

Coronavirus COVID-19: Key Challenges and Core Measures for DSOs to consider

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A grayscale, high-magnification microscopic image of several virus particles, likely coronaviruses, showing their characteristic spherical shape and surface spikes. The background is dark, making the lighter-colored virus particles stand out.

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Challenges and Measures during chain of events (European experience)

COVID-19

- COVID-19 is, first and foremost, a humanitarian challenge.
- While quarantines and mobility restrictions are not infallible, China's early experience with the virus demonstrates the importance of "maximum containment" strategies to prevent health care system break-down.
- Simply "slowing" the pace of infection is important to any effective public policy response and the likely one chosen
- The document is based on the learnings from Chinese and European DSOs and insight from financial advisors, and management consultancies
- Aim is to help DSO decision-makers to prepare for the crisis, learn from each other and elevate from of the crisis stronger

Protecting the Healthcare System from Breakdown is the Ultimate Goal of COVID-19 Government Measures

Core assumption

70% of the population will get infected

Drivers

- Low social immunity
- Rapid transmission rate
- Long incubation period/being infectious
- Often mild symptoms

Ultimate Goal:
Maximum containment of population to **slow down** the pace of infection and prevent health care system break-down

WHY?

- If infection goes too fast, the health care system will break down
- Affecting the ability to treat **COVID-19 emergencies (pneumonia) and provide critical hospital care** (emergency care, intensive/post-op care, chronic diseases, cancer, birth,..)
- Especially endangered: Elderly and people with chronic diseases that need periodic hospital care
- Issue accelerates over time as doctors/nurses get infected and have to go on quarantine

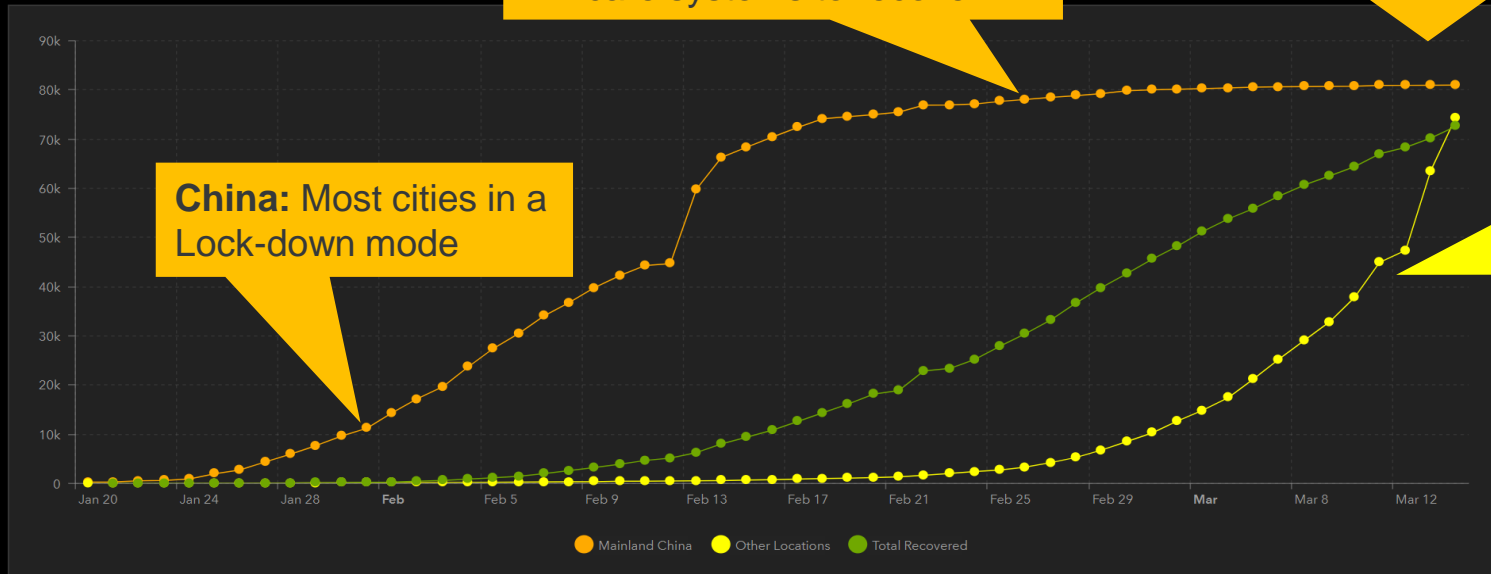
Through imposing drastic mobility measures, China was able to slow down the pace of infection

China: Drastic people mobility measures reduced the pace of infection and allowed health care systems to recover

China: Mobility limitations are slowly being eased

China: Most cities in a Lock-down mode

RoW: Accelerating infection rates in more than 141 countries. Risk of healthcare systems to collapse if infection pace is not contained

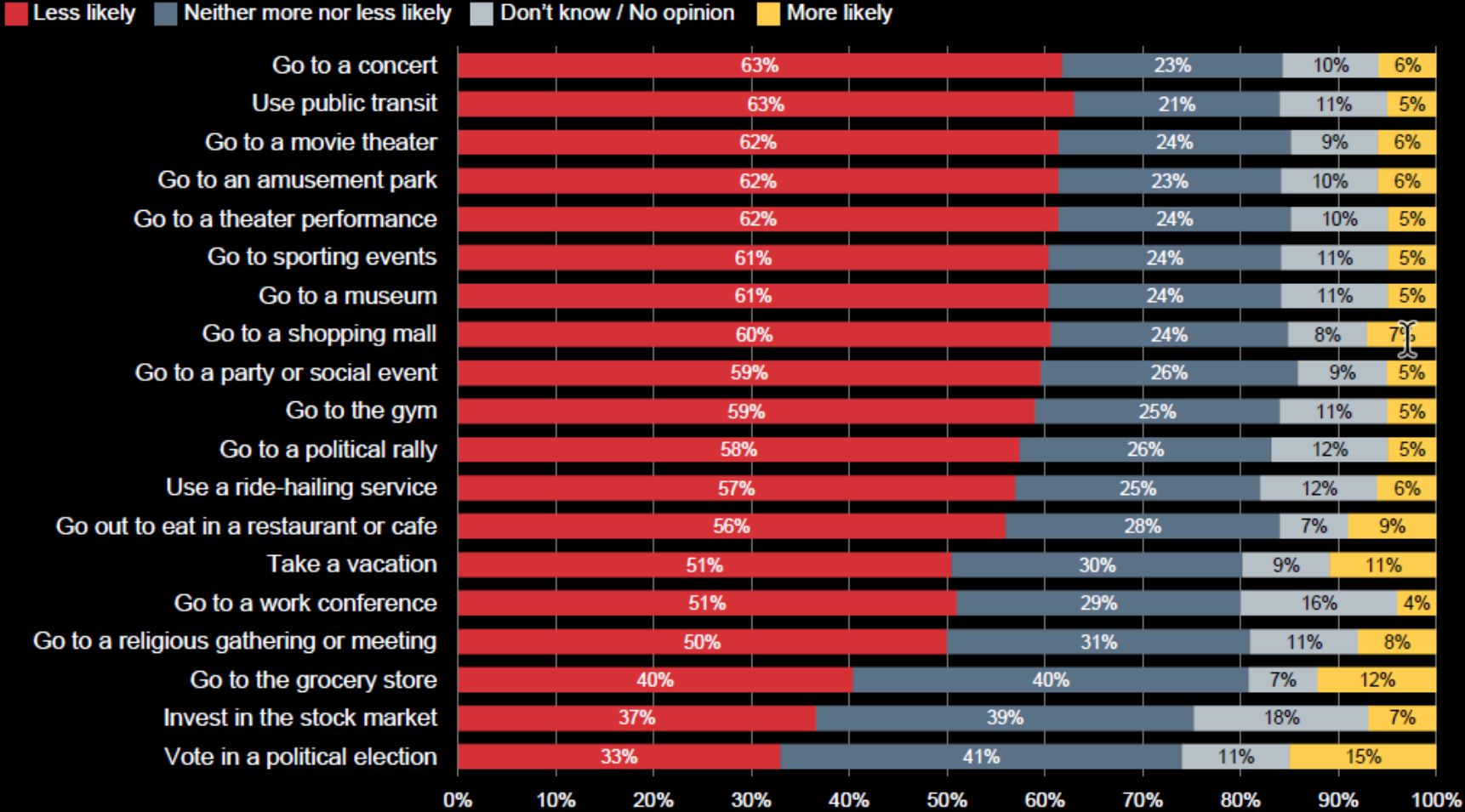


In China almost 60 Mio people were placed under Lock-down in Hubei province alone, most factories in the province are expected to remain shut until March 20. The economic costs are enormous with a large % of small businesses running out of cash

The **earlier** and the more drastic the measures taken, the shorter the duration

«Social Distancing» also affects dental office traffic. In Europe patient traffic down up to 90% within two weeks

Based on what you know about the coronavirus, are you currently more or less likely to do the following?



COVID- 19 Attributes feeding more rapid Transmission

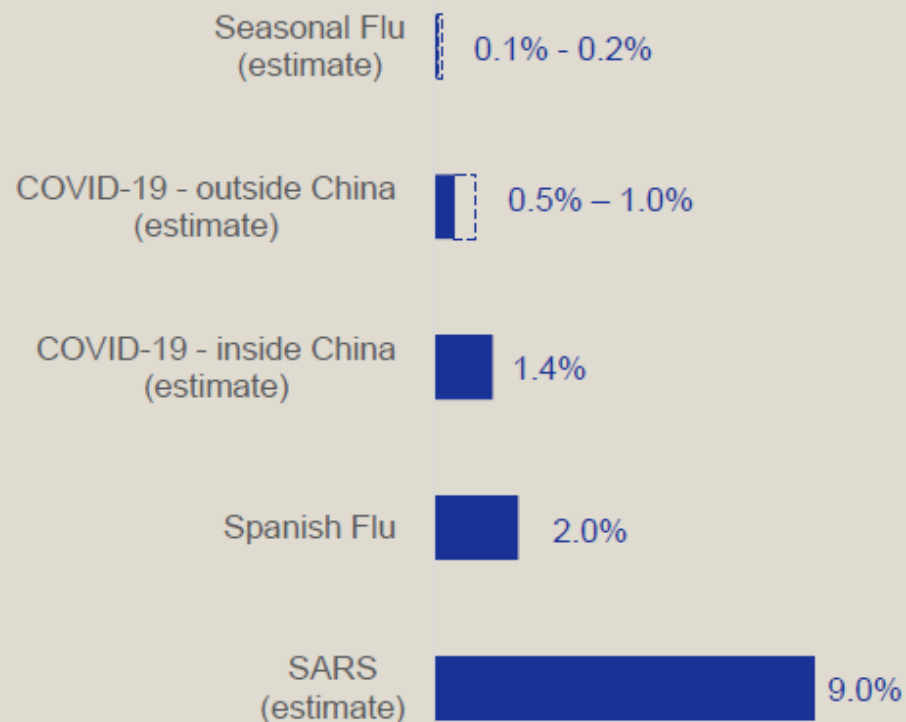
While COVID-19 is often casually described as a “bad flu”, many of its core attributes have combined to facilitate rapid transmission globally. In summary, the illness is “contagious enough” to spread quickly, and “deadly enough” to be concerning and cause “social distancing” that exacerbates global demand and supply shocks.

- 1 Low societal immunity** → As a novel disease, society has not built up “immunity” to COVID-19
- 2 Rapid transmission rate** → Each case generates 2-3 new cases, on average (2.3 vs. 1.3 for the seasonal flu)
- 3 Long incubation period** → At approximately 14 days (3x the flu), asymptomatic transmission is more prevalent
- 4 Mild symptoms** → Approximately 80% of cases have “mild” symptoms, often unidentified as COVID-19, which exacerbates transmission (additional 15% “severe” and 5% “critical”)
- 5 Higher mortality rate** → Difficult to calculate due to under-identification of cases, but likely 5-10x higher than the flu (at 0.5-1%)

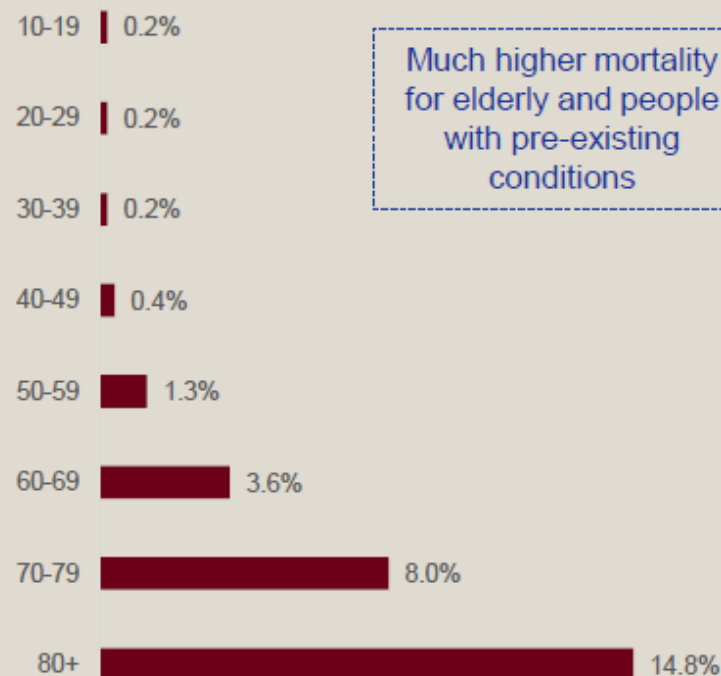
Comparative Mortality Rate Estimates

COVID-19 may be characterized as having a higher transmission rate, longer incubation period, and higher mortality rate than the “seasonal” flu. The novelty of the virus has also not allowed the population to develop stronger immunity over time. Given the high transmission rates, and containment challenges in densely populated high income regions (i.e., Europe), public policy responses may need to shift more in the direction of mitigation and treatment (versus closing borders and quarantines, etc.).

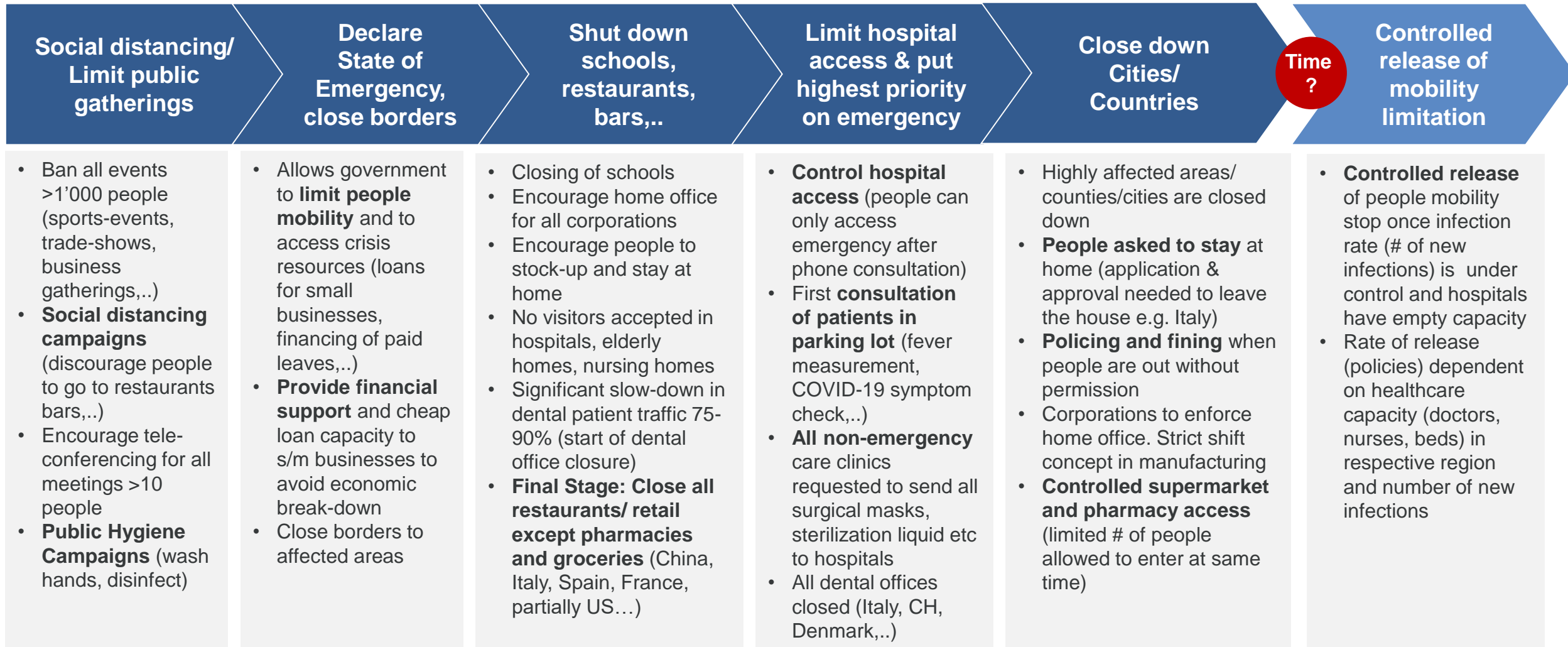
Estimated mortality rates



COVID-19 mortality rates by age (as of February 11, 2020)



COVID-19: Typical chain of events



China

Italy

Spain, Germany, CH, France, Denmark, ...

USA

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COVID-19 Response Workflow

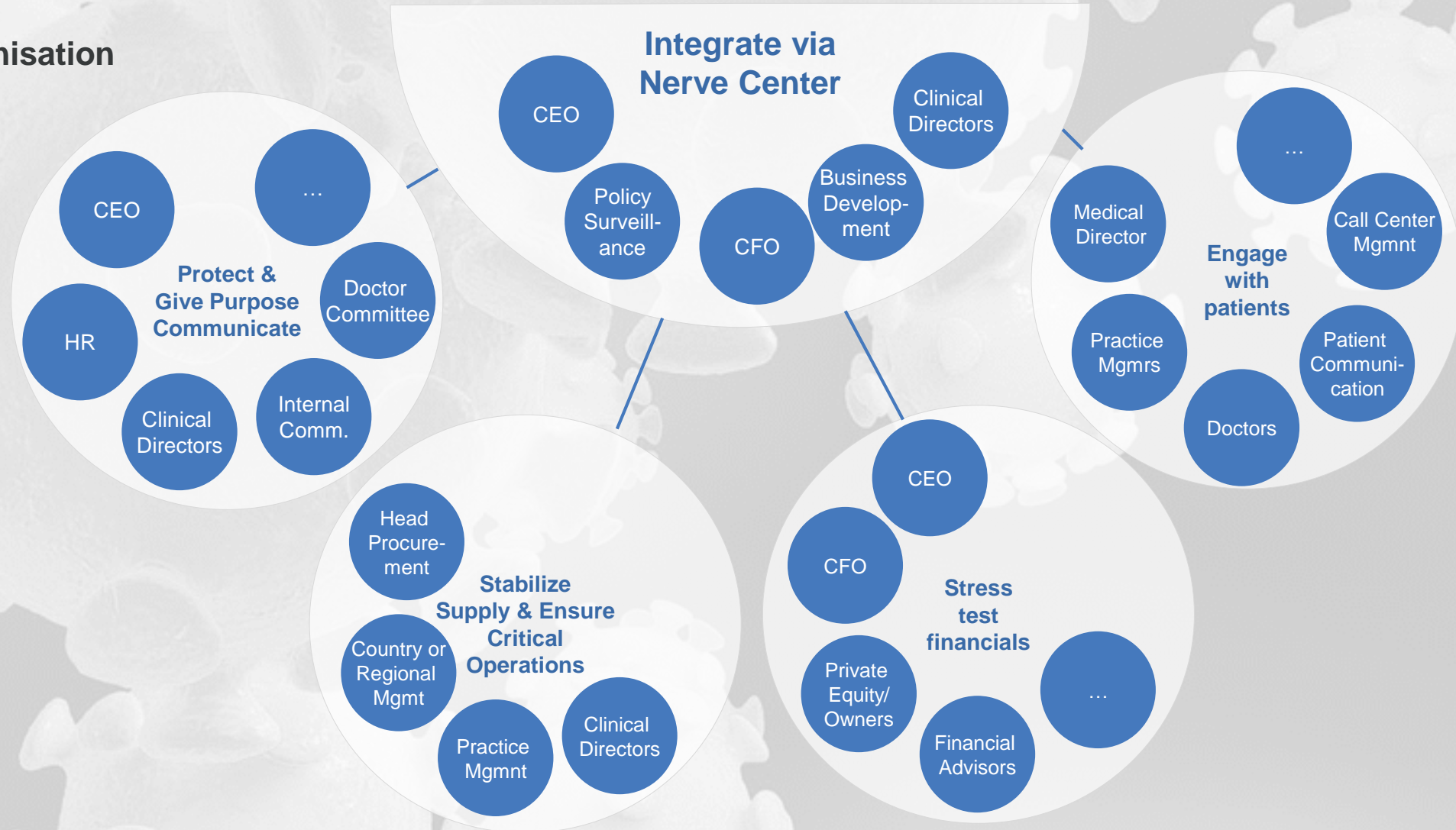


Source: McK, Internal Team, Expert interviews

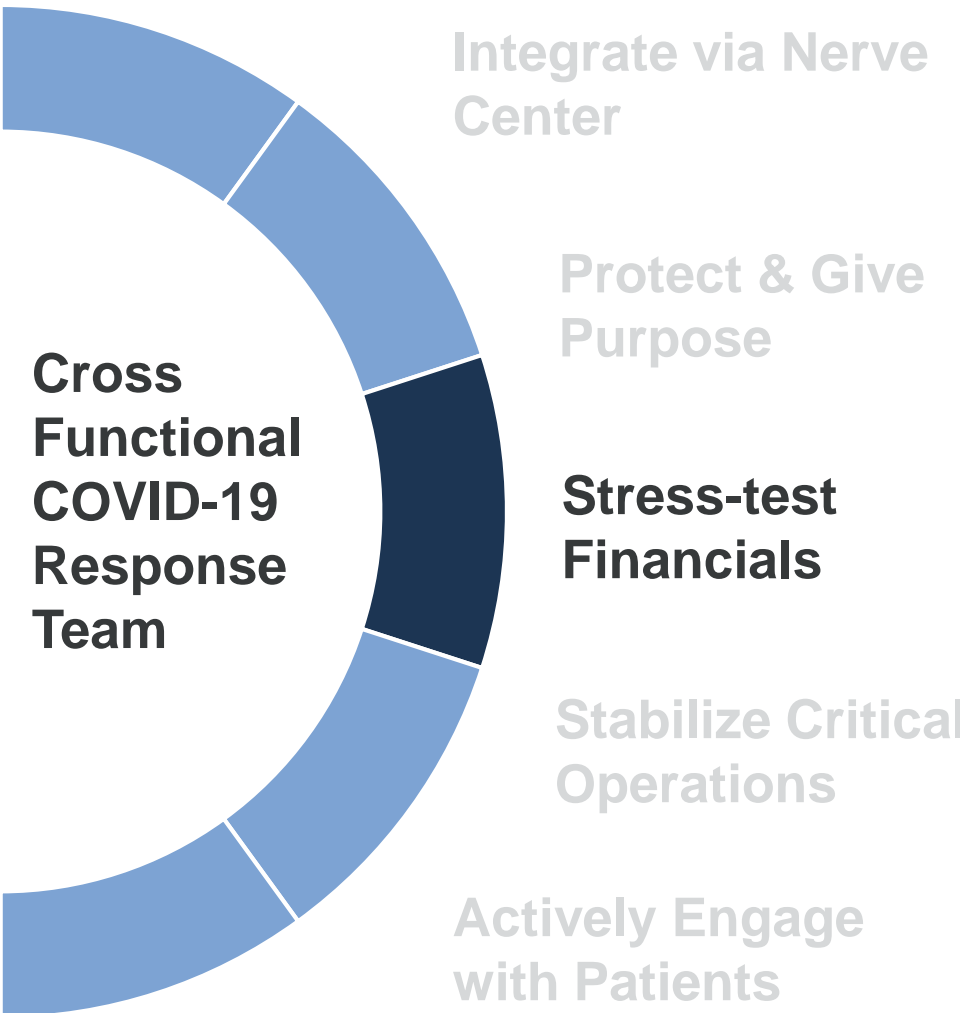
Integrate via Nerve Center Organization

Example Nerve Center Organisation

- **Multiple semi-autonomous** cross-functional teams working
- **Agility** enabled by **clearly articulated values**
- **Simple meeting/call cadence and radical transparency** (all working materials available to everybody)



Financial Stress Test



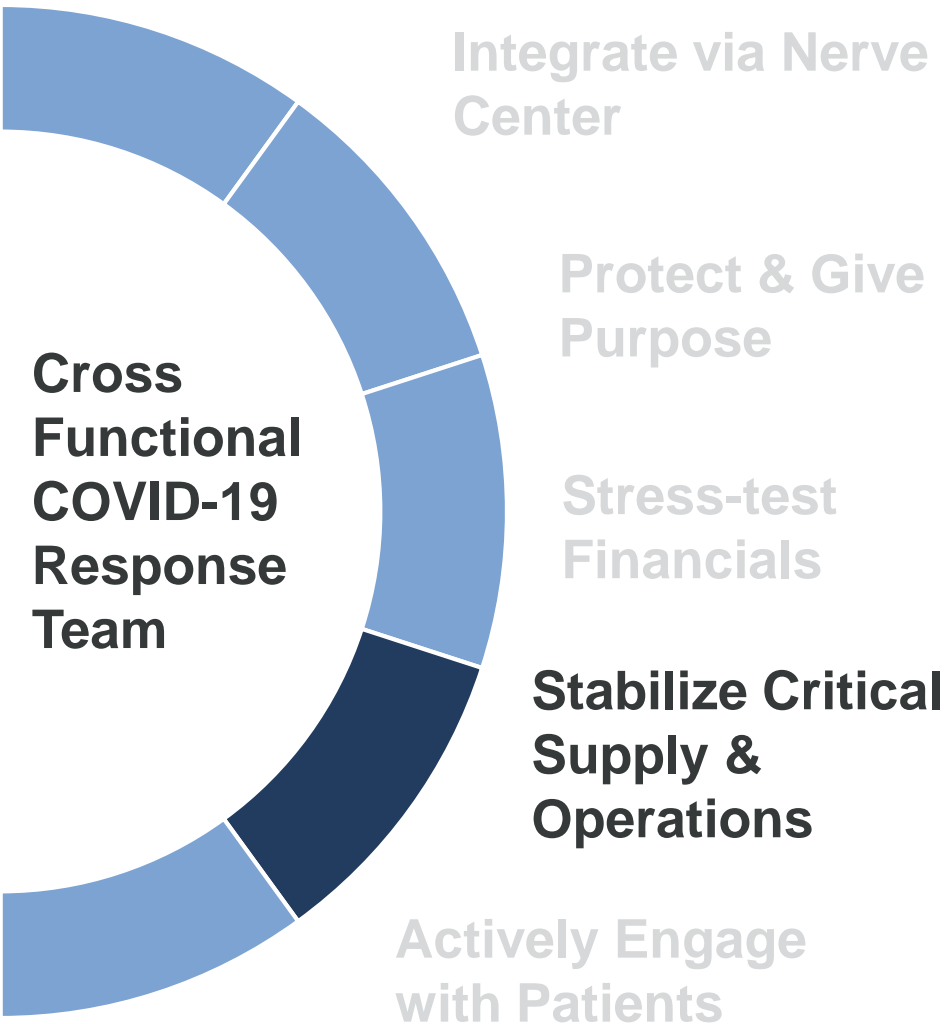
- 1 Have you completed a scenario analysis for stressed liquidity scenarios and availability of undrawn bank lines?
- 2 How long do your existing sources of liquidity hold up in a prolonged stressed environment (i.e. reduced patient flow, Lock-down period*, stress in funding markets)?
- 3 Have you taken all measures to reduce running costs, limit cash out-flow, maximize cash in flow (Hiring freeze, cost containment/reduction, accelerated billing and invoicing, prolongation of accounts payable,...).
- 4 Have you reviewed your liquidity positions to determine how pockets of liquidity could be used to finance/optimize liquidity needs in areas?
- 5 For any near term maturity or large pending transactions in the next 3-4 months, have you developed a contingency plan for funding and risk management?
- 6 Are you ready to move quickly during “pockets of stability” to opportunistically raise debt capital or lock-in rates at historically low levels?
- 7 Have you examined supply chain finance exposures and potential disruptions for key suppliers and/or financing needs for them in case of default?
- 8 Have you checked all available government support and applied for access (cheap loans, support for paid leave during Lock-down)?
- 9 Have you re-examined potential cash acquisitions for lower target valuations?
- 10 Does your set-up/situation provide a weakness that could precipitate unwanted interest or attacks from competitors?
- 11 Have you done a detailed review of pre-COVID-19 capital allocation plans for a new environment of higher economic uncertainty and volatility (capex, debt pay down, etc.)?

Example measures: Protect & Give Purpose



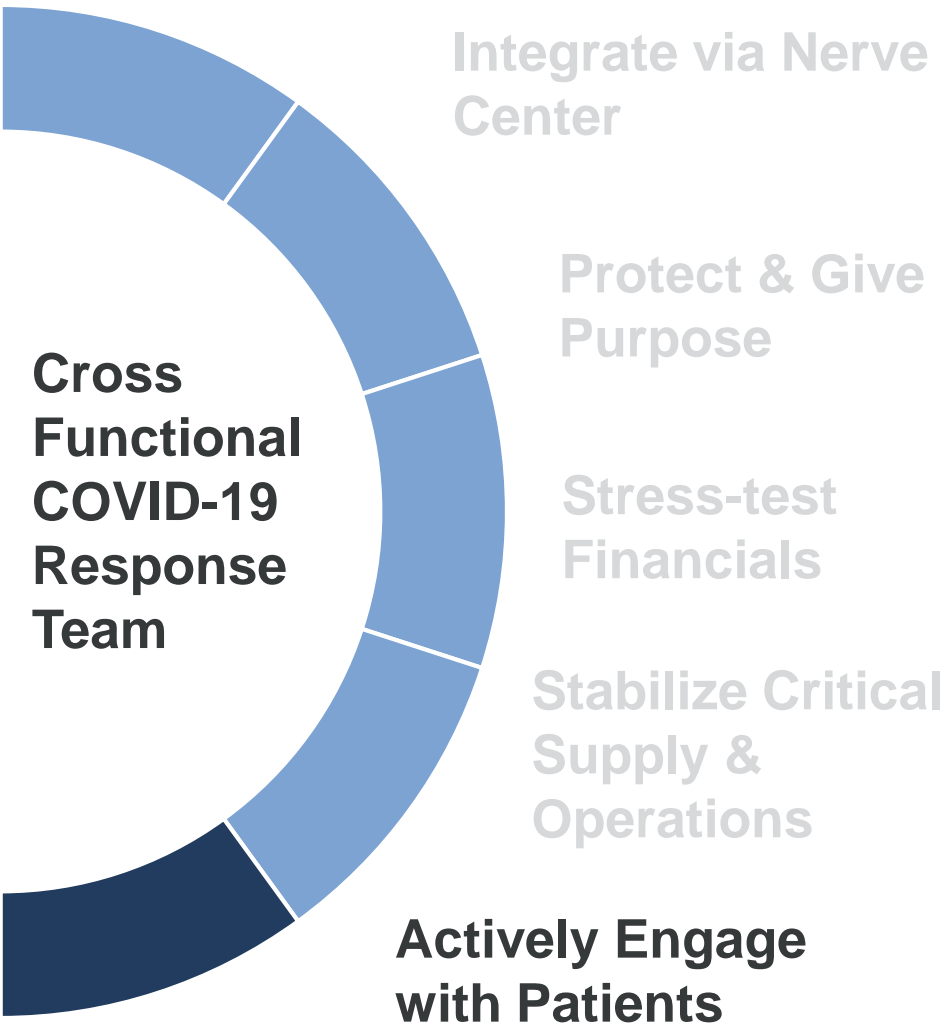
Safety Policies & Communication	1	Issue and over-communicate policies around safety/ hygiene & precaution in a simple and readable format, make sure people understand the “why”
	2	Apply COVID-19 Sterilization guidelines to all clinics. Provide hand sanitization upon entry into the building. Potentially monitor temperature of employees, and of incoming patients in isolated room/parking lot, call patients before appointment to check on health
Care	3	Consider to send care packages to employees (fever, thermometer, vitamins, sanitizers,..), stay in touch with employees during quarantine and shut down
	4	Encourage open communication to ensure employees can speak up if they feel unsafe, stay in touch through SMS/whatsapp if employees do not have e-mails
	5	Revise policies to ensure non-punitive measures taking “days-off” due to being ill. Define deputies for core functions to enable operability during quarantine
Travel restrictions	6	Delay all non-essential travel. Cancel gatherings and events and restrict non-patient/third party visitors. Keep meetings virtual
	7	Quarantine employees who recently visited highly affected areas or commute from highly affected areas
Ways of working	8	Office: Offer employees the flexibility to work from home. Make sure their home work-place is fully enabled for eventual Lock-down period (Computer)
	9	Clinic: Define clear guidelines and rules for doctors & clinical staff. Composition of shifts, how to protect against infection, what to do when infected etc. Stay recent and adapt to local regulations (shut down etc). Define, communicate shut down procedure
	10	Assign shift concept for clinical personnel to allow for parents to be at home with kids (in areas of school closures). Optimize doctor availability between clinics
	11	Ensure critical roles (e.g. patient data, booking, rescheduling etc) are fully equipped to work from at home (computer and access) in case of office closure

Example Supply Chain & Operations actions to consider



Critical Process inventory	1	Map all critical processes (e.g. patient booking, patient communication etc.) and ensure operability during Lock-down (Computer/System access at home etc.)
	2	Evaluate technologies available to monitor patients from at home, e.g. Dental Monitoring via iPhone*. Provide emergency phone that is operable during shut down
Understand Exposure	3	Determine truly critical items and understand the risks of suppliers (origin, financial capacity of supplier,...) – masks, gloves, ...
	4	Identify origin of supply (e.g. Korea, China,..) build risk map and define inventory buffer and locations. Assess how fast supply can be scaled-up
	5	Conduct scenario planning to understand financial and operational implications of prolonged shutdown because of supply shortage (surgical masks,...)?
Take action to address shortage	6	Look to ramp up immediately on alternative sources, potentially change mode of transportation to accelerate and reduce exposure to be ready after lock-down
	7	Act on rationalization of supply, shifting & optimization within entire practice network Reschedule patients proactively in case of supply shortage of critical items
	8	Make sure you are ready to ramp-up clinics quickly after shut down (ensure sufficient stock on critical items e.g. masks, clinical stock)
Mid term optimization	9	Evaluate suppliers and review alternative sourcing options for all critical materials. Assess if suppliers have faltered during pro-longed shut down (make sure you are ready after shut down)
	10	Establish a supply risk analysis and convert war room into a reliable risk management process
	11	Post-crisis, determine possible geographies and review supplier shortlists (risk map)

Actively engage with patients



Actively engage and enable Doctors to engage with patients	1	Actively engage with doctors during COVID-19 and crisis management. Make sure they are part of the nerve system and active crisis management at clinic level
	2	Develop emergency working/shift plans in case of individual doctors need to go into quarantine or need to stay at home (e.g. schools close). Possibly align with adjacent clinics to allow flexibility in shift plan and patient rescheduling
	3	Ensure home connectivity of critical staff and doctors (computers, access to patient contact data) and access to on-line learning in case lock-down occurs over longer period (up to 3 months in China, Europe)
Engage with Patients	4	Proactively communicate with patients. Offer open-line and emergency line (via smart phone/e-mail) in case of questions and emergency situation (show empathy and comfort). Consider to send care packages (thermometer, masks, vitamins, sanitizers) to patients
	5	Generally offer patients possibility to reschedule appointments (call all patients day before treatments, check on health and avoid no-shows in case they have infection concerns). Proactively contact and reschedule patients before Lock-down.
	6	Evaluate and engage in remote patient monitoring options for treatments that need continuous monitoring e.g. ClearAligners via Dental Monitoring on iPhone*
	7	Provide continuous communication via the doctor/staff to the patient during lock-down. E.g. provide COVID-19 advice via patient web-page, social media etc to provide comfort and care to patients. Allow them to call staff in emergency. Schedule on-line “break-fast” meetings via Zoom with doctors/staff
Actively communicate with referrals	8	Brainstorm with doctors and staff on how to keep patient engagement and comfort during possible office closure and define roles & responsibilities
	9	Keep active communication with referrals. Provide advise on emergency plans, hygiene rules etc. stay tuned in with their opening hours and support in case of supply issues, shut down.
	10	Brainstorm ways to best engage with referrals during crisis to provide best support to patients

Prepare for Post-COVID-19 Offense

Assess opportunities offered by the crisis

List bold strategic opportunities that the crisis offers such as

- Take advantage of historically low interest rates to finance organic and external growth
- Define M&A opportunities and road-map post COVID-19
- Optimize the supplier portfolio to better hedge against supply risks in the future
- Accelerate recruitment of doctors that have financially faltered during the crisis
- Take bold decision on portfolio or service investments that anticipate changing patient needs (Telemedicine, patient home monitoring,..)
- Make sure balance sheet is robust enough to create resilience against hostile approaches

Prepare for “Bounce-back after the crisis

- Reschedule patients before shut down to ensure strong start
- Keep in touch with patients during Lock-down if any possible
- Actively use lock-down period for online training for staff and doctors (Patient communication, practice management, clinical training, ClearAligner, **...) to increase post-lock-down success
- Monitor macro-developments and trends that give indication on time and intensity of comeback
- Ensure sufficient stock of critical items to ensure strong return
- Sustain team agility built during crisis in critical processes (invest in tools for long term)

Anticipate changes in patient behaviours after COVID-19

- Anticipate sustainable shift in patient behaviour and demands (e.g. China saw a large surge in telemedicine *)
- Anticipate significant surge in competitive campaigns after lock-down
- Plan own patient campaigns & re-engage with the patients fast after the crisis to drive traffic and capture postponed treatment surge
- Assess treatment portfolio most relevant after lock-down (e.g. emergency, check-ups, cleanings,...) and proactively promote through multi-channel
- Build scenarios on how you can differentiate or beat competition in different economic situations (e.g. recession)
- Mobilize impactful post-COVID charitable engagement

Source: McK, Bain, DSO interviews

*<https://www.economist.com/business/2020/03/05/millions-of-chinese-cooped-up-and-anxious-turn-to-online-doctors>

** Contact Straumann as we offer free sign-up for ITI online training platform <https://www.iti.org/> during COVID 19 shut downs

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**Challenges and Measures during chain
of events (European experience)**

COVID-19: In Europe, each phase posed multiple challenges and measure



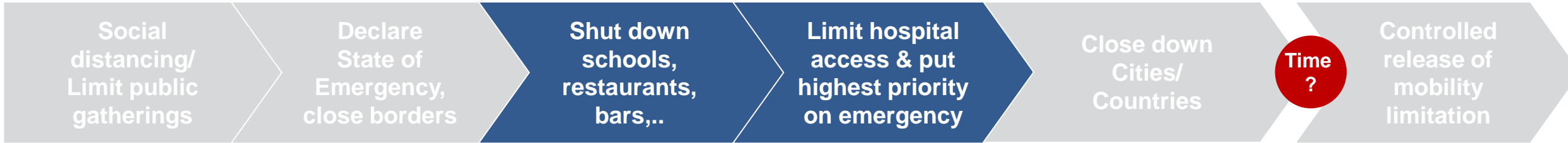
Challenges

- Social distancing campaigns result in patient no-shows (50% not uncommon)
- Office and clinical team get infected (need for quarantine, relocation of doctors between clinics)
- Infected patients spread virus to team
- Stock-outs (masks, gloves, sterilization liquids,...) limit the ability to treat patients

Measures

- Call patients day before treatment. Check symptoms and offer option to reschedule (provide comfort, avoid no-shows and ensure patient traffic post crisis)
- Stock up and monitor supply on highly critical items (masks, gloves,..)
- Implement and monitor strict COVID-19 hygiene and sanitization procedures in office and clinic (policies and training)
- Equip employees with any needed sanitary or personal protection. Consider screening employees for symptoms (temperature, etc.) and sending home staff that display signs of illness. Put infected team members in quarantine
- Encourage team to comply with hygiene rules at home and avoid unnecessary social contact in private (restaurants, ...), discourage business- travel for all employees
- Introduce shifts in clinic if feasible (split in two teams, if one team gets infected, you have still one team)
- Measure fever and check symptoms of all patients before entering waiting room
- Stay close to government policies and financial support for quarantine & sickness-leave of staff for COVID-19

COVID-19: In Europe, each phase posed multiple challenges and measure



Challenges

- Children are at home. Grandparents should not be engaged in child care to avoid exposure to virus
- Doctors/nurses, office team need to take care of children
- Significant reduction in patient traffic (75-90% in Europe) as people are discouraged from socializing

Measures

- Introduce shifts and home office policy for office staff wherever feasible (ensure accessibility, computer and data access from home)
- Extend shift concept to clinical team to allow parents to take care of children/ move doctors and nurses between clinics in same area where possible
- Check possibility and financial feasibility to keep the clinic open for Emergency treatments only (relate to the guideline from NADG on treatment spectrum and necessary approvals – different by state)
- Develop and share procedure and protocol for office closures (incl. communication and roles & responsibilities for time after closure)
- Check and secure government funding on unpaid leave
- Get prepared for Lock-down stage (possibly relocate critical HQ functions to lower affected areas in case there is less risk of complete shut down)

COVID-19: In Europe, each phase posed multiple challenges and measure



Challenges

- Office and practices are closed as care is limited to emergency only – dental often not considered as emergency
- Dental offices are asked to send all items (Masks, sanitization tools,...) to the public hospitals for deployment
- Sustained cash management issues (need to pay salaries, rent etc) for undefined period of time)
- Shut-down period in China (3 months) in Europe between 5 weeks (initially announced in G, CH) and 3 months (Denmark, Norway)

Measures

- Anticipate liquidity challenge and be prepared early (see financial check-list)
- Access government support (paid leave support, low interest loans,..) to support paid leave of employees (differs greatly between country of operation)
- Offer on-line learning opportunities for doctors and staff (clinical, patient communication,...)* to keep engagement and ensure strong restart.
- Keep close to employees and patients during Lock-down (provide comfort). Anticipate that some employees might get affected or one in their family will. E.g..organize weekly on-line “Zoom” Breakfasts by clinic
- Enhance social media communication and posts to patients and staff (e.g. WhatsApp groups by clinic, Health line, psychological coaching hot-line), if possible provide care packages (vitamins, masks, fever thermometers, hand sterilizer etc)
- Possibly consider to what extend your doctors/nurses can support the community health care system on voluntary basis. Likely that healthcare system will operate beyond capacity at this moment
- Prepare for post-crisis opening (See: Prepare for Post-COVID-19 Offense)

A grayscale, high-magnification microscopic image showing various biological structures. In the foreground, there are several large, rounded cells with distinct nuclei and some surface protrusions. In the background, there are smaller, more irregular structures that resemble viruses or smaller cells. The overall texture is grainy and detailed, typical of a scanning electron micrograph.

Summary

- The impact of the COVID-19 crisis is unprecedented in the modern era. The shock itself has multiple dimensions and feedback loops: public health, supply & demand, manufacturing & services, funding & liquidity markets.
- Given the rapid spread of COVID-19 to date, DSOs should consider a set of actions: Protect and provide purpose to employees, stress-test financials, stabilize critical functions, engage with patients, leverage on-line training, and integrate all these efforts under a central Nerve Center.
- We encourage you to remain calm, install strong central project management, stay close to government policies, always be ready for the next phase, and continuously stay close to your employees and patients!
- COVID – 19 provides an opportunity to demonstrate a people driven culture that truly cares for its employees, their families and most importantly for the patients.
- As you will demonstrate the necessary agility enabled by the right set of values you will not only manage the crisis well, but definitely come out stronger!

Above all: Be well and be safe!

A grayscale, high-magnification microscopic image showing various biological structures. In the foreground, there are several large, roughly spherical cells with distinct nuclei and some surface protrusions. In the background, there are smaller, more irregular structures that resemble viruses or smaller cells. The overall texture is grainy and detailed, typical of a scanning electron micrograph.

For Updates on Check-lists and experience sharing

North American Dental Group in the USA (part of Jacobs Group) provides continuously updated repository of clinical guidelines, procedures, policies etc.)

<https://nadentalgroup.com/covid19/>

Straumann:

<https://www.straumann.com/group/en/discover/covid19.html>

A grayscale, high-magnification microscopic image of several virus particles. The particles are roughly spherical with a textured surface and numerous small, rounded protrusions (spikes) extending from their outer layer. They are scattered across the frame, with some appearing larger and more detailed than others. A semi-transparent blue horizontal band is overlaid across the middle of the image, containing the text 'We care for you'.

We care for you

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>100

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- Doctors trained since our foundation
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1 second

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