

Stratégies de recherche en contexte de pandémie

Research Strategies in a pandemic context

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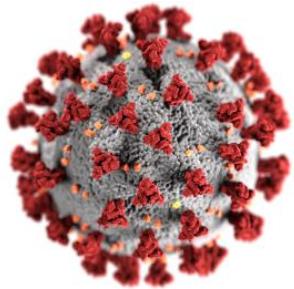
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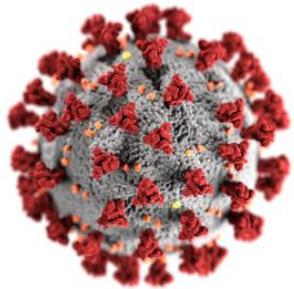
Professionnelle de recherche

Université du Québec en Outaouais



Outline

1. Project 1: Validation and testing of a guide to measure the costs associated with the management of COVID-19 in long-term care facilities in Quebec
2. Project 2: Facteurs pouvant expliciter la meilleure performance d'un CHSLD au regard de la pandémie de la COVID-19 au Québec: une étude exploratoire comparative
3. Research strategies in the context of COVID-19 pandemic



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Rationale

Oct 26, 2020

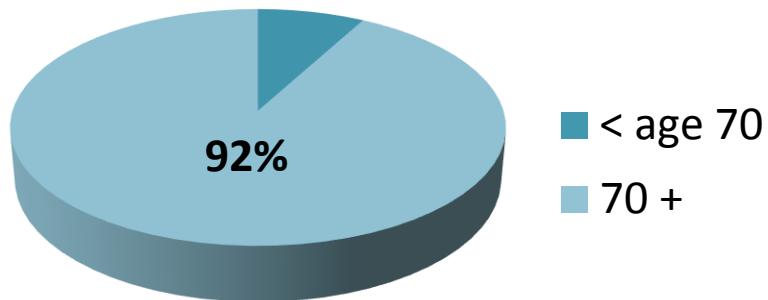
Worldwide: 43,774,919 -> 1,164,499 deaths

Canada: 220,213 -> 9,973 deaths

Quebec: 100,922 -> 6,153 deaths

Quebec

Quebec highest death rates:



- Need to assess the **socio-economic impact** of this pandemic in seniors' living environments
- Goal is to **develop, validate and test a guide for measuring the costs** associated with the management of COVID-19

Objectives

Two objectives

1. To **adapt** the content of the two guides (measures) and **merge** them into



CoutGes-CHSLD-COVID-19

2. **Pilot test** in two CHSLDs in the Laurentian region for feasibility



Conceptual Framework

Costs of managing disease (Finkler, 1996)

Investment in prevention – clinical best practices (CBPs)

Cost of disease / infection – QoL and death

Two existing guides assess costs

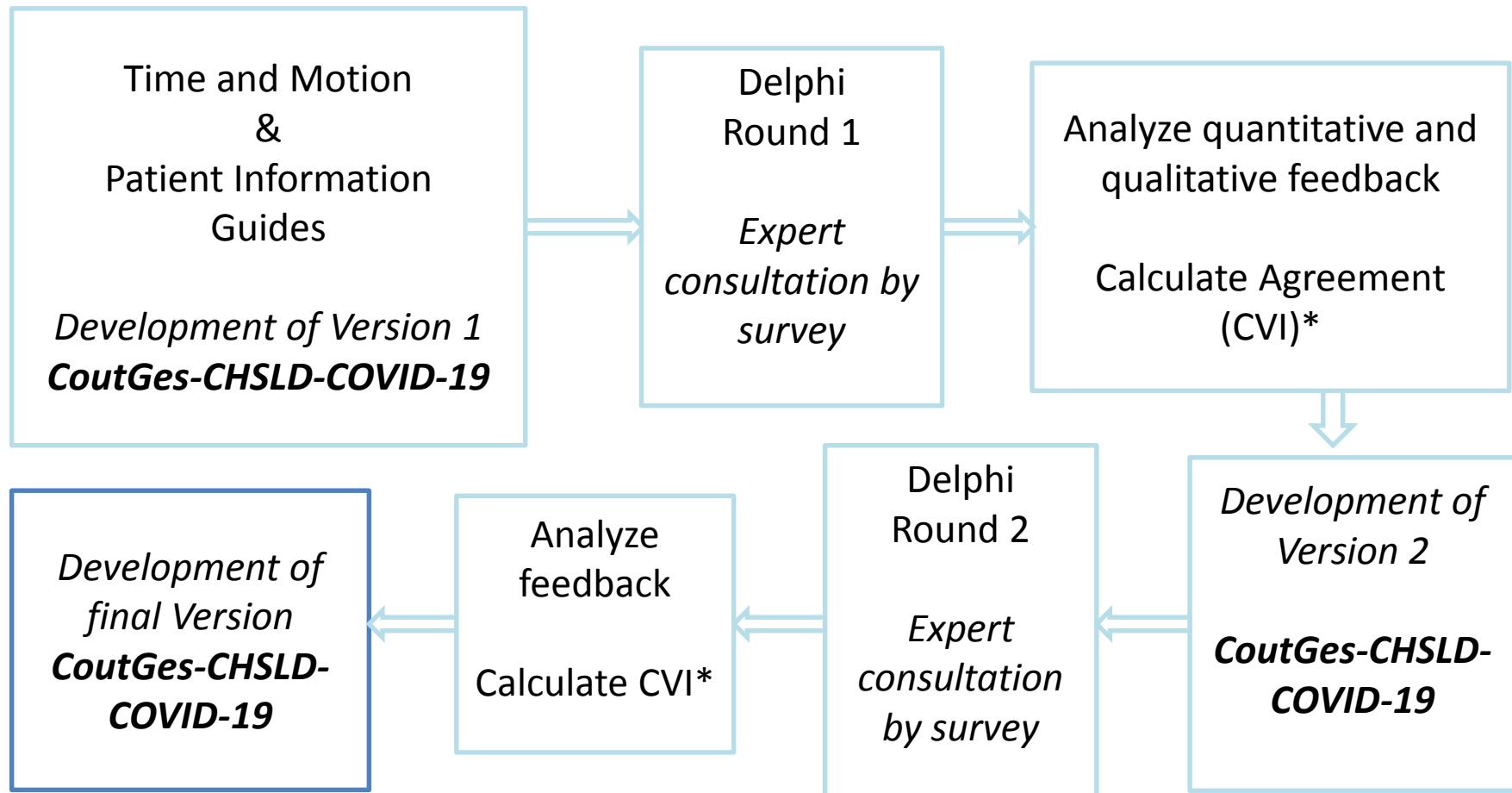


Human resources and materials used in CBPs:
8 dimensions and 116 items assess time and motion



Patient charts : 22 dimensions and 115 items
capture **costs of illness and indirect costs (loss of activity, productivity and time)**

Methodology: Delphi approach



* CVI = Content validity index

Methodology: Pilot testing - data collection

Pilot test both guides in a cross-sectional study in long-term care facilities



CHSLD #1



CHSLD #2

Patient and administrative data collection



Expected Outcomes

Develop a guide that **assesses the real cost of CBPs** and the direct and indirect cost of COVID-19 in CHSLDs



Provide real health and economic impacts of COVID-19 to authorities and health care providers

Ethical Difficulties

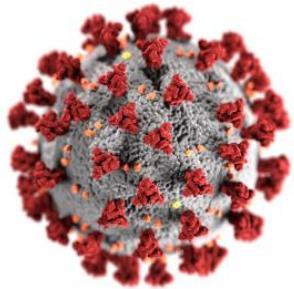
Ethical considerations - risks are elevated in CHSLDs

Data Collection

Health care professionals

- Delphi experts (typically difficult to reach)
- Pilot testing (difficult to reach CHSLDs)
- Databanks

The image is a screenshot of a website for the International Journal for Equity in Health. At the top, it features the BMC logo and the text "Part of Springer Nature". Below this, the journal's name is displayed. A horizontal navigation bar includes links for "Home", "About", "Articles", "Collections", and "Submission Guidelines". In the main content area, there is a section titled "Commentary | Open Access | Published: 19 May 2020" followed by the title "COVID-19: a plea to protect the older population".



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Problématique

Des centaines de **CHSLD** ont été aux prises avec de nombreux cas de COVID-19 (1^{ère} vague):

- Pénurie de **personnel**;
- Manque **d'équipement** de protection individuelle;
- Difficulté dans la **gestion des zones** (chaudes, froides)
- Manque de **formation** du personnel sur le port de ces équipements (FAC, 2020)

Mais

Certains CHSLD ont mieux fait que d'autres



?



But du projet de recherche

Comprendre **les facteurs pouvant expliciter la meilleure performance** d'un CHSLD en termes du nombre de cas de COVID-19 durant la 1^{ère} vague en comparaison avec un CHSLD moins performant de la même région socio-sanitaire du Québec



L'approche méthodologique

Cadre de recherche : L'approche de la déviance positive

- Individus (*déviants positifs*) qui sont en mesure de résoudre les problèmes mieux que leurs collègues avec exactement les mêmes ressources (Marsh et al, 2004)

- Équipes de soins (*déviantes positives*) qui adhèrent mieux à l'hygiène des mains que leurs collègues (Létourneau, Alderson et Leibing, 2018; Létourneau et Alderson, 2020).



Intérêt principal de l'approche de la déviance positive: comprendre le pourquoi

Approche de la déviance positive: étapes

1. Identifier les « déviants positifs » (DP): groupes plus performants que d'autres (**un CHSLD parmi les plus performants**)
2. Utiliser des **méthodes qualitatives** afin de comprendre les facteurs qui permettraient d'expliquer pourquoi les DP sont plus performants
3. Vérifier si facteurs identifiés peuvent s'appliquer au contexte d'autres CHSLD et diffuser les résultats plus largement (Adapté de Bradley et al., 2009)

Nous ajoutons un volet comparatif en identifiant aussi un CHSLD parmi les moins performants.

Difficultés méthodologiques

Au départ:

Devis qualitatif choisi: ethnographie focalisée

- Observer** professionnels dans leur quotidien
- Tenir compte de la **culture** institutionnelle
- Utiliser toutes les sources d'information **contextuelles**

– Méthodes de collecte de données:

- **Observations participantes**
- Entrevues semi-structurées

Actuellement:

Considérations éthiques - risques en CHSLD

→ **Étude exploratoire comparative**

Collecte de données via des entrevues: téléphone, Zoom

L'adaptation de la méthodologie

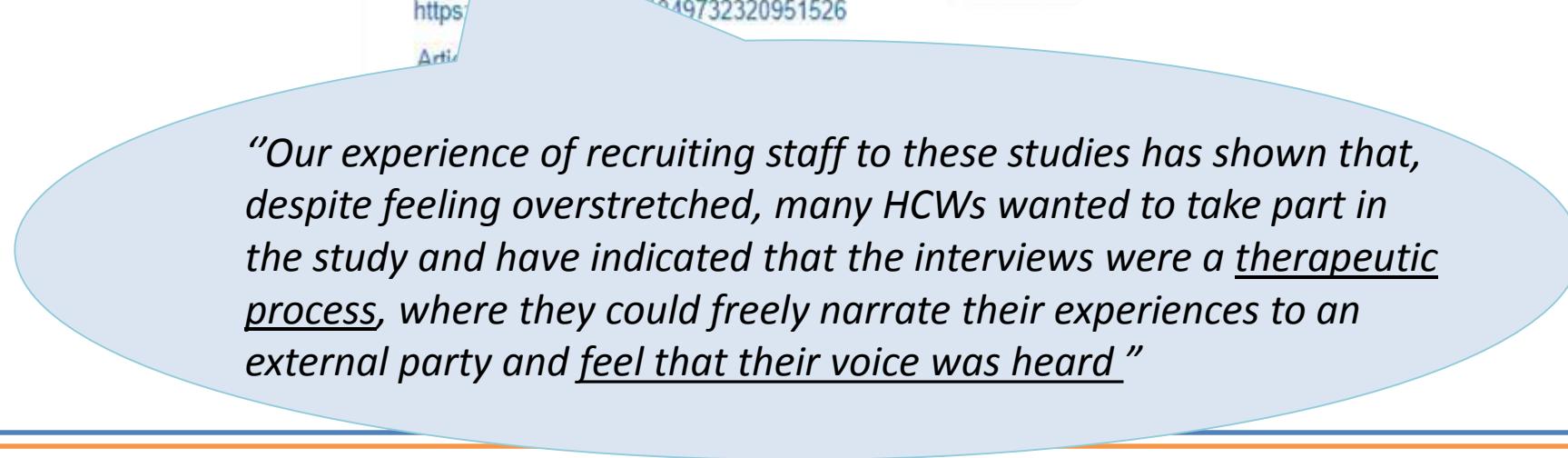
Qualitative Health Research

Journal Home Browse Journal ▾ Journal Info ▾ Stay Connected ▾ Submit Paper

Carrying Out Rapid Qualitative Research During a Pandemic: Emerging Lessons From COVID-19

Cecilia Vindrola-Padros , Georgia Chisnall, Silvie Cooper, more... Show all authors

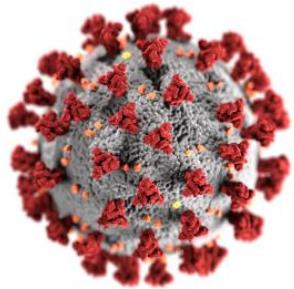
First Published: August 31, 2020 | Research Article |  10.1177/215824402091526

*"Our experience of recruiting staff to these studies has shown that, despite feeling overstretched, many HCWs wanted to take part in the study and have indicated that the interviews were a therapeutic process, where they could freely narrate their experiences to an external party and feel that their voice was heard"*

To research or not to research?

- Nombreuses adaptations méthodologiques à faire selon le niveau de risque
- Important de poursuivre la recherche, **spécialement** en contexte de pandémie afin d'anticiper les prochaines vagues
- **Ne pas attendre** - tout à apprendre et tout à comprendre

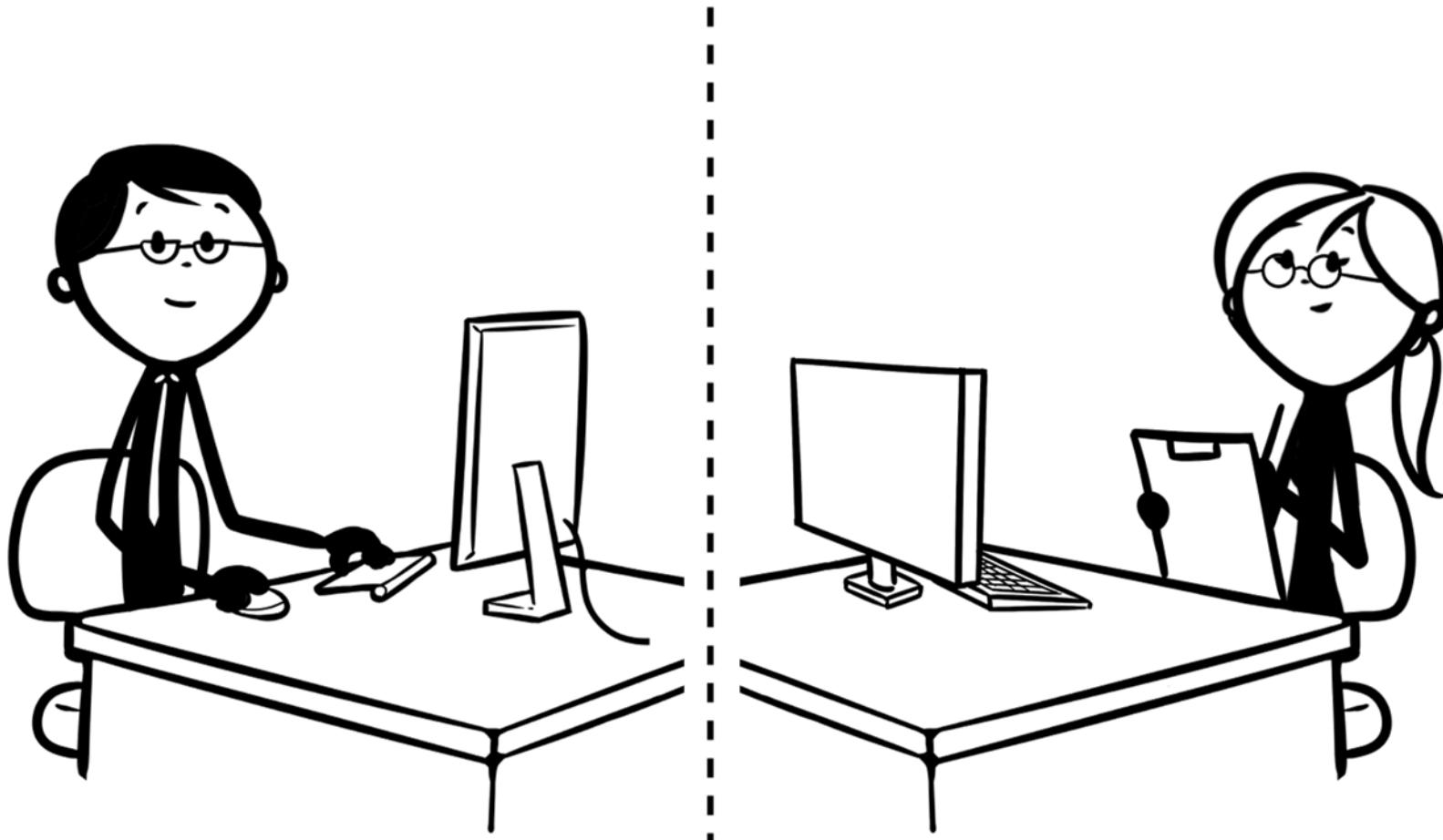
URGENT



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 1. Adaptation
 2. Risk
 3. Ethical considerations

Adapting Methodology



Assessing Risk

COVID-19 Research Risk	Data collection method	Examples	Physical Contact
Level 1	Secondary data, literature review	Database , meta analyses, systematic reviews, umbrella review, meta synthesis, administrative document analyses, review of social media	None required
Level 2	Interaction	Interviews, focus groups, surveys, computer-based experiments and data collection	None or minimal contact, physical distancing can be easily achieved
Level 3	On site	Chart review, non-participative and participative observations	Possible contact
Level 4	Intervention	Community interventions, teaching, dietary or exercise regime, drug or natural health product testing	Some physical contact (bio specimen collection or body measurements), physical distancing sometimes challenging to maintain
Level 5	Physical treatment / manipulation	Physical therapy, dental procedure, biopsy, drug and vaccine	Sustained physical contact

Data Collection solutions

Quantitative and Qualitative Data

Participant / self report	Journals or diaries, voice memos, custom apps with passive data collection such as Google Analytics, video cameras on participant or research staff, or at site (e.g. GoPro)
Existing data	Administrative documents, patient charts, national registries, biobanks and databanks
Public	Social media, public observations



Data Collection solutions

Quantitative and Qualitative Data

	✓	✗
Online Surveys*	Can be rapid and reach remote participants	Most requires a license, and to be REB compliant- a Canadian server for data storage
Mail Surveys	Some participants prefer paper	Can be slow or get lost, labour intensive to enter data, participants may include data not designed for study or provide more than one answer
Interviews: phone / video conference	Can reach participants easily if they know you	Many people do not answer phone / videoconference requires technology and e-literacy

* For a list of online survey considerations and some providers, see annex

Ethical considerations



Outaouais

Laurentides

English

Mesures d'urgence

Liens rapides



FUTURS ÉTUDIANTS
PREMIER CYCLE

FUTURS ÉTUDIANTS
CYCLES SUPÉRIEURS

ÉTUDIANTS
ACTUELS

DIPLOMÉS

EMPLOYÉS

GRAND PUBLIC



INFOS ET CONSIGNES COVID-19

Éthique de la recherche avec des êtres humains

[Éthique de la recherche avec des êtres humains](#) ▾

[Accueil](#)

COVID-19

COVID-19

- Pour les projets en cours où un certificat d'éthique a été émis:

Tous les certificats éthiques qui sont en vigueur demeurent valides. À cet effet, toute recherche qui est couverte par un certificat éthique et qui n'implique pas de contacts physiques avec des sujets humains ou toute autre personne faisant partie du projet ou de l'équipe de recherche peut être menée normalement.

Tout projet qui nécessite des rencontres physiques avec des sujets humains ou toute autre personne faisant partie du projet ou de l'équipe de recherche doit être arrêtée immédiatement et ne peut être poursuivie à moins d'avoir fait l'objet d'une demande de modification approuvée par le Comité d'éthique de la recherche (CER) de l'UQO. Les possibilités reliées à ces projets sont les suivantes :

Ethical considerations: COVID reframes common definitions

Minimal risk



Vulnerability

- Psychological (anxiety, Obsessive Compulsive Disorder)
- Physical factors (age, illness)
- Social (knowledge of prevention of COVID)

Ethical considerations: COVID reframes common definitions

Privacy / Confidentiality

- Explaining a study to participant using physical distancing, interacting with research staff
- If risk of COVID transmission
 - How to re-trace participant and/or report to public health authority
 - The public may be wary of digital tools used to assess contact risk based on the ability of the app to geolocate you or share data

THE LANCET
Digital Health



COMMENT | VOLUME 2, ISSUE 7, E342-E344, JULY 01, 2020

The need for privacy with public digital contact tracing during the COVID-19 pandemic

Yoshua Bengio • Richard Janda • Yun William Yu • Daphne Ippolito • Max Jarvie • Dan Pilat • et al. Show all authors

Open Access • Published: June 02, 2020 • DOI: [https://doi.org/10.1016/S2589-7500\(20\)30133-3](https://doi.org/10.1016/S2589-7500(20)30133-3)

Allow time for REB approval

In the end- will the results be timely?



- Considerations: other department approval (IT, legal biosafety)
- In your control: adapting methods
- Ideally: access to information needs to be eased

Conclusion

1. Adapting methodology
2. Assessing Risk
3. Ethical considerations
4. Continuing the production of clinical, epidemiology, psychosocial, socio anthropological, socio economic researches during the COVID-19 pandemic
5. Advocate with Decision-makers, the Ministry of Health and Social Services, and funding agencies to provide grants for research related to the impact of COVID-19 in healthcare facilities, human resources, people's mental health, etc.

*"An investment in knowledge
pays the best interest."*

Benjamin Franklin

Remerciements



**Fonds de recherche
Santé**



Réseau de recherche en interventions
en sciences infirmières du Québec

Quebec Network on Nursing
Intervention Research

**Santé
et Services sociaux**





Questions

- Do others have examples of successful adaptations to their protocols?
- How do we adapt all processes of research at all levels – from the definitions, goals, theories, methods and diffusion of information, to individual and organizational challenges
- How to make this timely, especially considering the importance of addressing issues relevant to the pandemic?
- How do we achieve rapidity without adding psychological stress to HCWs or participants, and can it be achieved without compromising the accuracy of data?
- How do we work with REBs?



Contacts

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Annex 1: Recruiting participants

Recruiting: moving from *in person* to:

Word of mouth

Snowballing

Phone calls to known patient population

Via health care professionals already in contact with patients

(e.g. prenatal or postpartum women at routine check ups)

Pamphlets - mail - at clinics

Online

Social media

Patient support networks

Your own web page

University postings / Student pools for course credit

Market research firms with existing participant pools

Annex 2: Obtaining e-Consent

	✓
Can be easy to use	Requires device, internet connection, a certain e-literacy level ; errors still occur in signing
Reaches remote participants	Participants may wish to speak to researcher in real time
Able to read and review information at own pace	Concerns about age/illness and e-literacy
Interactive features can highlight important information	Comprehension associated with education levels
No 'lost' paper consent forms	Privacy and security concerns across cloud platforms
Easier recruitment - decreased physical demand, speedier recruitment	In large scale studies the technical support may be more costly

Annex 3: Electronic Data Capture

Considerations

- Data stored in Canada, REB compliant
- Full data extraction to data analysis software
- Price (there are educational discounts)
- User friendly interface
- Unlimited number of surveys, unlimited number of questions
- Skip logic option
- Yearly and monthly subscription
- Multilingual (French/English)

Companies

1. Simple Survey <https://simplesurvey.com/>
2. Lime Survey <https://www.limesurvey.org/fr/>
3. Qualtrics <https://www.qualtrics.com/core-xm/survey-software/>
4. Redcap <https://www.project-redcap.org/>
5. Your IT department may be able to make your survey !

Annex 4: Data Security Collection, Storage and Confidentiality

- ✓ Identify devices used
 - ✓ Authorized users: devices and data access
 - ✓ Storage site (from path on computer to country of server)
 - ✓ Di-identified or anonymized
 - ✓ Backed up in real time, and regularly off site
 - ✓ Apps should have individual logs ins/cookies- ability to opt out and no third party cookies

