

# **Nurses & Informatics: Transforming Healthcare Conference**

***Carol Common  
Claude Lemay***





Demande de Services  
Interétablissements

(« Daisy »)

An electronic tool for inter-institution  
information transfer

Carol Common, Senior Advisor Community Outreach  
Claude Lemay, Clinical Advisor, Nursing Information Service



Centre universitaire de santé McGill  
McGill University Health Centre

Montreal, QC



## Elements of the presentation

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- The Quebec information infrastructure
- The McGill University Health Centre (MUHC)
- Historical development of 
- Characteristics of 
- Benefits
- Limitations, challenges
- Key success factors and lessons learned



## The Quebec information infrastructure

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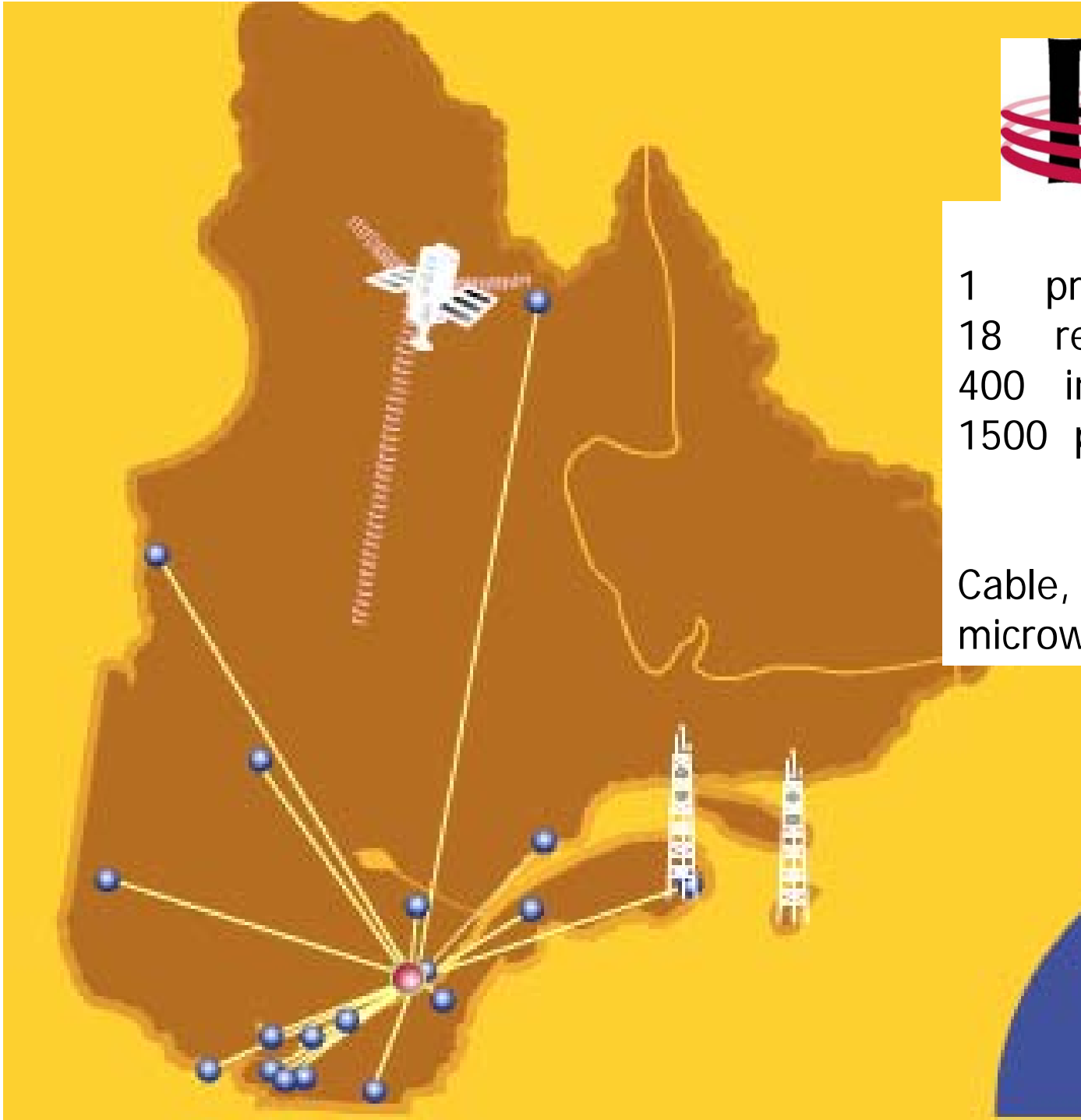
Réseau de télécommunication  
de la santé et des services  
sociaux

- A secure telecommunication network for the Health Care system
- Lotus Notes was used to develop DSIE. It is also the software that connects all health care workers in the network for email
- SOGIQUE (non-profit organization) is the mandatory of the ministry for many softwares



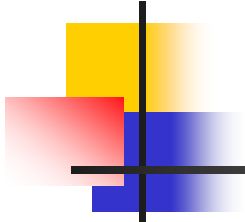
1 provincial technocentre  
18 regional technocentres  
400 institutions  
1500 physical sites

Cable, satellite and  
microwave connections





Centre universitaire de santé McGill  
McGill University Health Centre



Merger of 5 institutions (1997) : 4 adult centres and one pediatric  
Located in downtown Montreal

1200 beds  
40,000 inpatient days  
1,000,000 ambulatory visits  
3000 nurses

10,000 referrals to home care and other institutions every year

## Historical development of



End of 90's

- Two regions developed own electronic tools

2001

- These tools were not compatible with one another; refusal to deploy any further

2002

- The two electronic tools were combined into one. Piloting started; MUHC was a test site

2003

- Tool adopted and became the official provincial tool

2004

- Provincial deployment started

## Deployment plan

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- Project manager was identified for the province and then one for each region
- Each institution was mandated to identify a local project manager
- Deployment tools were developed for all levels (user manuals, video presentations, recommendations for the choice of project managers, etc.)
- All information continuously available for download from SOGIQUE's web site





À PROPOS  
DE SOGIQUE

SYSTÈMES  
D'INFORMATION

SERVICES  
INFRASTRUCTURES

MAGAZINE

## DSIE

### Trousses de déploiement

### Les régions déployées

Une dizaine de région ont déployé l'application en 2004. D'autres régions pourraient déployer l'application en 2005.



- [Carte du déploiement de l'application DSIE](#)
- [Liste des établissements ayant déployé DSIE](#) (par région)  
Document accessible par les membres du RTSS uniquement.

### Trousses de déploiement

Documents utiles pour les régions et établissements qui s'apprêtent à déployer.

Fichiers zippés - à enregistrer sur votre poste de travail

- [La trousse de déploiement du Coordonnateur régional](#)
- [La trousse de déploiement de l'administrateur Notes](#)
- [La trousse de déploiement du formateur \(régional ou local\)](#)
- [La trousse de déploiement du coordonnateur local](#)

### Lien direct vers

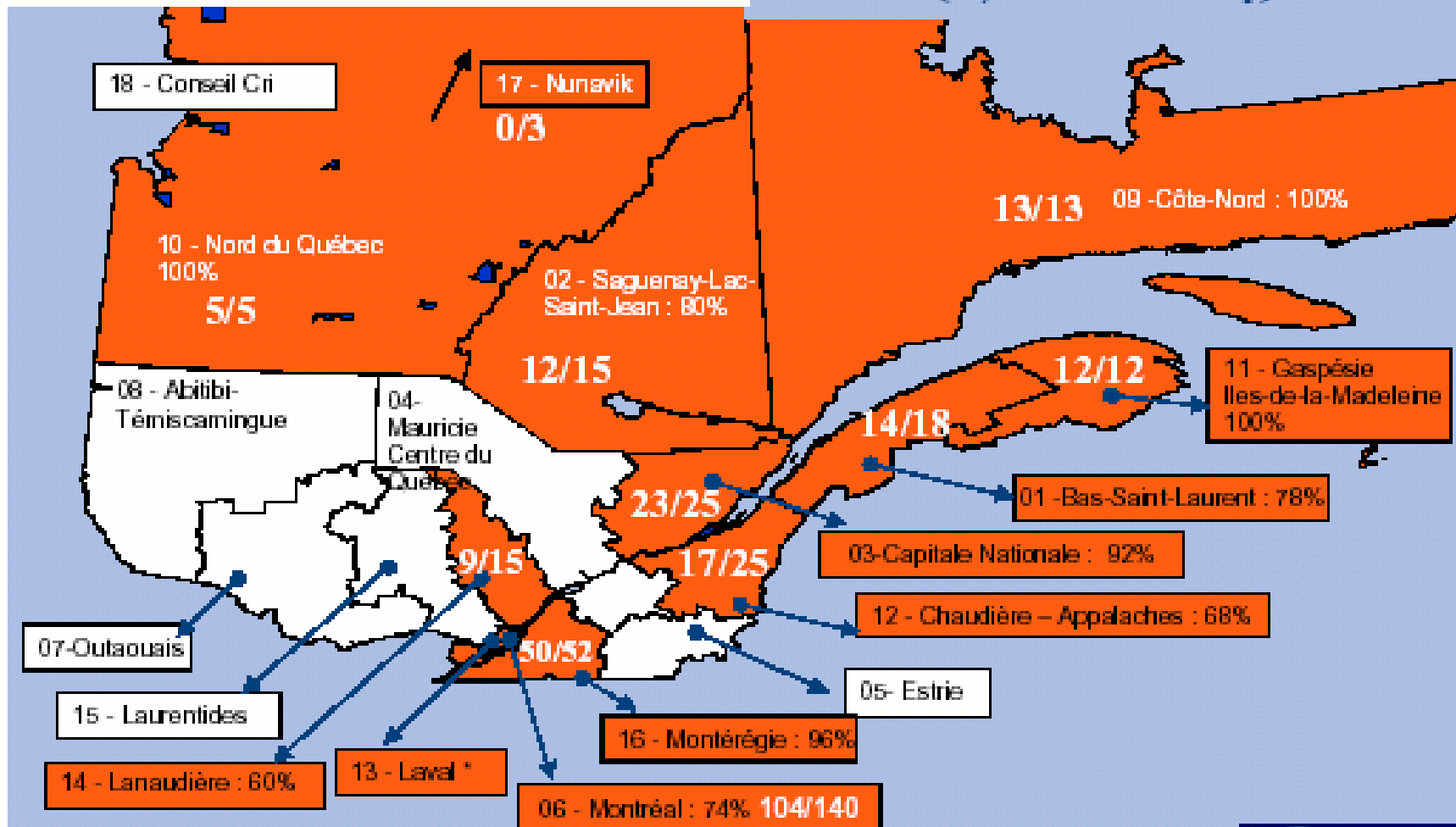
Faites votre choix

- [Page d'accueil](#)
- [À la recherche de coordonnées ?](#)
- [Matériel promotionnel](#)
- [Matériel de formation](#)
- [Documentation sur l'application](#)
- [DSIE et Intégration-CLSC](#)
- [FORUM des utilisateurs](#)
- [Services offerts](#)
- [Trousses de déploiement](#)
- [Documentation technique](#)
- [Comité de gestion de l'actif](#)
- [Comité CPPME](#)

# Déploiement de DSIE (17 déc. 2004)

## Légende :

- 8 / 10 Nombre d'installations de sites terminées sur le nombre total planifiées d'ici déc. 2004
- Pas de déploiement de DSIE d'ici déc. 2004



\* Dans la région de Laval, les intervenants utiliseront leur système d'information SI-PRSI pour envoyer ou recevoir des DSIE



Characteristics of



Purpose

- Generates an electronic inter-institutional referral; replaces paper version
- Used between Health care network partners,
  - Hospitals
  - CLSC (Local community service centre – homecare)
  - Rehabilitation hospitals / centers
  - Long term care hospitals
  - Geriatric Day Hospitals



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## Creating a document

- Interface with Admission database – identity information
- Standard main form - information fields expandable
- Complementary pages for specific clinical conditions (COPD, Home IV therapy, etc.)
- Local templates can be created (e.g. post heart surgery)
- Electronic attachments (Word documents, scanned images)
- Referral can be completed progressively by more than one user; identity of author is tracked



## Transmission & confirmation

- Referrals can be duplicated and sent to more than one institution
- Transmission to another institution generates automatic confirmation of receipt message
- Documents are encrypted during transfer, decrypted when reaching an authorized organization
- Reply with Acceptance or Refusal of referral is sent, with comments if needed
- Referrals are stored for subsequent consultation, duplication



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## Management of files

- File is closed following transmission, patient discharge and confirmation of acceptance.
- File is no longer « in progress », goes into specific folder called « terminated ».
- File is printed for patient's hospital chart
- Closed files are counted in statistics.

Administration

- Administrator module for access management – assigning users, creating templates, etc.
- Possibility of using unit-generic code with individual identification



THIS IS THE  
MAIN SCREEN

# DSIE

Expédition

Hospitals  
(95%)

Réception

CLSC (95%)  
Geriatric Day  
Hospital

Administration

Identifiants Génériques





(TEST123)

No. Demande:  
06-1381817-TEST123-20050729-1

▼ Provenance de la demande

Destinataire

Établissement : [dropdown] Téléphone : [text]  
Mission(s) : [text] Télécopieur : [text]  
Service / Programme : [dropdown]

Expéditeur

Établissement : Centre universitaire de santé McGill (Site RVH) Téléphone : (514) 934-1934  
Service / Programme : [dropdown] Télécopieur : [text]

Intervenants

Nom	Profession	Téléphone	Poste
[dropdown]	[text]	[text]	[text]

Consentement

L'utilisateur consent à la référence et à la transmission de l'information à son sujet :  Oui  Non

▼ Identification

Numéro de dossier : TEST123

Nom à la naissance : [text] Prénom : [text]



Créer un document Dupliquer Transmettre Terminer Terminer avec motif Supprimer Imprimer

# DSIE

## Expédition

**Demandes en cours**

- ↳ par auteur
- ↳ par service / programme
- ↳ par établ. destinataire

**Demandes transmises**

- ↳ par expéditeur
- ↳ par date d'envoi

**Demandes terminées**

- ↳ par auteur
- ↳ par service / programme
- ↳ par établ. destinataire

**Toutes les demandes**

- ↳ par auteur
- ↳ par service / programme
- ↳ par établ. destinataire

**Documents non-lus**

**Rapports**

**Statistiques**

**Page d'accueil**

	Nom	Prénom	Dossier	Date Création	Établissement destinataire	N
▶	<b>Daniel Gélinas</b>					
▼	<b>Jean-Denis Dufort</b>					
←	<b>Bradshaw</b>	Jason	000123	24/01/2002 09:39	DEMO CLSC #1	06
	<b>(Accusé de réception)</b>					
←	<b>Formulaire Santé Physique et Psychosocial</b>					
←	<b>Formulaire Antibiothérapie - Incomplet</b>					
▶	<b>Hashiena</b>	Jacques	357951	22/01/2002 16:47	Centre de réadaptation Lucie-Brur	06
	<b>Hashiena</b>	Jacques	357951	22/01/2002 16:47	CLSC Longueuil-Ouest	06
←	▶ <b>Perez</b>	Bonnita	654321	22/01/2002 09:28	DEMO CLSC #1	06
←	▶ <b>Tremblay</b>	Joseph	000000	14/03/2002 14:31	DEMO CLSC #1	06
	<b>Vassey</b>	Lyne	652114	22/01/2002 18:37	CLSC St-Henri	06
	<b>Verchères</b>	Annie	000111	24/01/2002 10:55	DEMO CLSC #1	06
	<b>Vigneault</b>	Mario	326588	22/01/2002 13:35	Centre de santé de L'Hématite	06
▶	<b>Louis-John Fournier</b>					
▶	<b>Marie St-George (Daniel Gélinas)</b>					



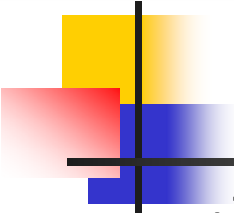
Benefits of



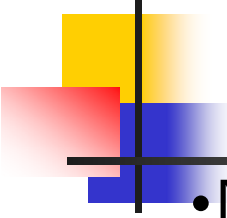
- Benefits for patients
- Benefits for nurses
- Benefits for the community

- Pertinence, comprehensiveness, timeliness of information
- Readability and clarity
- Condition-specific templates – act as prompts
- Confidentiality and safety
- Reception acknowledged
- Provides statistics
- Access for subsequent consultation, duplication

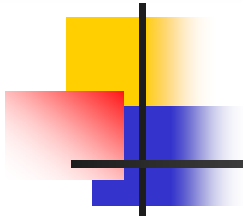
## Challenges, limitations

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- 
- Technical (hardware availability, scanner technology, portables, etc.)
  - Funding (for hardware)
  - Training and follow-up
  - Organizational (workflow changes, Interprofessional relationships)
  - Interinstitutional relationships
  - Legal (confidentiality issues)

## Key successes and lessons learned

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- Nurses must be involved in the development of the tools to ensure their clinical relevance
  - Ministry and regional leadership
  - Project managers were clinical, not technical personnel
  - Need to highlight benefits
  - Funding needs to be addressed
  - Adapt the training to the different local needs
  - Stability in staffing and appropriate infrastructure
  - Identification of users who will become champions

Thank you



## Contacts

[carol.common@muhc.mcgill.ca](mailto:carol.common@muhc.mcgill.ca)

[claudelamay@muhc.mcgill.ca](mailto:claudelamay@muhc.mcgill.ca)

## References:

[www.sogique.qc.ca](http://www.sogique.qc.ca)

Langowski, C. *The times they are achanging: Effects of online nursing documentation systems.* Quality Manag Health Care (2005) Apr-Jun;14(2): 121-5

Timmons, S. *Nurses resisting information technology.* Nursing Inq. (2003) Dec;10(4):257-69