

Background

Research teams are increasingly involved in large, multi-jurisdictional studies.

The TRANSFORMATION (Transforming community-based primary health care delivery through Comprehensive Performance Measurement and Reporting) team involves over 57 members across Canada and internationally, 43 of which are located in Canada. There are 3 Co-Principal Investigators and 3 Research Coordinators across the 3 Statistics Canada Peer Group A research sites (British Columbia, Ontario, and Nova Scotia).

These kinds of large geographically distributed research teams can benefit from a virtual work environment, such as Huddle, where documents can be securely managed and shared in an effective and efficient manner. This is crucial to sustained and rigorous communication supporting research development and dissemination.

Research teams also invest a significant amount of its research dollars and time in document management and sharing so the need to evaluate Huddle is important and valuable for others to learn from.

Objective

To evaluate a cloud-based document management and sharing platform.

Methods

The evaluation of Huddle, a cloud-based collaboration software, using:

- quantitative software metrics and
- qualitative user interviews.

Use of Huddle, a Cloud-Based Platform

Figure 1. Team Members

Province	Number
British Columbia	22
Ontario	12
Quebec	2
Alberta	1
Nova Scotia	5
Manitoba	1
Total	43

Figure 2. Map of Canada

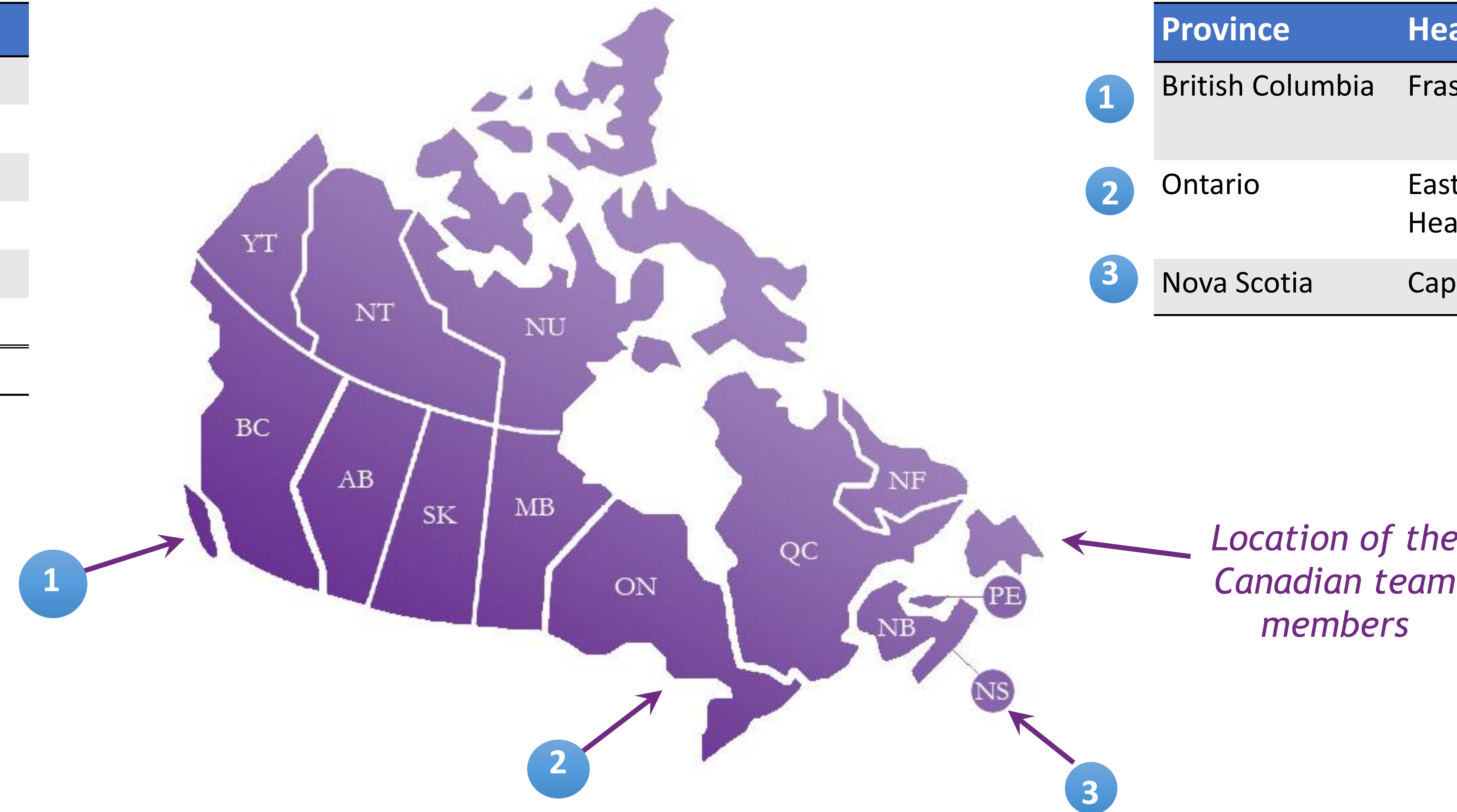


Figure 3. Peer Group A Research Sites

Province	Health Area
1 British Columbia	Fraser East
2 Ontario	Eastern Ontario Health Unit
3 Nova Scotia	Capital Health

Selection based on 4 main criteria

Figure 4. Comparison with other Platforms

	Huddle	Shar-Point Online	Share-Point (UBC)	Base-camp	Igloo	Dropbox (paid)
Document and records management,	Yes	Yes	Yes	Yes	Yes	Yes
Integration with outlook	Yes	Yes	Yes	Yes (3rd party)	Yes	No
Full-text search capabilities	Yes	Yes	Yes	Yes	Yes,	Yes
Versioning control	Yes	Yes	Yes	No	Yes	Yes
Technical training required	Minimal training	Moderate training	Moderate training	Minimal training	Minimal training	None
Location data stored	UK	USA	UBC	USA	Canada	USA
Accessible to people external to UBC	Yes	Yes	Yes	No	Yes	Yes
Average 1-year cost (est. 30 users per year)	\$2,000	Free	\$550	\$240	\$3,024.	\$2,744

Image from www.konadusa.com/retailer.htm

Figure 5. Preliminary Qualitative Results

Benefits	Challenges
Secure document management & sharing.	Each additional user requires funds)
Effective version control & archiving of documents.	Usage limited to internal team members.
Effective document organization (system for file naming and file organization developed, permissions)	Time spent learning may not be valuable to infrequent users (e.g. decision makers).
Ability to send messages to team members alerting them of new/revised documents	Access to information only when online.
Reliable back-up of documents	
Automatic tracking of who made changes to document	
Ability to send reminders to team members to complete their work	
Interoperability with software we also use as a team (e.g. GoTo Meeting)	

Outcome Measures

Quantitative metrics:

- Amount of training required
- # of users and type of user (e.g. research staff, principal investigator)
- Activity level (views & versions) of document categories (publications, recruitment material)

Qualitative: in-depth interviews with users

- Benefits and challenges encountered
- Whether infrequent users find it as helpful as frequent users
- Degree of integration

Results

Based on preliminary results from personal communications, there are many benefits to using a cloud-based platform and also challenges that research teams should be aware of (see Figure 5). We are less than one year into Huddle and have not carried out the full evaluation but intend to do so in the coming year.

Conclusions

Effective and efficient document sharing and management in large, geographically distributed research teams is integral to supporting knowledge creation and sustained exchanged. Frequent users of Huddle (e.g. research staff) who manage (i.e. file, share) documents may find it most useful. We will be adding users when writing across the whole team begins to optimize team functioning.

Acknowledgements

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