BUILDING RESILIENCE IN
HEALTH CARE IN THE TIME OF

COVID -19

THROUGH COLLABORATION -
A CALL TO ACTION

IPR. Global

Building Resilience in Health Care in the time of COVID-19 through Collaboration - A Call to Action

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Preface

Since the declaration of the COVID-19 outbreak as a global pandemic by the United Nations in March 2020, the pandemic has claimed more than 2.3 million lives and infected more than 105 million globally as of February 7th, 2021 (World Health Organization, 2021). The pandemic has created an unprecedented challenge for health care organizations and institutions in which more than 80% of healthcare providers and more than 70% of college level students experience anxiety, stress, and/or burnout (Amnesty International Organization, 2020; Hu et al., 2020; Son et al., 2020). To prevent a parallel pandemic of burnout among current and future healthcare providers, there is a need for bold and strategic actions by all stakeholders and at every level to build and enhance resilience among health care systems, organizations/institutions, teams and individuals.

From the beginning of the pandemic, the InterprofessionalResearch.Global (IPR.Global), as the global network for interprofessional education and collaborative practice (IPECP), created a COVID-19 Taskforce with a mandate to develop and disseminate relevant, timely, and important information for the global IPECP community and beyond. Since established in March 2020, the Taskforce has published three peer-reviewed journal articles, submitted two grants for funding, presented three webinars, and is conducting a longitudinal COVID-19 impact survey (please check our website for additional information). This Call to Action is the latest publication of the Taskforce with the goal to raise awareness and urge the global Health Care communities to act strategic and bold, using a system approach, to address the imminent threat of a parallel burnout pandemic through collaboration.

As the global community through collaboration managed to rapidly develop effective vaccines and treatment modalities for COVID-19 (Guimón & Narula, 2020), collaboration at local, national and global levels can also help building resilience among providers, learners, teachers, and communities to ensure coming back stronger after the COVID-19 crisis.

On behalf of the IPR.Global, we would like to thank all the members of the Taskforce for their contribution to this Call to Action publication. We would also like to thank the IPR.Global sponsors for their generous support.

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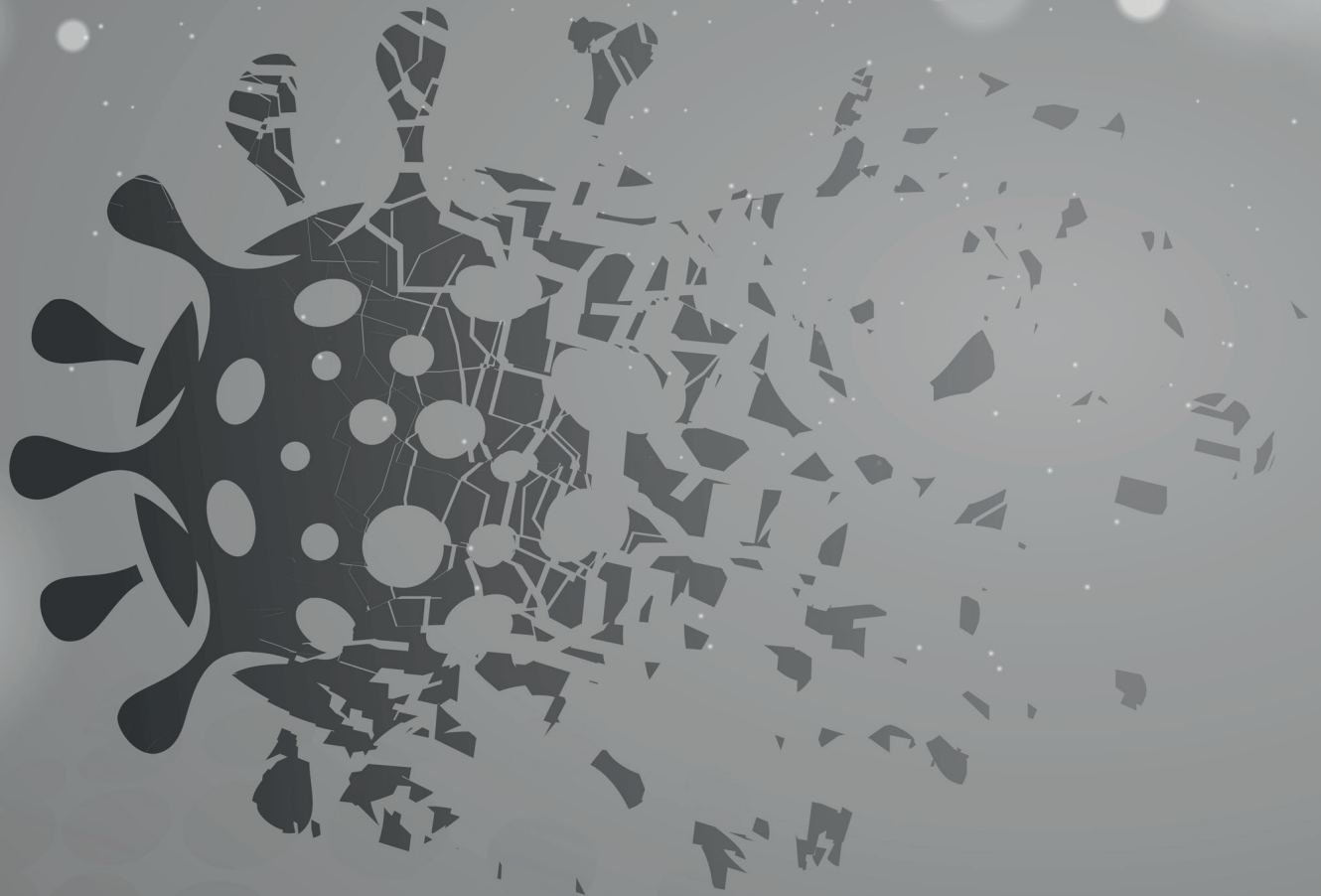
Executive Summary

The United Nations (2020) has described the COVID-19 pandemic as the defining global health crisis of our time and the greatest challenge we have faced since World War Two. The pandemic has created an unprecedented challenge for health care organizations and institutions. Health care providers (HCPs), teams, and organizations must simultaneously support efforts to contain the pandemic and manage care for patients with ongoing health and social needs while maintaining both continuity and redesign of delivery to protect patients and staff. In healthcare education, students and educators have experienced enormous disruption as courses and clinical education have been canceled or postponed, with classes being rapidly shifted from traditional face-to-face delivery to online or blended delivery formats.

Although epidemics are not new to health care, the lack of knowledge of the nature of this new highly contagious and deadly disease has been a major source of concern. COVID-19 poses unique challenges for HCPs - challenges of caring for vulnerable isolated patients, further compounded by the fear of contracting, spreading, and dying from the virus while managing staffing and personal protective equipment (PPE) shortages. Due to COVID-19, already 10-20% of HCPs have already fallen ill to COVID-19, and over 80% of HCPs and more than 70% of college level students experience anxiety, stress, and/or burnout (Amnesty International Organization, 2020; Cunningham, 2020; Hu et al., 2020; Son et al., 2020). If these challenges remain unaddressed, the anticipated impacts for providers, patients, and the health care system will be devastating (Bansal, et al, 2020; Reith, 2018). We need robust resilience and wellbeing programs/services that provide opportunities for individuals/teams as well as organizations/ systems to connect, engage, and be synergized for resilient person-centered care.

In this Call to Action, we invite and urge the global health care community – in both practice and education - to take strategic actions, at all levels, to address burnout and develop resilience among HCPs, faculty, learners, healthcare organizations, and healthcare systems. We view resilience in health care as a whole of system adaptation (Sturmberg, 2018), and as the intrinsic ability of the health care systems to adjust its functioning before, during, or following changes and disturbances so that it can sustain required operations, even after a major mishap or in the presence of continuous stress (Nemeth, et al, 2011).

Leading health care during a crisis requires building resilience at all levels, from organizations and systems to individual and teams. Organizational and system resilience is closely linked to individual and team resilience of those who work at the organization/system. Thus, support for resilience has to be driven from individual, team, organizational, and system levels.

Individual and Team Resilience

Individual and team resilience are dynamic, progressive, and interdependent processes that can mutually affect each other (while also influencing the organizational and system resilience) (Hartmann et al., 2019; Morgan et al., 2013). Team resilience is most critical during COVID-19 where the failure of collaboration can have serious consequences and impact on the lives and livelihood of millions of people (Hartwig, 2020). Team resilience requires distinct factors or collective characteristics also called enhancing resilience resources (Chen et al, 2015; Hobfoll, 2011), such as social support, quality of emotional expression among team members, high- quality relationships, collaborative leadership, and the ability to regulate and leveraging emotional expression (Morgan et al., 2017).

To build and promote HCPs individual and team resilience, there are some effective strategies that have been suggested as follows (Shanafelt, Ripp, Trockel, 2020):

A. Hear: Listen and act on the lived experience of the team and its members to understand and address concerns to the greatest extent possible for organizations and leaders.
B. Protect: Provide the essential resources to the team and its member to eliminate the risk of contamination, transmission, burnout, and mental health illness.
C. Prepare: Provide ongoing training and support for high-quality care and services across different settings.
D. Support: Acknowledge demands and human limitations in times of great patient need.
E. Care for: Provide holistic support for the team, its members, and their families, if isolation is required (or other sources of distress occur).

To thrive and come back stronger from the pandemic, in addition to the above strategies two major areas need immediate attention:

1. Preventing a Parallel Pandemic of Burnout through Building individual and team resilience
2. Building Resilience among Current and Future HCPs in the Era of Virtual Health Education and Practice

Organization to System Resilience

This level of resilience refers to the capacity of organizations and systems to be resourceful and creative, to make strategic decisions, and to take effective action regardless of internal and external pressures. To be resilient, the health care system/organization should demonstrate the ability to (Hollnagel, 2013):

A. Effectively respond to new stimuli, including global events such as COVID-19 Pandemic, through adaptation.
B. Monitor and measure both internal and external factors affecting its performance.
C. Learn from prior experience and change its performance accordingly.
D. Anticipate and be ready to effectively address future stimuli that could affect its performance.

In addition to these strategies and to demonstrate and sustained enhanced system resilience to the pandemic, there are two other major areas that healthcare organizations and systems need to consider and improve on:

1. Equity in Healthcare
2. Healthcare Financial Structure and Payment Models
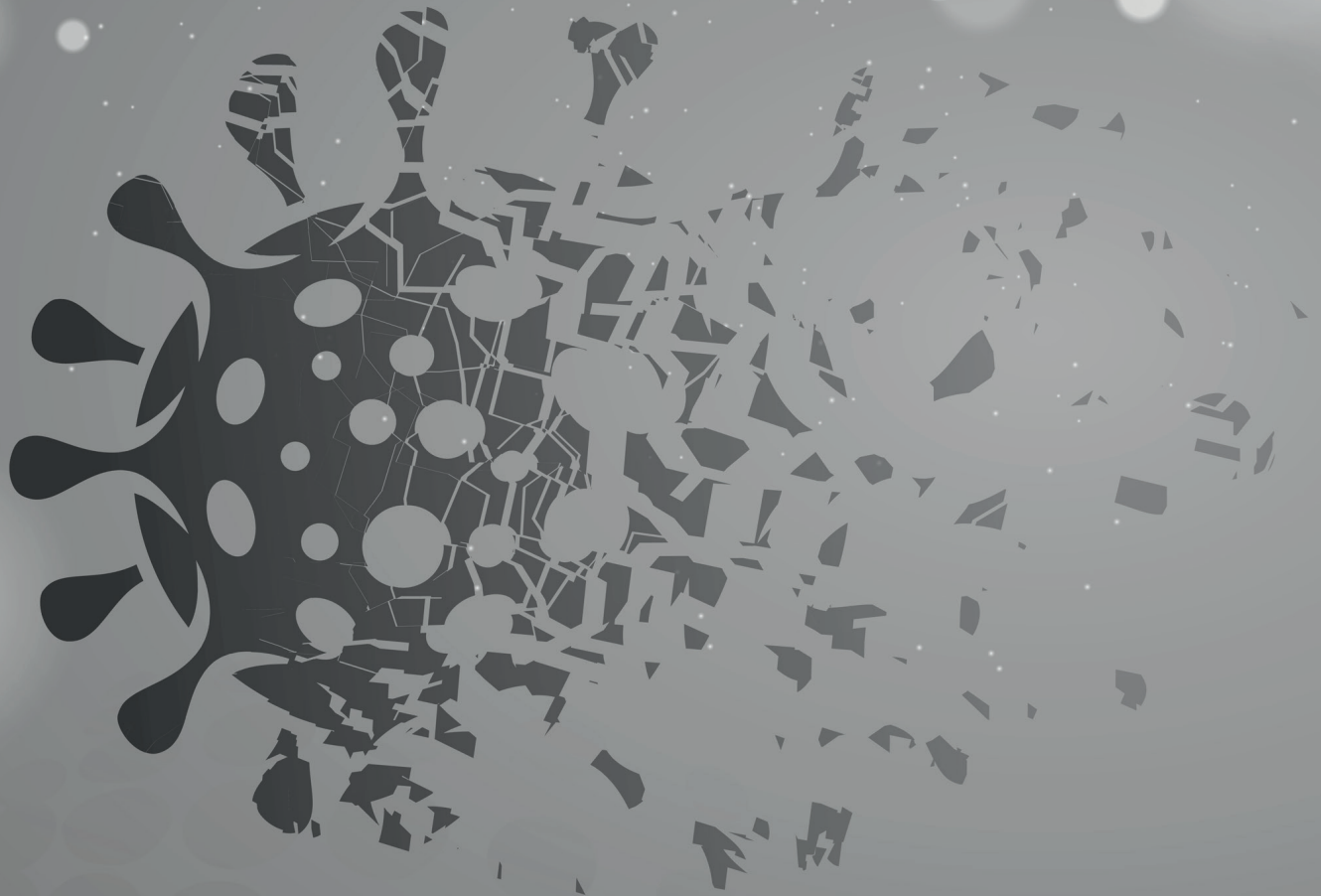
Introduction

The United Nations (2020) has described the COVID-19 pandemic as "the defining global health crisis of our time and the greatest challenge we have faced since World War Two". The pandemic has created an unprecedented challenge for health care organizations and institutions. Health care providers (HCPs), teams, and organizations must simultaneously support efforts to contain the pandemic and manage care for patients with ongoing health and social needs while maintaining both continuity and redesign of delivery to protect patients and staff. In healthcare education, students and educators have experienced enormous disruption as courses and clinical education have been cancelled or postponed, with classes being rapidly shifted from traditional face-to-face delivery to online or blended delivery formats. Some students are also being thrust into careers early, and many are experiencing increased anxiety and insecurity about basic needs and future careers (Anderson et al., 2020; Burke, 2020; Lundy, 2020). Despite the turmoil, students are expected to continue learning, faculty to continue teaching, practitioners to provide routine as well as COVID-19-related care, and institutions to continue providing complex health and social services.

The vast impact of the COVID-19 pandemic on healthcare systems is yet to be fully realized and will need to be closely examined in the months and years to follow. To safeguard health systems and society, the physical and mental health of those learning and providing healthcare must be protected (Bansal, 2020; Dewey et al., 2020; Rosenberg, 2020). There are community-wide psychosocial pandemic effects that often go unaddressed, leaving healthcare learners and providers, and the people they serve, feeling a sense of devastation and lack of capacity to be resilient (Bansal, 2020; Dewey et al., 2020).

While little is currently known about the long-term effects of crises and pandemics on healthcare education and practice, COVID-19 draws attention to the crucial role of collaborative team-based healthcare delivery systems and the importance of interprofessional education (IPE) programs (WHO, 2010 & 2017) to help prepare future collaborative team members. The management of health and social crises such as COVID-19 is fundamentally an interprofessional domain, as the nature of such pandemics requires high levels of interaction and collaboration between and among healthcare providers, healthcare organizations, care sectors, and society. COVID-19's wide-scale disruption presents an opportunity to consider and reflect on the preparedness (capacity/adaptability) and resilience (wellness/coping) strategies being used worldwide. The compelling necessity for interprofessional collaboration (IPC) during this pandemic is amplified when issues of quality of life and death are at stake. By increasing wellness/resiliency within health care teams, IPC would be facilitated which could enhance the capacity of health systems to better respond to emergencies.

In this Call to Action, we view resilience as a whole system adaptation based on the principles of system dynamics (Sturmberg, 2018), in which 'resilience' is defined as the intrinsic ability of the system to adjust its functioning before, during, or following changes and disturbances so that it can sustain required operations, even after a major mishap or in the presence of continuous stress (Nemeth, et al, 2011). Hence, we invite the global health care community – in practice and education - to take strategic actions, at all levels, to address burnout and develop resilience among HCPs, faculty, learners, healthcare organizations, and healthcare systems. In doing so, we first provide an overview of the current status of burnout in healthcare due to the pandemic, and then present strategies to build resilience across individuals, teams, organizations, and systems to support the mental health and well-being of interprofessional teams.

Background

The Burning Platform of Burnout

HCPs, as the backbone of the healthcare systems, are taking on significant personal risk, often working without adequate equipment, to ensure society receives the health care and services it needs. Although society has recognized HCPs contributions, they have been largely seen as fulfilling their job duties. Yet, the COVID-19 pandemic has made clear the significant demands on these front-line roles, including high workload, job stress, time pressure, and limited organizational support (Morgatani et al, 2020).

While society and governments focus on urgent matters such as the supply chain for PPE, vaccine production and distribution, therapeutic modalities, and physical distancing and public health policies, another emerging issue is the mental and physical burden that COVID-19 has taken on the well-being of frontline HCPs, which is rapidly becoming an epidemic itself. HCPs well-being is essential for safe, high-quality patient care through improving patient-provider relationships, effective interprofessional teamwork, and an engaged/effective workforce.

Burnout Impact on Health Care Providers: As early as 1978, the effects of a stressful workplace were reported by Pines and Maslach, who introduced the term 'burnout' to describe a state whereby employees experience physical and emotional exhaustion, depersonalization, and a sense of low personal accomplishment.

Although healthcare workers have information about contagious diseases and epidemics, the lack of knowledge of the nature of this new disease has been a major source of concern. COVID-19 poses unique challenges for HCPs - challenges of caring for vulnerable isolated patients, further compounded by the fear of contracting, spreading, and dying from the virus while managing staffing and PPE shortages. Furthermore, HCPs are at risk from further social isolation, either due to a positive COVID-19 test or a self-quarantine to lower the potential risk of spreading the disease to family members, with serious effects on their physical and mental health. Already 10-20% of HCPs have fallen ill to COVID-19 (Cunningham, 2020).

Burnout has a heavy toll on workplaces, on both productivity and economics. Burnout is associated with increased rates of absenteeism and reduced productivity in addition to its negative impact on employees. As of November 17, 2020, according to a study from thirty-seven countries published in the International Journal of Infectious Diseases, nearly 300,000 healthcare workers had been infected with COVID-19, and by early September 2020, at least 7,000 healthcare workers worldwide had died of coronavirus (Amnesty International

Organization, 2020). According to recent surveys conducted by Mental Health America and Berkshire.

Hathaway Specialty Insurance (Lagasse, 2020), more than 80% of healthcare providers are experiencing some levels of emotional exhaustion like stress (93%), anxiety (86%), and burnout (84 %) due to COVID-19 (see Table 1 for additional information). Almost half of the HCPs (48%) are thinking of either retiring, quitting their jobs, or changing their careers altogether. This stress also creates risks in HCPs including mental and somatic disorders, altered immune responses, medical errors, misunderstandings, drowsy driving (Ballesio, Lombardo, Lucidi, Violani, 2020).

Table 1: COVID-19 Pandemic Impacts on HCPs (Lagasse, 2020)

HCPs Are Overwhelmingly Burned Out
A startling 84% reported feeling at least mildly burned out from work, with 18% feeling totally burned out.

The Top 5 stressors causing Burnout, in order:
1. Fear of getting COVID-19
2. Long hours/shifts
3. General state of the world
4. Fear of spreading COVID-19
5. Family responsibilities/issues

HCPs Are Sleep-Deprived
Alarmingly, 90% said they've been getting less than the recommended 8 hours of sleep each night, and 1 in 3 admitted to getting 4 hours or less.

HCPs Work Performance Is Suffering
I in 3 healthcare workers feel that they've been making more mistakes at work.

HCPs Are Thinking of Quitting
Nearly half (48%) have considered either retiring, quitting their jobs, or changing their careers altogether.

HCPs Mental Health Has Significantly Deteriorated
About half (48%) of survey respondents reported their mental health has deteriorated.

HCPs Are More Emotional at Work
Of all healthcare professionals surveyed, 49% have cried at work in the past year – and 67% of all nurse practitioners admitted to doing the same.

Even before COVID-19, frontline HCPs worldwide faced challenges when prioritizing their workload and health. Amid this public health and social crisis many busy HCPs do not have the time to pause, process, connect with others to seek or get help, and/or share their experiences. In Canada and the USA, the rates of burnout among HCPs before the COVID-19 pandemic were alarming, with more than one-third of HCPs experiencing post-traumatic stress disorder (PTSD) and/or burnout (Dragan, Smith & Tepper, 2018; Pun, 2019). It is reasonable to expect that burnout rates among HCPs are even higher during the pandemic.

If these challenges remain unaddressed, the anticipated impact on providers, patients, and the health care system will be devastating (Bansal, et al, 2020; Reith, 2018). There is a significant financial cost to healthcare if affected HCPs leave the organization or the profession itself (Schutte & Search, 2012). We need robust resilience and wellbeing programs/services that provide opportunities for individuals/teams as well as organizations/systems to connect, engage, build resilience, and be synergized for person-centered care. Improving HCPs' wellbeing and resilience could, directly and indirectly, improve patient care, population health, and reduce healthcare costs (Quadruple Aim) (Bodenheimer & Sinsky, 2014; Naylor, et al., 2015) as the response to COVID-19 continues (Kalaitzaki, et al., 2020).

Burnout Impact on Services and Organizations: The pandemic has escalated stress on healthcare settings and staff. Services and organizations are at risk of mounting staff shortages as workers get sick or stay home because of stress and anxiety, or for other reasons. At the same time, healthcare organizations' ability to respond to COVID-19 is partially driven by its payment structure. Organizations operating primarily under fee-for-service (FFS) payment are experiencing significant drops in revenue, secondary to distancing and lockdown policies, and often do not have the capabilities in place to respond to the pandemic. On the other hand, organizations engaged in public salaried, value-based payment (VBP) models (especially those receiving prospective payments), and telehealth expansion have more stable revenue streams, and frequently have care coordination, telehealth, and data analysis capabilities in place that allow them to respond more effectively (Houston & Brykman, 2020; Bruch, Kumar, Moss, 2020).

Burnout Impact on Learners and educators: Health professional students are trained to become 'collaborative practice-ready' through interprofessional education (IPE) - learning with, from, and about other professions (WHO, 2010) to deliver quality care as collaborative teams. The COVID-19 pandemic, however, has stressed health education institutions in ways that have exposed shortcomings in prioritizing profession-specific education over IPE. In addition, the rapid reactive transformation of health professional education from the traditional

physical school campus to the still-in-its-infancy virtual world has impacted the personal and professional lives of both learners and educators. Pivoting face-to-face education to synchronous or asynchronous online delivery with limited knowledge and support, while striving to learn and learning to teach on videoconferencing and virtual platforms, have put learners and educators at higher risk of burnout. The additional resources required, and disruption of these new educational and financing models have produced significant impacts (ICEF Monitor, 2020) that must be understood from the perspectives of HPC, students, faculty/educators, and institutions, particularly related to IPE, in this new and disruptive paradigm. There is a need to explore the experiences of learning/teaching, wellness/resilience, and adaptability/preparedness in times of uncertainty and to utilize evidence to address and provide solutions for challenges experienced in current and future emergencies that impact health outcomes and quality of life.

IPE is highly flexible in terms of the potential it holds to support system-based transformation, as it fosters collaboration within contexts wherein there is professional diversity in terms of expertise, training, and backgrounds (Dobbs-Oates & Wachter Morris, 2016). There are many questions to explore and much to learn about the best approaches, resources, and pedagogy that will enable optimal IPE and assessment in a global emergency (Langlois, et al., 2020). To promote equitable outcomes in changing global contexts, a coordinated but flexible response is needed so that preparedness and resilience are considered at various levels (Warrell, 2020).

Call to Action

Building and Leading Resilience in Health Care - A Global Strategy in Utilizing Collaboration Approach

Prior to the pandemic, healthcare education and system transformation were widely accepted as critical to attaining universal health coverage and improving cost-effective care, service delivery, population health, and health providers' work experiences (Khalili, et al., 2019). With the amplification of the pre-existing challenges and disparities across global education and health systems by the pandemic, this crisis exposes unpredictable and precarious contexts for student learning, emphasizes the need for a collaborative practice-ready health workforce, and highlights opportunities for global collaboration.

A decade ago, the Lancet Commission (Frenk, et al., 2010) and the World Health Organization (WHO, 2010) recognized that a) interprofessional team-based collaborative care is imperative for high-quality health outcomes, and b) IPE is the conduit to achieving interprofessional team-based collaborative care in which we prepare HCPs who collaborate with and for patients, families, caregivers, and communities to achieve high-quality care across diverse settings (WHO, 2010; Khalili, et al., 2019).

All the current evidence demonstrates that to prevent the spreading of this disease, a collective and collaborative effort, interprofessionally and inter-organizationally, is needed from all stakeholder entities, including global organizations, governments, healthcare systems, educational institutions and from the community. Furthermore, widespread stakeholder engagement is required to facilitate collaborative, contextually applicable strategic approaches. Stakeholders include governments at the national, state, and regional level, health care settings, health care teams, faculty supporting the education of future health care providers, students, patients/families, and the general public. The health of the public will be directly influenced by the well-being of the health workforce.

Global strategic directions guide the implementation of health professional practice and education at national levels, which in turn influence organizational policies and practice approaches, eventually percolating to teams in practice settings and ultimately the provision of optimal patient/client care. This Global Call to Action, developed by InterprofessionalResearch. Global (IPR.Global), provides key direction regarding valued interprofessional responses and support of not just individual professionals and teams, but also resilient healthcare organizations and systems. Through our global networks in both education and practice environments, we are aiming for strategic partnerships among and between local, national, and global organizations to capitalize on their expertise and collaborations to enhance potential influence.

Resilience - An Emergent Property of the Health Systems as A Whole

In this Call to Action, we view resilience as a whole of system adaptation based on the principles of system dynamics (Sturmberg, 2018). In complex systems such as health care, resilience is an emergent whole of system property that arises from the interactions and relationships between different elements of the system (Ferlie & Shortell, 2001; Sturmberg, 2018). In health care systems, resilience involves positive adaptation of individuals, teams, and organizations to stressors without causing long term negative consequences (Kalaitzaki, et al., 2020; Dragan, et al., 2018; Pun, 2019) in which loss of robustness does not necessarily mean frailty.

The COVID-19 pandemic has already challenged different components of healthcare systems globally including (i) service delivery, (ii) health workforce, (iii) health information technologies, (iv) access to essential resources (medicines and equipment), (v) financing, and (vi) leadership/ governance. The increased number of patients needing high levels of care requires the development of new ways of working.

Leading health care during a crisis requires building resilience at all levels, from organizations and systems to individuals and teams. Organizational and system resilience is closely linked to individual and team resilience of those who work at the organization/system (Flint-Taylor & Cooper, 2017; Hartwig, 2020; Van der Vegt, Essens, Wahlstrom, George, 2015). Thus, support for resilience has to be driven from individual, team, organizational, and system levels. "Whereas the composition of individual characteristics determines the system's potential for resilience, the relationships between individual employees and the social network in which these individuals are embedded strongly determine the availability and accessibility of these capabilities and resources for adaptive responses" (Van der Vegt, et al., 2015, p 972).

Individual and Team Resilience

Resilience for an individual is described in the psychosocial literature as "the capacity to maintain or regain well being during or after adversity" (Whitson et al., 2016, p 489). Psychosocial resilience is known to relate to personality, self esteem, and positive affect. Individual and team resilience are dynamic, progressive, and interdependent processes that can mutually affect each other (while, as mentioned earlier, influencing the organizational and system resilience) (Hartmann et al., 2019; Morgan, Fletcher, Sarkar, 2017). Individual resilience can support team resilience, and at the same time, resilience at the individual level is affected by the team within which people are working. Team-level resilience helps members to effectively manage pressures

and further strengthen the capacity of the team to deal with the current and future challenges of adversity (Dietz et al., 2017; Flint-Taylor & Cooper, 2017). Team resilience is most critical in healthcare where a failure of collaboration can have serious consequences and impact on life and livelihood (Hartwig, 2020). In a global pandemic such as COVID-19, healthcare teams are required to move beyond responding reactively towards a more comprehensive collaborative effort that embraces dynamic team resilience, prepares for, and manages adverse events, and sustains resilient processes effectively over time (Morgan et al., 2017). Team resilience requires distinct factors or collective characteristics also called enhancing resilience resources (Degbey & Einola, 2020) such as social support, quality of emotional expression among team members, high-quality relationships, collaborative leadership, and the ability to regulating and leveraging emotional expression (Morgan et al., 2017).

To build and promote HCPs individual and team resilience, some effective strategies   have been suggested as follows (Shanafelt, Ripp, Trockel, 2020):

- A.   Hear: Listen and act on the lived experience of the team and its members to understand and address concerns to the extent organizations and leaders are able.
- B.   Protect: Provide the essential resources to the team and its member to eliminate the risk of contamination, transmission, burnout, and mental health.
- C.   Prepare: Provide ongoing training and support for high-quality care and services across different settings.
- D.   Support: Acknowledge demands and human limitations in times of great patient need.
- E.   Care for: Provide holistic support for the team, its members, and their families, if isolation is required (or other sources of distress occur).

To thrive and come back stronger from the pandemic, in addition to the above strategies here are two major areas that need immediate attention:

1.   Preventing a Parallel Pandemic of Burnout through Building Individual and Team Resilience
2.   Building Resilience among Current and Future HCPs in the Era of Virtual Health Education and Practice

1 - Preventing a Parallel Pandemic of Burnout through Building Individual and Team Resilience

The imperative of addressing the psychological needs of healthcare providers and interprofessional teams has never been clearer. An optimal approach is a global resilience strategy led by influential global organizations that can draw on broad, culturally relevant, and context-specific expertise to direct policy and practice at both national and organizational levels and to share important lessons learned. Resilience is a critical life-skill and the ability to cope with stress and unexpected challenges is adaptive. Individual and team resilience are associated with various positive states, including optimism, zest, curiosity, energy, and openness to experience (Craig, 2020). These positive emotional states are of tremendous value to the workplace. According to Craig (2020), positive emotions lead to 'thought-action repertoires' which then result in an urge to think/act in a certain direction (p 3). The experience of positive emotions (fostered by resilience) can expand activity, open an employees' eyes to a range of possibilities, and increase the likelihood of more creative solutions (Craig, 2020), which we need now more than ever.

2 - Building Resilience among Current and Future HCPs in the Era of Virtual Health Education and Practice

In the COVID-19 world, requirements for social distancing and restrictions to large gatherings have resulted in changes in the practice of and education for health and social care. For example, in the four weeks leading up to April 12, 2020, about 71% of routine family doctor consultations were remote, compared to 25% in the same period last year (Royal College of General Practitioners, 2020). The Australian government has subsidized telehealth consultations for the first time for the whole of the population (Australian Government Department of Health, 2020) leading to more than 7 million virtual consultations between March and June, 91% by telephone (The Conversation Academic rigor journalistic flair, 2020). In the US, telehealth usage in October 2020 increased by more than 3,000% compared to 2019 (Health Leaders, 2021).

Globally, educational institutions have also been utilizing a variety of technological tools to create content for e-learning for some years including online interprofessional learning, and educators have been exploring new possibilities to teach efficiently, effectively and with greater flexibility. The difference now is that online learning is being expanded, rather than being complementary, as an alternative due to this pandemic crisis. For the health and social care professions, with a high proportion of training taking place in practice settings, this has major implications for experiential and clinical learning (Luke, et al, 2009). Distance learning and virtual practice are also likely to be reducing opportunities for informal and serendipitous IPE and interprofessional collaboration.

Stressors contributing to reduced well-being concerning social distancing measures include difficulties in developing and maintaining communities of practice (CoPs); insufficient and timely technical support for learners, educators, HCP, and patients/clients; reduced patient interactions with an inability to physically examine as necessary; costs; and deferral/ adaptations to assessments without appropriate rehearsals (Wenger & Wenger, 2015).

To mitigate the above stressors, the COVID-19 pandemic calls for educators and practitioners to hone essential skills through:

A. professional development (e.g., resilience, which in this context means the capacity to give confidence for, to create motivation, to build emotional strength, and the agility to manage change),

B. adaptability, in which are embedded creativity, effective communication, collaboration, empathy, and emotional intelligence,

C. resources and support, provided for delivering and practicing virtual education, practice, consultations and

D. relationship-based care, in which the patient is central to the development of a new interprofessional curriculum/practice (Car et al, 2020).

Student Resilience

The development of interprofessional *virtual learning must recognize the centrality of the definition of IPE and the need for interaction* i.e., two or more professionals/students learning with, from, and about, each other for the purposes of collaboration, to improve *the quality of care & services*. This means that for interprofessional learning, supporting the principle of student "togetherness" i.e., in formal learning groups, in informal social groups, and building an understanding of dual professional and interprofessional identity formation as fundamental to *interprofessional* collaboration (Khalili, et al., 2013, 2020) for both teachers and students supporting educational trust and educational safety. Perhaps the greatest challenge for extended remote learning lies in how to scale up for the large classes that have always been part of the undergraduate experience. Over the time that learning on the internet has become part of every student experience, several effective instructional methods have developed for the successful delivery of online courses e.g., small group work, guided design, projects, discussion groups, role play, panels, symposia, case studies, journal clubs. In virtual healthcare, the major issues of access need to be recognized. For example,

A. digital literacy: despite their apparent digital sophistication, students (along with teachers and practitioners) seem to be less tech-savvy, and they, along with patients/clients, might need support;

B. internet access: people are accessing the internet on several different devices with different functionalities, and those living in rural or remote locations may not have access to reliable high-speed internet connections;

C. data plans: individuals (students, teachers, practitioners, and patients/clients) may have limited data capacity and might need to reserve it for their other essential work;

D. sharing space and devices: individuals (students, teachers, practitioners, and patients/clients) may be sharing technology and location with other household members, reducing the time and privacy on virtual communication;

E. balancing work and life: Some individuals (students, teachers, practitioners, and patients/clients) may have less time now as they need to take care of family, work, and other priorities.

These big access issues can lead to a significant loss of *"connectedness"* between learners and the need to develop effective ways to address this loss and help maintain CoPs (Khalili, 2020). For example, with the onset of the pandemic, educators immediately faced this loss of hands-on experience for students interacting with patients.

New approaches to co-learning with patients/clients are emerging in which a *patient/client becomes part of the online "classroom" as a facilitator, mento and informant*. Also, because of the relative newness of virtual learning for some programs, educators need to solicit frequent feedback on the system and its acceptability. There is an urgency to *recognize and address systemic barriers*, which will require developing structurally flexible approaches in instructions, expectations, and curriculum objectives. The provision for senior students to work as *interim paid health professionals prior to graduation or after early graduation* is one way that some jurisdictions are helping learners provide service and feel wanted in the system.

In the first nine or ten months of the pandemic, the need to *coordinate/streamline communication* is apparent: too many messages from too many different directions result in confusion about which message should be addressed. Conflicting communication has also pointed to the importance of using pertinent and consistent online tools – learning and practicing in a remote setting is difficult enough – a plethora of different tools compounds that difficulty.

Additional recommendations for coping with stress and burnout arising from the increased volume of online learning and virtual communication include ensuring that there are *sufficient breaks between online activities to help maintain interest and attention, institutional wellness*

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campaigns with promotion and provision of healthy practices, for example, exercise and meditation, debriefing sessions, and group support (Mhiedly et al, 2020).

Being integral part of interprofessional teams, students should also work with team members to support and be supported by team resilience efforts in practice. There are many resources within clinicalprofessional organizations and institutions that can support student wellness not just in academic but in practice settings.

Organization and System Resilience

Organization/system resilience is the intrinsic ability of an organization/system to adjust its functioning before, during, or following changes and disturbances so that it can sustain required operations, even after a major mishap or in the presence of continuous stress. Organization/system resilience in action refers to the capacity to be resourceful and creative, to make choices, and to take effective action.

To be resilient, the health care organization/system should demonstrate the ability to (Hollnagel, 2013):

A. Effectively respond to new stimuli, such as the COVID-19 Pandemic, through adaptation.
B. Monitor and measure both internal and external factors effecting its performance.
C. Learn from prior experience and change its performance accordingly.
D. Anticipate and be ready to effectively address future stimuli that could affect its performance.

Legido-Quigley and colleagues (2020) have noted multiple healthcare system adaptive strategies that have collectively improved resilience in response to COVID-19, including:

■ Increasing pathology resources to enhance timely identification of SARS-CoV-2

■ Introducing quarantine of travelers as a potential vector

■ Leveraging prior epidemic experience or pandemic planning strategies to impro-ve intragovernmental communication

■ Minimizing financial costs as an individual barrier for testing and treatment

■ Planning for ongoing routine provision of healthcare

- Increasing health care personnel access to personal protective equipment

- Increasing capacity for critical care treatment including ventilation

- Development, dissemination, and personnel training for best evidence delivery of care for treatment of COVID-19

- Enhanced frequency of risk communication across all strata of the healthcare system

In addition to these strategies and to demonstrate and sustained enhanced system resilience to the pandemic, there are two other major areas that healthcare organizations and systems need to consider and improve on:

1. Equity in Healthcare
2. Healthcare Financial Structure and Payment Models

1. Equity in Healthcare and Resilience

Issues of equity and power have not been considered adequately in discussions regarding resilience. Following an analytical literature review, Matin, Forrester, and Ensor (2018) propose an alternate definition of equitable resilience "which is increasingly likely when resilience practice takes into account issues of social vulnerability and differential access to power, knowledge, and resources; it requires starting from people's own perception of their position within their human-environmental system, and it accounts for their realities and for their need for a change of circumstance to avoid imbalances of power into the future"(p.202). Equitable resilience is fundamental to the long-term sustainability of health care organizations and specifically integral to interprofessional collaboration in teams. Pandemics, disasters, and crises create obstacles to achieving and maintaining both.

Resilience depends on a complex balance of individual, community, and institutional factors (Epstein & Krasner, 2013); all of which have become elusive and pushed to the limits, with very little 'buffer', as health care workers strive to meet the upper rungs of the Maslovian hierarchy of needs, and question basic physiological-social needs such as housing and human interaction (due to social isolation) (Ruiz and Gibson 2020). In so many ways, basic human existence has become dependent on individual resilience and survival success – leaving little available to support community and institutional health and well-being in this area. As an example, in some countries healthcare workers could not even determine whether or not to work or under what circumstances to do so, due to both social and administrative pressures. Those who can find solutions to meet the needs, protect themselves and their family's health have been able

to adapt, while those who are more vulnerable or care for those who are more vulnerable have not been as successful (Nyashanu et al 2020).

Equity, or the ability to be fair and impartial, means providing individuals, teams, organizations, and systems the support, resources, and services they need when they need it (Bravemen et al, 2017). Although equity in society starts with the fact that we all share the human condition, the basic human and social needs of health care workers fighting in the front lines in such difficult conditions like the pandemic are being challenged so much so that many are being driven to suicide due to burnout from providing care under physical, mental, and moral distress (Morgantini et al, 2020; Lim et al 2020).

We need to offer a service area where fundamental human rights are met. For this, we should determine strategic plans on global, national, and organizational scales. We should form 'support teams' that can give people the belief that we can overcome together and also can take the responsibilities and burdens of these processes together (Reger et al 2020). The ability to ensure an adequate health care system response (i.e., equitable COVID-19 deployment and administration) depends on the collaboration among healthcare workers, and their needs should be guaranteed (Guimón & Narula, 2020; Lesperance & Miller, 2009; Sunderji, 2020). From the pandemic, we must also take lessons and be prepared for the next crisis moments. We should prepare conditions that HCPs choose to take part in the fight with their own decisions.

2. Healthcare Financial Structure and Resilience

The pandemic has impacted our health care systems and hospitals. Many health care professionals and services have been vulnerable under certain financial structures and pay models that were barriers to provide quality care for patients. Such health care models increased burnout and exhausted the resources and crippled the proper use of system capacity. The failure to proceed with care delivery due to current financial arrangements that do not pay for quality care created major gaps in providing essential care and critical health services. The pandemic has raised concern about our system's ability to preserve essential care delivery and services when faced with a crisis (Houston & Brykman, 2020; Bruch, et al, 2020).

Some payment models survived the financial crisis better than others. Those models such as the value-based were set on quality, not numbers. Before the pandemic, those financial models focused on providing essential services and care delivery as contracted within their policies. However, the pandemic showed that our health care systems lack resilience and had not sufficiently planned to provide care during crisis and outside emergencies. (Blumenthal, et al.,

2020). Society is moving towards virtual visits and telehealth, as new healthcare approaches; however, the healthcare financial structure and pay models are lagging behind. There is a need for policies and regulations to recognize and facilitate HCPs time and participation in these new virtual healthcare approaches while safeguarding patients/populations' safety and quality of services (Center for Connected Health Policy, 2021; Houston & Brykman, 2020).

The financial structure of our health care systems should have the ability to mount a robust response, when faced with unprecedented crisis, to resume the normal operations, lift the burnout of the healthcare workers, compensate for their overtime, and provide the financial support needed to create the best model of care delivery.

As health care models are being reformed to accommodate the best approach to person-centered care, policymakers should invest in the interprofessional team approach to care-delivery for the best quality care. Researchers should explore gaps that exist in the system and barriers that hinder resilience. Resilience in health care should be evidenced in the four major elements in our health care system (Figure 1).
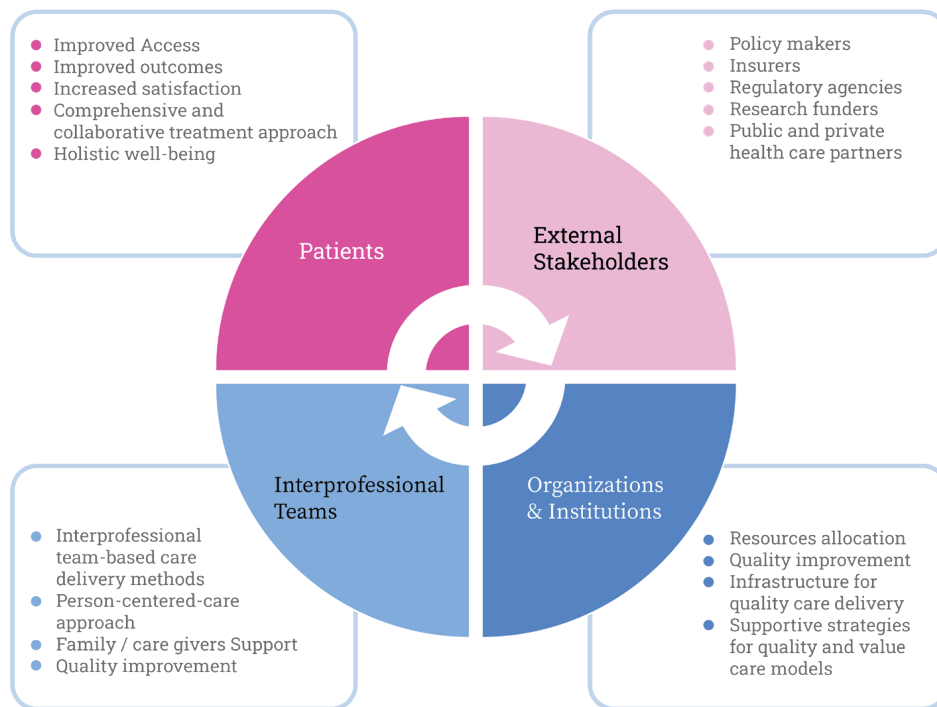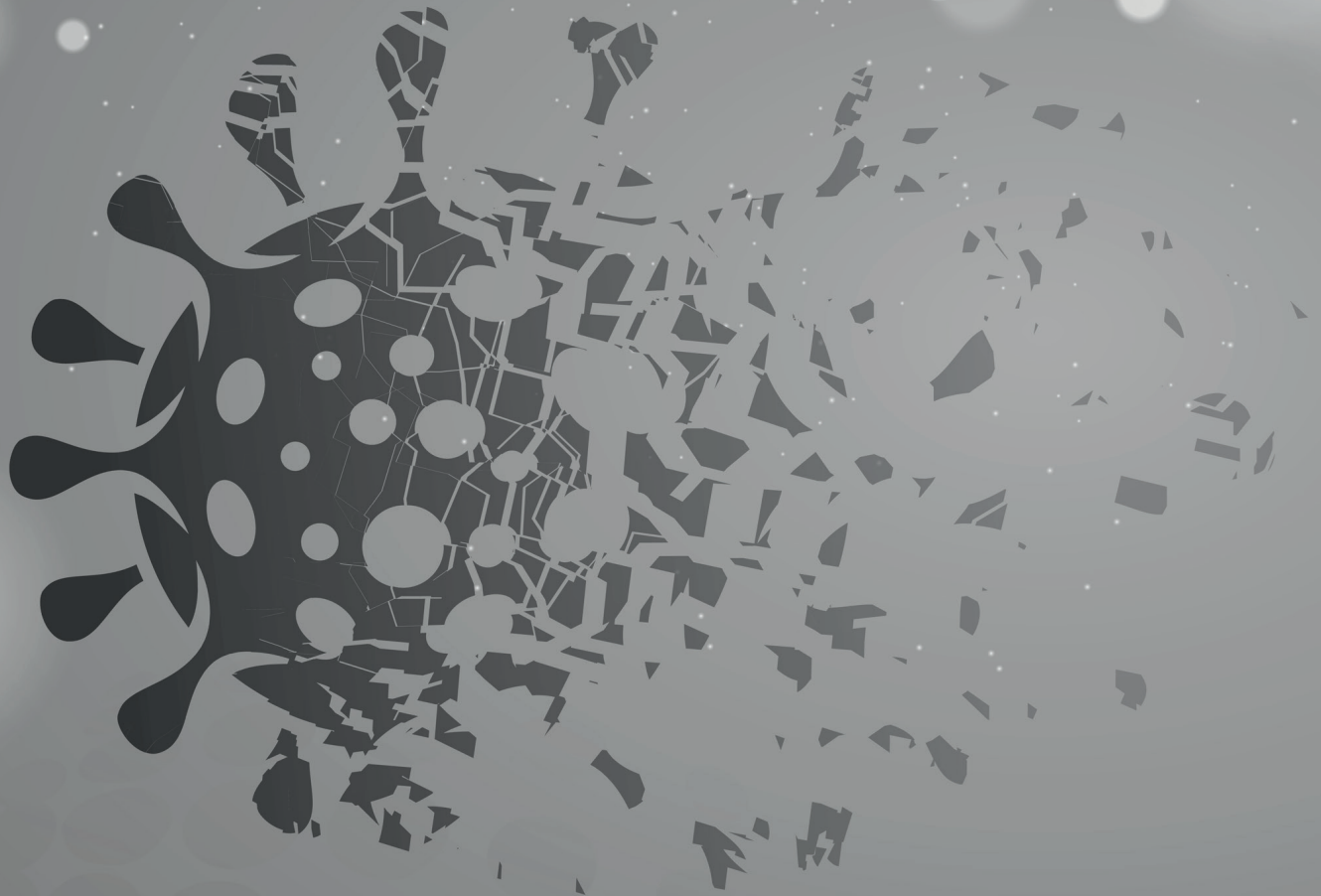

Figure 1. Four Elements of Resilience Impact in Healthcare (IPR.Global 2021)

Strategic Collaborative Leadership for System-wide Change

Strategic directions could encourage policy-makers, health leaders and governments to reconsider establishing the wellbeing and resilience of health care providers and teams as part of their national priorities. Governments need to support and empower healthcare institutions to endorse policies aimed at ensuring that the wellbeing of healthcare professionals is equitable and implemented across all settings from intensive care to the community. Furthermore, an awareness campaign for the public and healthcare professionals is needed to raise the visibility of the impact and consequences of HCP burnout which has a significant effect on patient care. Examples of initiatives could include to:

- Conduct a needs assessment to gather evidence to understand the system and examine factors within their settings leading to burnout and resulting consequences on healthcare providers, their team members, and patients.

- Guide health systems to foster an environment where the wellbeing of its healthcare professionals is a central key performance indicator.

- Recommend and implement interventions to enhance healthcare professionals' wellbeing and resilience, particularly in the context of practice teams.

- Ensure healthcare providers are well trained on the importance of well-being and resilience as a key component of enhanced team-based care.

- Develop protocols for healthcare professionals to identify signs of burnout in themselves and team members and corresponding responses.

- Establish plans for providing additional support for healthcare professionals in need of support.

- Provide those in need with psychosocial support, counseling, and treatment if necessary.

Daily we read and listen to first-hand accounts of HCPs in clinical settings providing care for patients with COVID-19 who candidly share the physical, psychosocial and emotional toll this has taken on them as well as on their families. HCPs often express the need to carry the primary burden of healthcare delivery. Engaging HCPs in teamwork will enable them to develop a sense of shared burden, which in turn reduces anxiety and builds resiliency (Silvestry, 2020).

Conclusion

The unprecedented COVID-19 pandemic poses unique challenges not just for HCPs, patients/families, students/learners, and educators, but also for the health care organizations and institutions. If these challenges remain unaddressed, the anticipated impacts for health care systems will be devastating. There is a need for robust resilience and wellbeing programs/services that provide opportunities for individuals/teams as well as organizations/systems to connect, engage and be synergized for resilient person-centered care.

In this Call to Action, we invite the global health care community – in both practice and education - to take strategic actions to adopt a system approach to addressing burnout and develop resilience at all levels. Resilience is a whole of system adaptation, and leading health care during a crisis requires building resilience at all levels, from organizations and systems to individual and teams. Organizational and system resilience is closely linked to individual and team resilience of those who work at the organization/system. Thus, support for resilience has to be driven from individual, team, organizational, and system levels and should include access to quality care, equity, and financial considerations in healthcare delivery systems.
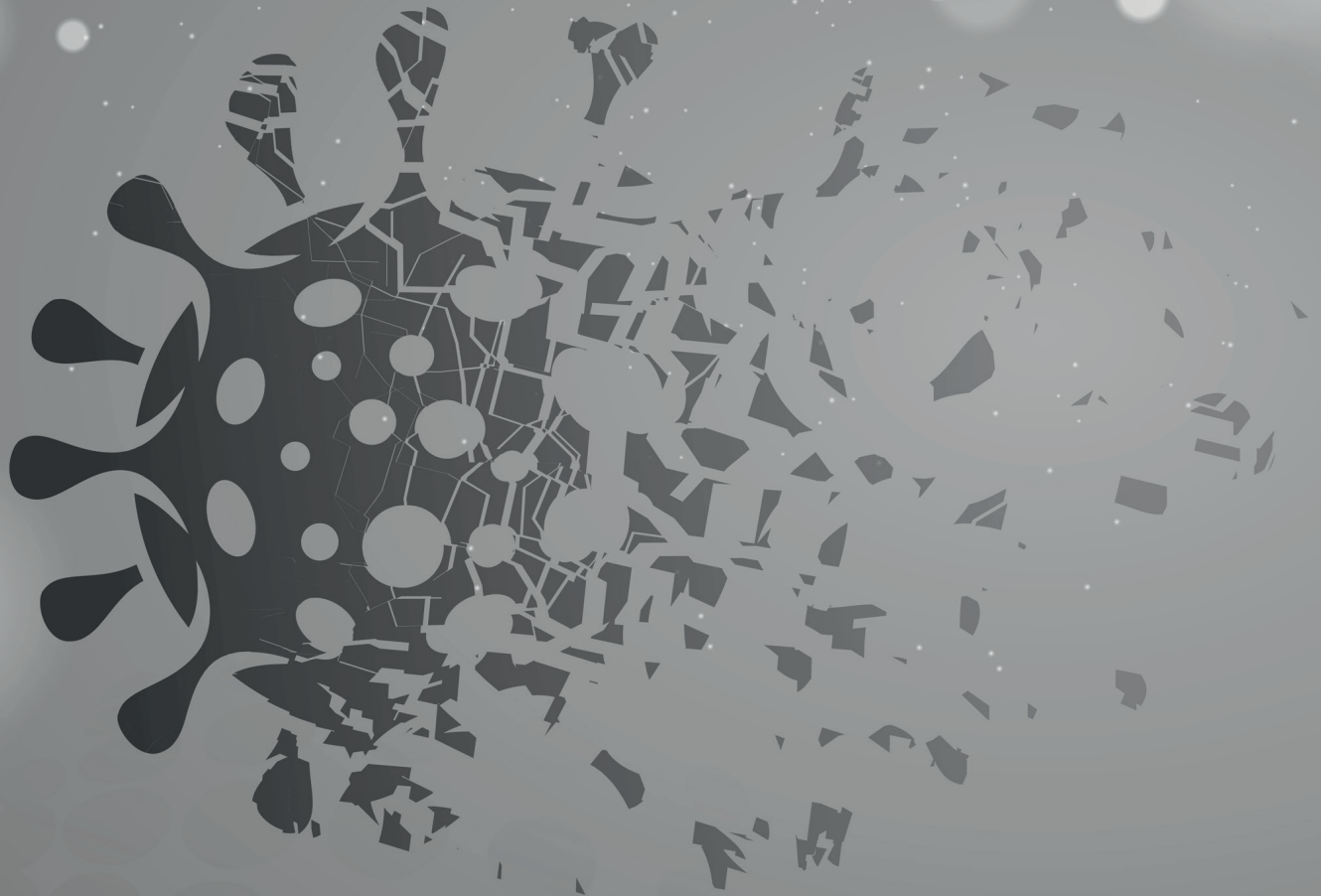
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