

COVID-19 Health Check for Pharma Companies

How to prepare for post-COVID-19

May 2020



Agenda

- + Overview of COVID-19 related challenges and responses of pharma companies
- + Reviewing impact on customer engagement strategy in (post-)pandemics context
- + Reviewing impact on portfolio development and management

Overview of COVID-19 related trends, challenges and actions

Behavior of patients/HCPs/authorities has significantly changed within a few weeks and will not come back to the one before

Key changes in the behavior of the selected healthcare stakeholders



Citizens / Patients

- Quickly accelerating **acceptance of telemedicine**
 - **Limited free movement** – within pharmacies space & b/w them (choice)
 - **Financial trade-offs** even in the short-term influencing patients' **compliance**
 - Sharp **decrease in voluntary medical donations** (e.g. blood)
- **Stockpiling** acute symptomatic drugs, vitamins, medical supplies and Rx products
 - Increase in **self-therapy**, use of non-approved drugs for treating COVID-19 symptoms

Demand structure changes



HCPs / Providers

- **Postponing non-acute healthcare services**
- **Peaking workload for some HCPs** (e.g. in intensive care) and **minimal workload for others** (e.g. dentists)
- **Growing role of telemedicine** even without full legal roll-out

• **Challenges to ensure supply of products**

Product availability

- Increased popularity of **online pharmacy services** (e.g. Uniparipa by Unipatika in HU)

• **No/limited F2F interactions with HCPs/pharmacists**

Shift in promotion



Payors/ Governments

- **Exceptional approval fast track for COVID-19 related drugs/medical devices**
- **Introduced** special measures, including **state of emergency** in some countries e.g.
 - **Export bans:** e.g. Romania suspended export of medicines and other health products for 6 months¹
 - **Central price control:** e.g. in Croatia over hygiene products and medical supplies²
 - **Military control over strategic companies**, including pharma companies: e.g. Egis, Richter in HU³

¹ <https://www.euractiv.com/section/coronavirus/news/romania-suspends-exports-of-medicines-as-coronavirus-victims-reach-47/>

² <https://www.total-croatia-news.com/politics/42147-croatian-government>

³ https://bbj.hu/coronavirus/army-task-forces-assist-operation-of-more-essential-companies_180368

Products categories are differently impacted by COVID-19

Certain medicines at-risk of shortage as COVID-19 develops with variable impact



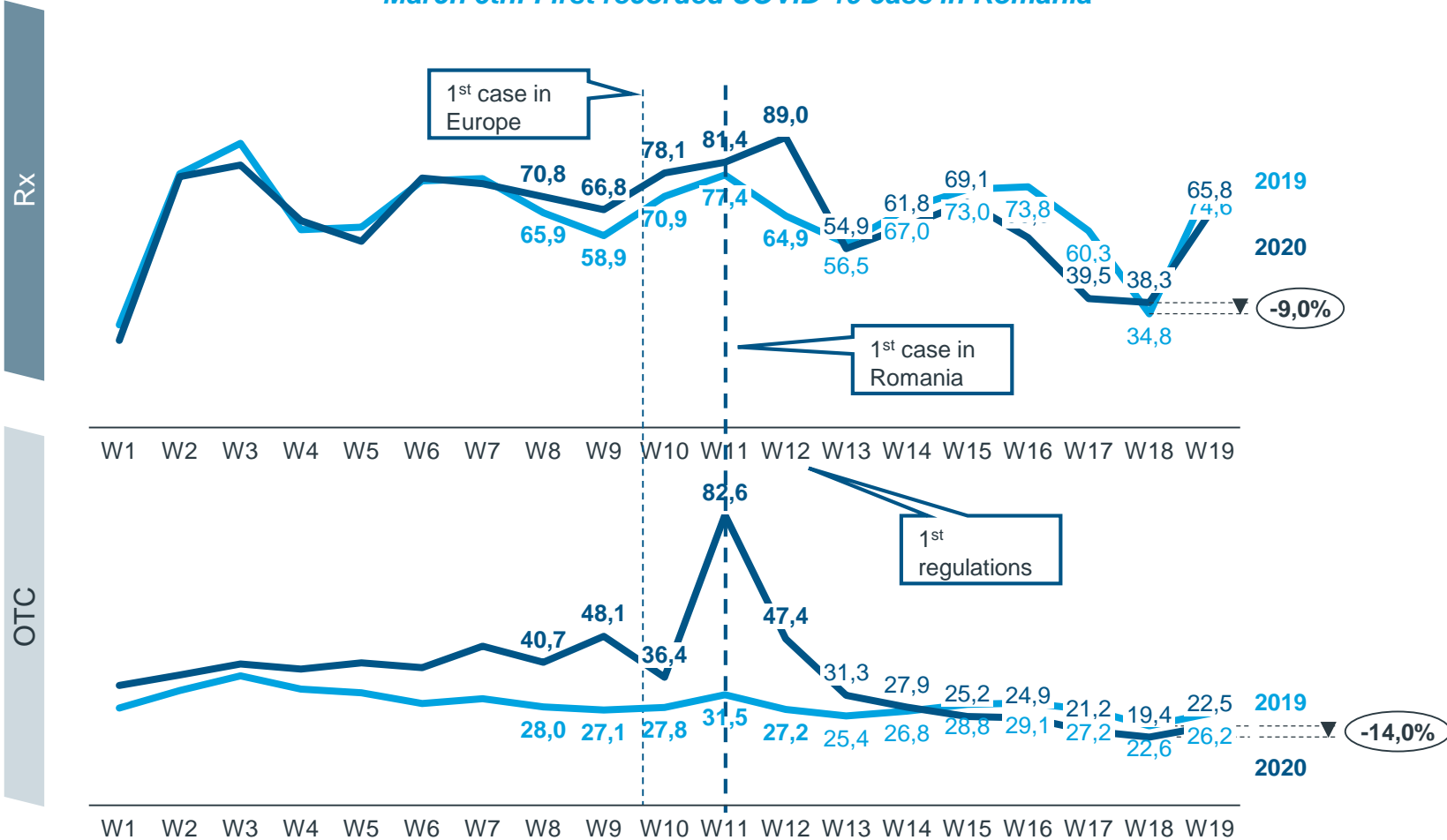
The Experimental Treatment – “The Wildcards”	The Hospital treatment – “Linked to the case load”	The Home Treatment – “Stocking up to be prepared”	The General Treatment – “For quarantine of high risk”
<ul style="list-style-type: none"> • Actemra (tocilizumab) <i>Roche</i>, Keyzara (sarilumab) <i>Sanofi</i>, Castem Zephyr, BDB-001 <i>Staidson</i>, Kaletra (lopinavir/ritonavir) <i>Abbvie</i>, Jakavi (ruxolitinib) <i>Novartis</i> • Gilenya (fingolimod) <i>Novartis</i>, Avastin (bevacizumab) <i>Roche</i> • GS-5734 (remdesivir) <i>Gilead</i>, favipiravir <i>In development</i> • Methylprednisolone <i>Generic</i> chloroquine <i>Generic</i> hydroxychloroquine <i>Generic</i> <p>Key is to keep track of the evidence generated</p>	<ul style="list-style-type: none"> • Analgesics, NSAIDs and anti-pyretics such as aspirin, paracetamol and ibuprofen • Antiviral and antibiotic hospital solutions • Antibiotics for lower respiratory tract infections • All respiratory agents- especially asthma treatments • ICU medications • Flu / pneumococcal vaccine (to avoid another source of infection) <p>Dependant on epidemiological progression of COVID-19</p>	<ul style="list-style-type: none"> • The Home Treatments • “Stocking up to be prepared” • Cough and Cold • Hygiene • Analgesics, NSAIDs and anti-pyretics <p>Anticipation of further disease progression pressurises system</p>	<p>All other treatments, but especially for:</p> <ul style="list-style-type: none"> • Diabetes • Blood pressure lowering • Lipid lowering • Asthma treatments <p>Preparations for elderly increases demand-shock in the short term</p>

Temporary climb in demand reflects push to counteract COVID-19 and precaution against restricted access to HCPs and pharmacies



Romania: pharmacy weekly unit sales change 2020 vs 2019

March 6th: First recorded COVID-19 case in Romania



RX

- Patients stockpiled Rx products anticipating lower HCP availability
- Quick slow down for Thyroid and Asthma products
- High NOACs demand (cardiovascular disease as risk in COVID-19 context)
- Rx Mineral supp. in high demand, potentially perceived as a health improvement/precaution measure

OTC

- Spike in sales primarily in COVID-19-related categories
- Sales returning to normal levels in weeks following first confirmed cases

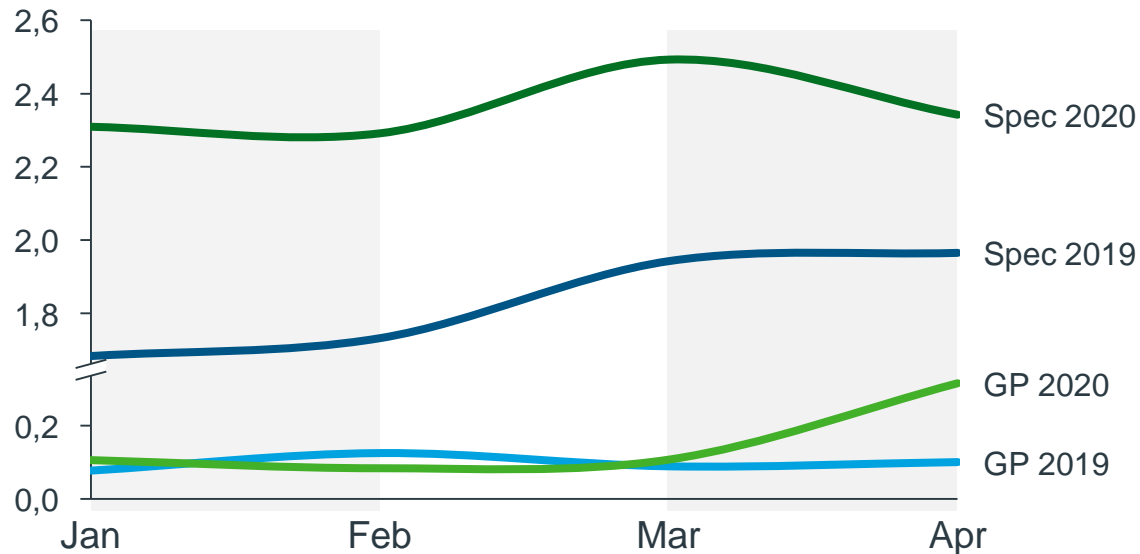
Situation requires close monitoring – sales constantly higher than pre-COVID-19 level, what sales level after pandemics?

Changes in HCPs availability and service model resulted in shifts in prescription potential



Changes in prescription distribution between HCPs

Prescriptions value* [mEUR], 2019 vs 2020



* Market: joint Oncology and Nervous

HCP distribution in oncology and neurology products*

Specialty	Market	Share of new physicians in the highest potential physicians' group (1 st decile)	
GP	Joint: Oncology and neurology	41%	59%
Oncologists	Oncology	86%	14%
Neurologists	Neurology	67%	33%

HCP with highest potential before and after 02.2020
 New HCPs with highest potential (joined 1st decile in 02-03.2020)

Implications for PharmaCo

Redesign of physicians segmentation due to:

- Increasing role of GP physicians in initiations
- Migration of patients between HCPs – changes in prescription potential distribution

*Oncology ATC class 1 L0; Neuro ATC class 1 N0
 Source: IQVIA Xponent data – non-projected, Romania
 COVID-19 Health Check for Pharma companies

Temporary initiatives to manage stock levels of critical treatments have implications for supply chain players

Overview of regulatory actions taken by authorities to secure sufficient stock within their country

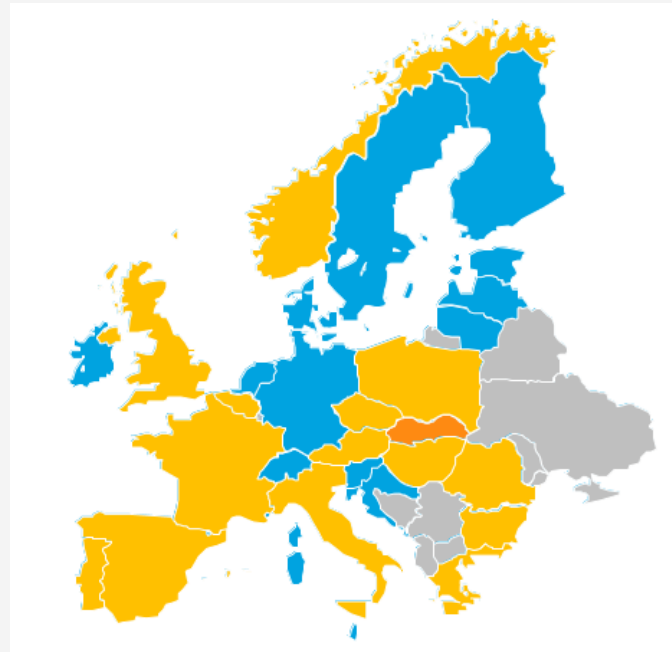
1. Temporary Trade Restrictions

Extensive restrictions
Export bans across categories

Partial restrictions
Focused on products for direct treatment of COVID-19 and other identified therapy areas

No current restrictions
Continuation of trade

The **European Union** has urged members to lift restrictions since they may cause further shortages



2. Inventory Management

Latvia Wholesalers to report stock on daily basis

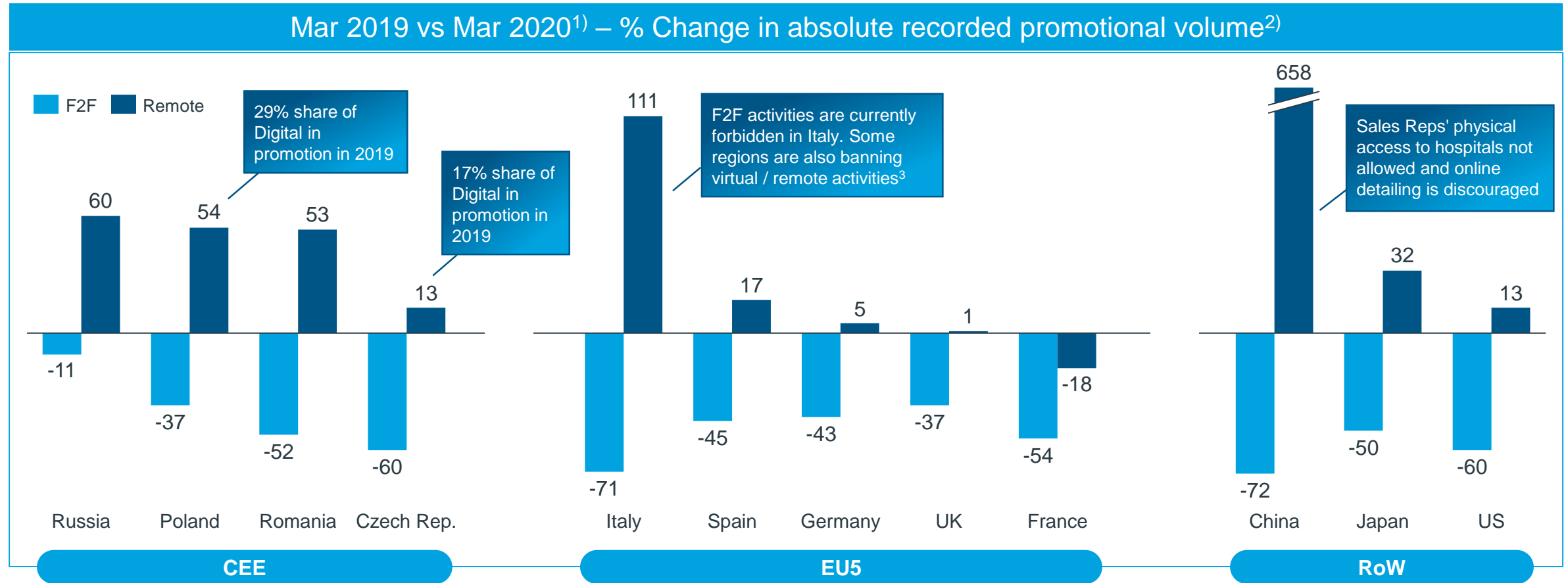
Portugal Wholesalers to report stock and sales by channel on a weekly basis

Estonia Wholesalers with MS>10% are obliged to report stock on a daily basis

Switzerland Cantons, hospitals, manufacturers and distributors of medicinal products to regularly report on their current stocks of a list of medicinal products

COVID-19 curtailed F2F promotion drastically, however uptake in remote varies heavily between the countries

Increasing share of remote interactions in March



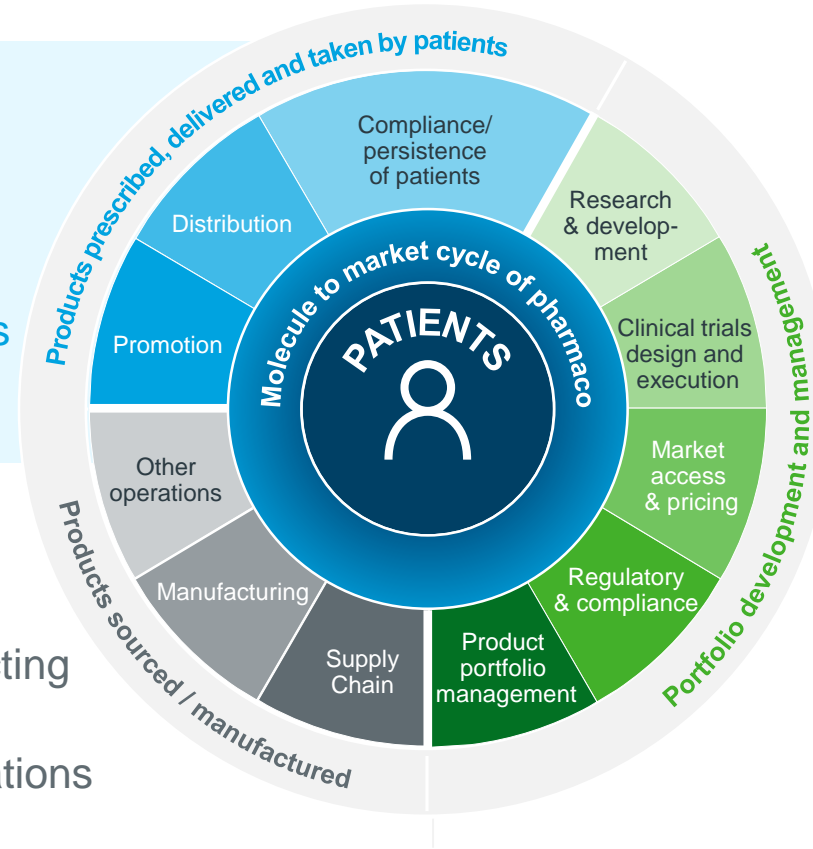
1) 01/03 to 29/03;
 2) HCP's perceived number of interactions
 3) As of 12. March

PharmaCo need to stay on track through pandemics, understand and prepare for (post-)COVID-19 environment

Selected COVID-19 challenges for PharmaCo across molecule-to-market cycle

- Changing patients treatment and compliance & lower disposable income
- Uncertainty about (post-)COVID HCPs/ pharmacists needs/expectations
- Short- and mid-term changes of the promotion channels reflecting market and regulatory changes
- Surge of the e-commerce sales with pressure on Rx delivery liberalization

- Medicines/API export constraints
- Increasing costs of supplies
- Pandemics (countermeasures) impacting manufacturing costs / output
- Reduced effectiveness of other operations
- Recession hitting suppliers, partners and competitors



- Hurdles in patients recruiting for clinical trials
- Healthcare resources diverted massively to COVID-19
- Pressure on current/new reimbursements conditions
- Opportunities to move reimbursement processes to online
- No/limited access to HCPs for launch campaigns

■ Focus for today

Globally we observe three types of responses to the situation from pharma companies

Types of pharma companies based on reaction to COVID-19 situation



Conservative

Waiting for pandemic to pass and return to **previous normal**



Adaptive

Adapting gradually to **new normal** (e.g. remote detailing, demand adjustments)

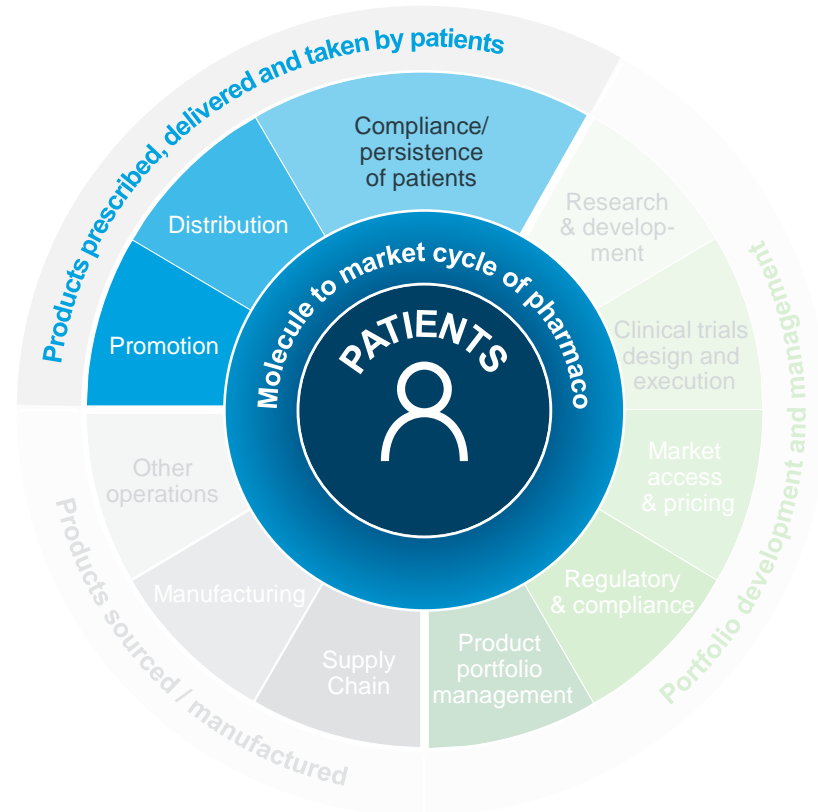


Innovative

Seeing an opportunity to **rethink established models** & experiment (e.g. new GTM model, new distribution models)

PharmaCos evaluate pandemics impact and develop key actions needed to succeed in post-COVID-19 times (1/3)

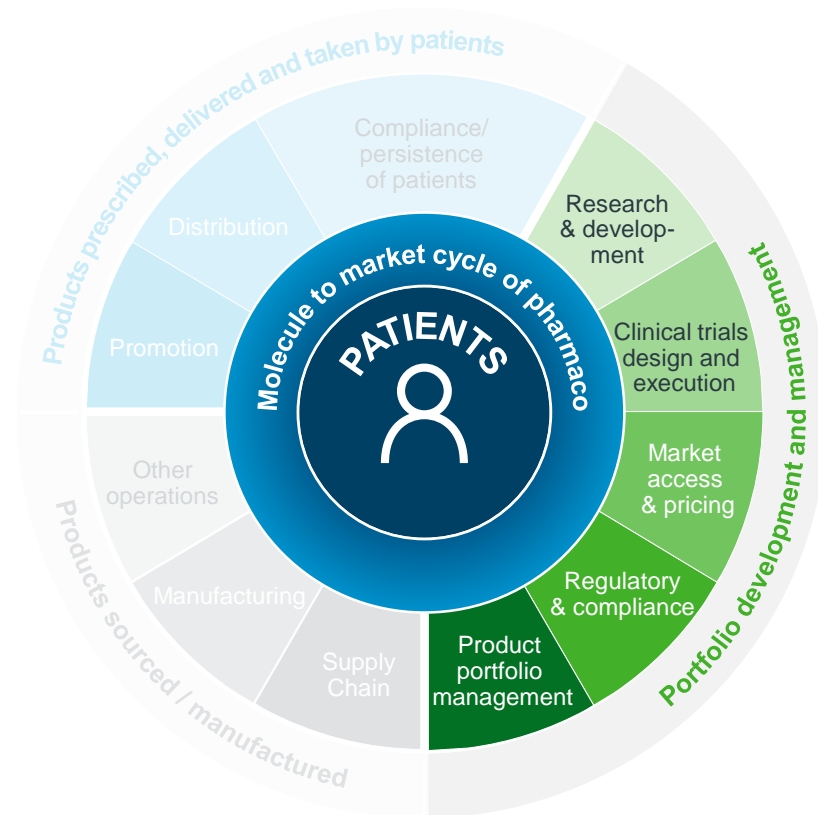
Summary of challenges for PharmaCos and actions needed – Product-to-patient



Focus area	Potential pandemics impact	Selected actions
Promotion	<ul style="list-style-type: none"> No/limited F2F promotion, shift toward remote channels Ethical questions on HCP promotion Limited digital promo experiences/competences Disrupted education and medical activities Plunging ROI of field force 	<ul style="list-style-type: none"> Understand needs of the target customers Optimize short-term Multi Channel Marketing (MCM) and messages (incl. focus on information campaigns) Optimize field-force effectiveness (e.g. AI-facilitated HCP targeting, Pharmacy retargeting, KPI review) Define post-COVID MCM strategy, required changes and implementation plan
Distribution	<ul style="list-style-type: none"> Restricted access to pharmacies Surge of the e-commerce with pressure on Rx delivery liberalization Expanding role of pharmacists Changing pharmacy potential Drug shortages 	<ul style="list-style-type: none"> Daily demand/prices/stock levels monitoring and forecasting Review inventory policies and plan distribution for various demand scenarios Review distribution set-up (e.g. D2P, e-commerce) and commercial conditions
Compliance/persistence of patients	<ul style="list-style-type: none"> Limited access to HCPs/prescriptions Remote consultation and self-diagnosis growth Little focus on patient compliance/persistence while financial problems, difficult access to medicines 	<ul style="list-style-type: none"> Engage in tele-/e-health Understand existing patients compliance/persistence and identify improvement measures, e.g. information campaign

PharmaCos evaluate pandemics impact and develop key actions needed to succeed in post-COVID-19 times (2/3)

Summary of challenges for PharmaCos and actions needed – Product portfolio



Focus area	Potential pandemics impact	Selected actions
Research & development	<ul style="list-style-type: none"> Limited staff access to R&D facilities More open information sharing on pandemics related R&D activities 	<ul style="list-style-type: none"> Check possible application of existing products for pandemics issues. Review R&D priorities/timelines. Check if R&D expertise/resources could help in fighting pandemics
Clinical trials design and execution	<ul style="list-style-type: none"> No/limited access to sites Hurdles in patients recruiting/follow-ups Regulatory support for virtual trials 	<ul style="list-style-type: none"> Review trials priorities and timelines Redesign trials Launch/extend virtual trials Regulatory management
Market access & pricing	<ul style="list-style-type: none"> Payor's pressure on reimbursements conditions Fast-track approvals Inflation increase Price elasticity changes 	<ul style="list-style-type: none"> Apply for fast-track approvals and/or options to produce generic versions of patented medicines Review Market Access plans Price monitoring and review of reimbursement negotiation strategies
Regulatory & compliance	<ul style="list-style-type: none"> State controlled distribution of critical products, export bans State of emergency, price controls 	<ul style="list-style-type: none"> Monitor key regulations and engage in dialogue with authorities Conduct scenario analysis and prepare adequate action plans
Product portfolio management	<ul style="list-style-type: none"> Significant change of demand patterns. Focus on critical therapies only. Less prescriptions No/limited access to HCPs for launches 	<ul style="list-style-type: none"> Monitor sales trajectories and market Redesign ongoing launches Scenario analysis – „launch fast vs right“ Review product portfolio priorities Revision of short-/mid- and long terms market/sales forecasts and budgets

PharmaCos evaluate pandemics impact and develop key actions needed to succeed in post-COVID-19 times (3/3)

Summary of challenges for PharmaCos and actions needed – SC & manufacturing



Focus area	Potential pandemics impact	Selected actions
Supply chain	<ul style="list-style-type: none"> Reduced API availability Increasing prices of goods & materials Medicines export constraints International shortages of medicines leading to cross-countries arbitrage Local demand fluctuations 	<ul style="list-style-type: none"> Increase planning granularity and review S&OP framework Increase security of supply and consider local API production Rethink inbound supply chain setup and strengthen Supplier Relationship Mgmt. Close engagement in company-internal cross-border demand planning
Manufacturing	<ul style="list-style-type: none"> Reduced availability of workforce that may impact production output Higher fluctuations of production plans & supply chain challenges Risks related to CMO 	<ul style="list-style-type: none"> Re-evaluation of production set-up and potential bottlenecks Maintenance plans review Make-or-buy review
Other (operations)	<ul style="list-style-type: none"> Mobility restrictions Recession impacting suppliers, partners and competitors 	<ul style="list-style-type: none"> Focus on safety and health of employees (across all functions) Counterparty risk assessment M&A market screening

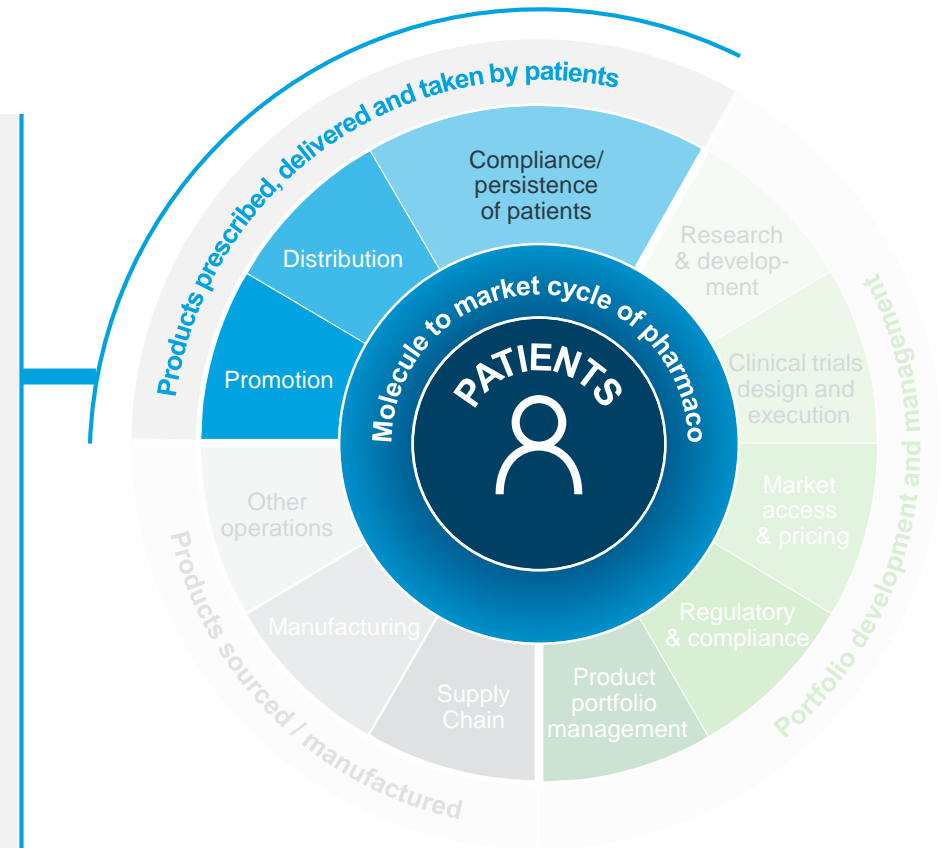
**How does the market develop in the following months?
How well is your company prepared for post-COVID-19 business environment?**

Health Check: Products prescribed, delivered and taken by patients

Pandemics raises several questions related to promotion, distribution and patients' compliance

Overview of key questions

- How to provide HCPs with the best access to information they need on our medicines and their application in COVID-19 times?
- How can we optimize ROI on promotional investment in times with restricted/prohibited F2F interaction with HCPs?
- How to shape our go-to-market approach after COVID-19 peak?
- What measures should we undertake to ensure full access to our medicines at a fair price?
- How can we help to improve our patients' outcomes during pandemics?



Pharma companies are adjusting promotional activities to the new environment and preparing for post-COVID world

Selected pandemics related actions with focus on HCP/pharmacy promotion

Short-term adaptation to COVID-19



- Better understand **patients needs** during/post pandemics
- Better understand **HCPs/pharmacist needs** during/post pandemics
- Shift toward **remote promotion** and focus on **salesforce effectiveness**:
 - Develop **optimal channel-mix for pandemics time** and select appropriate promotion channel **technologies**
 - Obtain missing **consents** for all type of contacts (incl. digital)
 - Strengthen sales & marketing **competences for remote contacts**, e.g. through trainings
 - Develop **content** for remote promotion
 - Webinar information campaigns focus on **treatment within pandemics**
 - **Targeting for digital channels** incl. AI-driven analysis on how to improve response rates
 - Implement measures of **promotion effectiveness** (both digital & traditional, e.g. target dynamics, weekly LRx)
 - Implement **KPIs** for new promotional model
- Quick-win **media spend optimization** (OTC focus)
- Implementation of comprehensive market changes **monitoring**
- Support MoH and other authorities

Post-COVID-19 preparation

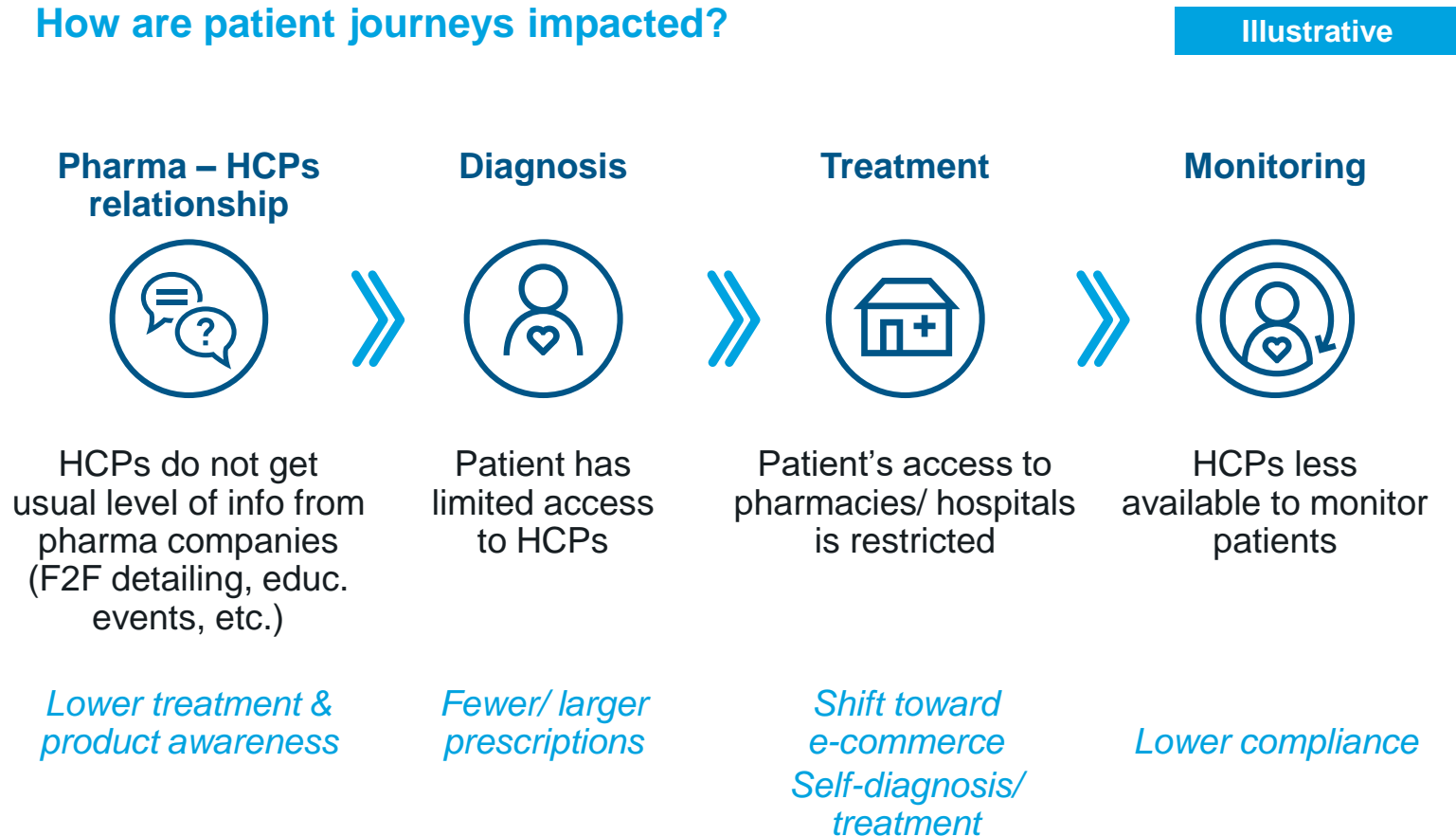


- Understanding possible **changes of HCP roles** in the HC system after pandemics
- Stronger shift toward **remote promotion** and costs savings in case of pandemics extension
- Define **multichannel promo-mix strategy** and revised content for post-COVID-19 environment
- Adapt **sales & marketing resources/capabilities** to the revised promo-approach (incl. size and structure)
- Increase direct **e-communication with patients/clients**
- Commercial **processes excellence**, IT optimization

Go to market approaches need to reflect revised patient journeys, HCPs expectations and competitors responses

Tailoring GTM approaches

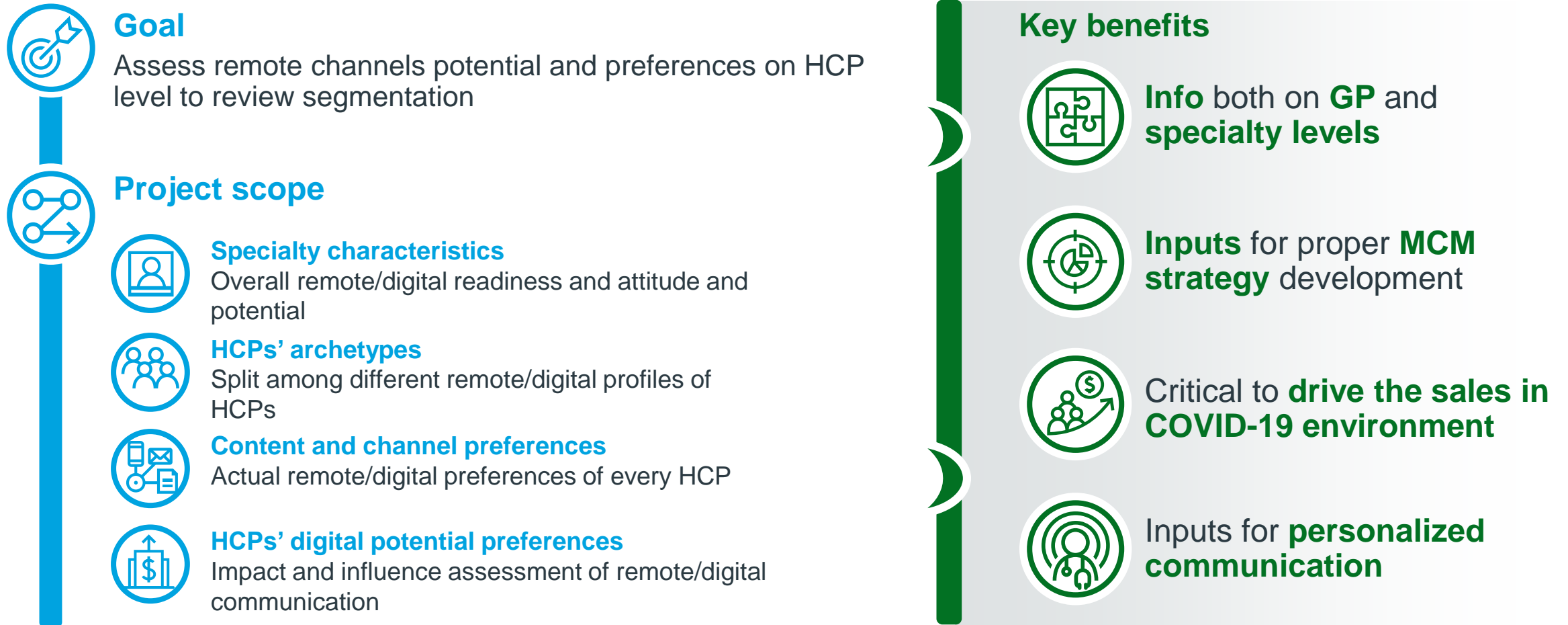
How are patient journeys impacted?



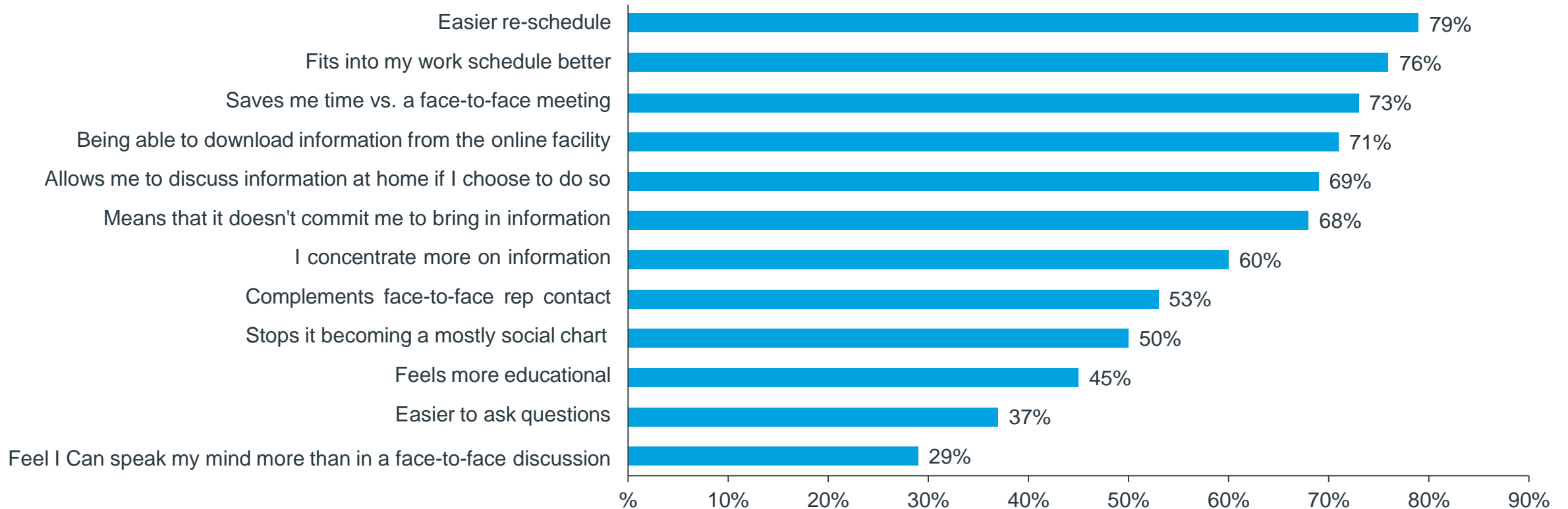
- What are the expectations of HCPs?
- What are the competitors responses?
- What are the quick-wins?
- What is our multi-channel-marketing mix in the short term and in post-COVID environment?
- How to deploy revised go to market approaches in the most effective way?

Understanding HCPs preferences is a key enabler of a post-COVID successful segmentation and go-to-market approach

Project goal, scope and benefits – example



HCPs see benefits to remote engagement



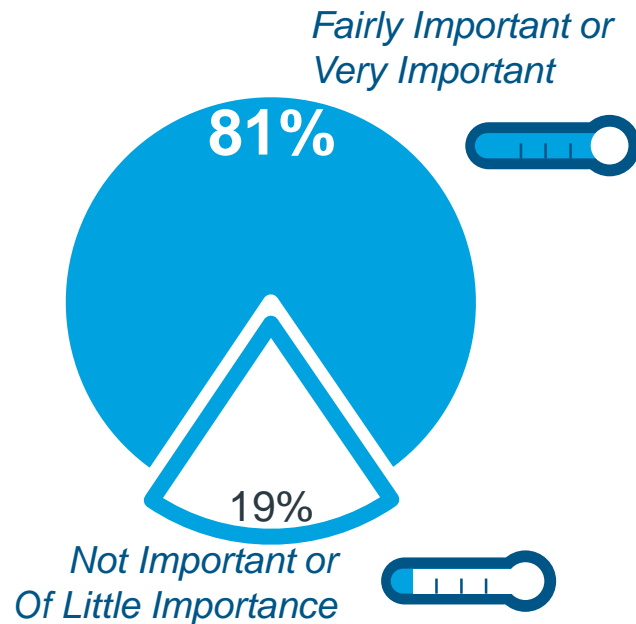
Q. What are they the key benefits to you of having discussions with the representative online and over the telephone, compared to face-to-face discussion?

Pandemics situation has significant impact on needs and expectations of HCPs



IQVIA survey of over 1,000 Italian physicians on 14-16 March 2020 found more than 80% of physicians interviewed found maintaining an online / remote contact with PharmaCos important. Attitude is common to GPs and specialists.

“How important do you consider keeping in contact with the Rep/Company at this critical moment?”



SUPPORT



Great NEED OF SUPPORT in the short term focused on:

- Beyond **protection devices**: gloves, masks,
- **Scientific update and information** in real time:
 - ✓ on symptoms, diagnosis and drugs
 - ✓ on centers where to send patients
 - ✓ about management of complex cases
 - ✓ about communications on health situation in the area

PHARMACO ENGAGEMENT AND AVAILABILITY



Positive evaluations of Pharma Cos, perceived as ENGAGED and PRESENT:

- particularly appreciated the presence, availability and sensibility of reps, the attention to physicians' needs and the support

NEW OPTIONS



Strong expectations for support in PATIENT MANAGEMENT in a medium - long term perspective:

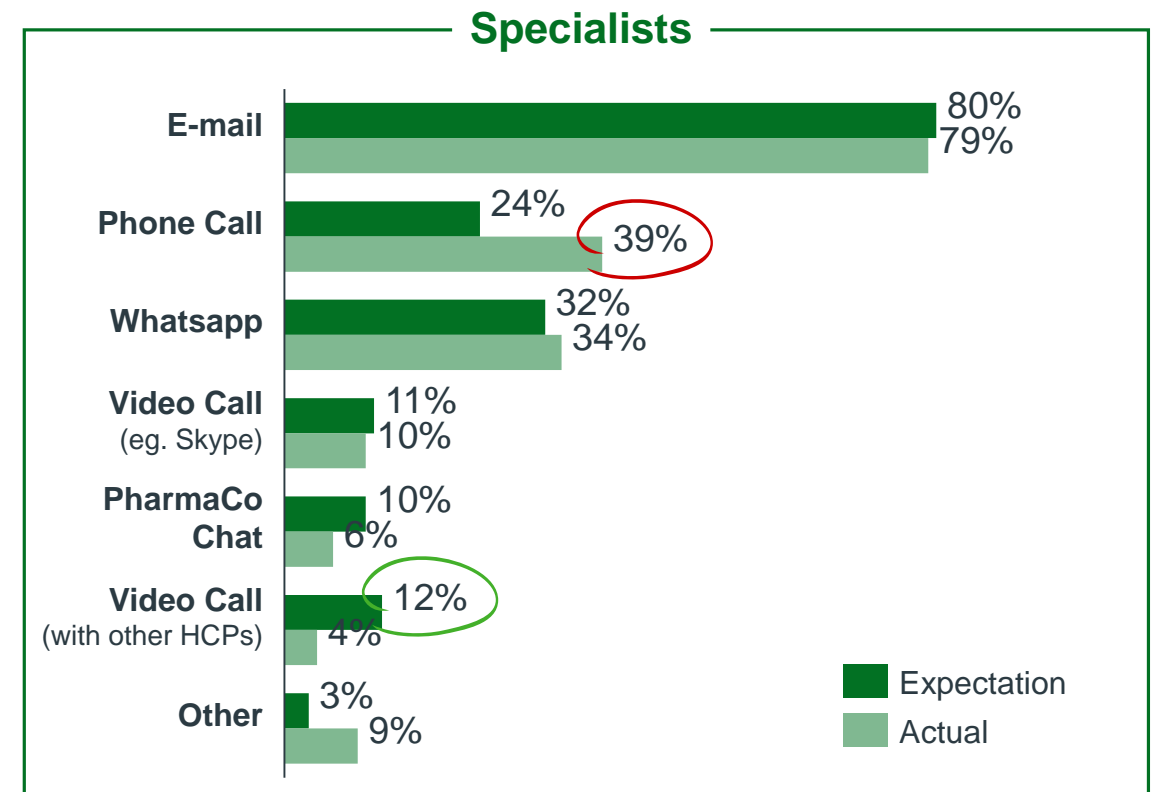
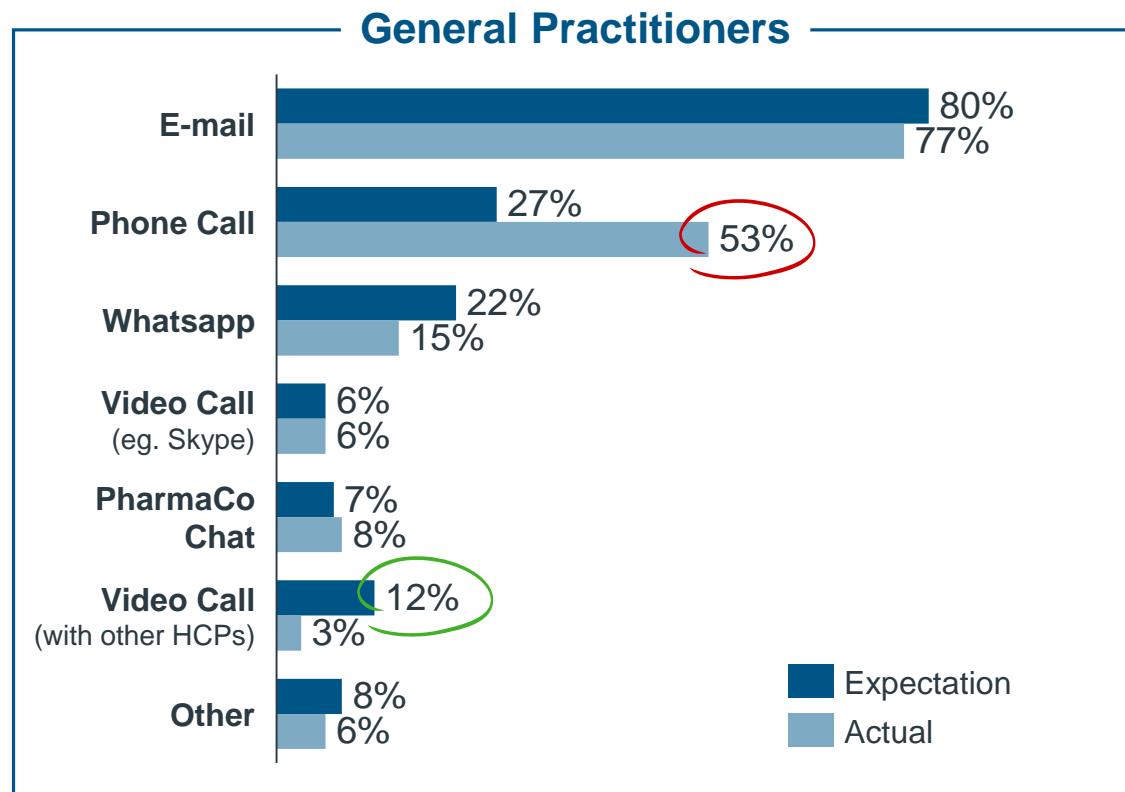
- drug home delivery
- e- and tele-health for managing patients remotely

They expect direct and non-invasive contacts with a growing interest in interactive online formats



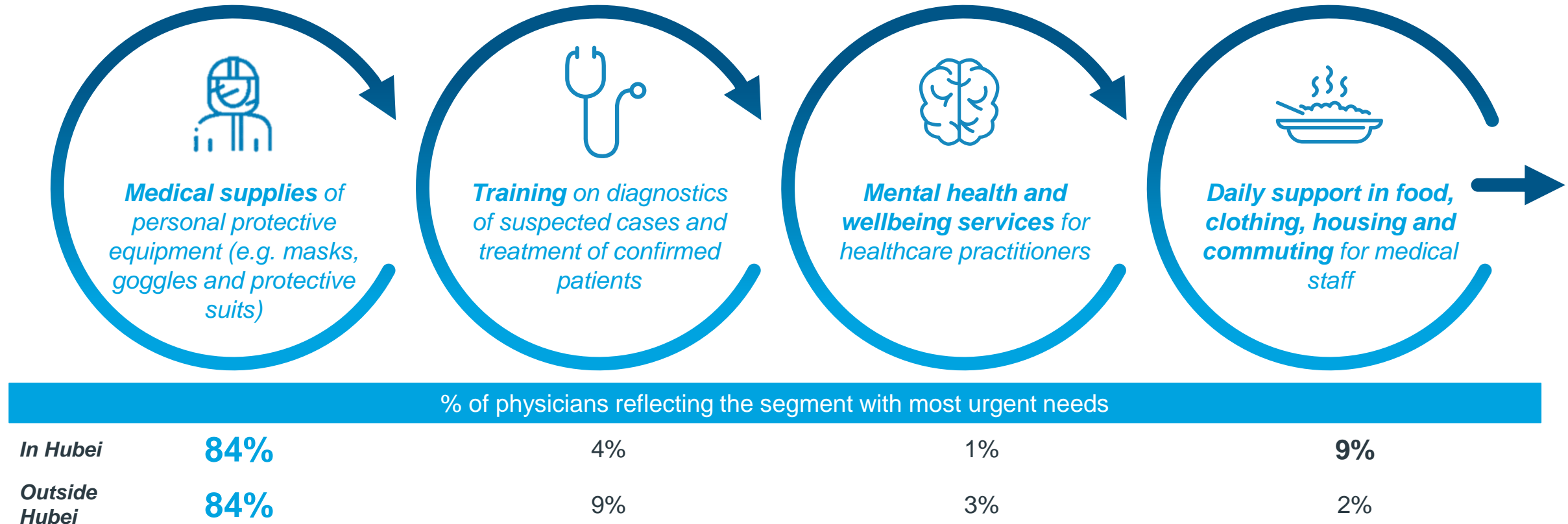
Results of IQVIA survey among Italian HCPs, March 14-16th 2020

- “Which remote communication channels would be your preferred option to receive communications from pharmaceutical companies?”
- “Which remote communication channels have been activated by pharmaceutical companies to contact you?”



Study on the recent Hubei experiences provides insights into HCP priorities during the outbreak peak

Physicians across China still reflect that medical supplies are their most critical need during the COVID-19 epidemic



IQVIA conducts weekly analysis of sales dynamics and stock levels in selected CEE countries. Additional deep dive HCPs needs/expectations analysis to fine-tune go-to-market approaches.



HCPs strongly request for protection devices but also for updates and additional services

Other than protection devices: gloves, masks, ...

Expectations of scientific update and info on COVID-19

- ✓ on symptoms and diagnosis
- ✓ centers where to send patients
- ✓ communications on the health situation in the area
- ✓ management of complex cases

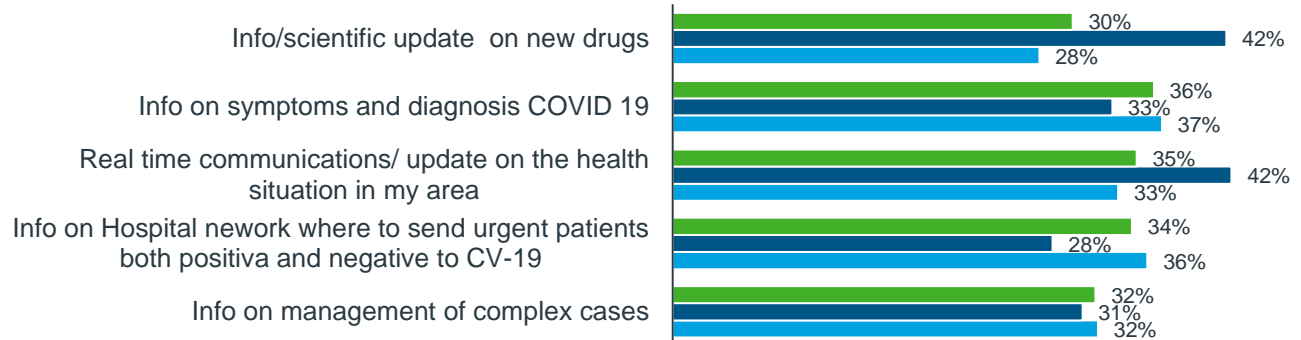
...and services /supports to clinical activity and patient management

- ✓ drug home delivery
- ✓ e- and tele-health for managing patients from remote

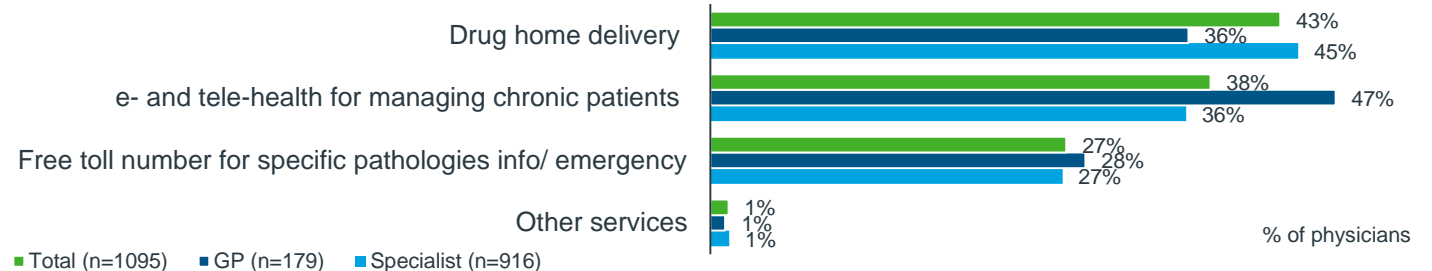
Devices



Updates



Services

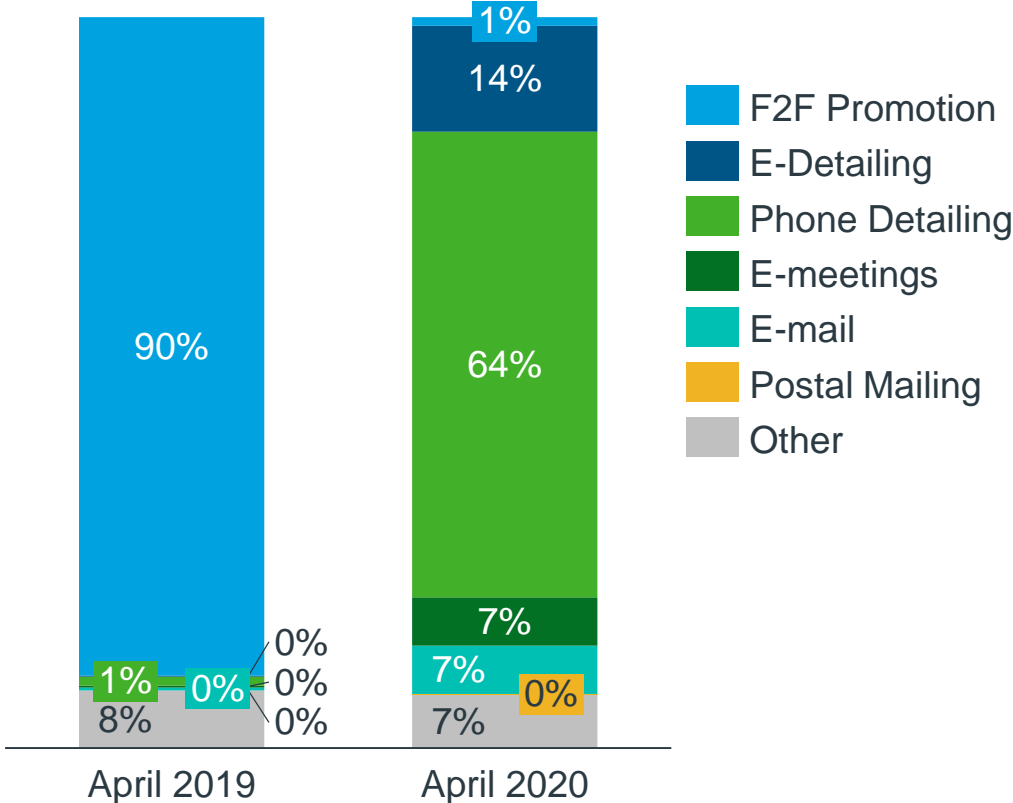




All F2F activities were switched to remote channels with the biggest growth in phone detailing to HCPs

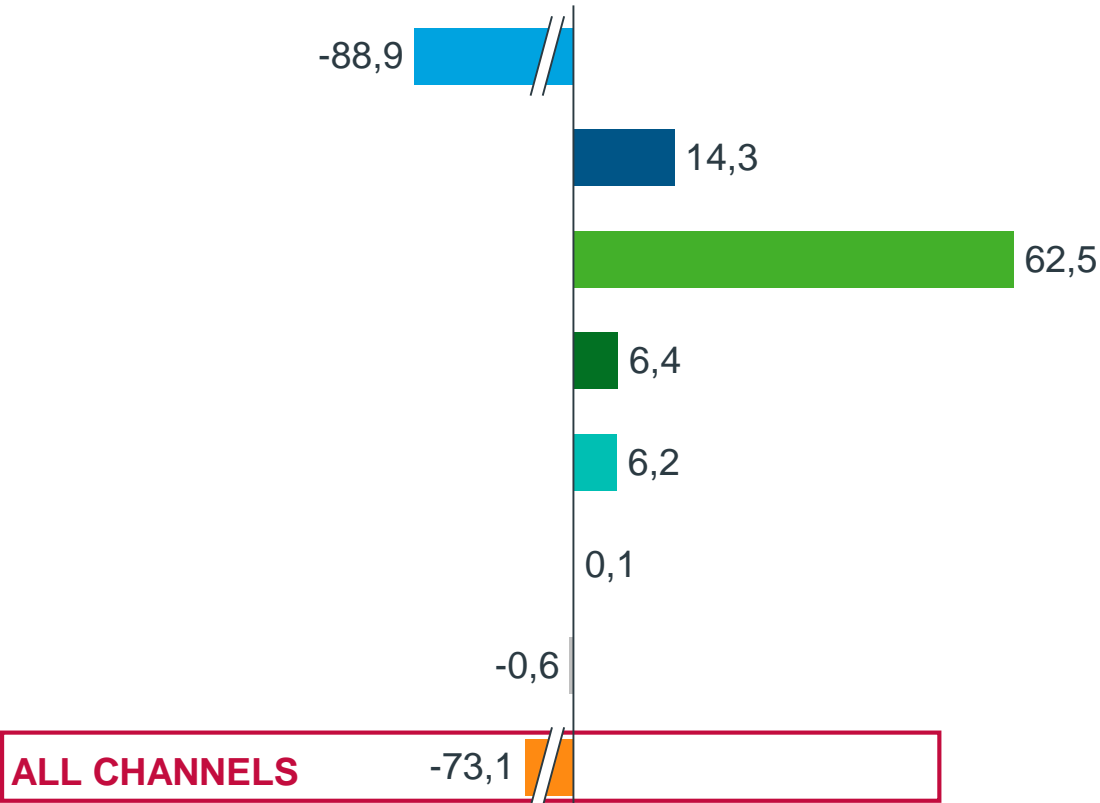
Interaction breakdown by channels, April 2020

Promotional volume share by channel in Romania



Change in promotional volume by channel in Romania

Apr 2019 – Apr 2020 [pp]



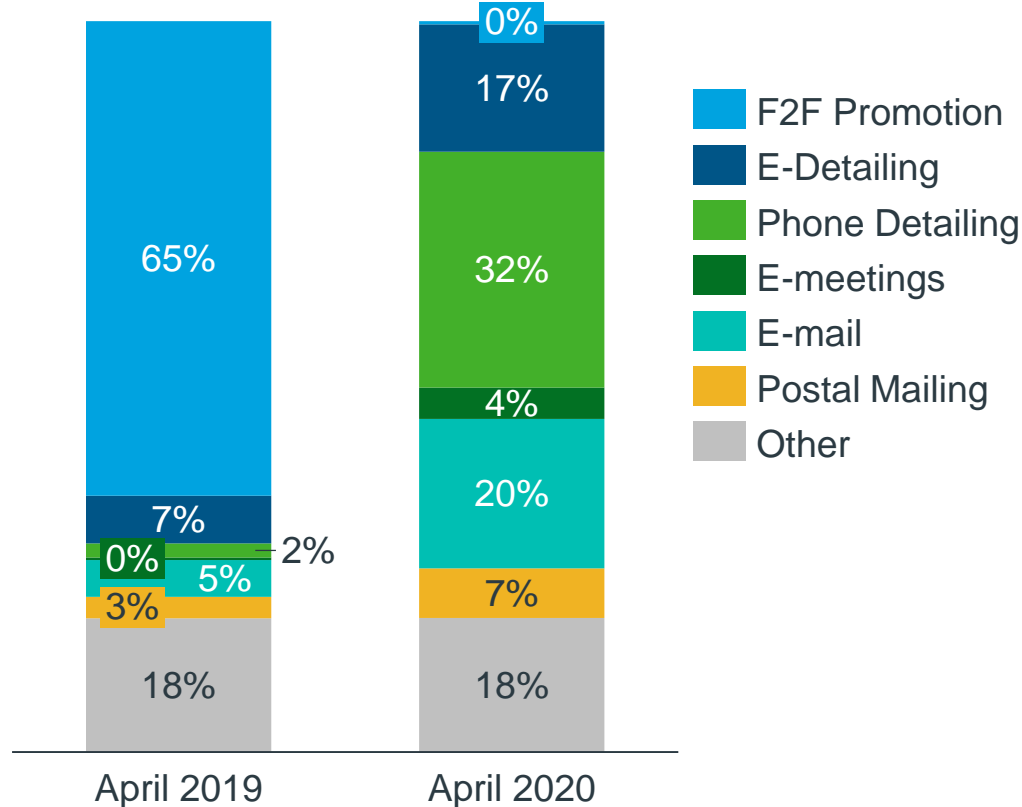
F2F Promotion (Sales Rep face-to-face detailing, group meetings); E-Detailing (Online presentations - live with a rep or automated, self guided); Phone Detailing (Telephone communication with reps); E-meetings (Streaming video – live webinar or pre-recorded webcast); E-mail (Opened email communication); Postal Mailing (Opened paper mail received by post); other incl. e.g.: medical journals, clinical trials

Growth in remote channels was driven mainly by phone detailing – easy to switch to channel, but with limited functionality



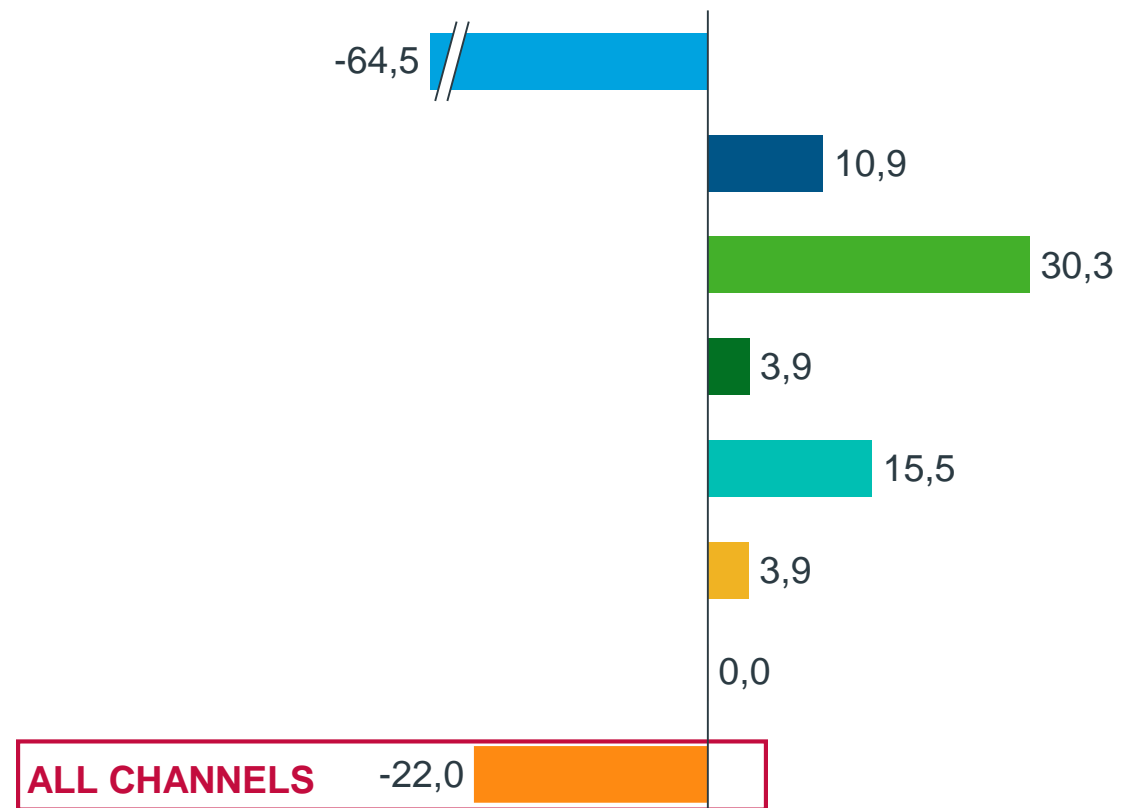
Interaction breakdown by channels, April 2020

Promotional volume share by channel in Poland



Change in promotional volume by channel in Poland

Apr 2019 – Apr 2020 [pp]



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* 01/04 to 26/04

Source: IQVIA ChannelDynamics PromoTest

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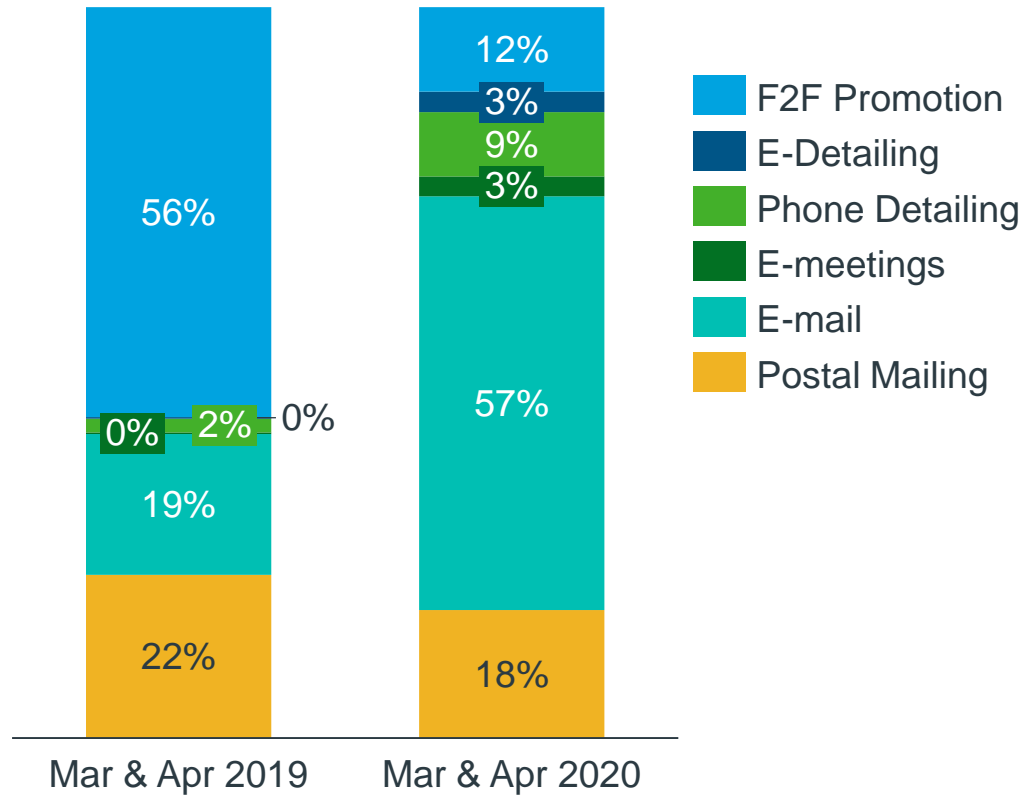
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Engagement with HCPs in Czech has seen an overall decline in F2F with the strongest increase of e-communication



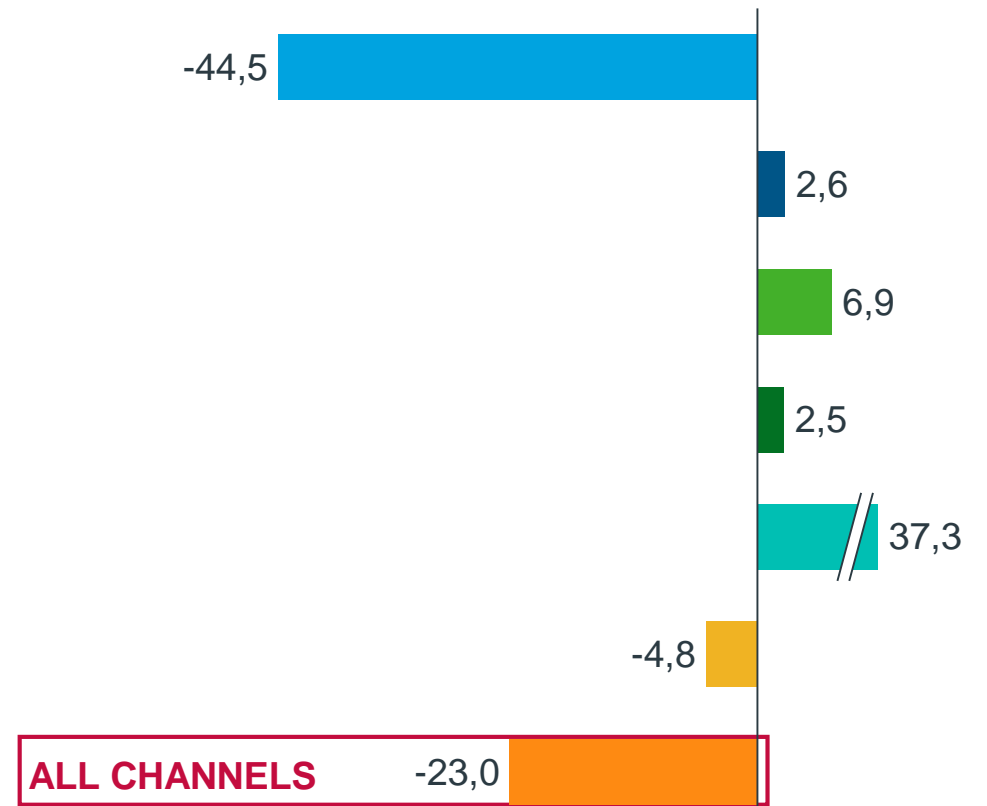
Interaction breakdown by channels, March & April 2020

Promotional volume share by channel in Czechia



Change in promotional volume by channel in Czechia

Mar & Apr 2020 vs Mar & Apr 2019 [pp]



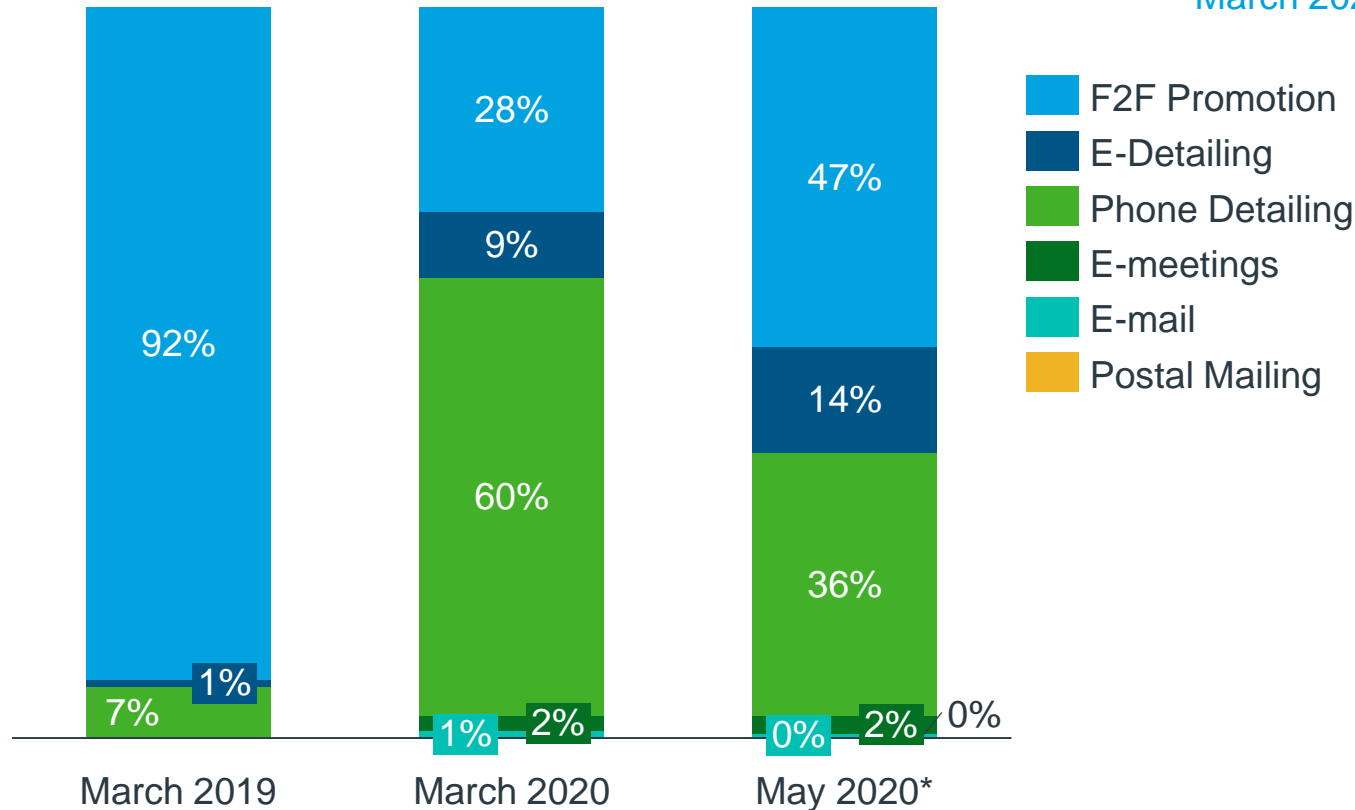
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After a period of phone detailing prevalence, F2F detailing regained position of a major promotion channel in China

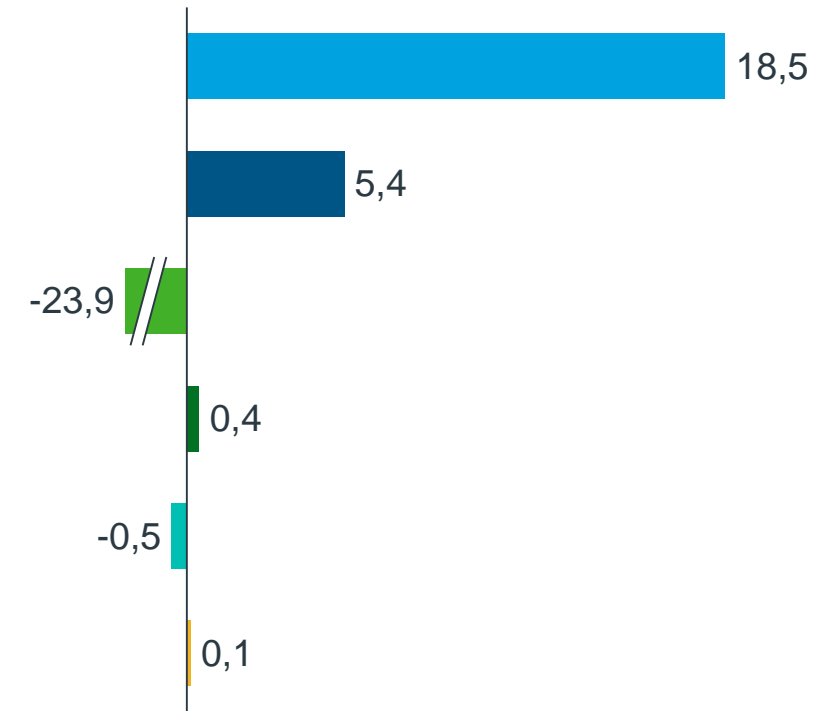
Interaction breakdown by channels, March & May 2020

Promotional volume share by channel in China



Change in promotional volume by channel in China

March 2020 vs May 2020 [pp]



F2F Promotion (Sales Rep face-to-face detailing, group meetings); E-Detailing (Online presentations - live with a rep or automated, self guided); Phone Detailing (Telephone communication with reps); E-meetings (Streaming video – live webinar or pre-recorded webcast); E-mail (Opened email communication); Postal Mailing (Opened paper mail received by post); other incl. e.g.: medical journals, leaflets
*30 day period to 10/05

Onco specialists expect PharmaCos to further focus on PSPs, followed by sharing new developments via online channels

Initiatives by pharma/biotech to deliver the best care possible for patients



Would any of the following initiatives by pharma/biotech help you in delivering the best care possible for your patients?

Initiatives by pharma/biotech to deliver best care for patients	EE	HR	CZ	HU	PL	RO	SK
Increase in oncology specific nurses, home support services and through any other patient support services	74%	77%	46%	88%	81%	74%	77%
Disseminate new developments happening in hematology/oncology space via online channels like webinars, e-detailing, digital media, telemedicine	67%	82%	50%	63%	65%	89%	53%
Fewer sales Rep visits to hospital office as it increases chances of exposure	60%	65%	61%	54%	60%	67%	53%
Develop online portal for physicians to assess what segment of cancer (metastatic/aggressive malignancy/early solid tumor) patients might be more susceptible to the mortality of COVID-19	39%	47%	25%	63%	26%	41%	59%
Others	1%	--	--	--	2%	--	--
None	2%	--	7%	--	2%	--	--

The numbers in green represent the highest factor impacting in that particular country

Multiple Select Question. Results are independent of each other

Source: IQVIA primary intelligence study: "Impact of COVID-19 on Cancer Treatment - Eastern Europe"

COVID-19 Health Check for Pharma companies

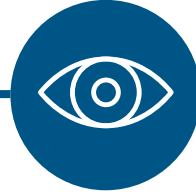
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COVID-19 has also had an impact in recommendation and consultation habits amongst selected HCPs specialties



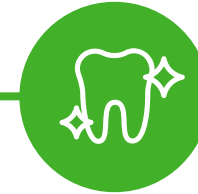
NP/PAs*

- **Half of NP/PAs** have **increased OTC recommendations** for upper respiratory treatments
- **3 in 10** have **increased OTC** recommendations for **allergy treatments**
- NP/PAs are **spending more time** than most HCPs **studying COVID-19**, with **20%** devoting **4 or more hours** of their day
 - NP/PAs in particular look to **study the impact of COVID-19** on their patients and **how to help them with specific conditions**
- **83%** of NP/PA's are **leveraging telemedicine**
- **50%** are **seeing fewer sales representatives**
 - The **preferred communication** method for interacting with **sales reps** is via **email**



Eye Care Professionals*

- **3 in 10 ECPs** are recommending **more OTC allergy treatments** with recommendations in other OTC categories are unchanged or decreased
- **69%** of ECPs are **spending 1-3 hours** per day receiving **information about COVID-19**
 - The main researched topics are **news updates, impact on specific conditions** and **predictions on infection curves**
- **81% of appointments** have been **rescheduled or canceled**, with **51% of offices** temporarily closed
- ECPs are **less likely** than most HCPs to **conduct consultations via telemedicine**, with **66%** using it for **less than 30% of patients**
- **82%** are **limiting sales rep interactions**
 - The **preferred communication method** for interacting with **sales reps** is via **email**



Dental Professionals*

- Roughly **one-third** of dentists and hygienists report that their **oral health recommendations** have **declined** due to COVID-19
- **55%** of dentists and hygienists spend **1 to 3 hours** per day consuming information related to COVID-19
 - Dentists and hygienists are most **interested in news updates** on COVID-19, its **impact on specific conditions**, and **predictions on infection curves**
- **7 of 10** dentists have closed their offices
- Nearly **one-quarter** of dentists have **used telemedicine** to address patient issues, but only with a **low number of patients** (19%)
- **70%** are **less likely to interact with sales reps** due to the pandemic
 - **Email** is the **preferred method** of communication for **dentists** but **48% of hygienists** prefer **not to be contacted** at all

*ProVoice Survey Custom Question Results- USA









COVID-19 and Consumer Health: Navigating The New Reality_30th April, 2020

COVID-19 Health Check for Pharma companies

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COVID-19 resulted in massive restrictions of HCP access and pharmaceutical rep visits across markets

Selected regulations related to rep visits

-  Government requested all domestic events be stopped, leading to cancellations of many conferences and forums, with pharma directing reps to refrain from meeting physicians
-  Most MNCs have stopped F2F detailing. Reports of access restrictions from hospitals or advice from doctors' associations to limit rep visits
-  No directives from government against accepting rep visits but some offices are imposing a temporary ban. Many events/meetings being cancelled by pharma companies to limit unnecessary exposure
-  Most promotional activities as result of company directives and HCP attentions are focused on information relating to COVID-19. Commercial activities and production sites are closed if not related to strategic / strictly necessary activities
-  All non-essential services are prohibited, as a result all MNCs have stopped F2F detailing
-  Reps being told not to visit NHS workers F2F and to work from home using online platforms
-  Sales Reps' physical access to hospitals is no longer allowed. Online detailing being considered, however, HCPs are discouraging due to lack of time or being uncomfortable with the mode of detailing
-  Majority of pharmaceutical companies have stopped F2F detailing affecting all specialities. Additionally, HCP's are limiting sales rep visits to hospitals

Pharmacists' interaction with OTC companies has also radically changed, as have the categories that they most recommend



Sales Representatives

Most pharmacists are **reluctant to interact with sales representatives**, forcing OTC companies to engage with them remotely

- F2F promotional activity declined in Apr 2020 by a range of -40% (South Korea) to -96% (Italy) depending on the countries**
- Most favoured promotional tools to replace F2F are e-detailing, phone detailing and in some countries e-meetings (China) and email (USA)**
- Despite alternative promotional tools, there was a net decline in promotional activity ranging from -2% (Japan) to -76% (Italy)**



Recommendation trends

Pharmacist recommendations for vitamins, analgesics, and upper respiratory tract infections remedies have all increased dramatically

- The URTI remedies increase reaches +51% for PCPs*



Information sought

Pharmacists are more **interested in patient education** compared to other healthcare professionals

- 65% of pharmacists look for education for patients on impact of COVID-19 on their condition/treatment vs 47% of physicians*

*ProVoice Survey Custom Question Results- USA

** Channel Dynamics- April 2020- China, France, Germany, Italy, Japan, South Korea, Spain, UK, USA

Pharma companies need to consider several Key Success Factors to ensure efficient deployment of the remote communication impact

Key Success Factors for remote communication

Set up remote detailing technology

- Technology that provides a seamless, effective and compliant experience



Optimize content for remote detailing

- Keep content, downloads and deliverables relevant and interactive, and keeps evolving
- Develop competences within Marketing



Define Target Audience

- Align with field teams as required



Enhance / build remote communication skills

- Conduct initial and ongoing training to ensure right skills and behavior are in place to communicate remotely



Collect consents

- Ensure quick HCP consents collection to address compliance requirement



Performance Management

- Remote engagement relevant performance measures and incentives
- Coach, manage teams to achieve performance expectations



Remote detailing is a potential mitigation strategy for F2F visits restrictions

Overview of two remote approaches

Dedicated Remote



Remote Call Agent

- Optional
- Schedule appointments with HCPs
- Often used for short period at start of programme, large programmes



Remote Representative

- Only remote calls
- Based at home, office, contact centre
- Enabled with platform & telephony



Healthcare Professional

Hybrid model Field + Remote



Field Representative

- Field based, face-to-face calls
- Also enabled to do remote calls as directed such as
 - Follow-up calls
 - Scheduling flexibility for HCPs
 - HCPs in remote locations
 - Cover for colleagues in other locations

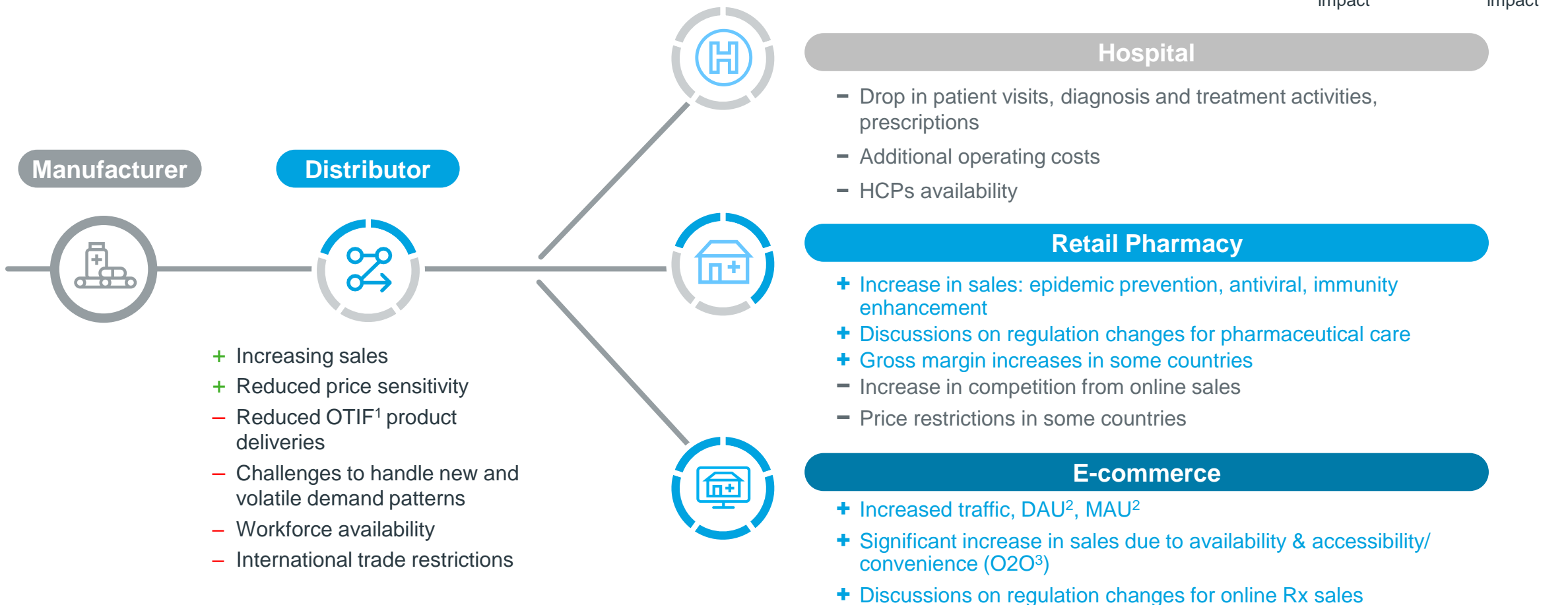
There are different solutions supporting remote communication

Examples of solutions



COVID-19 outbreak is impacting the distribution system in multiple ways

Impact on distribution system in CEE – illustrative



Note: 1. OTIF: on time in full 2 DAU: Daily active users, MAU: Monthly active users 3 O2O = online to offline

Source: Expert interviews

COVID-19 Health Check for Pharma companies

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COVID-19 is a trigger for further growth of e-pharmacy market and may facilitate disruption of distribution in the selected markets

E-pharmacy market landscape

The e-pharmacy market is a dynamically growing sales channel. Most EU countries allow for non-Rx online sales



- Such countries as the UK or Germany, as well as Scandinavian countries allow for **online sales of both Rx and OTC medications**. In the Czech Republic, Lithuania and Poland online sales of Rx medications is being discussed at the time being.
- But generally, most EU countries allow for online sales of **OTC medications only**.
- **In Russia online sales of medications is not legal**, but the government is considering the legalisation of online OTC sales.

Some countries experienced pre-COVID-19 annual growth of 17% - Polish example

STRONGLY GROWING MARKET E-PHARMACY MAIL ORDER SALES MARKET

(data of July 2019)



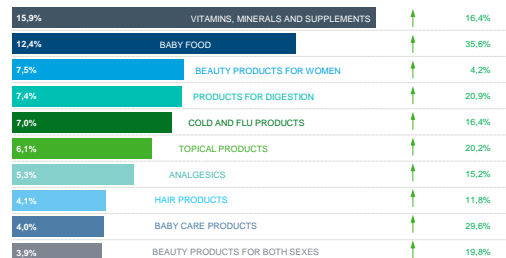
The mean value of transactions at e-pharmacies was over three times higher than in the traditional channel.

E-pharmacies sale over three times more products per one till receipt.

	The mean value of a single transaction (PLN)	The mean number of packs per a single transaction	The mean number of SKUs per a single transaction
TRADITIONAL PHARMACIES	PLN 54.33	3	2
E-Pharmacy	PLN 185.91	10	6

Top 10 of CHC classes in the e-pharmacy channel according to sales value. The strongest growing category is baby food

Market dynamics for the top 10 CHC classes - value: MAT 06/2019



Market growth (value) IQVIA ePharmacy = 19%

There is a number of options available for companies to address COVID-19 challenges in the overall distribution model

Summary of distribution challenges and suggestions to address them

Challenges

Challenges	Options to address challenges
Moving online <ul style="list-style-type: none"> • Shift towards online medical platforms • Opportunity for e-retailers, e.g. Amazon • Regulatory changes – online Rx sales? • Acceleration of e-government healthcare 	<ul style="list-style-type: none"> • Develop e-health/tele-health, e-commerce platforms • Explore potential partnerships with online retailers, e.g. Amazon • Explore potential partnerships with 3PL players, e.g. DHL
Offline market shifts <ul style="list-style-type: none"> • Demand level and patterns changes • Regulatory changes –pharmaceutical care? 	<ul style="list-style-type: none"> • Adapt Go-To-Market approach to reflect demand / regulatory changes (e.g. promotional targeting of pharmaceutical care)
Demand fluctuations <ul style="list-style-type: none"> • Short/mid-term changes in demand patterns and demand level due to COVID-19 	<ul style="list-style-type: none"> • Frequent prices/stock levels monitoring • Review inventory policies and plan distribution for various demand scenarios • Review overall logistic setup, e.g. regional pools of safety stock
Contingency planning <ul style="list-style-type: none"> • Post COVID-19 measures to better prepare for future crises (e.g. price regulations, export controls, safety stocks, etc.) 	<ul style="list-style-type: none"> • Partner with governments and key stakeholders on development of new contingency plans • Develop own contingency plans based on key take-aways from crisis

CEE wholesalers are adjusting to the increasing volumes and COVID-19 related challenges

Examples as of 3rd April

- **Increased volumes** leading to **late deliveries** and a **higher amount of out of stocks** than normal.
- **WHS are working at their full picking and distribution capacity.** All available employees are now concentrated on the flow of goods.
- There are **communicated delays in delivery** due to staff reduction, additional resources needed / lack of resources
- **Reduced daily delivery frequency** to max 1-2 (from ~4/day), plan to switch to 1 delivery per day
- **Order collection cut-off** (e.g. 12:00 AM for afternoon, 6 PM for next morning); No afternoon deliveries on some days
- **Stops deliveries to mail order pharmacies**
- **Maximum daily allocations** in terms of quantities of Rx and OTC drugs delivered to pharmacies
- Slow moving and low importance products (beauty products, confectionery) **removed from sales / not delivered**
- **Non acceptance of small orders.**
- **Imposing delivery fee for small orders**
- **No returns** from pharmacies and hospitals accepted
- Priority on delivery crates / authorized transport **containers returning**
- **Indirect WHS distribution has increased** due to reduction of MNF representatives visits in pharmacies
- **No longer processing rep's orders** from MNF
- **Smart working** for office workers and holiday rotation for logistic hub, in order to work at the right distance each other

CEE pharmacies focus on health and safety aspects and step into the HCPs role

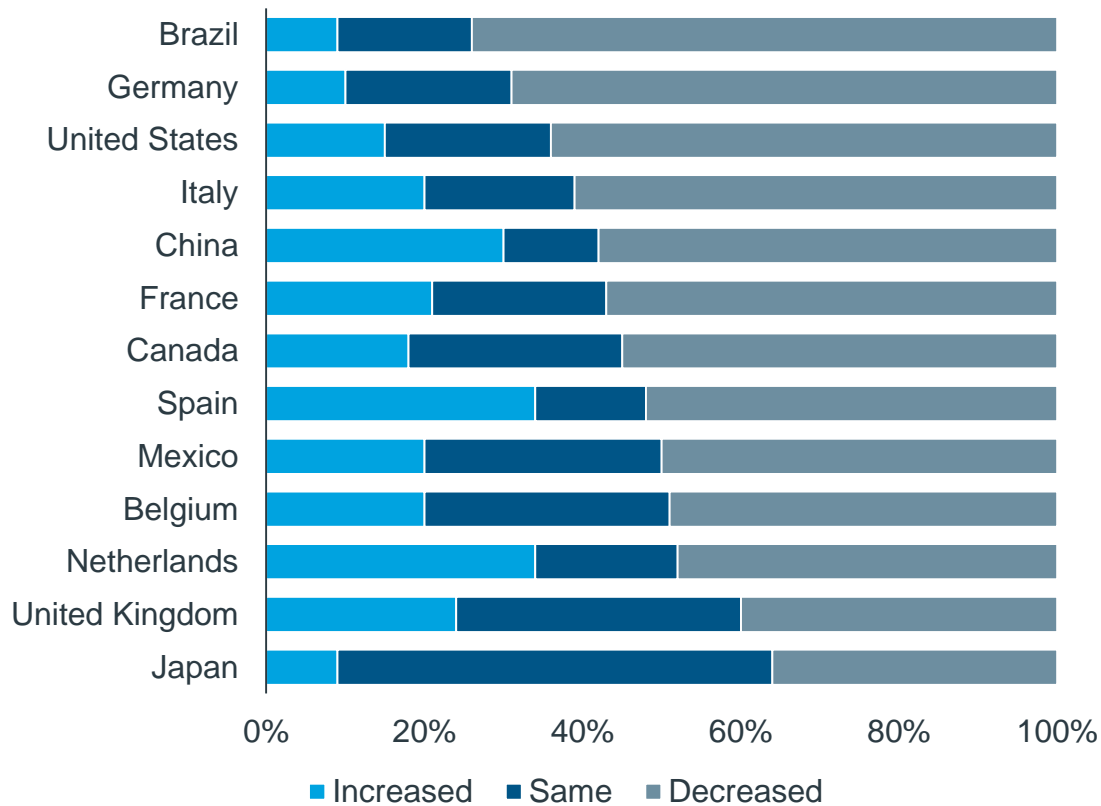
Examples as of 3rd April

- **Limiting the accepted number of patients** into the pharmacies
- **Patients serviced through the “night service window”** where possible – patient waiting outside keeping safe distance
- **Counter plastic / glass windows** between pharmacies and patients are installed where missing
- **Maximum purchasing limits** for patients for specific drugs / medical supplies (like max 2 packs, month therapy)
- **Stop all other visits and contacts** - pharmacies are not available to receive any contact for surveys / reps visits
- **Additional consultancy for patients with chronic disease** (there is limitation with access to outpatient clinics and doctors)
- **Patients have to pay by card**, not by cash
- **Patient’s home deliveries from pharmacy are placed by the door.** Food deliveries are already announcing partnerships with chains to drug home delivery
- **New pharmacy opening hours with the lunch break** – in UK community pharmacies are expected to be open to the public between 10am-12 noon and 2pm-4pm as a minimum; 100 hours pharmacies should be open from 10am–12pm and 2pm–6pm as a minimum.
- Home care - **increase in the need of oxygen therapy at home** when COVID-19 patients leave the hospital.

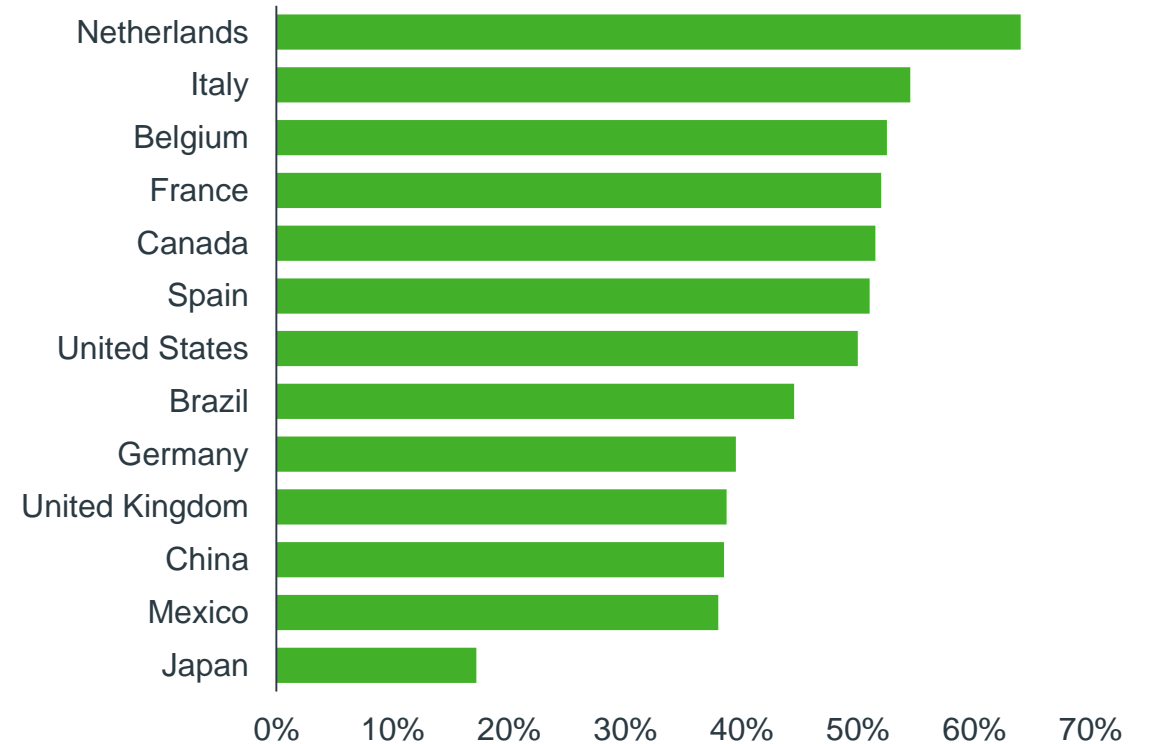
Across countries and physician specialties, patient load has decreased significantly

Survey among HCPs, March 19-25 2020

Over the course of the last 2 weeks, how has your patient load evolved?

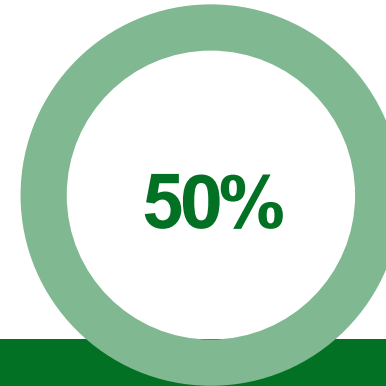


By what % would you estimate your patient load has decreased over the last 2 weeks? (average response)



Source: Firstword survey: Feedback from a poll of 1587 physicians, from 13 countries and comprising multiple specialities run by MedeField, online survey between March 19-25
<https://www.firstwordpharma.com/node/1711052?al=3b5bf-f799f4a03b64aea4a621ff1e202d51e9%5E%7C%5EMTE%MDc4Mg%3D%3D%5E%7C%5ENQ%3D%3D&cp1=bmV3c2xldHRld9yZWdpb25faWQ9aW5zaWdodF9hbmFseXNpc192aWV3cw==>

US example indicates clearly shift of patients toward telemedicine/virtual visits



Increase in telemedicine visits since COVID-19 outbreak. 60,000 in March vs. 3,400 in prior months

Increase in daily virtual visits (900 per day the week of March 23 vs. 50 per day historically)

Cough has been chief complaint in 80% of virtual visits

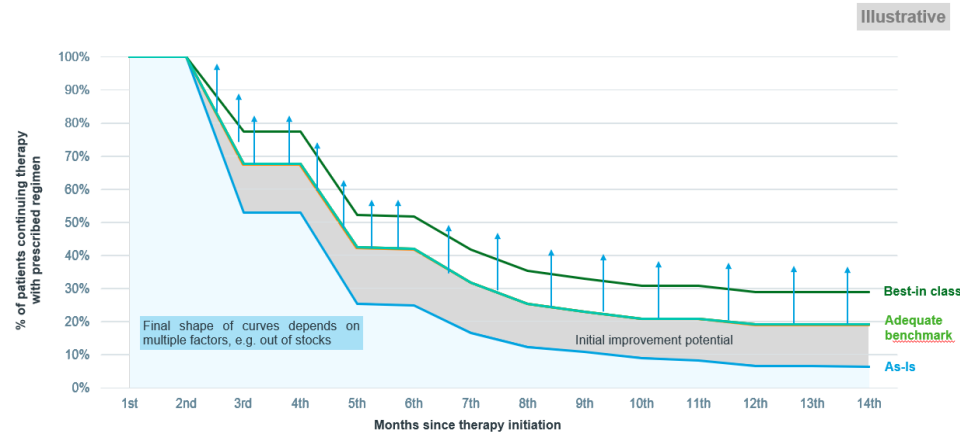
Of patient visits conducted virtually. ARC has a total of 340 doctors and 28 clinics across the state of Texas

Of visits that will be virtual by April 3rd for ChenMed, a provider to mostly Medicare Advantage patients. It operates 59 centers across 39 cities

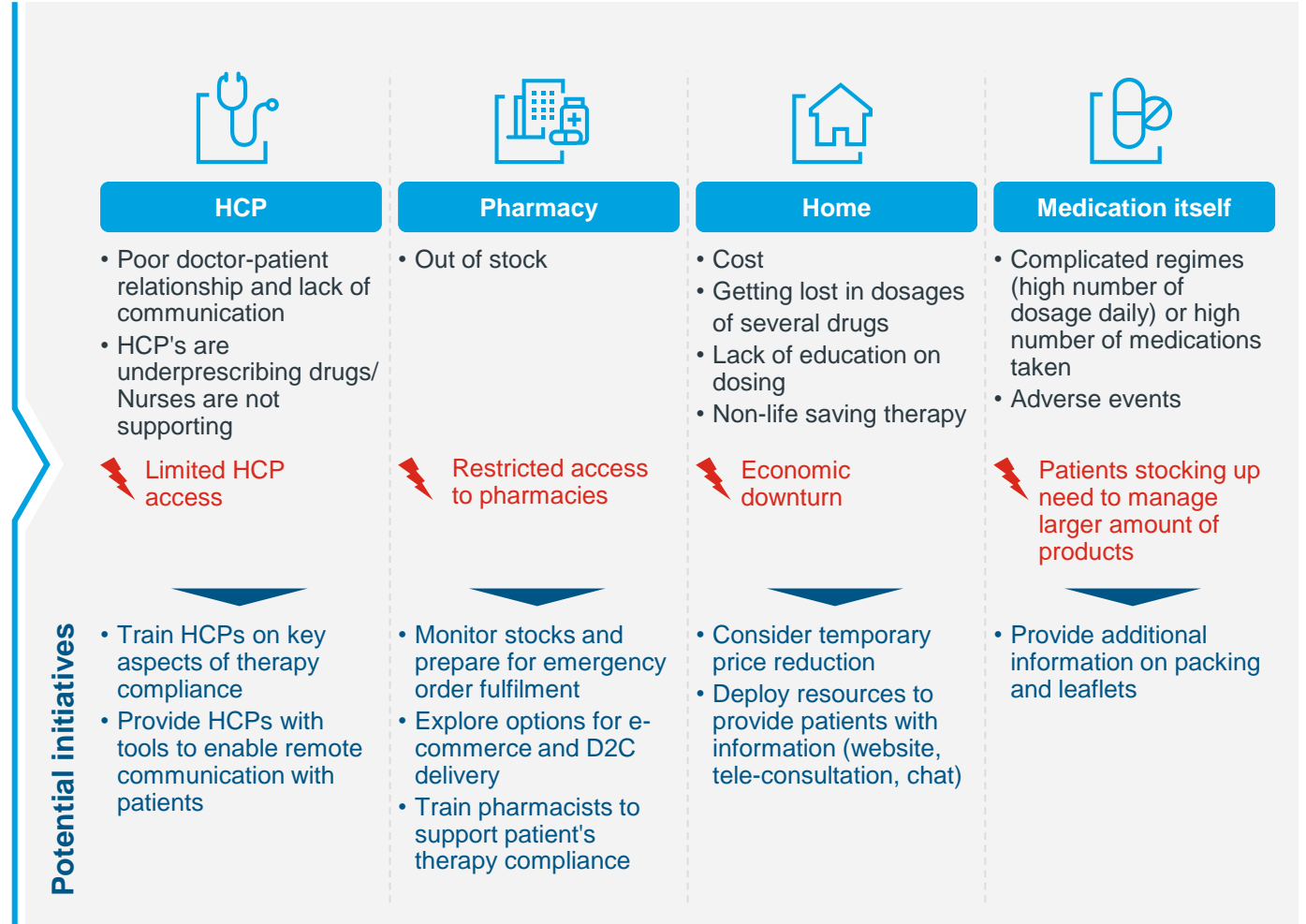
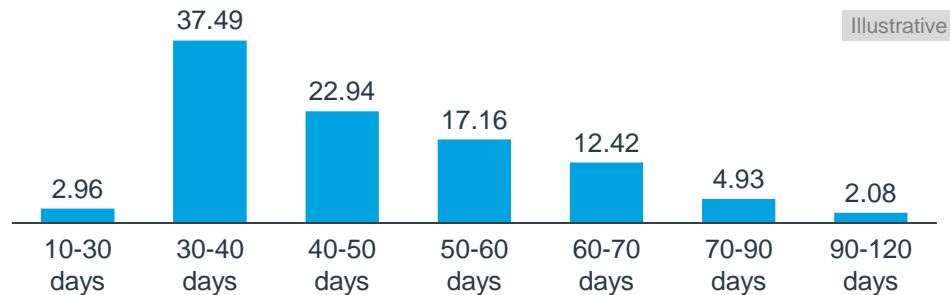
PharmaCos take several actions to counteract negative COVID-19 impact on patient compliance and increase sales

COVID-19 ramifications further magnify most common non-compliance reasons

Even during business-as-usual, patients' therapy compliance is difficult to sustain over extended period of time...



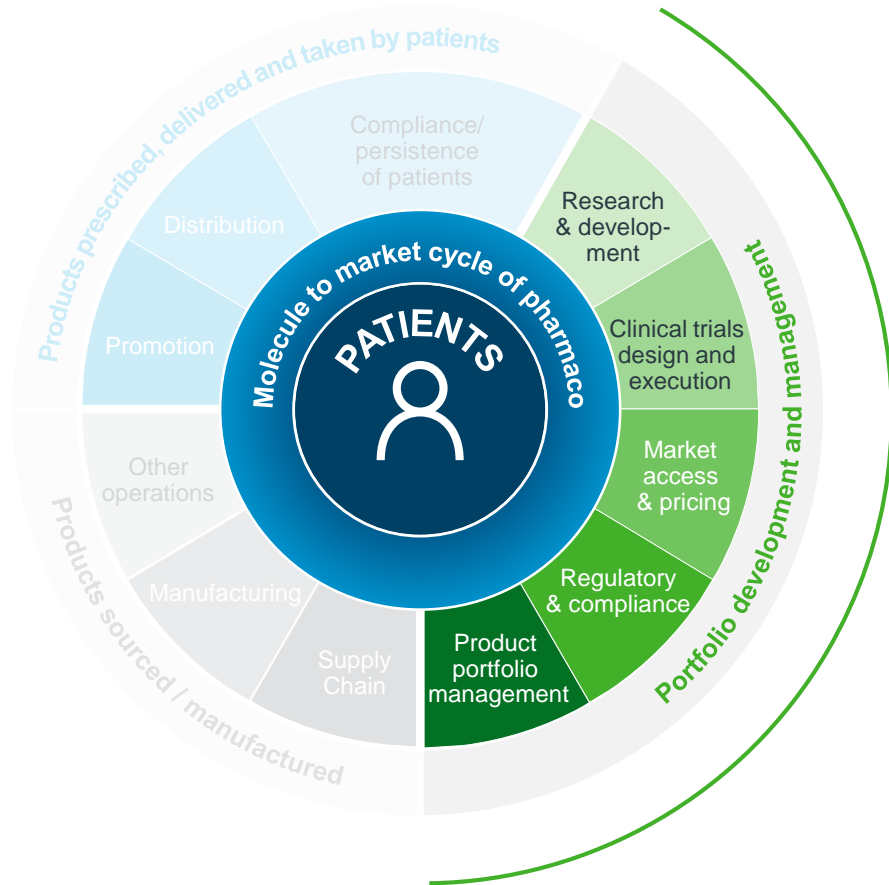
...as patients tend to visit pharmacies less frequently towards later stages of therapy



Health Check: Portfolio development and management

COVID-19 situation raises several questions related to product development, launches and portfolio management

Overview of key questions



- **R&D** – can we have a short-/mid-term impact on COVID-19 outbreak? Any changes to our R&D priorities & timelines?
- How can we mitigate **clinical trials** delays/extra costs?
- How should we manage our **market access** processes and additional pressure on **reimbursement conditions**?
- Should we expect **disruptions** like, e.g. generic versions of patented COVID-19 medicines produced during a state of emergency¹?
- How to **adjust our product portfolio now and post-COVID**?
- **Launching right or launching fast** – what should drive our decision? How should we launch in post-COVID-19 peak environment?
- How to **forecast the overall pandemics impact** on our business in the short-/mid- and long-term?

1) <https://www.fiercepharma.com/pharma-asia/chinese-firm-copies-gilead-s-remdesivir-most-promising-drug-against-new-coronavirus>

Pandemics is creating a boom in the research and trial studies in related therapeutic areas

R&D activities



7+¹ Research Papers Have Been Published on International Core Journals in The Last 1.5 Months



Jin Yin-Tan Hospital

China CDC²

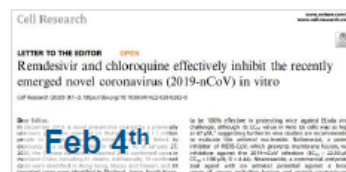


China CDC



Feb 4th

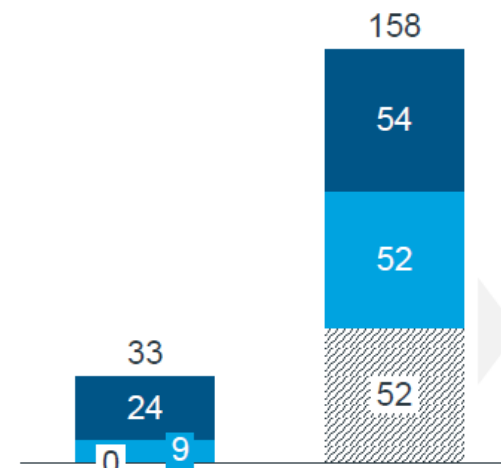
Wuhan Institute of Virology⁴



180+³ Clinical Trial Research Projects have been Registered in China



Interventional Observational Others



Others including: RWI studies, studies on prevention/diagnosis, treatment recommendations and etc.

- >40% of the registered clinical research projects are interventional
- Most of the studies are Post-market Reevaluation, **only <1%** trials are for new drug registration (ie, Remdesivir)









Note: 1. Only counted papers composed by Mainland China research teams, 2. CDC stands for Center of Disease Control; 3. Data as of February 18th; 4. The second paper <Remdesivir and chloroquine effectively inhibit the recently emerged novel coronavirus (COVID-19) in vitro> was published on Cell Research under Nature Journal

Source: CHICTR official website, Desktop research, IQVIA analysis

Several existing and new products are in clinical trials for COVID-19 related indications

COVID-19 treatment/vaccination being a priority

Selected COVID-19 treatments and vaccines in clinical trials¹

Company	Product	Type	Stage
 Roche	Actemra	Treatment	Phase 3
 GILEAD	Remdesivir	Treatment	Phase 3
 abbvie	Kaletra	Treatment	Phase 3
 SANOFI	Kevzara	Treatment	Phase 2/3
 CytoDyn	leronlimab	Treatment	Phase 2
 ascleptis	Ganovo	Treatment	Phase 1
 moderna	mRNA-1273	Vaccine	Phase 1
 CanSinoBIO	Ad5-nCoV	Vaccine	Phase 1

World Health Organization launched global mega trial for the most promising coronavirus treatments:

- Remdesivir by Gilead**, currently used as a treatment for Ebola and Marburg viruses
- lopinavir and ritonavir combination by AbbVie** (trade: Kaletra), currently used for HIV/AIDS treatment and prevention

Additionally lopinavir and ritonavir are tested in **combination with:**

- interferon-beta (no exclusivity)
- chloroquine and hydroxychloroquine (no exclusivity)

AbbVie decided **not to enforce** Kaletra's global **patent** rights on all formulations.²

Gilead decided to donate 1.5M doses of Remdesivir which could treat 140,000 patients.³

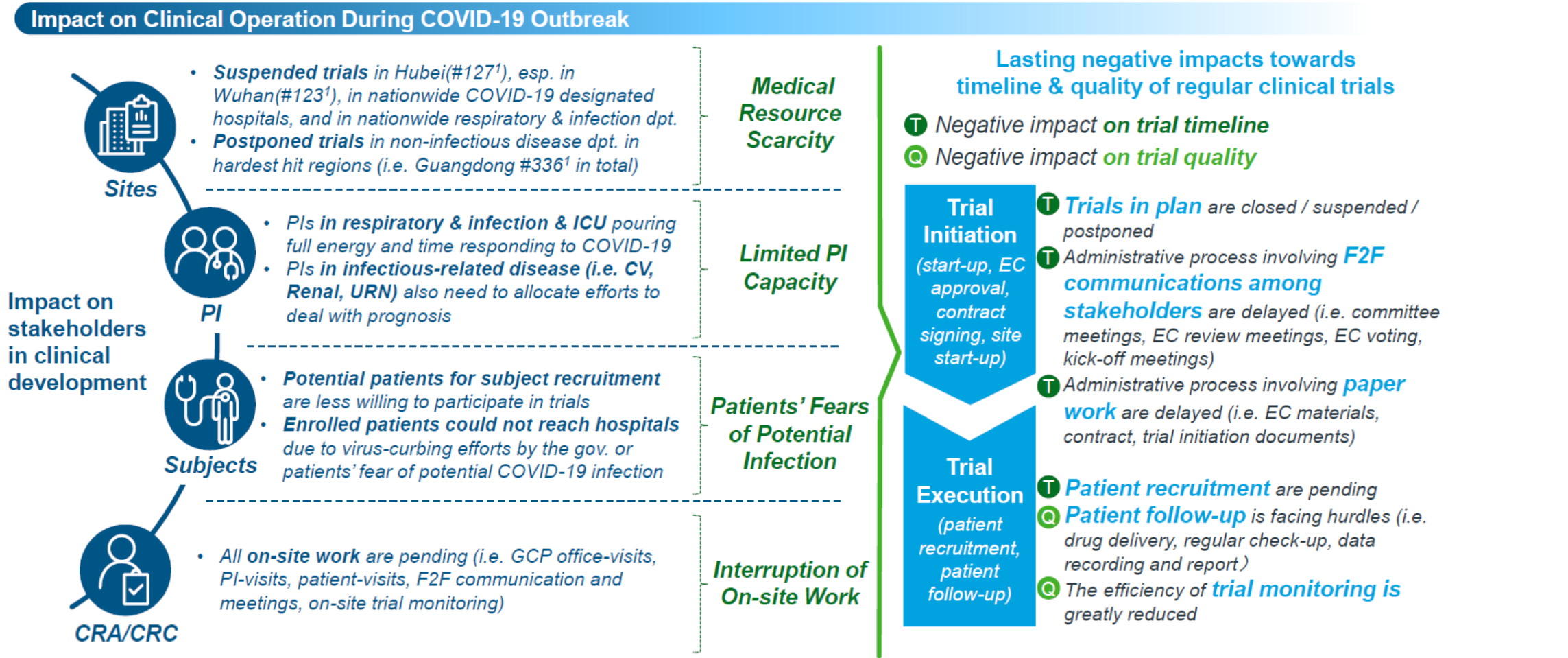
1) As of April 1st 2020

2) <https://www.fiercepharma.com/pharma/abbvie-gives-up-patent-rights-to-hiv-med-kaletra-amid-covid-19-tests-report>

3) <https://www.gilead.com/stories/articles/an-update-on-covid-19-from-our-chairman-and-ceo>

Source: <https://www.sciencemag.org/news/2020/03/who-launches-global-megatrial-four-most-promising-coronavirus-treatments#>

Meanwhile COVID-19 outbreak creates challenges for regular clinical development operations



Notes: 1 the number refers to ongoing clinical trial count in China, defined as "Active, not recruiting" on ClinicalTrials.gov; including both local and MNC sponsored clinical trials
PI=Principal Investigator – physician who leads the conduct of clinical trial at a study site

Source: ClinicalTrials.gov, IQVIA analysis

The outbreak promoted the enhancement of special emergency CTA approval process for COVID-19 related indications



CDE has initiated the healthcare emergency special CTA approval process for COVID-19 on January 22nd, and 4 products have already benefited from the special approval

Requirements for the Application of Healthcare Emergency Special CTA approval

Related to COVID-19 Management

Indicated to COVID-19 related disease area (such as influenza, Ebola)



Sufficient Safety Evidence

Holds sufficient safety evidence (such as previous trial result from other indications)



The 4 Products Already Benefited from the Healthcare Emergency Special CTA approval



- Product Name: **Remdesivir**
- Product Type: **Chemical**
- CTA Acceptance: **Feb. 2nd**
- CTA Approval: **Feb. 4th**
- Time spent on CTA: **2d**



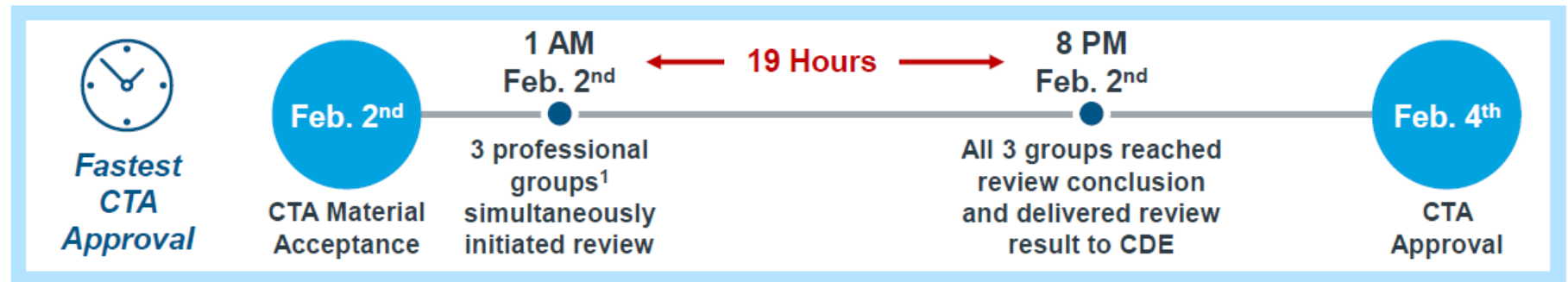
- Product Name: **CASTem**
- Product Type: **Cell therapy**
- CTA Acceptance: **Feb. 2nd**
- CTA Approval: **Feb. 7th**
- Time spent on CTA: **5d**



- Product Name: **BDB-001**
- Product Type: **Biologics**
- CTA Acceptance: **Jan. 31st**
- CTA Approval: **Feb. 7th**
- Time spent on CTA: **7d**



- Product Name: **Favipiravir**
- Product Type: **Generics**
- CTA Acceptance: **Feb. 5th**
- CTA Approval: **Feb. 15th**
- Time Spent on CTA: **10d**



Note: 1. 3 professional groups are: clinical review group, pharmacology and toxicology review group and chemical drug review group

Source: CDE official website, DXY Insight Database, Industry expert in-depth interview, IQVIA analysis

COVID-19 Health Check for Pharma companies

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Early data suggest that HTA assessments in March 2020 will be significantly lower than average

Supported by official announcement from NICE and other bodies of delays in assessments due to focusing resources on COVID, as well as first impacts on FDA delays

Count of all publications from all HTA bodies included in IQVIA HTA Accelerator

March* 2020 vs. monthly average last 5 years



Interim March assessments are less than 50% of monthly average of the last 5 years

Interim March 2020 data suggest March is set to be a 5-year low in terms of monthly HTA assessments across developed markets

* Data 29th March 2020, not full month captured

Source: IQVIA HTA Accelerator, 27th March 2020; 31 countries included in analysis. Largest contributors: France, UK, Canada, Australia, Germany.
COVID-19 Health Check for Pharma companies

Announcements from HTA bodies

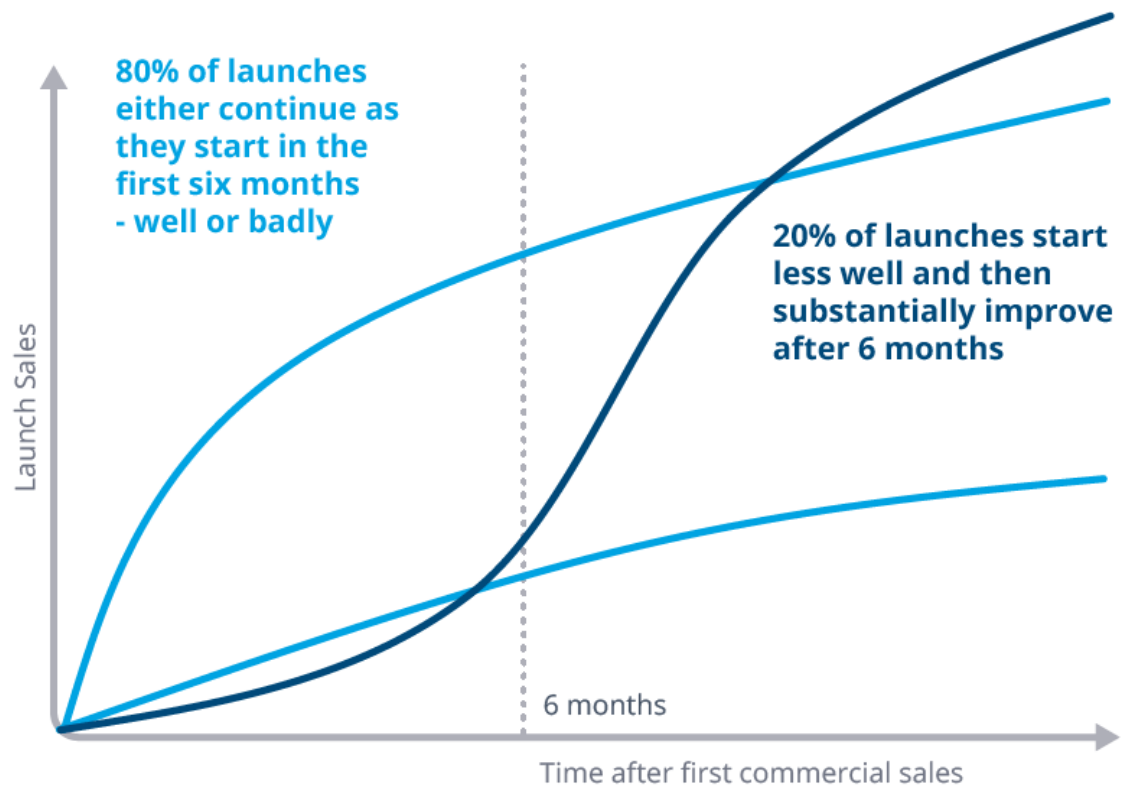
Extract from UK's NICE Technology Appraisals and Highly Specialised Technologies, 26th March 2020:

“During this time NICE will be prioritising and only publishing work that is either therapeutically critical or relates to addressing COVID-19 diagnostic or therapeutic interventions. The reason for taking this approach is to avoid distracting the NHS at a time when it is facing unprecedented pressure and to release front line staff who might otherwise be engaged in our committees or guidance development”

Other HTA bodies have flagged that they will aim to work normally but to expect delays

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Given the potential negative impact of COVID-19 on early launch trajectory, how should Pharma manage new launches?



- **Early launch performance** has been the strong indicator of the overall product success
- Given its impact on health system resources and focus, the COVID-19 pandemic can **negatively impact early launch trajectory**
- The key question is should Pharma companies **delay new product launches** to ensure strong start and overall product performance?
- However, delays can have **significant consequences for peak sales and asset valuation** and should be considered carefully

At minimum, companies will have to revise all pre-COVID launch plans



COVID-19 suspends and delays launch plans



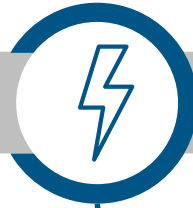
As the focus of healthcare systems moves to containing and treating COVID-19 infections, promotion has been severely curtailed and healthcare professional attention is very much on the crisis in hand



In the near-term, many companies suspend launch campaigns



But they need to plan for a post-crisis healthcare environment that is very different



Even after the crisis peak, healthcare systems will not return to pre-crisis "normal"



Restrictions on F2F visits may remain because of continued outbreaks



Healthcare professional attention may still be on the longer-term consequences of COVID-19



However, a backlog of launch campaigns will have built up



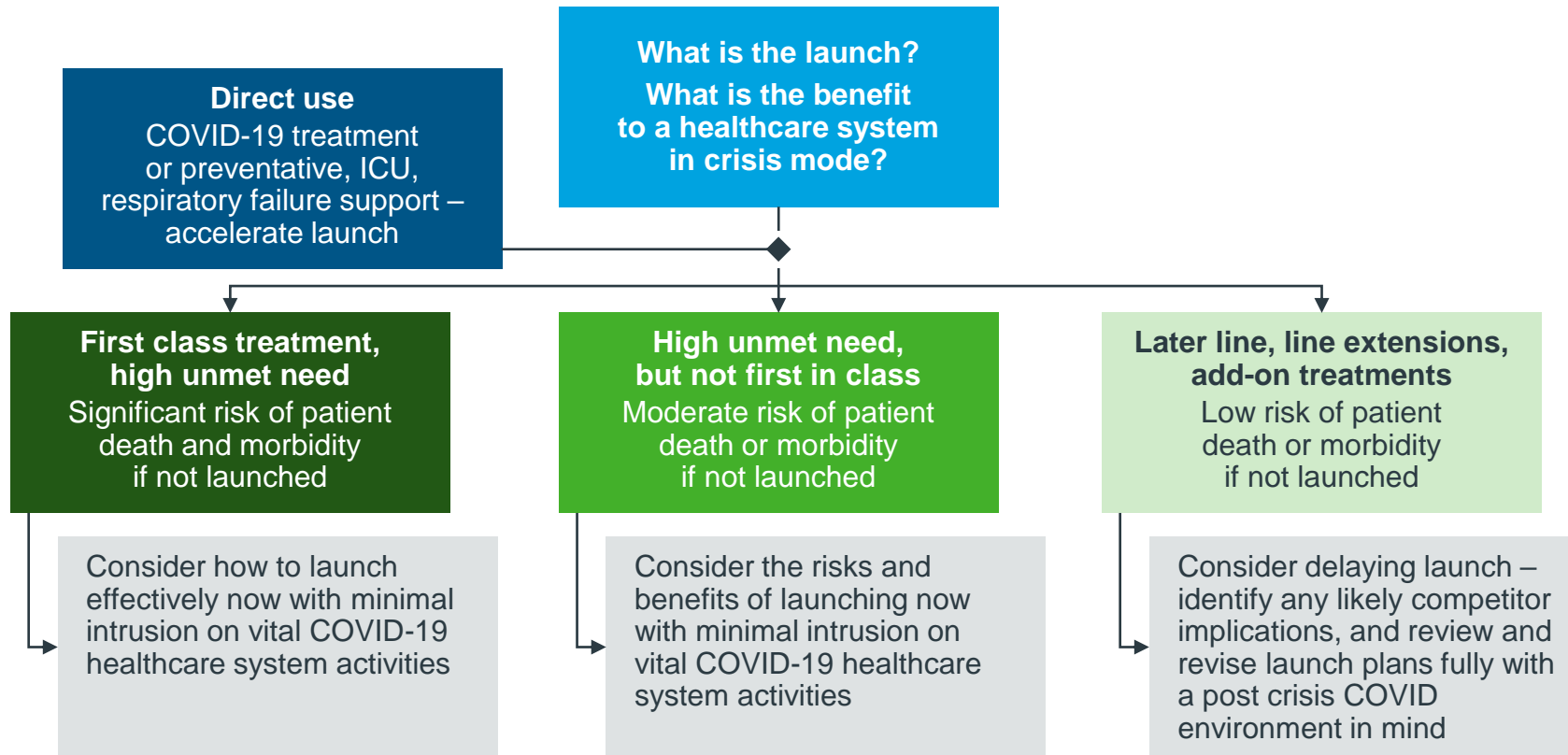
Multiple launches in post-crisis healthcare systems strains resources

Existing pre-COVID launch plans will not be fit for purpose: review and revise



Companies need to take an evidence and risk-based approach to launch decisions considering both patient needs...

Launch evaluation – healthcare system value added perspective



! Value for patients

Key considerations

- Evaluate launches by their value importance for patients at crisis time, not normal situation
- Think about logistics for target patients – what is the risk vs. benefit of visiting healthcare facilities for new medication at present?
- Ask your target doctors – are they on the COVID-19 frontline, do they regard your product as immediately vital? How do they want to be communicated with?
- Think beyond COVID-19

...and various ethical, financial, resources and market aspects

Guiding questions to reconsider launch approach and timeline



Is it **ethical to launch at the time of COVID19 crisis** when HC systems are under significant constrains. Any reputational risks?



What would be **the impact of changing launch sequence on the international reference pricing**?



What is the **financial impact** of delayed vs immediate launch? Companies should model the different scenarios to evaluate the impact



How effective will the calls be with HCPs headspace and time on COVID? Consider difference by specialty



What are the **competitive disadvantages** in case of the delayed launch?



What are the costs engaged? i.e. extra SF already hired? What would SF do if not promote launch product? Can they promote inline brands?



What are the broader **portfolio implications**?



What is the Impact on "preparing the market": if delay, how can medical activities best be conducted? and If no delay?



What are the possible **mitigation strategies** to minimize negative COVID19 impact in early launch phase? How quickly can they be implemented?



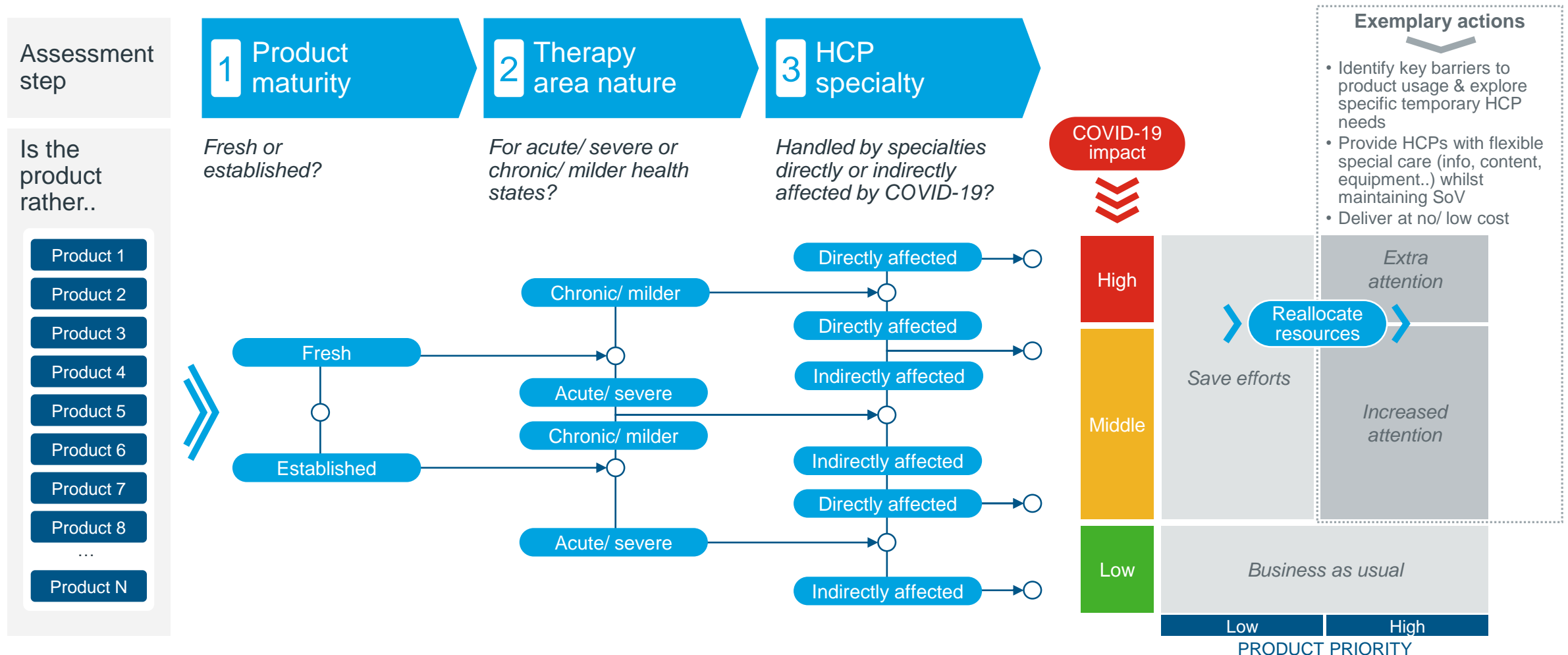
Will Pharma companies have enough supply of the launch product? Or any supply risk?



What is expected **competitors' response to COVID19 challenges**? Can reduced competitors' promotion be an opportunity?

Pandemics may imply necessity to revise product portfolio priorities

Illustrative portfolio COVID-related impact assessment & response approach

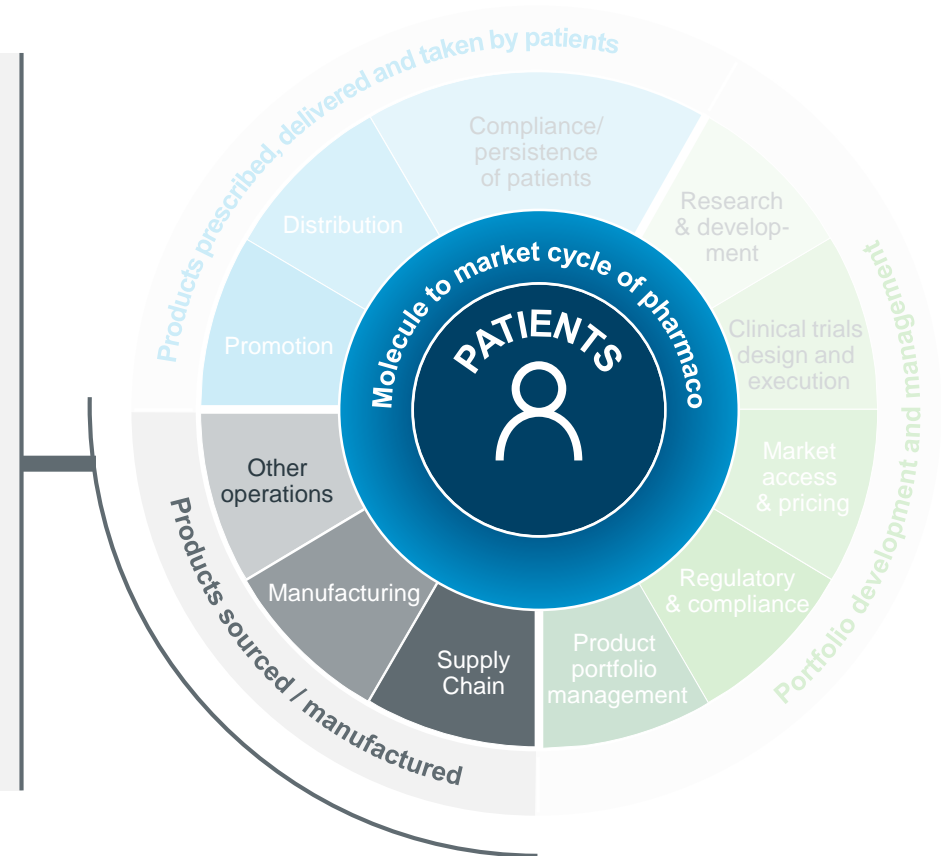


Health Check: Products manufactured/sourced

COVID-19 situation raises several questions related mainly to supply chain, manufacturing and corporate social responsibility

Overview of key questions

- How can we mitigate **insufficient product supply** from our international manufacturing sites due to manufacturing or inbound supply chain challenges?
- What should be our mid- and long-term **API strategy** and own versus contracted manufacturing balance?
- How can we ensure the most **efficient operations** across various functions without compromising safety and healthy aspects?
- What would be the impact on our **partners and competitors**?
- How can we help to minimize the **impact of the crisis** on healthcare system, society and economy?
- How can we minimize impact of **future pandemics** on our company?



The Supply chain is key regardless of how the pandemic ends

Few stakeholders are as critical to the end of the pandemic

How do pandemics end?

'Medical' end

The disease has been treated or weakened (e.g. smallpox, 1918 flu strain)

'Social' end

People grow tired of panic mode and chose to live with a disease (e.g. the plague)

Vaccine(s)

- Scale and sourcing
- Allocation of scarce resources
- Pan-European / global distribution
- Potential of multi-dose

Treatment(s)

- Scale and sourcing
- Likely retail versus hospital

Self-limitation

- Disease mutates to a less complex strain

Minimisation

- Diagnostics, and / or retail tests
- PPE and devices
- Retail COVID-19 medicines

Self-limitation











- Disease burns out due to death of susceptible

■ Supply-chain intensive scenarios

Source: IQVIA Global Supplier & Association Relations perspectives, May 2020; <https://www.nytimes.com/2020/05/10/health/coronavirus-plague-pandemic-history.html>

Stakeholders nuances have been overlooked during COVID-19

The 3Cs of pharmaceutical supply chain have both winners and losers

'Consumer'	'Clinical'	'Commercial'
 <p>COVID patients</p> <ul style="list-style-type: none"> Limited treatment availability Variable risk of serious consequences due to healthcare system capacity / capability <p style="text-align: right;">- - - -</p>	 <p>Hospitals</p> <ul style="list-style-type: none"> 'Case basis' model, revenue has fallen due to fewer routine cases Fixed budget model struggles as COVID-19 patients are expensive <p style="text-align: right;">- - - -</p>	 <p>Wholesalers</p> <ul style="list-style-type: none"> Extra cost at the peak Additional capacity available, but sources unavailable (e.g. PPE, testing equipment) <p style="text-align: right;">- - - -</p>
 <p>Non-COVID patients</p> <ul style="list-style-type: none"> Lower standard of care for non-COVID-19 conditions Potential for telehealth and 'convenient' HCP interaction <p style="text-align: right;">- - - / +</p>	 <p>Independent Practises</p> <ul style="list-style-type: none"> Fewer routine patients able to travel, or be diagnosed Both electives and non-electives delayed, and likely to remain low <p style="text-align: right;">- -</p>	 <p>Innovative MNFs</p> <ul style="list-style-type: none"> Largely impacted by lower initiation, prioritisation, or payer delays Nominal number of winners with hospital driven portfolios <p style="text-align: right;">- / +</p>
 <p>General population</p> <ul style="list-style-type: none"> Rising unemployment, government debt, and variable risk from different public policies Limited supply of testing kits to determine public safety <p style="text-align: right;">- - / + +</p>	 <p>Payers</p> <ul style="list-style-type: none"> Fewer overall cases means savings, but longer-term bounce Limited net benefit ex-US as segments counteract each other <p style="text-align: right;">+ + + + / -</p>	 <p>Gx MNFs</p> <ul style="list-style-type: none"> Additional cost associated in logistics due to commercial reliance Unclear demand from developing case load and future immunity <p style="text-align: right;">- - - -</p>
 <p>Future patients</p> <ul style="list-style-type: none"> Longer time to treatment, leading to long-term worse health outcomes Variable risk of infection across countries due to gov. policy <p style="text-align: right;">- - - -</p>	 <p>Pharmacies</p> <ul style="list-style-type: none"> Mail channel shows high growth Locations impact success, with mostly malls seeing declines <p style="text-align: right;">+ + + + - - / + +</p>	 <p>Future COVID MNFs</p> <ul style="list-style-type: none"> Uncertainty in the race for treatment with mutating virus Public price scrutiny, and market access become critical concerns <p style="text-align: right;">- - / + +</p>



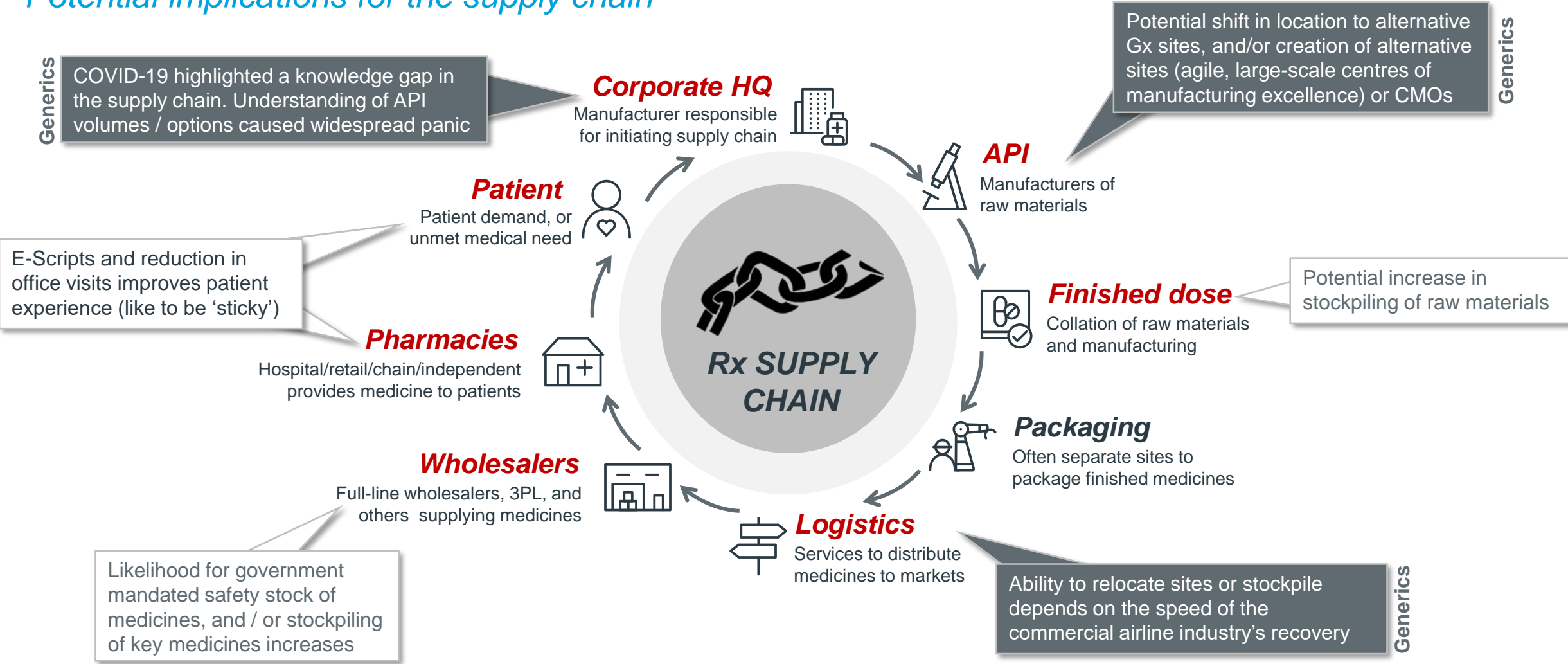
Technology companies

- From telehealth, remote patient monitoring, virtual trials platforms, analytics and data science have taken a front row seat in the COVID-19 crisis, progressing traditional methods to a new paradigm

+ + + +

It is undeniable that COVID-19 is a major supply chain disruptor

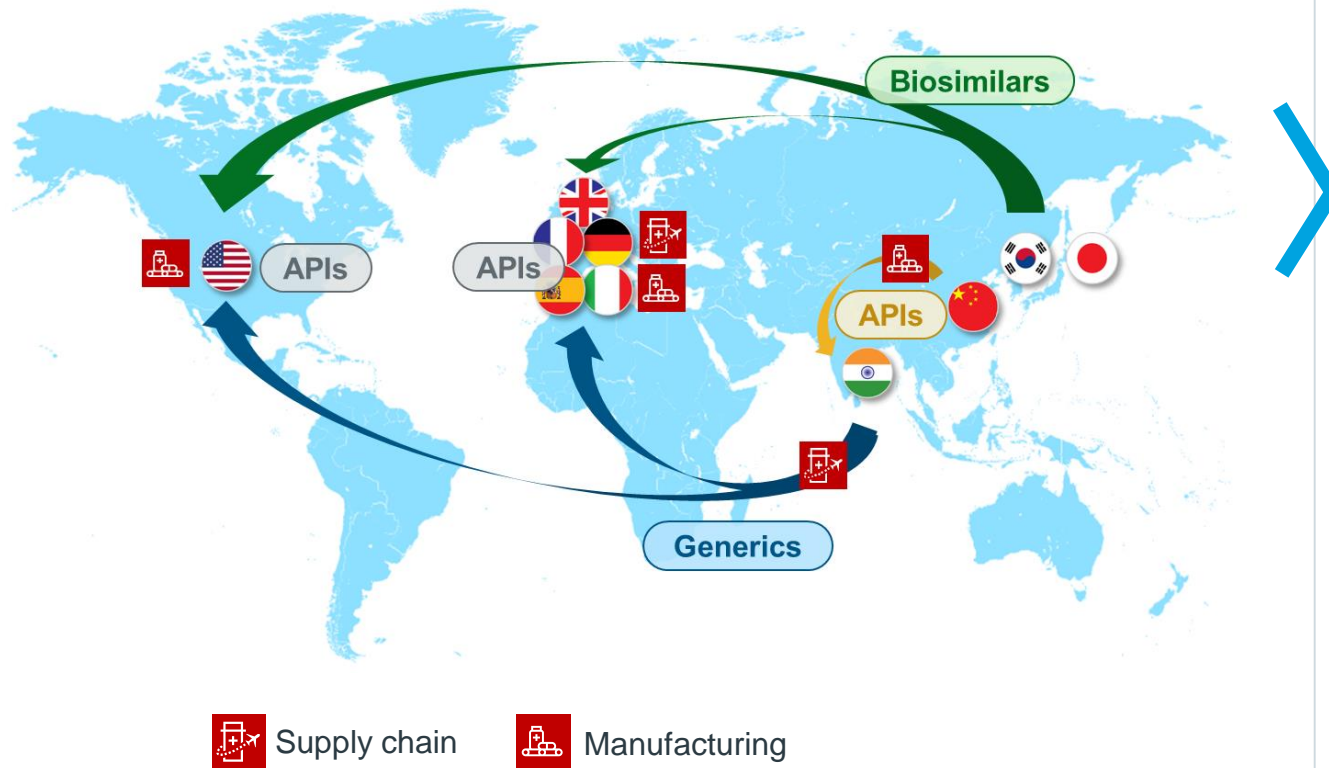
Potential implications for the supply chain



As pandemic develops, disruptions on global pharma manufacturing and supply chain are evolving


Evolving pressures on global pharma supply chain

Major dynamics in global pharma supply chain






Observed and expected impact



Initially (at crisis onset in Asia)

-  Manufacturing disruptions for APIs produced in China (India imports 70% of APIs from China)

Currently (global pandemic)

-  Export restrictions from India and numerous other countries
-  Manufacturing impacted by API/workforce availability and price increases
-  Volatile inventories across entire supply chain and at consumers' homes

Foreseeable

-  Pressure to bring back production closer to home
-  Rethinking of supply chain models with increased focus on security of supply

COVID-19 related supply Chain challenges require excellence in Sales & Operational planning and make-or-buy optimization

S&OP review incl. Make-or-Buy optimization

Client challenges

- Missed sales
- **Unsatisfied clients due to out-of-stocks and declining OTIF deliveries driven by demand explosion in some categories**



- Increasing own/contracted manufacturing costs
- **Increasing raw materials costs**
- Increasing maintenance & logistics costs
- **Not enough workforce due to quarantines**



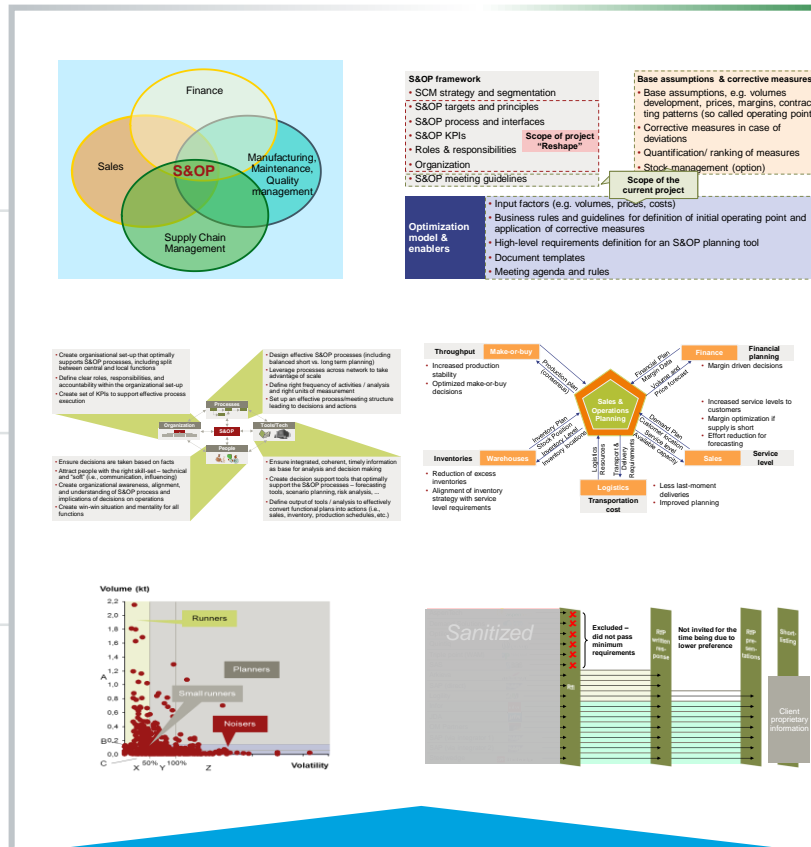
- **Late or insufficient products/raw materials deliveries**
- Suboptimal (too high or too low) level of inventories (products, raw materials)



- High complexity to align plans between: QM, Sales, Manufacturing, Mntn., SCM, Finance
- **Insufficient frequency and accuracy of demand & financial planning**
- Management complexity due to different country-specific S&OP approaches



Main COVID-related challenges



...stabilized out-of-stock levels & increased OTIF deliveries

...sufficient flexibility to produce at high quality, low cost and high reliability of supply

... optimized costs and security of supply

...reduced top management involvement in tactical/operational decision-making

Need for early insights, granular planning, quick response & flexibility across whole Supply Chain

A number of tactical and strategic actions available for pharma companies to respond to the COVID-19 supply chain challenges

Selected options to respond to supply chain challenges

TACTICAL

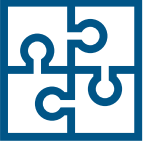
Building resilience



- Build early warning system to monitor potential supply chain disruptions and facilitate fast tactical decisions
- Close engagement in company-internal cross-border demand planning
- Beef up safety stock and leverage options for regional stock pools
- Reinforce Sales&Operational planning framework and tools to adjust supply chain faster to volatile demand
- Explore strategic partnerships with 3PL providers to reinforce inbound logistics, e.g. rebalancing service flexibility vs cost, special "crisis" logistic capacity guarantees

STRATEGIC

Rethinking the model



- Revisit API supplier management strategy, e.g. diversification, relocation, etc.
- Rethink the off-shore production model, e.g. explore shifting manufacturing closer to key markets
- Review own vs contracted manufacturing model (make-or-buy optimization)
- Fast-track digitalization and intelligence across supply chain
- Rethink overall inbound logistic setup
- Review sourcing contracts balancing costs and security of supply

...but to mobilize the team, improve HSSE compliance and promote continuous improvement culture

Operational excellence case study

- Project involvement of >1200 employees
- Controllable cost reduction by > 15% as part of introduction plus > 2 % p.a. thereof 30% by quick wins, 30% by removal of "sacred cows", first optimization actions implemented already 6 to 8 weeks after project start
- New energy and momentum in the company
- Improved collegial collaboration instead of silo-thinking



Typical pitfalls...

- Involvement of ~ 15 managers and experts
- Benchmarks transferred into high-level objectives without "real" optimization
- (Or) hundreds of initiatives "blocking" the key changes and derived with limited guidance
- "Now we have a great concept, it's only the implementation which is becoming an issue."



...and the way-out

- Broad involvement of management and > 10% of staff with mid management driving the change
- Structured bottom-up approach - capturing the experience and creativity throughout the organization while injecting priorities agreed with top management
- Lean methods and tools adjusted to the industry
- Implementation starting from day 1 with strong performance management

HSSE = Health, Safety, Security and Environment

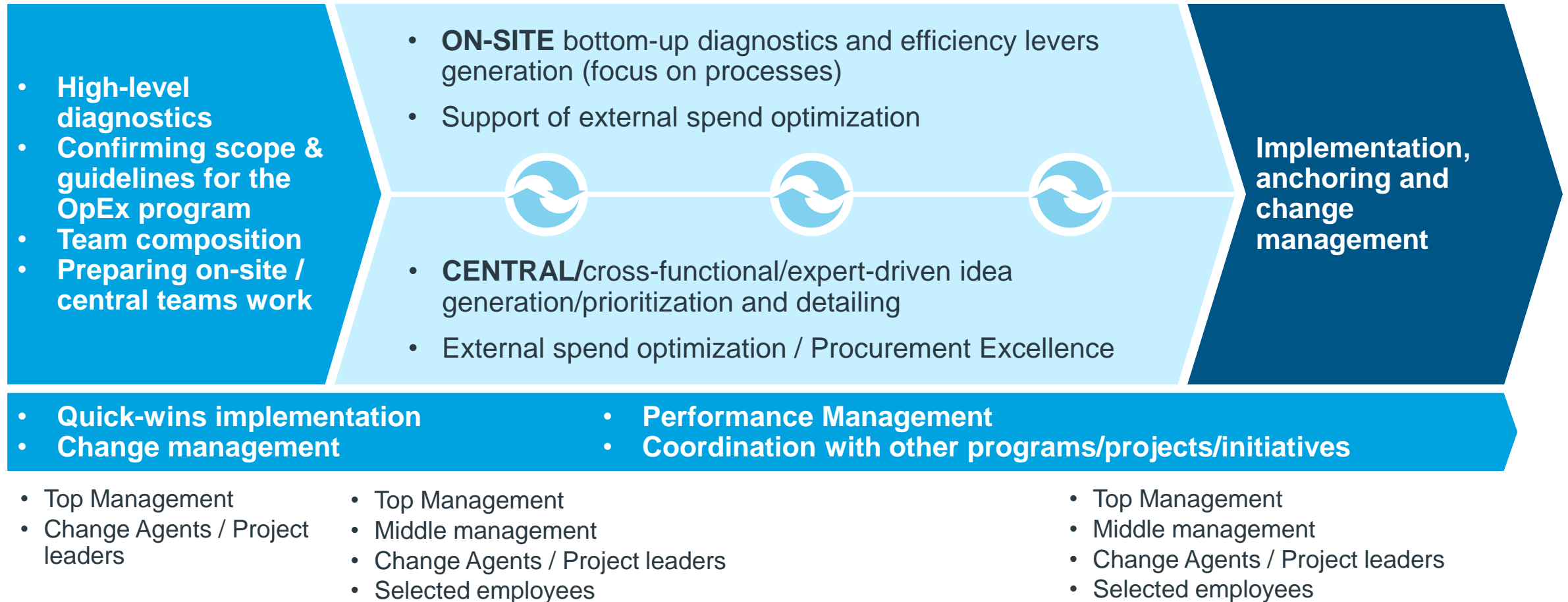
Source: IQVIA Consulting

COVID-19 Health Check for Pharma companies

Material for IQVIA partners internal use only. Please do not share it without IQVIA written consent.

Operational Excellence Programs allow to quickly compensate for part of the pandemics impact

Illustrative OpEx Program approach



COVID-19 priorities setting and actions planning



COVID-19 outbreak impacts strongly the healthcare ecosystem

Selected facts & figures related to COVID-19 driven changes



F2F promotion to HCPs reduced by up to 60% (CEE, March '20)



Demand for certain medicines increased temporary by up to 2.5x and declined afterwards (PL, March '20)



E-commerce sales increased by up to 3x times¹ (PL, CZ, HU March '20)

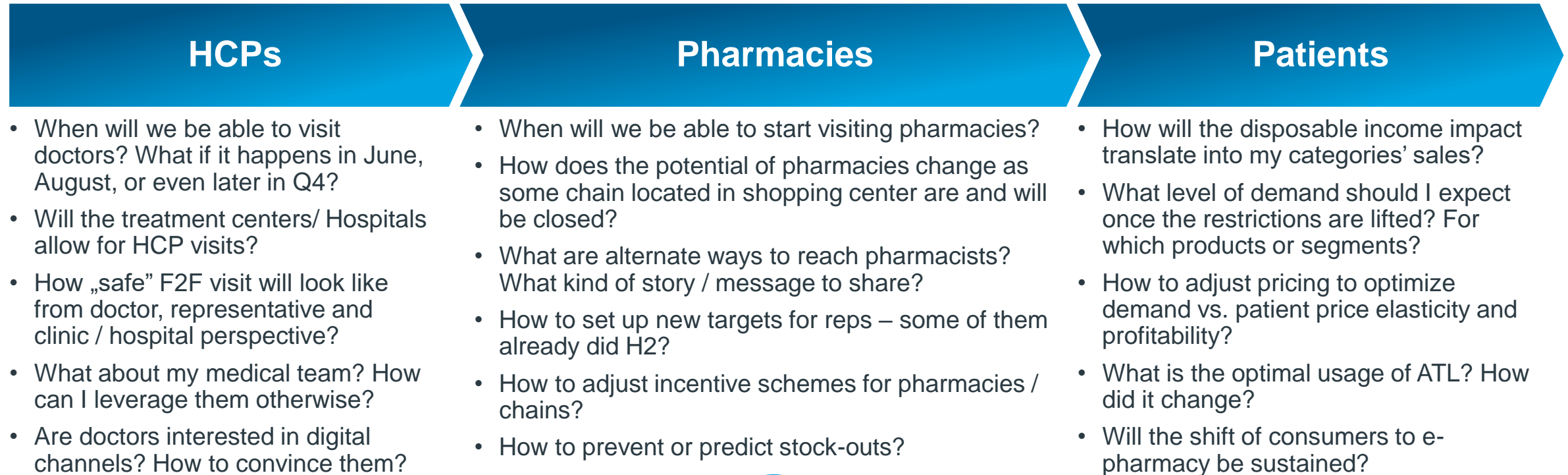


>80% pharma leaders see priority in reviewing promotion & ensuring supply of products (IQVIA PL Annual Conference, March '20)

1. Mar'20 vs Mar'19 growth: 2.91/2.41x e-commerce total sales growth in CZ/HU. For PL: Vitamin & Supp 1.86x; Baby Foods 1.76x; Cough & cold 2.30x; Pain Relief 2.08x; Tonics & stimulants 3.18x;

Pandemics raises several questions to be evaluated by pharma companies on the short notice

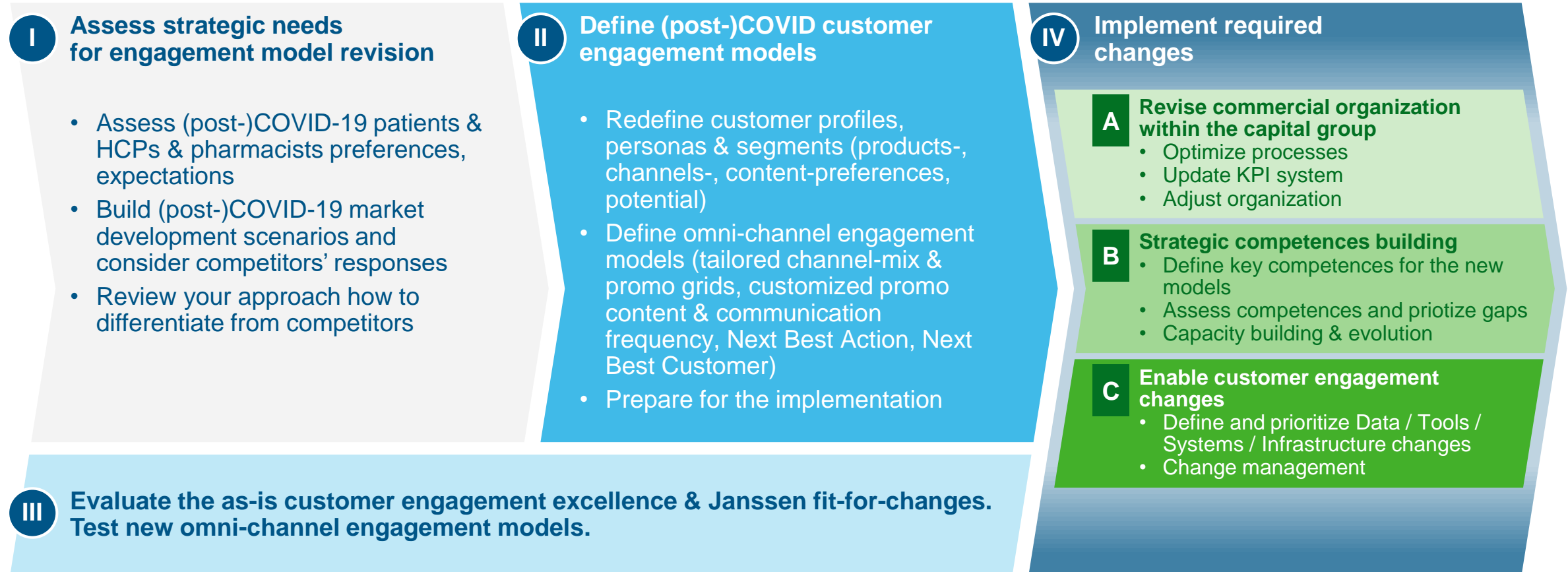
Selection of key questions



- **How does it impact sustainability of my business?**
- **How I can mitigate risks and leverage the opportunities?**

Developing a winning customer engagement requires comprehensive program bringing new quality, efficiency and flexibility

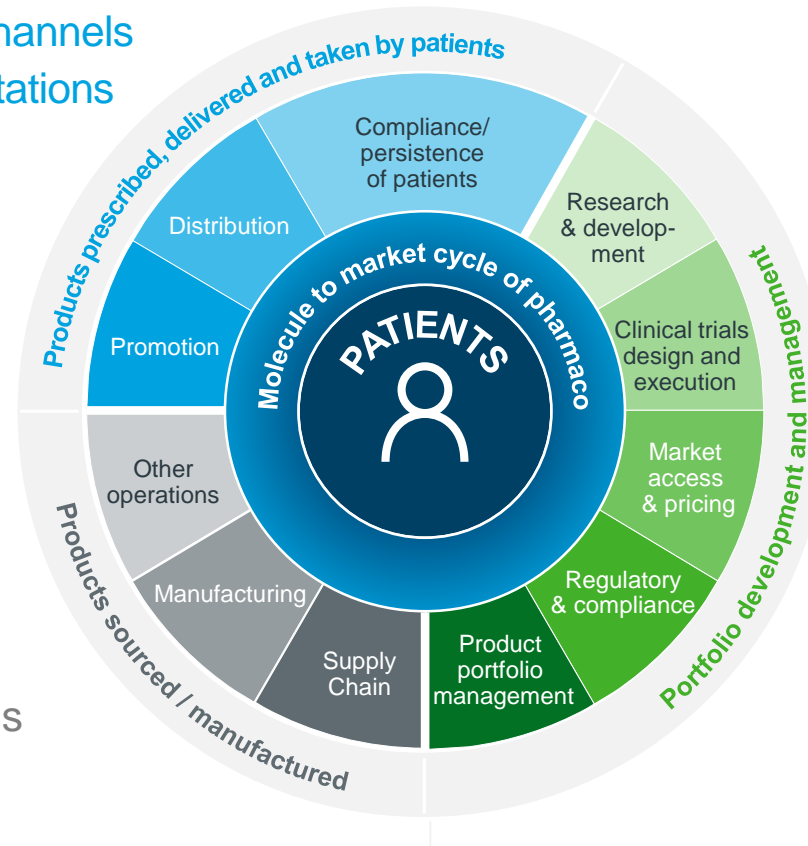
Proposed approach



Pharma companies need to stay on track through pandemics, understand and prepare for post-COVID-19 environment

Selected COVID-19 challenges for PharmaCo across molecule-to-market cycle

- Restricted F2F promotion & shift toward remote channels
- Uncertainty about post-COVID HCP needs/expectations
- Insufficient digital promo capabilities
- Surge of the e-commerce sales with pressure on Rx delivery liberalization
- Changing patients needs (e.g. remote consultation growth) & lower disposable income
- Changing pharmacy and doctors' potential
 - Medicines/API export constraints
 - Increasing costs of API & production
 - Pandemics (countermeasures) impacting manufacturing & supply
 - Reduced effectiveness of other operations
 - Recession hitting suppliers, partners and competitors

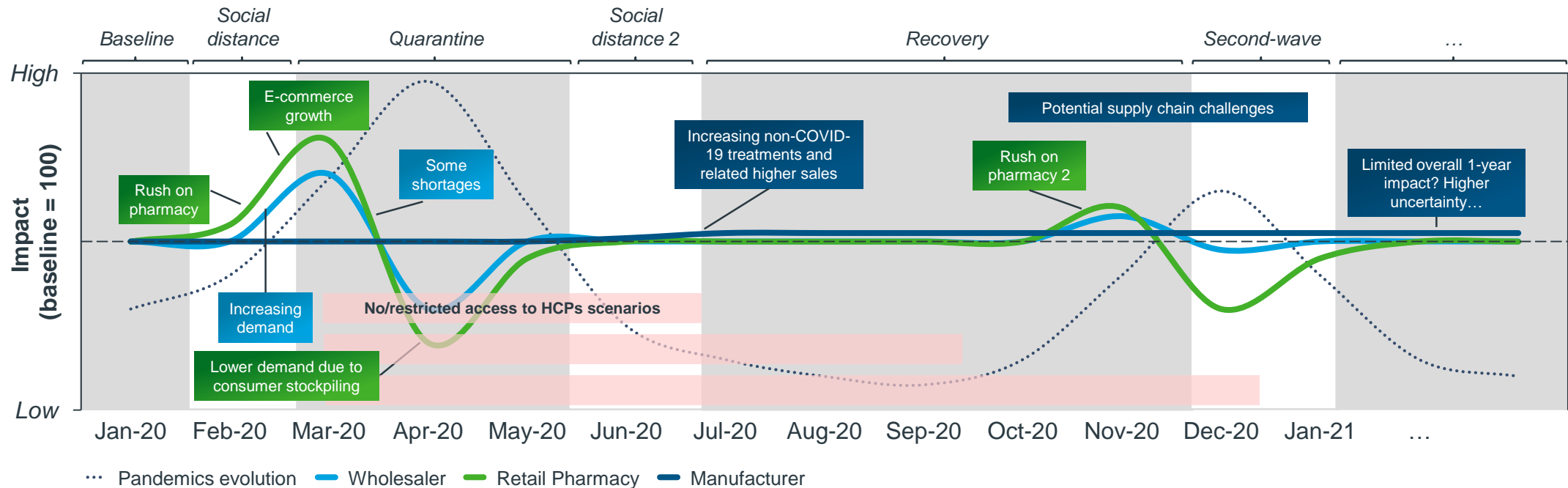


- No/limited access to R&D facilities and clinical sites
- Hurdles in patients recruiting for clinical trials
- Healthcare resources diverted massively to COVID-19
- Pressure on current/new reimbursements conditions
- No/limited access to HCPs for launch campaigns
- High uncertainty of market demand/sales levels per product

**How does the market develop in the following months?
How well is your company prepared for post-COVID-19 business environment?**

There are different priorities and required countermeasures along the development of pandemics

Illustrative development of pandemics and priorities



- Manage the crisis
- Monitor and react to changing market / regulatory situation

- Analyse market/brand specific pandemics impact and update forecasts/budgets
- Validate and prioritize COVID-19 countermeasures (strategy workshop)

- Finalize implementation of quick-win COVID-19 countermeasures
- Progress on implementing mid-/long-term measures

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