

Multiple Teams + Multiple EMRs = 1 Dashboard.

Is that even possible?

Presenter Disclosure

- Presenters:
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- Relationships with commercial interests : None
 - **Grants/Research Support:** None
 - **Speakers Bureau/Honoraria:** None
 - **Consulting Fees:** None
 - **Other:** None

Disclosure of Commercial Support

- This project has received no financial support from commercial interests
- This project has received no in-kind support from commercial interests.
- Potential for conflict(s) of interest :
 - None

Mitigating Potential Bias

- N/A

Multiple Teams + Multiple EMRs = 1 Dashboard



Is that even possible?

Learning Objective

1. Understand the difference between a business intelligence solution and a dashboard.
2. Understand why a business intelligence solution is important for the FHTs in the Champlain LHIN region.
3. Understand how the twenty-one family health teams came together to design a regional dashboard.

I am a QIDSS

I am a member of the board

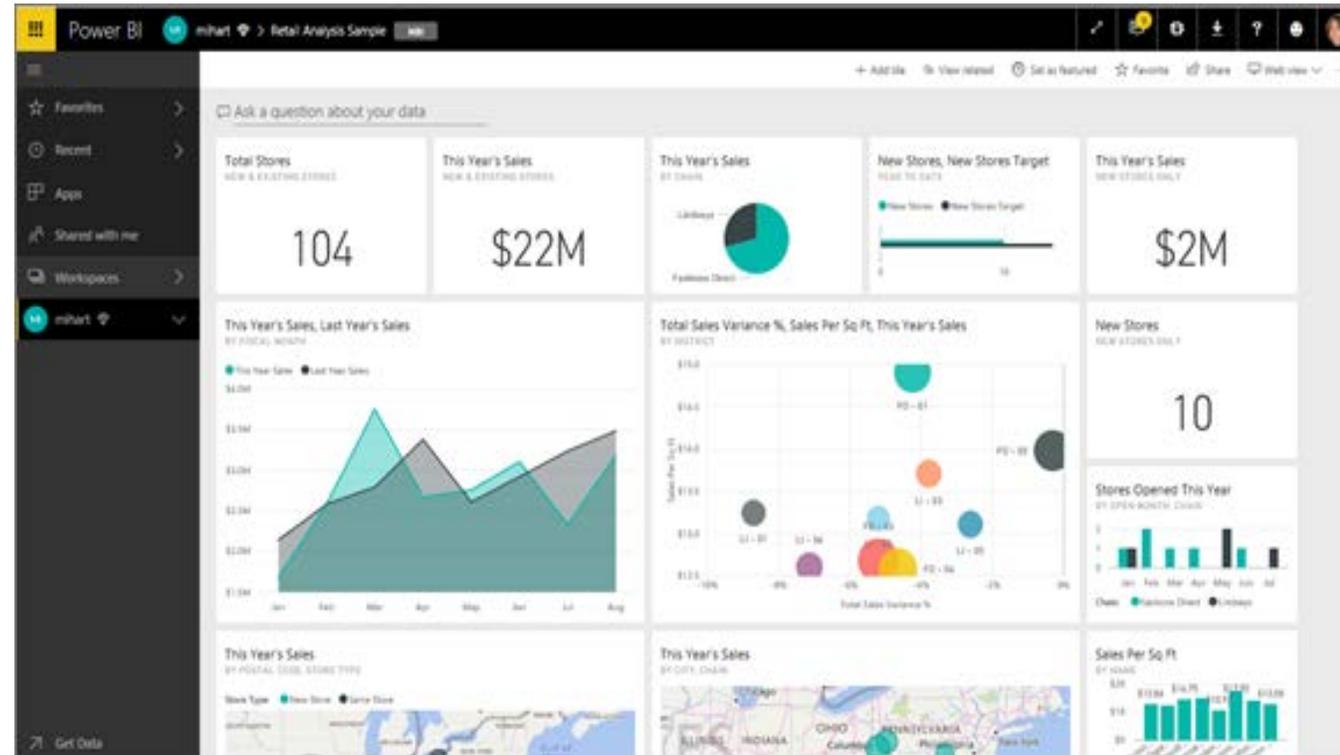
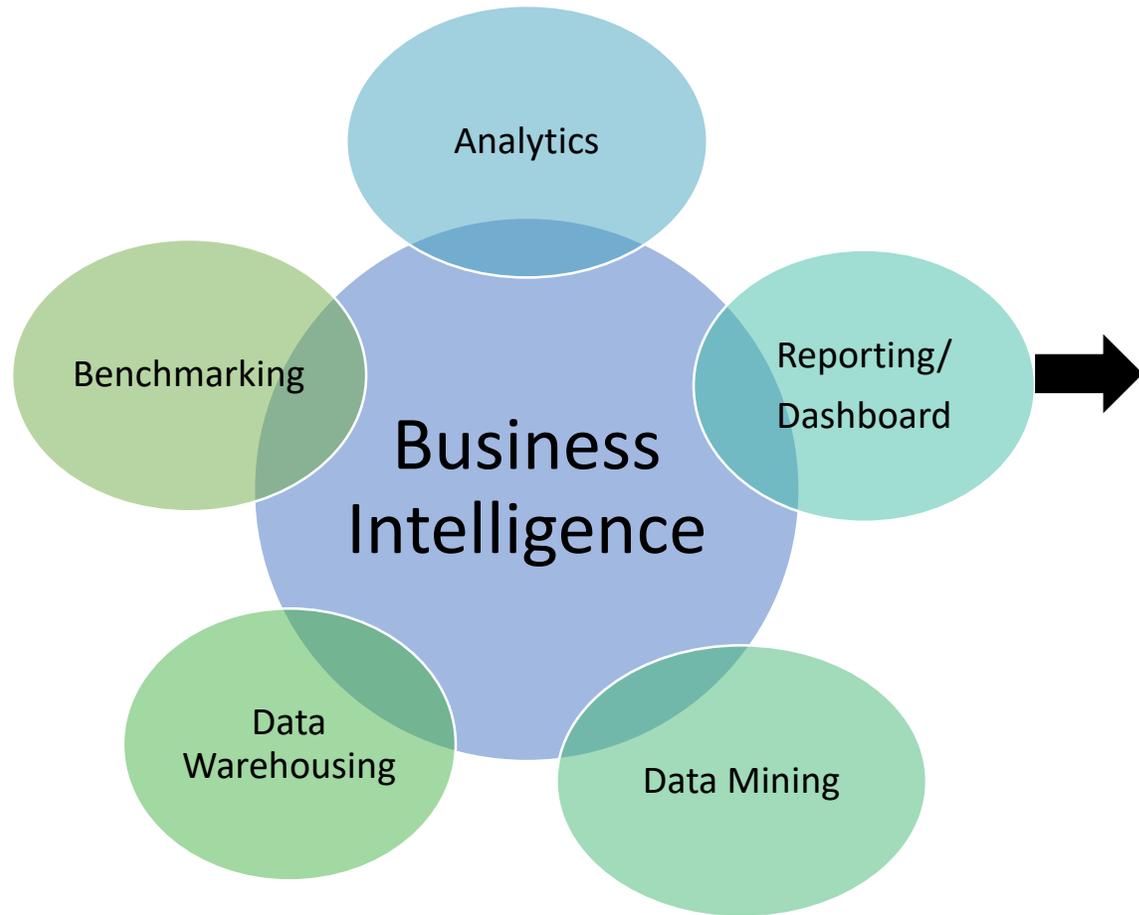
I am the IT Specialist

I am a Physician

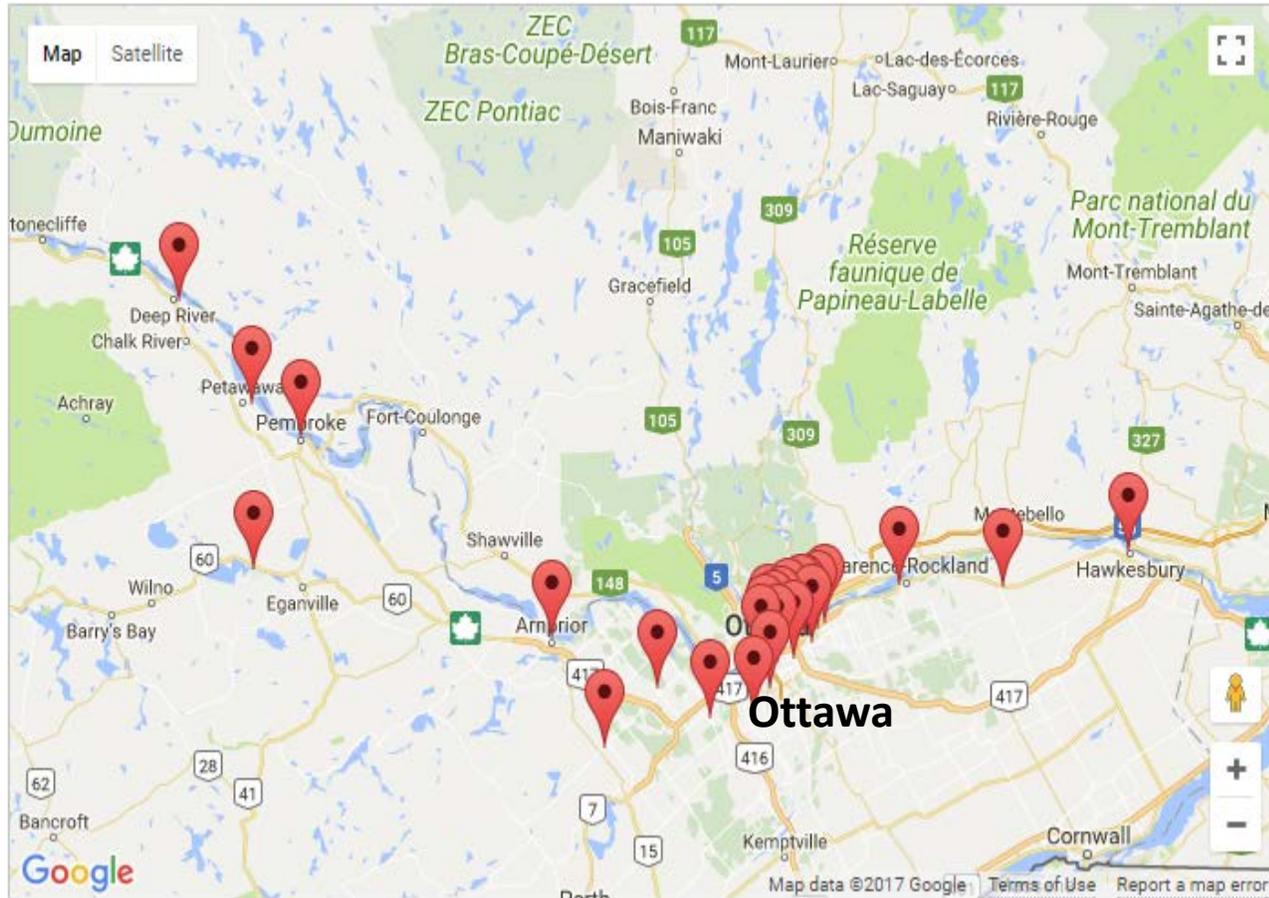


I am a member of the QI Committee

What is Business Intelligence?



Who are the FHTs of the Champlain LHIN?



- Arnprior and District FHT
- Bruyere Academic FHT
- Équipe de santé familiale communautaire de l'est d'Ottawa
- Clarence-Rockland FHT
- Connexion FHT
- ESF Academique Montfort
- ESF Du Bas-Outaouais - Lower Outaouais FHT
- Family First FHT
- Greenbelt FHT
- North Renfrew FHT
- Ottawa Hospital Academic FHT
- Ottawa Valley FHT
- Petawawa Centennial FHT
- Pikwakanagan FHT
- Plantagenet FHT
- Rideau FHT
- Akausivik Inuit FHT
- University of Ottawa Health Services FHT
- West Carleton FHT
- West Champlain FHT
- Westend Family Care Clinic FHT

In the beginning...

- 2009 - First Champlain LHIN regional FHT Lead meeting
- 8 FHT leads participated

CQI is becoming important for teams

- Some teams meet regularly
- Discussion about (and being able to influence) clinic issues empowers people at the front lines
- CQI committees look at performance indicators (e.g. H1N1 changes), process indicators (e.g. is the BP taken) and targets, and feedback about outcomes (e.g. how often pts are seen in emergency)

2009 to present - Champlain LHIN Collaboration Organically Grew

- Collective projects surfaced
- Established a united voice within the region
 - Mentorship for new EDs
- A culture to compare and share among peers

2013 – Quality Improvement Decision Support Specialist Resources

- Collective application for position(s)
- Agreement to target different skill sets
- Increase ability to share best practices among teams
 - Regional priorities
 - Patient experience survey
 - Common indicators
 - Peer benchmarking

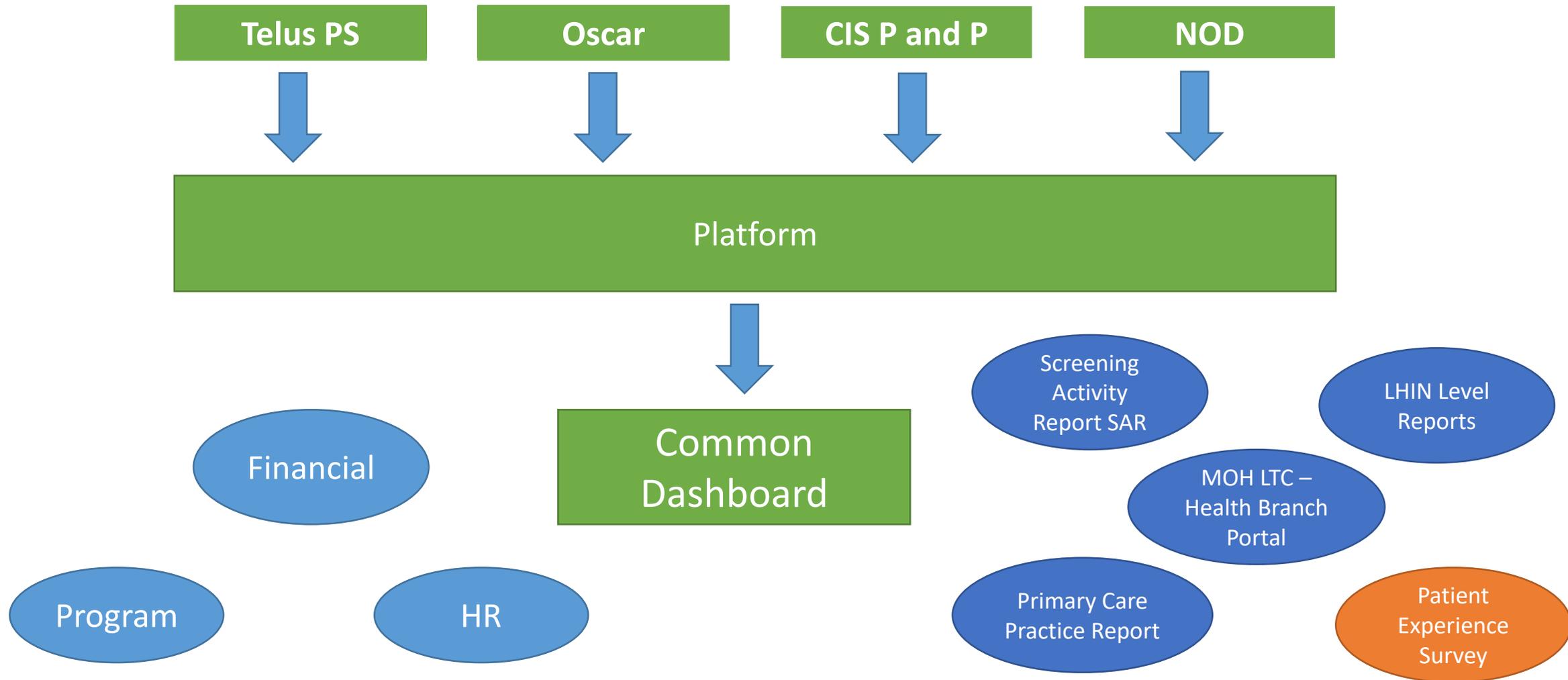
Patient Experience Survey

Regional Patient Experience Survey Project Completed!

- 5th iteration
- PES Steering Committee – representation from 7 FHTs
 - Identify questions
 - Delivery methodology
 - Statistical relevance/Sampling plans
- 21 teams participate
- 1 report generated



Common Indicators/Peer Benchmarking



Until one day...



Rideau Family Health Team

- 3 clinical locations
- 11 physicians
- 9 allied health professionals

- # of patients – 17,400
- Age (mean) – 40.2
- % male – 42.2%
- % rural – 1.6%
- % recent immigrants – 4.4%
- SAMI score – 1.0

Why BI @ RFHT?

- ✓ Transfer existing data into something meaningful
- ✓ Reduce administrative burden of generating reports
- ✓ Facilitate clinical engagement through 'real-time' measurement
- ✓ Take a proactive approach to care rather than a reactive approach
- ✓ Utilize resource allocation to optimize patient outcomes
- ✓ Include all internal key performance indicators
 - Clinical, financial, HR, etc.

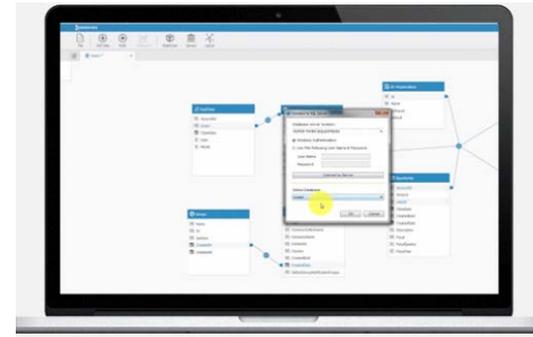
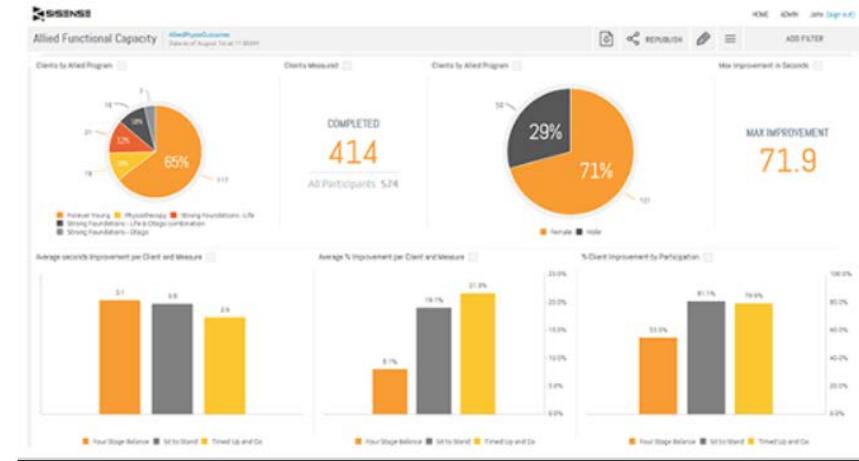


What if...

- the tool selected would connect to all EMRs and/or datasets?
- the tool allowed for comparison of regional indicators?
- the tool provided internal and regional trends over time?
- the tool allowed for real-time reporting?
- the tool was visible to everyone?
- the tool included data from hospitals, specialists and already existing reports?

Comparison: Sisense vs. Data Discovery Tools

| CRITERION | SISENSE | DATA DISCOVERY TOOLS |
|-------------------------------|--------------|---|
| End-to-end solution | Yes | Yes |
| Supported Data | Complex data | Simple data |
| Scalability (data / users) | Terabytes | Gigabytes |
| Time to deployment | Days/Weeks | Months/Years |
| Data preparation | Yes | Moderate - Requires proprietary scripting |
| Customization & Embeddability | High | Moderate |
| Agility | High | Moderate |
| Required technical expertise | Low | Moderate - Data modeling: high, data visualization: low |
| Software costs | Moderate | Moderate |
| Hardware costs | Low | Varies - Higher as data grows |
| Operational costs | Low | Moderate |



CUSTOMERS, CASE STUDIES, AND REVIEWS

Questions

- Can the tool actually do what it claims?
- Who decides what information is displayed
- How is information obtained?
- Where is the data stored?
- Who has access?
- Is any PHI being shared?
- How much will it cost?



Proof of Concept Project

RFHT purchased 2016 annual subscription

Within 3 months ALL RFHT programming and QIP metrics were available

Two additional teams connected (Petawawa Centennial FHT, OSCAR EMR and University of Ottawa Health Services FHT, Telus Practice Solution EMR)

Regional dashboard complete within 2 days of connecting to teams

Challenges/Lessons Learned to Date

Connectivity challenges

- Individual team firewalls and security settings limit VPN creation
- 90% of PoC execution was connecting to the data
- Required dedicated IT support

Almost 'Real-time' build

- Real-time is possible, however may not be feasible for all teams
- Sites without access to data tables will require a work around

Value for Cost

- Communicating the benefits of a third party tool
- Reduction in reporting time

Today...

Full scale 3 year pilot

Application for ministry funding (2018-2020)

0.6 FTE QIDSS has been dedicated to this regional initiative

Building the framework for long term success

Sisense Implementation Steering Committee

Membership

- 6 members, representing 5 FHTS
- 1 QIDSS (Lead), 3 EDs, 2 IT/data management specialists

Accountability

- 21 Champlain LHIN region FHT Executive Directors
- Report quarterly progress at minimum

Responsibilities

- Provide strategic direction and oversight to implementation activities, policies and practices
- Develop workplan and timeline for BI implementation
- Provide direct support and leadership to individual FHTs to ensure connectivity
- Manage all financial activities

Privacy Review

- NO Personal Health Information (PHI) will be transmitted or shared between FHTs.
- Data is stored on a dedicated server housed at Rideau FHT.
- Data is transferred via encrypted virtual private network (VPN).
- Data warehouse access restricted to single user (designer license).
- System, object and data level security settings used as required.

NOTE - Full privacy impact assessment will be required if PHI transferred.

Costing

- Based on team requirements
- Fee per viewer license
- ~\$2,000 per team annually
 - 1 team viewer
 - Portion of designer license



Demonstration of tool selected

- [Link to demo](#)



Coming together is a beginning;
keeping together is progress;
working together is success.

- Henry Ford



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