2021 Edition

Primary Care Online Booking Report

*Factors in online booking implementation that promote a **sustainable** and **efficient** medical clinic practice.*

CORTICO
Health Technologies

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Primary Care in a Post-COVID Environment

Many medical clinics struggled under the weight of the initial COVID pandemic due to the drastic shift towards delivering healthcare in a virtual setting, as well as the indirect impact of labour shortages. In parallel to this, new technologies have changed the landscape of medical clinics, enabling clinic managers to access both software and hardware that supports the need for immediate scalability. In particular, telemedicine enabled patients to access healthcare during the initial crisis (growing in urban Ontario from 7 visits per 1,000 patients prior to COVID-19, to 220 visits per 1,000 during the pandemic[1]). Overall, these trends have resulted in outsized growth for clinics who adopt digital tools effectively, and contraction in business for those who do not.

Recently (June 2021), according to one source comparing monthly changes to the volume of telehealth claim lines across the USA[2], telehealth utilization fell nationally for three months in a row, suggesting that clinics may return to full in-person booking volume for visits.

[1] Journal of Medical Internet Research (2021)

[2] *Monthly Telehealth Regional Tracker*, FAIR Health, utilizing data up to June 2021

As vaccination rates increase, and appropriate safety measures are put in place, we expect patients to prefer accessing healthcare in person, particularly those patients that require physical examinations. In fact, on September 3, 2021, the College of Physicians and Surgeons of BC issued guidance[3] encouraging doctors to return to in-person healthcare delivery. In other provinces, reimbursement rates for doctors seeing patients virtually has be modified to encourage doctors to see patients in clinic.

Online Booking in Healthcare

Research consistently demonstrates significant benefits for patients and providers alike when clinics and medical facilities utilize digital tools effectively and streamline their workflows (Krausz et al., 2020; LeBlanc et al., 2020). In particular, self-booking platforms and open access scheduling improve metrics and reduce administrative costs across various medical services contexts (Habibi et al., 2019; Wong, 2021).

Cameron et al. (2010) provided early metrics on open access scheduling as an effective tool, finding **overall patient access improved** and **no-show appointments declined**. In a more recent longitudinal Nova Scotian study, Poya & Quiraishi (2020) found that the introduction of an effective digital booking and triage system produced a **33% reduction in wait-listed referrals** for clinic specialists.

A study from Jabour (2020) found no meaningful correlations in its investigation between specific factors of EMR use and waiting time across the patient visit lifecycle, but they uncovered an incidental side variable relationship: the use of electronic booking systems **significantly reduced** the registration time required for new patients.

Similarly, Smith et al. (2020) established that patients' reasons for cancelling or rescheduling appointments can be complex and multifaceted, which suggests that providing free agency to rebook within the bounds of a clinic's booking policies could empower patients, while reducing valuable staff time spent on calls and scheduling.

[3] Full statement can be found at www.cpsbc.ca

Online Booking Research insights

Impact of online booking on competitiveness

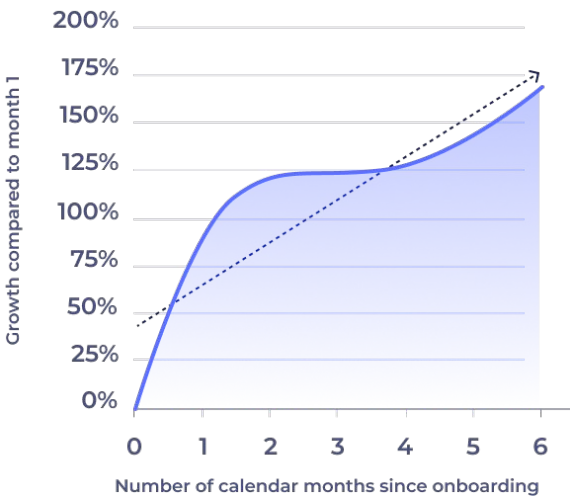
Patient experience (satisfaction) may be considered as a primary goal for medical clinics, as it drives revenue sustainability, and serves as a key determinant in recruiting and retaining talent. When reviewing patient feedback, we found three common complaints from patients in primary care are:

1. Effort and time required to book an appointment
2. Difficulty communicating with the clinic
3. Insufficient time spent with the doctor

An online booking system can reduce complaints by elevating the patient experience:

- Difficulties accessing medical services can be mitigated.[4]
- Doctors have a more efficient schedule, allowing them to allocate more of their time and attention directly to patients' health.

Fig. 1 *Average monthly booking growth per doctor*



Doctors who leverage an online booking system see significant benefits across multiple metrics. For example, patient wait times and no-show rates were measurably improved in a multi-clinic study abroad (Habibi et al., 2019).

As depicted in ***Fig. 1***, the present research found that after six months of using online booking software, doctors on average saw a 60% (and growing) increase in online bookings, relative to the baseline at launch.

[4] *Medical Clinic Technology Case Study*, Cortico Health Technologies and Kensington Medical Clinic, 2020.

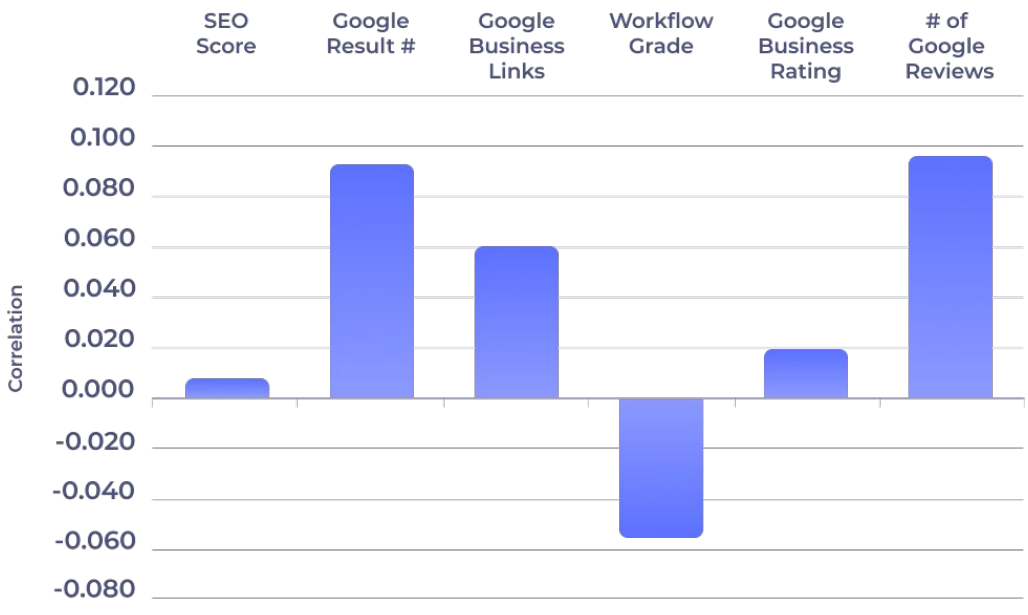
Online Booking Research insights

Impact of online presence on revenue sustainability

When anonymized booking metadata from our platform was analyzed, the results showed medical clinics' increased online presence correlates positively with monthly booking growth.

In particular, visibility on Google Search, a properly linked Google Maps listing, and larger number of Google Reviews were correlated with total online booking volumes. This suggests many patients find medical services on Google Maps (which we can also verify from analytics data)

Fig. 2 *Factors affecting monthly bookings (see Table 1 (next page) for definitions)*



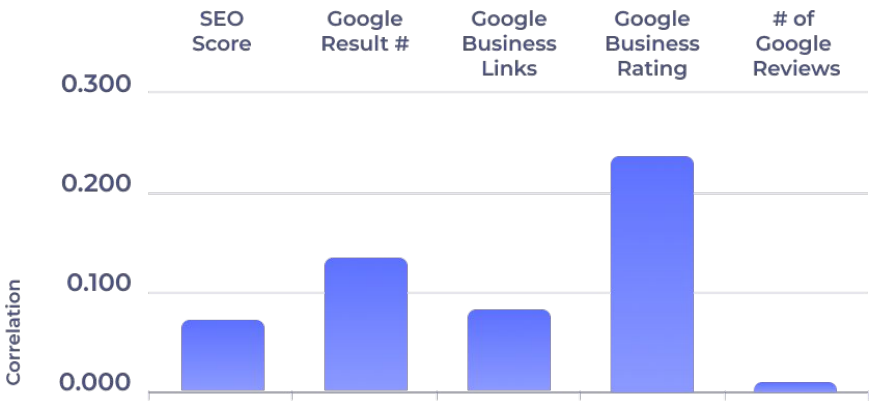
Booking software: Research insights

Impact of online presence on revenue sustainability

Table. 1 *Metrics captured*

QueueScore [SEO score]	An in-house metric that measures how easily a patient can find a clinic's Cortico booking link on a website. Approximately the number of clicks or decisions required for an end user to begin booking an appointment
GoogleResult#	The position in search results, when searching for a clinic by name on Google.
GoogleMaps [Google Business Links]	Full value if both the clinic website and online booking linke are included in the Google MyBusiness Listing. Half points if just one of these links included.
WorkflowGrade	The percentage of patients who succeed in finding and selecting an appointment. (Failures can be due to a full provider schedule)
GoogleBusinessRating	The average star rating (from 1-5) across all the clinic's locations listed on Google MyBusiness.
#GoogleReviews	The total number of Google MyBusiness reviews and ratings across all locations.

Fig. 3 *Factors affecting new patient registrations*



As shown in ***Fig. 3***, clinics' average Google Ratings showed the greatest correlation to new patient registrations, indicating that patients looking for a new family practice may consider other patients' reported experiences as important when choosing medical services. However, the data also demonstrated that clinics with more Google Reviews (positive or negative) are more likely to show increasing monthly bookings overall.

Therefore, further research will be required to validate that online reviews are a direct cause of increased business, and to further clarify the degree and type of qualitative review new patients might conduct online when seeking a new family practice.

Conclusion

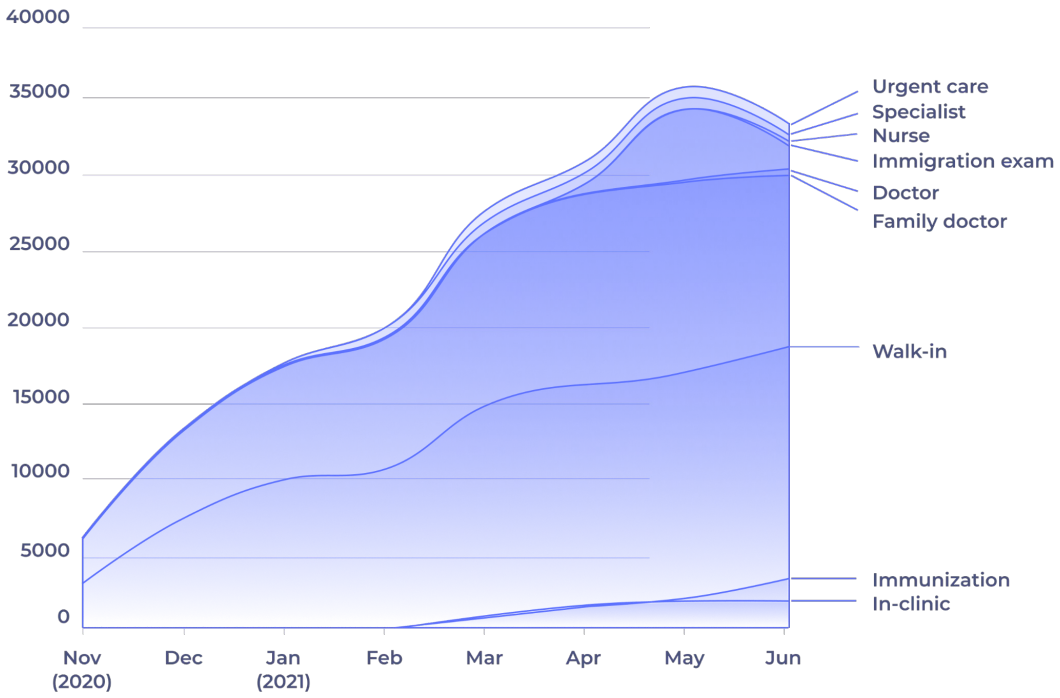
Summary of findings, and the dataset used.

Rising costs, turnover or shortages of support staff, and reduced or irregular booking volume can all severely impact competitiveness in primary care clinics. In the pandemic environment, functions once performed by office staff now pose a significant barrier to sustaining a medical practice. In addition, patients that perceive an unsatisfactory experience might seek future healthcare services elsewhere.

Even after accounting for normal seasonal changes, the data indicate that clinics which implement online booking effectively, experience more sustainable growth rates, and can more accurately forecast their labour requirements.

In ***Fig. 4***, month-to-month patient bookings by medical service type were aggregated based on the automated workflows supported on the Cortico platform.

Fig. 4 *ortico Dataset used for this study , 2020-2021*



About Cortico

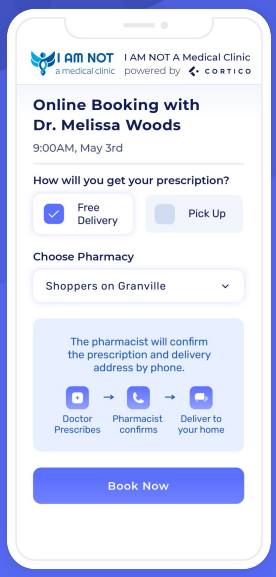
This publication was created by staff of Cortico Health Technologies Inc. Having helped over a hundred clinics thrive during a pandemic which saw many of their peers struggle or close up shop entirely, we hope that with this publication we can share useful lessons for success to primary care clinics outside our current network.

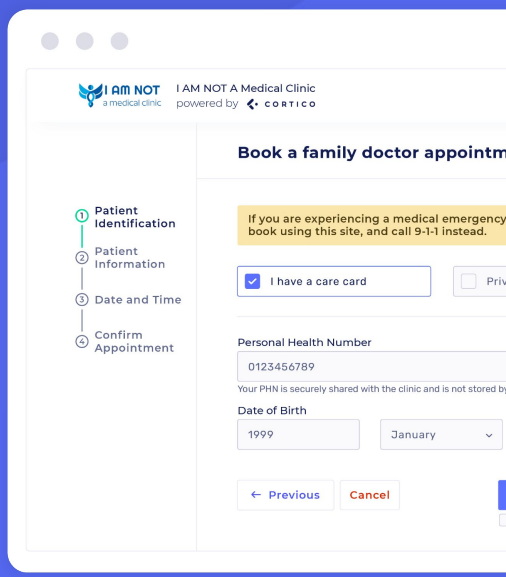
Founded by Dr. Greg Baldwin and Clark Van Oyen in 2015, Cortico empowers medical clinics with technology to automate operations and improve the quality of patient care.

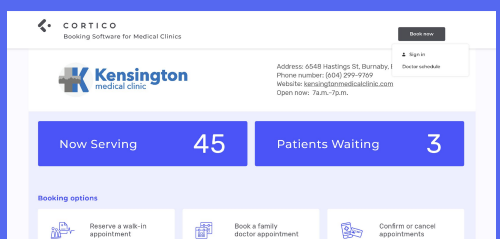
Cortico works with many EMRs to provide **online booking, SMS reminders, recalls, fee collection, telehealth, registration kiosks** and much more

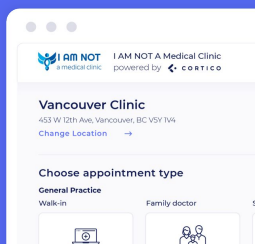
Cortico's mission is to save every healthcare professional an hour per day, currently lost to poor software experiences. We do this by continuously measuring and improving outcomes for medical businesses and patients.

Learn more at **www.cortico.health**









References

Cameron S, Sadler L, Lawson B. Adoption of open-access scheduling in an academic family practice. Canadian Family Physician. 2010;56:906-911.

Habibi MRM, Mohammadabadi F, Tabesh H, Vakili-Arki H, Abu-Hanna A, Eslami S. Effect of an online appointment scheduling system on evaluation metrics of outpatient scheduling system: a before-after multicenter study. J Med Syst. 2019;43(8):281. doi:10.1007/s10916-019-1383-5

Jabour AM. The impact of Electronic Health Records on the duration of patients' visits: time and motion study. JMIR Med Inform. 2020;8(2):e16502. doi:10.2196/16502

Krausz M, Westenberg JN, Vigo D, Spence RT, Ramsey D. Emergency response to COVID-19 in Canada: platform development and implementation for eHealth in crisis management. JMIR Public Health Surveill. 2020;6(2):e18995. doi:10.2196/18995

LeBlanc M, Petrie S, Paskaran S, Carson D, Peters P. Patient and provider perspectives on eHealth interventions in Canada and Australia: a scoping review. RRH. Published online September 19, 2020. doi:10.22605/RRH5754

Poyah PS, Quraishi TA. The impact of a new triage and booking system on renal clinic wait times. Can J Kidney Health Dis. 2020;7:205435812092414. doi:10.1177/2054358120924140

Smith H, Brunet N, Tessier A, Boushey R, Kuziemsky C. Barriers to colonoscopy in remote northern Canada: an analysis of cancellations. International Journal of Circumpolar Health. 2020;79(1):1816678. doi:10.1080/22423982.2020.1816678

Wong M. Self-scheduler for dental students booking consultations with faculty during the COVID-19 pandemic. J Dent Educ. Published online May 13, 2021:jdd.12642. doi:10.1002/jdd.12642