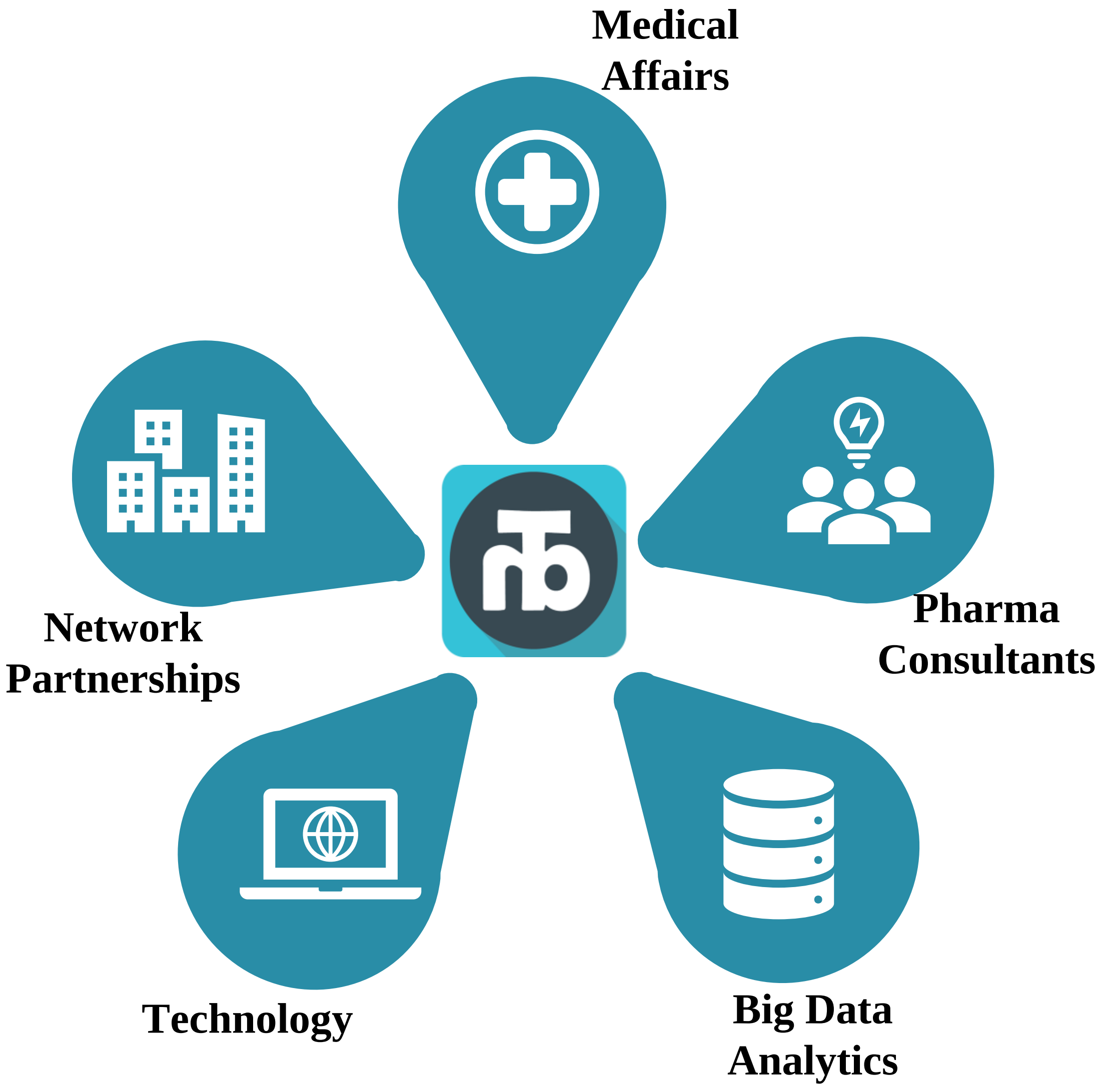
DIGITAL INTERACTIONS: HEALTHCARE PROFESSIONALS' EXPECTATIONS AND PREFERENCES IN THE POST-COVID ERA

DISSERTATION REPORT

VINNY
1038
MBA (Hospital and Health Management)
2019-21
Guided By – Dr. Susmit Jain, Associate Professor

About THB (Technology HealthCare Big Data Analytics)

- Asia's leading healthcare data-technology platform delivering value to 200+ clients across 5 countries
- Headquartered in India; presence in S. Asia, GCC, SEA
- Deep experience of working across all healthcare formats: providers, pharma, med-tech, payors, health-tech
- Processed 750mn+ parameters across 50mn+ patient lives with proprietary data lake technology
- Enabling engagements with >20mn patients/ 600K+ HCPs across therapies and disease conditions
- 100+ publications / white papers across peer reviewed journals, and conferences
- Funded by Healthquad/ Quadria Capital, Blume Ventures, DI (Japan), Kois (Belgium), HealthX (S'pore)



THB is a full-stack clinical intelligence platform delivering real world data insights to the ecosystem

Full-stack clinical intelligence platform

Customers

- **Pharmaceutical Companies**
- **Health Care Providers**
- **Health and Life Insurance**
- **Public Health / Govt. Research**

Core Engine

- **Analytical engine** Series of modules serving healthcare stakeholders
- **Unified Clinical data stack** Largest master data repository in India
- **Technology stack** Proprietary ETL algorithm

Topics

- ❖ Introduction
- ❖ Methodology
    - Key Research Question and Objectives
    - Research Design and Study Setting
    - Sample Size and Method
    - Data Collection
- ❖ Results
- ❖ Conclusion and Recommendations

Introduction

COVID-19 has pushed both providers and consumers into widespread acceptance of these digital healthcare interaction services such as “telemedicine”, “e-pharmacy”, “personal health management”, “home healthcare”, “health-based applications” and others at mass level.

The digital healthcare interaction generates new business possibilities and innovations to solve concerns in medical and pharma practice. But there are still healthcare professionals who are not able to accept it fully in their day-to-day life.

Through the observations and results of this research study, it would be easier to gain in-depth insights into the medium to long-term changes in HCP expectations from from patients and pharma w.r.t the use of conventional vis-à-vis digital/Phygital initiatives

The research intends to understand different personalities (personas) of doctors which exist across age groups, specialities and locations regarding the extent of digital adoption / tech savviness.

Key Research Question and Objectives

Research Question - What are the preferences and expectations of Healthcare Professionals including Consulting Practitioners/ General Practitioners and Specialists for digital modes of engagement with patients and pharma companies in the post-COVID era?

Broad Objective - To assess the Healthcare Professionals' preference for digital modes of engagement in the post-COVID era across CP/GPs and Specialists.

Objective 1

To determine the extent of technology adoption and usage of digital platforms among HCPs

Objective 2

To understand the HCPs' requirements and preferences primarily their preferred modes and means of digital interactions

Objective 3

To understand the influence of COVID-19 on encounters and future interaction with patients and pharma companies and role of pharma companies to play to strengthen the HCPs digital adoption

HCPs – Healthcare Professionals

Methodology - Research Design, Sample Size and Data Collection

Research Design and Study Setting

Descriptive Cross- Sectional Study was done in all over India covering North, South, East and West region between time period 30th March,2021– 13th May 2021

Sample Size and Method

HCPs universe in India: 9.25 lacs[1] (11.6 lacs allopathic doctors are registered with state medical councils and MCI; assumed 80% of them currently practices)

Confidence Level: 99.9% ,therefore Z = 3.291

Margin of Error: 5% (sampling error in survey / research)

Applying Cochran Formula:

$N_0 = Z^2 p(1-p)/e^2$

Sample : 1082 HCPs

Data Collection and Analysis

Mixed method approach was employed (Both quantitative and qualitative)

Structured questionnaire was used including questions on **doctor profile attributes**, **technology adoption**, **future interactions**, **knowledge enhancement**, **service requirement** and distributed using a non-probability convenience sampling method through an **online survey** form among HCPs.

Descriptive Statistics was done in **MS EXCEL** and **SPSS** to analyse the data collected from HCPs

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1. https://www.business-standard.com/article/pti-stories/india-has-one-doctor-for-every-1-457-citizens-govt-119070401127_1.html

The research plan was designed to ensure holistic HCP coverage across geographies and practice settings

Research Sample Design

Respondent Category	Respondent Profile	Sample selection parameters	Sample size
HCPs from varied specialties	• ***HCPs*** *with >2 years clinical experience* • *HCPs with* ***moderate practice***	**Geographies** (Metro cities, Tier-1, Tier-2 cities) **Practice Settings** (Private, Corporate, Govt. etc.) HCPs with high, moderate and non-usage of digital platforms	***Primary survey with 1107* HCPs***

*After accounting for the 10% non-response rate and rounding off the sample size

Results

Socio-demographic characteristics of the respondents

OPD consultations: key platforms used, f2f vs. Virtual interactions

Adoption / Usage of Digital Platforms by HCPs

Future interactions with patients and pharma companies

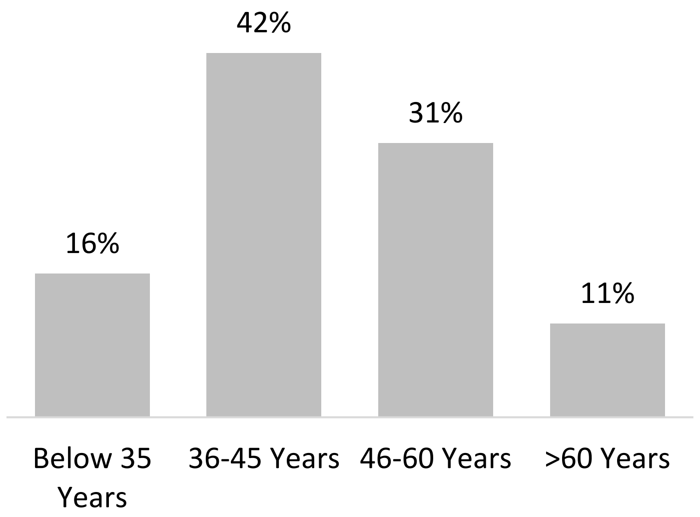
Content preferences: format, types, timing

Need for One Stop Platform

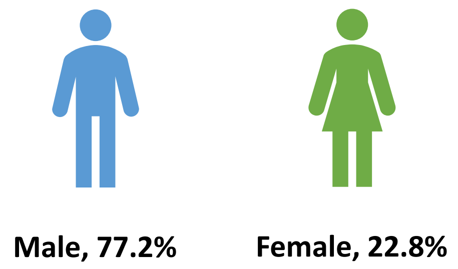
Key HCPs Personas

>1100 respondents participated in the study; representation from wide range of specialties across the country

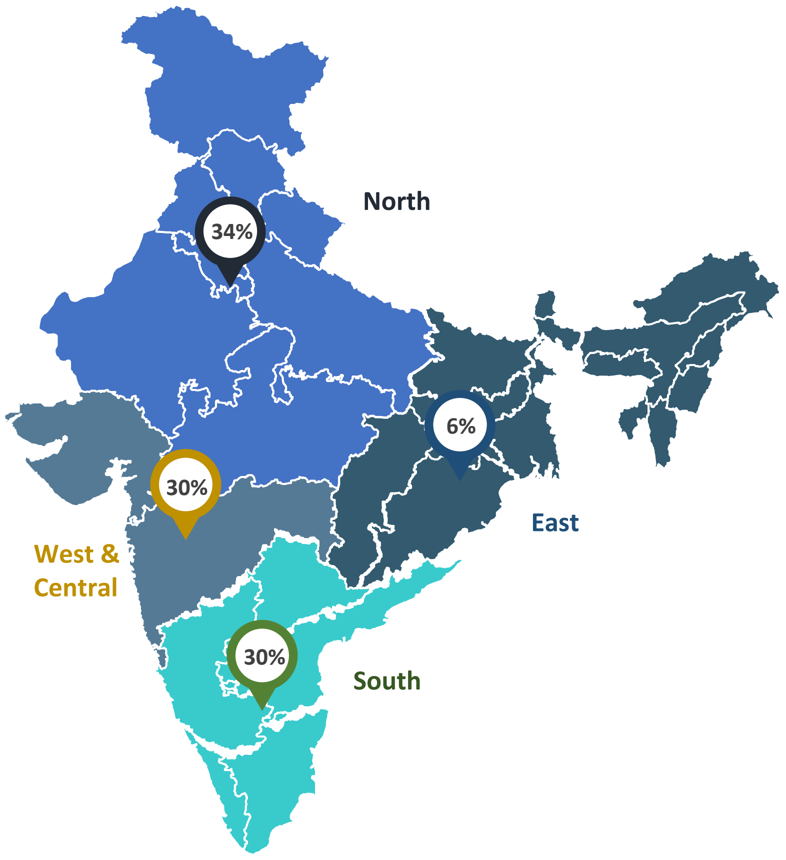
Age-wise Split



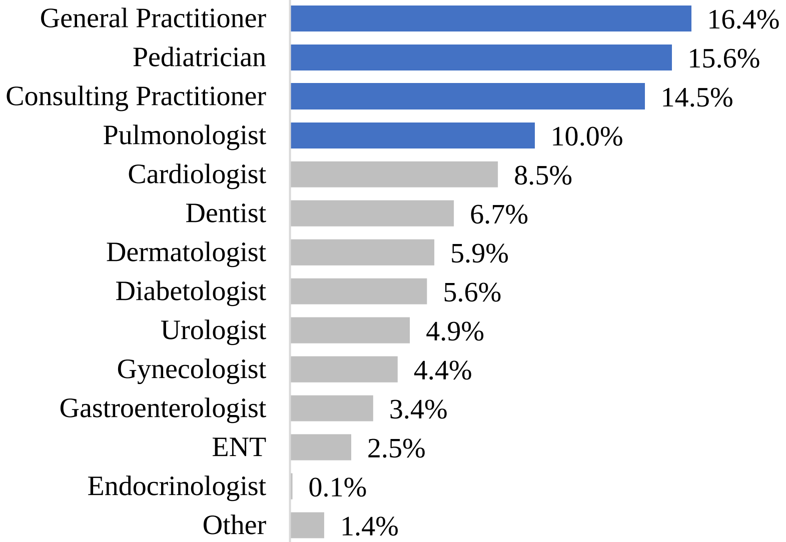
Gender-wise Split



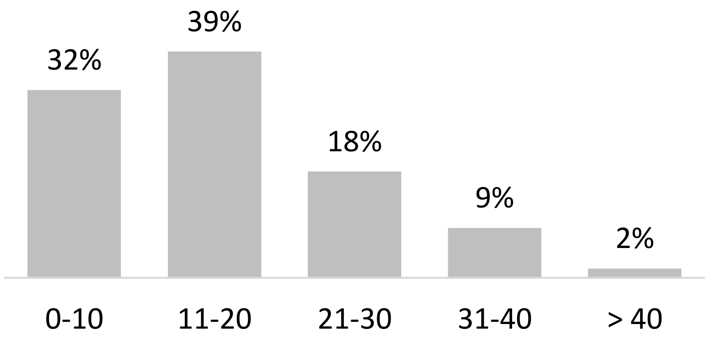
Region-wise Split



Specialization



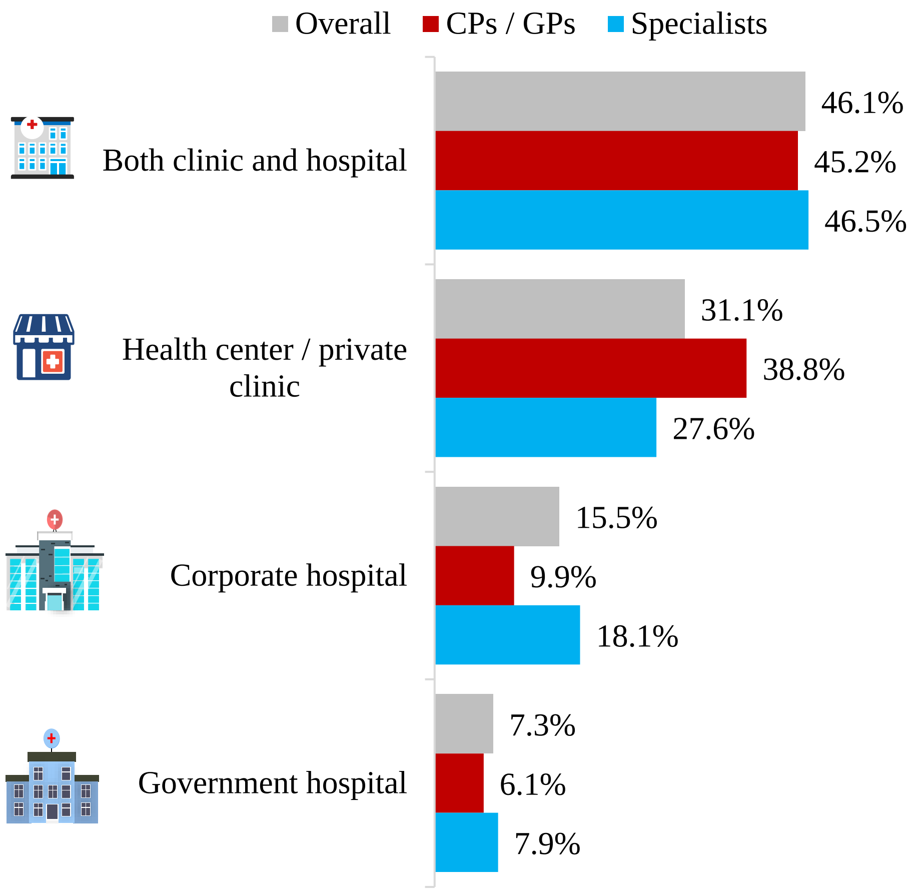
Years of Experience



% of respondents

Sample includes respondents from different practice setups; >50% of the respondents have consultation fee in range of INR 300 – 750

Practice Setting



₹ Out-patient Consultation Fees

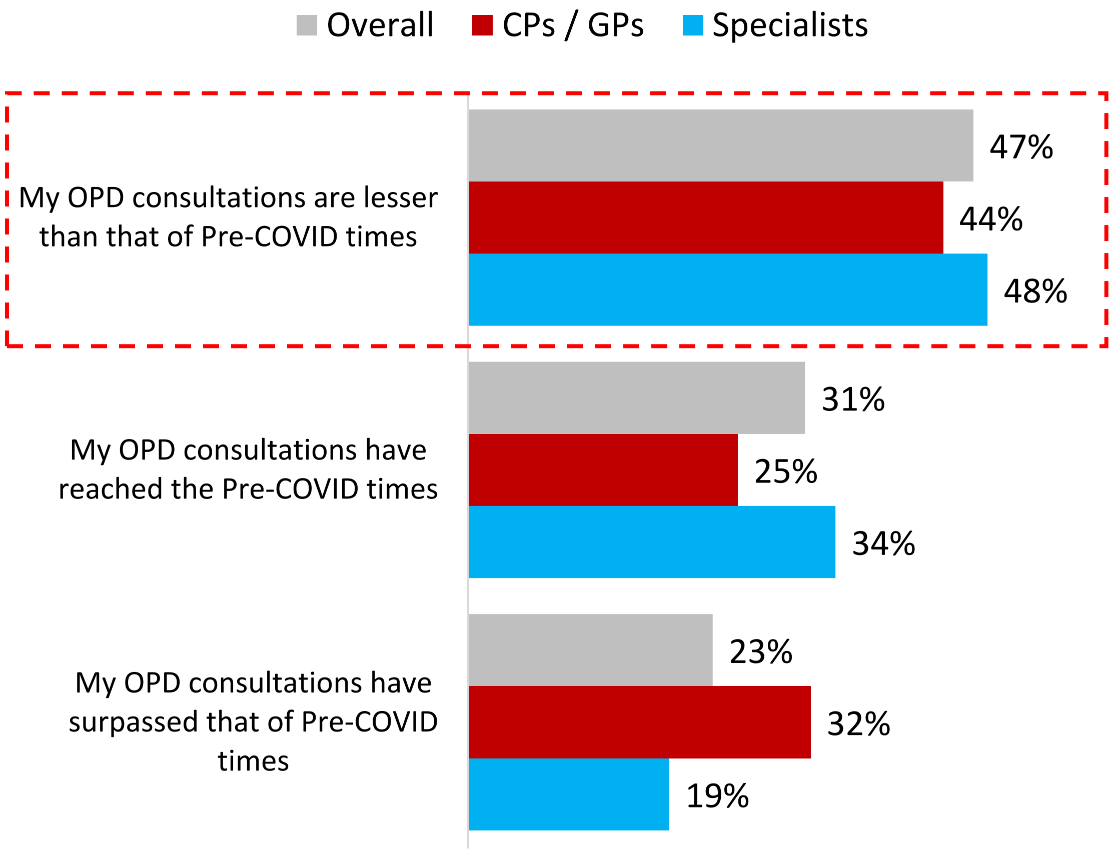
Fees Range	Overall	CPs / GPs	Specialists
<= 300	25.0%	29.4%	23.0%
300 – 500	27.6%	36.7%	23.6%
500 – 750	27.1%	20.4%	30.1%
750 – 1000	10.4%	7.6%	11.6%
1000 – 1500	7.5%	5.0%	8.6%
>= 1500	2.3%	0.9%	3.0%

Q. Your practice setting? Your out-patient consultation fee?

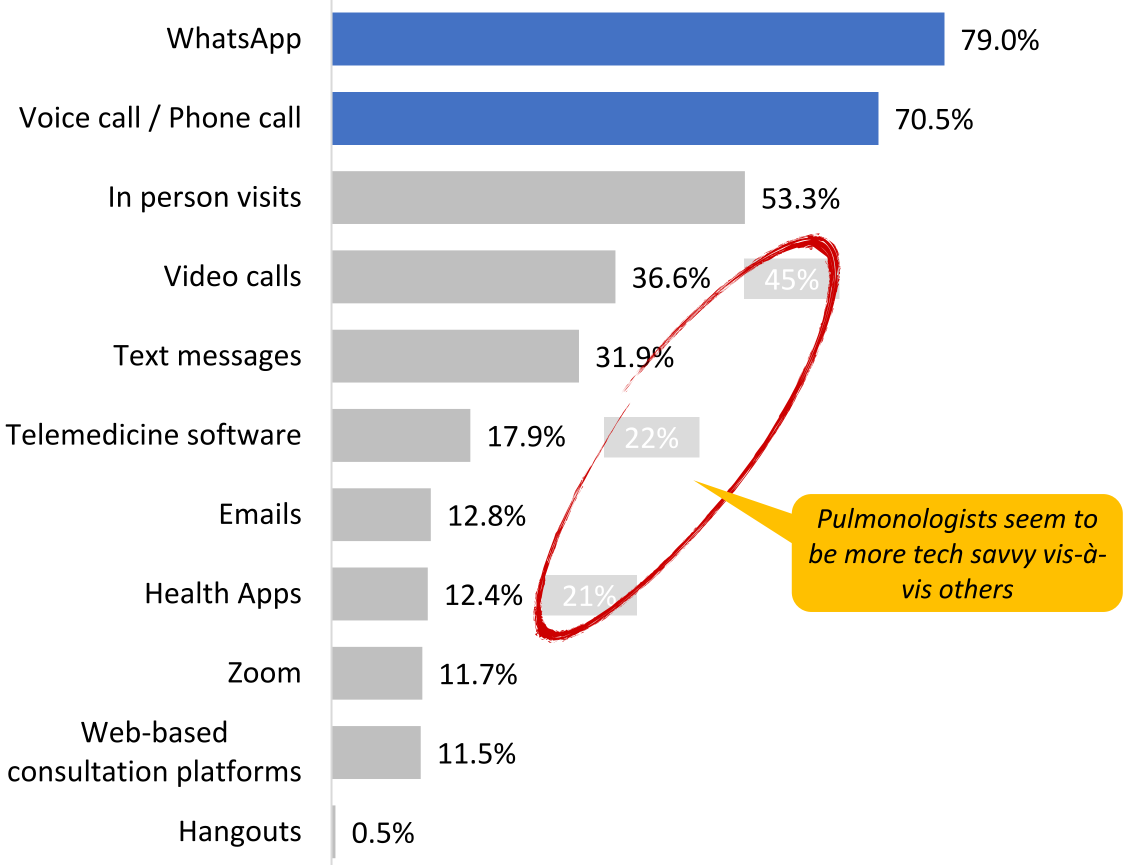
Overall | GPs / CPs | Specialists | *% of respondents*

For nearly half of the respondents, OPD load is still lesser than that of pre-covid times; WhatsApp and Phone calls key medium used to stay in touch with patients

Current OPD Consultation Load



Medium Used to Interact with Patients During COVID



Q. Which of the following statements you agree with the most?. Q. How have you remained in touch with your existing patients in last couple of months?

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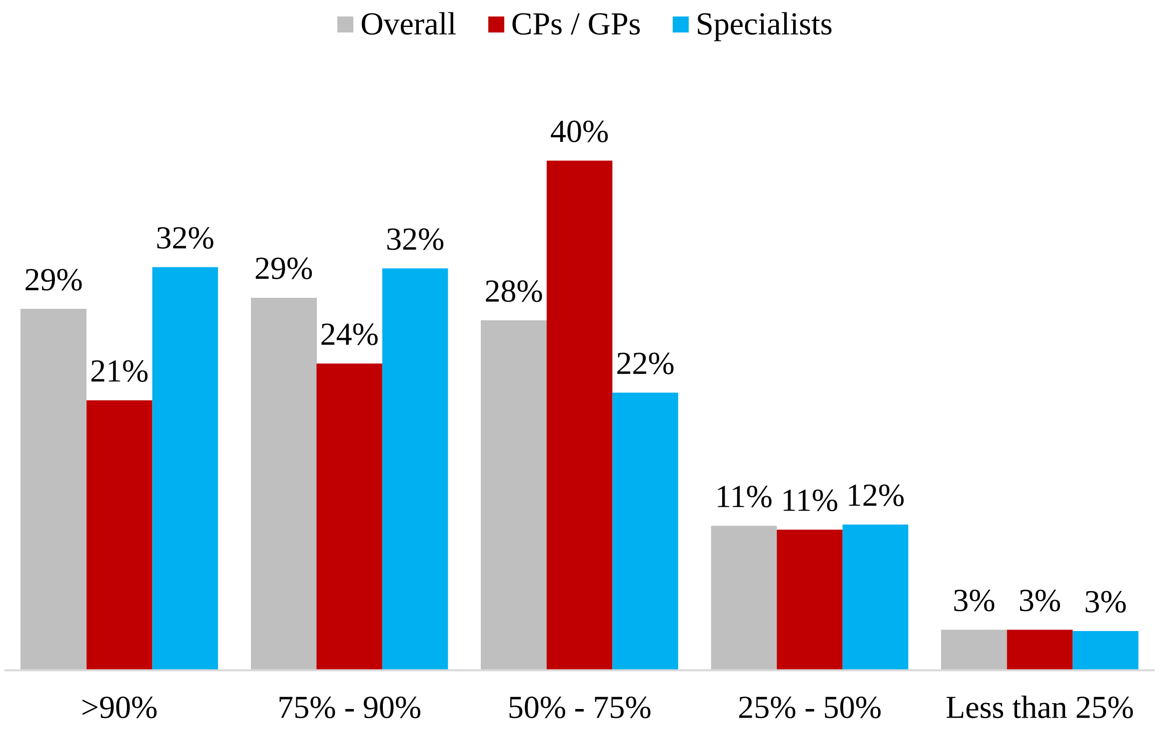
Overall | GPs / CPs | Specialists

% of respondents = **Pulmonologists**

Combination of F2F and virtual consultations seem to be the current practice for HCPs; majority of them expect an increase in F2F post-COVID

Current Practice Scenario for Face-to-Face Consultations



Anticipation of change Post COVID: F2F Consultations

	Overall	CPs / GPs	Specialist	Pulmonologists
Will further increase	59.3%	66.8%	56.0%	**44.1%**
Will remain the same	28.3%	23.0%	30.6%	33.3%
Will decrease	12.4%	10.2%	13.4%	**22.5%**

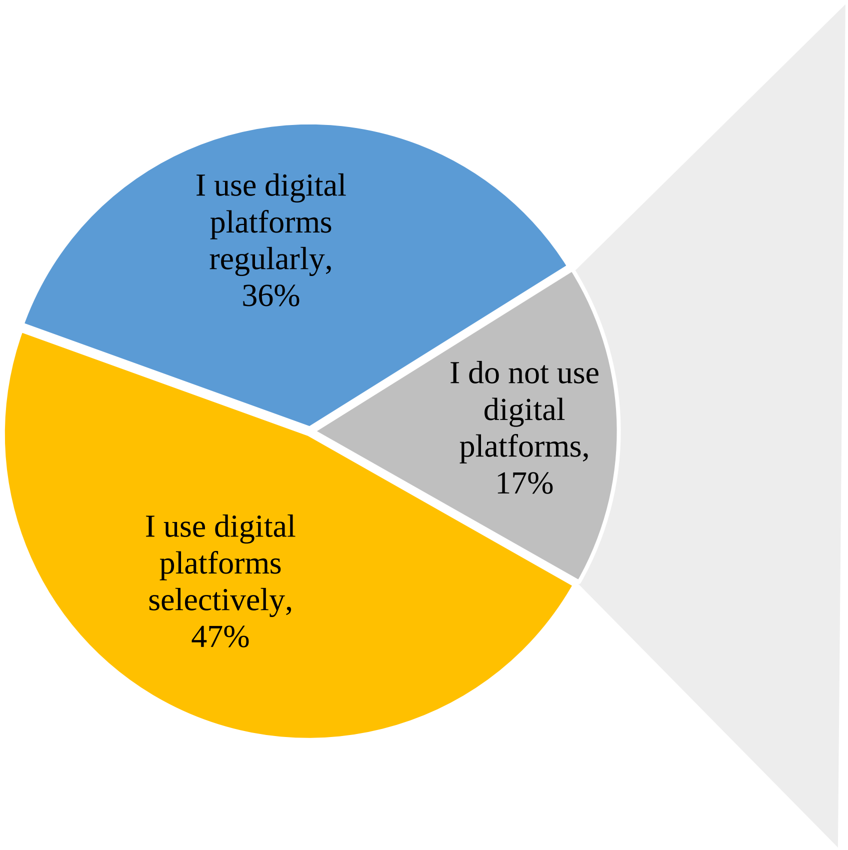
% of respondents

Q. Assuming 100 OPD consultations in a month, which out of the following describe your current practice scenario the best? How do you anticipate this to change in post COVID (once things go back to normal) environment?

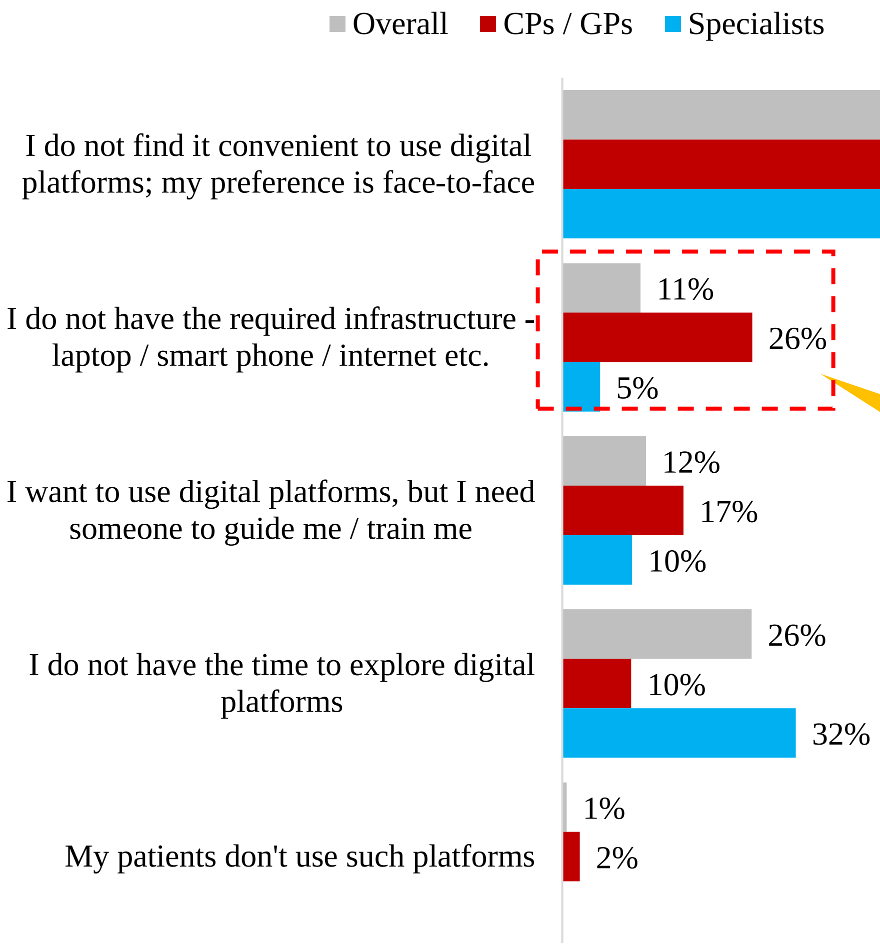
Overall **GPs / CPs** **Specialists** *% of respondents* **= Pulmonologists**

8 out of 10 respondents fall under the category of "Digital users: either regular or selective users"; "Inconvenience" key reason highlighted by non-users

Overall Usage of Digital Platforms



Reasons for Not Using Digital Platforms



Infrastructure Necessities

Laptop

Printer

Internet Connectivity

Unified Payments Interface (UPI)

Q. Which out of the following statements you agree with the most with regards to usage of digital platforms? Can you please let us know reason for not using digital platforms? What infrastructure support can be provided to welcome the digital transformation?

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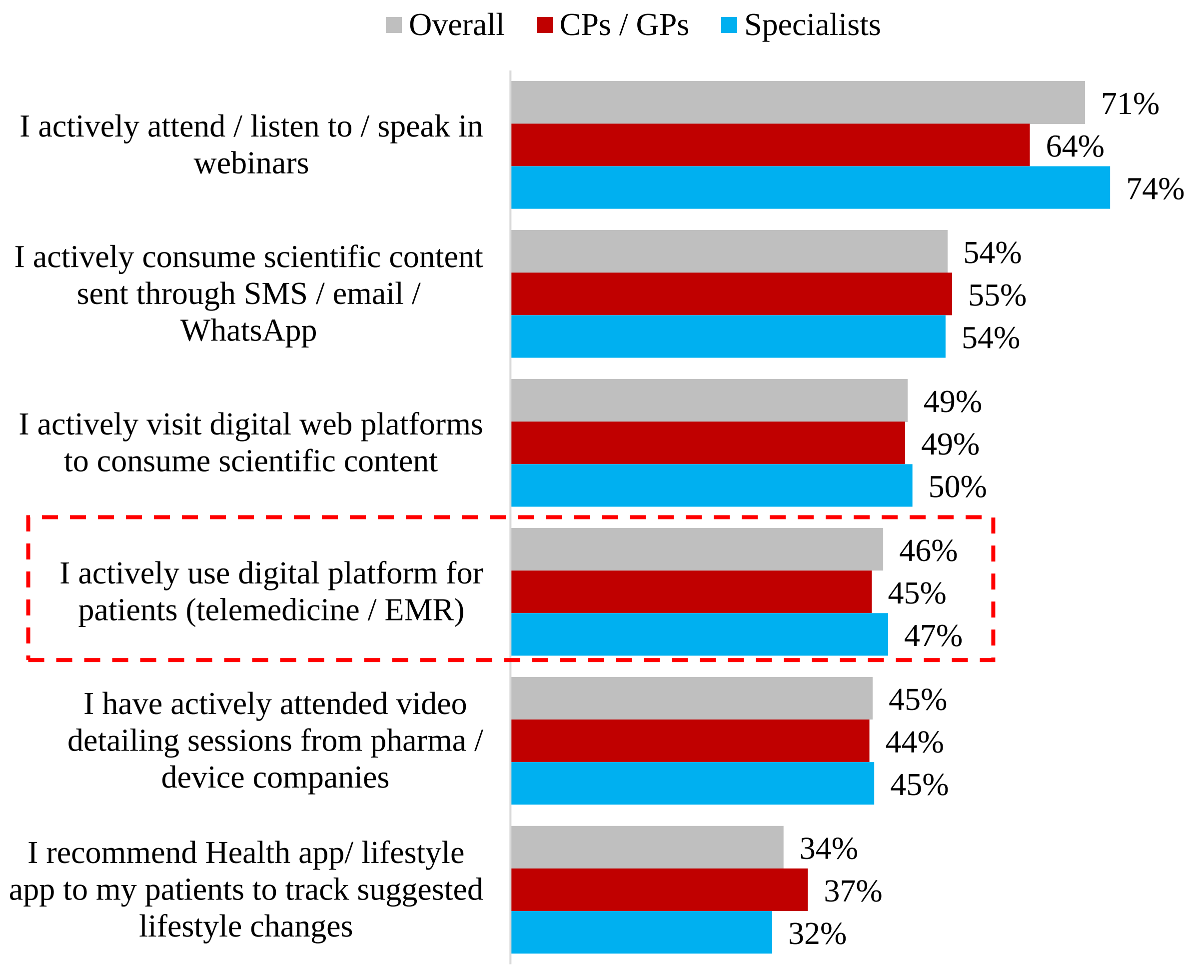
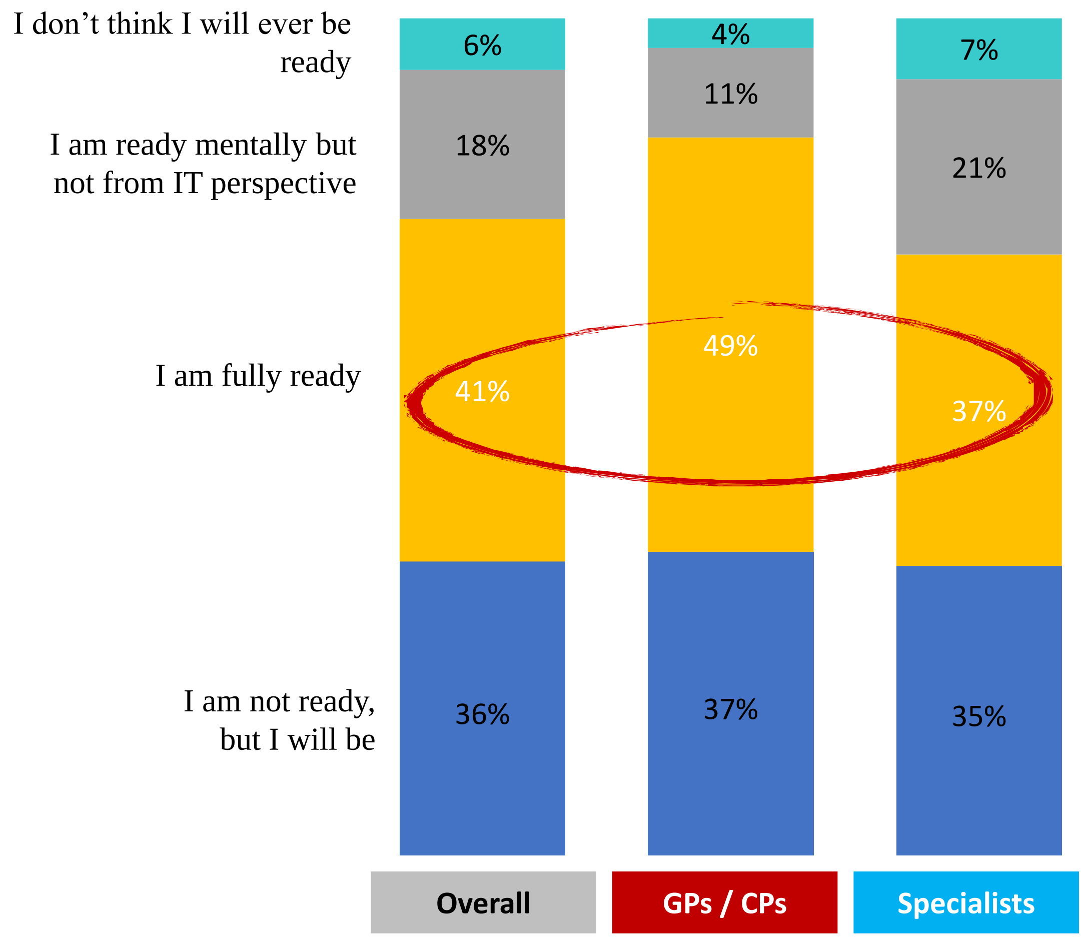
Overall | GPs / CPs | Specialists

% of respondents

Highest acceptance level seen for webinars; EMR / Telemedicine usage still under utilized; 40% respondents believe they are fully ready to embrace digital revolution





Q. What is your acceptance level across digital? Where are you currently in your journey towards fully embracing and being ready for the digital revolution?

Overall GPs / CPs Specialists *% of respondents*

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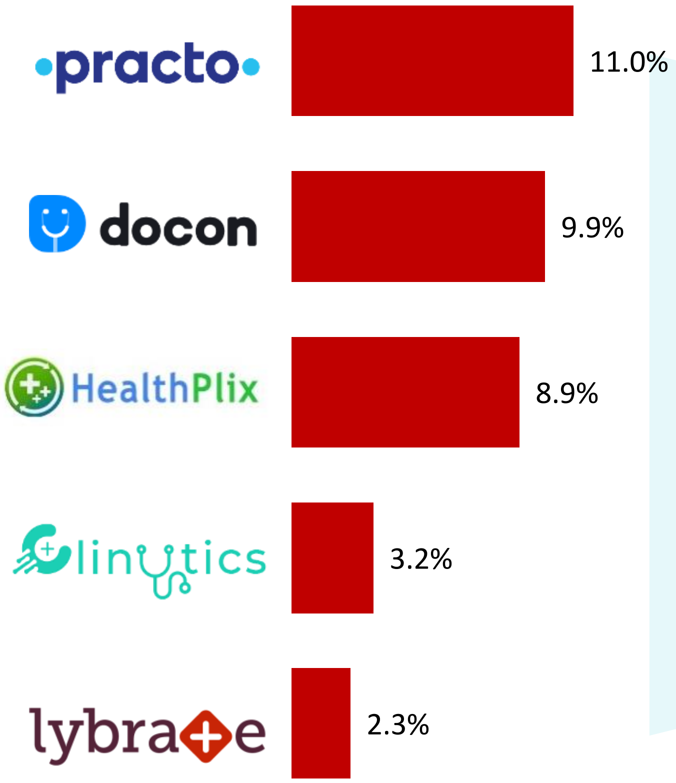
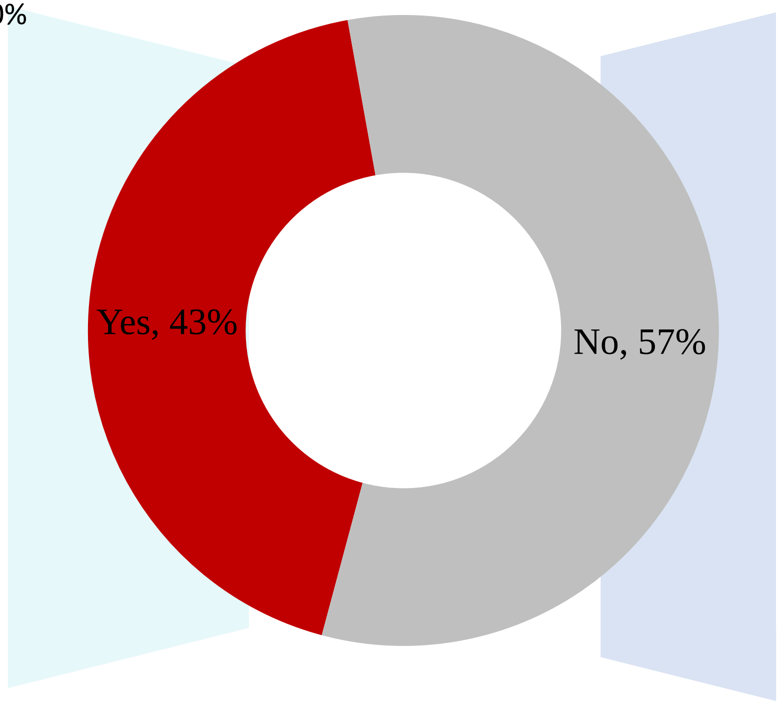
~4 out of 10 respondents have access to specialized platform to manage digital health records; Practo, Docon and HealthPlix are the top 3 commonly used platforms

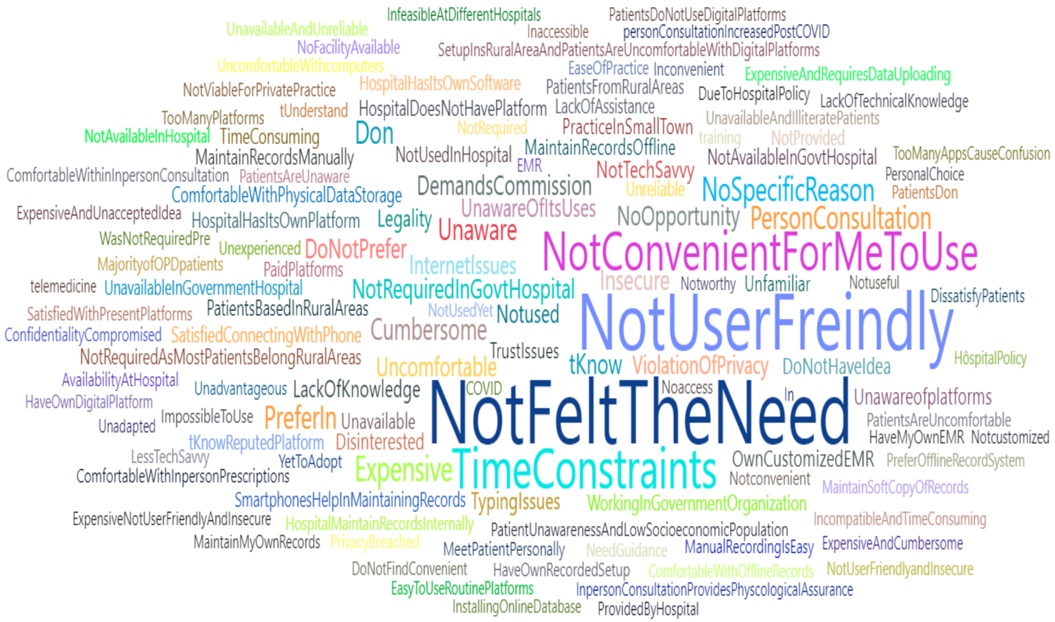
Top Platforms Used



Access to Specialized Platforms to Manage Health Records



Reasons for Not Using Platforms

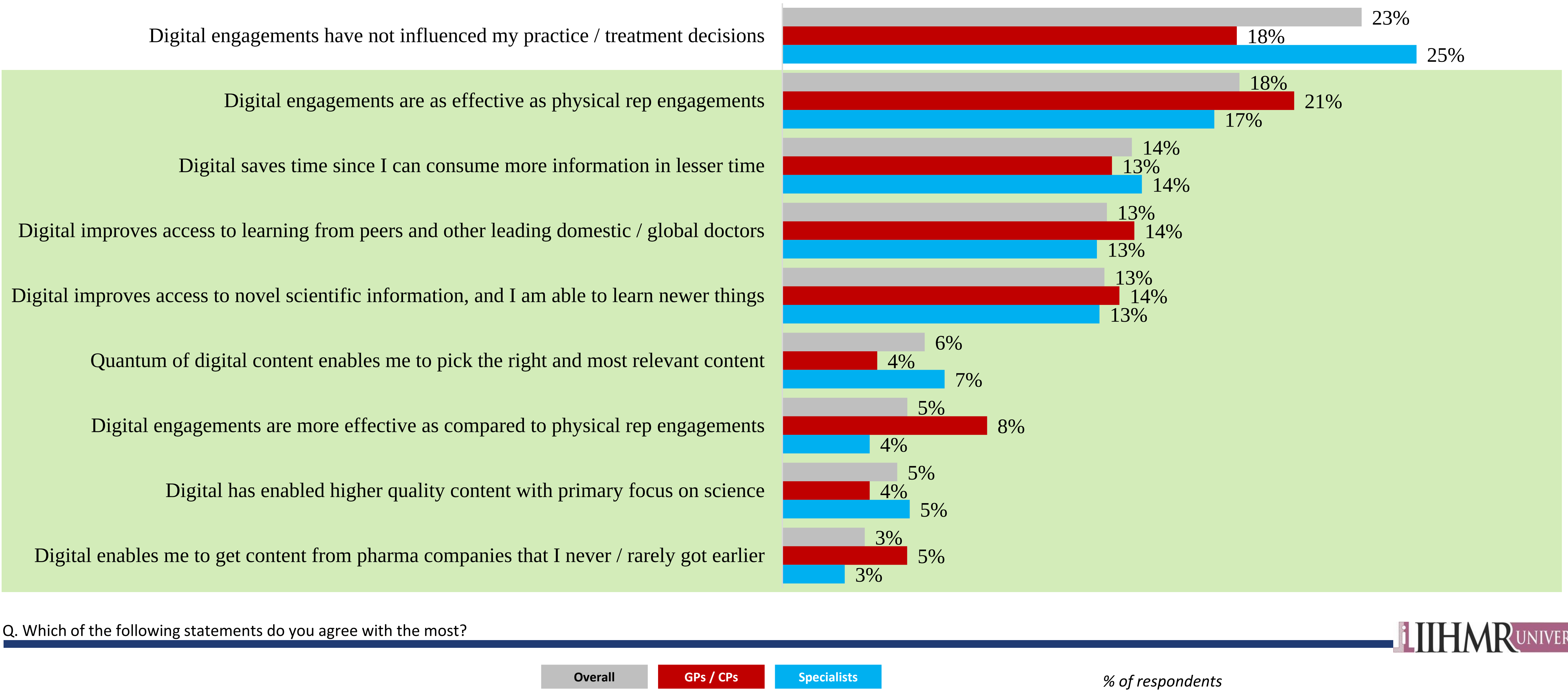


Q. Do you have access to any specialized platform for managing digital health records of patients? Please specify the reason for not using such a platform. Please specify the name of the platform.

% of respondents

Majority of respondents (77%) believed that Digital improves learnings, quality of interaction and saves time

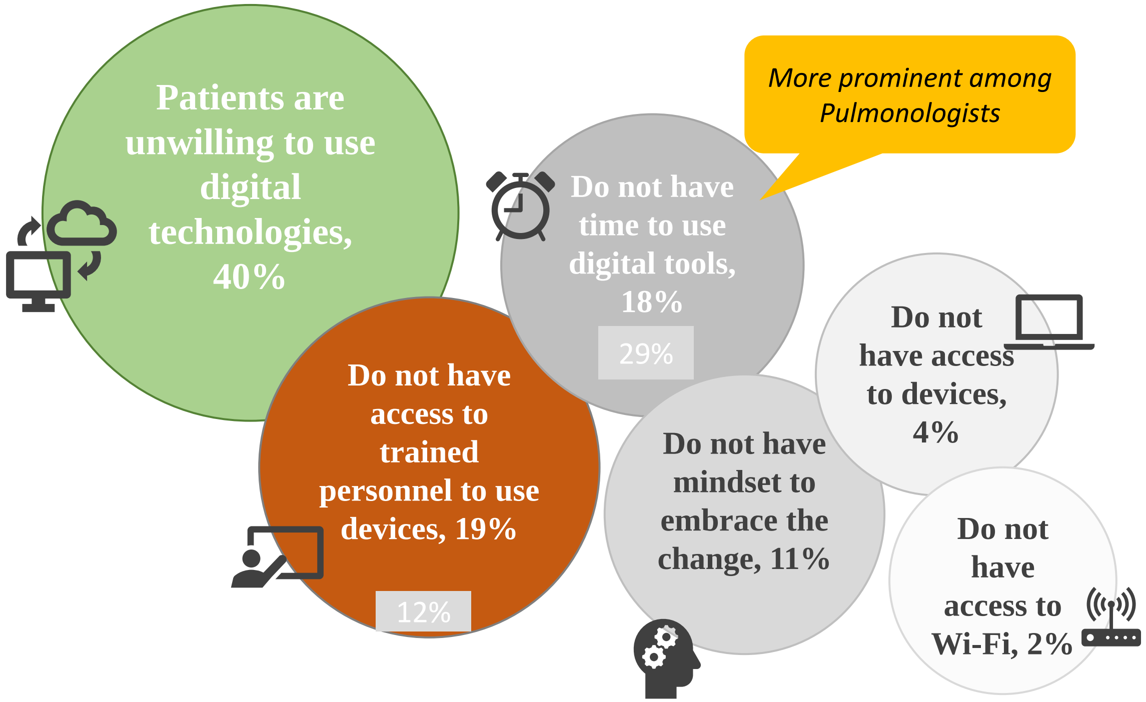
Digital Engagements: Key Advantages



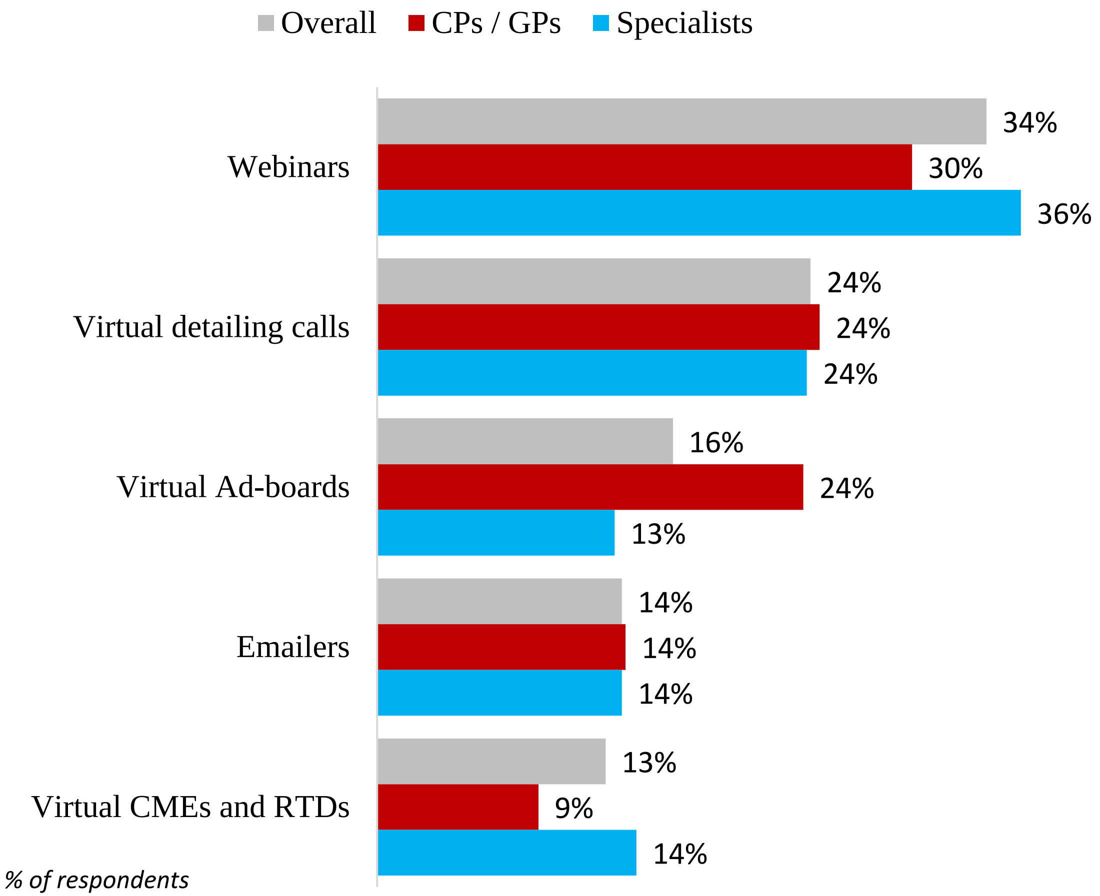
Q. Which of the following statements do you agree with the most?

Unwillingness of patients to use digital technologies is one of the key barrier limiting adoption; Over usage of Webinars causing fatigue and overload

Challenges in Adopting Digital Technologies



Mediums Causing Digital Fatigue and Overload to Doctors



Q. What according to you is the single biggest challenge in adopting virtual tools and mobile applications in your everyday practice? What is one thing you do not like which pharma companies are deploying?

Overall | GPs / CPs | Specialists

% of respondents = **Pulmonologists**

3 out of 10 respondents expect their interaction with pharma companies and patients to change significantly over time; Further 4 out of 10 believe significant change to happen in F2F interactions

After COVID-19, my interaction with pharma companies and patients….

		Overall	CPs / GPs	Specialists
Will not change at all	1	21.8%	18.5%	23.3%
	2	19.3%	12.6%	22.3%
	3	26.7%	34.3%	23.3%
	4	16.2%	19.4%	14.8%
Will change significantly	5	16.0%	15.2%	16.4%

Addition to digital interactions, face-to-face interactions with pharma companies... (in terms of visit frequency & content, meetings, and other organizations etc.)... **And patients (in terms of visits or consultations)**

		Overall	CPs / GPs	Specialists
Will not change at all	1	16.3%	15.8%	16.5%
	2	16.6%	11.4%	18.9%
	3	28.2%	31.1%	26.9%
	4	18.9%	22.6%	17.3%
Will change significantly	5	20.0%	19.1%	20.4%

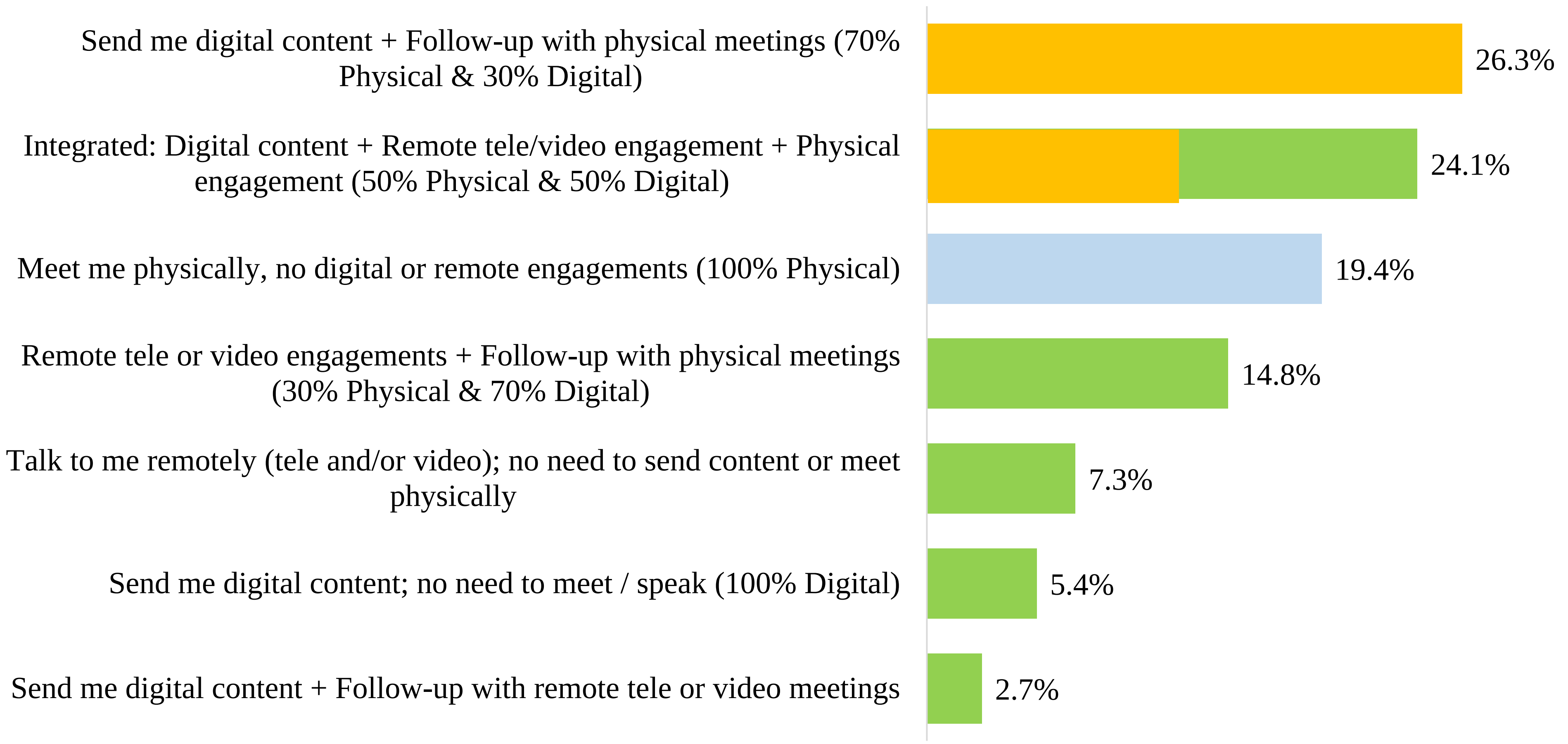
Q. How will your post-COVID interactions with pharma companies and patients change?

Overall | GPs / CPs | Specialists

% of respondents

3/4th of the respondents expect digital to be a part of pharma communication strategy going ahead

Preferred mode to interact with Pharma post Covid



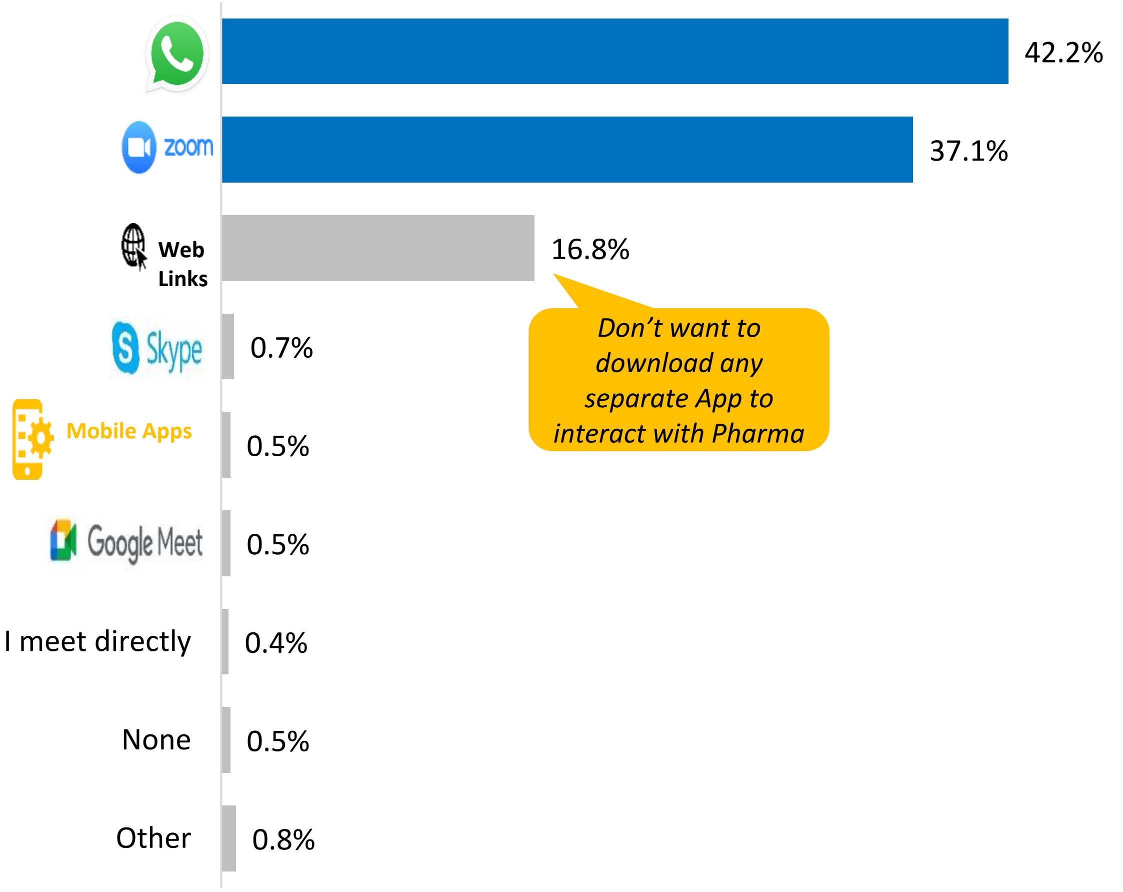
Q. When things stabilize and we find ourselves in a POST COVID-19 reality, of the following statement, which one is more relevant to you?

Mix with physical heavy | Only Physical | Mix with Digital heavy

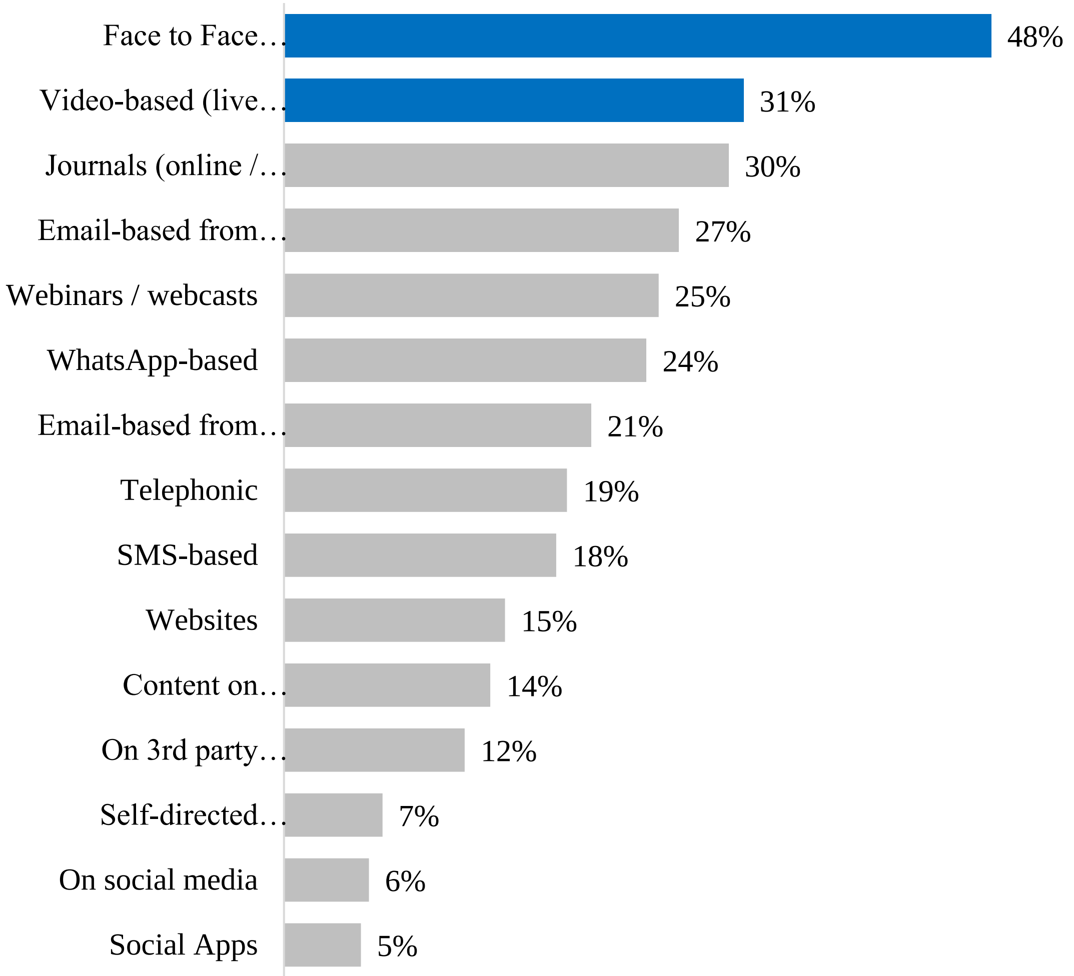
% of respondents

WhatsApp and Zoom are the two most preferred platforms being used by Doctors to interact with Patients and Pharma; F2F Tablet based, and Video-based detailing ranked the highest

Preferred Apps to Interact with Patients and Pharmaceutical Companies



Preferred Engagement Channels



Q. Which online application do you prefer most for virtual visits with patients and pharmaceutical companies? If the Pharma industry has to engage with you through digital / remote channels, how would you rank the following engagement channels in order of priority?

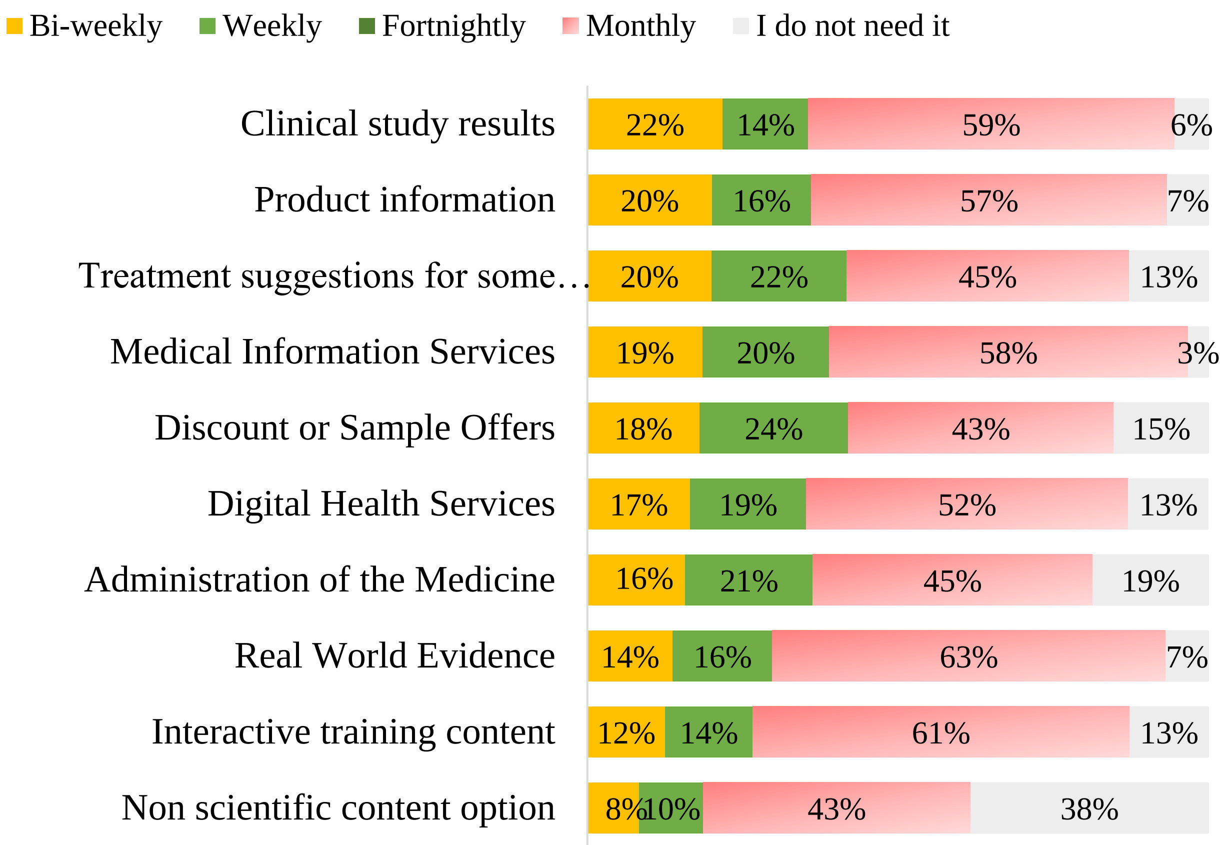
% of respondents

Monthly visits are preferred by doctors for both, appointment-based F2F and virtual interactions

Preference for Appointment-based F2F Interaction with Pharma

	Overall	CPs / GPs	Specialists
Bi-weekly	23%	27%	21%
Weekly	18%	19%	17%
Fortnightly	10%	8%	11%
Monthly	49%	46%	51%

Overall - Optimal Virtual Visit in Terms of Content and Frequency



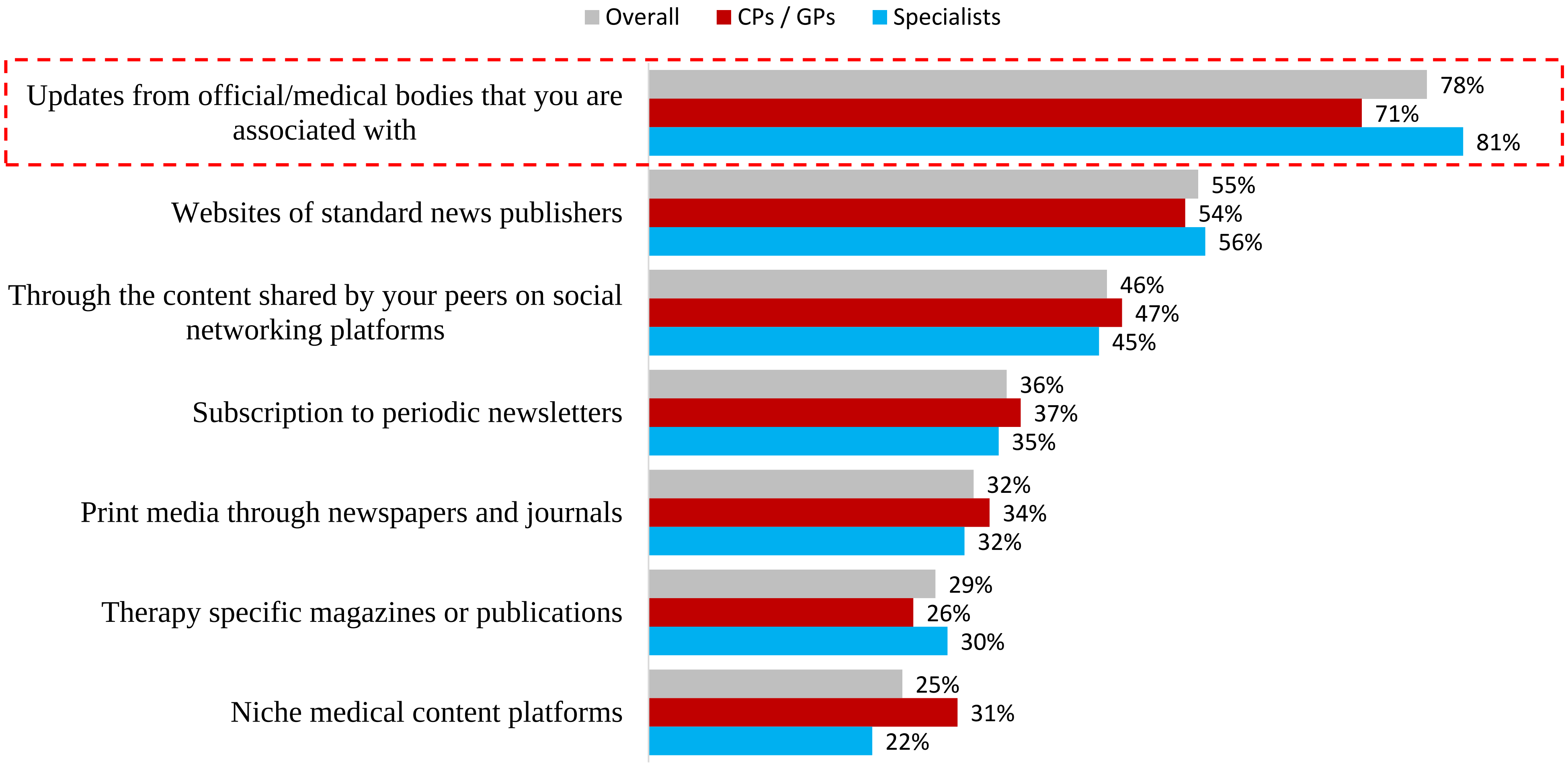
Monthly visits are preferred by most irrespective of specialty

Q. What would be the frequency at which you would prefer an appointment-based face-to-face interaction with pharma companies? What should be the optimal virtual visits in terms of content preference and frequency?

Overall | GPs / CPs | Specialists

% of respondents

Updates from official / medical bodies are the key source of reading medical news / updates followed by websites

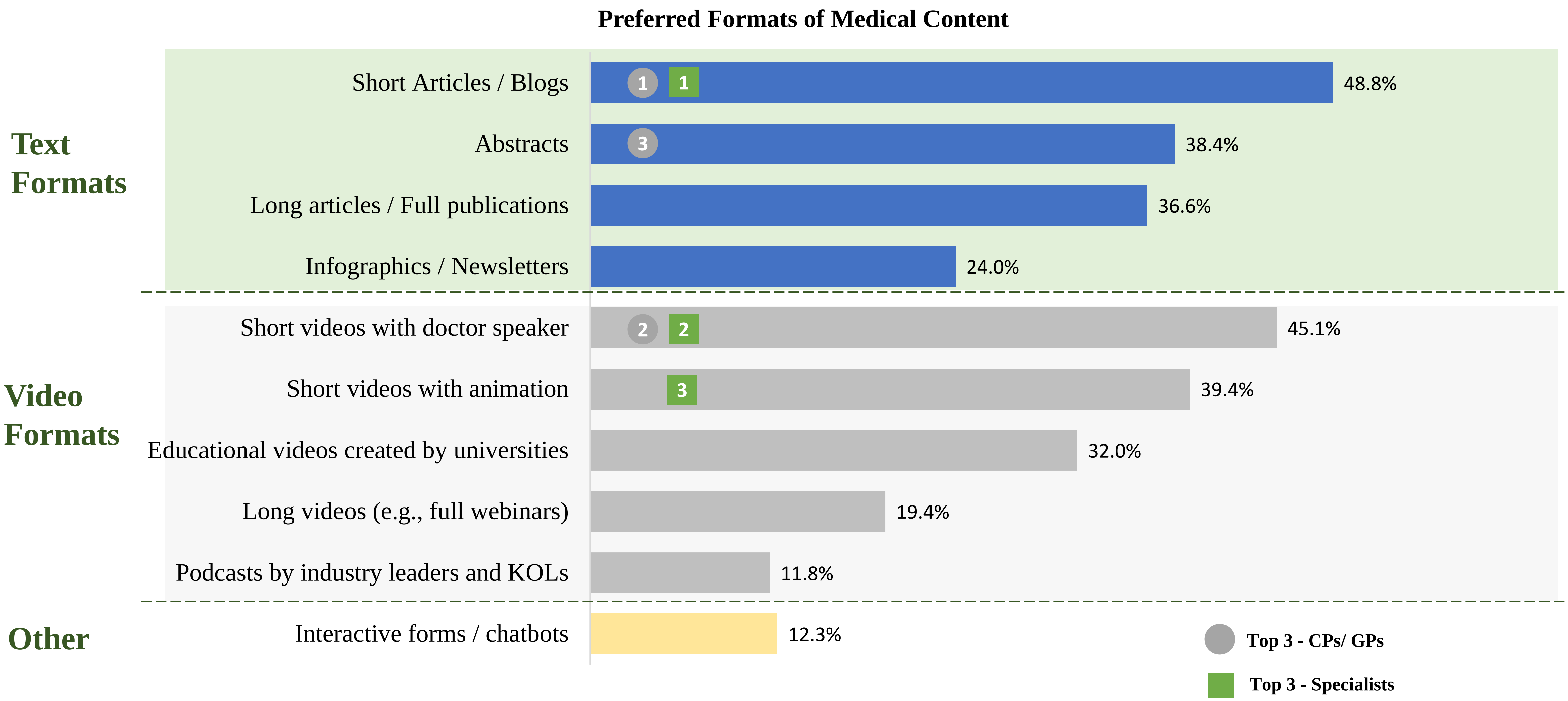


Q. What is(are) your preferred source(s) of reading current medical news updates?

Overall GPs / CPs Specialists

% of respondents

Short articles / blogs are preferred the most followed by short videos with doctor speakers

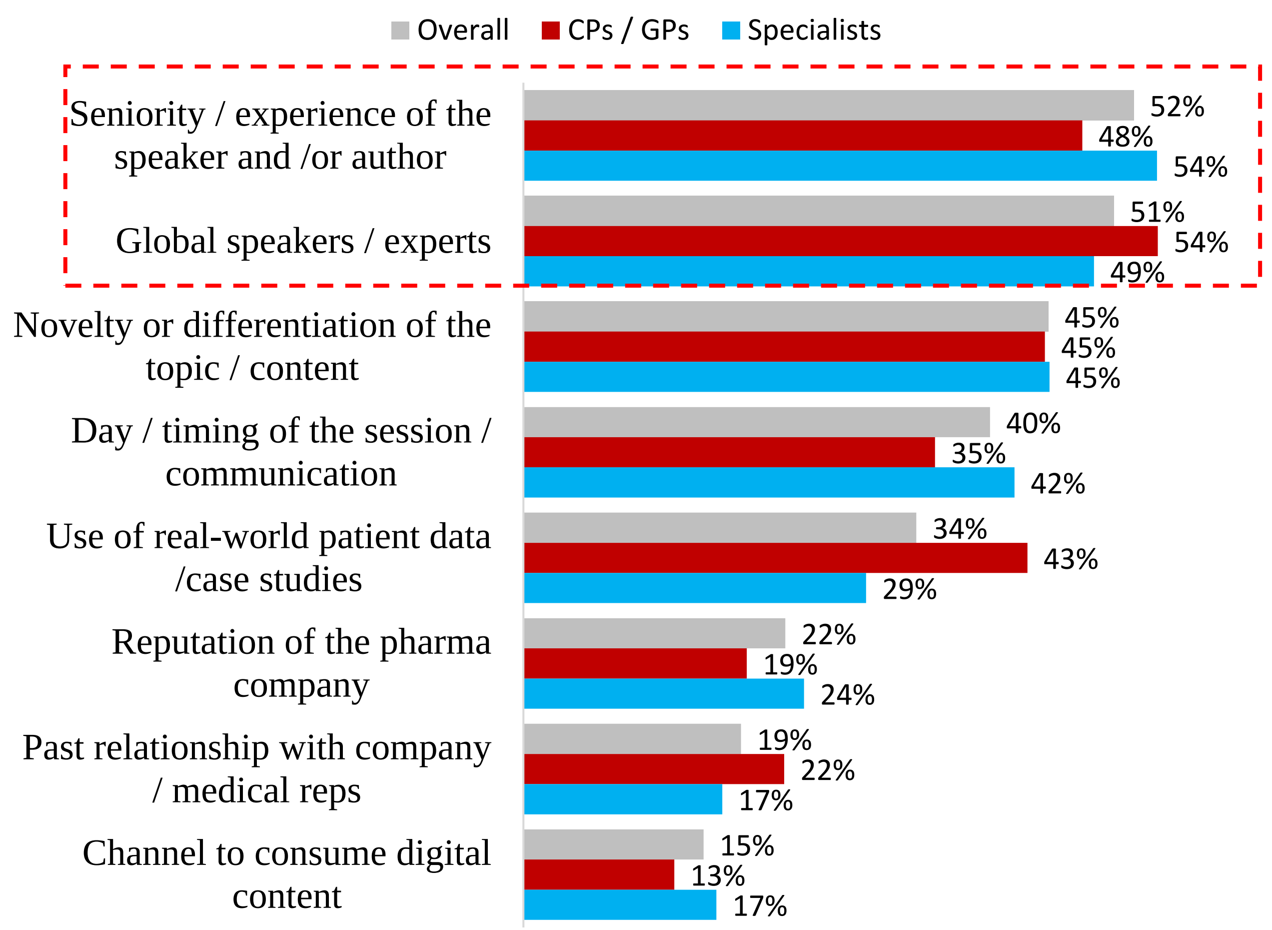


Q. Which of the following will be your most preferred format of medical content?

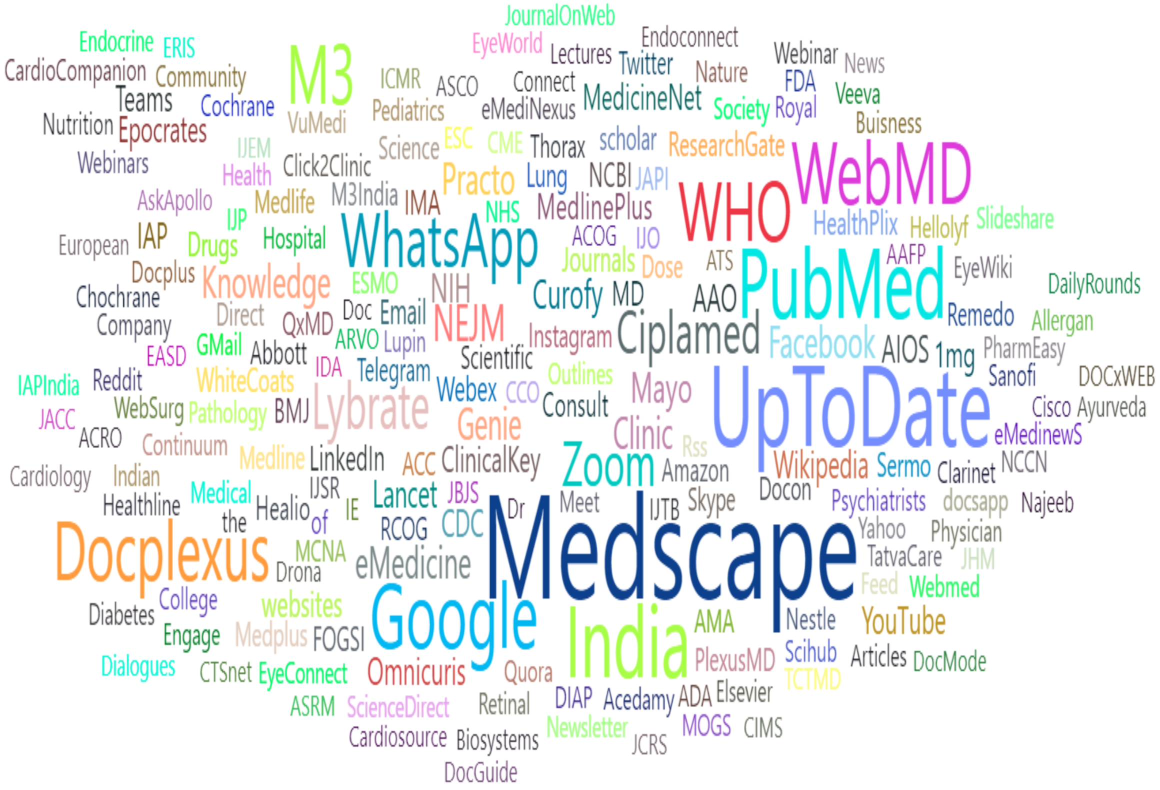
% of respondents

Speaker profile (Seniority, experience, native) followed by novelty of content and timing of session matters the most while consuming digital content

Important Factors while Consuming Digital Content



Leading Websites / Apps to Consume Content



Q. What matters to you the most when consuming digital content? What are the top 3 websites / app where you consume content?

Overall | GPs / CPs | Specialists

% of respondents

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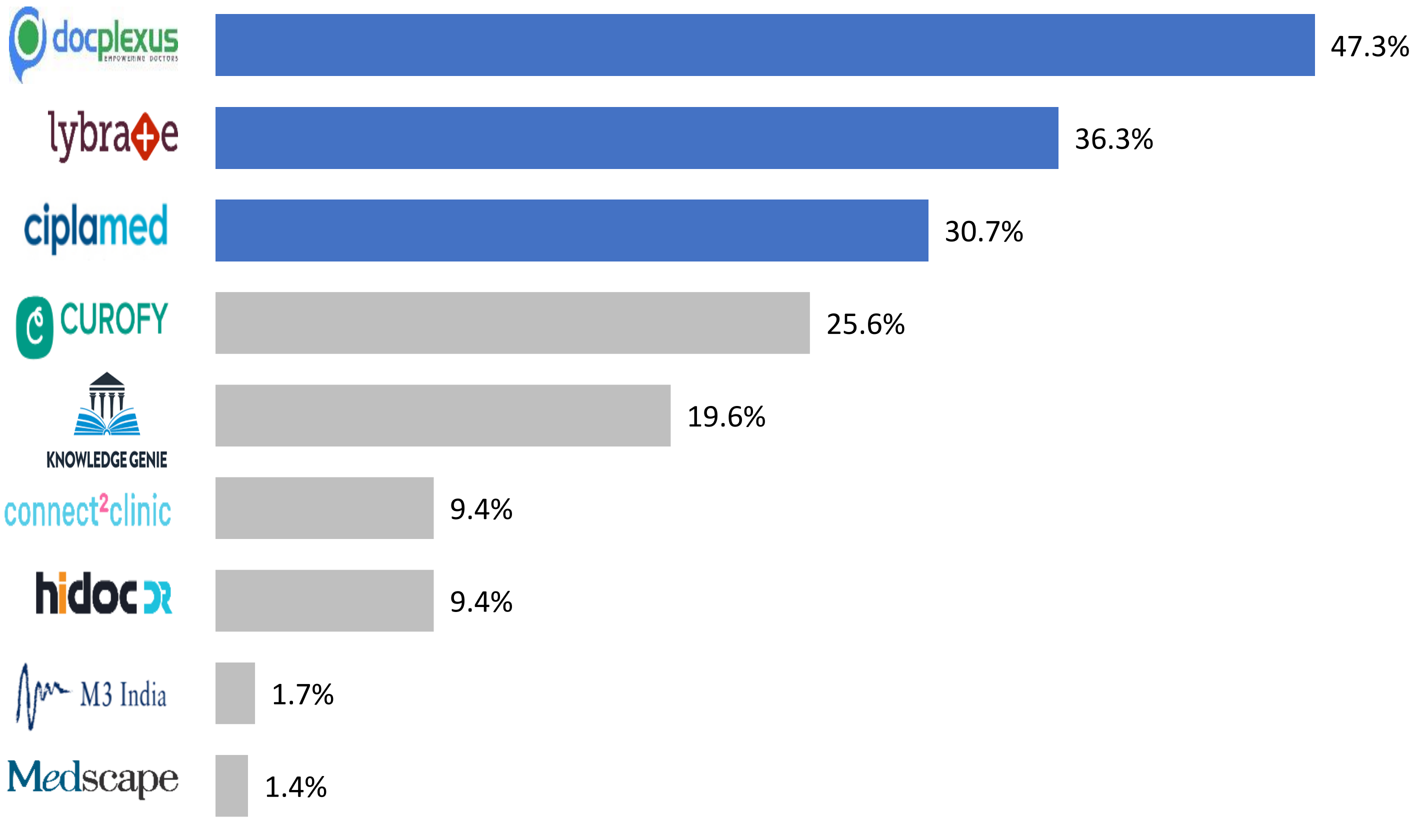
Docplexus, Lybrate, and Ciplamed are the top 3 platforms used to access scientific video content

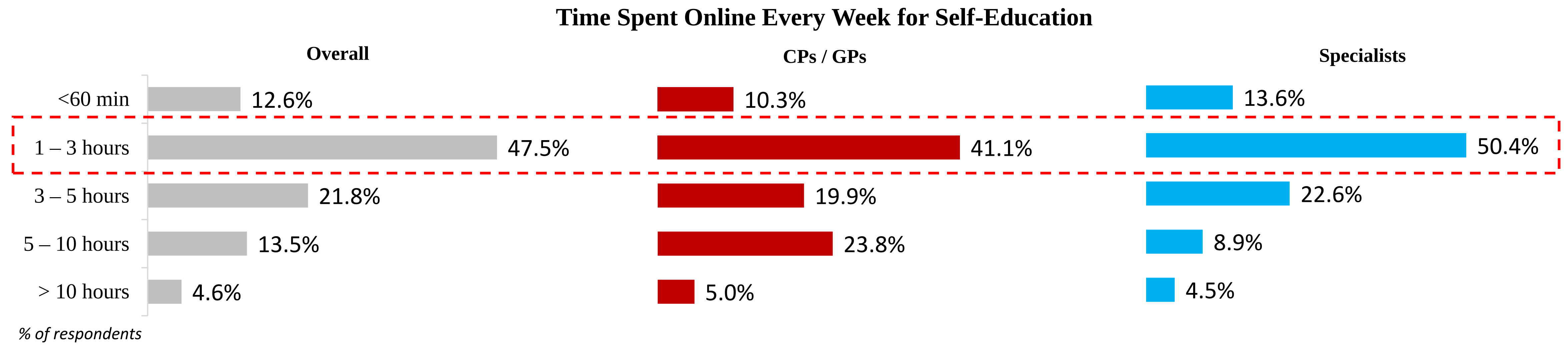
Top Platforms Used to Access Scientific Video Content

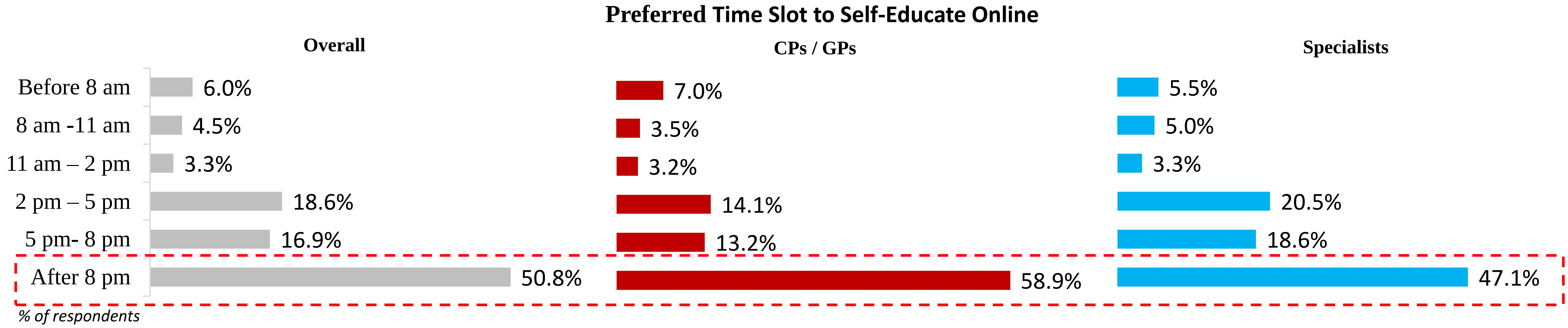


Q. Which platforms do you visit in order to access scientific video content?

% of respondents

Maximum HCPs generally spend 1-3 hours every week on self-education; Post 8pm preferred time slot to access digital media for knowledge enhancement



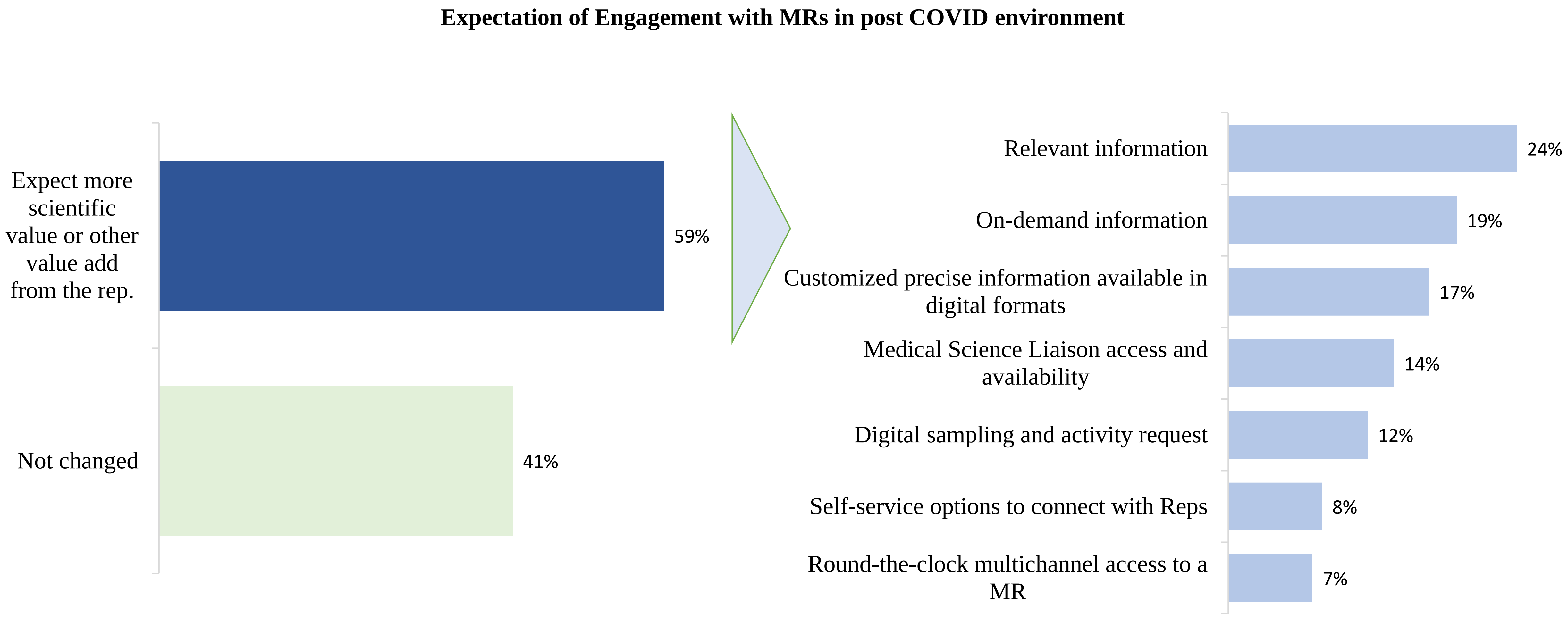


Q. How much time, on an average, do you spend online in each week to educate yourself and improve your practice? What is the preferred time of the day when you access digital media to enhance your knowledge?

Overall | GPs / CPs | Specialists

% of respondents

Majority of HCPs expects more value addition from MRs in the form of delivering relevant and customized information



Q. How has your expectation of the nature of an engagement with a pharma rep changed as we move into a post COVID environment?

% of respondents

Combination of virtual and in-person modes for conferences and CMEs / advisory boards will be preferred going forward

Preferred Modes to Attend Medical Conferences and RTDs / CMEs / Advisory Boards Now Onwards

Virtual **In-person**

	Medical Conferences			RTDs / CMEs / Advisory Boards		
	Overall	**CPs / GPs**	**Specialists**	**Overall**	**CPs / GPs**	**Specialists**
	9.0%	10.9%	8.2%	11.2%	13.5%	10.2%
	26.1%	23.5%	27.2%	25.4%	19.9%	27.9%
	38.4%	38.4%	38.4%	37.6%	40.8%	36.1%
	10.9%	10.0%	11.3%	11.5%	11.4%	11.5%
	15.7%	17.3%	14.9%	14.3%	14.4%	14.3%

Q. Post vaccination, which of the following modes would you prefer to attend medical conferences going forward? Which of the following modes would you prefer to attend RTDs / CMEs / Advisory boards going forward?

% of respondents

EHR / diagnostic reports management and Telemedicine key support elements where HCPs expect support from pharma companies

Ways to Support Doctors Patients During and Post COVID-19 Crisis

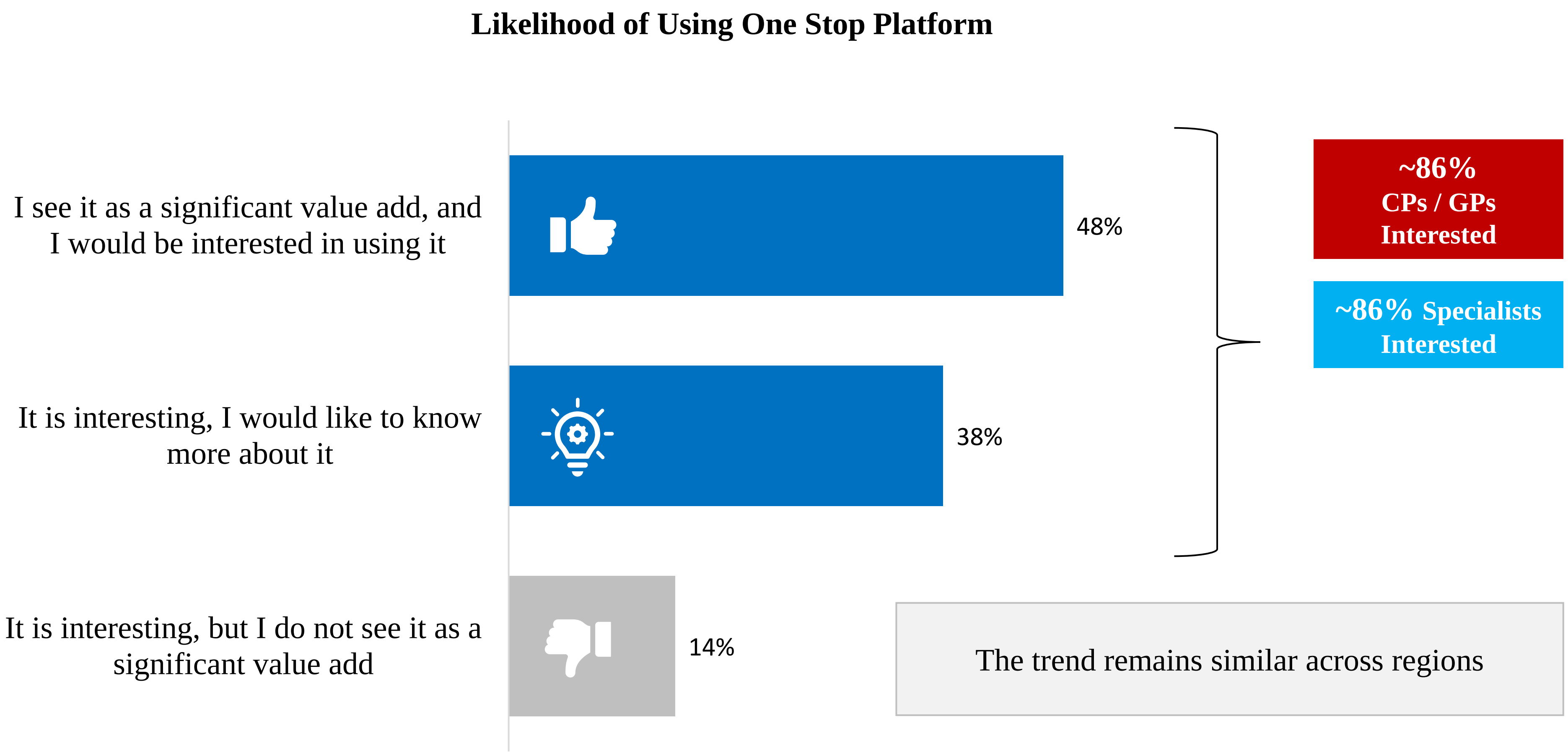
Not important at all ← → Extremely important

	0	1	2	3	4	5	6	7	8	9	10	Not Applicable
Community social platform for doctors for given geography	4%	2%	3%	3%	4%	14%	13%	17%	18%	9%	12%	1%
Access to telemedicine and teleconsultation platforms	3%	2%	3%	3%	5%	12%	9%	17%	18%	10%	16%	2%
Remote patient monitoring solutions	4%	2%	3%	3%	4%	13%	10%	14%	16%	11%	16%	3%
Electronic health records and diagnostic reports management	3%	2%	3%	2%	3%	10%	9%	12%	16%	14%	24%	4%
Platform to collaborate on medical research, trials and RWE studies	2%	1%	3%	3%	4%	9%	11%	16%	15%	16%	18%	1%
Digital symptom checker	6%	3%	3%	5%	4%	11%	11%	15%	15%	9%	14%	3%

Q. How would you rate following ways in which pharmaceutical companies can support you, your practice, and your patients during and post COVID-19 crisis?

% of respondents

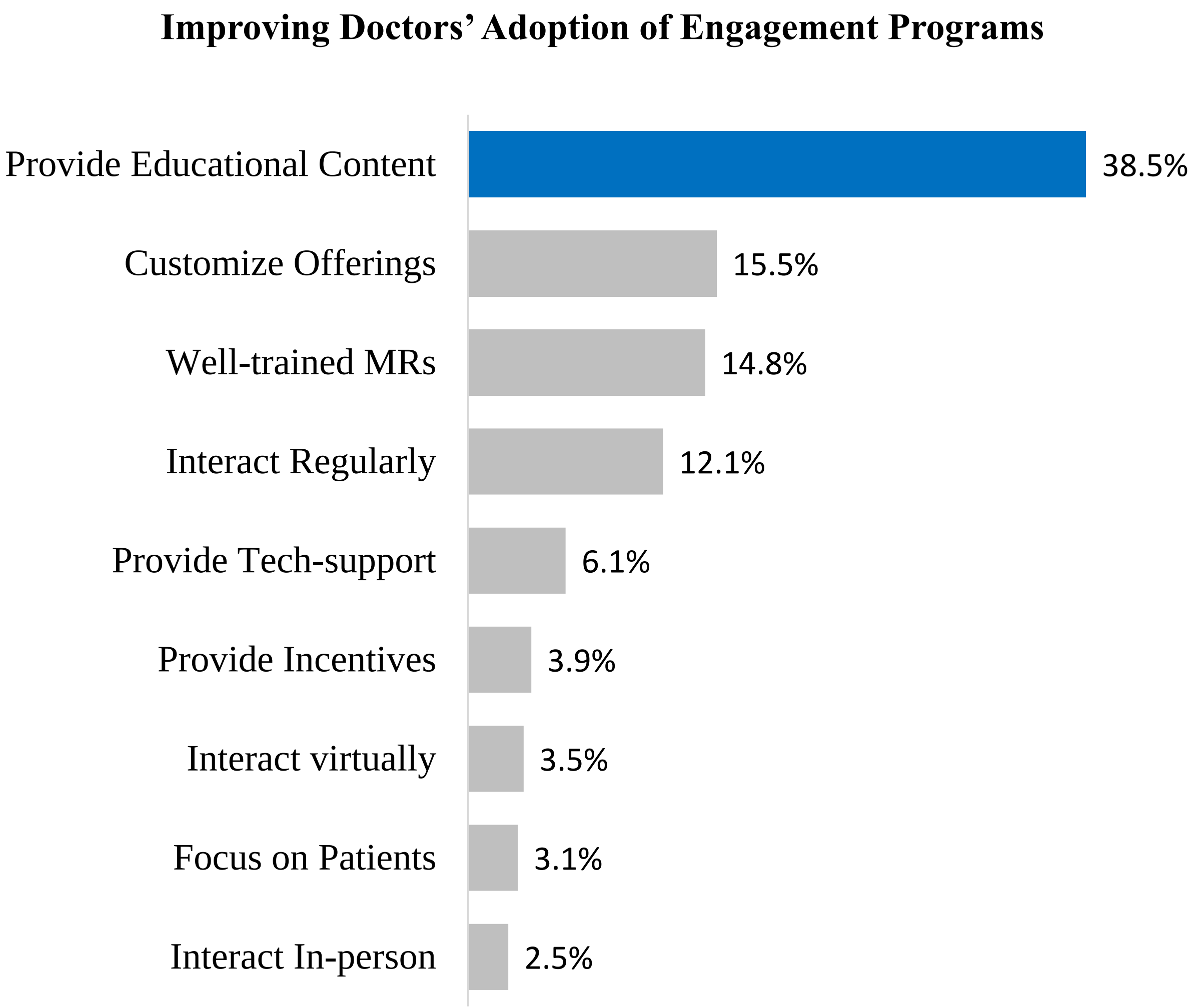
Half of the participating HCPs believe One Stop platforms to be of significant value and are interested in using them

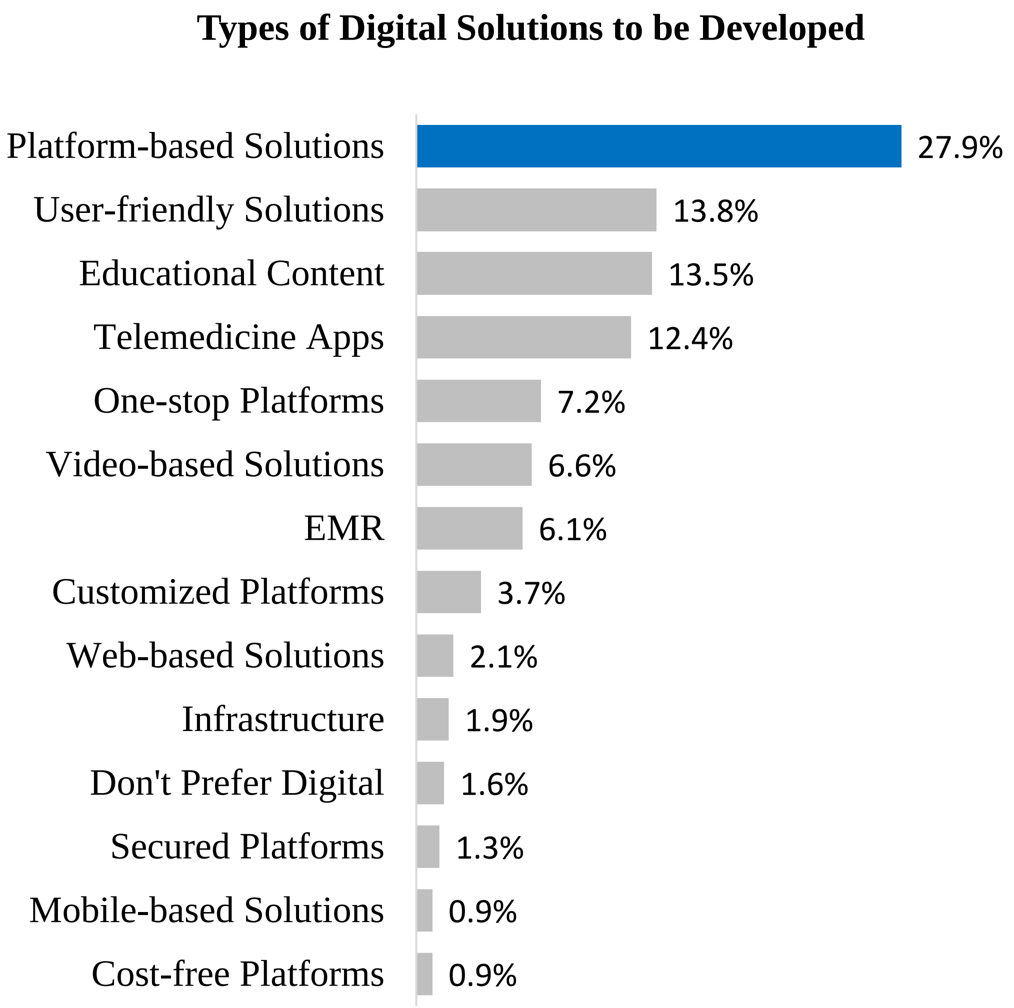


Q. What is your likelihood to use One Stop platform which combines all the above knowledge and services requirements?

% of respondents

Access to educational content will help in increasing doctor's adoption of engagement programs; platform-based solutions can assist doctors the best





Q. How can pharma companies improve adoption and stickiness of doctors to engagement programs? What type of digital solutions do you recommend pharma companies to build so that physicians like you can connect or provide care to your patients outside of your clinic/hospital setting?

IIHMR UNIVERSITY

% of respondents

Key HCPs Personalities (Personas)

Doctor Persona and their Digital Outlook

'Digital Pioneers' Dr. A

Post COVID, interested in interacting with pharma 100% digitally

'Facilitators' Dr. B

Post COVID, interested in interacting with pharma 70% digitally and 30% in-person

'Adapting' Dr. C

Post COVID, interested in interacting with pharma 25-50% digitally and 50-75% in-person

'Conventional' Dr. D

Post COVID, would like to interact with pharma 100% in-person

Digital Pioneers Dr. A
(n=171, 15.4%)

Profile -
Qualification: CP / GP
Age Group: 32-45 years
Work Experience: <12 years
Practice Setting: Consults in clinic as well as at hospital

Digital Usage –
- Make active use of digital platforms for patients (telemedicine / EMR)
- Open to adopt new technology and trends like “The Internet of Things (IoT)”, “virtual reality (VR)”, and “artificial intelligence (AI)”

Interests and Preferences –
- Desire access to telemedicine and teleconsultation platforms;
- Prefer digital content provided by professional speakers/authors and worldwide experts; and
- One-Stop Platforms that will cater to information as well as practice management (telemedicine / virtual consultation, payment) requirements

Unmet Needs and Challenges –
- Staff members have not been taught or informed on how to operate devices
- Webinars are the least liked since they create digital fatigue

‘Digital Pioneers’ Dr. A

Facilitator Dr. B
(n=163, 14.7%)

‘Facilitator’ Dr. B

Profile -
Qualification: Specialist
Age Group: 36-45 years
Work Experience: 11-20 years
Practice Setting: Consults in clinic as well as at hospital

Digital Usage –
- Used health-apps and video calls to advise patients during the pandemic;
- Regularly participates in video detailed sessions from pharmaceutical and device firms; and
- Ready to go virtual for majority of the conferences / CMEs

Interests and Preferences –
- Collaboration platforms for medical research, trials, and RWE studies
- Preference for user-friendly digital solutions
- Preference for phone-based apps

Unmet Needs and Challenges –

Virtual Ad-boards are disliked because they create digital tiredness

Adapting Dr. C
(n= 557, 50.3%)

Profile -
Qualification: CP / GP
Age Group: 36-45 years
Work Experience: 11-20 years
Practice Setting: Consults in clinic as well as at hospital

Digital Usage –

- Actively consumes scientific material delivered via SMS/Email/WhatsApp
- Provided web-based consultation to patients throughout the pandemic
- Is patient-centric - Recommends Health / Lifestyle Apps to patients

Interests and Preferences –

- Do not need applications for virtual pharma visits; a web link is usually sufficed
- Interested in using Telemedicine apps, EHR, and diagnostic report management solutions
- Interested in acquiring information and ideas from peers and professionals across the world

Unmet Needs and Challenges –

- The staff is not being taught or informed on how to utilise the devices.
- Because of digital fatigue, they prefer webinars the least.

‘Adapting’ Dr. C

Conventional Dr. D
(n= 214, 19.3%)

‘Conventional’ Dr. D

Profile -
Qualification: CP / GP
Age Group: 46-60 years
Work Experience: 11-20 years
Practice Setting: Consults in clinic as well as at hospital

Digital Usage –
- Do not utilize digital platforms; use them sparingly when necessary.
- Are not ready or prepared to accept new technology.

Interests and Preferences –
- Interested in educational digital material
- Interested in a community networking platform for physicians based on area
- Will be at ease with in-person conferences/CMEs and MR visits after COVID
- Prefer to examine patients physically

Unmet Needs and Challenges –
- Inadequate infrastructure
- Lack of time to use digital platforms
- The staff is not being taught or informed on how to use the devices.

Conclusion and Recommendations

- HCPs expect long-term changes in their relationship and communication with patients and pharmaceutical firms post COVID-19.
- Doctors favour digital interaction channels more, whereas in-person visits by medical personnel are ranked lower by them.
- Even though EMR and telemedicine are currently underutilized, almost half of the respondents feel that they are completely prepared to embrace the digital revolution.
- Doctors are increasingly looking to pharma companies to act as health educators, and to provide relevant educational content and customise offerings which should be provided in form of short blogs or videos.
- There should be a strong governance framework to support a digital transformation culture and robust health IT infrastructure for information exchange.
- Implementing electronic health records in hospitals and improving staff and patient digital literacy would help to develop digital leadership abilities among them.
- Pharma companies should assist doctors in providing EHR/diagnostic report management, telemedicine and One Stop Platform software in alignment with their expectations and preferences.

THANK YOU