HEALTHCARE'S NEW NORMAL: COVID SPEEDS SHIFT TO DIGITAL COMMUNICATIONS

For over the last two decades, the entire healthcare sector, including patients, doctors, healthcare, and the pharmaceutical industry have been shifting to digital forms of communication and information sources. Patients explore diseases and check their symptoms on websites of WebMD, the Mayo Clinic, the CDC, and many others. Physicians attend virtual meetings and conferences, expand their professional knowledge via online continuing medical education tools, and use digital calculators, drug references, and clinical decision tools from websites and apps such as Medscape, QXMD, academic institutions (e.g. the Mayo Clinic), government agencies (e.g. CDC), and professional medical societies. The pharmaceutical industry progressively relies more on electronic health records; the reps increasingly use emails, apps, and other digital forms of communications to interact with doctors. In March 2020, the COVID-19 pandemic brought person-to-person interaction to a halt and accelerated the shift to digital. As the world grapples with what may be the new "post-COVID" normal, some traditional in-person visits and live meetings and exchanges are expected to come back. However, many emerging trends are here to stay.

In this report, we present perspectives of industry front-runners and key opinion leaders who recognize the importance and necessity of digital transformation. We share insights from a Medscape survey of global physicians' attitudes on the effect of the pandemic in terms of their preferred ways of communicating and in obtaining medical information. We present the clear winners in the shift to digital. The pharmaceutical and the healthcare industries are reviewing digital strategies for the post-pandemic era allowing them to efficiently utilize digital channels of communication, concentrate on the health and safety of their patients, and help to turn the crisis into the opportunity.



CONSUMERS, PATIENTS, CAREGIVERS, PHYSICIANS AND THE PHARMACEUTICAL INDUSTRY ARE AFFECTED BY PANDEMIC

Governments across the globe implemented preventive restrictions including enforced social distancing, business closures, bans on mass gatherings, and in some cases, community lockdowns. These measures varied from country to country and between states in the US, ranging from the more severe measures in Italy, Spain, and China to the more relaxed in Sweden and Germany.

Social and recreational activities and access to health care were negatively impacted by the COVID-19 outbreak. Individuals are reprioritizing decisions regarding their health with many postponing health screening appointments, dental visits, and other elective procedures. A recent survey of consumers by Medscape reveals that 76% of respondents have had to cancel a dental procedure, and 56% have canceled health screenings. Office visits are severely affected; 70% of consumers are concerned about maintaining a safe distance from other patients or office staff. Fourteen percent of US consumers reported lapses in access to or taking their prescription medications [1].

Healthcare professionals were severely affected by the pandemic. The US and Latin American physicians anticipate that COVID-19 will result in substantial financial losses to their practices ^[2]. The overwhelming majority of physicians characterize the risk to healthcare professionals caring for patients as high or very high. 81% of physicians' practices are limiting the number of patients in the office at one time, while 55% are limiting the number of staff in the practice at one time ^[2]. Overall, prescription volumes remain suppressed due to prior stockpiling while new prescriptions are below pre-pandemic levels ^[3]. Face-to-face meetings between health professionals and pharmaceutical representatives have all but ended. These live meetings are a major part of pharmaceutical marketing efforts, even as regulations have set restrictions on these interactions ^[3].

COVID-19 could actually be a force for an unintended medical revolution.

- Dr. Bhatt, USA

PANDEMIC ACCELERATED SHIFT TO DIGITAL SOLUTIONS

COVID-19 has disrupted traditional healthcare person-to-person communication and accelerated digital options, such as telehealth and remote patient-clinician contacts, digital therapeutics that deliver remote patient monitoring, and interventions through the use of software ^[3]. During the pandemic, the use of telemedicine has significantly increased, especially among health care providers (HCPs) in rural areas and specialists, with psychiatrists and gastroenterologists having the highest usage ^[3]. More than three-quarters of physicians say their practice is offering telemedicine visits. Nearly one-third of patients have used telemedicine since the start of the pandemic and more than half say they want to continue using it in the future ^[1].

On Medscape, COVID-19 has created a surge in demand for medical content. Since the beginning of the pandemic, online traffic has increased while healthcare professionals consumed information on COVID-19 as well as a broad scope of clinical and professional information on diseases other than COVID-19. The number of unique Medscape website visitors in the European Union and the US in March 2020 essentially doubled compared to March 2019 [4].



OF THE SHIFT TO DIGITAL IS RECOGNIZED BY INDUSTRY EXPERTS

The pandemic emphasized what was already happening in the healthcare and pharmaceutical industry – the importance and necessity of shifting to digital technologies. Across the pharmaceutical industry, leaders are giving their perspectives on digital transformation.

gsk	We are using this time as productively as possible to accelerate our digital capabilities and remain competitive [5]
Roche	Marketing going virtual whenever possible ^[6]
Lilly	Lilly expects lower spending on travel and face-to-face interactions will be offset by higher spending on digital communications [7]
BAYER E R	We can have experienced in recent weeks how much can be done digitally and we will strive to maintain the positive elements and accelerate our digital agenda [8]
Biogen	Business operations: Adjusted commercial and medical affairs operations; accelerated digital engagement; working to enable home infusions of TYSABRI where appropriate [9]
AstraZeneca	As part of the early response to the pandemic, AstraZeneca quickly expanded its levels of digital activities [10]
JohnsonaJohnson	In Business Continuity Plans section] Support healthcare providers virtually and directly engage in areas needed [11]
Unovartis	As the digital revolution gains momentum in our industry, one of our strategic priorities is to be a leader in harnessing data science and digital technologies to boost effectiveness and efficiency across our enterprise [12]
SANOFI	We all sort of come around to realize in this new world that the appetite for healthcare professionals to get information digitally has also increased exponentiallythe new norm for medicines like DUPIXENT and beyond have an opportunity to access a much greater eligible population than they would have done pre because of the leverage of digital tools [13]

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Digital channels play a far greater role in communication between pharma companies and healthcare professionals than before the pandemic. While certain live channels are expected to return to nearly pre-pandemic levels, many trends are here to stay [14,15]. " ... by having a framework for decision-making and strong evidence we make decisions to own our future as we come to terms with the fundamental changes that COVID-19 will bring to our industry ..." [16].

THE KEY OPINION LEADERS GIVE THEIR PERSPECTIVE ON THE CHANGES DUE TO COVID-19

Medscape conducted interviews with physicians and healthcare professionals that suggest that the way clinicians manage their practice, learn about clinical advances, treatments, and pharmaceutical information, and participate in education have changed significantly as a result of COVID-19 [14].

All interviewees reported significant changes in their practice due to the pandemic. Dr. Albers, Chief of Neurology at Hartford Hospital, reported that "the vast majority of patients during the COVID crisis were being seen virtually." Dr. Lin, a physician practicing in Washington D.C, says that their practice "almost immediately went to 90% video and/or telephone visits". Dr. Kerr, professor of Cancer Medicine in Oxford, United Kingdom, emphasized that the COVID-19 pandemic has driven an enormous change in how he delivers cancer care: "there's great momentum for our national health service to be able to embrace the new digital health technology. It has been a remarkable turnaround. And it's here to stay." Dr. Silverberg, a gastroenterologist in Toronto, sees this current moment as an "opportunity to embrace new technologies to make medicine and healthcare more efficient and more tech-friendly".

All interviewees agree that telemedicine and virtual communications with patients will have an increasing role in the post-pandemic world. Dr. Bhatt, a cardiologist at Brigham and Women's Hospital in Boston, said that "COVID-19 could actually be a force for an unintended medical revolution. But in a good way." Dr. Cecilia Bahit, a cardiologist from Argentina, thinks that "telemedicine is here to stay." They foresee a "hybrid system", a combination of virtual and in-person communications.

Dr. Jannuzi, a cardiologist at the Heart Center at the Mass General Hospital in Boston and professor of medicine at the Harvard Medical School gives his perspective on the future of learning: "From an educational perspective, the COVID-19 pandemic has opened up numerous doors that were not previously opened, including an astronomical growth in online learning, the national and international meetings being converted into virtual meetings online, and an enormous explosion of online education through portals like Medscape." Dr. Peters, an endocrinologist at the University of Southern California in Los Angeles, thinks that remote learning is 'going to be not only a trend, it's going to be a preferred method."

PANDEMIC CHANGED CONSUMPTION OF ONLINE MEDICAL CONTENT AMONG DOCTORS

In May 2020, Medscape conducted a poll among physicians on the effect the pandemic had on them and their opinions on various channels of communications [15]. 1,394 physicians in the US and 6,781 in other countries outside of the US (OUS) were surveyed. Doctors from specific specialties, including internists, primary care physicians (PCPs), neurologists, oncologists, cardiologists, endocrinologists, and others (aggregated less common specialties) were surveyed. About a quarter of US physicians (24%) worked in hospitals; 16% in office-based solo practices; 16% in office-based single-specialty practices and the rest in multi-specialty practices, academia, healthcare organizations, or other settings.

CHANGES IN CONSUMPTION OF ONLINE MEDICAL CONTENT

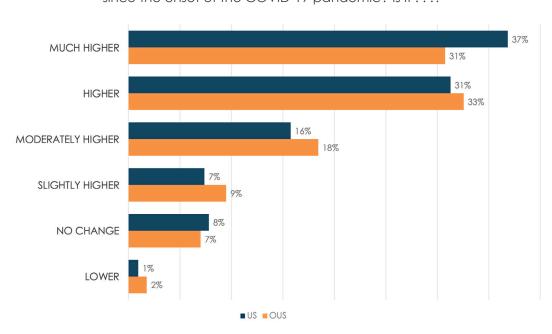


Figure 1. How has your consumption of online medical content changed since the onset of the COVID-19 pandemic? Is it . . .?

Doctors across the globe report a significant increase in the consumption of online medical content compared to pre-pandemic levels. The US and OUS showed similar trends with regards to consumption of online medical content, with 68% in the US and 63% OUS reporting higher or much higher consumption of online medical content (Figure 1).

In the US, the largest increase in online usage was among cardiologists (66% of respondents), PCPs (66% of respondents), and aggregated less common specialties (70% of respondents), and the lowest among oncologists (55% of respondents). Outside the US, the largest percentage increase was in Mexico (72% of respondents) and the lowest increase in Italy (55% of respondents).

HOW LONG DO YOU THINK THESE CHANGES TO HOW YOU USE DIFFERENT INFORMATION SOURCES WILL LAST?

THE CHANGES WILL BE PERMANENT

3 OR MORE YEARS

7%

1-2 YEARS

6 MONTHS -< 1 YEAR

0 -<6 MONTHS

12%

■ US ■ OUS

Figure 2. How long do you think these changes to how you use different information sources will last?

In the US, 64% of respondents, and 56% of respondents OUS, think the changes will last more than a year if not permanently (Figure 2). The largest proportion of OUS respondents who thought that changes will be permanent were in Brazil (37%) compared to the lowest in Canada (18% Among US physicians, PCPs and aggregated less common specialties had the highest proportions of respondents who thought that changes will be permanent (20% and 25% respectively).

64% of respondents in US and 56% outside US think the changes will last more than a year if not permanently.

The Medscape poll asked physicians in the US and countries outside the US, about their expectations on how different sources of information will be used after the pandemic is over. Figures 3 and 4 show a continuous trend from "traditional" in-person means of communication and information exchange, such as in-person meetings and conferences to entirely digital methods through medical websites. The overall trend is similar between the US and globally and among different medical specialties.

Figure 3. Sources of information (US physicians)

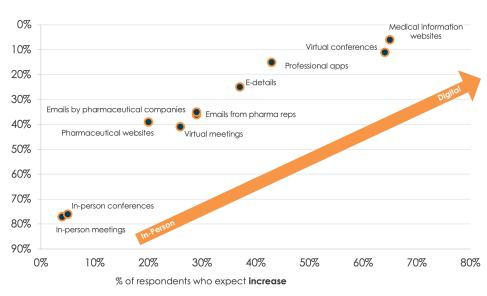
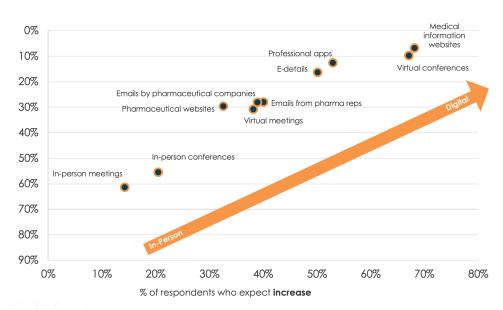


Figure 4. Sources of information (Global outside US physicians)



IN-PERSON MEETINGS WITH PHARMACEUTICAL REPRESENTATIVES

Both US and OUS respondents expect a significant decrease (77% and 61% respectively) in in-person meetings with pharmaceutical representatives. In all countries and for all specialties, a dramatically larger percentage of respondents expect a decrease in in-person meetings. The largest decrease was reported by respondents in Canada and the UK (81% in both) followed by those in Spain (67%). In the US cohort, the largest expected decrease was reported by endocrinologists (89%), neurologists (88%), and the lowest expectation of a decrease was reported by oncologists (67%). Outside the US, PCPs expect the largest decrease (64%) and neurologists (63%), while cardiologists expected the lowest decreases (54%).

IN-PERSON CONFERENCES

In the US, the differences between respondents who expect an increase (5%) and decrease (76%) are dramatic. The trend is similar to OUS with the range of 8% increase / 77% decrease in Canada (most similar to the US) to a 33% increase / 45% decrease in Mexico. Among US specialists, the most dramatic shift was among endocrinologists (0% increase vs 82% decrease) compared to more modest changes in oncologists (12% increase & 76% decrease). Trends in opinions of OUS specialists were less dramatic than in the US, with modest expectations of increase (17% to 31%) and about a half expecting decrease (ranges from 49% to 58%).

E-DETAILS (e.g., a short video or summary on a drug's benefits)

Expectations of increase were lower in the US (37%) compared to OUS (50%) with ranges of 34% in Canada to 60% in Spain and Brazil. In the US, specialists' expectations of increase ranged from 27% among neurologists to 56% among cardiologists. OUS expectations of increase were similar across the specialties with ranges 45% to 55%.

PROFESSIONAL APPS FOR PHYSICIANS AND HCPS

Adoption and unitization of professional apps are reported to increase as reported by US respondents (43%) and even higher in non-US respondents (53%). Concurrently, 42% of respondents in the US, and 34% of respondents outside the US predict usage will remain the same. A small minority of respondents both in the US and OUS expect a decrease (15% and 13% respectively). In the US, the largest increase is expected among endocrinologists (58%) and the lowest among neurologists (22%). Neurologists also have the largest proportion expecting to remain the same (78%). OUS, the largest increase is expected in Mexico (65%). The lowest increase is expected in Canada (37%) and Germany (38%). OUS, the largest increase is expected among cardiologists (55%) and PCPs (56%), and the lowest among neurologists (47%).

VIRTUAL CONFERENCES

The expectations are similar in the US and OUS (64% and 67% increase vs 11% and 10% decrease), with minimal variation across the specialties. The trends were similar in all countries and among different specialties.

MEDICAL INFORMATION WEBSITES FOR PHYSICIANS AND HCPS (e.g., Medscape)

Both US (65%) and OUS (68%) expect an increase in usage of medical information websites, which is significantly higher than those who expect to remain the same (30% and 25%) and much higher than those who expect a decrease (6% and 7%). In the US, the largest increase is expected among endocrinologists (69%) and PCPs (68%) and the lowest among neurologists (50%). OUS, the largest increase is expected in Mexico (77%) and the lowest in Germany (41%). Similar to the US, the largest increase is expected among PCPs (70%) and the lowest among neurologists (62%). In the US and OUS, among all specialties, significantly higher proportion of respondents expect an increase rather than a decrease in use of medical information websites.

The online learning really will continue to play a major role even after the pandemic settles down.

– Dr. Jannuzi, USA

MEDSCAPE IS A PHYSICIAN-PREFERRED MEDICAL INFORMATION WEBSITE

The Medscape polls show that the majority of physicians in the US and globally expect an increase in the usage of professional medical websites [15]. Medscape is a trusted global leader for professional medical information and continuing medical education. Figures 5 and 6 show that the Medscape Professional Network is the most visited for professional information by US physicians and by physicians in the largest five European Union countries (UK, Germany, France, Italy, and Spain) [17,18]

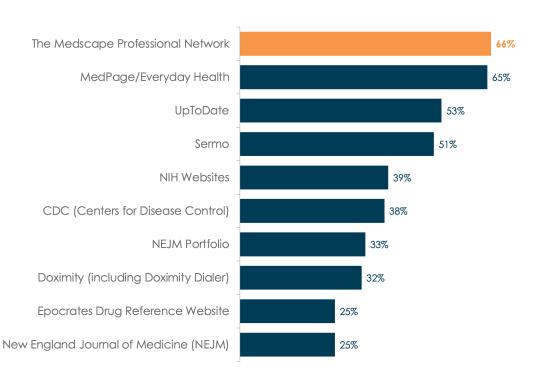
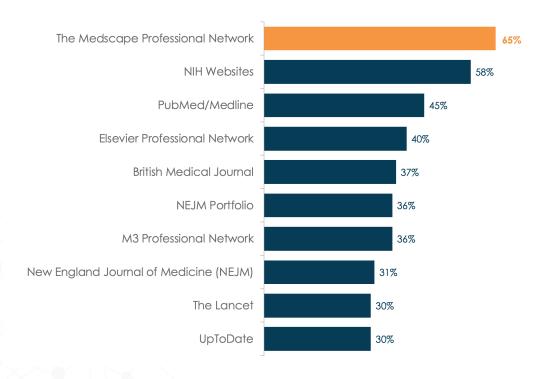


Figure 5. Top 10 Websites visited by US physicians for professional information





Medscape is the top source used for professional information by healthcare providers worldwide and the top site worldwide for digital continuing medical information (CME) [17, 18]. Based on the Accredited Council for Continuous Medical Education data, Medscape has the largest number of physician participants and the largest number of other learners [19]. Medscape delivers education proven to positively affect clinical behavior and public health as a trusted learning partner for the US government Pharmacy Practice [20]. With over 300 publications showing the effectiveness of education at scientific congresses in 2017-2020, it demonstrated the most physician and HCP interactions of any medical education provider. Medscape is the only dedicated Medical Education provider listed on comScore's top digital health properties by volume of audience [21].

MEDSCAPE ENGAGEMENT WITH AUDIENCE RISES SHARPLY DURING RECENT COVID-19 PANDEMIC

Since the beginning of the pandemic, Medscape membership in Europe increased dramatically compared to 2019. The new member growth rate was 116% in March 2020 and April 2020 compared to the same months a year ago. New members' content consumption was evenly split (50:50) between COVID-19 and non-COVID-19 content. Engagement with sponsored content was up 44% in March 2020 and 83% in April 2020 vs. the same months in 2019. The editorial page view was up 75% in March 2020 and 57% in April 2020 vs. the same months in 2019 [4]. Figures 7 and 8 show a dramatic increase in the number of unique visitors in both US and the largest five EU countries since the beginning of the COVID-19 pandemic.

Figure 7. Medscape visits by unique visitors in US

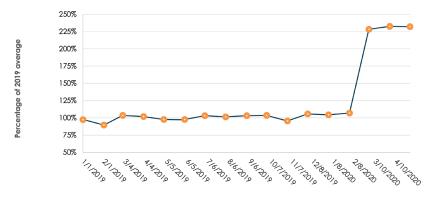
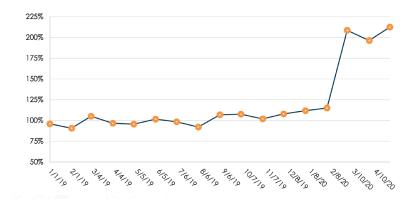


Figure 8. Medscape visits by unique visitors in the five largest European countries



Percentage of 2019 average

CONCLUSION

The digital transformation in the healthcare and pharmaceutical industries was accelerated during the coronavirus pandemic. The key opinion leaders and industry experts agree that in the post-pandemic world, even as lockdowns are lifted and restrictions relaxed, the emerging trends for an increase in digital communications will stay. Telemedicine, virtual meetings and conferences, and online professional education will play an even greater part. The global survey demonstrated that the majority of physicians believe the role of specialized medical information platforms will increase. Physicians will continue obtaining the latest medical news and expert perspectives, essential point-of-care drug and disease information, and continuous medical education from medical websites. Medscape, as a leader in digital communications platforms, is well-positioned to provide physicians with the right tools and channels to treat their patients in the right way.

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