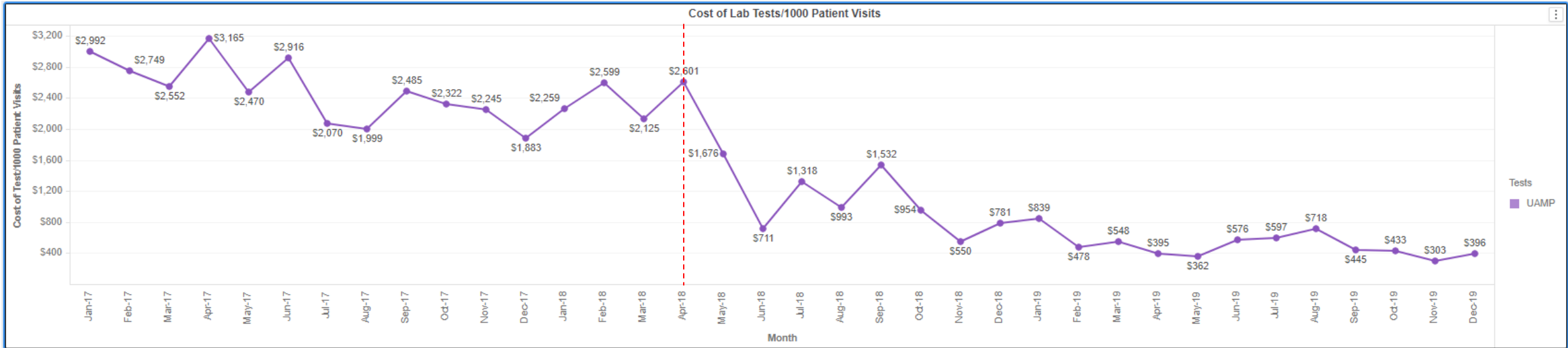
What happened?



What happened?



What happened?



What happened?

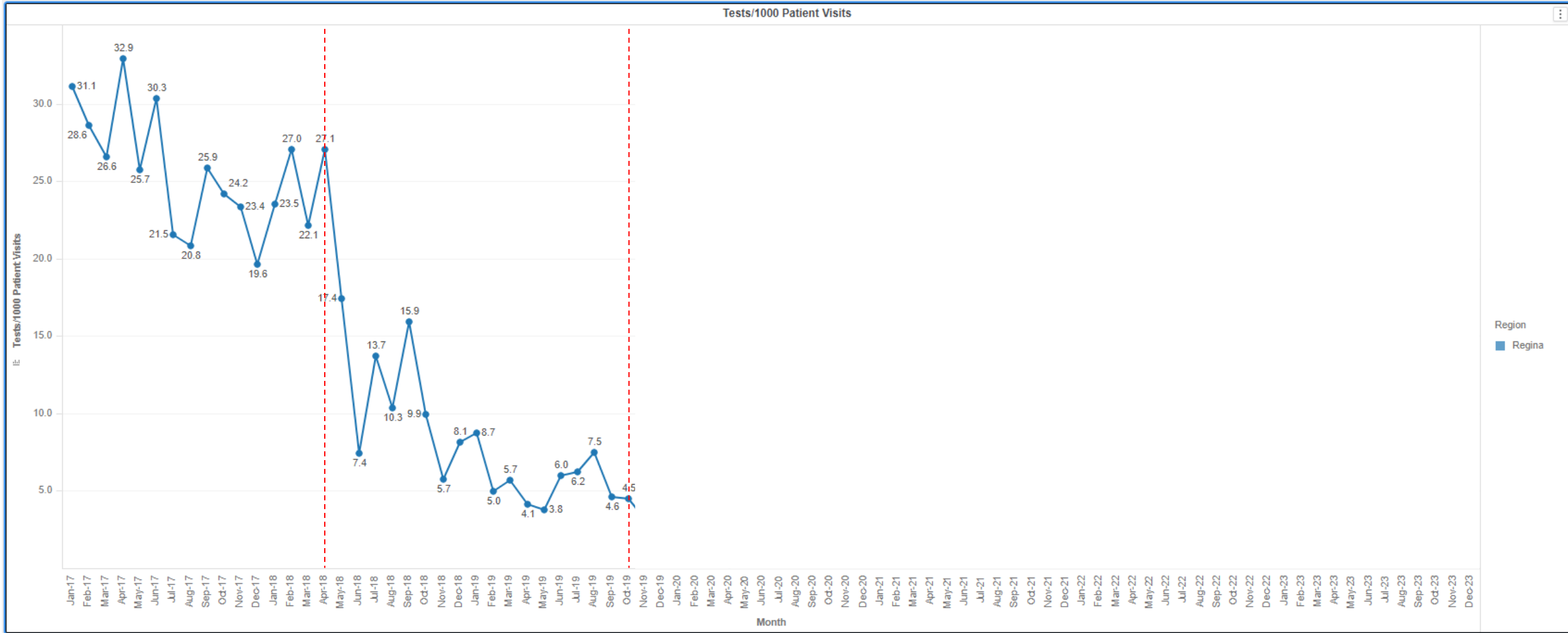
Monthly Averages:	Pre-Intervention (SD)	Post-Intervention (SD)	P-Value (T-Test)
Number of Tests Ordered	159 (± 17.5)	52 (± 24.5)	P<0.0001
Patient Visits	6247 (± 414.9)	6340 (± 327.0)	P=0.4785
Tests/1000 Patient Visits	26 (± 3.6)	8 (± 3.9)	P<0.0001
Cost of Tests/1000 Patient Visits (\$96.10 CAD per Test)	\$2465 (± 356.6)	\$790 (± 381.6)	P<0.0001

What factors played a role?

Conclusion Audit and feedback reduced unnecessary urine drug screen testing in the ED. **Regular feedback sessions** continuously engaged physicians in the audit and feedback intervention and allowed the implementation team to react to changing priorities and feedback from the clinical group. It was important to **include the end users in the design of audit and feedback tools** to maximise physician engagement. Inclusion in this process can help ensure physicians adopt a sense of ownership regarding which metrics to review and provides a key component for the motivation aspect of behaviour change. **Departmental leadership** is also critical to the process of implementing a successful audit and feedback initiative and achieving sustained behaviour change.



How are we doing?



Next steps...



Thank you!

Jason R. Vanstone, PhD
Research Scientist
Stewardship and Clinical Appropriateness
Department

jason.vanstone@saskhealthauthority.ca

