



Mercury Systems

COVID-19 Updates and Insights

August 5th, 2020

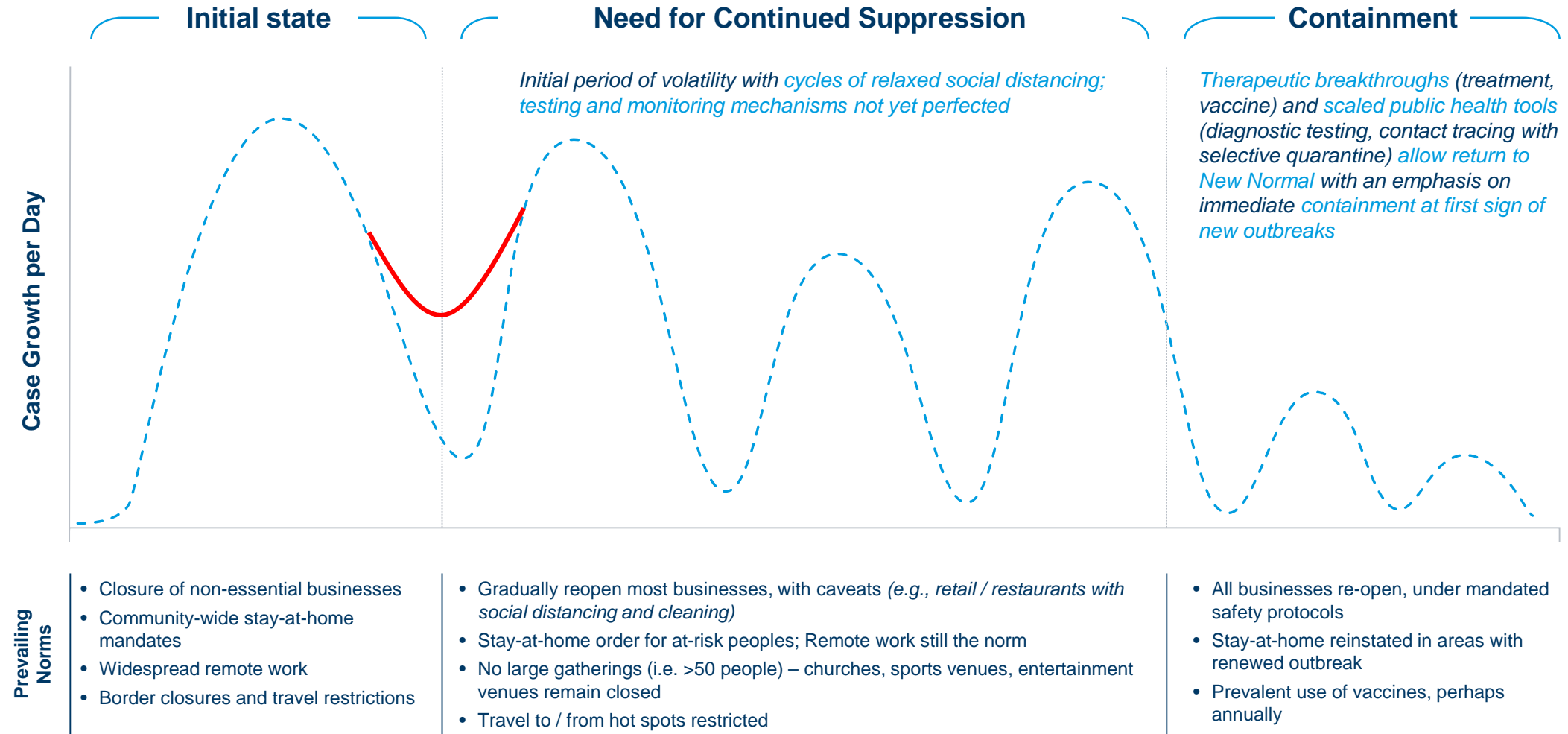
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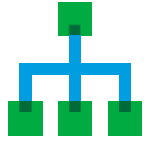
Agenda

1. COVID-19 Updates and Guidance
2. Vaccine and Treatment Updates
3. The Importance of Personal Resilience

COVID-19 will influence our world for many months to come



How does COVID-19 Spread?



Close contact through respiratory droplets produced when an infected person coughs, sneezes or talks

Aerosols are likely playing a part in spreading the virus too, but the extent is still being debated

Fomites (contaminated surfaces) may contribute when touching a surface that has the virus on it and then touching mouth, nose, or eyes



What are the symptoms of COVID-19?



Patients with COVID-19 have had the following symptoms:

- Cough
- Fever
- Shortness of breath/difficulty breathing
- Loss of taste or smell
- Chills
- Muscle pain
- Sore throat
- Diarrhea/vomiting

An estimated **40% of infected will not have symptoms**



What complications can occur?



Complications can include:

- Neurological and neuropsychiatric
- Chronic lung damage
- Persistent symptoms
- Multi-system inflammatory syndrome
- Blood clots
- Pneumonia
- Acute respiratory distress syndrome
- Sepsis
- Multi-organ failure
- In some cases, death

80%

of patients with COVID-19 recover uneventfully without hospitalization

How do I know if I was exposed?



Exposed = close contact with someone with known or suspected COVID-19. Close contact is defined as:

- **Being within approximately 6 feet** of a known or suspected COVID-19 case for a prolonged period of time (which can generally be considered as **10-15 minutes or more**) including the period of 48 hours before the person's symptom onset – *or* –
- **Possible unrecognized** COVID-19 exposures in US communities



What should I do if I have been exposed to COVID-19?



Monitor your health for any symptoms of COVID-19, including cough, shortness of breath or difficulty breathing, fever, chills, muscle pain, sore throat, loss of taste or smell

Quarantine at home and maintain social distance from others at all times, especially those at higher risk who are at home

CDC guidance states those exposed will need to self-quarantine for **14 days** after the last day they were in close contact with the sick person with COVID-19

After **14 days** from last day of exposure have passed, if you are not exhibiting symptoms of COVID-19, you could resume general precautions and social distancing measures

What should I do if I develop symptoms of COVID-19?

Self-isolate and stay at home and away from other people

If you are at **higher risk**, contact your doctor's office (or other healthcare provider) and tell them you are having symptoms of COVID-19

You may **end self-isolation** when...

- At least **10 days** have passed since onset of symptoms and
- Fever free for **24 hours** and
- Symptoms are **improving**

2 negative tests >24 hrs apart no longer recommended



Higher Risk

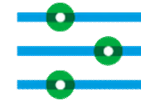
- **Older age** (risk increases with age)
- People with **chronic medical conditions** like chronic kidney disease, lung disease (COPD), obesity (BMI of 30 or higher), serious heart conditions, sickle cell disease, and type 2 diabetes **are** at increased risk
- People with moderate to severe asthma, cerebrovascular disease, cystic fibrosis, hypertension, immunocompromised, neurologic conditions (such as dementia), liver disease, pregnancy, pulmonary fibrosis, smoking, blood disorders (thalassemia), and type 1 diabetes **may** be at higher risk

Testing for Antibodies

What do we need to know?

Antibody testing basics

- Asymptomatic and minimally ill people showing no symptoms have shown small antibody response
- Antibodies may wane over 2-3 months
- We still don't know for sure if antibodies produce significant immunity, and if so, for how long
- T-cells may be contributing to immunity



What are the uses?

- Antibody testing tells us if someone has been infected in the past
- Can give a picture of the prevalence of COVID-19 in a population, picking up those that haven't been tested for virus
- Not a good tool to diagnose current infection given the lag time for antibodies to form (2-3 weeks)
- With assumptions (that antibodies indicate immunity = protection from reinfection), may be helpful to assess population infection rates and immunity as it relates to herd immunity (likely need $\geq 60\text{-}80\%$ immune)

Testing for the Virus

General information and use

Virus Testing

- May have significant false negative rate depending on sensitivity of the test and prevalence in the population tested
- Many testing/kits approved by FDA EUA
- Testing technology is rapidly advancing, such as using saliva samples and antigen detection
- Still working to expand testing to meet needs, but capacity is still limited in some areas and turn-around time can be lengthy

What are the uses?



- Virus (diagnostic) testing tells us who has the virus at a point in time
- Testing is imperative to get answers in who has the virus and potentially spreading it – and the information is **time sensitive**
- Knowing who's potentially contagious is essential in a containment strategy

Vaccine updates

Stages of Vaccine Development



Sinovac, a Chinese company with a vaccine based on inactivated SARS-CoV-2 particles, has shown promising data on safety in phase 3 trial.

An American company, Moderna, is developing a vaccine using mRNA. Entered phase 3 on July 27th, this novel vaccine may be easier to mass produce.

German company BioNTech is another company making mRNA based vaccine, currently in phase 2/3.

12-18

Number of months until we'll likely see a vaccine available to the general public

Treatment updates



Remdesivir – an investigational drug that received Emergency Use Authorization from the FDA earlier this year, may shorten hospital days. The EUA allows for it to be distributed in the US and used to treat hospitalized patients with severe disease.

Dexamethasone – a common steroidal anti-inflammatory drug shows some promise in decreasing death rates in critically ill patients (those on ventilators or receiving supplementary oxygen)

Convalescent plasma – plasma with antibodies from those recovered has some shown anecdotal promise, but studies are pending

Hydroxychloroquine – received a lot of press, but the science has not shown benefit



What about masks?

What we *know* works

Masks help limit spread, especially where individuals may have a difficult time maintaining social distance

This recommendation **relates to cloth masks**, not personal protective equipment (PPE) such as surgical masks or N-95 respirators which should be reserved for healthcare workers

Masks are not perfect to contain SARS-CoV-2, and **should not be a substitute for social distancing efforts**



The Importance of Personal Resilience

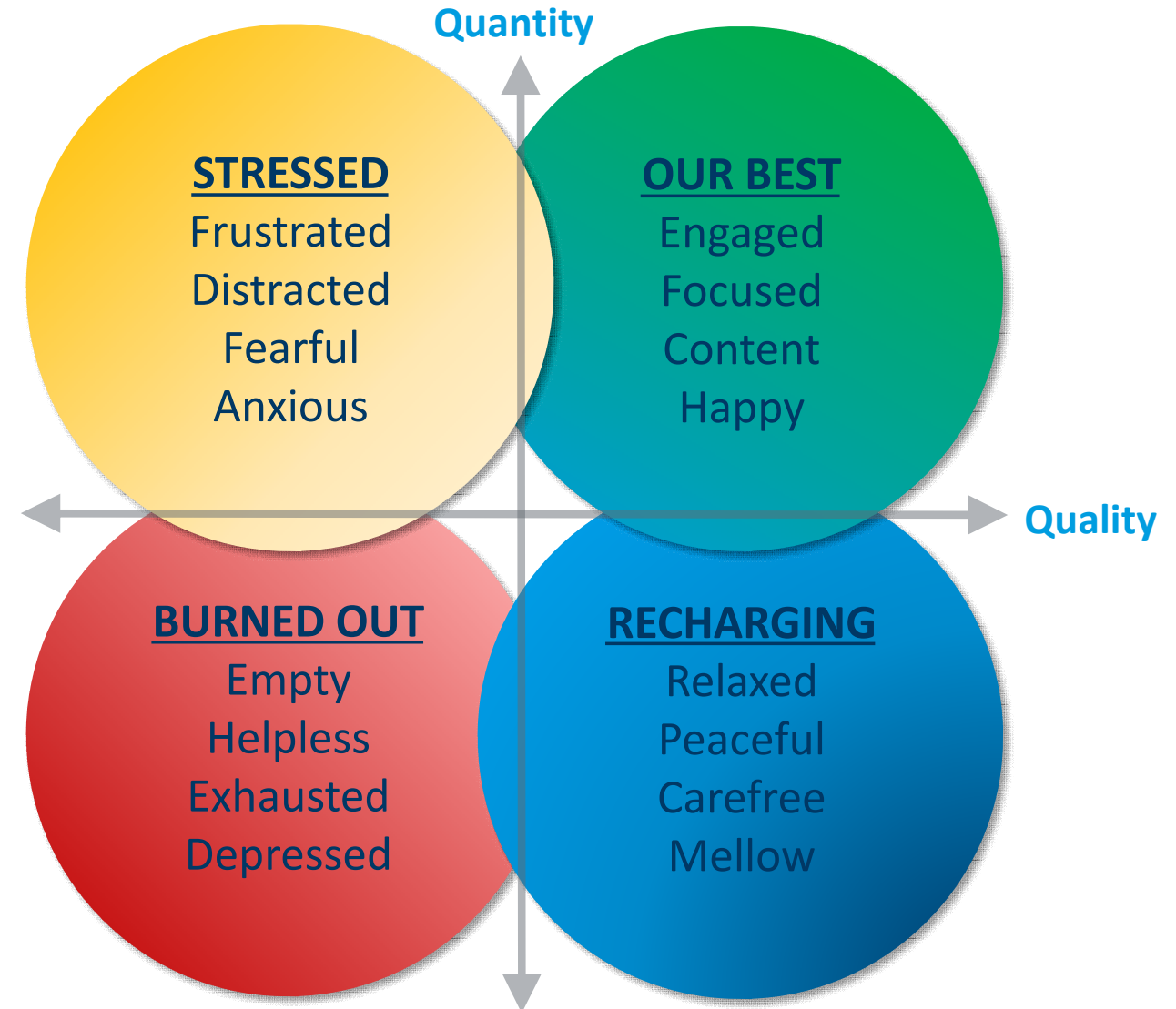
The Human Wellbeing Continuum

Overview

The *Human Wellbeing Continuum* relates to the energy we foster and experience – both in **quantity** (*high and low levels*) and in **quality** (*positive and negative*).

Our personal experience on this continuum is affected by many things, some of which are out of our control and others are within our control.

Personal **resilience** is the characteristic that helps us stay in the upper right as much as possible, allowing us to be “our best”.

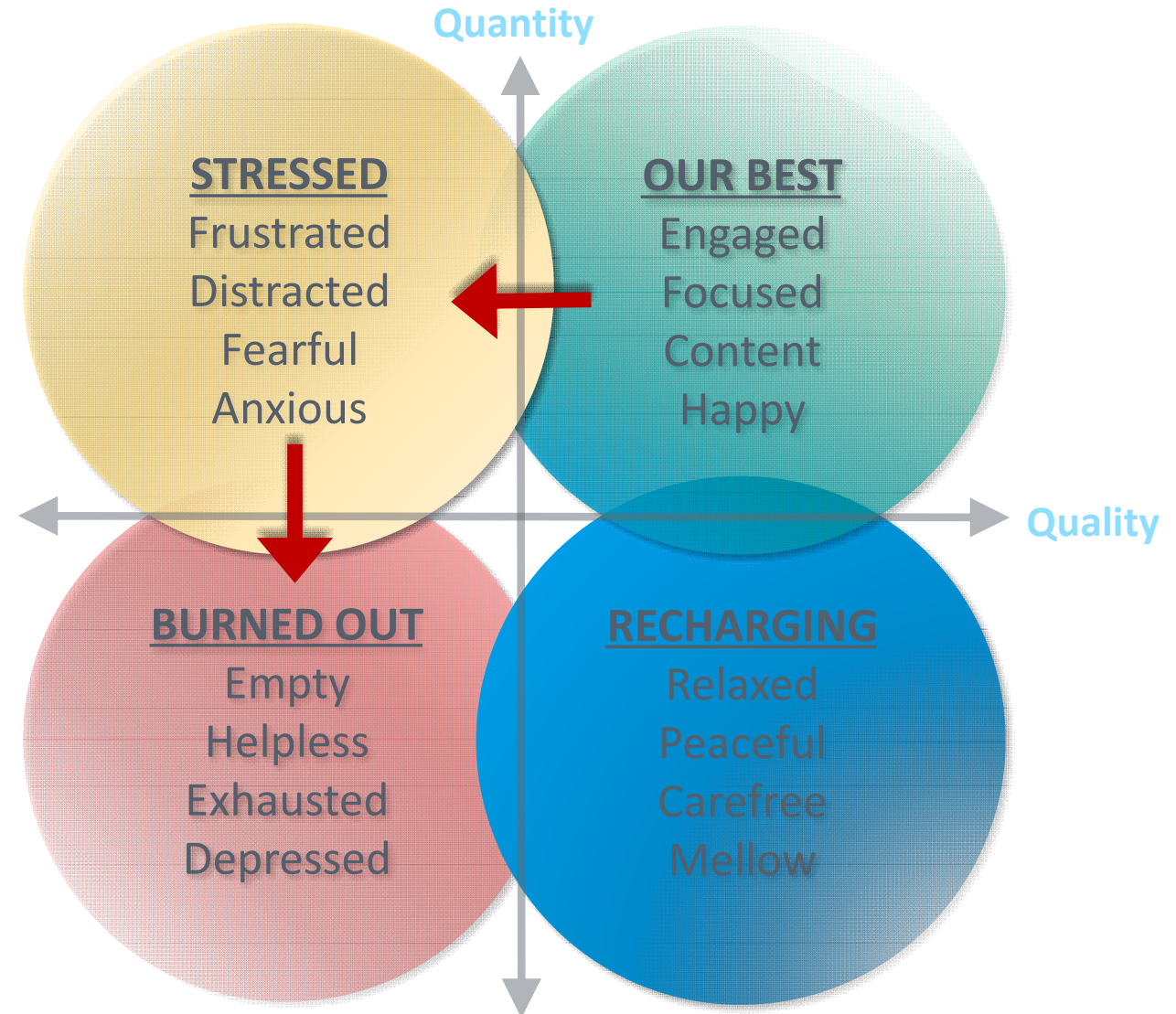


The Human Wellbeing Continuum

The influence of stress

The forces that drive us out of the upper right quadrant can be described as **stressors**.

Stressors are experiences, events, information and data that we are exposed to that have the *potential* to drain the quantity of energy we have and influence the quality in a negative way.



Managing our stress is foundational and within our control



We know that this pandemic has created a rise in depression, anxiety and stress in general



Be aware of how *you* might be reacting

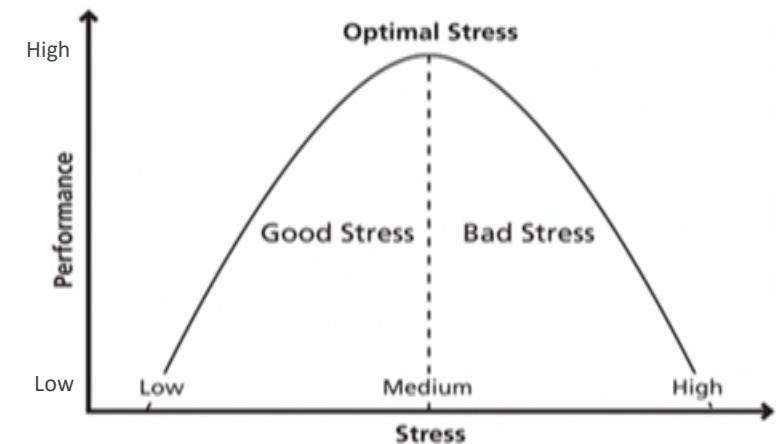
We react physically, mentally, and emotionally to the various stressors we experience in life – all based on how we *perceive* each stressor

The stress we experience is rooted in the human “fight or flight” response

Stress is a natural and manageable part of life; and the right balance of stress can actually enhance performance

But continued, unchecked stress can have negative consequences to our health and productivity

Yerkes-Dodson Law



Being intentional in our approach to manage our stress response

Explore and fill your toolbox to recharge

It is **NORMAL** and **EXPECTED** to feel anxiety, powerlessness, confusion and stress during a pandemic



Explore new ways to manage our stress response

Exercise / Yoga / Muscle Relaxation

Breathing / Meditation / Mindfulness

Building Camaraderie Around the Situation
– Zoom gatherings

Pleasurable Activities – Music, Reading, Hobbies

The human wellbeing continuum

Recharging

Inevitably and expectedly, we end up drifting into the STRESSED quadrant. In order to get back to the upper right, we need to enter the RECHARGING quadrant. It then becomes much easier to reach the upper right once again.

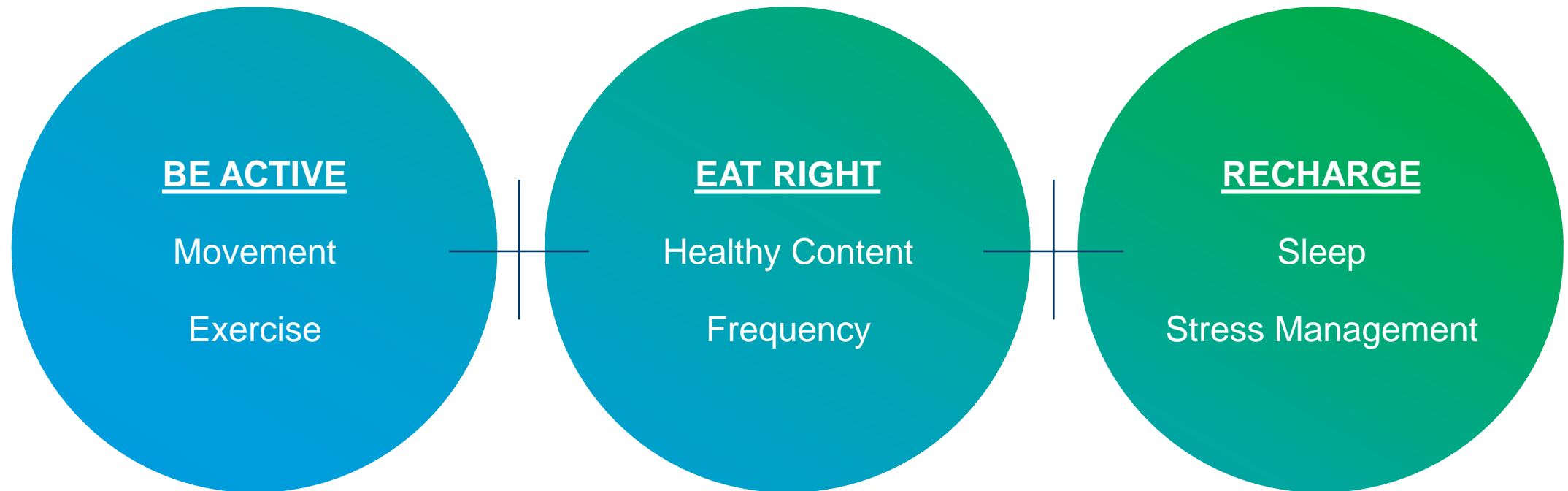
Moving from the STRESSED quadrant to the RECHARGING quadrant **is within our control**. We must be intentional, however, in our approach by actively managing our stress response.

Fostering our **personal resilience** will allow us to bounce back into the upper right quadrant quicker and more effectively.



Fostering our personal resilience

Basic framework



Fostering our personal resilience

Technology can play an important role during these challenging times



Eat Well

Nutritional support and advice
- video coaching,
nutrition tracking



Keep Moving

Virtual gyms deliver on-
demand fitness classes



Enable

Access to medical professionals
through telehealth and virtual
care



Challenge

Individual and team health
challenges



Rest Well

Sleep assessment, sleep apps
support, coaching, CBT



Manage Stress

Apps and websites to support
meditation, guided imagery,
coaching, CBT

General resources on COVID-19

US Centers for Disease Control (CDC)

<https://www.cdc.gov/coronavirus/2019-nCoV/index.html>

World Health Organization

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

www.mercer.com/coronavirus

<https://www.mercer.com/our-thinking/managing-novel-coronavirus.html>

Please also access **local health authority** websites for relevant health information.

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Resources for Emotional Response to COVID-19

Contact your : Employee Assistance Program (EAP)
Medical Health Plans for Mental Health
Wellness Programs for Emotional Well Being

Additional public resources

CDC www.cdc.gov/coronavirus/2019-ncov/about/coping.html – can also assist you on talking with your children

NAMI <https://nami.org/getattachment/Press-Media/Press-Releases/2020/COVID-19-and-Mental-Illness-NAMI-Releases-Important/COVID-19-Updated-Guide-1.pdf?lang=en-US> – excellent resources, and for assisting with those who are coping with a prior mental health condition

Questions?

Disclaimer: The information in this slide deck is not medical or legal advice. Mercer is not a medical or legal advisor. Rather, this guidance is assimilated from the information available from the CDC and other public resources as noted below as of August 3, 2020.

<https://www.cdc.gov/coronavirus/2019-nCoV/index.html>

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>