empowering young physicians to work together towards a healthier world through advocacy, education, and international collaboration
Editorial Team 2018-2019

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Dear colleagues from around the world,

Over the past eight years, we have seen a growing interest in the Junior Doctors Network (JDN) from colleagues all over the world. This is a reflection of the progress that we have made over the years, ensuring that the JDN remains an avenue for young doctors to gain the capacity to achieve their professional goals in medicine and public health leadership.

We are appreciative for the World Medical Association (WMA) leadership, which continues to support the JDN activities, including our attendance and ability to represent the WMA at various high-level international meetings. As the JDN membership continues to grow, JDN members are able to become more involved in the decisions that shape our future as well as the health and well-being of our patients.

Internally, we continue striving to utilize approaches that can increase JDN member participation in JDN meetings and activities. We now have an operational ‘Terms of Reference’ and at the last stages of adopting our ‘Strategic Plan’, which will help our future generations to understand where we have come from and the direction we are headed. We also regularly track the completion of JDN officers’ and work groups’ tasks in order to record improvements as well as encountered challenges.

As our meetings are experiencing increased attendance and participation, we are gradually implementing changes that enhance JDN member involvement. In efforts to strengthen our leadership capacity in the future, we have adopted the theme, Building the Next Generation of Physician Leaders, for our JDN meeting (April 2019) in Santiago, Chile.

Finally, our progress and direction reflect our stated mission: “Empowering young physicians to work towards a healthier world through advocacy, education, and international collaboration”. Increased collaboration and feedback from all our JDN members will allow us to maintain and improve on our past and present accomplishments, which will dually benefit our future medical leadership and growing patient populations across the world. I look forward to seeing many of you in Santiago!
Dear colleagues,

I am delighted to welcome you to the 15th issue of the *Junior Doctors Network (JDN) Newsletter*. It is our editorial hallmark as we work together towards a healthier world through advocacy, education, and international collaboration.

The newsletter aims to educate, inform, and entertain junior doctors worldwide, where the next generation of junior doctors can share their stories, become inspired, raise awareness, and find opportunities to better themselves and their communities. Each topic is relevant to junior doctors across the world.

I offer my special appreciation to the Publications Team, led by Dr Helena Chapman, for their priceless role in ensuring a contemporary, sound, and near impeccable *JDN Newsletter*. I am incredibly proud of what the Publications Team has created and curated on the pages that follow.

I hope that these articles will stimulate informed debate and a lively exchange of ideas. We look forward to receiving your feedback on this issue. We also encourage your input on topics to be covered in future issues, especially those local and global subjects that directly impact the work of junior doctors across the world.

Stay with us, enjoy the read, and expect more!
Dear JDN colleagues,

On behalf of the Publications Team (2018-2019) of the Junior Doctors Network (JDN), we are honored to present and share the 15th issue of the JDN Newsletter to junior doctors across the world.

The 14th issue of the JDN Newsletter, published in October 2018, included contributions from junior doctors representing Belgium, Canada, Greece, Italy, Japan, Kenya, Lebanon, Nigeria, Sudan, Tanzania, Venezuela, and the United States. These articles provided reports and updates on essential global health topics, international health conferences, and other JDN activities.

Likewise, this 15th issue of the JDN Newsletter incorporates additional articles from junior doctors representing Australia, Belgium, Canada, Denmark, Dominican Republic, Greece, India, Iraq, Japan, Kenya, Malaysia, New Zealand, Nigeria, Singapore, and the United States. These articles included reports and updates on JDN activities, narrative pieces on global health topics, and reflections on their community health experiences.

The JDN Newsletter serves as an important international platform for the global community of junior doctors. We hope that junior doctors will continue to share their professional experiences in the JDN Newsletter, which can showcase their global health leadership, inspire other junior doctors across the world, and promote communication between World Medical Association (WMA) and JDN members. By facilitating an open dialogue among junior doctors, they can collaborate and develop innovative strategies to better understand the health risks that directly influence health and well-being of our local, national, and regional communities.

We wish to thank all editors of the JDN Publications Team 2018-2019 for their enthusiasm and dedicated efforts to finalize this 15th issue. We also appreciate the continued support of the JDN Management Team and WMA leadership for the dissemination of this essential junior doctors’ resource. We hope that you enjoy reading the articles in this 15th issue!

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Snake and Staff as Medical Symbols

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The snake and staff have become synonymous with medicine and the healing arts worldwide. Today, they have two variations, distinct by origin and symbolism. The Caducaeus (or staff of Hermes) is a winged staff with two serpents wound around it, and the Rod of Asclepius (or Asklepian) is a staff with a single serpent. Although the Caduceus is the more commonly used symbol of medicine by most health ministries, departments, and agencies, there is an increasing consciousness and acknowledgement that it is a false symbol and has no historical substantiation as an emblem of medicine. Consequently, this has led to changes of the logo by many global academic and medical institutions. Based on historical texts, debate continues about the origins and usage of these two symbols. This article briefly explores these perspectives by laying credence to an ancient account that has been lost under a misapprehension so that physicians will pay homage only to the true depiction and symbol of medicine.

THE CADUCAEUS

In Greek mythology, the Caducaeus described the staff of the Greek god Hermes (Roman, Mercury) and of related undertakings. Hermes was the messenger of the gods and is often portrayed as wearing winged sandals, a winged hat, and bearing a winged, golden Caducaeus, entwined with snakes.

Among the Greeks, the Caduceus is thought to have originally been a herald’s staff, and Hermes was the herald, or messenger, of the gods. The staff of the herald is thought to have developed from a shepherd’s crook, in the form of a forked olive branch, which for this purpose has been adorned first with two fillets of wool, then with white ribbons, and finally with two snakes intertwined. Many people take for granted that the Caducaeus is the symbol of medicine, and many medics still employ it. The staff of Hermes is not the symbol of medicine, but was erroneously adopted in the late 19th century in North America, and has persisted until today (1).

The staff of Hermes, the Caducaeus, is still used as a symbol by the United States Army Medical Corps, who, it is alleged, adopted it as a symbol in 1902, leading to its widespread acceptance into medical culture (2,3). The Oxford Illustrated Companion to Medicine puts it best, “Though the Caduceus has long been accepted as a device to represent medicine, it is the staff and serpent at Asclepius which has the more ancient and authentic claim to be the emblem of medicine” (4).
THE ROD OF ASCLEPIUS

The traditional medical symbol, the rod of Asclepius, has only a single snake and no wings. In Greek mythology, Asclepius was the god of medicine, one of the gods sworn by in the original Hippocratic Oath (5). Asclepius represents the healing aspect of the medical arts; his daughters are Hygieia (“Hygiene”), Laso (“Medicine”), Aceso (“Healing”), Aglaea (“Healthy Glow”), and Panacea (“Universal Remedy”).

The rod of Asclepius is an ancient symbol associated with medicine and healing, consisting of a serpent entwined around a staff. His attributes, the snake and the staff, sometimes depicted separately in antiquity, are combined in this symbol. Hippocrates himself was a worshipper of Asclepius (6). The symbolism has been explained that sometimes the shedding of skin and renewal was emphasized as symbolizing rejuvenation. Another explanation, however, centers on the serpent as a symbol that unites and expresses the dual nature of the work of the physician, who deals with life and death, sickness and health (7). A third explanation is that the staff was a walking stick associated with itinerant physicians.

Asclepius derived his name from healing soothingly and deferring the withering that comes with death. For this reason, therefore, they gave him a serpent as an attribute, indicating that those who avail themselves of medical science undergo a process similar to the serpent. As such, they grow young again after illnesses and slough off old age, since the serpent is a sign of attention and required in medical treatments (8).

Another accepted alternative explanation of origin is the Jewish Nehustan, the bronze serpent on the pole, which God told Moses to form in the Bible’s Book of Numbers (Numbers 21:6-9, English Standard Version): “Make a fiery serpent and set it on a pole, and everyone who is bitten, when he sees it, shall live”. This was the antidote to the venomous bites from a plague of serpents. The rod and snake have thus been associated with healing and the healing arts.

A less supported explanation is the worm theory, which purports in ancient times parasitic worms, such as the guinea worm (Dracuculus medinensis), were common and extracted from beneath the skin by winding them slowly around a stick (9). According to this theory, physicians might have advertised this common service by using a sign depicting a worm on a rod.
DISCREPANCIES IN USE
The rod of Asclepius is the dominant symbol for health care professionals and associations, although due to the long-standing error, many private facilities use the Caducaeus. One survey in the United States found that 62% of health care professionals used the rod of Asclepius, while 76% of commercial health care organizations used the Caduceus (1). However, it should be emphasized that the Rod of Asclepius has a significance more congruent with the principles and philosophy of medicine.

CONCLUSION
Numerous hospitals and medical schools may have changed their emblems after realizing the false impression. However, the purpose of the article is not to unduly critique the choice of the Caduceus as a medical symbol, but rather to correct an erroneous impression and regain a part of the rich patrimony, tradition, and heritage of health care. It is not the intention of the author that institutions, which have invested so much goodwill and effort in establishing a well-recognized logo with good public perception, change them or adopt a new one. The author aims to correct a false presumption and provide a historical perspective.

References
Why Doctors Need to be at the Centre of Primary Health Care

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In October 2018, the Global Conference on Primary Health Care took place in Astana, Kazakhstan, in a bid to renew the commitment to Primary Health Care (PHC) as an important building block towards achieving universal health coverage and the Sustainable Development Goals. Health experts and leaders from around the globe reaffirmed the vision on having high-quality, safe, comprehensive, integrated, accessible, available, and affordable PHC services. These services are provided with compassion, respect, and dignity by health professionals who are well-trained, skilled, motivated, and committed (1). As governments and various stakeholders commit to building sustainable PHC, doctors working in lower- and middle-income countries (LMICs) should strategize and align their commitment towards the delivery of PHC.

The role of doctors in PHC has been marginal in most LMICs. In Sub-Saharan Africa, PHC is led by mostly nurses or non-physician clinicians, whereas doctors provide curative care in secondary and tertiary hospitals (2). This is different in developed countries, where general practitioners or family physicians are the first contact in primary care. The substitution of middle-level cadres or non-physician clinicians for doctors as PHC providers has been the result of perennial shortage of doctors, long training periods, and higher training costs of doctors and specialists. This shortage has been further worsened by the brain drain, as more doctors have migrated to developed countries to seek economic opportunities or to escape conflict zones and achieve job satisfaction. However, non-physician clinicians have fewer entry requirements and shorter training times, after which they are assigned to technical and non-technical tasks. Therefore, they are regarded as a stopgap, a cheap, temporary option to providing primary care (2,3).

Although the shortage of doctors still exists, there has been a remarkable increase in the number of medical training institutions and highly trained and skilled health care workers in Sub-Saharan Africa. In Kenya, the number of registered doctors has increased from 908 doctors at its independence in 1963 to 8,753 doctors in 2018 (4). Factoring in population growth, the doctor-patient ratio has increased from 1 doctor to 9,811 persons in 1963 to 1 doctor to 5,678 persons in 2018. To further improve these metrics, governments should reinforce strategies to train, recruit, develop, motivate, and retain doctors and other health care providers.
As more doctors are being trained, they should be open to taking up jobs in rural areas and lower tier PHC facilities. Statistics show that 80% of people’s health needs can be addressed by effective PHC (5). Therefore, doctors should offer their expertise where they are needed most, in PHC, as opposed to concentrating on providing services in the secondary- and tertiary-level hospitals. Furthermore, it is necessary to integrate essential services into PHC, services that were previously considered as specialized. In response to the changing demographic and global health priorities, doctors and specialists are compelled to provide these specialized services such as mental health, basic surgical care, trauma, and emergency medicine care at primary care facilities. A comprehensive and inclusive PHC system is crucial in achieving better outcomes.

In addition, having doctors in PHC increases the diversity of skills, knowledge, and offered services. This diversity allows for the division of tasks and the ability to provide a wide range of procedures and surgical interventions. This, in turn, reduces the number of referrals to secondary- and tertiary-level hospitals, which are often located far away, and hence reduces the financial burden on patients. Also, the public health system benefits from reduced costs of referral and ambulance services and decongestion of tertiary-level facilities, further improving the quality of care in these higher tier specialized centres.

**Beyond clinical expertise, doctors contribute critical thinking, collaboration, and capacity building as well as act as advocates and change agents for sustainable PHC.**

By providing leadership, good stewardship, and technical input, continuous participation in the formulation and implementation of strategies and policies at local and national levels further strengthens the PHC journey (6). Investing in well-trained and highly skilled professionals will go a long way in enhancing public confidence in PHC. Whether it is a doctor-led or supported by a doctor primary care team approach, it is clear that the added value of doctors in PHC cannot be understated.

Governments should therefore commit to ensuring that there is a doctor – general practitioner or family physician – in every PHC facility or team. The example of Cuba is evidence that PHC is achievable even for LMICs (7). Training institutions need to adequately prepare doctors with the necessary skills to respond to the holistic health needs of individuals, families, and communities. Doctors, on the other hand, must proactively engage and collaborate with other stakeholders to reduce health inequalities, strengthen primary care, and create a healthier society.
References
India, the world’s second most populated nation with 1.3 billion (2018), continues to experience rapid population growth with depleting resources, corruption, and limited health and education infrastructure. Over the past centuries, rural India continues to represent the heart of the country. A total of nearly 70% of the population resides in small towns and villages (1), working predominantly in agriculture, daily wage labor, and animal husbandry. Generation after generation, only few migrate to cities, preferring the ancestral tradition of living in large joint families and working in the agricultural field.

With a low per capita national income, rural communities face limited economic development, often live below the poverty line, and struggle to provide basic necessities for their families. Cardiovascular, chronic obstructive pulmonary, and cerebrovascular diseases describe the top three causes of mortality, followed by lower respiratory infections, diarrheal, tuberculosis, and neonatal disorders (2,3). Despite the government expenditure of billions of dollars for rural health care services in India, health care standards have not improved, and socioeconomic and health disparities persist.

In the remote area of Rajasthan, one medical officer, Dr Amit Tiwari, has provided care to the underserved community for the past three years, learning about the social determinants of health that negatively influence health outcomes (Photos 1-2). For the duration of one month, I had the opportunity to assist him with rural health service delivery in a remote village of about 1,000 residents.

This village has been characterized by high morbidity and mortality in adults and children, influenced by several factors. First, low education levels among adult community members can hinder how they fully understand health risks associated with communicable and non-communicable diseases. Second, delayed health-seeking behaviors can increase risk of disease complications or lead to missed immunizations. Third, poor hygiene and sanitation practices in the household and community can increase environmental exposure of infectious pathogens. Additionally, despite the allocation of national resources, many primary health centers still lack basic equipment (e.g., electrocardiogram, x-ray, ultrasonography) and medications (e.g., adrenaline, atropine, benzodiazepines), which challenge how physicians can treat and manage life-threatening medical emergencies. Without these resources, physicians can only refer patients to the closest tertiary-level health center, which may take around two hours to reach by ambulance.
Working as a doctor in rural India can be both rewarding and extremely challenging. Hence, the moral obligation of health professionals is to serve as a community leader and enlighten, encourage, and educate community members. The common phrase, “Rome was not built in a day”, reflects the real-time situation of rural India as these communities continue to face daily challenges to meet necessities and maintain physical and psychosocial health status.

By promoting leadership and perseverance to reform the health system, physicians can lead health teams to care for and protect community members of rural India.

At the same time, authorities can implement appropriate policies to prioritize and advance education and health care services in rural communities. With concrete steps towards further investment in health care, all communities can be equipped with primary health centers, tertiary-level medical services, and trauma centers. I see the future of rural communities across India with optimism, which might lead to my follow-up article, entitled, “Rural India: The Change did Occur!”

References
Medical Graduates Reciting the Hippocratic Oath at Hippocrates’ Birthplace: International Collaboration and Medical Ethics

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The Hippocratic Oath (Ιπποκρατικός Όρκος in Greek) or the Oath of Hippocrates of Kos, originally written in ionic Greek between the 3rd and 5th century BC, is one of the most widely known pieces of Greek medical literature and is considered the earliest expression of medical ethics in the Western World. It is believed to be the work of Hippocrates of Kos, son of the physician Heraclides (descendant of Asclepius, the Greek god of Medicine), a renowned physician of ancient Greece and founder of the Hippocratic School of Medicine on the Greek island of Kos in the Southeastern Aegean Sea, that completely revolutionized and modernized the practice of Medicine in ancient world and prepared the field for it to become a profession.

Hippocrates, recognized as the “Father of Medicine”, established in this oath, many ethical principles such as confidentiality and non-maleficence for the first time. He also strongly bound the student to his teacher and the greater community of physicians with responsibilities similar to that of a family member. Over the centuries, it has been rewritten often in order to suit the values of different cultures influenced by Greek medicine (1,2). Contrary to popular belief, the Hippocratic Oath is not required by most modern medical schools, although some have adopted modern versions, such as the Declaration of Geneva by the World Medical Association (WMA) (3).

For three consecutive years, the Panhellenic Medical Association (PhMA), member of the WMA, and the International Hippocratic Foundation of Kos (IHFK) - a public benefit organisation, founded in 1960 to honor the “Father of Medicine”, offering a broad spectrum of activities aimed at disseminating the teachings and legacy of Hippocrates and ancient Greek Medicine – have co-organized in partnership with the Medical Chamber of Kos, a reenactment ceremony of reciting the Hippocratic oath at the Asclepieion of Kos. Medical graduates from all seven medical schools of Greece who graduated with a distinction,
take the oath in front of their Deans, local authorities, family members, and the Press (Photo 1). The event usually coincides with a scientific session on continuous medical education and the medical profession in general with the participation of renowned speakers and members of the Academia from Greece, Europe, and the rest of the world.

The idea of further opening the event to Europe and the rest of the world, inviting international medical graduates to join their Greek colleagues and take part in this unique celebration of medical ethics has been strongly supported by the organizers for years now, as the Hippocratic principles have always been globally relevant and necessary to be respected and considered in our clinical practice. JDN-Hellas, representing the voices and interests of Greek junior doctors, was present at the event for two consecutive years, in 2017 and 2018, and has been involved in the discussion since the very beginning, offering our ideas and suggestions for creating a long-lasting strategic plan for this international event to become a reality (Photo 2).

As we envision this event as a global one, we could not think of a more appropriate partner to ensure its continuity for years to come, than the WMA, its members - National Medical Associations (NMAs) and its Junior Doctors Network (JDN-WMA). Following up on those first deliberations, we presented a draft project proposal at the JDN Meeting (Chicago, Illinois, USA) in October 2017, which included information on the event, proposed duration, funding, logistics, and content, as well as the selection process, overseen by the WMA, needed to ensure annual participation of a diverse group of medical graduates (Table 1).
Feedback and input of all Chicago meeting participants and JDN-WMA membership was also requested. We have further considered inviting the European Junior Doctors Association (EJD) for their assistance and partnership in approaching medical graduates and junior doctors from the European continent as participants, as well as other European medical organisations as possible partners. For that reason, a detailed presentation will be delivered by the JDN-Hellas delegation at the next EJD meeting (Edinburgh, UK) in May 2019.

The rationale behind this idea of “internationalizing” this ceremonial event on the island of Kos, is that this would be seen as a perfect opportunity for young doctors from all around the world to come together to share a common, thrilling experience that would change them for the better. At the same time, they would be offered the chance to gain knowledge and expertise by listening to a panel of experts during the parallel scientific symposium on medical education, ethics, and the medical profession. Seen as a whole, this event could foster international collaboration among the new generation of physicians, as well as serve as a forum for debate on controversial and challenging issues on medical ethics, deontology, and continuous medical education.

The table shows suggestions made by JDN-Hellas during the presentation of the project proposal at the JDN Meeting (Chicago, Illinois, USA) in October 2017. It does not reflect any opinions of the event organizers, whatsoever.

Table 1. Proposed project specifics.

<table>
<thead>
<tr>
<th>Project modules</th>
<th>Description</th>
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<tbody>
<tr>
<td>Organizers</td>
<td>PhMA, IHFK, WMA (JDN-WMA), Kos medical association, other stakeholders</td>
</tr>
<tr>
<td>Duration</td>
<td>2-3 days (Friday to Sunday)</td>
</tr>
<tr>
<td>Periodicity</td>
<td>Annually or biannually</td>
</tr>
</tbody>
</table>
| Agenda          | • Friday: Arrival - Tour of Kos town, Hippocrates’ famous plane tree, Asclepieion archaeological site  
                  • Saturday: Tour of Hippocratic Foundation premises (morning), Hippocratic oath Ceremony (afternoon), Greek social program (evening)  
                  • Sunday: Departure |
| Participants    | • 1 or more graduates from each country (participating NMA)  
                  • 1 graduate/10.000.000 citizens (1 graduate for smaller countries) OR  
                  • 1 graduate/1000 graduates OR  
                  • 1 graduate/medical university, medical school |
| Costs           | Accommodation: 50 EUR/night/participant  
                  Boarding: 50 EUR/day/participant  
                  Transportation: 20 EUR/day/participant  
                  Travel: 200-1000 EUR/participant  
                  Budget: 44.000-124.000 EUR for 100 participants |
| Funding         | • Total budget to be covered 100% by participating NMAs OR  
                  • Covered 50/50 by participating NMAs and organizers OR  
                  • Covered 100% by the organizers OR  
                  • Covered 50/50 by WMA and NMAs OR  
                  • Covered 100% by participants (unlikely) |
| Selection process | • Each NMA could choose their participants according to their own standards OR  
                  • Each NMA could ask their respective Medical Universities/Schools to nominate their best graduates (e.g., those with highest grades) |
The next steps in the process of realizing the project entail finalizing the project proposal, incorporating feedback given by JDN-WMA members, as well as bringing all stakeholders together to further discuss the details of such an undertaking. The logistics and funding needed for it to become a reality might seem huge, but this must not be seen as an obstacle in our work, but rather more like a reason to try harder to achieve our goal. We honestly believe that such an experience, like the reciting of the Hippocratic Oath, must be shared with the rest of the medical community and become a “common property” of all junior doctors and young physicians.

References
Junior Doctors’ Challenges of Advocacy for Physicians’ Well-being in Japan

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The World Medical Association (WMA) advocates achieving the highest international standards in medical education, medical science, medical art, medical ethics, and health care for all people in the world through the declarations, resolutions, and statements (1). One of the roles of the Junior Doctors Network (JDN) is to empower young physicians’ voices to the WMA from its mission. For example, the WMA statement on physician well-being, adopted in 2015, was originally drafted by the JDN from many junior doctors’ opinions all over the world (2). The junior doctors in the National Medical Association (NMA) might have a similar role to the JDN in the WMA.

In Japan, the Japan Medical Association (JMA) launched the Japan Medical Association Junior Doctors Network (JMA-JDN) in 2012 (3). Its mission includes taking a survey of junior doctors’ opinions on related topics and advocating for them. In 2017, the first advocacy was conducted by JMA-JDN volunteers on the working condition reform. This article aims to share the challenges of advocacy by junior doctors in Japan and the lessons learned.

Background of the Physicians’ Working Conditions in Japan
Since 2016, the Japanese government has made forward steps to reform working in most industries (4). This expects to improve productivity and develop human resources in working places to maintain the economics against a relative decreasing working-age population due to “super-aging” and low birth rate in the population structure. Along this context, the physicians’ working condition reform has been started.

Japan’s Labor Standards Act regulates the upper limit of working hours, where there are eight working hours per day, 40 working hours per week, and one day off per week. Overtime and holiday work periods are possible by contracting labor-management agreements. If it is contracted, the upper limit of overtime work hours could reach 100 hours per month and 960 hours per year (5).

In December 2016, Japan’s Ministry of Health, Labour and Welfare (MHLW) aimed to examine physicians’ working hours with their characteristics, including age, sex, medical specialties, and working styles (e.g., part-time employment), and conducted a survey with a stratified random sample of physicians working in hospitals (6) (Figure 1).
According to the survey, Japanese physicians have been exposed to long working hours. Some reasons caused this dangerous condition might be the stipulation in the Medical Practitioners Act and self-sacrifice from excessive professionalism. The law states that physicians cannot refuse to see patients without physicians’ absence or serious illness whenever and wherever patients request it (7). Established in 1948, it was necessary to rapidly restructure a medical provision system after World War II. There were uninsured people until the universal health insurance system started in 1961 (8). The physicians’ obligation was enacted for patients, who could not afford medical expenses by absolute poverty, to have access to the medical treatment against some physicians who refused them. Over the past 70 years, the medical provision system in Japan has been enhanced, and uninsured people have utilized the universal health care system. Currently, the stipulation has obscured management of the physicians’ working hours. Another cause of physicians’ long working hours would be self-sacrifice from excessive professionalism. This issue was pointed out in the WMA statement on physicians’ well-being in 2015 (2).

In August 2017, the MHLW launched the investigative commission on the physicians’ working condition reform to improve their labor conditions (9). Two junior doctors have participated in this investigation. According to the survey, young physicians have worked longer hours than older physicians, and previous studies have shown that younger physicians tend to feel burnout (10,11). Therefore, more objective and representative opinion of junior doctors as one of the main actors are required to improve the sustainability of the health care system.

For example, although the physicians’ working hours identified differences in their characteristics, the average number of working hours of 20- and 30-year-old male physicians was 75 hours per week, including 57 hours for clinical practices, medical education, and research, and 18 hours for the night shift and on-call. The average number of overtime work hours of 20- and 30-year-old male physicians was about 140 hours per month and 1,680 hours per year. About 40% of physicians greatly exceeded these upper limits of overtime work hours.

According to the survey, Japanese physicians have been exposed to long working hours. Some reasons caused this dangerous condition might be the stipulation in the Medical Practitioners Act and self-sacrifice from excessive professionalism. The law states that physicians cannot refuse to see patients without physicians’ absence or serious illness whenever and wherever patients request it (7). Established in 1948, it was necessary to rapidly restructure a medical provision system after World War II. There were uninsured people until the universal health insurance system started in 1961 (8). The physicians’ obligation was enacted for patients, who could not afford medical expenses by absolute poverty, to have access to the medical treatment against some physicians who refused them. Over the past 70 years, the medical provision system in Japan has been enhanced, and uninsured people have utilized the universal health care system. Currently, the stipulation has obscured management of the physicians’ working hours. Another cause of physicians’ long working hours would be self-sacrifice from excessive professionalism. This issue was pointed out in the WMA statement on physicians’ well-being in 2015 (2).
Challenges of Junior Doctors in Japan

To strengthen advocacy among junior doctors, JMA-JDN volunteers organized a three-hour workshop to describe the concept of advocacy and how junior doctors can advocate effectively (12). This workshop was held in July 2017, with a total of 19 participants, including nine junior doctors, eight medical students representing the International Federation of Medical Students’ Associations (IFMSA) in Japan, one MHLW official, and one public health researcher. The workshop agenda included the keynote lecture, “What is advocacy?”, presented by professor Masamine Jimba, president of the Japanese Society of Health Education and Promotion. Then, the participants simulated making the strategic plan for the effective advocacy by each small group, using the worksheet suggested by Dr Trevor Shilton (13) (Photos 1-2). In addition, they leaned the following keys of success advocacy: dedicated, persistent, and “politically-astute” leadership; mobilization of coalitions that are broad-based and well-coordinated; consensus on the most important measures that will achieve the advocacy goal; commitment to a consensus on priority actions; commitment to comprehensive operations; commitment to robust and long-term implementation; and persistence.

At the workshop, most groups selected the theme related to the working condition reform. Thus, the Advocacy team of Young Medical Doctors and Students (AYMDS) was set from the interested participants in the working condition reform. The AYMDS included five junior doctors, three medical students, and one researcher. In November 2017, the AYMDS disseminated the online questionnaire to examine the perspectives of junior doctors and medical students on the current working conditions of physicians. With a total of 821 responses, the AYMDS summarized the results and prepared a draft policy statement.

The public comments were collected, and the draft was revised. In December 2017, the AYMDS presented the policy statement in the investigative commission on the physicians’ working condition reform of MHLW (14). These actions showcased an essential step for Japanese junior doctors as they delivered their voices to reforming health policy.
Lessons Learned

Looking back at the case as compared to the keys of success advocacy, there were two main issues. First, junior doctors are not formally trained in advocacy, and hence, are unfamiliar with practical techniques to advocate on critical health issues. Second, although effective advocacy should have a robust framework to collect objective and representative viewpoints from junior doctors, there was no representative platform for junior doctors across Japan. These issues have created challenges in mobilizing coalitions, reaching consensus, and ensuring sustainable commitments.

In summary, there is a need for junior doctors in Japan to be more active in the JMA and represent the junior doctors’ voices. JMA-JDN can serve as a platform for junior doctors in Japan to seek continued academic training and enhance productive and continuous advocacy skills. With WMA support, the JDN can promote the importance of global leadership and advocacy as junior doctors. I hope that the voices of junior doctors across the world will facilitate open dialogue in health policy.

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14) Advocacy team of young medical doctors and students. Statement from young medical doctors and medical students on legal regulations of physicians’ long working hours. 2017 [cited 2019 Feb 14].
As Junior Doctor Network (JDN) members, we understand the indispensable roles of professional development and mentorship throughout our medical education and training in the classroom and community setting. As junior doctors engage in postgraduate medical training in diverse disciplines and geographies, we should lead efforts to advance scientific knowledge among medical students regarding key health topics that affect local, national, and global communities. The following example in the Dominican Republic is a professional development workshop that highlights how junior doctors can encourage, train, and mentor medical students in scientific inquiry for their clinical practice.

Supported by the Standing Committee on Medical Education (SCOME), the Organización Dominicana de Estudiantes de Medicina (ODEM), recognized as IFMSA-Dominican Republic, organized a four-hour academic workshop for medical students in February 2019. The workshop aimed to provide medical students with an understanding of scientific publications, techniques to prepare a brief article or letter to an editor, and insight on the importance of interdisciplinary skills for medical training. The agenda of the activity was prepared by SCOME National Officers, Ms Marla Pelletier (Universidad Nacional Pedro Henríquez Ureña, UNPHU) and Ms Camila González (UNPHU), and SCOME Local Officer, Ms Isamar Fernández (Universidad Iberoamericana, UNIBE). An estimated 70 participants, representing six medical schools from the cities of Santo Domingo and Santiago, attended this event, which was held at UNIBE School of Medicine in Santo Domingo (Photos 1-2).
Workshop: Key Skills in Preparing Scientific Publications

Dr Yessi Alcántara (UNPHU) and Dr Helena Chapman (UNIBE) coordinated this collaboration to highlight the value of scientific publications to enhance professional development as health professionals. Dr Alcántara described the article formats required for the non peer-reviewed publication submission to the IFMSA’s Medical Student International and Diario Salud Dominicana’s DiarioSalud Estudiantil (Dominican Republic) and encouraged ODEM members to prepare their articles about ODEM community health activities and topics. She also presented two examples of published articles to serve as a general guide.

Then, Dr Chapman highlighted that participating in research projects and reviewing medical literature were ways to strengthen scientific expertise, critical analysis, and communication skills. As a first step, she recommended that ODEM members consider the preparation of a letter to an editor to a medical journal as a training opportunity. She provided a thorough review of two examples of published letters as models. After this technical portion of the workshop, Dr Chapman offered a gratuitous virtual mentorship practicum, where teams of two ODEM members would follow a strict timeline over a four-month period in order to prepare their letters to an editor to a medical journal.

Panel: Interdisciplinary Knowledge for Future Physicians

As a complementary panel to the academic workshop, three experts shared key perspectives from their individual disciplines as they relate to medical education. First, Ms Haydeeliz Carrasco, economist and consultant for the World Bank, highlighted the low public health expenditure in the Dominican Republic (2.7% of gross domestic product, GDP), when compared to the expenditure in Latin America (3.5% of GDP), from 2011 to 2015. She mentioned that the country could achieve efficiency gains and higher impacts of public expenditure, by allocating resources for priority health needs, designing evidence-based interventions, and strengthening monitoring and evaluation systems.

Second, Mr Jamie Rudert, a veterans advocate attorney currently employed by Paralyzed Veterans of America, emphasized that as health leaders, physicians should understand their legal role in health service delivery, be prepared to document and evaluate occupational exposures and other health concerns, and establish an appropriate medical management plan. For patients who are military veterans, he stated that through comprehensive medical evaluations, physicians can examine if the medical condition could be related to military service and provide documentation to the appropriate authorities. In turn, the respective authorities can subsequently review these records and consider the adjudication of veterans’ benefits.
Finally, Dr Chapman, a public health physician working at the National Administration of Aeronautics and Space (NASA), introduced the “One Health” concept, which promotes transdisciplinary collaborations to develop strategies that mitigate disease risks shared between humans, animals, and the environment. She described the value of the use of Earth observation data in health education, research, and practice, to better understand the dynamic processes of the ecosystem and its influence on human, animal, and environmental health.

JDN members should be motivated to be actively engaged in developing academic workshops and panels with medical students in their communities, so that they can foster medical students’ innovation and critical analysis on diverse scientific health topics.

These collective actions can encourage medical students to gain further scientific insight on interdisciplinary topics and enhance understanding of the research process, which may be limited in existing medical curricula.
JDN in Nigeria – Bridging the Gap and Impacting Lives

Doctors Time Out Family (DTOF) is a charitable, non-governmental organization managed by Nigerian junior doctors that was founded in June 2015 by Dr. Anthony Chukwunonso Ude. The mission is to educate community members living in low-resource areas through the development of community health initiatives. Current members are junior doctors working in all levels of health care delivery across the 36 Nigerian states in six geo-political zones and the federal capital territory.

Using social media technology to bridge communication among Nigerian junior doctors, DTOF identifies community health needs of vulnerable populations and develops collaborative health activities to educate on essential health topics and mitigate disease risks. Junior doctors organize annual free medical evaluations, award scholarships to children from educationally disadvantaged communities, and provide educational talks on proper hygiene and sanitation practices. They also coordinate social programs within communities, including showcasing musical events and distributing donated food and modest financial contributions. Funding for these health and social programs are through DTOF donations, which illustrates positive social responsibility. As an African nation, citizens must provide a means of taking care of the health and well-being of vulnerable populations.

Using the theme, *The Resident Doctor and Financial Planning – Medical Entrepreneurship, Myth or Reality*, junior doctors commemorated DTOF’s third anniversary throughout five Nigerian geo-political zones and the federal capital territory (Photos 1-2). Between June 11-17, 2018, community health initiatives were coordinated across the country in line with the DTOF’s mission and vision (Table 1).

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Photo 1. DTOF volunteers after deworming campaign at a primary school in Ibadan, Nigeria. Credit: DTOF.

Photo 2. DTOF volunteers at an orphanage in Umuahia, South-East Nigeria. Credit: DTOF.
In his closing remarks, Dr. Francis Faduyile, the National President of the Nigerian Medical Association (NMA), commended DTOF for the dynamism and sagacity regularly displayed in their community initiatives. He hinted that his team would be devising ways to maximize interactions among junior doctor members and promote all-inclusiveness in NMA activities.

We sincerely appreciate everyone who has contributed to the successful activities surrounding the DTOF’s third anniversary. As we prepare for the DTOF’s fourth anniversary in June 2019, the Nigerian junior doctors encourage junior doctors across the world to bridge the gap and impact lives of their local community members. By identifying gaps in established health promotion activities in local communities, junior doctors can collaborate and develop community health initiatives, carving out a niche where the next generation of junior doctors can become inspired, raise public awareness, and find opportunities to positively impact their communities.

Together, junior doctors can change the world and make it a better place!

If you are interested to learn more about DTOF, please visit our website, follow on Twitter (@familytimeout), email our team or send a Whatsapp message (+2348036680438).

Table 1. Junior doctors from the Association of Resident Doctors (ARD) coordinated DTOF activities in June 2018.

<table>
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<tr>
<th>Zone</th>
<th>Junior Doctor Participants</th>
<th>Activities</th>
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| South-South  | ARD University of Port Harcourt Teaching Hospital, ARD Braithwaite Memorial Specialist Hospital, Rivers State | ❑ Coordinated visits to orphanages to deliver toiletry items (e.g., tissues, cleaning supplies), food (e.g., yams, rice, spices, noodles, cereals, beverages), and modest financial contributions.  
❑ Conducted health talks on proper hygiene and sanitation practices.  
❑ Organized a “Marathon for Life” to promote physical activity. |
| South-West   | ARD Obafemi Awolowo University Teaching Hospital, Ile-Ife Osun State                       | ❑ Coordinated visits to orphanages to deliver toiletry items, food, and modest financial contributions.  
❑ Conducted health talks on proper hygiene and sanitation practices.                                                                                                                                                                                                                                           |
| South-East   | ARD Federal Medical Centre, Abia State                                                    | ❑ Coordinated visits to orphanages to deliver toiletry items, food, and modest financial contributions.  
❑ Conducted health talks on proper hygiene and sanitation practices.                                                                                                                                                                                                                                           |
| North        | ARD Ahmadu Bello University Teaching Hospital, Zaria                                      | ❑ Organized deworming campaign for 115 street children and planned for follow-up medical services in 4 locations in Zaria.  
❑ Distributed toiletry items and clothing.  
❑ Conducted health talks on proper hygiene and sanitation practices at four primary schools.                                                                                                                                                                                                                     |
| Central      | ARD University College Hospital, Ibadan                                                    | ❑ Conducted Deworm and Educate the Child Initiative (DECI) at the IMG Primary School Oje Igosun Ibadan: Donated 400 copies of DTOF customised exercise books and anti-helminthic drugs for future deworming campaigns. Conducted health talks on proper hygiene and sanitation practices, where prizes were awarded for active student participation.  
❑ Coordinated visit to Jesus Children Mission Bodija orphanage: Donated 100 DTOF customised books. Provided modest financial contributions to low-resource students.  
❑ Conducted gratuitous medical evaluations to professors. |
The Junior Doctors Network (JDN) was formed in Vancouver in October 2010, with the aim of creating a platform for junior doctors worldwide to ensure their voice was heard within the World Medical Association (WMA) and globally. In Malaysia, JDN was formed by the Malaysian Medical Association in 2017 and was placed under the Section Concerning House Officers, Medical Officers and Specialists (SCHOMOS), which is the section focused on the welfare of government doctors in Malaysia. JDN Malaysia was formed to allow Malaysian doctors to participate in the JDN international network and look at the issues affecting Malaysian junior doctors.

JDN Malaysia organised the first JDN meeting within the Confederations of Medical Associations in Asia and Oceania (CMAAO), preparing the first project, “Workplace Bullying and Harassment”. In order to study the impact of this issue within Malaysia, we prepared a JDN/SCHOMOS online survey on the topics of workplace bullying and harassment. With over 2,000 respondents, our survey results showed that the incidence of workplace bullying was highest amongst the junior doctors. Hence, we coordinated a meeting agenda to facilitate a dialogue on identifying real-time challenges, developing solutions to reduce these challenges, and proposing policies to be shared among participating nations on these topics. A website was also launched to serve as a common portal to update junior doctors on current news and events as well as efforts leading towards a more harmonious workplace environment.

The CMAAO theme chosen for this inaugural meeting was, Leading the Way towards Mutual Respect – The Role of Junior Doctors in Preventing Workplace Bullying. This meeting was attended by over 30 participants representing the different CMAAO member countries in Asia and Oceania. The majority of country delegates agreed that there was an urgent need to define what constitutes bullying and harassment in the workplace and acknowledged that it had affected all levels of health care, especially on the junior doctors.

They agreed that strong high-level administrative leadership is required to reform and enforce policies that confront workplace bullying.

Clear guidelines on acceptable behaviour and responsibilities of health professionals should be made known to all health care workers.
Through this dialogue, delegates provided three recommendations to strengthen legislation regarding workplace bullying and harassment. First, policies and laws should exist to protect the victims, ensure just and prompt investigations into perpetrators, and sanction those individuals who are found guilty of bullying and harassment. Second, the victim’s anonymity and confidentiality should be maintained, and adequate physical protection or psychological support should be provided to the victims of bullying and harassment. Third, all levels of staff should undergo training in leadership and soft skills to ensure the formation of a conducive environment for junior doctors to be nurtured and grow into leaders of tomorrow.

At the end of the meeting, the JDN SCHOMOS MMA Penang Declaration 2018 was signed by attendees at the first CMAAO JDN Meeting on September 14, 2018, on the sidelines of the 33rd CMAAO General Assembly (Photos 1-2). This solidified a commitment from all participating countries to work towards ending workplace bullying and harassment.

Our guest of honor, Dr. Mohd Fikri bin Ujang, a senior official within the Malaysian Ministry of Health, stated that the declaration would be tabled at the next Head of Department’s meeting at the Malaysian Ministry of Health. He also expressed the need to work together for a healthier workplace environment.
The Junior Doctors Network (JDN) meeting, under the World Medical Association (WMA), was recently held in conjunction with the WMA General Assembly in Reykjavik, Iceland, from October 1-2, 2018, at the Icelandic Medical Association (IMA) office. It was my privilege to attend the meeting on behalf of the Singapore Medical Association (SMA) Doctors in Training (DIT) Committee, for I was able to renew the bonds formed during the 2015 JDN meeting held in Oslo, Norway, and also make new acquaintances with representatives from other parts of the world.

The JDN was formed in Vancouver in October 2010 to create a platform for junior doctors worldwide and to ensure that their voices are heard both within the WMA and globally. Its mission is to empower young physicians to work together towards a healthier world through advocacy, education, and international collaboration. This is very much in line with the purpose of SMA’s DIT Committee, which is to provide a platform for local junior doctors across all training institutes to collaborate towards a better training environment, both intra-institutional and on a national level.

At this JDN meeting, delegates from 16 countries across the globe came together to discuss the new trends in postgraduate medical education. The IMA shared that until 2015, they have had a limited postgraduate training structure, and that most trainees have to complete their higher specialist training abroad. The Canadian Medical Association (CMA) explained their system of competency-based curriculum. A representative from the Foundation for Advancement of International Medical Education and Research also presented on a potential collaboration with JDN to offer international exchanges for residents to further their training.

Another topic covered was on the well-being of junior doctors and combating burnout. The CMA shared survey results on burnout among their residents and the approach to recognising the signs and degrees of burnout. They also highlighted the importance and methods of training resilience in junior doctors. The meeting concluded with an “ideas cafe” session to improve the JDN and an election for the next working committee.

It was a very refreshing experience as I was greatly inspired by the passion of the fellow JDN delegates. I also received many interesting ideas on how to better serve my Singaporean junior doctors. Last but not least, I wish the newly elected working committee all the best in their future endeavours.
Prince Mahidol Award Conference 2019

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The Prince Mahidol Award Conference (PMAC) is an annual global health conference held in late January, in Bangkok, Thailand. It is co-hosted by the Prince Mahidol Award Foundation, the Thai Ministry of Public Health, Mahidol University, and a range of major global health organisations, including the World Health Organization (WHO) and the World Bank. The theme for 2019 was *The Political Economy of Non-Communicable Diseases: A Whole of Society Approach.*

The conference highlighted that non-communicable diseases (NCDs) cause the highest global disease burden and are rooted in social, economic, environmental, and commercial determinants of health.

The prestigious conference focusing on policy-related health issues is an invite-only event. This year, four members of the Junior Doctors Network (JDN) of the World Medical Association (WMA) were fortunate to attend PMAC 2019 as part of the tickets allotted to the Thai JDN delegation. In this article, we share some of the key messages and highlights of the conference.

The first three days (January 29-31, 2019) were pre-conference sessions, including side meetings and field trips. JDN members enjoyed the field trip sessions, where we had the opportunity to see first-hand the various Thai initiatives taking place at local and national level to accelerate implementation of NCD prevention and control.
One of the field trip sites visited was the Thai Health Promotion Foundation, an autonomous government agency that focuses on health promotion. Thai Health is a good example of how sin taxes can be used to promote health in a population. Their annual budget of US$120 million is drawn from the 2% surcharge on alcoholic beverages and tobacco products. The visit gave participants a practical glimpse into their day-to-day activities, including physical exercise sessions that can be done in any office.

Another group participated in a field trip to the Kaeng Khoi District, Saraburi Province to learn more about the Ministry of Public Health’s policy on District Health System (DHS), a policy aimed at decentralizing health care decision-making and management. This was launched in 2013 to create more unity in the health care sector, share resources, and promote community participation at the district level. The participants visited two sites: firstly, Kaengkhoi Hospital, where local stakeholders presented their efforts in managing NCDs within the District Health System; and secondly, a local primary school, where participants could see the implementation of health promotion within the education system.

The main conference (February 1-3, 2019) had four plenary sessions, 15 parallel sessions, and many special events and e-poster presentations. In total, there were 1,090 participants from 77 countries.

Plenary 0, *Political Economy of NCDs: Players, Powers, and Policy Processes*, set the scene for the entire conference. Professor Michael Reich praised the organizers of PMAC 2019 for pushing boundaries and organizing the first global health conference on political economy. He provided a simple and clear definition of political economy: “how the allocation of political resources and economic resources affects who gets what, when, and how”. Over the course of the event, we heard from many eminent global health leaders, including Dr Margaret Chan, Professor Sir Michael Marmot, Dr Sania Nishtar, and Professor Boyd Swinburn.
The key debate at the conference was around the commercial determinants of NCDs. In 2016, Kickbusch et al. defined commercial determinants of health as the “strategies and approaches used by the private sector to promote products and choices that are detrimental to health” (1). Applied to the NCD sphere, these commercial determinants are unhealthy commodities promoted by corporations, and include tobacco, alcohol, and unhealthy foods. At PMAC 2019, there was broad agreement that we need to address the commercial determinants of health, but the focus of the debate was on exactly how to address them, and what should be the role of the industries themselves. Perspectives ranged from those who viewed industries as part of the solution to NCDs, to those who felt that industries cannot be trusted but merely regulated. These debates were largely focused on the food and beverage industry, and to a lesser extent the alcohol industry; the tobacco industry was universally condemned.

A key message for junior doctors is to appreciate the broader factors that contribute to the growing burden of NCDs around the world, including the commercial determinants of health.

Professor Sir Michael Marmot, Past President of the WMA, was inspiring as always, and discussed the importance of addressing the fundamental drivers of ill health given the rising health inequalities around the world. One of the highlights was when he described how IFMSA medical students and WMA-JDN junior doctors have passionately supported the cause of improving social determinants of health for all. He also mentioned the report that was produced during his Presidency of the WMA, Doctors for Health Equity, an excellent resource for junior doctors to use when advocating for health equity (2).

Over the course of conference, we heard from many academics, policy-makers, politicians, and representatives from key global health institutions. However, we did not hear much from civil society, particularly from those people living with NCDs. Kwanele Asante, a lawyer, bioethicist, and cancer equity activist, was one of the few voices speaking on behalf of people living with NCDs. She was a panelist for Plenary 3, Governance of the NCD Response: Who is in Control?, and she eloquently and powerfully called for a reshaping of the global health narrative to one where people are put at the centre. This was one of the two plenaries where a member of the non-alcohol beverage industry was also a panelist, and her presence was an issue of debate amongst the attendees. Ms Asante challenged the industry speaker on the harms that their products create and reminded everyone of the United Nations right to health as a fundamental human right. The Bangkok Statement on the Political Economy of NCDs, produced at the end of the conference, rightfully began by reaffirming this human right (3).
On a lighter and brighter side of the conference, PMAC 2019 had a number of initiatives to walk the talk when it came to addressing NCDs. These included nutritional food labels and warning signs for food high in fat, salt, or sugar; standing desks; massage and meditation zones; and a physical activity segment at the start of each session. The food warning signs had a mixed response from the attendees, but most appreciated the other initiatives. It was definitely fun to be exercising to the “Baby Shark” song along with esteemed global health leaders!

The JDN delegation engaged with the attendees in person and on Twitter (#PMAC2019). We thoroughly enjoyed our time, learned more about the challenges in addressing NCDs, particularly the political economy factors, and engaged with new and old friends and colleagues. For more information about PMAC 2019, including the synthesis of the conference, please visit the conference website. The conference theme for PMAC 2020 is Accelerating Progress towards Universal Health Coverage. We anticipate JDN members will have an opportunity to attend next year, and we highly recommend it.

Acknowledgements: We would like to extend our greatest thanks to the Thai JDN for inviting us and to the PMAC organisers for hosting us.

References
World Antibiotic Awareness Week 2018

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“Antimicrobial resistance will take us back to a time when people feared common infections and risked their lives from minor surgery”

-Dr. Tedros Ghebreyesus, Director-General of the WHO

From the early 1900s, antimicrobials such as penicillin helped improve the lives of millions of patients worldwide. Since then, microbes such as bacteria, viruses, fungi, and parasites have evolved to evade these drugs through a process called antimicrobial resistance (AMR). Recent estimates suggest that AMR causes nearly 700,000 deaths worldwide each year and up to 10 million by 2050 (*Figure 1*). It will become more fatal than cancer, diabetes, diarrheal diseases, and road accidents, making AMR one of the world’s most significant global health risks impacting the health of humans, animals, and the environment (1).

*Figure 1. A total of 10 million people may die from antimicrobial resistance (AMR) by 2050 (1).*
The World Health Organization (WHO) Global Action Plan on AMR was endorsed by Member States at the 68th World Health Assembly. This formed the agenda of the High-Level Meeting at the United Nations (UN) General Assembly in 2016. Heads of state, non-governmental organizations, civil society, the private sector, and academic institutions adopted a resolution to collaboratively respond and established the Interagency Coordination Group (IACG) (2). Although this meeting was instrumental in highlighting AMR on a global scale, Member State engagement, especially from low- and middle-income countries (LMICs) has remained low. Only 20 of 194 countries responded to any consultations (3). By the WHO Global Action Plan’s target of 2017, only 44% of countries produced surveillance data on prevalence, 20% had comprehensive action plans (Figure 2), and 14% had no plan at all (4).

Nonetheless, endorsement of this plan by Member States reflected global consensus on the reality of AMR and need to work together to meet its objectives (5). One key objective was to improve awareness and understanding of AMR through effective communication, education, and training. This formed the basis of World Antibiotic Awareness Week.

Members of the World Medical Association’s (WMA) Junior Doctors Network (JDN) have been working over the last few years through the JDN AMR Working Group to help develop solutions for AMR. More and more patients and their families are going online for health information to platforms including Twitter and Facebook, while health care professionals are doing the same to share scholarly research or clinical guidelines, build professional networks, and advocate for positive change (6,7). This suggested an online opportunity.

Figure 2. The world lacks solutions for comprehensive national antimicrobial resistance (AMR) action plans. This includes plans with identified funding sources that are being implemented and have the relevant sectors involved with a defined monitoring and evaluation process in place (4).
Every November, the WHO commemorates World Antibiotic Awareness Week with an online campaign to increase public awareness and promote adherence to the best clinical and community practices. Under the WHO 2018 theme of *Change Can’t Wait, Our Time with Antibiotics is Running Out*, the WMA JDN went online to combat AMR, by raising awareness and work collaboratively to develop solutions.

A team from the JDN AMR Working Group led discussions on Twitter and Facebook highlighting key high-level policies, current statistics, and potential next steps to address AMR. This included informational “tweets”, which were messages using the Twitter platform, authorized by the WMA as prompts for discussion. Junior doctors and the WMA leadership provided trustworthy health information including best antimicrobial stewardship practices for the general public and practitioners, dissected current scientific evidence, and helped develop solutions, such as leveraging existing resources including WMA campaigns such as #PreventFlu (Figures 3-5).

![Figure 3. Screenshot of a Twitter tweet.](image)

![Figure 4. Screenshot of a Twitter tweet.](image)

![Figure 5. Screenshot of a Facebook message.](image)
AMR continues to challenge scientists and practitioners in the human, animal, and environmental disciplines. A key barrier may be silos. Overall awareness of the consequences of unnecessary use of antibiotics is needed at all levels of health care, including patients, providers, and policy makers. The One Health approach encourages all stakeholders to work together for better health outcomes (8). One of many platforms we need to use is social media. Acting as trusted sources of information for the general public through social media has the potential to lower demand for unnecessary antibiotics.

Junior doctors who are often the frontline practitioners not only have the most up-to-date real-world information, but are also more likely to have the skills to engage online.

Now more than ever before, health care professionals, scientists, private industry, and policy makers, including those from human, animal, and environmental industries, are accessible to advance policies and guidelines. Working together across geographies and sectors, we can develop and promote better antimicrobial stewardship practices.

The JDN AMR Working Group looks forward to sharing more results from our work in future publications, including the work we do to contribute to internal and external policy development. We are also preparing to expand for the WHO World Antibiotic Awareness Week in 2019. If you are interested in joining the JDN AMR Working Group, please contact our team (Dr Caline Mattar, Chair of the AMR Working Group) for further information.

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Safe Surgery and Anaesthesia for All: Let’s Take Action Now!

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Surgery has historically been a neglected specialty in the global health sphere. Various reasons can be named for this unfortunate course of history, ranging from the rise of human immunodeficiency virus (HIV) to the erroneous perception that surgery is not cost-effective in low- and middle-income countries (LMICs). Over the past five to 10 years, we observed an increase in attention given to surgery in LMICs and universal health coverage at various global health. Various big players, like the World Health Organization (WHO) and the World Bank, umped on board to support further development of the emerging field of “Global Surgery”.

As junior doctors, we believe that the World Medical Association (WMA), and the Junior Doctors Network (JDN) should not stay behind, but rather, become actively involved in this new movement. At the JDN meeting in Iceland in October 2018, an introductory session to Global Surgery was delivered, and consequently the idea for a new working group was born!

At the moment, the Global Surgery working group represents 16 young doctors from 12 different countries. What makes this working group so interesting is the variety of professional backgrounds we represent. Aside from various surgical subspecialties and anesthesia, we also have members working in pediatrics, public health, and general medicine. This variety is an absolute must, in order to best advocate for surgical patients in a holistic manner.

Together, we can spread the word that surgery as a cost-effective intervention can make a difference for patients with cancers, non-communicable diseases, and musculoskeletal trauma, in LMICs and other low-resource settings.

If we want global surgery to become a local reality, we need the collaboration of health professionals, irrespective of their professional qualifications. If we want universal health coverage to become a reality for all, access to timely, qualitative, and affordable surgical care should be integrated in health schemes around the world.
Led by Dr Manon Pigeolet and Dr Victoria Von Salmuth, this Global Surgery working group aims to provide a platform for residents and young doctors alike to increase professional networks, exchange essential information about global surgery, advocate for surgical patients at the local level and effective surgical health systems at international meetings, and provide opportunities for collaborations on policy or scientific papers on global surgery (Photo 1).

To contribute to existing efforts to achieve the vision of surgery and anaesthesia care for all, various projects will be developed by this working group. A WMA/JDN policy paper on “Access to Safe, Qualitative and Timely Surgery and Anaesthesia Care”, an opinion piece on “The Role of Junior Doctors and Residents in Global Surgery”, and an open letter about “Maternity Leave Regulations in Surgery around the World”, are just a small selection of topics and projects that we will be working on in the near future.

If you are interested in global surgery and would like to participate in upcoming activities, please contact our team (Dr Manon Pigeolet) to obtain more information.