

CRISIS MANAGEMENT PLAYBOOK



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INTRODUCTION

Overnight the world changed when COVID-19 began to infect and impact our communities, cities, and eventually, our patients, team and your business.

The world began to change day by day, hour by hour, leaving everyone with questions swirling through their heads.

Questions like:

- **What if I have to close the doors to my practice while we're in lockdown?**
- **What happens to my employees?**
- **What are my legal obligations?**

And then it happened. The government's response to COVID-19 made the decision for you. You closed the doors of your practice and you became reactive.

In early March 2020, reactive decision-making drove you to a quick and immediate response based on the problems caused by the pandemic. Instead of resolving problems, it highlighted holes in your current business operating system.

COVID-19 is one example of a crisis that threatened the future of your business.

You can't predict the future, but you can prepare for it. You tell your patients to prevent cavities by being proactive, and now it's time to take your own advice when it comes to your Dental practice. The time is now to get your crisis management playbook ready to help mitigate your risk. It's time to future-proof your business.



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OVERVIEW

The Crisis Management Playbook has been designed with the intention of providing your practice with the information you need to survive through times of crisis. This guide is not a substitution for any policies held within your employee handbook, occupational health and safety manual or infection prevention and control manuals.

We are so excited to get started!

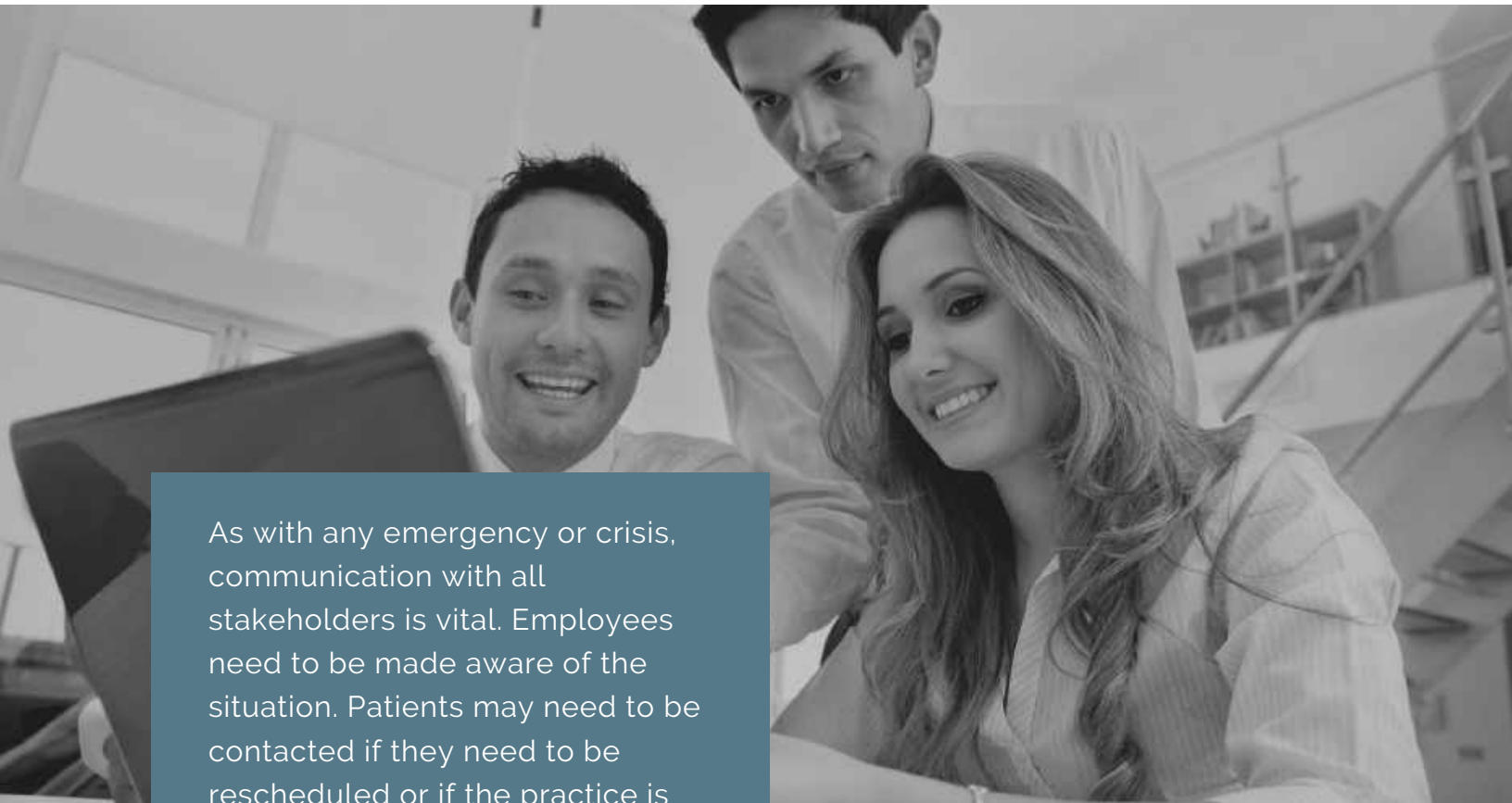
PURPOSE OF THIS GUIDE

The purpose of Stream Dental HR's Crisis Management Playbook is to provide practice owners with a resource to help to identify the best course of action for a variety of different instances of crisis by identifying what questions need to be asked, who you need to consult with and how you can weigh the decision making process effectively. This guide will ask you a series of questions to determine how prepared you are for a crisis within your workplace.



**REACTIVATE.
RESTORE.
RECOVER.**

COMMUNICATION



As with any emergency or crisis, communication with all stakeholders is vital. Employees need to be made aware of the situation. Patients may need to be contacted if they need to be rescheduled or if the practice is required to close over a period of time.

Overall, ensure that you communicate with your team prior to talking to patients. As well, always ensure that you are only disclosing information that is required and lawful to disclose.

QUESTIONS TO CONSIDER

- Do I have an easily accessible method of notifying my employees of any fast paced practice closures or emergencies?
- Do I have an easily accessible list of emergency contacts for my employees?
- Do I have a readily accessible description of any serious employee medical conditions that I need to know about in the case of an emergency?
- Have all employees received adequate Occupational Health & Safety training in the last year?
- Have all employees signed the Occupational Health and Safety manual for the practice?
- Have all employees signed all external Occupational Health and Safety related policies (i.e. working alone, emergency closures, etc.)?

POLICY COORDINATION AND EXERCISING GUIDELINES



Practice Owners, Office Managers, and Workplace Safety Officers will generally work together to coordinate the best plan of action, disseminate the steps of action to the employees and to ensure that compliance is maintained against the present guidelines.

QUESTIONS

- Are all individuals involved in policy coordination and exercising guidelines aware of these roles that they play within the practice?
- Are all individuals involved aware of how to proceed with communication to other employees in the face of an emergency?

RISK ASSESSMENTS

Practice Owners, Office Managers, and Workplace Safety Officers will generally work together to coordinate the best plan of action, disseminate the steps of action to the employees and to ensure that compliance is maintained against the present guidelines.

QUESTIONS

- Do you have a process for conducting consistent risk assessments?
- Do you have risk assessment reporting forms to document your risk assessment process when determining courses of action?
- If something happened to you (the practice owner), who would fulfill your duties in this event?

PANDEMICS

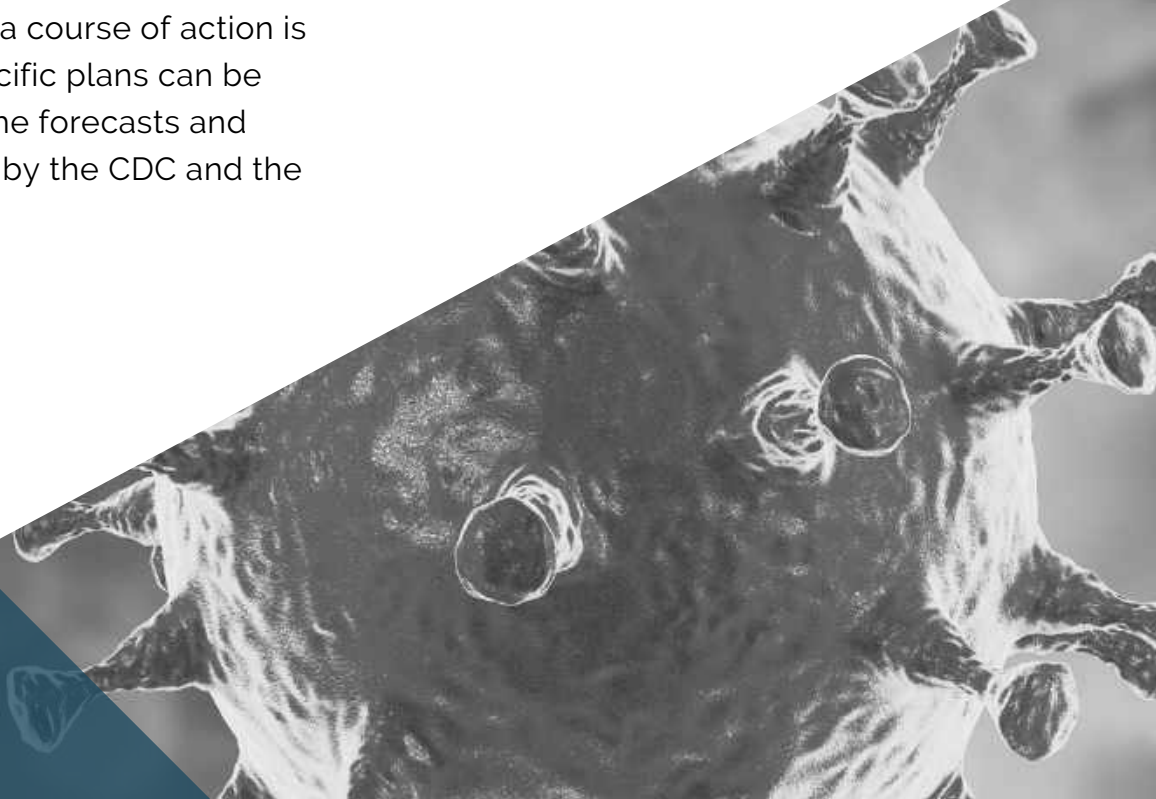
A pandemic is defined as a newly emerging infectious disease that usually represents a high-level consequential threat towards human health. In the event of any pandemic, the determination of the primary mode of transmission is crucial during the early stages of action response planning against an infectious threat.

In order to create adequate action plans, we must determine how the pathogen is transmitted and whether it can be transmitted from human-to-human, insects-to-human or other animals to humans, and how these transmissions can be prevented or interrupted in the future. For any specific pandemic plan, the degree of severity must be determined before a course of action is created. These specific plans can be created based on the forecasts and modeling provided by the CDC and the WHO.

SOCIAL/PHYSICAL DISTANCING

One method of preparing for a pandemic is to create a plan that can be initiated that supports social distancing. In the most basic sense, social distancing means to keep extended space between yourself and other people that live outside of your own home.

In a practice, social distancing might look like having patients wait in their vehicles outside of the practice until they are called to come in, staggering patients so that they don't overlap with one another, or staggering operator use so that there is adequate time to clean and sterilize between seeing patients.



INCREASED PPE STANDARDS

In order to limit the spread and potential for exposure of a virus, infectious or communicable disease, or any other pandemic, an increase in personal protective equipment may be required. Generally speaking, in the dental industry gloves, eye protection, masks, and radiation protection is standard. In the event of a pandemic, we may see an increase in PPE standards of use including:

- Increased eye protection (goggles and/or face shields instead of glasses)
- Isolation gowns
- Facemasks (such as N95 respirators, or other reusable respirator with the ability to change cartridge or filters)
- Gloves that cover the wrist of an isolation gown
- Bonnet to cover hair
- Shoe protectors to cover shoes

As well, specific donning and doffing procedures should be practiced to prevent cross contamination of rooms within the practice. Any procedures with aerosol must be deemed emergency and absolutely necessary during a period of pandemic as any process using aerosol may contaminate up to 20 feet above the patient and 20 feet across from them in any direction. In an open practice design, this spread may contaminate as many as 4 additional operatories in addition to the one that is used to treat the patient.

Extensive cleaning and sterilization practices must be utilized to ensure that the operatories and office is fully disinfected before seeing additional patients during a period of pandemic. Additionally, patients may be screened to determine if they have traveled to a high-risk destination, or if they have had contact with any infected individuals within the incubation time of the virus or communicable disease related to the pandemic.

QUESTIONS

- Do all employees know what the protocol is for protecting themselves within the office during a period of pandemic?
- Have all employees been trained on increased PPE and sterilization practices to be used within the office during a period of pandemic?
- Do you have an emergency closure policy that will support your business during a pandemic that forces an office closure?
- Is there any remote work that can be completed by your employees while the office is closed? If so, do you have a remote working policy that will stipulate the terms of remote work while also upholding PIPEDA/HIPAA and other privacy standards in regard to patient or employee information protection?
- What is your procedure for documenting emergency patients seen during a period of pandemic?
- Who from your employment base will need to be in the office to also treat emergency patients?
- Do you have the financial cushion to support reduced revenues for a period of three to six months?
- What is your procedure for seeing infected emergency patients?
- What if an employee got sick from this treatment?
- What is your reporting process and what would you do to protect your employees?
- How will you continually train your team to uphold these high standards of sterilization and sanitation when fatigue sets in after a few weeks of these increased procedures?
- Have your team been trained on how to schedule patients during a period of pandemic to reduce the potential for community transmission within the office?
- If something happened to you (the practice owner), who would fulfill your duties in this event?





MEDICAL EMERGENCIES

Medical emergencies may occasionally take place that require more than basic first aid within your practice. These instances may include if an employee('s):

- Life has been threatened
- Faints or collapses unexpectedly
- Has persistent chest pains or difficulty with breathing
- Is badly injured, or bleeding profusely

Any medical emergencies that require more than basic first aid must be reported to the practice owner immediately. After a medical emergency has been reported, the practice owner must:

- Begin to prepare and file the appropriate documentation
- Communicate with the employee and their family
- Schedule other employees to cover the ill or injured employee's shifts
- Prepare the return to work program for the ill or injured employee

QUESTIONS

- Do you know if any employees have underlying conditions and how to treat these underlying conditions in the event of a medical emergency (i.e. employee with anaphylaxis allergy, where do they keep their Epi-pen and do you and other staff members know how to use it)?
- Do you have the documents required to report medical emergencies within the workplace?
- Do you have a process and standardized system for communicating with the ill or injured employee and their family?
- Do you have a process for covering the scheduled shifts of the ill or injured employee?
- Do you have a structured return to work program for the ill or injured employee once they are able to begin to come back to work?
- If something happened to you (the practice owner), who would fulfil your duties in this event?

FIRE SAFETY



Any fire safety emergency action plan must list the potential for major workplace fire hazards, ways to prevent them, and who is responsible in the workplace for preventing and reporting them. All fire related emergency plans should include an evacuation route, muster point, and method for taking a headcount once at the muster point.

Employees must be trained in fire responding and reporting protocol for the practice – this includes procedures for evacuating patients, visitors and employees through clearly marked emergency exit doors. In the event of a fire, emergency services should be immediately notified. If your practice is within an office building with an attended lobby, then you are responsible for notifying the security guard in the lobby, or if the lobby is not attended, then the fire alarm should be pulled.

Practice Owners are responsible for notifying firefighters of any flammable materials (including compressed gas cylinders or large holding tanks for hazardous chemicals

QUESTIONS

- Are you and your employees aware of the major workplace fire hazards and how to prevent fires from starting in the workplace?
- Do you have an emergency report form for keeping records of workplace emergencies (such as fires)?
- Have your employees been trained in how to respond to a fire in the workplace?
- Do all employees know the evacuation route from all exits of the practice?
- Do all employees know where the muster point is outside of the practice?
- Do all employees know the proper procedure for conducting a head count once outside of the practice?
- Are all employees able to properly demonstrate the evacuation procedure for the practice when patients or visitors are inside of the practice as well as employees?
- Are all employees aware of who to contact and notify in the event of a fire?
- If something happened to you (the practice owner), who would fulfill your duties in this event?

BOMB THREAT

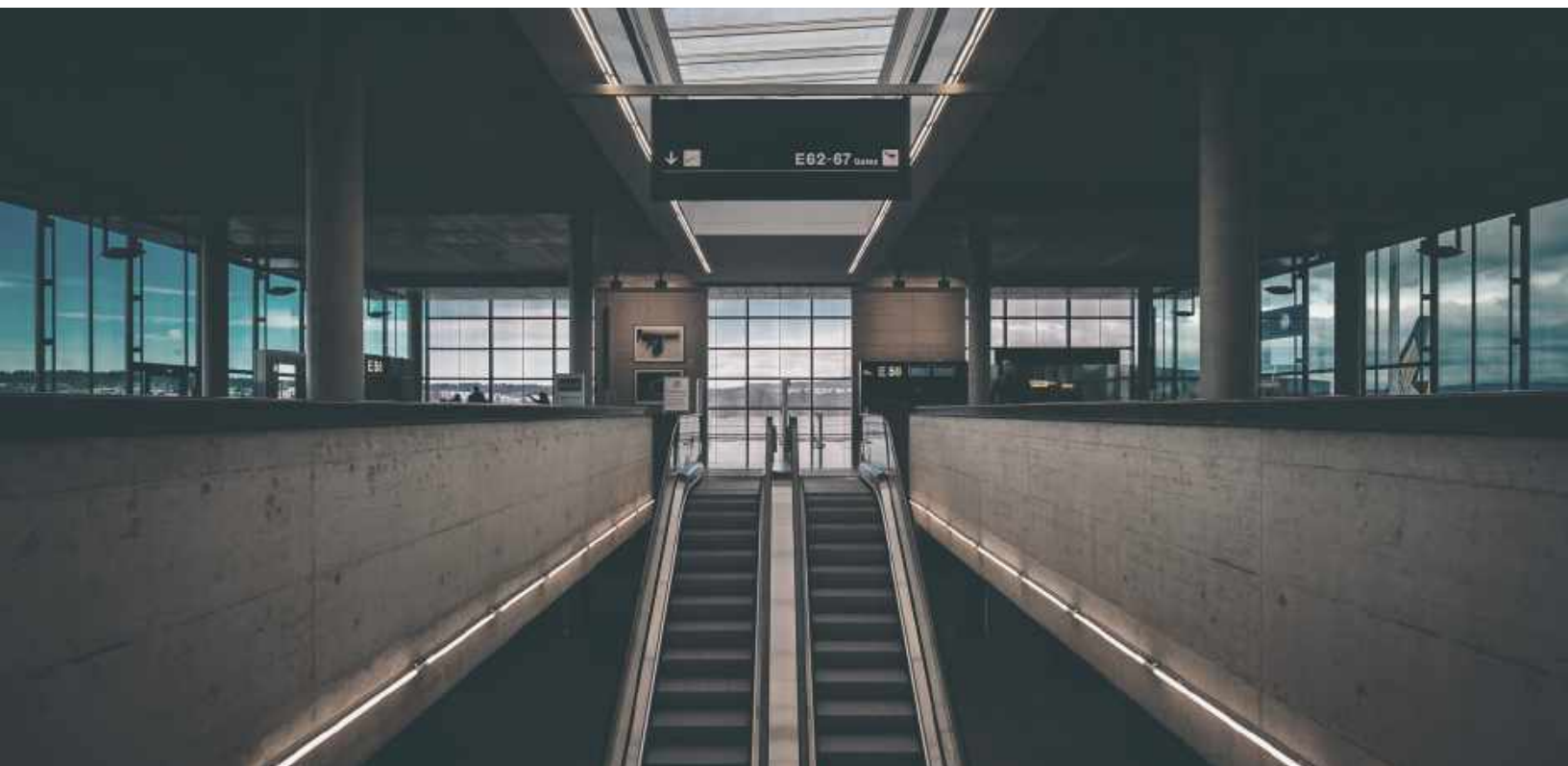
In the event of a bomb threat, the practice owner should be notified immediately and authorities should be contacted. All instances of bomb threats should be taken seriously.

If a suspicious object or package is found in the office, the package should not be touched or moved if it can be avoided.

Employees, patients and any other visitors should be evacuated from the building and should go to the muster point until the authorities arrive to the scene.

QUESTIONS

- Do all employees know what the procedure is for if there is a bomb threat outside of the building?
- Do all employees know what the procedure is for if there is a bomb threat inside of the building?
- Do all employees know what to do if a suspicious package is found?
- Do all employees know who to contact in the event of a bomb threat?
- Do all employees know how to manage patients in the office in the event of a bomb threat?
- If something happened to you (the practice owner), who would fulfill your duties in this event?



HOSTAGE SITUATION

In the event of a hostage situation, if it is possible to contact 9-1-1 without putting yourself at risk, then the authorities should be contacted as quickly as possible. Employees should be trained in appropriate behaviors for conducting themselves in the event of a hostage situation. Employees should not make any attempt to contact the dangerous individual and must keep as much distance between themselves and the dangerous individual as possible.

If the intent of the hostage situation is a robbery, employees should be trained to provide the individual with what they have requested. Material goods can always be replaced in the future.

QUESTIONS

- What is your office procedure for if a hostage situation takes place inside of your office?
- Who is responsible for reporting and documenting a hostage situation after the fact?
- Have employees been trained on what the protocol is in the event of a hostage situation?
- If something happened to you (the practice owner), who would fulfill your duties in this event?

IF SOMEONE ENTERS

THE WORKPLACE WITH A GUN

In the event of someone entering the workplace with a gun, and with the intention of harming other people, then employees need to be prepared to respond by following a quickly initiated protocol.

If it is safest to evacuate, then employees are encouraged to evacuate the practice as quickly and quietly as possible. If an employee is not in an area that can be easily evacuated, then the employees should be trained to hide someone where the shooter would be unlikely to find the employee. If possible, call 9-1-1 without compromising your hiding location.

QUESTIONS

- What is your workplace procedure for if a non-employee enters the workplace with a gun?
- What is your procedure for if an employee enters the workplace with a gun?
- Do all employees know the proper protocol for dealing with a gun in the workplace?
- Do you have a documenting system for reporting workplace gun incidents?
- If something happened to you (the practice owner), who would fulfill your duties in this event?



BIOHAZARD / BIO- TERRORISM

There are a variety of biohazards and bio-terrorism situations that employees should receive training on. There are different categories of diseases as regulated by the CDC that classify different instances of biohazards globally.

Employees need to be aware of the protocol regarding contact with potentially infected individuals, and who needs to be contacted after the diagnosis of a biohazard has been made. This includes any patients, vendors, suppliers, reps, visitors and employees that may have had contact with an infected individual.

QUESTIONS

- What is your workplace procedure for if an employee, patient or other visitor brings a biohazard into the workplace unknowingly?
- Do you know where to obtain information on biohazard threats?
- Do you know how to report a biohazard and to whom you report to?
- What is your documenting process for biohazard threats within the workplace?
- What is your system for tracing who may have been in contact with the biohazard?
- What is your system for notifying those that may have been in contact with the biohazard?
- What is your sterilization process for after a biohazard has been confirmed in your office?
- If an employee has become infected, what is your procedure for covering their shifts during the period that they are off work?
- Do you have a return to work plan for an employee that has been subject to a biohazard in the workplace?
- If something happened to you (the practice owner), who would fulfill your duties in this event?

CHEMICAL SPILLS

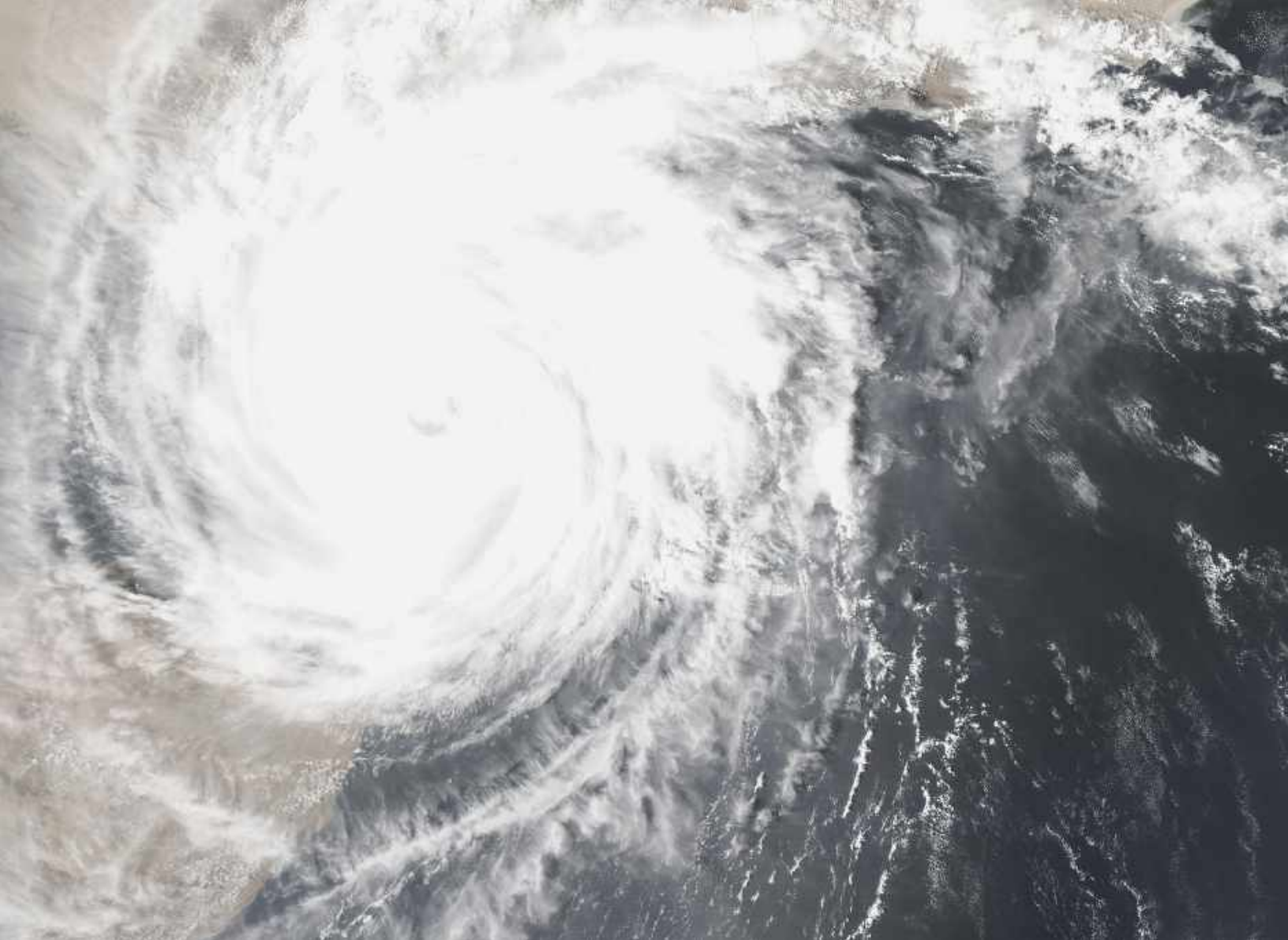
In any workplace with hazardous chemicals, it is vital that all employees within the workplace receive adequate training on the process to deal with chemical spills.

Depending on the size of the chemical spill, and the location of the office, other businesses nearby may need to be contacted regarding the state of the chemical spill.

Employee's need to be trained on the proper conduct regarding chemical spills regardless of whether the chemical spill is on the employees clothing or not, and whether the spill is over 4 liters in volume or not.

QUESTIONS

- Do all employees know all of the potentially hazardous chemicals in the office?
- Do all employees know where to find material safety data sheets for all hazardous materials in the office?
- Have your employees been trained on how to use emergency equipment (i.e. emergency shower or eye wash station) in the event that they come in physical contact with the hazardous materials?
- Have all employees been trained on the proper use and disposal of any hazardous chemicals in the workplace?
- What is your chemical spill reporting process?
- Where do you keep records of any chemical spills in the practice?
- Do all employees know who to contact if a chemical spill is more than 4 liters?
- Are you in a professional building, or other shared space where air intake to other units may be compromised due to chemical spills and an increase in fumes in the air?
- Do employees know who is in charge of reporting chemical spills to other connected workspaces within your building?
- If something happened to you (the practice owner), who would fulfil your duties in this event?



NATURAL DISASTERS

Natural disasters may take the form of a flood, tsunami, hurricane, earthquake, tornado, volcanic eruption, storm or other extreme weather pattern. Practice Owners should be cognizant of the local news to know if a natural disaster, or other extreme weather pattern, is incoming and could affect the state or safety of the practice.

For any natural disaster, employees must know the protocol for collecting and protecting patient files, for notifying patients of any last minute closures, and safely evacuating all patients and employees that are in the office at the time of the closures. Employees must also be trained on proper protocol for coming back to the practice after a period of closure. This includes the proper restoration of patient records and disinfecting the practice, including all water lines.

QUESTIONS

- Do all employees know and understand what natural disasters may be common to your region of employment?
- Have all employees been trained on the protocol for natural disasters?
- If the practice needs to shut down quickly, due to natural disaster, do all employees know how to contact patients and shut the practice as quickly and efficiently as possible?
- What is your protocol for patient records in the event of natural disaster (if not kept digitally)?
- What is your policy on emergency office closures? Are you responsible for paying your employees for the days that the office is closed, or do you have emergency closure policies that are compliant with your provincial/state labor legislation that mitigates the financial risk of emergency closures?
- In the event of physical damage to the practice, what is your procedure for notifying your insurance company and emergency responders?
- If something happened to you (the practice owner), who would fulfill your duties in this event?





WORKPLACE VIOLENCE

Workplace violence is defined as any instance where bodily injury is inflicted on an individual within the workplace. Within a practice thorough records should be kept that document any instance of violent workplace incidents. Employees must also be provided with workplace specific training regarding violent incidents in the workplace.

Practice owners may also implement alarm systems, panic buttons, video and auditory monitoring and other security features to protect the individuals within the practice. Thorough investigations should also be implemented following any instances of violence in the workplace.

QUESTIONS

- What is your reporting process for instances of workplace violence?
- What is your investigation process for instances of workplace violence?
- What training do you provide your team in conflict resolution and conflict de-escalation to mitigate the potential for instances of workplace violence?
- Do you have any security systems in place?
- Do you have a panic button installed?
- Do all employees know what the workplace violence reporting process is?
- If something happened to you (the practice owner), who would fulfill your duties in this event?

DECISION MAKING R U B R I C

Preparation is the key aspect to responding effectively to any crisis within the workplace. This includes having a clear decision-making process for each and every potential event of crisis within your practice.

Some practice owners choose to create a decision tree to guide them through decision-making in the event of a crisis, whereas others prefer to use an if/then statement list to support their decisions. Other decision-making rubrics may be used as well based on the preference of the practice owner.

The use of a decision-making rubric will help to create consistent results across different instances of the same crisis (for example, if a flooding is prevalent in your area, then utilizing a decision-making rubric will help to keep your flood procedure standardized over time as more floods in your area occur).



**Your employees
will know who to
contact, at what
point in time, and
what the likely
outcomes of the
situation are.**



KEY PERSONNEL & **CONTACT INFORMATION**

Beside the office desk phone, you should have all of the key contact information for all of your employees to access in the event of an emergency (i.e. non-emergency police phone number, landlord contact information, plumber/electrician etc.).

As well, all emergency contact information for your staff should be accessible with your occupational health and safety information. All employees should be trained on where to access this information and under what circumstances emergency contacts should be notified.



CRISIS RECOVERY PROCEDURES

Depending on the crisis at hand, the recovery process required will look slightly different; however, the underlying principles will remain the same. When recovering from a crisis of any kind, it will be important to have a procedure that you, and your staff can follow that will lead your through the progression and recovery of the crisis.

Something that has been highlighted numerous times throughout this playbook is the importance of having systems and detailed plans of action that can be followed through each scenario. The reason that this is so important is that we need to consider how the practice would continue to operate if something happened to you and you were not able to continue in your role through the crisis management process. Many times practice owners spearhead the crisis management efforts, however, we need to consider the unfortunate event that something might happen to use that renders us ineffective in a time of crisis.

When you are creating your crisis management strategies think about who will take on each role within the process, and who will be the alternate or the 'back up' in case the primary employee for the role is unable to fulfill their duties.

RESTORATIVE PROCESS

The crisis management restorative process will again look different for each crisis, but will be comprised of the same pieces of information answered by the following questions:

QUESTIONS

- Who needs to be contacted?
- When do these individuals need to be contacted?
- What are you doing with your employees? Is their work changing? Do they have any work that can be completed remotely? Do the new terms of their work match to their current employment agreements?
- What are you doing with your patients? How do you contact them to inform them of practice closures? How do you reschedule them?
- How do you determine when it is safe to recall your employees to the office? How do you determine when it is safe to recall your patients to the office?
- How do you recall patients and rebook them while still abiding by changing practice restrictions (i.e. spacing out patients more, not having full use of all operatories, etc.)?
- What will you need to train your team on when it comes to restoring and reopening the practice? How will they be trained? When will this training take place?
- How will you, as a leader, continue to reinforce new procedures, when fatigue sets in over a period of time?

PLAN CHANGES OR UPDATES



As with all plans, policies, procedures and protocol – systems change over time and we need to be prepared to update these protocols accordingly. Training for staff and the overall procedures created to manage crises should be reviewed on an annual basis (especially if any of these crises were encountered).

Annual training should take place for these programs, regardless if any changes have been made to the protocol, simply to keep the information fresh within the minds of your employees. As well, any new hires should receive adequate training on these protocols at the time of hire so that they do not have to wait until the next group training to understand the crisis management procedures of the practice.

WHAT DO YOU NEED TO DO NOW?

Don't wait until a crisis happens that knocks you and your entire practice off of your feet before you get your emergency procedures together. Be proactive and be ready for a crisis when it hits your workplace so you can bounce back faster and with more strength than ever before.

What can I do to prepare myself in the future?

1. Go through this guide and answer all of the questions asked to give yourself a self-assessment as to where you are at with your crisis management procedure development.
2. Ask your employees the questions that relate to them to determine how sufficient your training capabilities are presently.
3. When you complete your annual inspections (as detailed in your occupational health and safety manuals), pull out this checklist and repeat the process to make sure that your protocols and your associated training procedures are still reflective of the needs of your practice.
4. Encourage your employees to contact you with any questions they may have at any point in time and assure them that the conversation surrounding crisis management is not exclusive to just one time per year.

IS YOUR BUSINESS PANDEMIC PROOF?

	Yes	No
Do you have the following policies in your employee agreements and/or employee handbooks?	<input type="checkbox"/>	<input type="checkbox"/>
a) Temporary Layoff/Furlough Policy		
b) Emergency Closure Policy		
c) Remote Working Policy		
d) Job/Work Sharing Policy		
e) Flexible Work Arrangement Policy		
f) Reduction in Hours Policy		
Do you have a financial cushion of approximately 3 to 6 months' worth of expenses (including payroll and lease payments) saved?	<input type="checkbox"/>	<input type="checkbox"/>
Have your employees been trained to handle increases in PPE requirements?	<input type="checkbox"/>	<input type="checkbox"/>
Have your employees been trained on proper protocol for patient communication	<input type="checkbox"/>	<input type="checkbox"/>
• Who is in charge of calling and rescheduling patients		
• When and how are they being rescheduled? How much space is being left between operatories?		
• What about how much time between patients?		
• Have patients been told to wait outside of the practice in their cars before they are called to come in?		
• What kind of payments are you accepting at this time? Etc.)		

IS YOUR BUSINESS PANDEMIC PROOF?

	Yes	No
How have you decided who comes back first? Have you created the benchmarks to guide you through determining who comes back as time goes on and revenues and production increases?	<input type="checkbox"/>	<input type="checkbox"/>
Have you prepared any job/work sharing programs and agreed to the terms with the individuals involved?	<input type="checkbox"/>	<input type="checkbox"/>
Have you prepared your return to work notices?	<input type="checkbox"/>	<input type="checkbox"/>
Have you communicated to your team that we are framing the mindset as re-building, rather than resuming normal activities?	<input type="checkbox"/>	<input type="checkbox"/>
Do you have psychological support programs ready to support your team members through the anxiety that COVID-19 has likely caused in the workplace?	<input type="checkbox"/>	<input type="checkbox"/>

SELF ASSESSMENT

TOTAL YES: _____

TOTAL NO: _____



If you answered yes to all of these questions you are prepared to tackle the next wave of COVID-19



If you answered no to 3 or more of these questions you need to consider pandemic proofing your business before the next wave comes along

FINAL THOUGHTS

COVID-19 changed our industry overnight.

Change is never easy. Change is inevitable. We must adapt, overcome, and prepare for the next change that may come our way. The time is here to be innovative, proactive, and take the necessary steps to future-proof our business. You do not have to do it alone.

Our team is here to guide you through proactive strategic decisions and the necessary policies and processes you need in place to let you be a dentist again, not an HR manager.

Contact us today for a free strategy session to see how we can help you develop your Crisis Management Playbook!

To your success,

SAMANTHA LEONARD
CEO, CO-FOUNDER



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STREAMDENTAHR.COM

DID YOU KNOW THAT IN THE USA IN 2018 THERE WERE:

- 20,790 injuries and 453 fatalities due to **WORKPLACE VIOLENCE**
- 118,665 **WORKPLACE FIRES** that lead to 1368 injuries and 329 fatalities
- 2.8 cases of **WORKPLACE ILLNESS OR INJURY** per 100 employees
- Over 105,000 jobs were lost in region due to **HURRICANE KATRINA** alone.
- And only 40% of American adults have practiced what to do in the midst of a **DISASTER** or developed some sort of **EMERGENCY PLAN**

The numbers don't lie - use this time to create your emergency plans for all crises that could affect your business, not just the ones that are in the news headlines. Whether it be a workplace fire, natural disaster, terrorist attack or pandemic, you owe it to your employees to be as prepared as possible for all of these types of crisis!

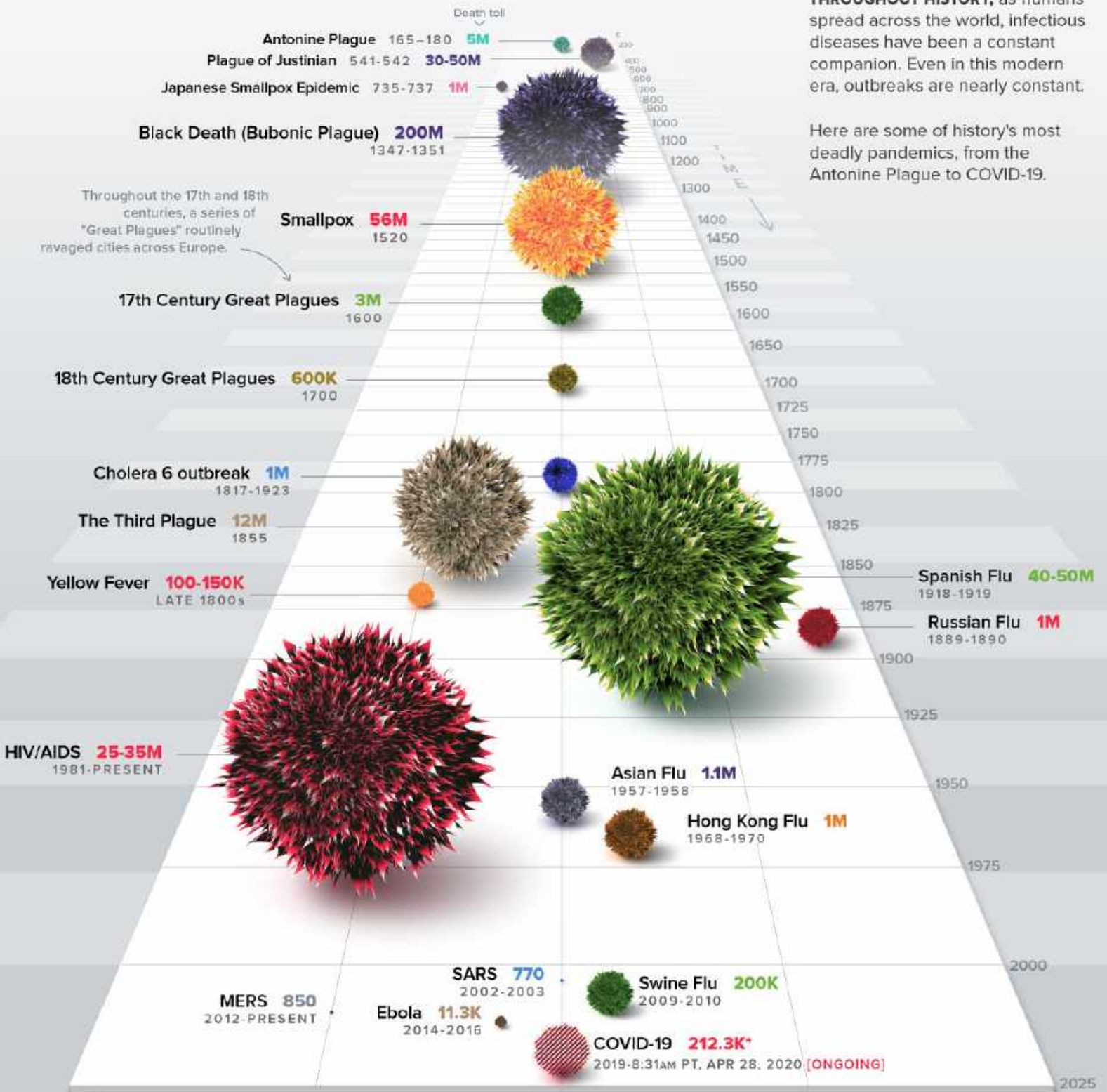


HISTORY OF PANDEMICS

PAN-DEM-IC (of a disease) prevalent over a whole country or the world.

THROUGHOUT HISTORY, as humans spread across the world, infectious diseases have been a constant companion. Even in this modern era, outbreaks are nearly constant.

Here are some of history's most deadly pandemics, from the Antonine Plague to COVID-19.



DEATH TOLL

[HIGHEST TO LOWEST]

a pandemic on Mar 11, 2020.

It is hard to calculate and forecast the impact of COVID-19 because the disease is new to medicine, and data is still coming in.

*Johns Hopkins University estimates

200M

Black Death (Bubonic Plague)

1347-1351



The plague originated in rats and spread to humans via infected fleas.

The outbreak wiped out 30-50% of Europe's population. It took more than 200 years for the continent's population to recover.

56M

Smallpox

1520



Smallpox killed an estimated 90% of Native Americans. In Europe during the 1800s, an estimated 400,000 people were being killed by smallpox annually. The first ever vaccine was created to ward off smallpox.

40-50M

Spanish Flu

1918-1919



30-50M

Plague of Justinian

541-542



The death toll of this plague is still under debate as new evidence is uncovered, but many think it may have helped hasten the fall of the Roman Empire.



25-35M

HIV/AIDS

1981-PRESENT



12M

The Third Plague

1855



5M

Antonine Plague

165-180



3M

17th Century Great Plagues

1600



1.1M

Asian Flu

1957-1958



1M

Russian Flu

1889-1890



1M

Hong Kong Flu

1968-1970



1M

Cholera 6 outbreak

1817-1923

A series of **Cholera** outbreaks spread around the world in the 1800s killing millions of people. There is no solid consensus on death tolls.



1M

Japanese Smallpox Epidemic

735-737



600K

18th Century Great Plagues

1700



212.3K*

COVID-19

2019-8:31AM PT, APR 28, 2020 [ONGOING]

*Johns Hopkins University estimates



200K

Swine Flu

2009-2010



100-150K

Yellow Fever

LATE 1800s



11.3K

Ebola

2014-2016



850

MERS

2012-PRESENT



770

SARS

2002-2003



Sources:
CDC, WHO, BBC,
Wikipedia,
Historical records,
Encyclopedia Britannica
Johns Hopkins University



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A"Visual Capitalist (2020). Visualizing the History of Pandemics. Retrieved from <https://www.visualcapitalist.com/history-of-pandemics-deadliest/>."