



WORLD
MEDICAL
ASSOCIATION

Junior Doctors Network Newsletter
Issue 24
October 2021

JUNIOR DOCTORS NETWORK

empowering young physicians to work together towards a healthier world through advocacy, education, and international collaboration

Published by the Junior Doctors Network of the World Medical Association

The information, perspectives, and opinions expressed in this publication do not necessarily reflect those of the World Medical Association or the Junior Doctors Network. WMA and WMA-JDN do not assume any legal liability or responsibility for the accuracy, completeness or usefulness of any information presented.

ISSN (print) 2415-1122
ISSN (online) 2312-220X

Junior Doctors Leadership 2020-2021

CHAIRPERSON



Dr [Yassen Tcholakov](#)
Canada

DEPUTY CHAIRPERSON



Dr [Julie Bacqué](#)
France

SECRETARY



Dr [Wunna Tun](#)
Myanmar

SOCIO-MEDICAL AFFAIRS OFFICER



Dr [Manon Pigeolet](#)
Belgium

EDUCATION DIRECTOR



Dr [Uchechukwu Arum](#)
Nigeria/United Kingdom

MEDICAL ETHICS OFFICER



Dr [Lwando Maki](#)
South Africa

MEMBERSHIP DIRECTOR



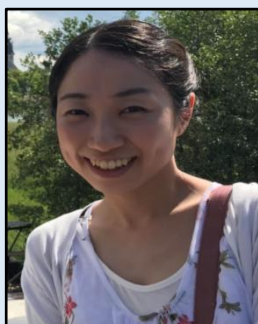
Dr [Lyndah Kemunto](#)
Kenya

PUBLICATIONS DIRECTOR



Dr [Helena Chapman](#)
Dominican Republic

COMMUNICATIONS DIRECTOR



Dr [Maki Okamoto](#)
Japan

IMMEDIATE PAST CHAIRPERSON



Dr [Chukwuma
Oraegbunam](#)
Nigeria

Editorial Team 2020–2021



Dr [Victor Animasahun](#)
Nigeria



Dr [Nishwa Azeem](#)
Pakistan



Dr [Sejin Choi](#)
Republic of Korea



Dr [Ricardo Correa](#)
Panama/United States



Dr [Giacomo Crotti](#)
Italy



Dr [Suleiman A. Idris](#)
Nigeria



Dr [Mashkur Isa](#)
Nigeria/United Kingdom



Dr [Jooyoung Moon](#)
Republic of Korea



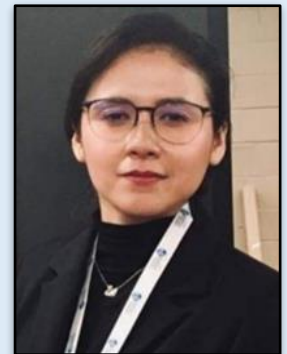
Dr [Mellany Murgor](#)
Kenya



Dr [Vandrome Nakundi
Kakonga](#)
Dem. Rep. of Congo



Dr [Parth Patel](#)
Malawi



Dr [Jeazul Ponce H.](#)
Mexico

Table of Contents

TEAM OF OFFICIALS' CONTRIBUTIONS

07 Words from the JDN Management Team

By JDN Management Team

08 Words from the Communications Director

By Dr Maki OKAMOTO (Japan)

09 Words from the Publications Director

By Dr Helena CHAPMAN (Dominican Republic)

JDN REFLECTIONS

10 Reflections by the JDN Management Team (2020–2021)

By JDN Management Team

15 Reflections by Former JDN Officers

By Dr Lawrence LOH (Canada), Dr Mike Kalmus ELIASZ (United Kingdom), Dr Ian PEREIRA (Canada), Dr Kostas RODITIS (Greece), and Dr Anthony UDE (Nigeria)

18 Reflections by JDN Publications Team (2020–2021)

By JDN Publications Team

22 Reflections by JDN Members (2020–2021)

By Dr Yakubu AHMADU (Nigeria), Dr Dabota Yvonne BUOWARI (Nigeria), Dr Maymona CHOUDRY (Philippines), Dr Leonard Goh Zhong NING (Malaysia), Dr Imtiaz HAFIZ (Bangladesh), Dr Christopher MATHEW (India), Dr Merlinda SHAZELLENNE (Malaysia), Dr Rabindra Prasad YADAV (Nepal), Dr Frank RODRÍGUEZ YEPEZ (PANAMA), and Dr Marie-Claire WANGARI (Kenya)

Table of Contents

WORKING GROUP UPDATES

26 Climate Change Working Group

By Dr Yassen TCHOLAKOV (Canada)

27 Medical Ethics Working Group

By Dr Lwando MAKI (South Africa)

28 Medical Exchange, Education, and International Mobility Working Group

By Dr Uchechukwu ARUM (Nigeria/United Kingdom)

JUNIOR DOCTORS' SCIENTIFIC PERSPECTIVES

30 Ethical Dilemmas in Post-graduate Training during the COVID-19 Pandemic

By Dr Rui Lourenço TEIXEIRA (Portugal)

33 Public Health Ethics during the COVID-19 Pandemic

By Dr Frank RODRÍGUEZ YEPEZ (Panama)

36 Junior Doctors Lead a Global Call to Action to Promote Multidisciplinary Collaborations

By Dr Helena CHAPMAN (Dominican Republic)

40 Digitization of Healthcare Service Delivery in Low- and Middle-income Countries

By Dr Parth PATEL (Malawi) and Dr Sahiba MANIAR (India)

43 Social Accountability: One Step at a Time

By Dr Nishwa AZEEM (Pakistan)

46 Health Workforce Training in Organ and Tissue Donation in Mexico

By Dr Cinthya LUCIO (Mexico)

Table of Contents

JUNIOR DOCTORS' COMMUNITY REFLECTIONS

49 Who Can Heal My Pain?

By Dr Dabota Yvonne BUOWARI (Nigeria)

50 The Impact of the COVID-19 Pandemic on Junior Doctors: Perspectives from a Nigerian Physician

By Dr Dabota Yvonne BUOWARI (Nigeria)

53 The Impact of the COVID-19 Pandemic on Surgical Care in Italy

By Dr Teresa PERRA (Italy)

56 Life during the COVID-19 Pandemic: A Malaysian Junior Doctor's Observations

By Dr Merlinda SHAZELLENNE (Malaysia)

59 Myanmar Junior Doctors Risk Personal Safety during Military Coup

By Dr Wunna TUN (Myanmar)

JUNIOR DOCTORS' ACTIVITIES

62 The Fight for Better Working Conditions for Resident Doctors in Belgium

By Dr Manon PIGEOLET (Belgium)

65 2021 KMA Young Doctors Network Pre-conference: Career Development and Entrepreneurship

By Dr Marie-Claire WANGARI (Kenya) and Dr Lyndah KEMUNTO (Kenya)

Words from the Management Team

Dear colleagues,

As we approach the end of another term of Junior Doctors Network (JDN) activities, we remember our virtual interactions that have supported valuable contributions on relevant global health discussions. As junior doctors, managing an international organisation throughout this pandemic – with increasing clinical and public health responsibilities during our training – has certainly been an exciting learning experience for all of us! This 11th year of JDN collaborations has nevertheless been a memorable one.

At the end of this term, we must reflect on the existing and emerging health risks affecting the world and identify innovative solutions to mitigate risks across populations. These risks include: inequities that countries have faced during the pandemic, political conflicts across countries where JDN members live and work, conditions that exacerbate the existing social and environmental justice issues, and impacts of natural disasters in light of climate change. Throughout the year, our monthly teleconferences, introductory session for newcomers, webinars, biannual meetings, and numerous Working Group events have allowed us to identify risks, foster JDN dialogue, publish findings in the *JDN Newsletter*, *World Medical Journal*, and other scientific journals, and present calls to action for decision-makers and other stakeholders as forward steps.

As we celebrate our accomplishments for the 2020-2021 term, we look forward to building off of these milestones for the 2021-2022 term. We hope that all JDN members will be energized to identify pressing tasks, establish our collective action plan to contribute to ongoing global health efforts, and advocate for sustainable actions to prioritize population health.

Please enjoy reading the following pages, as they crystallise the reflections of JDN members at this time of the year and bring forward the thoughts of fellow junior doctors from all over the world on the most pressing global health challenges.

Sincerely,
 The JDN Management Team



Photo 1. WMA leadership and JDN Management Team at the Biannual Meeting 2021. Credit: Dr Maki Okamoto.

Words from the Communications Director

[Maki Okamoto](#), MD
 Communications Director (2020–2021)
 Junior Doctors Network
 World Medical Association



Dear colleagues,

It is my pleasure to welcome you to the 24th edition of the *Junior Doctors Network (JDN) Newsletter*. As I am finishing my JDN term as Communications Director, I would like to express my appreciation for the opportunity to work with incredibly outstanding and highly motivated junior doctors from all over the world.

In addition to their daily clinical and public health practice, junior doctors have a leadership role to promote the future of medicine to tackle global health issues. We contribute to the development of our future world! Before I started working with the JDN, I was relatively overwhelmed with my hospital duties, and I had little capacity to think about global health, medical colleagues, and the future of medicine. Through my work with JDN members, I gained a holistic vision and broadened my horizons to feel more connected to the world.

Despite the physical distancing during the pandemic, we can still have close connections with other JDN members and be open-minded about emerging challenges. If you feel tired or overwhelmed, take time to cherish yourself, relax, and take time to talk with family and friends. Your patients' health will be secured when you focus on your health and well-being. Remember that you are not alone and that your family, friends, and colleagues are by your side! The JDN supports your work, as you are an important part of our future!

To learn more information about JDN activities and updates, please visit the JDN media accounts (**Figure 1**).

Sending love from Japan,
 Maki Okamoto

Media	Resource
Website	https://www.wma.net/junior-doctors/
Mailing List	https://goo.gl/forms/jCP774K1fldLloWj1
Twitter	@WmaJdn
Facebook (Members)	WMA-JDN
Facebook (Public)	WMA JDN
Instagram	wma_jdn

Figure 1. List of JDN media resources.

Words from the Publications Director

[Helena Chapman](#), MD MPH PhD
Publications Director (2020–2021)
Junior Doctors Network
World Medical Association



Dear JDN colleagues,

On behalf of the Publications Team (2020–2021) of the Junior Doctors Network (JDN), we are honored to share the 24th issue of the *JDN Newsletter* with junior doctors across the world.

Since the start of the coronavirus disease 2019 (COVID-19) pandemic, junior doctors have contributed significantly to advancing local and national response efforts to curb disease transmission across health systems. Their leadership in clinical and public health practice, capacity building, and research has helped close the gap in scientific knowledge, which has highlighted emerging One Health challenges, including environmental and social justice issues.

The *JDN Newsletter* provides an international platform where junior doctors offer valuable insight about their clinical and community health leadership in local and national health initiatives. This 24th issue includes articles from junior doctors from Belgium, Brazil, Canada, Dominican Republic, India, Italy, Kenya, Malawi, Malaysia, Mexico, Myanmar, Nigeria, Pakistan, Panama, South Africa, United Kingdom, and the United States. These reports share updates on JDN Working Group activities, scientific perspectives on key local and national challenges, and reflections on global health inequities. Their leadership can be described by Henry Ford – “*Coming together is a beginning, staying together is progress, and working together is success*” – and can empower their colleagues to develop timely health initiatives and strengthen communication between World Medical Association (WMA) and JDN members.

We acknowledge the leadership of all editors of the JDN Publications Team 2020-2021 as we finalized this 24th issue. We recognize and appreciate the continued support of the JDN Management Team and WMA leadership as we share this high-quality resource for junior doctors across the globe. We hope that you enjoy reading about pressing global health issues and activities of junior doctors in this 24th issue!

Together in health,
Helena Chapman

Reflections about Global Health Challenges by the JDN Management Team (2020–2021)

Dr Yassen Tcholakov (Chairperson, 2020–2021)



Weak international
infrastructure

Dr Yassen Tcholakov

Chairperson, WMA-JDN (Canada)

The most significant global health challenge today is the erosion of cooperation and multilateralism and the seemingly growing incapacity of countries to unite around clearly recognized common goals. The international structure no longer seems fit for purpose. The COVID-19 pandemic has highlighted inequity in access to diagnostics, treatments, and preventive measures. The world emits ever greater amounts of greenhouse gases into the atmosphere, driving climate change while contending with its impacts. Conflicts emerge in all parts of the world. Junior doctors have a role to play in strengthening good governance, advocating for action on social and environmental determinants of health, and when all else fails, becoming directly involved into politics and protecting health by striving to change those failing structures.

Dr Julie Bacqué (Deputy Chairperson, 2020–2021)



Close links
between global and
local health

Dr Julie Bacqué

Deputy Chairperson (France)

The current COVID-19 pandemic has highlighted the close links between global health and local and national health issues. Junior doctors can help advocate for global initiatives and equitable solutions in the fight against the COVID-19 pandemic. We can promote the World Health Organization's social media campaign message – “No one is safe from COVID-19 until everyone is safe” – as a call to action!

Dr Wunna Tun (Secretary, 2020–2021)



Dr Wunna Tun

Secretary (Myanmar)

Recently, the globe has witnessed the COVID-19 pandemic, social inequality, racism, war, and military coups. These repercussions will hinder how junior doctors can deliver high-quality medical care to patients and thus contribute to increased disparities in population health. Junior doctors and health care workers should support and collaborate with each other and international organizations and take immediate meaningful action to end the root causes of these global health crises. We can save lives by working together!

Dr Manon Pigeolet (Socio-Medical Affairs Officer, 2020–2021)



Dr Manon Pigeolet

Socio-Medical Affairs Officer (Belgium)

One of the biggest challenges that we face in global health today is fighting misinformation and a growing distrust in science and medicine around the globe. There has never been a cohort of junior doctors that has been as diverse as the junior doctors of today. We can leverage our diversity to connect with hard-to-reach communities to gain their trust again and provide access to verified sources of information and qualitative health care.

Dr Uchechukwu Arum (Education Director, 2020–2021)



Universal
health coverage

Dr Uchechukwu Chukwunwike Arum

Education Director (Nigeria)

Two significant global health challenges include implementing universal health coverage and strengthening health systems of low- and middle-income countries. There is a need for the global community to double efforts in ensuring that all citizens have universal access to health services irrespective of socioeconomic status. These efforts will ultimately promote a healthier world. Since the COVID-19 pandemic has highlighted the fragility of health systems and the interdependence of nations to one another, no country can guarantee health security in isolation. Junior doctors should be a strong voice in advocating for universal health coverage at the national and international stage.

Dr Lwando Maki (Medical Ethics Officer, 2020–2021)



Vaccine
Inequity

Dr Lwando Maki

Medical Ethics Officer (South Africa)

With a number of global health challenges faced by the world, the COVID-19 pandemic and vaccine inequity remain a significant burden. Of more than 3.6 billion doses administered worldwide, recent statistics show that only 1% of individuals living in low-income countries have received at least one dose of the COVID-19 vaccine.

Dr Lyndah Kemunto (Membership Director, 2020–2021)



Minimize the gap
in accessing
health care services

Dr Lyndah Kemunto

Membership Director (Kenya)

The COVID-19 pandemic has clearly shown the inequities in global health. We have observed that some populations can access COVID-19 information, testing services, treatment, and vaccines, while other low-income communities still do not have access to COVID-19 related health care services. As young doctors who have experienced this pandemic from the frontline, we must rally our communities, governments, and global health colleagues to minimize the gap between the haves and the have-nots. We must all work towards ensuring that everyone can access health information and services across global communities. We need universal health coverage NOW!

Dr Helena Chapman (Publications Director, 2020–2021)



Global
Solidarity

Dr Helena Chapman

Publications Director (Dominican Republic)

One global challenge has been underscored by the COVID-19 pandemic: the need for global solidarity and robust health systems to urgently address emerging One Health challenges. As junior doctors, we can offer valuable insight to multidisciplinary teams that examine health-related hazards, identify high-risk populations, and develop action plans that strengthen community preparedness. By promoting the One Health concept, we can apply novel scientific approaches and data – such as remote sensing data, citizen science applications, and qualitative research designs – and develop solutions to safeguard community health.

Dr Maki Okamoto (Communications Director, 2020–2021)



Noncommunicable
diseases

Dr Maki Okamoto

Communications Director (Japan)

The most significant global health challenge that we face today is to overcome the burden of noncommunicable diseases (NCDs). The WHO estimates that NCDs are responsible for seven of the top ten global causes of death. Junior doctors can lead global initiatives that educate communities on recommended strategies – such as nutritious diets, regular physical exercise, tobacco cessation, and stress management – that reduce risk of NCDs and promote healthier lifestyles.

Dr Chukwuma Oraegbunam (Immediate Past Chairperson, 2020–2021)



Resilient
Health Systems

Dr Chukwuma Oraegbunam

Immediate Past Chairperson (Nigeria)

The most significant health challenge was exposed during the COVID-19 pandemic: deficient global preparedness for health emergencies. As junior doctors and future leaders of health care systems, we must begin to influence policies that will create resilient national and global health systems.

Reflections about Global Health Challenges by Former JDN Officers

Dr Lawrence Loh (Co-founder/Inaugural Deputy Chair, 2011–2012)



Building bridges
between countries
and cultures

Dr Lawrence Loh

Co-founder and Inaugural Deputy Chair
2011–2012 (Canada)

One of the most significant global health challenges that has arisen out of the COVID-19 pandemic has been the polarization of society and how it acts as an impediment to collective action. The JDN stands against this by building bridges between countries and cultures, but our focus is so often internal to the medical profession. Junior doctors could play a leadership role by understanding how to encourage understanding and empathy to bring more people into the fold, so that we can make a difference together on the big problems of our time, whether it is climate change, COVID-19, poverty and hunger, or otherwise!

Dr Mike Kalmus Elias (Socio-Medical Affairs Officer, 2018–2019)



JDN as key voices
shaping policy

Dr Mike Kalmus Elias

Socio-Medical Affairs Officer 2018–2019 (UK)

It is hard to name just one global health challenge, but at the heart of many is nationalism and isolationism, from the current inequalities in vaccine access to the threat of climate change. Many of the vital factors that determine the health of individuals and populations require collective action where nations put aside their self-interest. Junior doctors can be “politically engaged” in the halls of government at the local and national level. Likewise, they can participate in multilateral fora through organisations, such as the JDN, as key voices shaping policy and encouraging governments to act beyond short-term or national interests and place health at the heart of policy making on topics ranging from climate change to antimicrobial resistance.

Dr Ian Pereira (Education Officer, 2013–2015)



Overcome
discrimination

Dr Ian Pereira

Education Officer 2013-2015 (Canada)

The last two years have shown how stressors and their solutions continue to widen disparities. We must live, work, and learn in solidarity in order to overcome this discrimination as a fundamental determinant of health. We can collectively share true data consistently missed or manipulated, reach out when those standing for justice may fall, and amplify voices for reconciliation when individuals are silenced. The JDN, which began as a platform for the collective voices of junior doctors, is needed now more than ever for these global initiatives.

Dr Kostas Roditis (Secretary, 2015–2018; Publications Director, 2012–2013)



Avoid misinformation
and unauthorized
skepticism

Dr Kostas Roditis

**Secretary 2015-2018,
Publications Director 2012-2013 (Greece)**

Two years later, our health systems face the current fourth wave of the COVID-19 pandemic and observe global vaccination programs that target younger populations. Junior doctors must set the paradigm by responsibly informing, advising, and advocating their peers towards immunization against COVID-19. These efforts can reduce disease burden, healthcare resources, and unnecessary loss of lives, driven by misinformation and unauthorized skepticism created by the anti-vaccination movement.

Dr Anthony Ude (Communications Director, 2018–2019)



Dr Anthony Ude

Communications Director 2018-2019 (Nigeria)

COVID-19 is undoubtedly the most significant global health challenge of the century. Junior doctors all over the world – in conjunction with government, civil society, and media organizations – aim to combat misinformation about the COVID-19 pandemic through public education and community mobilization. Junior doctors can lead these community efforts and advocate for basic needs and safety of vulnerable populations. They can also conduct a snapshot study to assess the physical, economic, and social impacts of the pandemic on the populace globally, which can be shared with policy makers and health stakeholders. In Nigeria, junior doctors who collaborate with the Doctors Timeout Family (DTOF) have been actively leading such community efforts.

Acknowledgments: Special thanks to Dr Maki Okamoto (Communications Director, 2021–2022) for her dedicated efforts to showcase our JDN leadership in these captivating images!

Reflections about Global Health Challenges by the JDN Publications Team (2020–2021)

Dr Helena Chapman (Dominican Republic)

One global challenge that arose during the COVID-19 pandemic was the rapid spread of misinformation defined as an infodemic. This misinformation can increase stigma, spread fear, and exacerbate existing inequities, which hinder community health and well-being. As junior doctors, we must remain vigilant for misinformation and lead community health campaigns that share relevant information based on up-to-date scientific evidence. We can use social media and infographics to support the dissemination of accurate, understandable, and culturally-appropriate health messages. Together, we can advocate for best clinical and community health practices that share key health information and prioritize health and well-being for all global citizens.

Dr Helena Chapman (Dominican Republic)



Infodemic

Dr Victor Animasahun (Nigeria)

I believe that the most significant global health challenge is health inequality. Junior doctors need to advocate for an equitable distribution of human, tangible, and intangible resources for health across all socioeconomic and cultural divides of society.

Dr Victor Animasahun (Nigeria)



health
inequality

Dr Ricardo Correa (Panama/United States).

One of the main global health challenges is the accreditation process for medical schools across the world. Although the World Federation for Medical Education has initiated the local and regional accreditation process, the COVID-19 pandemic has halted further action, which will directly impact incoming medical students. As junior doctors, we should push our institutions to finalize this accreditation process as soon as possible. After all, high-quality medical education with international standards is the ultimate goal!



medical
education

Dr Ricardo Correa (Panama/United States)

Dr Suleiman Ahmad Idris (Nigeria)

The most significant global challenge lies in the paucity of public knowledge and awareness about basic health issues, especially in the low-income countries. Without these facts, individuals can be persuaded by fake news and myths and ultimately make uninformed and untimely decisions about their health status. Junior doctors can bring about innovations in health education and promotion that will set the global community free from the shackles of misinformation.



Public
Knowledge

Dr Suleiman Ahmad Idris (Nigeria)

Dr Mashkur Abdulhamid Isa (Nigeria/United Kingdom)

Health inequity remains till this day a persisting global health challenge. The COVID-19 pandemic has brought some of these existing inequities to the limelight; however, additional inequalities remain in the shadows. The burden is on us as junior doctors to be the voice for the voiceless. Let's advocate for equity in all aspects of health with special consideration for marginalized, vulnerable, and at-risk populations.



Inequities

Dr Mashkur Abdulhamid Isa (Nigeria/United Kingdom)

Dr Jooyoung Moon (Republic of Korea)

The COVID-19 pandemic has exacerbated health inequities across the world, making it more difficult than ever for underserved populations to receive quality health care. Junior doctors can demonstrate their leadership by advocating for their patients and communicating with local governments to support care for vulnerable populations. This historic moment highlights the need to support each other, join our strengths, and work together.



Communicate
and support

Dr Jooyoung Moon (Republic of Korea)

Dr Parth Patel (Malawi)

The greatest global health challenge remains equitable access to healthcare for vulnerable populations and the diminished participation of stakeholders representing these vulnerable groups. As junior doctors, we ought to hold ourselves accountable to ensure safe and secure access to healthcare services for the underprivileged.



Access to
healthcare

Dr Parth Patel (Malawi)

Dr Jeazul Ponce Hernández (Mexico)

One significant global health challenge is the lack of a global health strategy to reduce inequalities related to the availability and access of health services. For example, we observe that many high-income countries have access to COVID-10 vaccines, yet many low- and middle-income countries have limited or no access to COVID-19 vaccines. To end the COVID-19 pandemic, nations must form sustainable collaborations with local governments and community stakeholders. As junior doctors, we must use the power of our voices to contribute our clinical and public health knowledge to enhance our global health strategy.



Sustainable
collaborations

Dr Jeazul Ponce Hernández (Mexico)

Reflections about Global Health Challenges by JDN Members

Dr Yakubu Ahmadu (Nigeria)

For me, the most significant global health challenge is the uncertainty of public health surveillance related to the incidence and prevalence of infectious and chronic diseases across communities. Junior doctors should always be prepared to identify at-risk populations and develop innovative approaches to address these pressing issues in their clinical and community health practice.



Dr Dabota Yvonne Buowari (Nigeria)

The most significant global health challenge includes emerging and re-emerging infectious diseases worldwide. The COVID-19 pandemic has driven society to adapt infectious control practices – like social distancing, mask protection, handwashing, and vaccines – to reduce community spread of this novel coronavirus. As health care leaders, junior doctors should seek opportunities to strengthen their knowledge and skills in order to be prepared for future health challenges.



Dr Maymona Choudry (Philippines)

The most significant global health challenge is the resurgence of the third wave of the COVID-19 pandemic with the delta variant. The urgency of this resurgence has affected junior doctors in their workplace across the globe, often leading to illness and burnout. Junior doctors should seek opportunities to gain confidence with their patients and inform them about the importance of vaccinations as well as possible side effects.



Dr Leonard Goh Zhong Ning (Malaysia)

The most significant global health challenge is the widening chasm of income disparity across the world, which has been further exacerbated by the COVID-19 pandemic. Income is strongly associated with access to quality care, morbidity, mortality, and quality of life. Junior doctors can better advocate for their patients by being well-informed on local and global economic affairs and becoming involved in policy-making!

**Dr Imtiaz Hafiz (Bangladesh)**

The COVID-19 pandemic at the forefront in our clinical workplace is the most significant global health challenge to date. To address this burden, national health systems must revitalise essential healthcare services and prioritise infection control practices. Junior doctors play a significant role in these tasks, which will ensure the continuum of life-saving services amidst the pandemic.

**Dr Christopher Mathew (India)**

Poverty, illiteracy, and corruption leading to the inability of providing “basic health for all” remains a primary challenge in low-income countries. As junior doctors with *crimson hearts* and *snowy white souls*, we should take active roles with local and national leadership to identify solutions that can minimize the burden of these challenges!



Dr Merlinda Shazellenne (Malaysia)

The most significant challenge is fostering unity across nations, hierarchies, countries, regions, religions, races, and languages. When we are united, we work best and without prejudice, for the betterment of our world. Junior doctors must take the call to be united, lead, and make our voice heard across the world!



Dr Rabindra Prasad Yadav (Nepal)

One primary global health challenge is that doctor-patient rapport and trust have been hindered by misinformation spread by the internet or news sources. To address this challenge, junior doctors must incorporate novel approaches to best inform patients about updated health information in their clinical responsibilities.



Dr Frank Rodríguez Yopez (Panama)

Inequities represent a major global health challenge, which was clearly observed during the COVID-19 pandemic. As junior doctors, we should recognize inequities in our countries, work closely with our communities, and actively advocate for impactful changes.



Dr Marie-Claire Wangari (Kenya)

The quest for vaccine equity still plagues our world today, especially in low- and middle-income countries. Junior doctors are an invaluable human resource towards attaining vaccine equity globally. They can advocate and push their leaders and governments to do better and push for vaccination of all global citizens. Indeed it is, "*Nothing about us, without us.*"



Climate Change Working Group Update

[Yassen Tcholakov](#), MD MScPH MIH
Chairperson (2020–2021)
Climate Change Working Group Lead (2020–2021)
Junior Doctors Network
World Medical Association



In 2015, the Junior Doctors Network (JDN) Climate Change Working Group was formed to organize JDN work and increase the World Medical Association (WMA)'s capacity to engage in international climate change policy. It initially brought together JDN members who, after participating in past experiences in the field of climate change and health, were motivated by the desire to ensure that the voices of doctors were heard in the climate negotiations at the time. In this early history of the group, many of the activities consisted of planning, organizing, and coordinating advocacy related to negotiations of what would later become the Paris Agreement (**Photo 1**). At this time, the JDN was one of the few health groups which assiduously followed these negotiations.

The working group served as a platform where JDN members joined forces to collaboratively write articles, conduct advocacy relevant research, and contribute to WMA Policy. It recognized the unique position of health professionals in developing a positive narrative capable of influencing climate change policy as well as the unique experiences of JDN members in the field of climate change.

The Climate Change Working Group is currently functioning in an ad-hoc mode and only taking on tasks when opportunities arise. Nevertheless, the working group welcomes new project ideas from JDN members who would like to take on leadership roles in topics related to climate and health.



Photo 1. Meeting of Climate and Health advocates during COP21 in Paris, France in December 2015.
Credit: JDN.

Medical Ethics Working Group Update

[Lwando Maki](#), MBCHB DiPEC AHM MRSSAf
Medical Ethics Officer (2020–2021)
Chair, Medical Ethics Working Group (2020–2021)
Junior Doctors Network
World Medical Association



Medical Ethics form the foundation of the medical profession and comprise an integral part of global health. Over the past decade, health professionals have encouraged and stimulated discussions on diverse topics related to Medical Ethics, including clinical competencies and responsibilities, human and animal research, patient confidentiality, and end-of-life care. As such, junior doctors should be engaged as active leaders, encouraging continued dialogue amongst the global health workforce on these diverse themes.

In June 2019, the Junior Doctors Network (JDN) formed the Medical Ethics Working Group as a global network where junior doctors can share essential information, resources, and activities on Medical Ethics topics. This working group aims to increase awareness about Medical Ethics amongst junior doctors through innovative and scholarly activities. It has had activities on Medical Ethics topics and encourages the active participation of junior doctors in policy analysis, policy review, and research collaboration related to Medical Ethics topics. The team has successfully completed many activities during 2021 (**Figure 1**).

If you are interested in Medical Ethics and would like to participate with other JDN colleagues in collaborative activities, please contact Dr Lwando Maki (Chair, JDN Medical Ethics Working Group: dr.lwando.maki@gmail.com).

Stay connected, and let your voice reach the world!

Sincerely,
Lwando Maki

- ❑ **Medical Ethics Alive:** Coordinated the Grand Round Webinar Series with Médecins Sans Frontières/Doctors Without Borders on “Vaccine Equity”. Prepared logistics for first (Spanish) bilingual JDN webinar scheduled for February 2022.
- ❑ **Medical Ethics Collaboration:** Submitted the draft proposal of the first JDN Working Group focusing on LGBTQIA awareness.
- ❑ **Medical Ethics Papers:** Submitted three scientific manuscripts to the *World Medical Journal*. Completed a second collaboration (Medical Ethics Special Edition of the *JDN Newsletter*) with the Publications Team.

Figure 1. Medical Ethics Working Group activities during 2021.

Medical Exchange, Education, and International Mobility Working Group Update

[Uchechukwu Arum](#), MD

Education Director (2020–2021)

Chair, Medical Exchange, Education, and International Mobility

Working Group (2020–2021)

Junior Doctors Network

World Medical Association



Founded in last quarter of 2020, the Medical Exchange, Education, and International Mobility Working Group is comprised of energetic, highly motivated, and dedicated Junior Doctors Network (JDN) members who are interested in the advancement of medical education. Education is one of the vital mission statements of the JDN, since the adequate education of healthcare workers ultimately translates into optimal patient care.

Over the past few months, our Working Group has coordinated several activities for continued learning and networking (**Figure 1**).

- ❑ **January 2021:** JDN members connected on the first quarterly Working Group telecon.
- ❑ **February 2021:** The Working Group participated in the Accreditation Council for Graduate Medical Education (ACGME) annual conference, which was held virtually from February 24-26, 2021. Using the theme, “Meaning in Medicine: Mastering the Moment”, JDN members attended various conference sessions and expanded their networks within the graduate medical community.
- ❑ **March 2021:** The Working Group Lead (Dr Uchechukwu Arum) coordinated the “Doctors’ Well-being” webinar on March 20, 2021. The keynote speakers included Dr Stuart Slavin, a renowned ACGME Senior Scholar on Doctors’ Well-being, and Dr Elizabeth Gitau, Chief Executive Officer of the Kenya Medical Association.
- ❑ **April 2021:** The Working Group Lead (Dr Uchechukwu Arum) coordinated the Working Group sessions at the JDN biannual meeting.
- ❑ **May 2021:** The Working Group participated in the UNESCO World Conference on Education for Sustainable Development.
- ❑ **February-June 2021:** The Working Group collaborated with the JDN Publications Team to publish the Doctors’ Well-being Special Edition of the *JDN Newsletter*.
- ❑ **June 2021:** JDN members connected on the second quarterly Working Group telecon.
- ❑ **August 2021:** The Working Group Lead (Dr Uchechukwu Arum) represented the JDN in the revision of World Federation for Medical Education Post-graduate Standards.

Figure 1. Coordinated Medical Exchange, Education, and International Mobility Working Group activities for January-August 2021.

The Working Group will continue to explore avenues to partner with health institutions that encourage medical exchange and international mobility. With the increased mobility of the medical workforce across countries and continents, interdependence of nations in combating disease, and globalisation, there is need for continued exchange of innovative ideas and expertise.

As JDN members, we are leaders at the forefront of health advocacy and can empower other physicians to learn more about pressing health topics associated with medical exchange and international mobility.

The Working Group welcomes JDN members to contribute ideas and participate in activities that will help advance medical education. These efforts will ultimately advance the delivery of high-quality medical care and positively impact population health. If you are interested in medical education and would like to participate with other JDN colleagues on our virtual meetings and collaborative activities, please contact Dr Uchechukwu Arum (Chair, JDN Medical Exchange, Education, and International Mobility Working Group: arumaco@gmail.com).

Sincerely,
Uchechukwu Arum

Ethical Dilemmas in Post-graduate Training during the COVID-19 Pandemic

[Rui Lourenço Teixeira](#), MD PhDc

Faculty of Medicine, University of Lisbon
Centro Hospitalar e Universitário de Lisboa Norte
Lisbon Academic Medical Center
Lisbon, Portugal



Since 2020, society has been managing the coronavirus disease 2019 (COVID-19) pandemic that has completely shifted our daily clinical work. As the first specialty areas to become involved, the departments of internal medicine and intensive care units have continued to demonstrate resilience throughout the pandemic response efforts.

Like a long-standing war, many health professionals, namely doctors and nurses, have been mobilized like soldiers to the battlefield.

Over the past year, we have seen increased rates of COVID-19 incidence and hospitalization, forcing hospitals to shift most of their clinical work to care for COVID-19 patients (1). This process has not only changed the physical configuration of our departments, but it has also increased the allocation of health care workers to COVID-19 units (2). Doctors and nurses with training in critical care, infectious diseases, and respiratory medicine were mobilized to newly created intensive care units. Then, dermatologists, rheumatologists, and clinical oncologists were assigned to COVID-19 inpatient departments and emergency rooms.

Although serving our population during such crisis is a noble action, a few questions remain:

- ☐ How many resources are needed?
- ☐ Between senior and junior doctors, who should be the first clinician to care for COVID-19 patients?
- ☐ What criteria should be used in assigning doctors to COVID-19 units?
- ☐ Since many junior doctors are fully engaged in COVID-19 units, how long should post-graduate training be postponed?

By reflecting on these questions, three ethical dilemmas have arisen in clinical practice.

Dilemma 1: Fulfilling Training Requirements

With several months assigned to COVID-19 health services – outside of their primary medical training – junior doctors have been unable to fulfill their internship or training requirements. Hence, they do not believe that they will be able to finish their post-graduate trainings on their anticipated timeline. However, the question remains: How long will the post-graduate medical training be postponed before trainees can complete the requirements? Although many countries have developed different solutions, no strategy has been publicly discussed (3).

Dilemma 2: Pursuing Doctoral Research Training

Like junior doctors in medical residency programs, similar challenges were faced by junior doctors pursuing doctoral research training. Since hospitals focused on COVID-19 clinical management, many research laboratories were closed or repurposed for COVID-19 diagnostic efforts. Although some clinical research programs were halted, clinical and non-clinical researchers were encouraged to adapt their research on COVID-19-related topics. Unfortunately, compensation or additional research grants were not frequently awarded.

Dilemma 3: Receiving Professional Recognition

Health care professionals – who have been involved with the clinical management for COVID-19 and non-COVID-19 patients alike – have been honored by public and civil authorities as *heroes* across the world. Some health systems have recognized this global workforce with financial compensation or awards. However, we must reflect on the best approach to acknowledge this global workforce: Is a symbolic financial amount sufficient, especially as we consider this high-risk workplace setting? How should society award this gratitude? Which ethical values should be considered when awarding such valuable professionals?

We are living a fundamental opportunity to look again for our ethical values framework and to take choices accordingly.

Critical times, such as the COVID-19 pandemic, tend to expose the weaknesses of our national and global health systems. However, they also offer an opportunity for reflections on lessons learned, where health leaders can identify strengths, achieved milestones, and areas for improvement. At the same time, medical post-graduate training is a precious window of time for trainees **(Photo 1)**. Difficult decisions must be made in relation to the training of junior doctors.

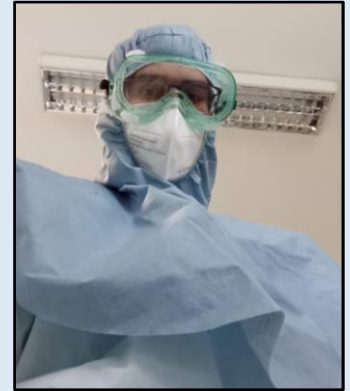


Photo 1. Dr Rui Lourenço Teixeira working in the hospital in Portugal. Credit: Dr Rui Lourenço Teixeira.

References

- 1) Kokudo N, Sugiyama H. Hospital capacity during the COVID-19 pandemic. *Glob Health Med.* 2021;3:56-59.
- 2) McCabe R, Schmit N, Christen P, et al. Adapting hospital capacity to meet changing demands during the COVID-19 pandemic. *BMC Med.* 2020;18:329.
- 3) Byrne LM, Holmboe ES, Combes JR, Nasca TJ. From medical school to residency: transitions during the COVID-19 pandemic. *J Grad Med Educ.* 2020;12:507-511.
- 4) Padala PR, Jendro AM, Padala KP. Conducting clinical research during the COVID-19 pandemic: investigator and participant perspectives. *JMIR Public Health Surveill.* 2020;6:e18887.

Public Health Ethics during the COVID-19 Pandemic

[Frank Rodríguez Yepez](#), MD
Consultant, Pan American Health Organization
Panama Country Office
Panama City, Panama



Public health is the science and art of protecting and improving the health of the population as a whole.

Through public health interventions, health workers can ensure societal conditions under which people can lead healthier lives. Given this population-based focus, public health often faces ethical dilemmas related to the extent of its reach and at what point the interventions can infringe on individual liberties. This may differ from the ethical dilemmas faced by medical interventions, which are based on individual interactions between physicians and patients (1,2).

Medical ethics is based on four main principles – beneficence, non-maleficence, autonomy, and justice – that can help identify moral dilemmas related to healthcare and biomedical research. Some challenges are often related to the physician-patient relationship, including abuses of power and shared decision-making about treatment. These principles are explicit in describing physicians' responsibilities toward patients and the wider community (1,2). Even though public health concurs with the principles of medical ethics, it is difficult to fulfill the expectations of the entire population.

An intervention that may be considered appropriate for one population may not be appropriate for every individual within that same population, and hence recognizing existing inequalities within populations (1,2).

Over the past decades, public health ethics is an academic field that has been flourishing extensively (3). Despite this growth, however, there is no current validated public health ethics framework or code that can help provide a guideline in public health actions to address ethical dilemmas at the global level (1,4). Some first steps have included three scientific publications supported by the *American Journal of Public Health*, the *American Journal of Bioethics*, and the American Public Health Association (1,3,4). In fact, the APHA's Public Health Code of Ethics offers a list of foundational ethical values of public health: Professionalism and trust; Health and safety; Health justice and equity; Interdependence and solidarity; Human rights and civil liberties; and Inclusivity and engagement (4).

Moving forward, the current COVID-19 pandemic represents an opportunity to strengthen the process for documenting and sharing best practices and success cases as useful resources that can nurture future discussions.

Each proposed intervention should seek to gain community trust by relaying evidence-based information in a clear and understandable form (**Figure 1**). Public health work should be transparent and not be influenced by secondary interests. Unfortunately, we have observed how opaque political management and economical influences can jeopardize community trust towards health authorities, including widespread corruption and the promotion of unapproved treatments.



Figure 1. The COVID-19 pandemic has shown the interconnectedness of our global society. Credit: [Pexels](#).

Using a public health lens, justice addresses the issue of fairness – in terms of the distribution of intervention risks and benefits – ensuring that disparities related to health conditions or outcomes among subgroups are minimized or eliminated (2). During the COVID-19 pandemic, one clear example is vaccine equity, where the economic position of countries has greatly influenced the vaccine distribution process. According to the World Health Organization, as high-income countries were discussing booster shots, less than

one percent of populations in some low-income countries had received vaccines to date (5). Since the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) knows no borders, our global society needs solidarity and equitable distribution of vaccines to slow down this pandemic, save lives, and achieve economic recovery (**Figure 2**).

During the COVID-19 pandemic, we have witnessed the rise of anti-vax and anti-mask movements. However, the real question remains: To what extent can these individual liberties be allowed if they will jeopardize the health and well-being of an entire community?



Figure 2. Global access to COVID-19 vaccines offers the best hope for slowing the COVID-19 pandemic. Credit: [Pexels](#).

References

- 1) Kass NE. An ethics framework for public health. *Am J Public Health*. 2001;91:1776-1782.
- 2) Swain GR, Burns KA, Etkind P. Preparedness: medical ethics versus public health ethics. *J Public Health Manag Pract*. 2008;14:354-357.
- 3) Prah Ruger J. Positive public health ethics: toward flourishing and resilient communities and individuals. *Am J Bioeth*. 2020;20:44-54.
- 4) American Public Health Association. [Public health code of ethics](#). 2019 [cited 2021 Aug 30].
- 5) Georgieva K, Adhanom Ghebreyesus T, Malpass D, Okonjo-Iweala N. [A new commitment for vaccine equity and defeating the pandemic](#). 2021 [cited 2021 Aug 30].

Junior Doctors Lead a Global Call to Action to Promote Multidisciplinary Collaborations

[Helena Chapman](#), MD MPH PhD
Publications Director (2020–2021)
Junior Doctors Network
World Medical Association



***“Look deep into nature, and then you will understand everything better”
– Albert Einstein***

Emerging environmental health risks can lead to an imbalance in the surrounding aquatic, atmospheric, and terrestrial ecosystems, which can ultimately impact human and animal health. The complex interplay of factors connecting human, animal, and environmental health is recognized as the One Health concept (1).

In 2020, the World Health Organization (WHO) recognized 13 global health challenges to monitor over this “decade of action” – including climate change, spread of infectious diseases and antimicrobial resistance, and unprepared health systems during epidemics or crises – which will require substantial global investment to quantify risk, implement mitigation actions, and build community and environmental resiliency (2) **(Figure 1)**.

- ☐ Elevating health in the climate debate
- ☐ Delivering health in conflict and crisis
- ☐ Making health care fairer
- ☐ Expanding access to medicines
- ☐ Stopping infectious diseases
- ☐ Preparing for epidemics
- ☐ Protecting people from dangerous products
- ☐ Investing in the people who defend our health
- ☐ Keeping adolescents safe
- ☐ Earning public trust
- ☐ Harnessing new technologies
- ☐ Protecting the medicines that protect us
- ☐ Keeping health care clean

Figure 1. Urgent health challenges for the next decade.
Source: World Health Organization (2).

Global health leaders will need to form multidisciplinary collaborations that can identify vulnerable populations and develop prompt interventions that can mitigate risk to population health and achieve the targets of the Sustainable Development Goals.

Notably, the coronavirus disease 2019 (COVID-19) pandemic underscored the need to better understand the One Health concept, including the impact of the lockdown restrictions on Earth's systems that exacerbated social and health disparities, including exposure to air pollution (3). To connect global decision-makers and stakeholders, junior doctors are uniquely trained to lead these dialogues that discuss innovative scientific approaches, share relevant data and technologies, and stress the value of multidisciplinary collaborations. These efforts will promote global solidarity and ultimately bridge the scientific knowledge gap with forward steps to achieve national (e.g. Ministry of Health) and international priorities (e.g. Sustainable Development Goals).

Identifying Novel Scientific Approaches and Data Sources

"To raise new questions, new possibilities, to regard old problems from a new angle, requires creative imagination and marks real advance in science" (Albert Einstein). As junior doctors complete their post-graduate training in medical and research specialties, their training is typically focused on learning the principles of clinical medicine and epidemiology as the foundation of public health. During the COVID-19 pandemic, however, global leaders gained insight on the One Health concept and the benefit of multidisciplinary collaborations, which incorporate diverse scientific approaches to advance scientific inquiry. As a result, global experts from environmental sciences to economics – including junior doctors – were widely involved in forming roundtables, developing data dashboards, and presenting conference keynotes – all in efforts to better understand the spread of COVID-19.

Junior doctors can continue to expand their knowledge toolbox with complementary training that can advance their community health and research activities.

Four examples of innovative scientific approaches can offer junior doctors a holistic view of the social determinants of health – including the social environment, physical infrastructure, and access to health care services – that influence community health and well-being (4). First, [satellite data](#) (e.g. National Aeronautics and Space Administration, NASA) can complement traditional epidemiological approaches by offering real-time information of public health importance about the natural and anthropogenic changes to surrounding ecosystems. Second, data dashboards like the [COVID-19 Earth Observation Dashboard](#), supported by NASA, the European Space Agency, and the Japan Aerospace Exploration Agency, present over 100 data indicators – economic, agriculture, water, air, and health – to examine the effects of environmental and economic factors of the COVID-19 pandemic.

Third, [citizen science applications](#), defined as public participation in the research process of data collection and analysis, can be instrumental to expand data collection coverage as well as validate ground-based data with other data sources (e.g. satellite data). Finally, qualitative research designs and analyses – such as case study, ethnography, grounded theory, narrative, and phenomenology – can offer an instrumental lens to explore the social dimensions of emerging environmental risks that influence individual and community health and well-being.

Leveraging Scientific Knowledge through Multidisciplinary Collaborations

“Coming together is a beginning, staying together is progress, and working together is success” (Henry Ford). Junior doctors, who are currently pursuing an array of clinical disciplines across global settings, continue to collaborate on Junior Doctors Network (JDN) working groups and provide commentary on World Medical Association (WMA) policy statements. They have contributed their expertise through their participation in national and international conferences and meetings as well as publications on original research, reviews, and commentaries. These key activities provide insightful dialogue about existing knowledge gaps and health inequities, propose critical policy analyses, and offer recommendations to guide future community action in their countries. However, junior doctors can expand their professional networks with other scientific communities – including environmental and social scientists – where they share resources and build innovative partnerships to advance scientific inquiry and discovery.

Two examples of multidisciplinary collaborations provide a unique platform for junior doctors to impart their knowledge and skills and foster shared learning in global teams.

First, the [Group on Earth Observations \(GEO\) Health Community of Practice](#) serves as a global network of professionals who use satellite data to improve health decision-making at local, national, and international levels (**Figure 2**). Biweekly community teleconferences, small work groups (heat, infectious diseases, air quality, food security and safety, health care infrastructure), and symposia (e.g. GEO Virtual Symposium 2021, AmeriGEO Week 2021) present opportunities for researchers and practitioners to leverage their proficiencies, identify research and practice gaps, and discuss next steps to advance the scientific knowledge base.

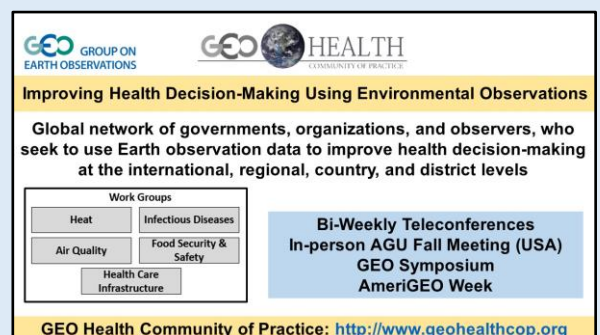


Figure 2. GEO Health Community of Practice.
Credit: Dr Helena Chapman.

Second, the One Health Social Sciences Initiative of the [One Health Commission](#) offers a network of social scientists that aims to identify and address the root causes of disease and determinants of community health through social science methods and approaches (**Figure 3**). Small work groups (climate change and environmental justice, food security, infectious diseases, pandemic control, policy) provide a stage for in-depth dialogue about current knowledge gaps and best approaches to build global partnerships.

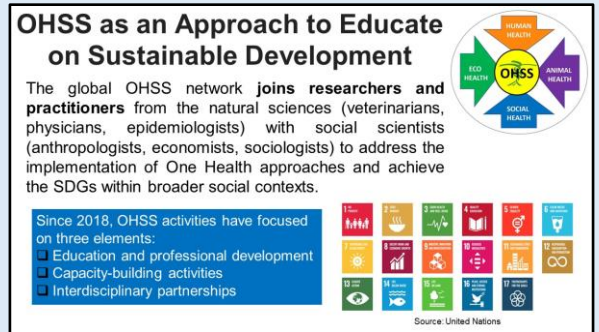


Figure 3. One Health Social Sciences Initiative of the One Health Commission. Credit: OHSS.

The WHO recognized the International Year of Health and Care Workers in 2021, and it is time to highlight the key contributions of health care workers throughout the year – including those frontline workers during the COVID-19 pandemic. As global leaders develop management plans for emerging One Health risks – especially climate resilience for sustainable development and pandemic preparedness – junior doctors can lead the call to action that connects scientific disciplines in cross-cutting research applications to explore community needs and develop solutions to safeguard population health. As they have demonstrated their unique societal contributions in clinical and community health, health education activities, and community advocacy during the COVID-19 pandemic, they are strategically placed to guide national and global discourse that prioritizes the incorporation of diverse scientific approaches in multidisciplinary collaborations and partnerships to minimize community risk of endemic and epidemic health threats.

Together, junior doctors can lead discourse on key health priorities that prioritize the One Health concept in national and global health decision-making activities!

References

- Centers for Disease Control and Prevention. [One health](#). 2020 [cited 2021 Sep 1].
- World Health Organization. [Urgent health challenges for the next decade](#). 2020 [cited 2021 Sep 1].
- Kerr GH, Goldberg DL, Anenberg SC. COVID-19 pandemic reveals persistent disparities in nitrogen dioxide pollution. *Proc Natl Acad Sci U.S.A.* 2021;118:e2022409118.
- Centers for Disease Control and Prevention. [NCHHSTP social determinants of health](#). 2019 [cited 2021 Sep 1].

Digitization of Healthcare Service Delivery in Low- and Middle-income Countries

[Parth Patel](#), MBBS
Atlas Medical Center
Blantyre, Malawi

[Sahiba Maniar](#), MBBS
Grant Medical College and Sir Jamshedjee
Jeejeebhoy Group of Hospitals
Mumbai, India



Globally, as we continue to suffer from exponentially rising health inequities, the consequence of such situations leaves populations more vulnerable to degrading socio-economic conditions. In contrast, healthcare delivery is experiencing growing technological advancements with the use of telemedicine and other inventions. Many digital projects aimed at improving both access to healthcare and the quality of healthcare delivery in low- and middle-income countries (LMICs) have focused on healthcare challenges in LMICs. These initiatives are now more clearly focused on the need for effective scaling and integration to provide long-term benefit to healthcare systems, having progressed beyond the initial phase of piloting and experimentation.

Digital advancements in health are aimed to reduce time, increase precision, and streamline efficiency through technological innovations.

These inventions are capable of combining medical and the Internet of Things (IoT), including mobile health (mHealth), antiretroviral therapy, blockchain technology, and electronic medical records. Medical internet (IoMT) refers to the combination of medical equipment and health information technology system applications that utilize networking technology. The IoT uses cases of telemedicine to improve communication between patients and physicians, reduce exposure potentials for contagious illnesses, and use different intelligent sensor technologies capable of collecting data at the user level. For instance, as a result of the coronavirus disease 2019 (COVID-19) pandemic, demand for telehealth services increased, with more clinicians depending on technology to offer virtual consultations for patient management.

Innovative IoT applications continue to be useful in the provision of healthcare services, particularly in chronic disease management. For example, mHealth – including wearables, applications, and mobile systems – can offer access to healthcare services and help monitor some health conditions. The COVID-19 pandemic has led to a growing demand for wearables for personal health surveillance, which directly connects medical and consumer equipment. Wearable device suppliers have included cardiac variability features, continuous glucose monitoring, electrocardiography, and pulse oximeters.

The use of artificial intelligence (AI) can enhance human decision-making through automation and accelerate work-intensive jobs in healthcare applications.

For example, several hospitals use AI-based patient surveillance tools to collect patient information and provide real-time clinical management. The application of AI in medical imaging can enhance protocol and reduce the number of steps required to execute a specific task. Furthermore, a digital twin AI program can mimic medical devices and patients as well as show how devices might function in real-life situations.

The implementation of telemedicine has helped close the health inequity gap, and there are several benefits to consider in clinical practice.

- ❑ **Consultation convenience.** The challenge of time restrictions makes telemedicine a more convenient healthcare service. The use of video calls, telephone calls, and web chat allows clients to receive clinical evaluations and seek follow-up consultations on prescriptions with doctors with their network.
- ❑ **Less waiting time.** Telemedicine can significantly reduce the waiting time at office visits, since it only takes minutes to register health history on the online system.
- ❑ **Cost-efficiency.** A rising proportion of doctors charge less for teleconsultations when compared to their face-to-face consultations. Since telemedicine can reduce travel costs, families living in rural areas can benefit from increased access to healthcare services from the comfort of their homes.
- ❑ **Efficient transmission systems.** These systems enhance how doctors communicate and receive patients' radiological and laboratory reports, as alternative measures to personal visits and mail.
- ❑ **Confidentiality.** Telemedicine complies with Health Insurance Portability and Accountability Act (HIPAA) standards aimed at preventing the leakage of personal health information.

Despite data supporting telehealth provision in high-income countries, there is no current evidence of its economic benefits for patients living in LMICs, where access and cost are major impediments to healthcare services. Hence, telemedicine has a few limitations.

- ❑ **Electronic glitches.** As technology depends on the power supply, increased weather and other disturbances may lead to power outages or interrupted internet access, which can disrupt an online medical appointment.
- ❑ **Physician resistance.** Doctors, who struggle to use modern technology comfortably, may resist use of this innovative technology.
- ❑ **Inadequate assessment.** Virtual interactions with primary healthcare providers or dentists may fail to identify key non-verbal cues and lead to incomplete clinical assessments.

Moving forward, there remains a pivotable need to improve public knowledge and understanding of how digital healthcare systems work as well as overall awareness of the benefits of telemedicine over traditional consultation approaches. The telemedicine design process should involve community feedback at all steps, including procurement and availability of uniformly distributed infrastructure, and consider four additional elements. First, in order to identify societal demands, these efforts should entail efficient cooperation with local leaders, healthcare experts, academic establishments and educators, healthcare administrators, and local policymakers. Second, funding for healthcare-enhancing innovations should focus on technology and social innovation. Third, telemedicine programs that consider visual or hearing impairment, literacy levels, and learning disabilities are essential to eliminate current health inequities and inequalities.

Although telemedicine can minimize health inequalities and allow the achievement of universal health coverage in LMICs, telemedicine applications should be more human-centered to respond to real-time scenarios.

References

- 1) Labrique AB, Wadhvani C, Williams KA, et al. Best practices in scaling digital health in low and middle income countries. *Global Health*. 2018;14:103.
- 2) Bernstein C. [Digital health \(digital healthcare\)](#). SearchHealthIT. 2021 [cited 2021 Aug 24].
- 3) Harper J. [Pros and cons of telemedicine for today's workers](#). *US News*. 2012 [cited 2021 Aug 24].
- 4) Babatunde AO, Abdulazez AO, Adeyemo EA, Uche-Orji CI, Saliyu AA. Telemedicine in low and middle income countries: closing or widening the health inequalities gap? *European J Env Publi*. 2021;5:em0075.

Social Accountability: One Step at a Time

[Nishwa Azeem](#), MBBS

Research Assistant, Acute Stroke Center
Lahore General Hospital
Lahore, Pakistan



The World Health Organization (WHO) has defined social accountability as: *“the obligation to direct their education, research and service activities towards addressing the priority health concerns of the community, the region, and/or the nation they have a mandate to serve. The priority health concerns are to be identified jointly by governments, health care organizations, health professionals and the public”* (1). In this participatory process, citizens are engaged to hold politicians, policymakers, and public officials accountable for the provision of services (1). There is a growing body of research on the role of social accountability in bringing about more accessible and high-quality healthcare, including the *World Development Report 2004: Making Services Work for Poor People* (2,3).

In most democracies, the idea of accountability is embedded in the notion of electoral votes for political parties or officials whose political mandates indicate specific policies (e.g. healthcare) to pursue once elected. They often use generic, catchy slogans that promise high-quality health services for all. These political mandates, however, show few details on the exact policy reforms, feasibility studies, or any monitoring mechanisms to ensure quality implementation of these so-called reforms.

These efforts call for the need for continuous civic engagement in public service delivery.

Three primary stakeholders can be identified in the healthcare service system: the government, healthcare providers, and the community. In a country like Pakistan, where universal health coverage is still a farfetched dream, this article highlights existing challenges and offers recommendations when implementing the framework of social accountability.

Disseminating Information

Pakistan has an estimated 60% literacy rate and a low voter turnout, betokening little political participation by the people. In a country like Pakistan, 70% of the national health expenditures is paid out-of-pocket by citizens seeking private healthcare. This observation shows the failure of government services. To address this burden, the first step to social accountability is to inform the public of their right to health through high-quality and accessible healthcare services.

This step can encourage the development of health campaigns that offer more clear and understandable public messaging on pressing health issues.

Knowledge of Rights

Junior doctors are a product of the healthcare system, where welded professional hierarchies and top-to-bottom health policy changes are a social norm. Oftentimes, they are uninformed of their rights throughout their medical training. To increase their general awareness, health authorities should ensure that they have the right to respectable pay, appropriate workplace environments, and personal security.

Community Involvement

Civil society engagement means aligning healthcare priorities towards community needs by meeting with community members and listening to their narratives. First, when policies are made in closed offices by bureaucrats who are not always representative of the communities, but rather come from a place of privilege, technocratic policies that are quixotic and ineffective in the real world are bound to fail. Each union council (local government) should make the annual budget accessible and open to community discussion. Through public dialogue, the alignment of budget priorities will be truly reflective of community needs and desires. For instance, the community may prefer more doctors or an emergency doctor at the local hospital, instead of building a new primary healthcare clinic. Hence, by considering the priorities of community members, healthcare workers can support dialogue platforms between communities and their governing bodies, while expanding coverage to marginalised groups.

To improve accessibility, a 'bottom-up' approach to policy with customised communication plans is needed.

Monitoring and Evaluation Methods

Once these reflective policies are developed, it is important to monitor and evaluate healthcare provisions as well as existing challenges for healthcare and administrative workers. It is equally critical to provide an open channel for them to be able to voice their concerns over their well-being, satisfaction, and workplace stressors. For example, junior doctors can experience significant levels of burnout or exhaustion that can impact their attention and focus (4). Also, the Lady Health Workers went on strike for three months when they were not paid their salaries, which led to a colossal impact on the polio vaccination drive in Pakistan. To address these challenges, patient feedback, clinic exit interviews, and community scorecards are essential to keep services effective and encourage continuous problem-solving. Studies show that integrating patients' perspectives can potentially increase patient satisfaction with consultation as well as result in better management decisions and optimal health outcomes (5,6).

Working as a junior doctor, I have witnessed how doctors and patients can become frustrated. Patients are frustrated that they cannot access high-quality healthcare services and have to resort to substandard private practices. Doctors are frustrated for having to work inhumane hours in unhealthy and unsafe working environments, while having to deal with patient complications due to seeking private healthcare services. The problem arises when the needs of communities and healthcare providers are not addressed, which fosters an environment of animosity and mistrust in the medical profession.

These problems are not inherent to healthcare systems. They can be solved through social accountability and collective action.

References

- 1) Boelen C, Heck JE; World Health Organization. [Defining and measuring the social accountability of medical schools](#). Geneva: WHO; 1995.
- 2) Boydell V, McMullen H, Cordero J, et al. Studying social accountability in the context of health system strengthening: innovations and considerations for future work. *Health Res Policy Sys*. 2019;17:34.
- 3) World Bank. [World Development Report 2004: making services work for poor people](#). Washington, DC: World Bank; 2003.
- 4) Beyond Blue. [National mental health survey of doctors and medical students](#). Melbourne, Australia: Beyond Blue; 2013.
- 5) Frosch DL, Kaplan RM. Shared decision making in clinical medicine: past research and future directions. *Am J Prev Med*. 1999;17:285-294.
- 6) de Ridder DTD, Theunissen NCM, van Dulmen SM. Does training general practitioners to elicit patients' illness representations and action plans influence their communication as a whole? *Patient Educ Couns*. 2007;66:327-336.

Health Workforce Training in Organ and Tissue Donation in Mexico

[Cinthya Lucio](#), MD MSc

Medical Coordinator, National Transplantation Centre
Ministry of Health
Mexico City, Mexico



Transplants are one of the therapeutic and surgical alternatives to improve health and quality of life. They have been successfully performed since the second half of the 20th century. Although the world's first successful kidney transplant was performed in 1954, the first kidney transplant in Mexico occurred in 1963 (1). From a health systems perspective, transplants correspond to the attention of high specialty services, focused on the individual level.

A series of regulatory, operational, organisational, economic, health, and educational aspects are required to perform an organ transplant.

This process begins with the identification of a potential organ or tissue donor. According to Mexico's General Health Law, hospitals that conduct these procedures must have a donor coordinator (DC) (2). This health professional handles the evaluation and selection of potential donors and promotes organ donation. This role is fundamental, principally because the DC contributes to increasing the number of potential tissue and organ donors within hospitals.

Some decision-makers argue that it is vital to focus efforts on increasing community awareness and acceptance of organ donations, especially since relatives can refuse these procedures. According to several surveys, however, a significant proportion of people have expressed interest in becoming a donor (3,4). Therefore, since multiple health service factors are involved – including the person's willingness to donate, time required for the delivery of the body, administrative procedures, and comprehensive knowledge about the process – a DC should intervene efficiently.

The DC is a medical specialist or general practitioner with experience and training in donation and transplantation.

Training of the Donor Coordinator

In Mexico, the National Transplant Centre, a specialised agency of the Ministry of Health, provides training through the *Diploma for the Training of Coordinators for Organ and Tissue Donation intended for Transplantation*. With the inaugural session held in 2005, the Ministry of Health has supported a total of 55 sessions until 2021. The syllabus consists of two phases of theory (two weeks) and clinical practice (four weeks). Due to the coronavirus disease 2019 (COVID-19) pandemic, the theoretical phase has been conducted online, where participants have the opportunity to learn remotely from various experts on legal, bioethical, clinical, and administrative topics related to donation and transplantation processes. The clinical practice phase takes place in licensed hospitals under the guidance of a senior DC.

In Mexico, the medical degree is awarded after successful completion of the 4-5 year program of basic and clinical sciences, including one year of rotating internships and one year of community service. Although most students are assigned to a primary health care centre during the community service, alternatives include rotations in research, clinical care in general hospitals, and the donation and transplantation program. Currently, 12 universities have implemented the donation and transplantation program, and 12 medical school cohorts have graduated each year. Part of the training programme includes the aforementioned diploma and a course in research methodology to conduct projects that strengthen donation and transplantation activities.

Eleven years ago, I served as a Local Officer of Public Health of the International Federation of Medical Students' Associations (IFMSA). In this role, I commenced promoting organ and tissue donations through community educational campaigns. Currently, as a Medical Coordinator of the National Transplantation Centre, I am incredibly satisfied to contribute to these training programmes as a professor and advisor to future generations of health professionals. Undoubtedly, the health workforce – including DCs – are at the core of health systems, and they must be sufficiently competent to implement these processes with high standards of quality and efficiency.

After all, training and education strategies are essential to increase organ and tissue donations for the benefit of people whose lives depend on a transplant.

References

- 1) Hatzinger M, Stastny M, Grützmacher P, Sohn M. [The history of kidney transplantation]. *Urologe A*. 2016;55(10):1353-1359. German.
- 2) Diario Oficial de la Federación (Government of Mexico). [Ley General de Salud](#). Mexico City, Mexico: Government of Mexico; 2018. Spanish.
- 3) López-Falcony R, Ramírez-Orozco R, Ortiz-Aldana FI, et al. Attitudes toward organ donation and transplantation in Guanajuato, Mexico. *Transplant Proc*. 2016;48(2):556-558.
- 4) Wakefield CE, Watts KJ, Homewood J, Meiser B, Siminoff LA. Attitudes toward organ donation and donor behavior: a review of the international literature. *Prog Transplant*. 2010;20:380-391.

Who Can Heal My Pain?

[Dabota Yvonne Buowari](#), MD

Department of Accident and Emergency
University of Port Harcourt Teaching Hospital
Port Harcourt, Rivers State, Nigeria



Who can heal my pain
After I have been raped?
Who heals my pain
After my daughter has been raped?
Who can heal my pain
After I am sexually assaulted?
The pain is physical
The pain is emotional and psychological
The pain is deep in the heart
That it cannot be seen
The pain creates a hole in my heart
Where no medication can reach
No one can understand how I feel
Even the psychologist cannot provide healing
The pain which leaves scars beneath my flawless skin
Remains part of my soul

Note: As a member of the Medical Women Association of Nigeria, Rivers State Branch, the author dedicates this poem to the victims, survivors, and families of sexual assault.

The Impact of the COVID-19 Pandemic on Junior Doctors: Perspectives from a Nigerian Physician

[Dabota Yvonne Buowari](#), MD

Department of Accident and Emergency
University of Port Harcourt Teaching Hospital
Port Harcourt, Rivers State, Nigeria



During my undergraduate years in medical school at the University of Port Harcourt, in Nigeria, I learned about economic, health, and social challenges experienced during epidemics as well as pandemics throughout history. I was also encouraged to update my medical knowledge about emerging diseases. After the World Medical Organization declared the coronavirus disease 2019 (COVID-19) as a pandemic in March 2020, the Nigerian Ministry of Health took several steps to train healthcare workers on best clinical practices for clinical diagnosis, treatment, and use of personal protective equipment.

As a physician working in the emergency department in a Nigerian teaching hospital, I share five lessons learned that junior doctors can apply during their medical training – during the COVID-19 pandemic and beyond.

Lesson 1: Empathy

During the peak of the first wave of the COVID-19 pandemic, universal precautions were observed, such as strict handwashing practices, physical distance between doctors and patients during consultations, and use of personal protective equipment like facemasks and face shields. During clinical interactions, active communication and empathy are essential to maintain rapport with patients and encourage health and well-being. Junior doctors can refine these valuable skills, which offer close connections with patients and families during difficult conversations in clinical management, such as disease complications and end-of-life decisions.

Lesson 2: Comprehensive Medical History and Evaluation

Working in the emergency department requires rapid clinical decision-making to provide timely disease management. However, accuracy, quality of care, and safety are important elements to completing a comprehensive medical history and physical examination. Junior doctors can apply their medical knowledge as well as understanding of ethical principles of autonomy, beneficence, non-maleficence, and justice in clinical practice with patients and families. Since the application of ethical principles in clinical practice can present unique challenges, they can seek guidance and share best practices with colleagues and supervisors.

Lesson 3: Continuous Medical Education and Professional Development

Emerging health challenges require healthcare workers to remain up-to-date on clinical diagnosis, treatment, and prevention strategies. Junior doctors are responsible to take appropriate continuous medical education and professional development courses to prepare for the expected and unexpected clinical scenarios. They can also participate in clinical case discussions and journal clubs to discuss novel diagnosis and treatment, identify additional resources, and share lessons learned.

Lesson 4: Finding Work-Life Balance

Work-life balance is essential to maintain optimal health and well-being during medical training. During the COVID-19 pandemic, junior doctors have experienced Zoom fatigue and burnout, especially managing increased clinical responsibilities in the workplace. In addition to their clinical practice, they were required to attend numerous virtual trainings, workshops, and conferences in order to remain up-to-date with the rapid publications on COVID-19. Hence, although managing the work-life balance has been challenging, it has provided additional lessons learned during their medical training.

Lesson 5: Finding Creative Solutions for Mental Health

The ability to remain creative outside of the clinical environment is essential for all healthcare workers. With the intense workload, junior doctors can seek opportunities to share their experiences through creative writing and art. As frontline workers during the pandemic, junior doctors can seek time for self-reflection as a way to reduce anxiety and stress.

During the COVID-19 pandemic, I authored several poems, including “My Face Mask” and “My COVID-19 Hero”.

Conclusion

The COVID-19 pandemic has significantly impacted our global society, and our lessons learned will forever change clinical practice. All healthcare workers – including junior doctors – should continue to strengthen their clinical knowledge and skills, practice universal precautions at work and home, and apply best practices in doctor-patient communication and clinical decision-making.

The Impact of the COVID-19 Pandemic on Surgical Care in Italy

[Teresa Perra](#), MD

Resident in General Surgery
University of Sassari
Sassari, Italy



From its first appearance in the city of Wuhan to global concern, the coronavirus disease 2019 (COVID-19) has represented a major challenge for doctors and researchers around the world. Following the recognition of COVID-19 as a public health emergency by the World Health Organization (WHO), national governments recommended preventive and protective measures (1). As of September 17, 2021, there have been 226,844,344 confirmed cases of COVID-19 reported to the WHO (2).

From the beginning of the COVID-19 pandemic, many elective surgical procedures have either been cancelled or postponed. In 2020, with more than 600,000 surgical procedures cancelled in Italy, the Italian healthcare system underwent major restructuring in order to manage the impacts of the pandemic (3,4). Hospitals and clinical wards have been dedicated to the care and treatment of COVID-19 patients. Many physicians and nurses have been hired and transferred to work in infectious disease wards and intensive care units.

The pandemic, however, has directly affected health service delivery, including significant impacts to surgical management.

Amid the pandemic, surgical patients have been facing two risks: the risk of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection and the risk of not having access to surgical care. Patients with perioperative SARS-CoV-2 infection have an increased risk of postoperative pulmonary complications and mortality (5). Elective surgeries were reduced due to the increased occupancy of critical care beds and demand on anaesthesiologists in intensive care units. In light of current recommendations, various

measures were adopted for surgical practices. Wherever possible, separate environments and pathways were set for patients with suspected or confirmed SARS-CoV-2 infection, and personal protective equipment was required in clinical and surgical wards (6). Since some surgical procedures cannot be postponed – especially patients with life-threatening illnesses, malignancies that could progress, and active symptoms requiring urgent treatment – careful attention should be given to patients diagnosed with cancer or end-of-life illnesses.

Oncology patients need early diagnosis and prompt treatment, and surgery plays a crucial role in their care.

In 2020, more than 50,000 surgical oncology procedures were cancelled in Italy (3,7). Delays in cancer diagnosis and treatment can have negative consequences on morbidity and mortality. The COVID-19 pandemic has delayed waiting lists for surgical procedures as well as diagnosis and treatment for advanced cancer stages.

Looking ahead, it is important for health systems to identify sustainable solutions to minimize COVID-19 transmission and offer support for rescheduled medical and surgical services.

First, the best way to prevent virus spread is limiting exposure, applying recommended preventive measures, and administering the vaccine. Second, collaborations between global surgeons and researchers can offer shared knowledge about best practices and lessons learned as well as potential solutions for surgical management of patients during the pandemic. Finally, junior doctors should act locally by promoting the WHO recommendations to stop COVID-19 community transmission. They can also act globally by sharing clinical and community health experiences, highlighting challenges, and proposing novel solutions to mitigate risk to community health.

References

- 1) World Health Organization. [Coronavirus disease \(COVID-19\) advice for the public](#). 2021 [cited 2021 Aug 19].
- 2) World Health Organization. [WHO Coronavirus Disease \(COVID-19\) Dashboard](#). 2021 [cited 2021 Sep 19].
- 3) Pierluigi M. [Lettera al Ministro dal Presidente ACOI](#). 2021 [updated 2020 Nov 26; cited 2021 Aug 29]. Italian.
- 4) Camera dei deputati Servizio Studi XVIII Legislatura. [Misure sanitarie per fronteggiare l'emergenza coronavirus](#). 2021 [cited 2021 Aug 19]. Italian.
- 5) COVIDSurg Collaborative. Mortality and pulmonary complications in patients undergoing surgery with perioperative SARS-CoV-2 infection: an international cohort study. *Lancet*. 2020;396:27-38.
- 6) Glasbey JC, Nepogodiev D, Simoes JFF, et al. Elective cancer surgery in COVID-19-free surgical pathways during the SARS-CoV-2 pandemic: an international, multicenter, comparative cohort study. *J Clin Oncol*. 2021;39:66-78.
- 7) Associazione Chirurghi Ospedalieri Italiani. [Ripartenza COVID-19. Un sondaggio ACOI](#). 2021 [cited 2021 Sep 4]. Italian.

Life during the COVID-19 Pandemic: A Malaysian Junior Doctor's Observations

[Merlinda Shazellenne](#), MBBS OHD
JDN Chairperson (2021–2022)
Malaysian Medical Association



Since early 2020, the coronavirus disease 2019 (COVID-19) pandemic has represented an upward battle in Malaysia. The Ministry of Health of Malaysia continues to lead national efforts to reduce community transmission and vaccinate all citizens to better protect the population against the disease. Since Malaysian junior doctors widely serve on the frontline of these COVID-19 response efforts, I will share my clinical and community health experiences working in clinical care and community health in Malaysia.

Clinical Experiences

During the COVID-19 pandemic, I was in charge of Orthopaedics at my tertiary-level hospital. My team responsibilities included developing guidelines to reduce overcrowding during clinic hours and reducing contact hours with patients at the outpatient clinic. We followed Standard Operating Procedures, such as maintaining a one metre distance, compulsory masking, and social distancing measures. In my hospital, elective and semi-elective operations and cold case patient appointments were postponed. My colleagues were assigned to serve as “frontliners” – a term used for doctors directly managing COVID-19 care. These efforts included clinical care on COVID-19 wards, acute care in the emergency department, and critical care in intensive care units.

Community Health Experiences

In Malaysia, our aim was to achieve herd immunity through mass vaccination. We also had quarantine centres, mostly manned by junior doctors, to provide acute care for Category 1 (urgent) and 2 (semi-urgent) patients. Now, they also care for Category 3 (non-urgent) patients in several centres.

As vaccines became available, junior doctors were assigned to a new job scope – vaccination and quarantine centres – especially in communities with high rates of COVID-19 transmission.

As I reported for duty within my assigned community, I understood that it was the worst hit district in the country. Together with the district health officers and public health doctors, we conducted sampling and swabbing, data management and analysis, and field visits to identify errant COVID-19 positive patients. We also completed factory visits to evaluate operations, assist with sampling for disease surveillance, and issue quarantine restrictions or closure based on the reported infection rates.

After returning from intense community work, I started helping with the vaccination centre to expedite the number of people with completed vaccination doses (**Photos 1-2**). Other colleagues were conducting sampling, data management and analysis, providing general medical practice in healthcare facilities, caring for ventilated and critically ill patients in intensive care units, serving in quarantine centres, and participating in COVID-19 surveillance activities. Sadly, we do not envision a rapid end to this pandemic in the near future. Morale is low and tends to wax and wane with the epidemiological surveillance of community transmission rates each week.



Photo 1. Dr Merlinda Shazellenne contributes to the vaccination drive.
Credit: Dr Merlinda Shazellenne.



Photo 2. Dr Merlinda Shazellenne requests informed consent from patients seeking vaccinations.
Credit: Dr Merlinda Shazellenne.

Through my clinical and community experiences, I have observed that there are significant barriers in health service delivery.

Observed Challenges

First, I noticed the important role of our public health colleagues who contribute valuable expertise to epidemiological surveillance and other field applications. As I have worked hand-in-hand with health professions of this leadership hierarchy during the COVID-19 pandemic, I have learned numerous career lessons that will complement my medical training. Second, there is a lack of unity between national authorities with local community officials and professionals who execute orders. In handling any major disasters, community leaders should be united and encourage open conversations and brainstorming sessions without red tapes.

I applaud the actions of the Ministry of Health of Malaysia – such as reassigning doctors to hard-hit areas and focusing on herd immunity through mass vaccination efforts – in order to prioritize population health.

Conclusion

The COVID-19 pandemic has highlighted the need to prioritize prevention and control efforts that reduce risk of infectious disease transmission. Healthcare workers must stay strong during these difficult times and work together for better times ahead. As junior doctors, we should take these clinical and community health experiences as a learning curve and build upon these experiences throughout our required medical training.

In summary, learning is an ongoing process, and we should always strive to learn from our colleagues and mentors as well as be prepared to adapt to these new norms.

Myanmar Junior Doctors Risk Personal Safety during Military Coup

[Wunna Tun](#), MBBS MD
Secretary (2020–2021)
Junior Doctors Network
World Medical Association



The Myanmar health care system is on the verge of collapsing as the military pursues desperately needed physicians and medical personnel for their resistance to the coup on February 1, 2021.

Myanmar junior doctors stood in solidarity with millions of Myanmar people in defiance of the military takeover. One civilian started protesting each night in front of the United Nations (UN) headquarters in Myanmar with the sign, “*How Many Dead Bodies UN Need To Take Action?*” After one month of these nocturnal protests, he became one of the first casualties in Yangon, the former capital city of Myanmar, on February 28, 2021. These daily protests against the military demanded the release of democratically elected leaders, such as State Councilor Aung San Suu Kyi, President Win Myint, and other government officials. The UN replied that they were “deeply concerned about Myanmar”, but took no action against Myanmar’s military or security forces to end the coup (1).

Following the coup, junior doctors and other health care professionals went underground, abandoning their jobs at government hospitals and health centers to protest the military coup. However, in line with the Geneva Declaration or Modern-day Physician Pledge, they continued to treat patients covertly through teleconsultation and underground clinics in order to save lives (2). However, the World Medical Association (WMA) Council Resolution in support of Myanmar medical personnel and citizens, which was issued at the WMA Council Meeting in Seoul (April 2021), remained in effect, albeit continued attacks on health care workers and doctors in prison (3).

This disintegrated health system in Myanmar has reported a rise in mortality rates of physicians and patients as well as limited medication and equipment.

In recent months, Myanmar has experienced the third wave of the coronavirus disease 2019 (COVID-19), including the spread of the delta variant, with significant morbidity and mortality among medical personnel and civilians. Notably, the Myanmar military junta intentionally targeted junior doctors and health care workers who first resisted the coup. In fact, over 200 Myanmar doctors were physically assaulted and either spent time in prison or had arrest warrants (4). This reality resulted in the lack of available medical care for the population, which contradicts their protection by international laws (4). Social media platforms have facilitated communication to share requests (e.g. oxygen supplies) and news of local funeral services for health care professionals and their families in Myanmar and throughout the world..

Last year, we observed stark differences in how global communities have reacted to social injustice issues throughout the world. For example, communities protested in the streets to echo George Floyd's "I can't breathe" remarks, yet quietly neglect the voices from Myanmar that fight for freedom from political coup (5). Notably, global leaders have taken no action to prevent the military takeover, political instability, and COVID-19 pandemic in Myanmar.

Now, seven months of the military coup, thousands of Myanmar citizens – including junior doctors – have been killed, and tens of thousands of health care workers and their families have been arrested.

Duwa Lashi La, Myanmar's interim president from the National Unity Government, declared war on the military on September 7, 2021. His response was in part due to the failed actions of the UN and the Association of Southeast Asian Nations (ASEAN) to act accordingly and declare the military coup as a crime against humanity. The Myanmar people are no longer confident in global leaders and believe that these UN organizations have no power to fight against terrorist attacks. For this reason, the Myanmar people plan to join forces to fight the military in efforts to restore democracy in their country (6). Even some junior doctors have abandoned the stethoscope – in favor of a rifle – to join these national efforts against the junta in Myanmar.

The remaining physicians and other health care workers rescued as many Myanmar lives as possible, while risking their own lives. They will continue to protest the coup until democracy is restored in Myanmar.

References

- 1) Reuters. [‘How many dead bodies?’ asked Myanmar protester killed on bloodiest day](#). News24. 2021 [cited 2021 Sep 9].
- 2) Parsa-Parsi RW. The revised declaration of Geneva: a modern-day physician's pledge. *JAMA*. 2017;318:1971-1972.
- 3) World Medical Association. [WMA Council resolution in support of medical personnel and citizens of Myanmar](#). 2021 [cited 2021 Sep 9].
- 4) Solomon F. [Myanmar doctors risk arrest to treat COVID-19 patients in secret](#). *Wall Street Journal*. 2021 [cited 2021 Sep 9].
- 5) Smith N, Theint N. [‘We can’t breathe... and the whole world is silent’: Myanmar begs for oxygen as COVID crisis worsens](#). *The Telegraph*. 2021 [cited 2021 Sep 9].
- 6) Mahtani S. [Myanmar shadow government declares war on military junta, escalating crisis](#). *Washington Post*. 2021 [cited 2021 Sep 9].

The Fight for Better Working Conditions for Resident Doctors in Belgium

[Manon Pigeolet](#), MD MSc
Faculty of Medicine, University of Antwerp
Antwerp, Belgium



In 2010, the European Union implemented the working hour regulations for resident doctors across all its member states, including Belgium. In Belgium, resident doctors – in the context of the aforementioned working hours regulation – are all doctors enrolled in a formal residency program. It does not apply to fellows, early-career consultants, and attendings or any junior doctor working in a hospital while not enrolled in a residency program recognized by the Belgian government.

Even though the legal limit has now been set at a 48-hour week, 60-to-80-hour weeks are still more of a norm than an exception.

These 48 hours should include all clinical activity in the hospital, including on-call duties, and residents should be sent home when they surpass 48 hours in the hospital calculated over the previous seven days. To exacerbate these regulations, the Belgian government and hospital federations proposed a new resident contract in April 2021. The newly proposed clauses included no paid sick leave (in the middle of a pandemic nonetheless), no paid overtime for the “illegal” hours worked beyond 48 hours, and no dedicated research and study time for board exams.

Where was all this coming from? Working condition regulations have not been updated since 1983, so an update for the 21st century has been long overdue. For example, the 1983 regulations stipulated that residents were not normally “employed”, leaving them in a legal vacuum between being a student and an employee. This vacuum was used favorably by many hospitals to not offer residents any social benefits like pensions and unemployment.

During the coronavirus disease 2019 (COVID-19) pandemic, COVID-19 wards were run by residents, who often had limited personal protective equipment and supervision. Occasionally, they worked extra hours without compensation with complete neglect for their educational needs in their specialty training. When these residents were informed that they would be stripped of these social rights under the new contract, it was the breaking point.

The ever-so diplomatic, committed, and constructive Belgian residents decided that it was time to speak up.

In a country still under lockdown restrictions and with a ban on public gatherings, it was impressive to see how fast that Belgium residents were able to gather a virtual community, including with residents currently training outside of Belgium. Posters were made to create awareness with fellow residents, supervisors, and patients about residents' working conditions. Press releases were written and shared with the medical and mainstream media sources.

After one week, the mainstream media understood that Belgium residents meant business. One representative of the Flemish Residents' Organization was invited to primetime talk show on national television to explain the position and recommend next steps.

The momentum had created an intense feeling of unity and strength among Belgium residents. The first national strike of residents in Belgium was planned for May 20, 2021.

This planned strike was an advantage for Belgium residents, since the government, hospital federations, teaching hospitals, and universities had not envisioned the national action. As a result, additional negotiations were organized between all partners involved, and representatives of different resident organizations were invited to actively participate in drafting amendments to the contract.

Now, these representatives owned the diplomatic game. Their legal knowledge, historical perspective, and dedicated constituency surpassed that of many negotiators at the table. Step by step, Belgium residents were able to negotiate and confirm a new agreement with appropriate clauses by May 19, 2021. Hence, the first proposed national strike had been averted.

The first contracts that aligned with the new regulations were signed on August 1, 2021. Unfortunately, the implementation is not occurring smoothly as anticipated, and many hospitals are still figuring out how to translate the fine details. The road towards a truly fair, safe, and educational working environment for residents is still a long one.

However, the first hurdle has been passed, and residents have established themselves as professional and reliable partners for policy negotiations at the national level.

Although we are aware that our situation is not unique among other junior doctors, we hope that our experiences can inspire and motivate other junior doctors around the world to unite and speak up for themselves, their patients, and their communities. For others, let it be a reminder that previously obtained rights should never be taken for granted.

2021 KMA Young Doctors Network Pre-conference: Career Development and Entrepreneurship

[Marie-Claire Wangari](#), MBChB
 General Practitioner, Nazareth Hospital
 Kiambu, Kenya

[Lyndah Kemunto](#), MBChB
 Membership Director (2020–2021)
 Junior Doctors Network
 World Medical Association



The Kenya Medical Association Young Doctors Network (KMA-YDN) held its second pre-conference as a hybrid event on June 16, 2021, in Kisii County, Kenya. This event attracted close to 200 virtual online and in-person participants, including medical students, general practitioners, residents, and specialists (**Photo 1**). Using the theme, [Career Development and Entrepreneurship](#), organizers aimed to highlight the current employment trends in Kenya, where an estimated 30-40% of the 600 doctors who graduate each year move to other countries in search of improved training and employment opportunities after completing their internship (1).

The KMA-YDN promoted this pre-conference theme to stressed three main challenges in medical training and career development. First, 62.7% of Kenyan doctors are in private practice (2), and those who are under government employment are mostly overworked, underemployed, and unmotivated. Second, high-income countries continue to deprive Kenya of millions of dollars' worth of investments embodied in human resources for health (3). Finally, Kenya has reported an estimated 51% of healthcare workers who emigrate in search of higher salaries and better workplace conditions – with the second highest emigration rate after South Africa (4).



Photo 1. Participants of the 2021 KMA YDN hybrid pre-conference held on June 16, 2021 at the Kamel Park Hotel in Kisii County, Kenya.
 Credit: Kenya Medical Association.

Considering these statistics, the KMA-YDN aimed to bridge the unemployment gap through hosting an array of experienced speakers who tackled the conference theme in three broad areas.

Entrepreneurship, Branding, and the Young Doctor

The keynote address was delivered by **Dr Amit Thakker** (Chairman, Africa Health Business), a renowned health entrepreneur and visionary industry leader, who encouraged young doctors to increase their skills in healthcare management, finance, entrepreneurship, and leadership through formal or self-directed informal learning. He recognized the KMA for serving as a strategic enabler during his career and for recognising his service as a former KMA Nairobi Division Chair. Next, **Dr Were Onyino** (KMA President, Founder of Daktari Online) recognised the significance of this national platform to discuss career development, at a time when medical doctors were faced with various challenges such as underemployment and unemployment. He urged young doctors to gain additional knowledge and skills in healthcare technology innovation and entrepreneurship.



Photo 2. Dr Were Onyino, KMA President and Founder of Daktari Online, giving his address at the 2021 KMA-YDN pre-conference. Credit: Kenya Medical Association.

Finally, **Professor Daniel Kiage** (Founder, Kisii Eye Hospital) encouraged participants to venture into social entrepreneurship, noting that young doctors should identify existing problems in their communities and model solutions to the successful actions, such as the Kisii Eye Hospital.

Career Development and Mentorship

The importance of building mental health and well-being throughout the medical career is an integral part of career development. First, **Dr Caroline Vundi**, a psychiatry resident and mental health advocate, highlighted the need to focus on building robust coping skills to manage stressors and maintain optimal physical and mental health. Next, **Dr Angela Munoko** (Pathologists Lancet Kenya) emphasized the importance of continuous learning, where young doctors should actively seek professional opportunities and leverage peer mentorship with colleagues. She also highlighted the importance of evidence-based medicine and urged young doctors to explore opportunities to participate in research. Finally, **Dr Magare Magara** (Managing Director Equity Afia Nakuru & Kisii) stressed the importance of having mentors and thinking outside of the box regarding income sources and entrepreneurship.

Emerging Career Development Challenges and Possible Solutions

This Town Hall shed light on some challenges – namely, unemployment and physician emigration – faced during career development. First, **Dr Davji Atellah** (Secretary-General, Kenya Medical Practitioners, Pharmacists and Dentists Union) highlighted the need to directly involve communities in health advocacy efforts, as they have a responsibility to hold their leaders accountable when they fail to ensure accessibility to healthcare services. Meanwhile, **Dr Frank Wafula** (Strathmore University) urged young doctors to select appropriate specialties and professional networks for their career path. He added that although young doctors will inevitably make mistakes, it is important that they learn and appreciate these life lessons.

Concluding Remarks

The KMA continues to make positive strides towards bridging the unemployment gap in Kenya. The pre-conference agenda focused on business and technology opportunities in the health sector. They closed the pre-conference by announcing their partnership with Equity Bank, a financial institution that offers financing options as solutions for doctors exploring health care entrepreneurship. The YDN made a strong call to the Government of Kenya to invest in human resources for health and advocate for employment and fair remuneration of thousands of unemployed healthcare workers.

Utilization of these highly trained doctors will greatly improve the doctor-patient ratio, access to high-quality health care, and reduce the brain-drain phenomenon.

In summary, the KMA-YDN urges junior doctors worldwide in a call to action. First, junior doctors should seek opportunities to develop additional skills – beyond the classroom and clinical workplace – related to entrepreneurship, healthcare management, and finance. These skills can be acquired and refined through formal or self-directed informal learning. Second, they should identify key mentors for their career development in the health sector. Finally, they should invest in grassroots advocacy and primary healthcare strategies when tackling community health challenges.

Acknowledgement: The authors acknowledge the Kenya Medical Association for their support of the 2021 Young Doctors Network Pre-conference.

References

- 1) Firsing S. [How severe is Africa's brain drain](#). London School of Economics blog. 2016 [cited 2021 Aug 21].
- 2) Ministry of Health (Kenya). [Kenya health workforce: the status of healthcare professionals in Kenya, 2015](#). Nairobi, Kenya: Ministry of Health (Kenya); 2017.
- 3) Kirigia JM, Gbary AR, Muthuri LK, Nyoni J, Seddoh A. The cost of health professionals' brain drain in Kenya. *BMC Health Serv Res*. 2006;6:89.
- 4) Mwaniki DL, Dulo CO. [Migration of health workers in Kenya: the impact on health service delivery](#). Regional Network for Equity in Health in East and Southern Africa. 2008.