

Understanding COVID-19: Comparing all three waves in India

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Foreword

The world is getting digital and much more exciting than we ever imagined in the metaverse age!

Way back in 2012, for one of the world's largest and revered Healthcare providers, digital consultations overtook face-face consultations. So, the medical consultation moved digital a long time back, and with COVID, this has proliferated worldwide.

Over the past two years, I am sure you have used a digital



tool to seek health-related information or advice. The adoption as individuals may be high double digits, but adoption as a family has touched nearly 100 percent of those with a mobile phone. Healthcare continues to move digital and more so, considering COVID-19.

The healthcare providers must realize one fact; we must be where the patients are, online: searching about the symptoms, self-care, and doctors. Last month, one of my family members visited me in Delhi and developed a severe toothache, and the best option recommended was Practo. She found the doctor and was super happy with the treatment. I have extensively used digital consultations, ePrescriptions, and digital referrals, and second opinions. So, imagine how things are changing and how we are changing, and this is here to stay and grow!

For most of us who have been championing digital adoption over the past two decades, this digital health revolution is not just evolutionary; it is revolutionary – either corporates or technologists have led the first two revolutions, and this time, this is being led by patients. A bottom-up movement always trumps all barriers.

This study reveals that digital health adoption is growing exponentially across urban, rural areas, specialties, and age groups.

As work from home (WFH) becomes a reality, Consult from Home (CFH) is also becoming prominent. The hybrid model of care is a reality; get on board!

I congratulate Shashank and team Practo for this insightful report.

Prof. Rajendra Pratap Gupta

Author of the best-seller: 'Digital Health – Truly Transformational.'

Chairman - Digital Health Academy & Health Parliament

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Note to readers

Shashank ND - Co-founder and CEO, Practo

The emergence, acceptance and adoption of telemedicine has opened windows of opportunity for healthcare to be better and more inclusive. Saddled by various challenges amid multiple waves of the COVID-19 pandemic, the industry adapted by transitioning into a **digitally-enabled** healthcare delivery system led by private companies and supported by various government initiatives.



With the sector inching closer towards coming full circle with traditional in-person interactions co-existing with digital care, this 'phygital' model will inform the way forward for a more patient-centered, quality care. As a company offering and advocating for integrated healthcare solutions even before the pandemic, this shift has enabled us to grow, moulding our understanding of the potential of telemedicine in creating sustainable solutions that not only allows for greater access by delivering care to remote parts of the country, but also helps drive down costs.

But this cannot be achieved in silos. As with any industry, **healthcare is a product of how individual players in the system think and act.** Supported with the right resources, they must work together to research, develop and deliver bold solutions that fit the needs of consumers, and in the process, thrive alongside each other. A vibrant private sector is key to India's growing healthcare ecosystem, and its confluence with the public sector will play a key role in building and cultivating the necessary infrastructure to democratize healthcare.

With this, there is reason for optimism in envisioning a world where quality healthcare is accessible and affordable to all. We may be far from where we need to be, but this is the time to ask ourselves what actions we must take to influence what happens next. **Diverse participation leads to more robust solutions**, and even as some of these collaborations were forged over an urgent need to deliver quality care during the peak of the pandemic, it is imperative that we use this as a stepping stone to our next opportunity, and seek a shared path forward.



Executive summary

Dr Alexander Kuruvilla

Chief Health Strategy Officer, Practo

India's healthcare system saw a paradigm shift in its approach to deliver care during the COVID-19 pandemic. In managing the crisis - especially through all three waves in India - there has been a tremendous growth in telemedicine, raising the possibility of a future where digital healthcare services will coexist with in-clinic visits in a hybrid set-up.



Indicating the start of such a transition, nearly a quarter of the total users on Practo consulted for COVID-19 during all three waves. While online doctor consultation has become

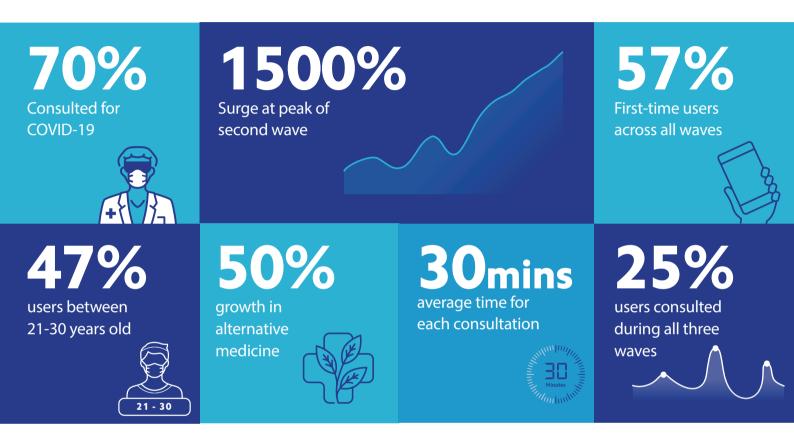
widely popular as a quick and convenient way to seek timely care, we were pleasantly surprised to find that the average time spent by a patient with a doctor online on Practo during this time was 30 minutes, which is comparable to in-person visits.

What makes this even more impactful is its pervasiveness in non-metro cities where hospitals and district-level medical facilities are inadequate. In fact, although online consultations specifically for COVID-19 decreased over time (perhaps due to low testing, and lack of awareness or acceptance of the disease), overall online consultations across specialties continued to grow in non-metros with each wave, along with in-person visits.

Regarding consultations associated with COVID-19, as expected, the second wave saw a massive surge, as demand for General Physicians, Pulmanologists, Cardiologists and Gynecologists remained high, especially among young people. With a focus on other key insights during this wave of the pandemic, this report, in addition to drawing a comparison between all three waves, also summarizes the post-COVID impact registered over the last few weeks.

Isolation amid successive lockdowns, trauma of death in the family due to COVID-19 or associated ailments, and anxiety about an uncertain future have brought the discourse on mental health to the fore, demonstrated by an increase in online doctor consultations with psychiatrists on Practo during the second wave. Another significant development has been a rising interest in alternative medication like ayurveda and homeopathy, as the natural resilience and immunity of the body came into sharp focus during the pandemic.

Riding the **DIGITAL HEALTHCARE** wave through the COVID-19 pandemic



Top specialities during waves:







General Physician



Pediatrics

Top specialities post waves:



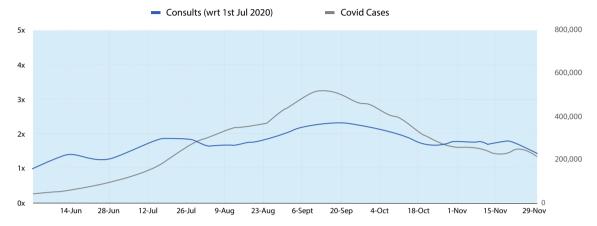




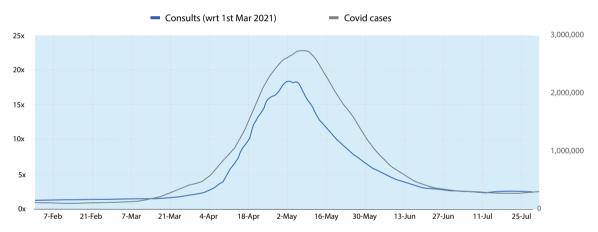


COVID-19Consultations and COVID-19 Cases

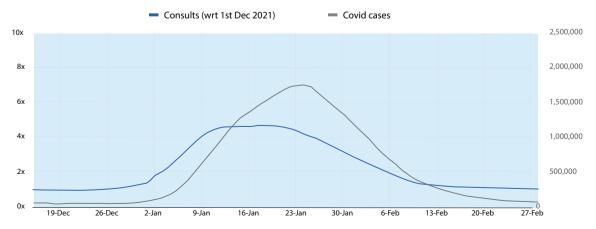
Base line for online consultation has been increasing after every wave.



With awareness and perception about the pandemic still building during the first wave, online consultations did not register sharp growth during this phase.



The number of online consultations rose rapidly in the first week of May, and then gradually declined as COVID-19 cases also came down.



Akin to active COVID-19 cases at the time, online consultations leveled in the month of December, before rising sharply during the first three weeks of the new year, followed by a gradual decline



Top specialities

Online consultations with General Physicians and Gynecologists were high during all three waves of the pandemic. Some of the top concerns in Gynecology included irregular periods and abnormal menstrual cycles. Many expectant mothers were also reaching out for regular advice on nutrition and exercise.

In the first wave of the pandemic, Dermatologists and ENT specialists were widely consulted. This was mainly because many COVID-19 patients suffered from sore throat and associated symptoms, and several reported various kinds of skin manifestations depending on the severity of their illness. Coupled with the fact that doctors were also beginning to turn to online channels to minimize the risk of transmission, online consultation for these specialties became common during this time.

The second wave saw a significant increase in consultations with Pulmonologists and Cardiologists.

This was because of acute respiratory distress and chest pain or palpitations associated with the Delta variant of the Coronavirus.

Unlike the first two waves, the **third wave** saw a marked increase in consultations with **Pediatricians**. This may be due to the fact that schools had begun to reopen at several places, and many surmising that children are most likely to be affected during this wave.

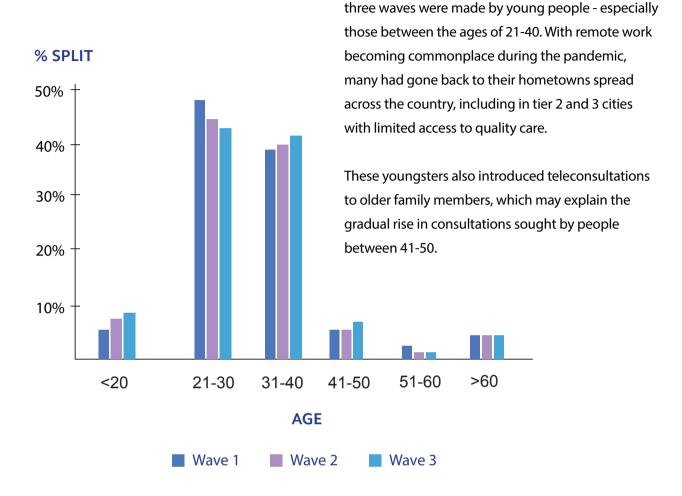






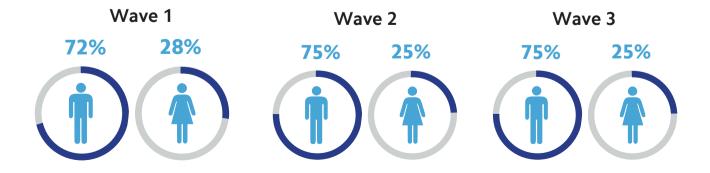
The bulk of online consultations on Practo across all

Age group



Gender

Since the pandemic, the number of male and female users of online consultations on Practo has been significantly skewed towards the former.





Online Consultations

Metro

Non Metro

In-person visits

MetroNon Metro

Metro vs Non-metro

The internet has become more diverse and inclusive in India with the availability of cheap smartphones and affordable data plans.

During the pandemic, as digital healthcare services became widely accepted and adopted, its impact in non-metro cities has been tremendous.

Despite COVID-19-related online consultations in non-metros dropping with each wave, overall consultations grew significantly in the last two years. In discovering the merits of teleconsultations, and in many cases, by being newly initiated into the world of online care, they have been increasingly turning to online consultations for a variety of ailments.

Wave 1 Wave 2 Wave 3 Meanwhile, the number of users in metro cities for COVID-19-related online consultations continued to rise with each wave for the ease, affordability and value it offered. Delhi Lucknow Kanpur Indore **Ahmedabad** Bhubaneshwar Mumbai Top metro and Secunderabad Hyderabad non-metro cities Vishakapatnam across all three waves **Bangalore** Chennai

100%

80%-

60%

40%

20%

0%

100%+

80%

S 60% 40%

20%

0%

Wave 1

Wave 2

Wave 3



Top 3 specialities during all three COVID-19 waves in India

General Physician

Growth

Most discussed queries

604% 261% Wave 1 Wave 2 Wave 3

Consultations with General Physicians (GPs) were high during all three waves of the pandemic, peaking amid the Delta-led second wave. In fact, we facilitated COVID-19-related consultations with GPs every single day since March 2020.



Runny rose



Telehealth has multiple applications, optimal care and virtual care is possible and extremely helpful in a pandemic scenario like COVID-19. It uses high definition transmission and clarity to provide rapid, accurate and real time consultation from professionals with expertise. Healthcare professionals can evaluate, diagnose and treat in a seamless environment.. Patients are proactively using healthcare to manage their health and telehealth is a great alternative and has the potential to reach exponential levels.

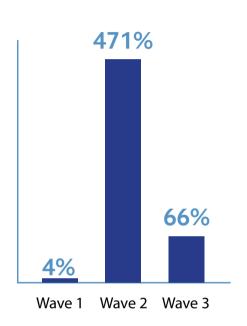
Cold



Gynecology



Growth



Even as consultations with Gynecologists grew marginally during the first wave, it sharply picked up after April 2021 with the second wave.

Most discussed queries

Wave 1





Irregular periods

PCOD

Early pregnancy

Wave 2







Abdominal Pain

UTI

Irregular periods

Wave 3







Infertility

PCOD

UTI



During the first two waves, we witnessed many first and second trimester miscarriages, pre-term labor, and delayed periods. After the third wave, many queries were about the struggle to conceive. In fact, the outcome of IVF cycles among women who recently recovered from COVID-19 were not good. In men, bad quality eggs, poor response to medicines, and low sperm count were common.

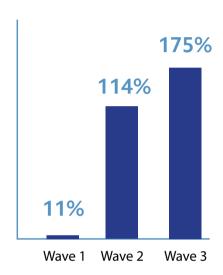
-Dr Arockia Virgin Fernando, Infertility Specialist & Gynecologist, Cloud Nine Fertility, Bengaluru



Pediatrics

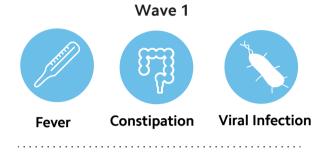


Growth

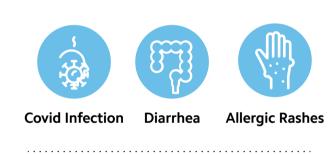


Unlike most top consulted specialties during the pandemic, pediatrics peaked during the third wave amid panic over news that minors or children below 18 years of age will be greatly impacted by the Omicron variant of the Coronavirus.

Most discussed queries



Wave 2



Wave 3



Fever

Covid vaccine for children



Vomiting



Online consultation was a big game-changer during the COVID-19 pandemic, especially during the second and third waves. While clinic appointments have risen after the third wave, we are still seeing a sustained interest among patients for online consultations as they are now used to it.

-Dr Chandan Barnwal, Pediatrician, Baba Baidyanath Medical in Kokar, Ranchi

Specialties that grew sharply during the second wave

Pulmonology



Growth during 2nd wave



Most discussed queries







Covid-19

Asthma

Bronchitis

It is now well known that the Delta wave affected the lung tissues of patients more than any other variant. With this, pulmonologists were widely consulted during the second wave, with many turning to virtual channels to speak to healthcare experts.



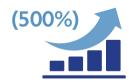
"While there was no demand for pulmonology-related online consultations during the first wave, we saw a huge spike in the second wave. In the third wave, online consultations and in-person appointments were almost equal in our practice. Today, we are still seeing patients online as patients get used to consulting doctors on their phones.

- Dr Vivek G, Pulmonologist

Gastroenterology



Growth during 2nd wave



Most discussed queries







Constipation

Gastritis



While in-clinic appointments were relatively low early in the pandemic, they were largely supplemented by teleconsultations, especially in the second wave. In-clinic consultations have now again climbed close to pre-pandemic levels.

- Dr. Piyush Gupta, Gastroenterologist, Delhi



Cardiology



Growth during 2nd wave



Most discussed queries







Chest pain

Dyslipidemia

Hypertension

With several cases of cardiac arrests associated with vigorous exercises - possibly connected to COVID-19 - dominating the news cycle after the second wave, many turned to cardiologists to check the health of their heart.



The Coronavirus' pro-inflammatory, pro-thrombotic impact resulted in a wide range of cardiac manifestations, ranging from heart rhythm abnormalities, heart attacks, heart failure and sudden cardiac death. Although these were seen across all variants, they were more common with the delta variant.

-Dr Rajpal Singh, Director and Interventional Cardiologist, Fortis Hospitals, Bengaluru

ENT



Growth during 2nd wave



Most discussed queries







Tinnitus

Tonsillitis

Pharyngitis



Surgical procedures and in-person appointments during the COVID-19 pandemic were limited only to emergency conditions, with many patients preferring online consultations because of the lockdown. In fact, we saw a massive increase in online consultations during the second wave of the pandemic. We still get requests for teleconsultations after the third wave as well as our patients have now realized its advantages, especially for non-emergency conditions.

Dr Rajesh Kr Bhardwaj, MS, DNB (ENT), Otorhinolaryngologist

Specialties that recorded significant growth post the waves

Diabetology



Growth post all three waves



>450%

Most discussed queries







Diahetes

Hypothyroidism Hypertension



"Many clinical studies have shown that COVID-19 patients who have diabetes mellitus develop a severe clinical course, and have been reported as one of the most common comorbidities with higher mortality or deaths. We, thus, requested people with diabetes to take extra care to keep their blood sugar under control during the pandemic."

-Dr Amitabh Khanna, Diabetologist

Opthalmology



Growth post all three waves



>650%

Most discussed queries







Dry eyes

Allergic conjunctivitis

Cataract



Each wave of COVID-19 had a different presentation as far as eye-related issues were concerned. During the first wave, we hardly saw eye-related problems in COVID patients. This was probably because our awareness about COVID itself was quite rudimentary at the time. The second wave saw the emergence of black fungus as a major life and vision threatening presentation. During the third wave, eye symptoms were generally less and were mainly confined to dryness of the eyes.

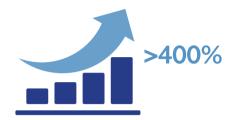
-Dr DP Prakash FRCS Ophthal, DNB DO MBBS Ratan Tata Fellow, American Eyecare & LASIK Centre



Orthopedics



Growth post all three waves



Most discussed queries







Lumbar spondylosis

Fascitis

Arthritis



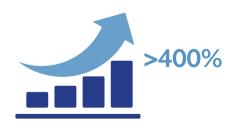
COVID-19 is a viral infection that has had effects on the body's nervous system. There were many side effects caused by the Coronavirus. One of the severe side effects across waves was myalgia, where there is pain in the bones, muscles, and/or exhaustion. Affected people had problems walking, pain in joints, back pain, neck pain and vertigo, among others.

-Dr B.S. Murthy, Orthopedic specialist

Neurology



Growth post all three waves



Most discussed queries







Migraine

Cervical spondylosis

Radiculopathy



COVID-19 brought about a sea change in how patients viewed online consultations. Teleconsultations in neurology increased manifold during the second wave, bringing in patients from diverse geographical locations onto platforms like Practo as the acceptance of online consultations grew. Now, after the pandemic, though the demand for teleconsults has gone down and in-clinic consultations have reached the pre-pandemic levels again, we still see more readiness among our patients to use online platforms for follow-ups and non-emergency consults.

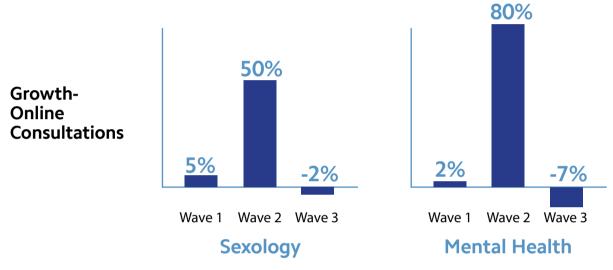
-Dr Advait Kulkarni, Chief Neurologist, MANIPAL Hospital



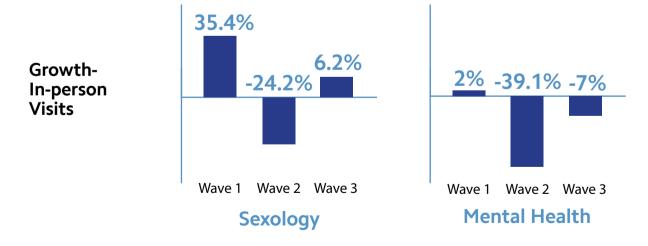
Sexual and mental health

during the COVID-19 waves

Even as consultations in several specialties grew exponentially during the pandemic, certain specialities remained unaffected and did not record any significant growth. These are largely unrelated to COVID-19, and may be one of the reasons why it wasn't a priority for many.



Even as in-person visits to sexologists and psychiatrists grew at levels similar to pre-COVID times during the first wave, the second wave saw a massive spike with many experiencing changes to their physical and mental well-being amid multiple lockdowns. These visits came down significantly after that and declined during the third wave.





In the COVID-19 pandemic, the world locked their minds and chased the virus both outside the body and within. With great priority to prevent death, mental health was largely ignored. Minds that were locked for two years are exploding now with the mental health pandemic unfolding and visible at clinics of psychiatrists.

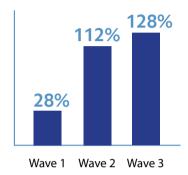
-Dr Harish Shetty, Psychiatrist, Dr L H Hiranandani Hospital



Alternate medicine grew during the COVID-19 waves

Homeopathy

Growth



Most discussed queries





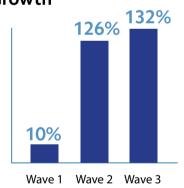


symptoms

Gastritis

Hairfall

Ayurveda Growth



Most discussed queries







Indigestion

Covid **Symptoms**

Diabetes



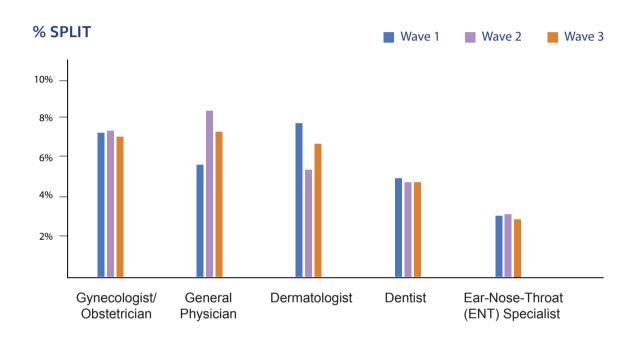
The COVID-19 pandemic brought with it significant changes in consumer behavior, especially when it came to how holistic well-being can be attained. With the natural resilience of the body coming into sharp focus as the virus reacted differently in different people, immunity boosters and food supplements became a common way of life along with allopathic medication. This gave rise to the popularity of homeopathy solutions as well as ayurveda.

-Dr Alexander Kuruvilla Chief Health Strategy Officer, Practo

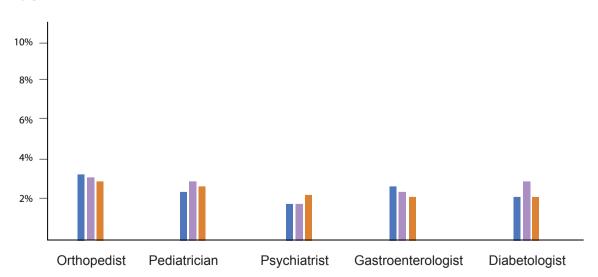


COVID-19 related in-person visits during the waves

Top 10 specialties



% SPLIT





Like online consultations, in-person appointments with General Physicians was high during all three waves of the pandemic in India, peaking during the most severe phases of the crisis in the second wave. Similarly, even as many sought Gynecologists online for a variety of reasons, women also booked appointments with their doctors for conditions that may require a physical examination or warrant an emergency visit to the clinic.

Furthermore, although online consultations for mental health remained stagnant during this time, there was an uptick in in-person appointments with psychiatrists. Through times of uncertainty and isolation amid successive periods of lockdowns, it does not come as a surprise that people sought medical intervention to help them work their way through mental illness.

With in-person appointments for certain specialties like dentistry being more effective, it continued to be one of the top specialties even during the three waves. Other specialties like Orthopedics, dermatology and ENT also continued to grow.

Akin to online consultations, in-person appointment booking also grew with each wave in India, especially in metro cities. In non-metro cities, as people slowly became acclimated to digital healthcare services, they understood the value of setting up doctor appointments in advance during the pandemic in order to reduce wait time in possibly crowded clinic and hospital lobbies.

Top cities across all three waves





Medicines delivered

Wave-1 Wave-2 Wave-3







As people spent time cooped up at home during successive lockdowns and as a precautionary quarantine measure to quell the spread of the virus, many turned to online delivery of prescribed and over-the-counter medicines to get better.

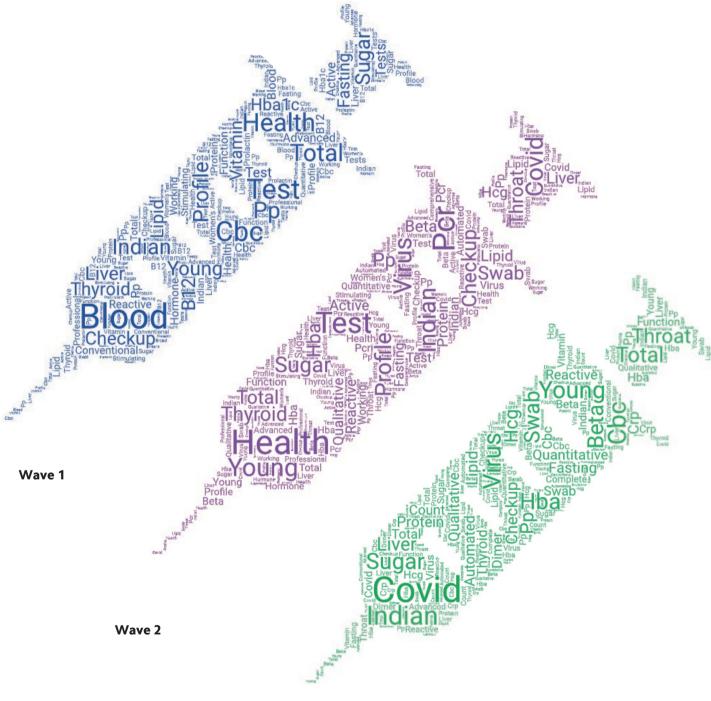
While most of these were COVID-19 and ENT-related - like Paracetamol, multivitamins antibiotics and antiallergics - other drugs for affected or post COVID conditions in many like diabetes, gastritis and heart disease were also common.





Diagnostics - Top tests ordered during three waves

Practo's diagnostic business continued to grow rapidly amid increased demand for at-home testing for COVID-19 and related ailments. While the qualitative PCR throat swabs for the Coronavirus was widely taken during the second and third waves, it was completely missing during the first wave as awareness around the disease was just building during that time.





About Practo

Practo is on a mission to make quality healthcare affordable and accessible for over a billion+ Indians. It is India's leading integrated healthcare company that connects the entire health ecosystem together – including patients, doctors, surgeons, clinics, hospitals, pharmacies, and diagnostics - to generate exceptional value and service for all, especially the end consumers. It integrates different parts of the patients' healthcare journey so they can have a seamless experience, right from **primary healthcare** viz. finding and booking an appointment with verified doctors, consulting doctors online with ETA as low as 60 seconds, getting medicines delivered and lab tests conducted at home, to **secondary healthcare** procedures across 20+ specialties. Practo also makes **software products** that help healthcare providers - ranging from small clinics to large hospitals - digitize and deliver more efficient and higher quality healthcare to millions of patients around the world.

As technology becomes an integral part of healthcare, Practo has also become an essential enabler in helping doctors understand the nuances of managing and securely storing all health data. Practo encrypts all data with 256-bit encryption, uses HIPAA-compliant data centers, and is one of the few healthcare companies to be ISO 27001 certified. Practo is present in 20+ countries, helping over 30 crore patients, by connecting them with 1 lakh+ verified doctor partners.

Ensuring user privacy

These Insights were developed to understand the healthcare patterns of Indians amidst the outbreak of COVID-19 while adhering to our stringent data security and privacy measures. These insights have been created with aggregated and anonymized sets of data from our users who share their age and location with us which is optional. A fundamental tenet of Practo is ensuring that the patients' health information is safe, secure, and private. Considerable investments have been made to ensure that Practo remains one of the safest places for health information stored by the clinic and hospital partners as well as patients. Visit Practo's Privacy Policy to learn more about how we keep your data private, safe, and secure.

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