

Online Brand Management in Canadian Hospitals

Online markaren kudeaketa Kanadako ospitaleetan

La gestión de la marca online en los hospitales canadienses

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RESUMEN: Este artículo tiene como objetivo evaluar el modo en que los hospitales canadienses gestionan *Facebook*, *Twitter*, *Youtube* así como sus propias páginas web para promover su marca y reforzar así su posicionamiento estratégico. Para ello, realizamos una revisión de la literatura sobre comunicación corporativa, *branding* y organizaciones de salud; y posteriormente, definimos 48 indicadores para analizar cómo los 85 mejores hospitales canadienses gestionaban *Facebook*, *Twitter*, *Youtube* así como su propia página web para promover su marca. Concluimos que la mayoría de los hospitales canadienses usaban su página web para difundir información periodística; *Facebook* y *Twitter*, para interactuar con los pacientes; y *Youtube*, para publicar vídeos sobre educación en salud.

PALABRAS CLAVE: Hospitales canadienses; Comunicación Corporativa; Stakeholders; Marca; Redes Sociales.

ABSTRACT: *This paper aims to evaluate how Canadian hospitals manage Facebook, Twitter, Youtube and their own corporate website to promote their brand and reinforce their strategic positioning. To do that, we carried out a literature review about corporate communication, branding and health organizations; and then, we defined 48 key performance indicators to analyze how the best 85 Canadian hospitals managed Facebook, Twitter, Youtube and their corporate website for promoting their brand. We concluded that most Canadian hospitals used their corporate website for disseminating journalistic information; Facebook and Twitter, for interacting with patients; and Youtube, for publishing videos about health education.*

KEYWORDS: *Canadian Hospitals; Corporate Communication; Stakeholders; Brand; Social Media.*

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1. Introduction

Managing corporate communication in a professional way could help hospitals reinforce their relationships with stakeholders, as well as improve their internal functioning and build their brand in a collective way along with some key stakeholders such as employees and patients. Nevertheless, implementing a professional management of corporate communication also represents some challenges related to privacy, economic investments and health professionals' involvement on these online initiatives. In Canada, most hospitals manage social media as a corporate communication tool in order to make their branding initiatives more dynamic and this way reinforce their strategic positioning in the health market. However, many hospitals do not use these platforms in a true performant way. Three reasons led us to focus our research in this country: a) nine Canadian hospitals are included in the 100 World's Best Hospitals ranking published by *Newsweek* in 2019 (Newsweek, 2019);¹ b) Canada is one of the countries with the highest healthcare spend in the world (Barua, Jacques, 2018); and c) Canada is becoming a worldwide leader in health technologies and digital transformation of health organizations (PriceWaterHouseCoopers, 2021).

This paper aims to evaluate how Canadian hospitals manage social media platforms for their branding initiatives. We try to answer this main research question: How do Canadian hospitals utilize *Facebook*, *Twitter*, *Youtube* and their own corporate website to promote their brand? To do that, we have conducted a literature review about corporate communication, branding and social media platforms in health organizations; then, we have defined a quantitative methodology based on 48 key performance indicators that we have used to analyze how the top 85 Canadian hospitals managed these 4 platforms for promoting their brand; and, finally, we have proposed three conclusions and three managerial recommendations that all Canadian hospitals could integrate to improve their corporate communication strategies on social media platforms.

2. Hospitals' reputation management through social media platforms

Most hospitals interested in building a reputed brand implement a corporate communication strategy aiming to influence internal and external stakeholders' perceptions about the company and its services (Esposito, 2017). They evaluate each communication initiative according to different key performance indicators, and

¹ More information about this ranking available on: <https://www.newsweek.com/best-hospitals-2019>. Document retrieved on 26th June 2021.

this way they prove in a quantitative way that corporate communication adds a true value to the whole organization (Zerfass & Viertmann, 2017). Some communication initiatives are implemented on social media platforms in order to make hospitals' communication strategies more dynamic (Fischer, 2014). These platforms allow hospitals to implement collective decision-making processes between doctors and patients, which improves these last ones' satisfaction (Lim, 2016). Social media are considered as a true management tool for public health purposes (Matarin Jimenez, 2015); nevertheless, before implementing any initiative on these platforms, hospitals should solve some problems such as low budgets assigned to these initiatives, or the lack of employees specialized in this domain (Rando Cueto, Paniagua Rojano & De las Heras Pedrosa, 2016). Hospitals should recruit experts on social media, public health and corporate communication able to use these platforms in a professional way (Ruiz Granja, 2015). This also means using the information gathered from users for taking strategic communication decisions (Bubien, 2015) and involving health professionals in these online activities (McCarroll, Armbruster, Chung, Kim, McKenzie, Von Gruenigen & Vivian, 2014).

The hospital's corporate heritage (organizational goals, internal culture, values,) determines its online communication strategies (Blomgren, Hedmo & Waks, 2016). These organizations involve their health professionals in some online initiatives in order to improve their scientific credibility (Haluza, Naszay, Stockinger & Jungwirth, 2016). Doctors play a key role when presenting on these platforms different medical services (Yeob, Hawkins, Baker, Shah, Pingree & Gustafson, 2017). Their main responsibility consists of avoiding misinformation and promoting trustworthy, scientifically valid perspectives (Kotsenas, Aase, Arce & Timimi, 2018). In some medical departments, such as oncology, implementing evidence-based practices on social media constitutes a critical priority because the information disseminated on these platforms directly affects patients' health (Sedrak, Dizon, Anderson, Fisch, Graham, Katz, Kesselheim, Miller, Thompson, Utengen & Attai, 2017). On the other hand, doctors need to be trained on how to use social media platforms in a professional way: workshops, personal sessions, corporate guidelines (Peluchette, Karl & Coustasse, 2016). This way, hospitals can reinforce their relationships with patients and establish a new therapeutic alliance with them (Epstein, Duberstein & Fenton, 2017; Sedrak *et al.*, 2017).

Patients remain the main protagonist on social media platforms specialized in health. They search for health information, evaluate hospitals' treatments and share their knowledge and experiences with family members and friends (Myrick, Holton, Himboim & Love, 2016; Sedrak, Cohen, Merchant & Schapira, 2016). When they have to communicate with doctors, most patients prioritize social media because these platforms allow them to establish a symmetrical communication based on dialogue (Smailhodzic, Hooijsma, Boonstra & Langley, 2016). Social media determine their decision-making processes: choose a hospital, doctor or treatment

(Glover, Khalilzadeh, Choy, Prabhakar, Pandharipande & Gazelle, 2015). For some patients, such as those suffering from cancer, these platforms influence also their behaviours before, during and after their consultations with doctors at hospital (Attai, Sedrak, Katz, Thompson, Anderson, Kesselheim & Fisch, 2016). Patients use different social media, such as *Twitter*, for sharing useful medical information with other patients and giving advices to friends and family members (Park, Reber & Chon, 2016; Strauck Franco, & Guillén Arruda, 2017); *Facebook*, for searching for specific information related to treatments or medical procedures (Gage-Bouchard, La Valley, Mollica & Beaupin, 2016); and *Youtube*, for better understanding some medical information and this way reduce the risk when taking decisions (Basch, Basch, Hillyer & Reeves, 2015).

Managing social media platforms in a professional way helps hospitals reinforce their own corporate brand. According to Esposito (2017), the brand adds an intangible value to the whole hospital and influences stakeholders' perceptions about the organization, its employees and services. All internal and external communication initiatives should be consistent with the hospital's brand (Maier, 2016), especially when these initiatives are implemented on social media (Ivanov & Sharman, 2018). On these platforms, companies face different reputation risks, such as aggressive comments or fake news published by some users (Lagu, Goff, Craft, Calcasola, Benjamin, Priya & Lindenauer, 2016). Despite these risks, hospitals resort to social media to enhance their corporate communication efficiency and promote their brand (Triemstra, Stork & Arora, 2018). Hospital and doctors should recognize the importance of using these platforms in a professional way: otherwise, social media can become a threat for the organization's reputation (Kotsenas *et al.*, 2018). Hospitals' reputation is directly related to their legitimacy to carry out their different professional tasks such as taking care of patients or conducting scientific research (Blomgren *et al.*, 2016). And this legitimacy can be reinforced by using social media as well as online brand communities where doctors and patients share medical information and experiences (Liu, Guo, Wu & Vogel, 2014; Falisi, Wiseman, Gaysynsky, Scheideler, Ramin & Chou, 2017).

Most Canadian people are active users on social media platforms. According to the Ryerson University Social Media Lab (2020), 94% of Canadian adults have an account on at least one social media platform: the most famous ones are *Facebook* (83%), *Youtube* (64%) and *Instagram* (51%). To access these platforms, most users resort to their smartphones (Briggs, 2021). Canadian people love using smartphones and social media for gaming: 57% of them play games on these platforms (Deloitte, 2020). In 2024, the number of smartphone users in Canada is estimated to be 33 million, which represents 87,88% of the whole Canadian population (Statista 2020). On the other hand, in Canada there are 830 hospitals: the biggest ones based on their bed counts are *Hamilton General Hospital* (1251 beds), *Foothills Medical Center* (1,042 beds) and *Vancouver General Hospital* (1029 beds) —Canadian Institute for

Health Information, 2020—. Nevertheless, none of these 830 hospitals are among the 100 most valuable brands in Canada (Brand Finance, 2020). In fact, there is not a direct relationship between economic and health resources of hospitals in one country, and their online presence on social media platforms (Busto Salinas, 2021). That is why Canadian hospitals should assign the economic resources necessary for implementing corporate communication initiatives on social media allowing them to improve their brand awareness.

3. Methodology

Canadian hospitals resort to social media platforms to implement branding initiatives and reinforce their strategic positioning in the health market. Nevertheless, each hospital uses these platforms in a true different way. Several factors determine this reality: annual budget for online communication initiatives, number of employees working in the Social Media Unit, kind of plans and protocols implemented, etc. In order to better understand how these organizations manage social media as well as their own corporate websites for branding initiatives, we have analyzed the *World's Best Hospitals* (2019), a global ranking published every year by *Newsweek* and focused on 11 countries, including Canada.² To do this ranking, *Newsweek's* researchers only consider hospitals having at least 100 inpatient beds and use three main data sources (recommendations from more than 40.000 medical experts, results from patients' surveys, and medical KPIs on hospitals).

Based on this ranking, we identified the 85 best hospitals in Canada (see *Annex 1. List of hospitals analyzed*).³ For each, we evaluated how they implemented branding initiatives on four platforms: a) corporate website, b) *Facebook*, c) *Twitter* and d) *Youtube*.⁴ Most hospitals base their online communication strategies on their corporate website (Lim, 2016); however, they also rely on different social media platforms such as *Facebook*, the most important social media with 2.8 billion monthly active users as of the fourth quarter of 2020 (Statista, 2021); *Twitter*, one of the best social media platforms to make hospitals brands more dynamic and improve their relationships with patients (So, Prestin, Lee, Wang, Yen & Chou, 2016); and *Youtube*, the best platform for disseminating health-related videos (Míguez-González, García Crespo & Ramahí-García, 2019).

² More information about this methodology available on <https://d.newsweek.com/en/file/459529/world-best-hospital.pdf>. Document retrieved on 14th January 2020.

³ More information about this ranking available on: <https://www.newsweek.com/best-hospitals-2019/canada>. Document retrieved on 14th January 2020.

⁴ We carried out this analysis from 10th February to 5th March 2021.

TABLE 1
Key Performance Indicators

| Corporate Website | Facebook | Twitter | Youtube |
|--|--------------------------------|--|--------------------------------|
| Identity* | | | |
| 1. Corporate logo | 1. Corporate logo | 1. Corporate logo | 1. Corporate logo |
| 2. Multilingual website | 2. Links to corporate websites | 2. Links to corporate websites | 2. Links to corporate websites |
| 3. Links to medical departments | 3. Hospital's description | 3. Hospital's description | 3. Hospital's description |
| 4. Find a doctor | 4. Milestones | 4. Joined date | 4. Milestones |
| 5. Find diseases | 5. Awards | 5. Foundation date | 5. Awards |
| 6. Links to research and education departments | 6. Brand values | 6. Hashtags on the description | 6. Brand values |
| 7. Link to the press department | 7. Mission | 7. Health professionals or hospital's building as main profile image | 7. Mission |
| 8. Links to social media platforms | 8. Vision | 8. Links to other social media platforms | 8. Vision |
| Communication Activities** | | | |
| 9. Videos on the homepage | 9. Videos integrated | 9. Number of followings | 9. Playlists |
| 10. Press releases on the homepage | 10. Events | 10. Media section with videos | 10. Channels |
| Patient's engagement*** | | | |
| 11. Patients' platform | 11. Number of likes | 11. Number of likes | 11. Number of subscribers |
| 12. Mobile apps | 12. Number of followers | 12. Number of followers | 12. Number of views |

Source: Author's elaboration.

* *Homepage* on the Corporate Website and Twitter; and *About Us Section* on Facebook and Youtube.

** *Homepage* in all platforms.

*** *Homepage* in all platforms.

We considered 48 indicators to evaluate how Canadian hospitals disseminated their brand through social media platforms and websites. These indicators referred to three main categories: a) identity, b) communication activities, and c) patients' engagement (see *Table 1. Key Performance Indicators*). We tried to homog-

enize all indicators in all platforms, but we also took into account different metrics proposed by each social media platform. For all indicators, we only analyzed the information that we could immediately gather on the *Homepage* or the *About Us section*: in other words, we did not evaluate those inputs for which we had to do more than one click or browser in different menus. We only focused on hospitals' corporate profiles: so, we did not consider secondary profiles (private groups, departments, etc.).

To carry out this quantitative analysis, we considered 85 analyze units (hospitals), four variables (corporate website, *Facebook*, *Twitter* and *Youtube*) and three categories (identity, communication activities and patient's engagement). All these key performance indicators were evaluated according to the binary system, except seven of them that were analyzed as absolute numbers: *Facebook* (11, 12), *Twitter* (9,11,12) and *Youtube* (11,12).

4. Results

Managing social media platforms and corporate websites constitutes an opportunity to improve hospitals' brand awareness as well as their relationships with stakeholders. According to our results, most Canadian hospitals are aware of this fact; nevertheless, some of them have to improve their performance in this domain. In order to illustrate this statement, we present our results grouped in four main categories: a) corporate website, b) *Facebook*, c) *Twitter* and d) *Youtube*.

First, *corporate website*. All hospitals analyzed displayed a corporate website. Some of them shared the same website.⁵ Most hospitals fulfilled many criteria related to *identity*: logo (100%), links to medical departments (96,47%), links to research and education (96,47%), links to social media platforms (95,30%), links to the communication department (76,47%), multilingual website (56,47%), and search engines to find doctors (18,82%) and diseases (5,88%). Concerning *communication activities*, 60% of hospitals disseminated press releases and 25,89% of them also shared videos. As to *patients' engagement*, 15,30% of hospitals proposed a patient platform; and 3,53% of them also had a mobile app for patients. Finally, 56,47% of hospitals respected between 6 and 8 indicators (see *Table 2. Indicators distribution*), and the only hospitals to fulfill ten indicators were *Rockyview General Hospital*, *Foothills Medical Centre*, *Kingston General Hospital* and *Royal Alexandra Hospital*.

⁵ a) *Montreal General Hospital* and *The Royal Victoria Hospital*; b) *Toronto General Hospital* and *Toronto Western Hospital*; c) *Vancouver General Hospital*, *Lions Gate Hospital* and *Richmond Hospital*; d) *Victoria General Hospital*, and *Victoria General Hospital, MB*; e) *The Credit Valley Hospital* and *Mississauga Hospital*; and f) *Saskatoon City Hospital* and *Royal University Hospital*.

TABLE 2
Indicators distribution

| Number of indicators | Number of hospitals |
|----------------------|---------------------|
| 12 | 0 |
| 11 | 0 |
| 10 | 4 |
| 9 | 11 |
| 8 | 10 |
| 7 | 11 |
| 6 | 27 |
| 5 | 10 |
| 4 | 9 |
| 3 | 3 |
| 2 | 0 |
| 1 | 0 |
| 0 | 0 |

Source: Author's elaboration.

Second, *Facebook*. 80% of hospitals displayed a corporate profile on *Facebook*. We only considered corporate profiles, and not private or group profiles. We did not consider hospitals using as corporate profiles those of a public authority.⁶ On the other hand, some hospitals shared the same *Facebook* profile⁷ and other hospitals shared their *Facebook* profile as well as their corporate websi-

⁶ a) *Rockyview General Hospital, Royal Alexandra Hospital, Peter Lougheed Centre, Foothills Medical Centre, University of Alberta Hospital, and Medicine Hat Regional Hospital* (Alberta Health Services' profile); b) *Queen Elizabeth II Health Sciences Centre* (Nova Scotia Health Authority's profile); c) *Kelowna General Hospital* (Interior Health's profile); d) *Regina General Hospital and Yorkton Regional Health Centre* (Saskatchewan Health Authority's profile); e) *Cape Breton Regional Hospital* (Nova Scotia Health Authority's profile); and f) *Saskatoon City Hospital and Royal University Hospital* (Saskatoon Health Authority's profile).

⁷ a) *Montreal General Hospital, The Royal Victoria Hospital and Lachine Hospital* (McGill University Health Centre's profile); b) *Hôpital du Saint-Sacrement, Centre Hospitalier de l'Université Laval and Hôpital de l'Enfant-Jésus* (CHU de Québec-Université Laval's profile); c) *Hamilton General Hospital, Juravinski Hospital and McMaster University Medical Centre* (Hamilton Health Sciences' profile); d) *St. Joseph's Healthcare Hamilton and St. Michael's Hospital Toronto* (Unity Health Toronto's profile); e) *Etobicoke General Hospital and Brampton Civic Hospital* (William Osler Health System's profile); f) *Misericordia Community Hospital and Grey Nuns Community Hospital* (Covenant Health's profile); g) *Dr. Georges-L.-Dumont University Hospital Centre and Chaleur Regional Hospital* (Vitality Health Network's profile); h) *University Hospital and Victoria Hospital* (London Health Science Center's profile); and i) *Milton District Hospital and Oakville Trafalgar Memorial Hospital* (Halton Healthcare's profile).

te.⁸ With regards to *identity*, most hospitals did not respect these criteria: logo (100%), links to corporate websites (100%), corporate description (98,53%), milestones (17,45%), mission (8,82%), vision (4,41%), brand values (4,41%), awards (1,67%). Concerning *communication activities*, 91,7% of hospitals integrated videos and 82,35% of them also displayed an events section. As to *patients' engagement*, the best hospitals by number of followers were those belonging to Vitality Health Network (see *Table 3. Hospitals by number of followers*); and the best ones by number of likes were also those belonging to the same group (49 657 likes). Finally, concerning the ten indicators related to identity and communication activities, 76,47% of hospitals respected between 5 and 6 indicators; and the only hospitals fulfilling at least 8 criteria were *Sunnybrook Health Sciences Centre*, *Joseph Brant Memorial Hospital* and *Thunder Bay Regional Health Sciences Centre*.

TABLE 3
Hospitals by number of followers

| | Hospital | Number of likes |
|---|---|-----------------|
| 1 | Dr. Georges-L.-Dumont University Hospital Centre, and Chaleur Regional Hospital (<i>Vitality Health Network</i>) [*] | 53 470 |
| 2 | Sunnybrook Health Sciences Centre | 23 244 |
| 3 | Centre hospitalier de l'Université de Montréal (CHUM) | 23 165 |
| 4 | Vancouver General Hospital, Lions Gate hospital, and Richmond Hospital (<i>Vancouver Coastal Health</i>) [*] | 21 597 |
| 5 | Montreal General Hospital, The Royal Victoria Hospital and Lachine Hospital (<i>McGill University Health Centre</i>) [*] | 21 597 |

Source: Author's elaboration.

^{*} All of them share the same Facebook Profile.

Third, *Twitter*. According to our results, 81,17% of hospitals had a corporate profile on this platform. We did not consider private or group profiles: we only analyzed corporate profiles. We did not include hospitals using as corporate pro-

⁸ a) *Montreal General Hospital* and *The Royal Victoria Hospital*; b) *Toronto General Hospital* and *Toronto Western Hospital*; c) *Vancouver General Hospital*, *Lions Gate Hospital* and *Richmond Hospital*; d) *Victoria General Hospital*, and *Victoria General Hospital, MB*; and e) *The Credit Valley Hospital* and *Mississauga Hospital*.

files those of a public authority.⁹ On the other hand, some hospitals share their *Twitter* profile,¹⁰ and some of them also shared their *Twitter* profile, their *Facebook* profile and their corporate website.¹¹ Concerning *identity criteria*, Canadian hospitals managed them in a different way: links to corporate websites (98,55%), logo (95,65%), date when they joined (95,65%), corporate description (81,16%), health professionals or buildings as main profile image (53,62%), hashtags on the description (23,19%), foundation date (2,90%) and link to other social media platforms (1,45%). As to *communication activities*, 98,55% of hospitals displayed a media section including videos; and the best ones in terms of number of followings were *Vancouver General Hospital*, *Lions Gate Hospital* and *Richmond Hospital* (5 906 followings). With respect to *patients' engagement*, the three hospitals having the biggest number of likes were *McMaster University Medical Centre*, *Juravinski Hospital* and *Hamilton General Hospital* (19 300 likes); and the best ones in terms of number of followers were *Toronto General Hospital* and *Toronto Western Hospital* (see *Table 4. Hospitals by number of followers*)

⁹ a) *Rockyview General Hospital*, *Royal Alexandra Hospital*, *Peter Lougheed Centre*, *Foothills Medical Centre*, *University of Alberta Hospital*, and *Medicine Hat Regional Hospital* (Alberta Health Services' profile); b) *Queen Elizabeth II Health Sciences Centre* (Nova Scotia Health Authority's profile); c) *Kelowna General Hospital* (Interior Health's profile); d) *Regina General Hospital* and *Yorkton Regional Health Centre* (Saskatchewan Health Authority's profile); e) *Cape Breton Regional Hospital* (Nova Scotia Health Authority's profile); and e) *Saskatoon City Hospital* and *Royal University Hospital* (Saskatoon Health Authority's profile).

¹⁰ a) *Montreal General Hospital*, *The Royal Victoria Hospital* and *Lachine Hospital* (McGill University Health Centre's profile); *Hôpital du Saint-Sacrement*, *Centre Hospitalier de l'Université Laval* and *Hôpital de l'Enfant-Jésus* (CHU de Québec-Université Laval's profile) ; c) *Hamilton General Hospital*, *Juravinski Hospital* and *McMaster University Medical Centre* (Hamilton Health Sciences' profile) ; d) *Etobicoke General Hospital* and *Brampton Civic Hospital* (William Osler Health System's profile); e) *Misericordia Community Hospital* and *Grey Nuns Community Hospital* (Covenant Health's profile); f) *Dr. Georges-L.-Dumont University Hospital Centre* and *Chaleur Regional Hospital* (Vitality Health Network's profile); g) *University Hospital* and *Victoria Hospital* (London Health Science Center's profile); h) *Milton District Hospital* and *Oakville Trafalgar Memorial Hospital* (Halton Healthcare's profile); and *Surrey Memorial Hospital*, *Peace Arch Hospital* and *Royal Columbian Hospital* (Fraser Health's profile).

¹¹ a) *Montreal General Hospital* and *The Royal Victoria Hospital*; b) *Toronto General Hospital* and *Toronto Western Hospital*; c) *Vancouver General Hospital*, *Lions Gate Hospital* and *Richmond Hospital*; d) *Victoria General Hospital* and *Victoria General Hospital, MB*; and e) *The Credit Valley Hospital* and *Mississauga Hospital*.

TABLE 4
Hospitals by number of followers)

| | Hospital | Number of followers |
|---|---|---------------------|
| 1 | Toronto General Hospital, Toronto Western Hospital* | 35 900 |
| 2 | Mount Sinai Hospital | 28 500 |
| 3 | Vancouver General Hospital, Lions Gate Hospital and Richmond Hospital* | 27 100 |
| 4 | St. Michael's Hospital (Toronto) | 23 600 |
| 5 | Royal Columbian Hospital, Peace Arch Hospital and Surrey Memorial Hospital* | 22 000 |

Source: Author's elaboration.

* All of them share the same Twitter Profile.

Fourth, *Youtube*. Our results proved that 61,18% of Canadian hospitals displayed a corporate profile on this platform. We only considered corporate profiles, and not group or private profiles. Some hospitals shared the same Youtube profile¹² and some of them share their corporate website as well as their *Facebook*, *Twitter* and *Youtube* profiles.¹³ With respect to *identity criteria*, Canadian hospitals did not fulfil many of them: logo (100%), links to corporate websites (92,31%), corporate description (71,15%), milestones (3,85%), mission (3,85%), vision (3,85%), brand values (1,92%) and awards (0%). Concerning *communication activities*, 98,07% of hospitals displayed playlists and 55,80% proposed channels. As to *patients' engagement*, the best hospitals according to their number of subscribers were *Royal Jubilee Hospital* (194 965), *Sunnybrook Health Sciences Centre* (77 700) and *Centre Hospitalier de l'Université de Montréal* (21 400); and the best one by number of views was *Sunnybrook Health Sciences Centre* (see *Table 5. Hospitals by number of views*). Finally, concerning identity and communication activities criteria (10 indicators), 75% of hospitals fulfilled between 4 and 5 indicators.

¹² a) *Hôpital du Saint-Sacrement*, *Centre Hospitalier de l'Université Laval* and *Hôpital de l'Enfant-Jésus* (CHU de Québec-Université Laval's profile) ; b) *Etobicoke General Hospital* and *Brampton Civic Hospital* (William Osler Health System's profile); c) *Dr. Georges-L.-Dumont University Hospital Centre* and *Chaleur Regional Hospital* (Vitality Health Network's profile); d) *University Hospital* and *Victoria Hospital* (London Health Science Center's profile); e) *Milton District Hospital* and *Oakville Trafalgar Memorial Hospital* (Halton Healthcare's profile); f) *Surrey Memorial Hospital*, *Peace Arch Hospital* and *Royal Columbian Hospital* (Fraser Health's profile); and g) *Saint Michel Hospitals* and *St. Joseph's Health Centre* (Unity Health Toronto's profile).

¹³ a) *Toronto General Hospital* and *Toronto Western Hospital*; b) *Vancouver General Hospital*, *Lions Gate Hospital* and *Richmond Hospital*; and c) *The Credit Valley Hospital* and *Mississauga Hospital*.

TABLE 5
Hospitals by number of views

| | Hospital | Number of views |
|---|---|-----------------|
| 1 | Sunnybrook Health Sciences Centre | 31 307 543 |
| 2 | Centre Hospitalier de l'Université de Montréal (CHUM) | 9 563 751 |
| 3 | Toronto General Hospital | 8 643 920 |
| 4 | Victoria Hospital (London, Ontario), University Hospital (London, Ontario)* | 4 198 136 |
| 5 | Hôpital de l'Enfant-Jésus, Centre Hospitalier de l'Université Laval and Hôpital du Saint-Sacrement (<i>CHU de Québec-Université Laval</i>)* | 3 000 346 |
| 6 | Vancouver General Hospital (VGH), Lions Gate Hospital and Richmond Hospital* | 2 148 244 |

Source: Author's elaboration.

* All of them share the same Youtube Profile.

5. Discussion

According to our results, most Canadian hospitals resort to different social media platforms: *Twitter* (81,17%), *Facebook* (80%), and *Youtube* (61,18%). Besides, all of them display a corporate website. Nevertheless, some of them do not manage their own social media platforms and websites: they just resort to platforms managed by health groups to which they belong, or to some public health authorities' corporate profiles. All communication decisions taken by hospitals determine their stakeholders' perceptions about different issues such as the hospital, its employees, its services and its corporate brand. That is why these organizations should be independent when managing all social media platforms. Being independent and using social media platforms in a professional way allows hospitals to become health educators able to influence patients' perceptions and behaviors (Costa-Sánchez, Túnnez-López & Videla-Rodríguez, 2016) In order to be more efficient, Canadian hospitals should consider three main issues when implementing branding initiatives on social media platforms: communication objectives, targets and brand positioning.

Defining realistic, accurate communication objectives for social media initiatives constitutes a priority for every single hospital: it constitutes the first step for implementing a communication plan (Medina Aguerrebere, 2017). To do that, these organizations should consider three main issues: a) finding synergies between all communication objectives and the hospital's corporate values in order to efficiently influence employees and patients' behaviours (Sheehan & Grant, 2014);

b) promoting public health-related content to help patients reinforce their empowerment (Fischer, 2014); and c) prioritizing a human approach allowing employees and patients to establish enriching communication relationships (Brent, 2016). According to our results, most Canadian hospitals focus on communication objectives related to the brand awareness, especially when it comes to their corporate website: links to medical departments, transversal units, and research-education departments (96,47%), links to other social media platforms (95,30%) and links to the Corporate Communication Department (76,47%). On *Facebook*, most hospitals aim just to present their company: corporate description (98,53%) and corporate videos (91,17%). On *Twitter*, most hospitals focus on disseminating different inputs (treatments, patients' experiences, etc.) rather than publishing integrated corporate content allowing stakeholders to better know the hospital brand; only 23,19% of hospitals use hashtags on their corporate description and just 1,45% display links to other social media platforms. Finally, on *Youtube*, most hospitals' communication objectives are not really clear given that 75% of them only respect between 4 and 5 indicators.

Hospitals prioritize three main targets: patients, employees and journalists. *Patients* are true opinion leaders who should be able to dialogue with doctors in order to reinforce their own empowerment (Visser, Bleijenbergh, Benschop, Van Riel & Bloem, 2016). *Employees* play a key role because their involvement in the company's communication initiatives determines this last one's credibility (Trepanier, 2014). And finally, *journalists* are also a main target because they can help health organizations become a true source of scientific information (Kotsenas *et al.*, 2018). Considering our results, most Canadian hospitals should manage in a more efficient way some of the initiatives that they implement on their corporate website to interact with patients: search engine to find doctors (18,82%), patient platform (15,30%), search engine to find disease (5,88%) and mobile apps for patients (3,53%). As to *employees*, most hospitals try to influence this public through different initiatives, such as an events section on *Facebook* (82,35%) or by using employees' pictures as main profile image on *Twitter* (53,65%). Finally, concerning *journalists*, many hospitals focus on this target: media section on *Twitter* (98,55%), playlists on *Youtube* (98,07%) and press releases on the homepage (60%).

Managing social media for building a credible brand has become a priority for hospitals (Costa-Sánchez & Míguez-González, 2018). The content disseminated on these platforms determines stakeholder's perceptions about the hospital (Triemstra *et al.*, 2018) as well as its own internal functioning, especially patients-doctors' relationships (Miller, Guidy & Fuemmeler, 2019). According to our results, Canadian hospitals should enhance all strategies implemented to disseminate their brand. On *Facebook*, most hospitals do not describe many corporate elements directly related to their brand: corporate awards (98,33%), vision and brand values (95,59%) and mission (91,18%). On *Youtube*, we found similar lacks: awards (100%), brand values

(98,08%), milestones, mission and vision (96,15%). Nevertheless, on *Twitter*, most hospitals protect their brand in a more professional way: links to other corporate websites (98,55%), logo as main profile image (95,65%) and a corporate description (81,16%). Finally, on their corporate website, all hospitals used their corporate logo in order to protect their brand.

Our results proved that most Canadian hospitals consider social media platforms as a strategic tool; nevertheless, many of them do not use these platforms in a performant way. Having a social presence on *Facebook*, *Twitter* and *Youtube* is not enough: hospitals should present their brand and integrate this element in every communication initiative launched on these platforms. Being present on these platforms without explaining in a clear way the hospital's brand architecture (mission, vision, identity, values and culture) constitutes a risk because stakeholders can interpret the hospital's official posts in many different ways. The hospital's brand architecture constitutes a reference to help stakeholders understand the hospital's communication initiatives in a consistent, unambiguous way. On the other hand, many hospitals do not manage their own corporate profiles on social media. These «corporate decisions» avoid each hospital to develop its own brand, which represents a risk in terms of strategic positioning in the health market. Finally, most hospitals should integrate social media platforms and their corporate websites in a more efficient way in order to increase their impact on stakeholders' perceptions. As Calvo-Calvo (2014) stated, hospital's corporate websites should not focus only on disseminating information, but also on facilitating interaction, participation and collaboration. Concerning the brand architecture, having their own corporate profiles and integrating social media platforms and websites are essential elements to help Canadian hospitals manage these platforms in a true professional way.

Despite all results presented on this paper, we can identify three main limitations to our research. First, we did not have access to official documents about Canadian hospitals' communication strategies, so we could not define in an accurate way their communication objectives, targets and brand positionings; besides, we could not check whether these hospitals had a communication department (employees, budget, etc.). Second, we did not find any other scientific publications focused on the same topic and the same methodology, that is why we could not compare our results with other researches carried out in other countries. And third, we did not find any paper or report analyzing patients' perceptions about how Canadian hospitals manage their social media platforms for branding initiatives. During next years, researchers on this domain can focus their publications on different topics such as the impact of personal branding initiatives on the hospital's brand, the role of new social media platforms (*Tik Tok*, *Snapchat*) on hospitals' branding strategies, or the key performance indicators that these organizations should use to evaluate their on-line reputation.

6. Conclusion

Hospitals face a constantly changing context where patients, public authorities, health professionals, suppliers and media companies interact constantly with them through different channels. Implementing a professional management of social media platforms as a corporate communication tool constitutes a true priority for all hospitals interested in building a solid brand and reinforcing their strategic positioning in the health market. This paper aimed to analyze how Canadian hospitals managed *Facebook*, *Twitter*, *Youtube* as well as their own corporate website to reinforce their brand. Our results proved that these hospitals implement three main branding activities on these platforms. First, most Canadian hospitals use their corporate website as a journalistic tool: they disseminate different inputs about the hospital (medical departments, research, education) without doing a true effort for explaining in a creative way how these inputs are consistent with their brand. Second, Canadian hospitals resort to *Twitter* and *Facebook* to interact with patients in different ways (treatments, patients' experiences, hospital's projects); nevertheless, they do not explain in a clear way some key elements such as their mission, vision, values, milestones or awards. And, finally, on *Youtube*, most Canadian hospitals disseminate different videos to prove how performant their treatments are, as well as how involved their professionals are: in other words, they try to build the brand in a collective way along with their stakeholders.

Canadian hospitals should evolve from this «journalistic approach» to a «corporate communication approach» focused on satisfying stakeholders' needs through the dissemination of meaningful content. To do that, we propose three managerial implications. First, hospitals have to invest on social media and implement an in-house department employing different experts in corporate communication, public health and engineering able to work in a professional way according to plans, protocols and key performance indicators. Second, hospitals should train their employees to become «brand ambassadors» who use these platforms in a corporate way, and establish true relationships with all stakeholders. And third, hospitals should accelerate their digital transformation and define synergies between social media platforms, e-health initiatives, mobile apps and big data programs: this is the way to build a meaningful, unique brand.

Specific contribution and order of authorship in the article

Pablo Medina designed the general structure of the paper, developed the original idea and conducted the academic literature review. Eva Medina was in charge of methodology and research work and Toni González was the author of results and discussion. Finally, the three of them wrote the introduction and conclusion.

The reason of the current firm order is that Pablo Medina had the original idea and Toni González assumed more work than Eva Medina in their respective missions.

References

- Attai, Deanna; Sedrak, Mina; Katz, Matthew; Thompson, Michael; Anderson, Patricia; Kesselheim, Jennifer; & Fisch, Michael (2016). Social media in cancer care: highlights, challenges & opportunities. *Future Oncology*, 12 (13), 1549-1552 Doi: <https://doi.org/10.2217/fo-2016-0065>
- Barua, Bacchus; Jacques, David (2019). *Comparing Performance of Universal Healthcare Countries, 2018*. Vancouver: Fraser Institute.
- Basch, C.; Basch, C.; Hillyer, G.; & Reeves, R. (2015). YouTube videos related to skin cancer: A missed opportunity for cancer prevention and control. *JMIR Cancer*, 2 (1), e1. Doi: <https://10.2196/cancer.4204>
- Blomgren, Maria; Hedmo, Tina; & Waks, Caroline (2016). Being special in an ordinary way: Swedish hospitals' strategic web communication. *International Journal of Strategic Communication*, 10 (3), 177-194. Doi: <https://10.1080/1553118X.2016.1176569>
- Brand Finance (2020). *Canada 100 2020 Ranking*. Retrieved from: <https://brandirectory.com/rankings/canada/table> [February 15, 2021].
- Brent, Ruben (2016). Communication theory and health communication practice: the more things change, the more they stay the same. *Health Communication*, 31 (1), 1-11. Doi: <https://10.1080/10410236.2014.923086>.
- Briggs, Paul (2021). *Canada Social Media 2021. Popular Platforms, the Ad Market, and the Rise of Social Commerce*. Ontario: Insider Intelligence.
- Bubien, Yves (2015). Hôpital 2.0: du virtuel au réel. *European Psychiatry*, 30 (8), S74
- Busto-Salinas, Lorena (2021). ¿A más prestaciones sanitarias mayor presencia y actividad en redes sociales? Estudio comparativo entre hospitales de Colombia y España. *Communication & Society*. 34 (1), 93-108. Doi: [doi: 10.15581/003.34.1.93-108](https://doi.org/10.15581/003.34.1.93-108)
- Calvo Calvo, Manuel Ángel. (2014). Calidad y características de los sitios web de los hospitales españoles de gran tamaño. *Revista Española de Documentación Científica*. 37 (1), 1-19. DOI: <https://doi.org/10.3989/redc.2014.1.1049>.
- Canadian Institute for Health Information (2020) Quick stats. Retrieved from: <https://www.cihi.ca/en/quick-stats> [February 15, 2021].
- Costa-Sánchez, Carmen; & Míguez-González, María-Isabel (2018). Use of social media for health education and corporate communication of hospitals. *El Profesional de la Información*. 27 (5), 1145-1150. Doi: <https://10.3145/epi.2018.sep.18>
- Costa-Sánchez, Carmen; Túniz-López, Miguel; Videla-Rodríguez, José-Juan (2016). Hospitales españoles en la web social. Gestión de Facebook y Twitter por el Hospital Sant Joan de Dèu (Barcelona). *Revista Latina de Comunicación Social*. 7, 1108-1130. Doi: <https://dx.doi.org/10.4185/RLCS-2016-1137>

- Deloitte (2020). *Deloitte's Global Media Consumer Survey*. Toronto: Deloitte.
- Epstein, Ronald; Duberstein, Paul; & Fenton, Joshua (2017). Effect of a patient-centered communication intervention on oncologist-patient communication, quality of life, and health care utilization in advanced cancer. The VOICE randomized clinical trial. *Jama Oncology*, 3(1), 92-100. Doi: <https://10.1001/jamaoncol.2016.4373>
- Esposito, Annamaria (2017). Hospital branding in Italy: A pilot study based on the case method. *Health Marketing Quarterly*, 34 (1), 35-47. Doi: <https://10.1080/07359683.2016.1275211>.
- Falisi, A.; Wiseman, K.; Gaysynsky, A.; Scheideler, J.; Ramin, D.; & Chou, W. (2017). Social media for breast cancer survivors: a literature review. *Journal of Cancer Survivorship*, 11 (6), 808-821. Doi: <https://10.1007/s11764-017-0620-5>
- Fischer, Sophia (2014). Hospital positioning and integrated hospital marketing communications: state-of-the-art review, conceptual framework, and research agenda. *Journal of Nonprofit & Public Sector Marketing*, 26 (1), 1-34, Doi: <https://10.1080/10495142.2014.870431>
- Gage-Bouchard, E.; La Valley, S.; Mollica, M.; & Beaupin, L. (2017). Examining how cancer caregivers use Facebook for cancer-related communication. *Cancer Nursing*, 40 (4), 332-338. Doi: <https://10.1097/NCC.0000000000000418>
- Glover, McKinley; Khalilzadeh, Omid; Choy, Garry; Prabhakar, Anand; Pandharipande, Pari; & Gazelle, Scott (2015). Hospital evaluations by social media: A comparative analysis of Facebook ratings among performance outliers. *Journal of General Internal Medicine*, 30(10), 1440-1446. Doi: <https://10.1007/s11606-015-3236-3>
- Haluza, Daniela; Naszay, Marlene; Stockinger, Andreas; & Jungwirth, David (2016). Digital natives versus digital immigrants: influence of online health information seeking on the doctor-patient relationship. *Health Communication*, 32 (11), 1342-1349. Doi: <http://dx.doi.org/10.1080/10410236.2016.1220044>.
- Ivanov, Anton; & Sharman, Raj (2018). Impact of user-generated Internet content on hospital reputational dynamics. *Journal of Management Information Systems*, 35 (4), 1277-1300. Doi: <https://10.1080/07421222.2018.1523603>
- Kotsenas, Amy; Aase, Lee; Arce, Makala; & Timimi, Farris (2018). The social media DNA of Mayo Clinic – and health care. *Journal of American College of Radiology*, 15, 162-166. Doi: <https://doi.org/10.1016/j.jacr.2017.09.026>
- Lagu, Tara; Goff, Sarah; Craft, Ben; Calcasola, Stephanie; Benjamin, Evan; Priya, Aruna; & Lindenauer, Peter (2016). Can social media be used as a hospital quality improvement tool? *Journal of Hospital Medicine*, 11 (1), 52-55. DOI: <https://10.1002/jhm.2486>
- Lim, Weng Marc (2016). Social media in medical and health care: opportunities and challenges. *Marketing Intelligence & Planning*, 34 (7), 964-976. Doi: <http://dx.doi.org/10.1108/MIP-06-2015-0120>
- Liu, Xiaoxiao; Guo, Xitong; Wu, Hong; & Vogel, Doug (2014). Doctor's effort influence on online reputation and popularity. *Smart health - International Conference, ICSH 2014*, Beijing, China, July 10th-11th, 2014.

- Maier, Craig (2016). Beyond branding: Van Riel and Fombrun's corporate communication theory in the human services sector. *Qualitative Research Reports in Communication*, 17 (1), 27-35. Doi: <https://10.1080/17459435.2015.1088892>
- Matarín Jiménez, Tamara (2015). Redes sociales en prevención y promoción de la salud. Una revisión de la actualidad. *Revista Española de Comunicación de Salud*, 6 (1): 62-69.
- McCarroll, Michele; Armbruster, Shannon; Chung, Jae; Kim, Junghyun; McKenzie, Alissa; & Von Gruenigen, Vivian (2014). Health care and social media platforms in hospitals. *Health Communication*, 29 (9), 947-952. Doi: <https://10.1080/10410236.2013.813831>
- Medina Aguerrebere, Pablo (2017). La gestión de la reputación online de las marcas hospitalarias: una propuesta de modelo. *ZER: Revista de Estudios de Comunicación*, 22(43), 53-68. Doi: <https://doi.org/10.1387/zer.17908>
- Míguez-González, María Isabel; García Crespo, Oswaldo; & Ramahí-García, Diana (2019). Análisis de vídeos sobre cáncer de mama en YouTube. *Cuadernos.info*, 44, 179-193. Doi: <https://dx.doi.org/10.7764/cdi.44.1528>.
- Miller, Carrie; Guidry, Jeanine; & Fuemmeler, Bernard (2019). Breast cancer voices on pinterest: raising awareness or just an inspirational image? *Health Education and Behaviour*, 46 (2S), 49-58. Doi: <https://10.1177/1090198119863774>
- Myrick, Jessica; Holton, Avery; Himboim, Itai; & Love, Brad (2016). Stupidcancer: exploring a typology of social support and the role of emotional expression in a social media community. *Health Communication*, 31 (5), 596-605. Doi: <http://dx.doi.org/10.1080/10410236.2014.981664>
- Park, Hyojung; Reber, Bryan; & Chon, Myoung-Gi (2016). Tweeting as health communication: health organizations' use of Twitter for health promotion and public engagement. *Journal of Health Communication*, 21 (2), 188-198. Doi: <https://10.1080/10810730.2015.1058435>
- Peluchette, Joy; Karl, Katherine; & Coustasse, Alberto. (2016) Physicians, patients, and Facebook: Could you? Would you? Should you? *Health Marketing Quarterly*, 33 (2), 112-126. Doi: <http://dx.doi.org/10.1080/07359683.2016.1166811>
- PriceWaterHouseCoopers (2021). *The Digital Disruptors Changing Healthcare in Canada*. Vancouver: PriceWaterHouseCoopers.
- Rando Cueto, Dolores; Paniagua Rojano, Francisco; & De las Heras Pedrosa, Carlos (2016). Influence factors on the success of hospital communication via social networks. *Revista Latina de Comunicación Social*, 71 (1), 170-1.186. Doi: <https://10.4185/RLCS-2016-1140en>.
- Ruiz-Granja, María José (2015). Análisis comunicacional de páginas web hospitalarias. El caso de los hospitales sevillanos. *Revista Española de Comunicación y Salud*, 6(2), 138-56.
- Ryerson University Social Media Lab (2020). *The State of Social Media in Canada 2020*. Toronto: Ryerson University.
- Sedrak, M.; Dizon, D.; Anderson, P.; Fisch, M.; Graham, D.; Katz, M.; Kesselheim, J.; Miller, R.; Thompson, M.; Utengen, A.; & Attai, D. (2017). The emerging role of

- professional social media use in oncology. *Future Oncology*, 13 (15), 1281-1285. Doi: <https://10.2217/fon-2017-0161>
- Sedrak, M.; Cohen, R.; Merchant, R.; & Schapira, M. (2016). Cancer Communication in the social media age. *JAMA Oncology*, 2 (6), 822-823. Doi: <https://10.1001/jamaoncol.2015.5475>
- Sheehan, Norman; & Grant, Isaac (2014). Principles operationalize corporate values so they matter. *Strategy & Leadership*, 42 (3), 23-30. Doi: <https://10.1108/SL-03-2014-0021>
- Smailhodzic, Edin; Hooijmsma, Wyanda; Boonstra, Albert; & Langley, David (2016). Social media use in healthcare: A systematic review of effects on patients and on their relationship with healthcare professionals. *BMC Health Services Research*, 16, 442. Doi: <https://10.1186/s12913-016-1691-0>
- Statista (2020). *Smartphone users in Canada 2018-2024*. Retrieved from: <https://www.statista.com/statistics/467190/forecast-of-smartphone-users-in-canada> [February 15, 2021]
- Statista (2021). *Number of monthly active Facebook users worldwide as of 4th quarter 2020*. Retrieved from: <https://www.statista.com/statistics/264810/number-of-monthly-active-facebook-users-worldwide/> [February 15, 2021]
- So, Jiyeon; Prestin, Abby; Lee, Lyndon; Wang, Yafei; Yen, John; & Chou, Wen-Ying (2016). What do people like to «share» about obesity? A content analysis of frequent retweets about obesity on Twitter. *Health Communication*, 31 (2), 193-206. Doi: <http://dx.doi.org/10.1080/10410236.2014.940675>.
- Strauck Franco, M.; & Guillén Arruda, C. (2017). Twitter como herramienta para la comunicación en salud en el contexto del fomento de la donación de órganos en el Perú. *ZER: Revista de Estudios de Comunicación*, 22(42), 189-209. <http://dx.doi.org/10.1387/zer.17841>
- Trepanier, Sylvain; & Gooch, Pidge (2014). Personal branding and nurse leader professional image. *Nurse Leader*, 12 (3), 51-57. Doi: <http://dx.doi.org/10.1016/j.mnl.2014.03.005>
- Triemstra, Justin; Stork, Rachel; & Arora, Vineet (2018). Correlations between hospitals' social media presence and reputation score and ranking: cross-sectional analysis. *Journal of Medical Internet Research*, 20 (11), e289. Doi: <https://doi:10.2196/jmir.9713>.
- Visser, Laura; Bleijenbergh, Inge; Benschop, Yvonne; Van Riel, Allard; & Bloem, Bastiaan (2016). Do online communities change power processes in healthcare? Using case studies to examine the use of online health communities by patients with Parkinson's disease. *British Medical Journal*, 6, e012110. Doi:10.1136/bmjopen-2016-012110
- Yeob, Jeong; Hawkins, Robert; Baker, Timothy; Shah, Dhavan; Pingree, Suzanne; & Gustafson, David (2017). How cancer patients use and benefit from an interactive cancer communication system. *Journal of Health Communication*, 22 (10), 792-799. Doi: 10.1080/10810730.2017.1360413
- Zerfass, Ansgar; & Viertmann, Christine (2017). Creating business value through corporate communication: A theory-based framework and its practical application. *Journal of Communication Management*, 21 (1), 68-81. Doi: <https://doi.org/10.1108/JCOM-07-2016-0059>.

Annex 1. List of hospitals analyzed

1. Toronto General Hospital
2. North York General Hospital
3. Rockyview General Hospital
4. Jewish General Hospital
5. Sunnybrook Health Sciences Centre
6. Montreal General Hospital (McGill University Health Centre)
7. Royal Jubilee Hospital (RJH)
8. The Royal Victoria Hospital (McGill University Health Centre)
9. Vancouver General Hospital (VGH)
10. Foothills Medical Centre
11. Centre hospitalier de l'Université de Montréal (CHUM)
12. Victoria General Hospital
13. Toronto Western Hospital
14. Peter Lougheed Centre
15. Mount Sinai Hospital
16. St. Paul's Hospital
17. Grace Hospital
18. Lachine Hospital (McGill University Health Centre)
19. Humber River Hospital
20. Queen Elizabeth II Health Sciences Centre
21. Hôpital de l'Enfant-Jésus (CHU de Québec-Université Laval)
22. St. Michael's Hospital (Toronto)
23. Kelowna General Hospital
24. UBC Hospital (UBC)
25. Queensway Carleton Hospital
26. Misericordia Community Hospital, Covenant Health
27. Victoria Hospital (London, Ontario)
28. Grey Nuns Community Hospital, Covenant Health
29. The Ottawa Hospital
30. Kingston General Hospital
31. St. Joseph's Healthcare Hamilton
32. Health Sciences Centre Winnipeg
33. Royal Columbian Hospital
34. Seven Oaks General Hospital
35. Southlake Regional Health Centre
36. Royal Alexandra Hospital
37. St. Boniface Hospital
38. University of Alberta Hospital
39. The Credit Valley Hospital (Trillium Health Partners)
40. Mackenzie Richmond Hill Hospital
41. St. Mary's Hospital Centre/Centre hospitalier de St. Mary
42. Grand River Hospital

43. Oakville Trafalgar Memorial Hospital
44. Centre hospitalier de l'Université Laval (CHU de Québec-Université Laval)
45. Michael Garron Hospital
46. St. Joseph's Health Centre
47. Regina General Hospital
48. McMaster University Medical Centre (Hamilton Health Sciences)
49. Mississauga Hospital (Trillium Health Partners)
50. Bluewater Health
51. Victoria General Hospital, MB
52. Etobicoke General Hospital (William Osler Health System)
53. Juravinski Hospital (Hamilton Health Sciences)
54. Brampton Civic Hospital (William Osler Health System)
55. Hôpital Maisonneuve-Rosemont
56. Chaleur Regional Hospital
57. Saskatoon City Hospital
58. University Hospital (London, Ontario)
59. Dr. Georges-L.-Dumont University Hospital Centre
60. Yorkton Regional Health Centre
61. Hôpital du Saint-Sacrement (CHU de Québec-Université Laval)
62. Markham Stouffville Hospital – Markham Site
63. Milton District Hospital
64. Hôpital Montfort
65. Hamilton General Hospital (Hamilton Health Sciences)
66. Joseph Brant Memorial Hospital
67. Valley Regional Hospital
68. Hôpital Notre-Dame (Centre hospitalier de l'Université de Montréal)
69. Lions Gate Hospital
70. Richmond Hospital
71. Royal University Hospital
72. QHC Belleville General Hospital (Quinte Health Care)
73. Peace Arch Hospital
74. Cape Breton Regional Hospital
75. Guelph General Hospital
76. St. Mary's General Hospital
77. Scarborough Health Network
78. Hôpital du Sacré-Cœur de Montréal
79. Queen Elizabeth Hospital
80. Lakeridge Health Oshawa (Lakeridge Health)
81. Surrey Memorial Hospital
82. Thunder Bay Regional Health Sciences Centre
83. Miramichi Regional Hospital
84. The University Hospital of Northern British Columbia
85. Medicine Hat Regional Hospital