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Editorial

Each doctor becomes a patient sooner or later. The opposite process is possible theoretically. Consequently, sooner or later every doctor stands in a patient's shoes to face everything we talk about concerning public health. In Public Health, the emphasis is somewhat different. In each country Public Health focuses on slightly different settings as priorities. It is determined by the country itself, its geographical location, traditions, experience and medical schools.

However, globally the major challenges remain the previous ones: climate change, a sedentary lifestyle and overweight, smoking and alcohol abuse, malnutrition, population ageing and epidemics of chronic diseases, including oncological, cardiovascular and mental diseases. And all this applies to both – patients and doctors. Irrespective of that, in the coffee pauses of the General Assembly of the World Medical Association, a group of delegates smoked heavily in some corner.

Let us be honest, relations with overweight as well might be better for our friendly global collective.

For many years, I have seen one or another delegate jogging in the morning, the last time it was in Georgia; I have no need to run together with any of the delegates.

Doctors in the world differ the same way as patients do. In the countries where the situation with Public Health is better, doctors are healthier. In the countries that successfully fight against smoking, doctors smoke significantly less than average population.

Tobacco use is one of four major risk factors for non-communicable diseases. It is a huge threat to human health worldwide, and 8 million people die each year, including more than 20% of cases worldwide dying of cancer.

The global tobacco industry's market value in 2017 was around 785 billion USD (excluding China). On the other hand, the global loss caused by the tobacco industry to health care and productivity was 1.4 trillion USD.

The tobacco industry is affecting governments and in different ways is resisting tougher smoking restrictions and controls. And sometimes the doctor remains alone in the fight against smoking in their country, among their patients and among their colleagues.

How to tackle the matter of low physical activity, how to reach the situation that doctors move more, how to do more sports – at least half an hour every day?

Once, when the overweight patient came to me, I started telling them that they should start moving, and I usually asked them to go to their physiotherapist twice a week, and after two months start cycling, doing pilates or gymnastics, or go skiing. When I think that my obese patient will start running for half an hour tomorrow, I hear my colleagues reminding me about the knee injuries.

In the world, the number of female doctors is higher than that of males. As regards sports and exercise, there is a great disproportion and discrimination among men and women.

In the whole world, women's and girls' sports generally receive a smaller contribution at the national level, including access to equipment, transport and training, as well as safe and efficient sports spaces and facilities. Many women are restrained from serious physical activity, they share concerns from stereotypes, the stigmatisation of physically strong women, the insecurity of the image of their body, or the sense limited by physical culture.

Girls of pre-school and school age are physically less active; they have fewer sports available. Women's sports are less paid and less televised as men's sports, and the gap (excluding tennis, beach volleyball, skiing, skating, gymnastics and some more sports) is growing.

It means that doctors have to stand up for women's sports. Women's sports means women's health, it means caring about the health of women by doctors, nurses and health professionals. Doctors in the world should help to bridge the gap in physical activity between men and women, promote women's sports and physical activity.

What to start with? Every doctor with overweight and a sedentary lifestyle should start with an hour at the physiotherapist doing exercises that involve all the muscles, all joints and ligaments in physical activity. The best vehicle for moving around is a bicycle.

Don't believe that anyone else will take care of you even if you're a doctor.

Moreover, such a unique thing as the resettlement of residents in London to the 2012 Olympic Village with great opportunities for physical activity did not alter the sporting habits.

*Dr. med. h. c. Peteris Apinis,
Editor-in-Chief of the World Medical Journal*

Valedictory Address of WMA President Prof. Leonid Eidelman, October 2019



Leonid Eidelman

Honorable Ilia Nakashidze,
Prof. Lobzhanidze,
Distinguished guests,

A warm thank you to our hosts here in Georgia for your warm hospitality in this wonderful city of Tbilisi.

My dear friends and colleagues, It is an honour to address you here and to thank you once again for the opportunity to serve you, the World Medical Association and physicians throughout the world. I am sure that the WMA is an essential organization in the modern world and should be visible, active and presented in important forums.

The purpose of the WMA is to serve humanity by endeavoring to achieve the highest international standards in Medical Education, Medical Science, Medical Art and Medical Ethics, and Health Care for all people in the world.

Since having been inaugurated I have represented the WMA in different meetings. The

first one was the Global Conference on Primary Health Care in Astana, Kazakhstan. Universal health coverage is absolutely necessary to achieve sustainable development goal number 3. Primary health care that includes prevention, acute and chronic care is an indispensable platform for Universal Health Coverage.

There are many challenges for Primary Health Care, the most important of them: absence of strong political commitment; difficulties in integration of health goals into non-health sector planning; and lack of intention for physician-led teamwork.

During the meeting, it was noticeable that many participants didn't think the Primary Health Care model should have the physician at the helm of leadership. The conference focused on other health care providers, traditional ones, such as, nurses, pharmacists and social workers and new professions, like, community health workers and healthcare assistants. We should continue to promote the team approach in Primary Health Care and the leading role of physicians.

Universal Health Coverage was one of the central issues at the Japan Medical Association Ceremony and Medical congress and this was continued at The Health Professional Meeting (H20) 2019 Road to Universal Health Coverage in Tokyo, Japan.

During his tenure as president of the World Medical Association, Dr Yoshitake Yokokura considerably promoted UHC.

I also stressed the importance of physician leadership during the WHO Global Coordination Mechanism meeting on Prevention and Control of Noncommunicable Diseases in Geneva. I took the opportunity

to visit the WMA headquarters and express my appreciation to all the WMA staff.

During the ceremony of the German Medical Profession Marking the Withdrawal of the Medical Licenses of Jewish German Doctors 80 years ago, I emphasized the physicians' moral responsibility according to the WMA's Declaration of Geneva, recently updated due to the immense contribution of the German Medical Association, which states that physicians must never use their medical knowledge to violate human rights and civil liberties, even under threat.

Another opportunity to stress the importance of the physician's professional obligation to the patient and the highest ethical standards was at the CPME General Assembly, where the main topic was health care in danger.

During the Swedish Medical Association Annual Meeting, I learned about how Swedish physicians tackle language limitations and cultural differences when taking care of the large number of refugees.

The global issue of violence in the health sector that negatively impacts our ability to treat patients was addressed at the meeting in Mumbai, India. The future developments in medicine was in center of our meeting at the American Medical Association Headquarters. We discussed: augmented intelligence; environmental intelligence; what physicians want to know about technology; healthcare economy and what is on the horizon.

In attempt to encourage the preparation for the future changes and the new challenges of a constantly evolving profession, the WMA and Israeli Medical Association organised the Physician 2030 meeting, that was at-

tended by over 100 physicians worldwide. It served as a platform for discussions in multiple areas and dimensions of physicians' activity. Issues of the validity of models and predictors in health system, healthcare models and medical workplace in 2030, patient-physician relationship, medical education-how it should be changed and technology – where it can take us, were addressed.

I believe that we must continue to look to the future and be prepared.

Physician burnout is one of the most acute challenges of contemporary medicine and endangers physicians as well as the quality of healthcare. There is a need for studying preventive and treatment solutions. The International College of Person-Centered Medicine has decided to organize meetings on physician burnout and wellbeing every year.

During my presidency year, I visited many physician meetings. You can see them in my report but here I would like to give some specific examples of such meetings.

At the British Medical Association Annual Representative Meeting in Belfast, among others, there were votes on the issue of assisted dying and the BMA's membership in the WMA. The representatives endorsed the continued membership of the BMA in the World Medical Association, for the opportunity it provides to support and influence the development of global health policy.

Dr. Chaand Nagpaul, BMA chair of council, stated the BMA's opposition to Brexit, due to potential damage to the national health service.

The other meeting was CONFEMEL the Spain, Portugal, Latin American and Caribbean Medical Confederation. There were discussions about the specific challenges facing doctors in their respective countries, some of which demanded the WMA intervention. We sent letters to the governments of Honduras, Bolivia and others demanding a change of attitude towards physicians. Another example was a letter that we sent to the Sudanese Government condemning the use of lethal force against physicians and protesters.

During the European Forum Medical Association annual meeting in Montenegro, one of the presentations was of particular interest to me, because it reflected attitude of young physicians that will definitely influence the workforce in healthcare in the years to come. The European Junior doctors presented the situation of part time employment of junior doctors in Europe and stressed the importance of this possibility to the new generation of doctors.

While attending the 34th CMAAO General Assembly we had the opportunity to visit a palliative care centre supported by the Indian Medical Association. I was much very impressed by great work undertaken by the extremely dedicated staff in this facility.

The climate crisis is on the agenda of the World Medical Association. The professional role of physicians in the fight against climate change was suggested in our paper in Fortune Journal.

The greatest media attention we received was our position against the decision of the International Association of Athletics Federation in the case of Caster Semenya. Our position was based on strict ethical considerations, that a medical treatment is only justified when there is a medical need. Medical treatment for the sole purpose of altering the performance in sports is not permissible.

Finally, I am glad to thank two chairs of council I was privileged to work with, both Dr. Ardis Hoven and Prof. Frank-Ulrich Montgomery. I am grateful to the Secretary General, Dr. Otmar Kloiber and his fantastic team who have supported me throughout my presidency. My deepest appreciation to the leaders from more than one hundred countries that make the WMA so important and so influential across the globe. I am confident that the WMA will continue to be a beacon for doctors all over the world, to light the way in medical ethics and continue to serve as a voice of doctors, as well as, supporting NMA's and doctors in times of need.

I thank my predecessors and wish great success to the incoming president Dr. Miguel Jorge.

Thank You

Dr. Miguel R. Jorge, World Medical Association 70th President Inaugural Speech, 25th of October 2019

Dear Colleagues and Friends,
Ladies and Gentlemen,
Thank you for your presence and enduring support to the World Medical Association. It means a lot to the physicians we represent and, at this particular ceremony, it also means a lot to me.

Those of you familiar with the World Medical Association know that our constituent members include one hundred and twelve national medical associations. I am here today being inaugurated as the World Medical Association's 70th President not by myself but representing not just my colleagues

from the Brazilian Medical Association but millions of physicians who practice in every corner of the globe.

My home country, Brazil, is amongst the 10th biggest economies but is also amongst the 20th most unequal countries in the



Miguel R. Jorge

world. And we know that wealth inequalities within a country impact social determinants of health and consequently the health status of its population. It is not uncommon to see, in unequal countries, two realities for medical care: one with first world quality for those who have more and the other of little quality – if any – for the underprivileged.

The World Medical Association's Declaration of Geneva states in its opening remarks that physicians pledge to dedicate their lives to the service of humanity and have the health and well being of their patients as their first consideration. We, as physicians, practice our commitment to these principles not just when attending to our patients but also when we join our medical associations in their multiple activities, aiming, at the end, to raise the health status and quality of life of the population we serve.

There are many and different factors influencing the physicians' role to promote the health and quality of life of others, such as a good and continuous medical education, adequate resources and conditions for work – particularly enough time with each patient, a balanced professional and social life, and – equally important – to take care of their own physical and mental health.

As a psychiatrist, I was planning to emphasize during my Presidential term that there never will be health without mental health. But I was challenged by myself to broaden my concerns, and remind and highlight to my fellow physicians one essential component of the practice of Medicine: the great value of the physician-patient relationship.

It is usually recognized that most of those who are looking to enter medical school, do so saying they want to help people in their suffering related to illness. But studies from different countries show that medical students usually are less sensitive to the patient's needs as a person when finishing than they are when entering medical school.

What happened in between? One possible reason is that students, during their medical education, are more and more exposed to the biological nature of illnesses than to the social environment surrounding their patients and the development of diseases. They also are not adequately taught to take into consideration the emotional aspects of those they are assisting.

To those who are being trained to be a medical doctor, biology is an arena where they feel more secure and comfortable to act than they do when feeling incapable of dealing with people's social and psychological issues. Besides that, the physicians-to-be were developing defences against their own suffering when facing different forms of pain in their patients. Physical pain, emotional pain, social pain. And these defences reduce their sensibility to others' needs.

A good physician needs to be able to put him/herself in the place of their patients, trying to feel as they feel, in order to better understand their needs and plan to provide what they need more. But it is not a simple task to put him/herself in the place of a patient and – at the same time – to avoid feeling as helpless as the patient would be. In medical care, it is as essential to have empa-

thy as it is to be able to examine the patient from the outside.

A colleague from my Department in the Federal University of São Paulo, Dr. Julio Noto (personal communication), reported to me that once he heard from one of his Medical Psychology students: "How can I talk to the patient if there is nothing that I can do for him due to his condition?" Noto considers that teaching Medical Psychology to medical students sometimes is similar to teaching someone "to do nothing". There, doing nothing can correspond to cathartic listening, emotional continence, expectant attitude, and even the use of countertransference in the physician-patient relationship. A brilliant Brazilian novelist from the later 19th and early 20th centuries, Machado de Assis, once wrote: "...there are things we say better being quiet..."

We all hear that Medicine is both science and art but, in the last decades, the practice of Medicine is more and more reflecting an emphasis just on its scientific nature. A competent physician is not a good mechanic of the human body but someone who equally combines technical excellency with being close to their patients, respecting their dignity, and showing them empathy and compassion.

Evidence-based guidelines containing standards of care are really of great importance. They allow the organization of a fragmented physician-patient care model, as different physicians assisting the same patient at different times can apply the same objective scientific knowledge. But an interesting study published in 2016 by Lauren Diamond-Brown suggested that goals of standardization cannot rationalize all aspects of medical practice, and policy makers must not forget the function of a positive physician-patient relationship. We have to recognize the importance of evidence-based medical practice while not forgetting that the decision-making process of care also involves important subjective aspects.

Eric Cassel (2012), in his book *The Nature of Healing: The Modern Practice of Medicine*, states that “Respect for persons has helped move the idea of persons and knowledge about them to a more central position in medicine. From this it follows that healers and other clinicians should know as much about persons as they know about their pathophysiology.” According to him, almost nothing about people is unaffected by sickness.

Concepts like this one have led to a shift of models of care from a disease-specific model to patient-centered collaborative care. Results from reviews of the literature conducted in 2000 by Mead and Brown and repeated in 2019 by Langberg et al. described five dimensions of a patient-centered care: sharing power and responsibility, therapeutic alliance, patient-as-person, coordinated care, and a biopsychosocial perspective.

Emanuel and Emanuel (1992) considered – before the current digital era – that the role of physicians varies, in different models of physician-patient relationship, from a guardian to a counsellor or advisor, from a friend or a teacher to a technical expert. Nevertheless, ethical considerations about the rights of persons and the widespread access to information brought by the Internet to all, have a major impact on the physician-patient relationship. Medical expertise continues to rely on the physicians’ knowledge, but the decision-making process and adoption of a treatment plan now need to include and respect the patients’ preferred choices.

Taking just diagnostic imaging and individual genetic tailoring for the treatment of cancers as examples of the sophisticated progress experienced by Medicine in the last few decades, as well the development of telemedicine, the use of artificial intelligence and particularly of social media, we – physicians – have to learn how to use these tools for improving the physician-patient relationship and not allow them to move us from a focus on the patients themselves or

to create more difficulties in our communication with them.

Another interesting study, from Hitchcock et al. (2005), involving primary care patients with multimorbidity, showed that participants were willing to use technology for monitoring or educational purposes if it did not preclude human contact. When listening to patients’ expectations, humaneness appears as equally or even more important than medical competence. So, a recommendation of major importance is that physicians must be focused on building trust and a strong therapeutic alliance early during the first visit of a patient.

Last November, the European Council of Medical Orders supported and adhered to an initiative by the Forum of the Medical Profession of Spain and the Portuguese Medical Association to defend and strengthen the physician-patient relationship by requesting its recognition by UNESCO as an Intangible Cultural Heritage of Humanity. That proposal considers the physician-patient relationship a fundamental component of health care that can be threatened by political, social, or economic risks, and technological and communication changes, which makes it necessary to protect and enhance the fundamental elements of that relationship.

Physicians working under difficult circumstances such as those in Africa, Latin America and Asia, often cannot do what they consider to be the best plan of action due to the scarcity of different resources. But they can accomplish at least partially their mission if they give a little more time and show empathy and attention to their patients. I am sure that we can always do better for all if we keep in mind the reason why we chose to be physicians earlier in our lives: to help those who are suffering due to their compromised health.

Finally, I would like to say something about my background and this moment. My four

grandparents arrived in Brazil in 1912, after fleeing a difficult situation they were facing in their mountain villages of Lebanon. My parents were born in a small city in the interior of the country and my father became a merchant in his adult life. When I was studying Medicine, his wish was to see me as a general surgeon practicing and making my life even in a deeper part of Brazil, where everything was still waiting to be built.

But, according to some of my colleagues at the medical school, I – in a way – declined to be a “real” physician by choosing to become a psychiatrist. And, in the eyes of many, the worst part of all: rather than focusing on a money driven path, I chose to follow an academic career and, early in my professional life, I engaged in lifelong actions for enhancing the quality of medical care provided particularly to those that are more in need.

After so many years, being here today, becoming the 70th President of the World Medical Association was not something I ever dreamed of. It gives me great joy and happiness, even though has not been possible to have some of my family members with me at this moment. But, I want to specially thank them for their continuous and enduring support.

I am sure that there are times when many of you – like me now – are participating in professional activities that divert you from the company of your family. This is a kind of side effect of being a physician but – remember – as I said before, a balanced professional and social life is essential for taking care of others.

So, once again, on behalf of millions of physicians worldwide and of those they serve, I want to recognize your efforts and dedication, ultimately aiming to provide better health to all.

Thank you!

WMA 2019 General Assembly Report

Tbilisi, Georgia October 23–26



Nigel Duncan

Wednesday October 23

At the invitation of the Georgian Medical Association, delegates from more than 50 National Medical Associations and constituent member associations met at the Sheraton Grand Tbilisi Metechi Palace.

Council

Dr. Frank Ulrich Montgomery, Chair of Council, opened the 213th Council session, welcoming delegates to Tbilisi.

Dr. Otmar Kloiber, the Secretary General, introduced several new Council members and gave apologies for absence.

President's Report

Dr. Leonid Eidelman presented his written and oral report about his work as President during 2018/19. He said he had stated at the start of his Presidency that he would

like to devote his tenure to evaluating future challenges faced by physicians throughout the world, as well as promoting preparedness. This he had done at the many meetings he had spoken at and attended. Among them was the 'Physician 2030' meeting in Herzliya, Israel in May, which addressed healthcare models and the medical workplace in 2030. He had also attended many national medical association meetings.

Secretary General's Report

Dr. Kloiber said that a comprehensive written report had been submitted to the Assembly on the work of the Council over the preceding six months.

Emergency Resolutions

Two emergency resolutions were submitted for consideration.

Opioids

The first Proposed Emergency Resolution on the Revocation of WHO Guidelines on Opioid Use concerned the decision by the World Health Organisation to abruptly withdraw its guidelines on controlled medicines. The Council was told that this had made it much more difficult for patients suffering pain to get access to opioids. The emergency resolution called on the WHO to reinstate its guidelines urgently until they were replaced by new or amended ones.

The Council agreed that this was a matter of urgency and the Resolution should be sent to the Social Affairs Committee for discussion.

Climate Emergency

A second proposed Resolution on Climate Emergency was submitted by the Brit-

ish Medical Association. The Council was told that the resolution followed the recent United Nations summit on climate change which recognised that controlling climate change was necessary for achieving significant health gains. In order to take full advantage of this political momentum now, the BMA said it was proposing this resolution to help co-ordinated action globally through the voice of doctors. The summit was instrumental in galvanizing support from the private sector and securing national commitment. Radical change was needed. Climate action was an opportunity and a call to action to fundamentally transform economies, systems of production and trade. It was an issue that went far beyond the environment to affect every aspect of society and development, and climate action was necessary for achieving the sustainable development goals and controlling disease. The WMA was in a unique position, as the voice of doctors, to ensure that the significant implications for health that climate change posed were recognised and appropriately mitigated.

The Council agreed that this was also an emergency and the Resolution should be discussed in the Social Affairs Committee.

Chair's Report

Dr. Montgomery, in his written report, said that since his election in Santiago in April many big health issues had 'stormed over' them – Universal Health Coverage, Ebola returning to Africa, and the measles returning in many countries, either due to people having no access to vaccines, or to the shameful fact that a growing vaccine hesitancy in richer societies had led to a loss of immunity. There was also climate change, with heatwaves in Europe, typhoons and hurricanes in tropical and subtropical regions, and the dangerous melting of polar ice on both sides of the planet. This was casting long shadows over the future of their children's generation.

The Council meeting was then adjourned until Friday.

Finance and Planning Committee

Dr. Jung Yul Park (South Korea) took the chair and called the committee to order.

Financial Statement for 2018

The committee considered the Audited Financial Statement for 2018. The Treasurer, Dr. Ravindra Sitaram Wankhedkar, stated that the WMA finished 2018 with a surplus and he thanked the secretariat, which regulated, monitored and controlled the expenses.

The committee agreed that the Statement be approved by the Council and forwarded to the General Assembly for approval and adoption.

Budget

The committee considered the proposed WMA Budget for 2020 vs. the actual 2018 Expenditures. The Treasurer noted the excess of income over expenses.

The committee recommended that the proposed Budget for 2020 be approved by the Council and forwarded to the General Assembly for adoption.

Membership Dues Payments and Arrears

The committee received the report on membership dues payments for 2019 to be forwarded to the General Assembly for information.

It also considered the report on membership dues arrears and the proposed dues increase for 2020.

The committee received dues categories for 2020 to be forwarded to the General Assembly for information.

WMA Strategic Plan

Dr. Kloiber reported that the Strategic Plan for 2020-2025 had been forwarded to the General Assembly for a decision. Some of the items in the strategic plan, such as Universal Health Coverage, had already been taken up for action as described in the Council Report.

WMA Statutory Meetings

The committee considered planning and arrangements for future WMA Meetings.

It recommended that the Council withdraw its recommendation to hold the 224th Council Session in 2023 in Baku, Azerbaijan, because of visa problems and the membership status of the Azerbaijan Medical Association. It recommended that the venue be switched to Nairobi, Kenya.

WMA Special Meetings

Dr. Kloiber gave an oral report about the following meetings planned in 2020:

- International Conference on Bioethics in Philadelphia, 18-21 June 2020
- UNESCO Bioethics Conference in Porto, 11-14 May 2020
- International Code of Medical Ethics Regional Conferences
 - East Mediterranean Region in Kuwait, 6-7 February 2020
 - Latin American Region in Sao Paulo, 5-6 March 2020
 - Further regional conferences were planned for the second half of the year
- Global Forum on Vaccination in Vatican, 4-5 May 2020

Review Committee

The committee received an oral report from the Chair of the Review Committee, Ms Robin Menes. She reported that the mandate of the committee as a pilot project had

been extended through to April 2020. She hoped that this committee could be established as a permanent fixture.

Dr. Montgomery thanked Ms Menes for her contributions and hard work during her term. Since this meeting was her last, he appointed Ms Mervi Kattelus (Finnish Medical Association) in her place.

Council Resolutions

The committee considered the proposed classification of old council resolutions.

It recommended that the following Council resolutions be revised for the next meeting in Porto, April 2020 for forwarding to the General Assembly:

- *Trade Agreements and Public Health*
- *Threats to Professional Autonomy and Self-Regulation in Turkey*
- *Support of Dr Serdar Küni*

The proposal to revise the Resolution on Observer Status for Taiwan to the World Health Organisation and Inclusion as Participating Party to the International Health Regulations prompted opposition from the Chinese Medical Association. The CMA said the UN General Assembly and World Health Assembly had provided legal foundation for the WHO to follow the One-China Policy and confirmed the legal status of Taiwan as part of the Chinese Territory to participate in the WHA. The mainland had consistently attached great importance to the health and welfare of compatriots in the Taiwan region. Taiwan region's participation in global health affairs, including WHO technical activities and information access, was unimpeded. But the CMA's motion to withdraw the proposal was not seconded.

A further proposal on how to deal with the Council Resolution on Organ Donation in China also led to criticism from the Chinese Medical Association.

Dr. Kloiber reported that the WMA had strict policy that organs from executed prisoners must not be used for organ transplantation. They had learned that in 2015 there was a change in the legal situation in China and that it was planned to phase out transplantation. The WMA was not in a position to do any research or fact-finding missions to discover what was now happening. The Chinese Medical Association had written to say there had been significant change and the use of organs from executed prisoners no longer took place.

The Chinese Medical Association appealed to the committee to withdraw the proposal to revise the resolution. Since July 2015 China had completely stopped using organs from executed prisoners. Therefore, the resolution was already irrelevant.

At the suggestion of the Chair of Council, the committee agreed to forward this issue to the Medical Ethics Committee for consideration in Porto. [*Law and Ethics see p. 23.*](#)

The committee agreed to recommend that the *Council Resolution on the Relation of Law and Ethics* be approved by the Council as a Declaration and be forwarded to the General Assembly for adoption.

It was agreed that the following Council resolutions be filed for no further action:

- *Legislation Banning Smoking in Public Places*
- *Supporting the Preservation of International Standards of Medical Neutrality*
- *Prohibition of Physician Participation in Torture*
- *Autonomy of Professional Orders in West Africa*
- *Professor Cyril Karabus*
- *Prohibition of Nuclear Weapons*
- *Danger in Health Care in Syria and Bahrain*

On the final policy on Syria, Dr. Kloiber explained that work continued on monitoring the situation in Syria.

Socio-Medical Affairs Committee

Dr. Osahon Enabulele (Nigeria) took the chair and called the committee to order.

Dr. Kloiber, in his monitoring report, spoke about events related to physicians in primary health care. The WMA had been working on a study about this issue, in the light of the fact that major funding donor groups in developing countries tended to be critical about the role and availability of physicians in primary health care. The WMA had worries about various studies that set out to support the replacement of physicians by nurse practitioners, but did not prove this. He had asked NMAs to send in evidence on the situation relating to the substitution, replacement and delegation of the role of physicians. He thanked those NMAs that had done so and a WMA report would soon be available to counteract arguments from other professions and international organisations. This would not be a document against any other health profession. Modern health care was based on a team approach. But at the same time there had to be clearly defined roles,

Network on Disaster Medicine

An oral report was given by the Japan Medical Association

on the initiative to set up a World Platform for Disaster Medicine involving the WMA, WHO and other United Nations agencies, governments, NGOs, academic institutions, enterprises and public service organisations. Given the increasing number of natural disasters related to climate change, such as the typhoon 'Hagibis' earlier in October in Japan, the need to develop a robust international framework for emergency medicine was becoming urgent.

Pseudoscience and Pseudotherapies in the Field of Health

The chair of the workgroup from the Spanish Medical Association presented a pro-

posed Declaration on Pseudoscience and Pseudotherapies in the Field of Health. He explained that this was not a declaration against traditional medicine nor against indigenous medicine. It was a commitment to scientific proven methods to quality of medical care, medical values, and professional good practice. It was against intrusion and in favour of patient safety. He proposed that the document should be sent to the Assembly for adoption.

This led to a debate, during which several delegates said this was a very topical issue, but argued that more time was needed to consider the various amendments that had been suggested by NMAs. References were made to pseudoscientific journals in the United States and Europe and to fake news.

The committee recommended that the proposed Declaration be recirculated with the suggested amendments and that further discussion be postponed until the next committee meeting in Porto.

Violence and Health

The committee considered the proposed revision of the WMA Statement on Violence and Health submitted by the Nigerian Medical Association.

After a brief debate, during which two editorial amendments were agreed, the committee decided to recommend that the Statement, as amended, be approved by the Council and forwarded to the General Assembly for adoption.

Medical Liability and Defensive Medicine

The Israel Medical Association introduced a proposed revision to the WMA Statement on Medical Liability. The document entitled, Medical Liability Reform and Defensive Medicine, defined defensive medicine as 'the practice of ordering medical tests, procedures, or consultations of doubt-

ful clinical value in order to protect the prescribing physician from malpractice suits.'

In the brief debate that followed, several speakers argued that that further consideration should be given to the paper. One speaker argued that it focused on personal physician culpability, when the vast majority of errors that occurred were about systems. Had the WMA ever looked at whether nations that had no fault compensation had less defensive practice than nations which had personal liability? Dr. Kloiber replied that the WMA did not have such information, but it was very important and pertinent.

The committee decided to recommend that the document be recirculated to NMAs for comment.

Declaration of Ottawa on Child Health

The committee considered a proposed major revision of the WMA Declaration of Ottawa on Child Health submitted by the South African Medical Association. The paper emphasised the importance for children to grow up in an environment where they could thrive. Delegates were told that the health and prosperity of a nation were measured by the state of their health and education systems. That started with children. If children could fulfil their potential there would be a lot less poverty across the world.

The committee recommended that in view of the number of amendments submitted the document should be recirculated to NMAs for comment.

Inequalities in Health

A proposed revision of the WMA Declaration of Oslo on social determinants of health was presented by the Swedish Medical Association. The meeting was reminded that this involved a major revision of the 2009 Statement on Inequalities in Health

statement, integrating relevant parts of the Statement in the *Declaration of Oslo on Social Determinants of Health*. This new consolidated policy on social determinants would refer to Universal Health Coverage and the Sustainable Development Goals, especially on ensuring ensure healthy lives and promoting well-being for all ages and the SDG on reducing inequality within and among countries. The Statement on Inequalities in health would then be rescinded.

The committee recommended that the revised Declaration be recirculated to NMAs for comments.

Use of Telehealth for the Provision of Health Care

As part of the 10-year revision process, the Indian Medical Association proposed a major revision of the WMA Statement on Guiding Principles for the Use of Telehealth for the Provision of Health Care. This combined the Statements on Telemedicine and Mobile Health.

In a brief debate, it was pointed out that there was nothing in the paper about inequalities, yet telemedicine should reduce inequalities. It was also argued that there should be more about safety and efficacy.

The committee recommended that the document be recirculated to NMAs for comments.

Legislation Against Abortion in Nicaragua

A proposed revision of the WMA Resolution on the Legislation Against Abortion in Nicaragua was submitted following comments at the last meeting that there was a need for a more global document. The Resolution had been amended to broadly address the threats to women's reproductive health care and the criminalization of reproductive health care provided by physicians that was occurring globally. It called on the Nicaraguan Government to repeal its penal code

criminalising abortion and to develop in its place legislation promoting and protecting women's human rights. An amendment was agreed, inserting a reference to the need for medical confidentiality.

The committee recommended that the document, as amended, be approved by the Council and forwarded to the General Assembly for adoption.

Rights of Patients and Physicians in the Islamic Republic of Iran

At the last Council meeting in April, it was decided that the Resolution Supporting the Rights of Patients and Physicians in the Islamic Republic of Iran should undergo a major revision, but there was no volunteer to undertake the revision.

The committee recommended that the Kuwait Medical Association be appointed as rapporteur for the revision of the Resolution.

Continuous Quality Improvement in Health Care

A minor revision was proposed to the WMA Declaration on Guidelines for Continuous Quality Improvement in Health Care, including references to new WMA policies.

The committee recommended that the document be approved by the Council and forwarded to the General Assembly for information.

Relationship between Physicians and Commercial Enterprises

A proposal was submitted for a minor revision to the WMA Statement Concerning the Relationship between Physicians and Commercial Enterprises.

Several speakers said this was a major problem. In the United States commercial

relationships were changing rapidly, with private equity and other commercial entities purchasing medical practices.

The committee recommended that the document be approved by the Council and forwarded to the General Assembly for information.

Hypertension and Cardiovascular Disease

The American Medical Association presented a proposed Statement on Hypertension and Cardiovascular Disease as a basis for further discussion. The Statement called for national governments to recognize hypertension as the single most important risk factor for cardiovascular disease and death and said that hypertension control should be declared a national health priority.

The committee recommended that the document be circulated for comment.

Protecting the Future Generation's Right to Live in a Healthy Environment

A proposed Resolution on Protecting the Future Generation's Right to Live in a Healthy Environment was submitted by the Turkish Medical Association.

The committee recommended that the document be circulated for comment.

Climate Emergency

The British Medical Association presented its emergency resolution on climate change, calling on the WMA to declare a climate emergency and for the international health community to join doctors' mobilisation on the issue.

Several speakers said the resolution should be stronger, and a number of amendments were proposed. The committee agreed that the resolution should be simplified and that proposed amendments should be consid-

ered as part of the discussion on the previous document on Protecting the Future Generation's Right to Live in a Healthy Environment.

Several amendments were agreed to simplify the resolution.

The committee recommended that the resolution, as amended, be approved by the Council and forwarded to the General Assembly for adoption.

Opioid use

The committee considered the second emergency resolution on the Revocation of the WHO Guidelines on Opioid Use. The Secretary General said this represented a call to the WHO to rectify the situation and to do so transparently.

The committee recommended that the resolution be approved by the Council and forwarded to the General Assembly for adoption.

Medical Ethics Committee

Dr. Andreas Rudkjoebind (Denmark) took the chair and called the committee to order.

Monitoring Report

The Secretary General, in his monitoring report, informed the committee in relation to the Declaration of Helsinki that the secretariat was interested in collecting information from NMAs related to medical experimentation, and the development of clinical testing. He was interested in examples of good practice and challenges, as well as trends or changes observed.

Genetics and Medicine

The Iceland Medical Association presented a proposed revision of the WMA Declaration of Reykjavik on Ethical Consideration

Regarding the Use of Genetics in Medicine. The committee was told there had been rapid changes in this field and the revised document set out updated guidance on the use of genetics and genetic testing in health care.

The committee recommended that the proposed revision be approved by the Council and forwarded to the General Assembly for adoption.

International Code of Medical Ethics

The committee received an oral report from the Chair of the workgroup, Dr. Ramin Parsa-Parsi (German Medical Association). He presented an update on the workgroup's progress and a timeline of the ICoME revision process for the coming months. He said regional expert meetings had been scheduled for 2020, starting with Kuwait (6-7 February) and Brazil (5-6 March).

The oral report was received. The committee agreed that the proposed revision process be approved so that the workgroup could proceed with the regional expert meetings. It was also agreed that the preliminary draft of the International Code of Medical Ethics be shared to serve as a basis for discussion in the regional meetings.

Reproductive Technologies

The chair of the workgroup from the South African Medical Association gave an oral report on a proposed revision of the WMA Statement on Reproductive Technologies and said that further work was needed on many important issues. The workgroup had coordinated with the workgroup on genetics, as there were some reproduction-related aspects that could be considered for incorporation in this paper. The workgroup would prepare a list of priority issues and a proposed revision was planned to be submitted to the next Council meeting in April 2020.

Documentation of Torture

The committee received an oral report from the Chair of the workgroup. It was explained that a new draft was not being considered as the workgroup was seeking to find a balance between ethical obligations to report and denounce torture without being too demanding. A proposed revised version of the Resolution on the Responsibility of Physicians in the Documentation and Denunciation of Acts of Torture and Ill-treatment was planned to be submitted to the next Council meeting in April 2020.

Euthanasia and Physician Assisted Suicide

The proposed revision of the WMA Statement Euthanasia and Physician Assisted Suicide was presented by the German Medical Association. The committee was reminded that the draft compromise document was intended to replace the WMA Resolution on Euthanasia, the Declaration on Euthanasia and the Statement on Physician Assisted Suicide.

This led to the first of three lengthy debates held during the meeting on the issue of euthanasia and physician assisted suicide.

A number of speakers argued against changing current WMA policy. Concern was expressed about the attempt to compromise. It was argued that this was eroding ethics and was the beginning of the end for an ethical stance. It would become a slippery slope.

Others supported the draft document, saying that it was right to remove the policy condemning doctors who participated in euthanasia in those countries where it was legal.

Several amendments were proposed. The first referred to the opening paragraph of the document which stated: 'For the purpose of this declaration, euthanasia is defined as the voluntary act of a physician deliberately ad-

ministering a lethal substance or carrying out an intervention to cause the death of a patient with decision-making capacity at the patient's own voluntary request.'

An amendment was proposed to delete the words 'the voluntary act of.' It was argued that by including these words it ruled out dealing with physicians being forced to participate in euthanasia. The amendment was agreed.

A further debate took place about the sentence which read: 'It is not the role of the physician to participate in euthanasia or deliberately enable a patient to end his or her own life.' It was felt that the already expressed opposition to physician assisted suicide and euthanasia was strong and clear and should not be confused. Others argued that this was taking policy backwards and some wanted to add that it was contrary to medical ethics.

An amendment to delete the sentence was agreed.

The committee recommended that the document, as amended, be forwarded to the Council for adoption by the Assembly. It also recommended that the WMA Resolution on Euthanasia, the WMA Declaration on Euthanasia, and the WMA Statement on Physician-Assisted Suicide be rescinded and archived.

During the whole debate on this issue, no delegate spoke in favour of physician assisted suicide and/or euthanasia

Action on the WMA Physician's Pledge

The Associate Members proposed a revision of the WMA Statement on Action to Stimulate use of the Physicians' Pledge of the Declaration of Geneva, by making the wording less prescriptive. They proposed using the word 'encourage' rather than 'require' the pledge to be used at medical meetings.

After speakers said that this change was not necessary, the proposal to amend the Statement was rejected.

Solitary Confinement

The committee considered a proposed revision of the WMA Statement on Solitary Confinement submitted by the British Medical Association. This advised physicians not to participate in the decision-making process resulting in the solitary confinement of prisoners. The BMA talked about the need to exclude children and young people from this practice.

The committee recommended that the proposed revision be approved by the Council and forwarded to the General Assembly for adoption.

Physicians Treating Relatives and Friends

The South African Medical Association presented a proposed revision of the WMA Statement on Physicians Treating Relatives and Friends, stating that wherever possible, physicians should avoid providing medical treatment to family.

Speakers argued that the document addressed an important issue but needed further consideration and editing.

The committee recommended that the proposed revision be recirculated for comments.

Physician Patient Relationship

The committee received an oral report from the Chair of the workgroup from the Spanish Medical Association. The committee was told that a revised Declaration was planned to be submitted to the Council session in Porto in April 2020.

Ethics in Sports Medicine

A proposed revision of the Council Resolution on Ethics in Sports Medicine was

submitted by the South African Medical Association. This was largely related to the issue of the gender rules for classifying female athletes issued by the International Association of Athletics Federation.

Speakers argued that this issue had been well publicised following the last meeting. However, there was a need for more general policy to be drawn up.

The committee noted that the *WMA Declaration on Principles of Health Care for Sports Medicine* was scheduled to be revised next April as part of the annual policy review process. This revision would provide an opportunity to incorporate the main policy elements of the proposed Council Resolution on Ethics in Sports Medicine into the revised Declaration in an effort to consolidate WMA policy.

The committee decided not to approve the revised Resolution, but to circulate the document and a paper from the American Medical Association, and to work on another more general statement on ethics and sports medicine.

Embryonic Stem Cell Research

The committee considered a major revision of the WMA Statement on Embryonic Stem Cell Research submitted by the American Medical Association and recommended that the document be circulated for comments.

Declaration of Geneva

A proposed revision of the WMA Declaration of Geneva was submitted by the British Medical Association. It suggested adding one sentence to the Declaration: 'I shall strive to practise fairly and justly throughout my professional life'.

The committee welcomed the proposal as a positive one and noted that it was being actively examined as part of the current revision

process of the International Code of Medical Ethics. The issue was also considered during the most recent revision process of the Declaration of Geneva and would be kept in mind for the next revision.

The committee recommended that the proposed revision be rejected.

WMA Human Rights

Clarisse Delorme, WMA Advocacy Advisor, referred to the relevant human rights section of the Report of the Council to the WMA General Assembly.

Thursday October 24

Associate Members Group

The meeting was called to order by the Chair Dr. Joseph Heyman.

Membership

Dr. Heyman reported that there were 613 Associate Members from Japan, 775 other members, 31 life members, 192 junior doctors and 96 medical students.

Junior Doctors' Network

Dr. Audrey Fontaine, newly elected Chair of the JDN, reported on the Network's activities since the last Associate Members meeting in October 2018. Membership had increased considerably due to increasing support from the Constituent Members.

The JDN's participation in the World Health Assembly meeting had produced reports on the various issues discussed, namely health workforce, universal health coverage, health emergencies, air pollution and antimicrobial resistance.

Dr. Fontaine thanked all those who had supported the JDN. She introduced the new JDN leadership team and reminded

the meeting that 2020 would mark the 10th anniversary of the Network, an event which would be marked with special activities.

Past Presidents and Chairs of Council Network

Dr. Jon Snaedal reported on the activities of the Network. He spoke about Dr Yoram Blachar's continued liaison with the UNESCO World Conference on Bioethics, Medical Ethics and Health Law, which was last held in Jerusalem, Israel, from 27-29 November 2018. Dr Mukesh Haikerwal was continuing to raise the WMA's profile in social media networks. He had attended the Health Professional Meeting (H20) – The Road to Universal Health Coverage, as a keynote speaker, in June 2019, in Tokyo, Japan.

Dr. Snaedal expressed his regret on the passing of Dr J. Blahos from the Czech Republic.

Dr. Heyman reported that the Associates now had a lively Google group of 228 members

Access to Surgery and Anesthesia Care

The JDN presented a proposed Statement on Access to Surgery and Anesthesia Care. It was agreed to send this to the General Assembly for consideration.

Scientific Session on "Palliative care – For the implementation of international standards of palliative care"

Zaza Bokhua, Vice-Minister of Ministry of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia welcomed delegates.

The first speaker, Professor Robert Twycross, Emeritus Clinical Reader in Palliative Medicine from Oxford, UK entitled his speech 'Palliative Care: What, Who,

When, and How?’ He spoke about the history of the hospice movement and the way in which palliative care had broadened out. He said palliative care focused on quality of life, and was based on need, not limited by diagnosis or prognosis. It was care beyond cure. He said patients’ top four priorities were expert care, effective communication and shared decision-making, respectful and compassionate care, and trust and confidence in clinicians.

Professor Julia Downing, Chief Executive of the International Children’s Palliative Care Network (ICPCN), King’s College London, spoke on ‘Palliative care for children’ and particularly in Uganda where she works. She said the ICPCN was the global network of individuals and organisations working together to reach the estimated 21 million children with life-limiting conditions and life-threatening illnesses. Yet only five per cent of them had any access to palliative care. The Network believed that all children and young people and their families had the right of access to palliative care and this should begin at diagnosis until bereavement.

Dr. Fiona Rawlinson (Johansen), Director of the Cardiff University School of Medicine Centre for Medical Education, College of Biomedical and Life Sciences in the UK talked about ‘Postgraduate education programmes – correct planning and implementation.’ She said that there needed to be undergraduate palliative care training for all. Palliative care was something that would affect everybody. But there were not enough health care professionals with expertise in the area. Palliative care needed to be included as an integral part of ongoing education and training to care providers. She went on to talk about what should be taught and the core competencies needed.

Professor Xavier Gomez-Batiste, Professor of Palliative Care at the Faculty of Medicine, University of Vic, Catalonia entitled his speech ‘Adapting palliative care programs to advanced chronic care epidemics’. He spoke

about how to extend palliative care to non-cancer patients, and about ‘the tsunami of needs’ they were facing in Catalonia.

The next speaker was Professor Julia Verne, Head of Clinical Epidemiology, at Public Health England’s National End of Life Care Intelligence Network, who spoke on ‘Using a Human Rights approach to evaluate Palliative and End of Life Care in England.’ She said that a human rights framework was useful to judge the progress of implementation of comprehensive palliative and end of life care. Human rights legislation could also be a useful adjunct to the arguments made for implementing palliative and end of life care to relieve suffering and respect the dignity of human beings.

‘Palliative Care Development Globally and in Post-Soviet Countries’ was the subject of the next speaker, Professor Stephen Connor, Executive Director of the Worldwide Hospice Palliative Care Alliance. He spoke about palliative care development in the former Soviet Republics. He talked of the global need for palliative care and looked at the impact of palliative care on the cost of health care. The challenge for the future was how to integrate specialised palliative care into existing healthcare delivery structures and primary care, to get better continuity of care and more community involvement and ownership.

Dr. Katalin Muzsbek, Medical Director of the Hungarian Hospice Foundation, talked about ‘Psychological issues in palliative care’. Cancer, death and dying were still taboos subjects in eastern European countries. Advanced cancer and incurability caused fear, distress and depression. Therefore, early recognition and treatment of psychological symptoms were crucial, and the education of professionals and the public were of great importance.

Professor Ging-Long Wang, Adjunct Clinical Professor of Psychiatry National Yang-Ming University School of Medicine, Tai-

pei, Taiwan talked about the integration of psycho-oncology services and palliative care in Taiwan. The aim was to improve quality of care for all patients and families in every stage of their medical care. There was satisfactory coverage in the stage of diagnosis and curative treatment and at end of life. They had tried to extend psycho-oncology services to all cancer patients and palliative care to all patients in stage 4 disease who needed it.

‘Care development across Europe: lessons from the Atlas 2013-Atlas 2019’ was the title of the speech by Professor Carlos Centeno, Professor, Palliative Medicine and Symptom Control Faculty of Medicine, University of Navarra, Spain. He said that little by little palliative care was becoming the conscience and responsibility of society. Volunteers and the community were playing a leading role in many countries. He said that society involvement would be the key to the future.

Dr. Eduardo Garralda, from the University of Navarra, Spain talked about the current status of palliative care development in Georgia in comparison with benchmarking countries. He looked at socio economic data. Globally there were 60 million people needing palliative care, with 44,000 people in Georgia in need. He compared Georgia’s palliative care services to neighbouring countries. There was a low use of opioids, below the European average. He said that the situation in Georgia had slightly improved recently, but coverage was still insufficient and there was still a need to focus on access to medicines and speciality services.

Friday October 25

Resumed Council Session. Medical Ethics Committee Report

With the exception of the issue of physician-assisted suicide, the Council passed the full report of the Medical Ethics Committee.

This included forwarding to the General Assembly for adoption the Declaration of Reykjavik on Ethical Consideration Regarding the Use of Genetics in Medicine and the revised Statement on Solitary Confinement.

It also agreed to circulate for comment the Statement on Physicians Treating Relatives and Friends and the Statement on Embryonic Stem Cell Research.

It agreed that the revision of the International Code of Medical Ethics should continue with a draft proposal being shared at regional expert meetings.

Declaration on Euthanasia and Physician-Assisted Suicide ([see p. 22](#))

On the proposed Declaration on Euthanasia and Physician-Assisted Suicide, a further debate took place, when several delegates called for the document to be recirculated and for further debate to be postponed until the next meeting in Porto in April. It was pointed out that the proposed Declaration did not mention either palliative care or mental health of children. However, there was opposition to any delay, and in a vote the committee rejected a motion to recirculate the document.

The committee then approved the Declaration for forwarding to the General Assembly for adoption.

Socio-Medical Affairs Report

With the exception of three items, the report from the

Socio- Medical Affairs Committee was approved.

It was agreed that the following documents be forwarded to the General Assembly for adoption:

Violence and Health, Legislation Against Abortion in Nicaragua, Climate Emergency and Opioid Use.

It was agreed that the following documents be circulated for comment – Pseudoscience and Pseudotherapies in the Field of Health, Medical Liability & Defensive Medicine, Child Health, Inequalities in Health, Use of Telehealth for the Provision of Health Care, Hypertension and Cardiovascular Disease, and Protecting the Future Generation's Right to Live in a Healthy Environment

Continuous Quality Improvement

An amendment was proposed by the British Medical Association to add a new paragraph to the proposed revision of the WMA Declaration on Guidelines for Continuous Quality Improvement in Healthcare. The paragraph read: 'Healthcare professionals and institutions should systematically record and reflect on adverse incidents and medical error for the purposes of learning and quality improvement. This should occur in an environment of trust (and confidentiality when appropriate) and to actively avoid a blame culture.'

The amendment was accepted and the Council agreed that the document as amended should be forwarded to the General Assembly for adoption.

Relationship Between Physicians and Commercial Enterprises

The American Medical Association suggested recirculating the proposed revision of the WMA Statement Concerning the Relationship Between Physicians and Commercial Enterprises. It was argued that significant changes were occurring in relations between physicians, hospitals and other economic institutions, such as private equity groups, venture capital and insurance companies. This required more discussion on the policy.

A motion to recirculate the document was agreed.

Climate Emergency ([see p. 41](#))

The British Medical Association proposed an amendment to add to its emergency resolution the sentence: 'The WMA and its constituent members and the international health community must acknowledge the environmental footprint of the global healthcare sector, and act to reduce waste and prevent pollution to ensure healthcare sustainability.'

The amendment was supported and the Council agreed to forward the Resolution, as amended, to the General Assembly for adoption.

Finance and Planning Committee Report

The Council approved the report from the Finance and Planning Committee, including the Audited Financial Statement for 2018 and the proposed Budget for 2020, both of which were forwarded to the General Assembly for adoption.

The Council agreed to withdraw the recommendation on the venue for the 224th Council Session in 2023 in Baku, Azerbaijan, and approve Nairobi, Kenya, as the venue for the 224th Council Session in 2023.

The Council agreed the proposed Classification of Old Council Resolutions as recommended by the committee.

Associates Members

A report was presented from the Chair of the Associate Members, Dr. Joseph Heyman. He said the membership had become much more efficient, engaged and meaningful.

Two webinars were being planned, on social determinants of health and on the International Code of Medical Ethics.

Past President and Chairs Network

Dr. Jon Snaedal said the Network had been active with past Presidents and Chairs acting individually on behalf of the WMA.

Junior Doctors Network

A report on the work of the Network was presented by the Chair. A growing number of junior doctors had been attracted to the Network and plans were being prepared to celebrate the 10th anniversary of the Network next year.

World Medical Journal

The Editor referred to his written report, which stressed that the Journal was historical evidence which enabled them to remember all presidents, key members of the Council, chairs of committees and opinion leaders. His task was to collate, as far as possible, everything that WMA leaders thought, did and wrote. He said he would like to see more activity from the leaders of national medical associations writing about social determinants, public health and medical ethics.

Public Relations

The meeting heard a report on public relations and the need to publicise the various policy statements to be adopted by the General Assembly. Press releases and social media were used to achieve this. However, national medical associations could also help by issuing their own press releases and contacting their own governments about new policy statements.

Environment Caucus

An oral report was presented on the Environment Caucus which had met the previ-

ous day. The Caucus had heard about the results of the recent UN Climate Action Summit. It was now preparing for the next climate conference COP 25 in December where the WMA would be co-hosting a global climate and health summit. Consideration was being given to having sustainable climate for WMA meetings and how WMA delegates would promote and support green conduct at international meetings, reducing WMA delegates' contributions to climate change.

Advocacy and Communications Panel

The Chair of the Advocacy and Communications Advisory Panel, Dr. Angelique Coetzee gave an oral report. She referred to a small survey of NMAs that had been carried out about communications and advocacy, which emphasised the importance of the WMA website and e mail communication with the office in France. At a meeting of the Panel earlier in the week there had been a discussion about the need to support smaller NMAs, possibly by having larger NMAs in the region acting as mentors, how to foster media visibility by reaching the unreached, the role of social media and the possibility of having open consultation on key issues under consideration .

General Assembly Ceremonial Session

The Ceremonial Session was called to order by the WMA President, Dr. Leonid Eidelman

Following welcoming speeches, delegates stood to recite the Declaration of Geneva.

A Roll Call and Introduction of Delegates and Observers was carried out by the Secretary General, Dr. Otmar Kloiber

The Chair of the WMA Council Dr. Montgomery then paid tribute to the outgoing President Dr. Eidelman and thanked him for his work during his Presidential year. He

said he had highlighted the issue of physicians of the future, questioning how they were going to carry out their profession in the years to come. And he had never forgotten patients during his work.

Dr. Eidelman then delivered his Valedictory Address.

Dr. Miguel Roberto Jorge, then took the oath of office as President of the WMA for 2019/20. He was officially installed as President and presented with the Presidential Medal.

Dr. Jorge then gave his Inaugural Address. The Assembly then adjourned.

Saturday October 26

General Assembly Plenary Session

The day began with a brief orientation session, when the Chair of Council Dr. Montgomery explained to delegates the procedure of the Assembly. He reminded delegates that any vote on changing ethical policy required a three-quarters majority.

He then called the Assembly to order.

Credentials Committee

The Credentials Committee reported that there were 52 WMA constituent members present and registered, with a total number of 145 votes. A three-quarters majority was 109. A two-thirds majority, required for changing the bylaws, would be 97 votes.

Election of President for 2020-2021

The first item on the agenda was the election of a President for 2020-21.

The only nomination was that of Dr. David Barbe, former President of the American Medical Association. Dr. Barbe was elected unopposed as President-elect.

He thanked the meeting for its support with these words:

‘Our physician colleagues and our patients depend on our wisdom and leadership to make healthcare better. Only by relying on strong core principles can we adapt to the changes and seize the opportunities that face us. I promise I will rely on WMA policy and our core values of promoting human rights, ethical medical practice and the primacy of the patient physician relationship to make decisions and statements that reflect the will of this Assembly.

‘The WMA will continue to form partnerships and collaborative efforts to accomplish our many strategic objectives. But most of all, critical to our success, will be your active participation. So I sincerely hope you will join me in boldly moving the WMA forward into the future, while at same time upholding our best ideals from past and as always providing the best patient care for the patients that we serve.’

Universal Health Coverage

An oral report was given by Dr. Yoshitake Yokokura, Past President of the WMA and President of the Japan Medical Association. He talked about the WMA’s engagement on the issue of universal health coverage. He reported on the UHC Forum held in December 2017 in Tokyo, which had adopted the Memorandum of Tokyo ‘Affirming health for all’ and about the Memorandum of Understanding signed with the World Health Organisation.

He had participated in the United Nations High Level meeting in New York in September where world leaders adopted a high-level declaration.

Report of the Council

The Assembly approved the written report from Council that had been tabled.

The Assembly then considered actions recommended by the Council from the Medical Ethics Committee.

Female Foeticide (see p. 22)

Dr. Jürg Schlup (Switzerland) presented the proposed Revision of the WMA Statement on Female Foeticide. He said the policy had been amended to add the following sentence: ‘The WMA holds that sex selection abortion for reasons of gender preference is discriminatory, where it is solely due to parental preference and where there are no health implications for the foetus or the woman.’ He said the goal was to avoid female foeticide with all its social consequences.

The Assembly agreed to adopt the revised Statement.

Genetics in Medicine (see p. 26)

Dr. Reynir Arngrimsson (Iceland) presented the Declaration of Reykjavik – Ethical Consideration Regarding the Use of Genetics in Medicine. He said the Declaration was a response to the rapid progress taking place with genetics in medicine and the need to put ethical considerations at the forefront of these developments.

The Assembly agreed to adopt the Declaration.

Solitary Confinement (see p. 39)

The proposed revision of the WMA Statement on Solitary Confinement was presented by Dr. Chaand Nagpaul (British Medical Association).

The Assembly agreed to adopt the Statement.

The Assembly then moved on to consider actions recommended by the Council from the Socio-Medical Affairs Committee.

Declaration of Madrid on Professionally-led Regulation (see p. 22)

Dr. Nagpaul presented the proposed revision of the WMA Declaration of Madrid on Professionally-led Regulation

The Assembly agreed to adopt the Declaration.

Antimicrobial Resistance (see p. 29)

Dr. Nagpaul also introduced the proposed revision of the WMA Statement on Antimicrobial Resistance. He said this was an issue of huge importance and was central to the work of the WMA globally.

The Assembly agreed to adopt the Statement.

Reducing Dietary Sodium Intake (see p. 37)

Th South African Medical Association presented the proposed revision of the WMA Statement on Reducing Dietary Sodium Intake, recognising the prevalence of hypertension associated with sodium intake.

The Assembly agreed to adopt the Statement.

Sugar (see p. 34)

The proposed WMA Statement on Free Sugar Consumption and Sugar-sweetened Beverages was introduced by Dr. Lujain Alqodmani (Kuwait Medical Association). She said that given the rise of NCDs and child health obesity and nutritional challenges all over the world, it was important for the WMA to have a strong statement on the issue.

The Assembly agreed to adopt the Statement.

Healthcare Information for All (see p. 35)

Dr. Nagpaul introduced the proposed WMA Statement on Healthcare Informa-

tion for All. He said it was well recognised that a lack of access to health care information was a major contributor to morbidity and mortality, especially in low and middle income countries and also among vulnerable groups. He said this was a really important statement because it was essentially about equity, empowerment and allowing every single citizen to fulfil their fullest potential in achieving their maximum health.

The Assembly agreed to adopt the Statement.

Access of Women and Children to Health Care (see p. 28)

Leah Wapner (Israel) presented the proposed WMA Statement on Access of Women and Children to Health Care.

The Assembly agreed to adopt the Statement.

Augmented Intelligence (see p. 31)

Dr. Patrice Harris (American Medical Association) presented the proposed WMA Statement on Augmented Intelligence in Medical Care. She said the AMA had proposed this because machine learning technology innovation was going to continue to impact on how they cared for their patients. It was important for NMAs to be educated on the issue.

The Assembly agreed to adopt the Statement.

Medical Age Assessment of Unaccompanied Minor Asylum Seekers (see p. 36)

Dr. Ramin Parsa-Parsi (German Medical Association) introduced the proposed WMA Statement on Medical Age Assessment of Unaccompanied Minor Asylum Seekers. He said the document emerged from what was perceived to be an exceptionally pressing and timely matter, namely the

methods employed to assess the age of unaccompanied minor asylum seekers for the purposes of determining their legal status in the country in which they were seeking asylum. Given the global implications of this issue, it was important that physicians the world over were given guidance for dealing with cases they were called upon to perform medical age assessments.

Dr. Marit Hermansen (Norway) referred to the WMA statement earlier in the year on new eligibility regulations for classifying female athletes which said 'It is in general considered as unethical for physicians to prescribe treatment for excessive endogenous testosterone if the condition is not recognized as pathological' and went on to call on physicians to refuse to perform any test or administer any treatment or medicine which was not in accordance with medical ethics. In that case, she said, the WMA was opposing treatment for non-medical reasons. Radiological examination without medical indication or examination that infringed on the dignity and privacy of asylum seekers, that was genital examination, was in the same category.

So she proposed inserting in the asylum seekers Statement a new paragraph saying 'The WMA advises doctors not to participate in the age assessment of minor asylum seekers in all cases but where it is demonstrably of interest of the individual.'

Dr. Andreas Rudkjoebin (Denmark) spoke against the amendment. He said it was not consistent with an earlier paragraph in the Statement which stated that the patient must be informed that the procedure was not done to provide health care. In addition, the Statement already referred to any infringement of dignity and privacy.

In a vote, the amendment was rejected.

The Assembly then agreed to adopt the Statement.

The Assembly agreed that the *WMA Resolution on Improved Investment in Public Health* be rescinded and archived.

Violence and Health (see p. 42)

The Nigerian Medical Association introduced the proposed revision of the WMA Statement on Violence and Health.

The meeting was told that this covered all forms of violence at the work place and against physicians. The Assembly agreed to adopt the Statement.

Abortion in Nicaragua (see p. 41)

Dr. Gustavo Grecco (Uruguay) proposed the revised Resolution on Legislation Against Abortion in Nicaragua

The Assembly agreed to adopt the revised Resolution.

Climate Emergency (see p. 41)

Dr. Helena Mc Keown (British Medical Association) introduced the emergency Resolution on Climate Emergency. She said she recognised the previous work undertaken by the WMA on this issue, but the BMA believed it was time to express the view that action on climate change should be accelerated.

The Assembly agreed to adopt the emergency Resolution.

Opioid Use (see p. 42)

Dr. Ravindra Wankhedkar (India) introduced the emergency Resolution on the Revocation of WHO Guidelines on Opioid Use. He said the resolution had been introduced because the WHO, without any discussion with any stakeholder, had rescinded its guidelines on opioids, causing a lot of difficulties for health care providers and patients.

The Assembly agreed to adopt the emergency Resolution.

The Assembly then referred back to the report from the Medical Ethics Committee to discuss one additional item.

Physician-Assisted Suicide

On a motion to adopt the proposed Declaration on Euthanasia and Physician-Assisted Suicide as amended by the Council, Dr. Ramin Parsa-Parsi (Germany) said that discussions had been continuing for some time about merging three WMA policies into a new document. Following further collaboration, he proposed an amendment adding wording at the beginning of the document to read: 'The WMA reiterates its strong commitment to the principles of medical ethics and that utmost respect has to be maintained for human life. Therefore, the WMA is firmly opposed to euthanasia and physician-assisted suicide.'

This led to a lengthy debate, with speakers arguing for and against the amendment.

Dr. Helena McKeown (British Medical Association) supported the amendment. She said the BMA was concerned by the shortcomings in current and applied care and was working to ensure that those cared for at home had access to needed pain relief at any time during the day or night. The BMA did not believe that physician assisted suicide should be made legal in Britain. It did not believe either voluntary or involuntary euthanasia should be legalised. The BMA was currently polling its members on the position of the BMA and neutrality.

Prof. Pablo Requena Meana (Vatican Medical Association) said the draft policy submitted was not a bad document. But without doubt it weakened the WMA's position on euthanasia. He said it would not be appropriate to adopt this document because many countries were discussing

laws on euthanasia and it might give the impression that the WMA in some way recognised this social pressure and had lowered its standards on this issue. The Vatican Medical Association was not in a position to adopt this document if it did not include at the beginning a reference saying that euthanasia and physician assisted suicide were contrary to medical ethics.

Prof. Yang Yang (Chinese Medical Association) supported adopting the document, but Dr. Kgosi Letlape, a Past President of the WMA, said that current WMA policy was a beacon of medical ethics. He argued against adopting a document that might give governments that did not want to provide health services an option of allowing citizens to die that might have tacit support from the WMA.

He received support from the New Zealand and Romanian Medical Associations. Delegates heard that New Zealand was going through a big social debate on physician-assisted suicide at the moment and the medical association there had used the WMA's strong policy position. Dr. Gheorghe Borcean (Romania) asked the meeting to consider what message it wanted to send the world and whether it would still be representative of the profession.

Dr. Yoshitake Yokokura (Japan) said that in Japan and in Asia there were very strong religious conceptions about death and euthanasia. Two years ago, a symposium had been held in Japan on this issue, and Asian countries were unanimously against the idea of euthanasia. The other day the state-run broadcaster in Japan had reported on a lady who had travelled to Switzerland to receive physician-assisted suicide because she could not do so in Japan. Since then in Japan this topic had attracted much attention. Under such circumstances it was high time the WMA came out with a very clear message that it was opposed to euthanasia and physician-assisted suicide. Physicians should not be forced into being any part of

that. He therefore suggested that the proposed Declaration be adopted.

Dr. Jaques de Haller, an Associate Member from Switzerland

and former President of the Standing Committee of European Doctors, thanked the Germans for their compromise document. It reaffirmed the position of the majority of members of the WMA, being firmly against euthanasia and physician assisted-suicide. At same time it avoided stigmatising colleagues in different situations. This was a positive point. He said the document fostered respect and reconciliation and they should be thankful for it.

Dr. Barbara McAneny (American Medical Association) said that ethics over time did change. The document carefully defined euthanasia and physician-assisted suicide as two very different things. She said she was a cancer doctor and had been present at the end of life for many patients. The cancer, not the patient decided when that patient would die. The only thing the patient had in their control was the manner and the comfort of their passing. The WMA had decided that with palliative care and terminal sedation it was acceptable for her to sedate a patient in the last two hours of their life. But two hours was different from two weeks. There was a grey zone of what was acceptable and what it meant to relieve pain and suffering at the end of life. She said she supported the amendment because the words allowed physicians to use their own judgement.

Prof. Zion Hagay (Israel) said he fully supported palliative care but not euthanasia. It was against his ethics. It was also against the position of the Israeli medical ethics committee which was against euthanasia. Therefore, he would vote against the proposed Declaration and the amendment.

The Brazilian Medical Association said it would support the document, while Dr. Serafin Romero (Spain) said it was im-

portant to reach a consensus. He said that they should all make clear that everyone was against euthanasia. Dr. Gana Baskaran Nadason, President of the Malaysian Medical Association, said his association strongly opposed euthanasia. Physicians were supposed to save life, not to take away life.

Dr. Francis Faduyile (Nigeria) said that at the regional meeting held in Africa two years it was agreed that euthanasia and physician-assisted suicide were unethical and they should go the way of palliative care. The physician pledge stated that physicians would maintain the utmost respect for human life. In Nigeria, they believed that any physician who participated in euthanasia or physician-assisted death was actually unethical. He said he wanted to plead with colleagues they should state that the WMA reiterated its strong commitment to the principle of medical ethics. He proposed a further amendment to add the words 'The WMA considers involvement in physician-assisted suicide and euthanasia as being unethical'.

Discussion then focused on the Nigerian amendment, which was seconded. Dr. Jacqueline Kitula (Kenya) said that medical ethics was their bedrock. The amendment would be in line with this. In Kenya euthanasia and physician-assisted suicide were not permissible. But any statement that began to waiver might open up a leeway for governments to deliver a cheaper way to take care of those who were chronically ill. She therefore supported issuing a strong statement as set out in the Nigerian amendment.

After further debate, a vote was taken and the Nigerian amendment was defeated by 84 votes to 36 with 17 abstentions.

The debate then continued on the original amendment from the German Medical Association.

Dr. Tony Bartone (Australia) said that society changed and ethics evolved. He did not be-

lieve the language of the amendment and the proposed Declaration weakened the position of the WMA. The AMA had a firm position on euthanasia and physician-assisted suicide. He read one sentence from the AMA policy 'The AMA believes doctors should not be involved in interventions that have as their primary intent the ending of a person's life. This does not include the discontinuation of treatment of no medical benefit'. He said in Australia some of the states had started the process of allowing the legalisation of voluntary assisted dying. He said he did not believe there was anything in the proposed Declaration that lessened the opposition to euthanasia and physician-assisted suicide. He would therefore be voting in favour.

Dr. Jean-Francois Rault (France) said that the French Medical Association was opposed to active euthanasia and assisted suicide. Like many colleagues, he was pleased that a compromise text had been found in which all opinions could be reflected. Further support came from speakers from the Hungarian and Indian Medical Associations, both of whom welcomed the strength of the document.

Before the next vote was taken, Dr. Andy Gurman, an Associate Member, asked for clarification about how abstaining votes would be treated as part of the rule for three-quarters or two-thirds majorities.

This led to an examination of the bylaws and a ruling from the Chair that in the Assembly abstentions counted.

A vote then took place on the original amendment to add at the start of the document two sentences: 'The WMA reiterates its strong commitment to the principles of medical ethics and that utmost respect has to be maintained for human life. Therefore, the WMA is firmly opposed to euthanasia and physician-assisted suicide.'

The amendment was carried by 115 votes to 0, with 12 abstentions.

The debate continued on the proposed Declaration, as amended.

The Ghana Medical Association proposed adding the words 'No physician should participate in euthanasia or assisted suicide whether voluntary or under compulsion, nor should any physician make, refer decisions to this end even if obliged or coerced.' But the proposal failed to find a seconder.

Before the final vote on whether to adopt the final Declaration as amended, Leah Wapner (Israel) said that voting on this did not mean that participating in euthanasia or assisted suicide was unethical. It was clear that what they were going to vote on was weaker than what they were saying before, that it was unethical. She said they needed to reach a consensus on this, but she thought there were large parts of the room that felt very uncomfortable with the document.

Dr. Kenji Matsubara (Japan) said the proposed Declaration was a softening of the WMA's policy and he proposed an amendment to add the words 'Euthanasia and physician-assisted suicide are not compatible with medical ethics.'

The amendment was defeated by 70 votes to 45 with 21 abstentions.

In a final vote to adopt the amended Declaration, which required a three-quarters majority, 110 voted for, 10 against with four abstentions.

The Declaration was adopted and the Assembly agreed to rescind three previous WMA policy statements.

Declaration of Geneva

Prof. Raanan Gillon, President of the British Medical Association, returned to the issue of revising the Declaration of Geneva by adding the words 'I shall strive to practise fairly and justly', an amendment that failed to find a seconder earlier in the week. He

said he should have sought a seconder for his motion before proposing it and he invited those who supported it to contact him so that the matter could be raised again at the next meeting.

Report of the Treasurer

The Treasurer, Dr. Ravindra Sitaram Wankhedkar gave a comprehensive report on the financial statement for 2018. He said there was a surplus, and expenses were well regulated, monitored and controlled.

Membership dues had increased and the Association had a low risk investment strategy. It relied heavily on membership subscriptions for its income.

He said the volume, structure and quality of the finances were solid, and savings were safe.

He reported detailed expenditure and income statistics.

The Audited Financial Statement for the year ending 31 December 2018 was approved.

Dr. Wankhedkar then presented the proposed Budget for 2020 and the Report on Membership Dues Payments for 2019.

Both reports were adopted.

The Assembly received for information the WMA Dues Categories 2020.

The Assembly approved the proposed Dues Increase starting in 2021.

Future Meetings

The Assembly agreed that the 224th Council Session in 2023 be held in Nairobi, Kenya.

Law and Ethics (see p. 23)

The Assembly adopted the 2003 Resolution on Law and Ethics as a Declaration.

The Assembly received for information the list of policy documents to be rescinded.

Scientific Session 2020

The Assembly agreed that 'Transplants and donation/organ trafficking: International scenario' be the theme of the Scientific Session of the 71st General Assembly, in Cordoba 2020.

General Assembly 2023

The Assembly agreed that 4-7 October 2023 be the dates for the 74th General Assembly in Kigali, Rwanda.

Membership

The application for membership from Doctors 4 Doctors, Seychelles was approved.

Strategic Plan 2020-25

The draft WMA Strategic Plan 2020-2025 was approved.

Associate Members

Dr. Audrey Fontaine gave a report of the Associate Members meeting and proposed a Statement on Access to Surgery and Anaesthesia Care, which she said had been very much neglected in the objectives towards universal health coverage. She said it was important to have a position on this.

The Assembly agreed to send the document to Council for consideration.

Presentations from International Organisations

Dr. Patricia Turner, President-Elect of the World Veterinary Association, spoke about collaboration between the WMA and the WVA. She gave a brief history of the WVA and its structure. The Association represented more than half a million members and put great emphasis on public health.

She talked about the ongoing African swine fever, which was highly infectious and was spreading throughout south east Asia. This was a massive animal welfare issue.

There had been an increased feminisation in veterinary practice and a change in working practices, such as increased technology and the use of telemedicine. She referred to the issue of antimicrobial misuse and spoke about the health benefits of keeping pets.

Finally, Dr. Turner talked about the collaboration between the WVA and the WMA that had been going on since 2012. This had involved joint press releases and hosting joint conferences. It was bringing together the strength of the two professions, capitalising on their joint knowledge base for educating people about issues impacting humans, animals and the environment and applying pressure on governments and non-governmental organisations. The WVA highly valued this partnership.

Istanbul Protocol

Mariam Jishkariani from the Rehabilitation Centre for Victims of Torture spoke about revisions to the Istanbul Protocol for the investigation and documentation of torture in relation to the various WMA policies on the issue.

WMA Open Session

This session gave delegates an opportunity to present to the Assembly any profession-specific problem, policy or project they believed the WMA should know about or help address.

British Medical Association

Dr. Helena McKeown spoke about plans for the WMA Council meeting in Porto. The BMA had presented its climate emergency resolution this week and she thought it was time they looked to extend this to attendees at the Porto meeting to try to use

a green travel plan and reduce air travel. If they were not able to reduce air travel, she would suggest they should be trying to offset their carbon. She would like to see the Porto conference be as green as possible, with the use of single use plastic, recycle bins and the avoidance of generating waste.

Venezuela Medical Association

Dr. Douglas Leon-Natera, President of the Venezuelan Medical Association, said they were fighting for the health of the Venezuelan people because the Government was neglecting it. There was no way that physicians could provide the health service that was required, save lives and provide medicines. Regrettably, patients were paying the price for this. Physicians could not do anything to stop the diseases that were killing people. There was no epidemiological data available to allow them to do their job. The medical profession was doing its best, but many of them were fleeing the country as it was not safe and they were not being paid. Inflation was rampant, 4,500 per cent this year, and as a result people could not live. The situation was a terrible crisis and he wanted the world to be aware of this.

Uruguay Medical Association

Dr. Gustavo Grecco also spoke about the situation that the medical communities in Latin America were facing. At the moment they had countries with different political situations from both the left and the right that were suffering from a dilapidation of health services.

In Chile there was a serious situation, in Venezuela the situation was terrible, in Honduras doctors were being persecuted trying to protect the health of their people. In Nicaragua doctors were suffering from violence and being forced not to help opponents of the regime.

He said the World Health Organisation was fighting for universal health coverage, but in his region many countries were actually going in the wrong direction

Bangladesh Medical Association

Dr. Ehteshamul Huq Choudhury said that in his country doctors were also being assaulted by miscreants and patients' relatives. The police and law enforcement authorities

took the side of the miscreants. In India one doctor had died. He would like to urge the Assembly to take a decision that governments should be asked to formulate a law to protect doctors in their working environments.

The Chair of Council, Dr. Montgomery, said this was a very important issue and was also a problem in Germany, where legislation was being discussed to protect physicians and other health care workers from assaults by patients.

The Assembly ended with a presentation to the outgoing President of the WMA, Dr. Leonid Eidelman, and a short film of Cordoba, the venue for the next Assembly in 2020.

The Chair of Council then brought the Assembly to a close, after a very successful week.

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WMA Statement on Sex Selection Abortion and Female Foeticide

Adopted by the 53rd WMA General Assembly, Washington, DC, USA, October 2002, reaffirmed by the 191st WMA Council Session, Prague, Czech Republic, April 2012 And revised by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

The WMA is gravely concerned that female foeticide and sex selection abortion is commonly practiced in certain countries.

The WMA denounces female foeticide and sex selection abortion as a totally unacceptable example form of gender discrimination.

The WMA holds that sex selection abortion for reasons of gender preference is discriminatory, where it is solely due to parental preference and where there are no health implications for the foetus or the woman.

The World Medical Association calls on National Medical Associations:

- To denounce the practice of female foeticide and the use of sex selection abortion for gender preference and;
- To advise their governments accordingly.

WMA Declaration on Euthanasia and Physician-Assisted Suicide

Adopted by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

The WMA reiterates its strong commitment to the principles of medical ethics and that utmost respect has to be maintained for human life. Therefore, the WMA is firmly opposed to euthanasia and physician-assisted suicide.

For the purpose of this declaration, euthanasia is defined as a physician deliberately administering a lethal substance or carrying out an intervention to cause the death of a patient with decision-making capacity at the patient's own voluntary request. Physician-assisted suicide refers to cases in which, at the voluntary request of a patient with decision-making capacity, a physician deliberately enables a patient to end his or her own life by prescribing or providing medicinal substances with the intent to bring about death.

No physician should be forced to participate in euthanasia or assisted suicide, nor should any physician be obliged to make referral decisions to this end.

Separately, the physician who respects the basic right of the patient to decline medical treatment does not act unethically in forgoing or withholding unwanted care, even if respecting such a wish results in the death of the patient.

WMA Declaration of Madrid on Professionally-led Regulation

Adopted by the 60th WMA General Assembly, New Delhi, India, October 2009 and revised by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

The WMA reaffirms the [Declaration of Seoul on professional autonomy and clinical independence of physicians](#).

The medical profession must play a central role in regulating the conduct and professional activities of its members, ensuring that their professional practice is in the best interests of citizens.

The regulation of the medical profession plays an essential role in ensuring and maintaining public confidence in the standards of care and of behaviour that they can expect from medical professionals. That regulation requires very strong independent professional involvement.

Physicians aspire to the development or maintenance of systems of regulation that will best protect the highest possible standards of care for all patients. Professionally led models can provide an environment that enhances and assures the individual physician's right to treat patients without interference, based on his or her best clinical judgment. Therefore, the WMA urges its constituent members and all physicians to work with regulatory bodies and take appropriate actions to ensure effective systems are in place. These actions should be informed by the following principles:

1. Physicians are accorded a high degree of professional autonomy and clinical independence, whereby they are able to make recommendations based on their knowledge and experience, clinical evidence and their holistic understanding of the patient including his/her best interests without undue or inappropriate outside influence. This is expounded in more detail in the Declaration of Seoul.

2. The regulation of the profession must be proportionate and facilitative and not be burdensome, and be based on a model that applies to every physician equally and that protects and benefits patients and is based upon an ethical code. The planning and delivery of all types of health care is based upon an ethical model and current evidence-based medical knowledge by which all physicians are governed. This is a core element of professionalism and protects patients. Physicians are best qualified to judge the actions of their peers against such normative standards, bearing in mind relevant local circumstances.
3. The medical profession has a continuing responsibility to be strongly involved in regulation or self-regulating. Ultimate control and decision-making authority must include physicians, based on their specific medical training, knowledge, experience and expertise. In countries where Professionally led regulation is in place physicians must ensure that this retains the confidence of the public. In countries that have a mixed regulation system physicians must seek to ensure that it maintains professional and public confidence.
4. Physicians in each country are urged to consider establishing, maintaining and actively participating in a proportionate, fair, rigorous and transparent system of professionally-led regulation. Such systems are intended to balance physicians' rights to exercise medical judgment freely with the obligation to do so wisely and temperately.
5. National Medical Associations must do their utmost to promote and support the concept of well-informed and effective regulation amongst their membership and the public. To ensure that any potential conflicts of interest between their representative and regulatory roles are avoided they must ensure separation of the two processes and pay rigorous attention to a transparent and fair system of regulation that will assure the public of its independence and fairness.
6. Any system of professionally-led regulation must enhance and ensure:
 - the delivery of high quality safe and competent healthcare to patients,
 - the competence of the physician providing that care
 - the professional, including ethical, conduct of all physicians
 - the protection of society and the rights of patients
 - the promotion of trust and confidence of patients, their families and the public
 - the quality assurance of the regulation system
 - the maintenance of trust by patients and society
 - the development of solutions to potential conflicts of interest
 - a commitment to wide professional responsibilities
7. To ensure that the patient is offered quality continuing care, physicians should participate actively in the process of Continuing Professional Development, including reflective practice, in order to update and maintain their clinical knowledge, skills and competence. Employers and management have a responsibility to enable physicians to meet this requirement.
8. The professional conduct of physicians must always be within the bounds of the Code of Ethics governing physicians in each country. National Medical Associations must promote professional and ethical conduct among physicians for the benefit of patients, and ethical violations must be promptly recognized, reported to the relevant regulatory authority and acted upon. Physicians are obligated to intervene in a timely manner to ensure that impaired colleagues do not put patients or colleagues at risk and receive appropriate assistance from a physician health program or appropriate training enabling a return to active practice.
9. The regulatory body should, when the judicial or quasi-judicial processes are complete, and assuming that a case is found against the physician, publish their findings and include details of the remedial action taken. Lessons learned from every case should, to the extent possible, be extracted and used in professional education processes. The regulation process should ensure that the incorporation of such lessons is, as far as possible, seamless.
10. National Medical Associations are urged to assist each other in coping with new and developing challenges including potential threats to professionally-led regulation. The ongoing exchange of information and experiences between National Medical Associations is essential for the benefit of patients.
11. Whatever judicial or regulatory process a country has established, any judgment on a physician's professional conduct or performance must incorporate evaluation by the physician's professional peers who, by their training, knowledge and experience, understand the complexity of the medical issues involved.
12. An effective and responsible system of professionally-led regulation must not be self-serving or internally protective of the profession. National Medical Associations should assist their members in understanding that professionally-led regulation, in countries where that system exists, must maintain the safety, support and confidence of the general public, including their health-related rights, as well as the honour of the profession itself.

WMA Declaration on the Relation of Law and Ethics

Adopted by the 164th WMA Council Session, Divonne-les-Bains, France, May 2003 and adopted as a Declaration by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

Ethical Values and legal principles are usually closely related, but ethical obligations typically exceed legal duties. In some cases, the





law mandates unethical conduct. The fact that a physician has complied with the law does not necessarily mean that the physician acted ethically.

When law is in conflict with medical ethics, physicians should work to change the law. In circumstances of such conflict, ethical responsibilities supersede legal obligations.

WMA Declaration of Reykjavik – Ethical Considerations Regarding the Use of Genetics in Health Care

Adopted by the 56th WMA General Assembly, Santiago, Chile, October 2005, Revised by the 60th WMA General Assembly, New Delhi, India, October 2009 and by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

Preamble

Genetics contributes to the growing understanding of the causes, developments, classifications and treatments of diseases. The use of genetics is increasing, moving from the identification of monogenic diseases and use in cancer treatment towards predicting risks of multifactorial diseases and manipulation of individual genes. In these ways, the use of genetics does and increasingly will create great value at an individual as well as at a societal level. However, the use of genetic information about individuals also raises issues concerning confidentiality, privacy and the risk of psychological distress, stigmatization, and discrimination.

This declaration provides recommendations for the use of medical genetics that respects the ethical challenges that such use entails. It is primarily aimed at the use of genetics in the provision of health care. The collection, storage and use of genetic data beyond the individual care of patients should adhere to the principles put forward in the WMA Declaration of Taipei on Ethical Considerations regarding Health Databases and Biobanks. The use of genetics in medical research involving human subjects, including research on identifiable human material and data, should adhere to the principles put forward in the WMA Declaration of Helsinki Ethical Principles for Medical Research Involving Human Subjects.

This Declaration should be read as a whole and each of its constituent paragraphs should be applied with consideration of all other rel-

evant paragraphs. The declaration should be updated in accordance with developments in the field of genetics.

Genetic information has characteristics that are ethically significant. Individually, these characteristics can also be found in other types of health care information. However, the combination of these characteristics makes genetic information particularly sensitive. This sensitivity – combined with the intense interest in genetic information from many different stakeholders – underscores the importance of respecting the fundamental principles of medical ethics, particularly the patient's right to autonomy, confidentiality, privacy and benefit in relation to generating, storing, using or sharing genetic information.

Central among the ethically significant characteristics are:

- Genetic information is identifying for an individual.
- Genetic analysis can generate extensive and detailed information about an
- Genetic analysis may generate additional findings.
- The full significance of the information generated by genetic analysis is not yet known.
- Genetic information about an individual cannot be fully anonymized, and de-identified genetic information may be re-identified.
- Genetic data contains information not only about the individual who has undergone testing, but also about individuals who are genetically related to the tested individual.
- Genetic testing of one individual may entail that the physician asks for access to health care information about – or genetic testing of – genetically related persons (family members).

Ethical principles

1. Benefit

Genetic testing in the context of healthcare provision should primarily be done for the benefit of the patient being tested.

2. Relevance

Genetics test should not be wider in scope than what is relevant for the purpose of the test.

3. Informed consent

a. Genetic testing should only be done with the informed consent of the individual or his/her legal guardian. Genetic testing for predisposition to disease should be performed on children only if there are clear clinical indications and being aware of the test results would be in the best interests of the child.

b. The consent process must include providing the patient with understandable, accurate and adequate information about the following:

- The purpose, nature and benefits of the test.
- The risks, burdens and limitations of the test.
- The nature and significance of the information to be generated by the test.
- The procedures for return of results including additional findings and future discoveries.
- The options for responding to the results, including possible treatments.
- How, where, and for how long the test results, data and biological samples will be stored, and who can gain access to current and future results.
- The possible secondary uses of the information generated by the test
- The measures protecting confidentiality, privacy and autonomy, including data security measures
- The procedures for managing results that have implications for genetically related persons
- When applicable, commercial use and benefit sharing, intellectual property issues and the transfer of data or material to third parties.

4. Additional findings (secondary and incidental findings)

- a. A genetic test may generate additional findings that are not related to the primary purpose of the test, also referred to as secondary or incidental findings. Procedures for handling such findings should be determined before the test, and information about these procedures should be communicated to the patient as part of the consent process.
- b. The principles for managing additional findings must include consideration for:
 - The patient's preferences regarding the management of additional findings.
 - The significance of the additional findings for the patient's health and other interests.
 - The significance of the findings for the health and other interests of persons who are genetically related to the patient.
 - The scientific validity of the additional findings.
 - The strengths of the evidence for the correlation between the additional findings and health related risks for the patient.
 - The degree to which the additional findings are actionable, medically or otherwise.

5. Genetic counselling

- a. Appropriate genetic counselling should always be offered when genetic tests or genetics-based treatments are offered or performed and for the interpretation of results. Counselling should enable the patient to make informed decisions according to their own values and interests. Counselling must not be biased by the personal values of the counsellor. The individual's right not to be tested should be protected, and if the individual has been tested, there should be no obligation for the individual to act on the results of the test.

- b. Medical students and physicians should receive education and training in genetic counselling, particularly counselling related to pre-symptomatic diagnosis of disease.

6. Confidentiality

Like all medical records, information from genetic testing or genetic therapy must be kept strictly confidential and must not be revealed to third parties in identifiable form without the consent of the individual tested. Third parties, to whom results may in certain circumstances be released, are identified in paragraph 15.

7. Informing third parties

In the case of a test result that may have implications for third parties such as close relatives, the individual tested should be encouraged to discuss the results of the test with such third parties. In cases where not disclosing the results involves an expected harm that is serious and unavoidable except by disclosure, and clearly greater than the harm likely to result from disclosure, the physician may reveal necessary information to such third parties without the consent of the patient but should usually discuss this with the patient first. If the physician has access to an ethics committee, it is preferable to consult such a committee prior to revealing information to third parties.

8. Data protection

The collection, storage and use of genetic data requires the highest level of data protection.

9. Discrimination

No individual or group must be discriminated against in any way based on genetic makeup, including the fields of human rights, employment and insurance. This protection should apply to those individuals who have undergone genetic testing or genetic therapy as well as those individuals about whom genetic information can be inferred. Particular care should be taken to protect vulnerable individuals and groups.

10. Cost of testing

The decision to include genetic analysis as part of medical care can introduce significant cost for the patient and the health care system. Therefore, such a decision should always be based on the expectation that the costs of the analysis are justified by the benefits for the patient.

11. Reliability and limitations

- a. The identification of disease-related genes has led to an increase in the number of available genetic tests, analyses and treatments. As the number, types and complexity of these increase, great care must be taken to ensure their reliability, accuracy and quality and to inform patients about their limitations.

b. The benefit of a genetic test for an individual may depend on the availability of information about the relevant background population. Medical professionals should be aware of the scope and the limitations of genetic background data and health information stored in databases used in providing clinical genetic testing services.

12. Direct-to-consumer tests

If genetic tests are offered directly to consumers for medical purposes, they must meet the same technical, professional, legal and ethical standards as tests offered by certified laboratories and must be in accordance with the recommendations put forward in this statement. In particular, providers of direct-to-consumer tests must provide understandable, accurate and adequate information about the reliability and limitations of their services.

13. Clinical use of data from research

For research projects that involve genetic testing, and where the participant can be identified, the research participant must be informed about the possibility of findings that indicate a serious threat to the health of the participant. If there are such findings, the participant should be offered a referral to genetic counseling and appropriate medical intervention.

14. Gene therapy and editing

Gene therapy and editing represents a combination of techniques used to manipulate disease related genes. The use of these techniques should adhere to the following guidelines:

- The use of gene therapy and somatic genome editing should conform to standards of medical ethics and professional responsibility.
- Patient autonomy should be respected, and informed consent should always be obtained. This informed consent process should include disclosure of the risks of gene therapy and editing, including the fact that the patient may have to undergo multiple rounds of gene therapy, the risk of an immune response, the potential problems arising from the use of viral vectors and off-target genome effects.
- Gene therapy and editing should only be undertaken after a careful analysis of the risks and benefits involved and an evaluation of the perceived effectiveness of the therapy, as compared to the risks, side effects, availability and effectiveness of other treatments.
- Gene editing of germline cells has scientifically unresolved risks and should not be clinically applied. This does not preclude testing gene editing or other similar research.

15. Cloning

Cloning includes both therapeutic cloning, namely the cloning of individual stem cells to produce a healthy copy of a diseased tissue or organ for transplant, and reproductive cloning, namely the cloning of an existing human to produce a genetic duplicate of that human. The WMA opposes reproductive cloning of humans.

WMA Statement on Access of Women and Children to Health Care

Adopted by the 49th WMA General Assembly, Hamburg, Germany, November 1997 and revised by the 59th WMA General Assembly, Seoul, Korea, October 2008 and by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

Preamble

For centuries, women and girls worldwide have suffered from gender inequality and an uneven balance of power between men and women. Historically based gender bias has led to women and girls being restricted in their access to, inter alia, employment, education and health care. Gender inequality may lead to health risks, suboptimal health behaviors and inferior health outcomes for women and girls¹.

In addition, in some countries, female doctors and nurses have been prevented from, or face barriers to practicing their profession due to religious and/or cultural convictions, or discrimination based on the intersecting grounds of sex and religion/ethnicity. A lack of gender representation and diversity within the medical profession may lead to female patients and their children not having equitable access to health care.

Gender is a social determinant of health and health problems may manifest themselves differently in men and women. There is a need to address the differences in health and health care between men and women, including both the biological and socio-cultural dimensions.

Discrimination against girls and women damages their health expectation. For example, the education of girls positively affects their health and well-being as adults. Education also improves the chances of their children surviving infancy and contributes to the overall well-being of their families. Conversely, secondary discrimination due to social, religious and cultural practices – which diminishes women's freedom to make decisions for themselves and to access employment and healthcare opportunities – has a negative impact on health expectation.

¹ Men et al, "Gender as a social determinant of health: Gender analysis of the health sector in Cambodia in Cambodia". World Conference on Social Determinants of Health. World Health Organization. October 2011.

The WMA has several policies that focus on women and children's health. They include: [*WMA Resolution on Women's Rights to Health Care and How That Relates to the Prevention of Mother-to-Child HIV Infection*](#), [*WMA Resolution on Violence against Women and Girls*](#) and [*WMA Declaration of Ottawa on Child Health*](#). This statement stresses the importance of equal access to health care and the effects of discrimination against women and children.

Recommendations

Therefore, the World Medical Association urges its constituent members to:

- Categorically condemn violations of the basic human rights of women and children, including violations stemming from social, political, religious, economic and cultural practices;
- Insist on the rights of all women and children to full and adequate medical care, especially where religious, social and cultural restrictions or discrimination may hinder access to such medical care;
- Advocate for parity of health insurance premiums and coverage to ensure that women's access to care is not impeded by prohibitively high expenses;
- Promote the provision of pre-conception, prenatal and maternal care, and post-natal care including immunization, nutrition for proper growth and health-care development for children;
- Ensure universal access to sexual and reproductive health;
- Promote women's and children's health as human rights;
- Advocate for educational, employment and economic opportunities for women and for their access to information about health-care and health services;
- Work towards the achievement of the human right to equality of opportunity and equality of treatment, regardless of gender.

WMA Statement on Antimicrobial Resistance

Adopted by the 48th WMA General Assembly, Somerset West, South Africa, October 1996 and revised by the 59th WMA General Assembly, Seoul, Korea, October 2008 and by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

Preamble

AMR is a growing threat to global public health that transcends national boundaries and socioeconomic divisions. AMR affects hu-

man, animal and environmental health. It is a multi-faceted problem of crisis proportions with significant economic, health, and human implications.

Addressing the threat of antimicrobial resistance is a fundamental global health priority, and the responsibility of all countries.

Antimicrobial drugs form an essential component of modern medicine, ensuring that complex procedures, such as surgery and chemotherapy, can be performed with lower risk.

AMR threatens the effective prevention and treatment of an increasing range of infections caused by bacteria, parasites, viruses and fungi.

AMR occurs when microorganisms develop the ability to resist the actions of antimicrobial drugs (such as antibiotics, antifungals, antivirals, antimalarials, and anthelmintics).

Infections caused by bacteria that are resistant to multiple classes of antibiotic are increasingly being documented.

While AMR is a natural evolutionary phenomenon, it is exacerbated by the overuse and misuse of antimicrobials in medicine, as well as in veterinary practice and agriculture, and can be exacerbated when antimicrobials are given as growth promoters in animals or used to prevent diseases in healthy animals.

The emergence and spread of AMR is further enhanced by lack of access to effective drugs, access to antibiotics "over the counter" in some countries, the availability of substandard and falsified products, misuse of antibiotics in food production, increased global travel, medical tourism and trade, and the poor application of infection control measures.

Another major cause of AMR is the release of antibiotics into the environment. This can occur as either as a result of poor manufacturing practices, the improper disposal of unused medication, human and animal excretion, and the inadequate disposal of human and animal corpses.

In many countries, particularly in low- and middle-income countries, access to effective antimicrobials as well as complementary technologies including vaccines and diagnostics continues to remain a significant challenge, furthering AMR.

The ramifications of resistance manifest themselves not just in the impact on human health, but also in potentially heavy economic costs. The World Health Organization (WHO) has warned that resistance has reached alarming levels in many parts of the world,

and that a continued increase in resistance could lead to 10 million people dying per year and a reduction of 2-3.5% in global gross domestic product by 2050.

At the rate at which resistance is growing globally, it poses a significant threat to successfully achieving the UN Sustainable Development Goals and undermines efforts to reduce health inequalities. Without harmonized and coordinated cross-sector action on a global, scale, the world is heading towards a post-antibiotic era in which common infections and minor injuries can once again kill.

AMR has reached great prominence at the highest political levels including the UN General Assembly, and the agenda of the G7 and G20.

There is a need for an effective 'one health' approach to minimize unnecessary or inappropriate use of antimicrobials and to prevent and control the transmission of existing resistance. A 'one health' approach recognizes that action is required across human medicine, veterinary practice and agriculture.

Recommendations

1. Global

a. The primary prevention of community and healthcare associated infections is necessary to reduce the demand for antibiotics. Addressing the social determinants of infectious disease, such as poor living conditions and sanitation, will have co-benefits of reducing health inequalities and tackling AMR.

b. Nations have varying resources available to combat antimicrobial resistance, and must cooperate with the WHO, Food and Agriculture Organization and World Organization for Animal Health that support the WHO Global Action Plan on AMR which provides the framework for national action plans.

c. The World Medical Association and its constituent members should advocate for:

- investment in the surveillance of drug resistant infections across human health, veterinary medicine, agriculture, fishing industry, and food production, and international cooperation for data-sharing procedures to improve global responses;
- the WHO and other UN agencies should examine the role of international travel and trade agreements on the development of antimicrobial resistance, and promote measures in those agreements to act as safeguards against the globalisation of drug resistant pathogens in our food supply;
- the WHO should continue to encourage the use of Trade Related Aspects of Intellectual Property Rights (TRIPS) flexibilities to help ensure affordable access to quality medicines and oppose the proliferation of 'TRIPS-plus' provisions within trade agreements,

which restrict the use of TRIPS flexibilities and limit their effectiveness;

- the widespread application of verifiable technology such as track-and-trace systems to ensure the authenticity of pharmaceutical products;
 - equitable access to, and appropriate use of, existing and new quality-assured antimicrobial medicines. This requires effectively applying the Access, Watch and Reserve lists of the WHO Essential Medicines program. For the WHO global action plan and national action plans to be effective, access to health facilities, health care professionals, veterinarians, knowledge, education and information are vital;
 - greater use of vaccinations which will reduce the burden of infectious disease, reducing the need for antibiotics and therefore limiting the emergence of resistance;
 - for global health organisations and governments to scale up their action and coordination in promoting appropriate antibiotic use and work together to reduce AMR using a One Health approach, which recognises that human, animal and environmental health is inextricably linked. to reduce the spread of resistance.
- d. The World Medical Association and its constituent members should encourage their governments to:
- fund more basic and applied research directed toward the development of innovative antimicrobial agents, diagnostic tools and vaccines (innovative antimicrobial vaccines), and on the appropriate and safe use of such therapeutic tools;
 - ensure parity between financial and technical resources towards the development of innovative antimicrobial medicines, vaccines, and diagnostics as well as innovative infection control and prevention methods across human health, veterinary, and agricultural sectors;
 - support Research and Development efforts for novel antimicrobial agents, vaccines, and rapid diagnostic methods that are needs-driven and guided by the principles outlined in the UN Declaration on AMR, adopted in September 2016, including affordability, effectiveness, efficiency, and equity [1];
 - initiate regulatory measures to control the environmental pollution that allows the spread of antibiotic-resistant genes across soil, water and air;
 - educate a sufficient number of clinical infectious disease specialists in every country, which is a fundamental requirement for tackling antimicrobial resistance and hospital-acquired infections.

2. National

- a. National medical associations should urge their governments to:
- require that antimicrobial agents be available only through a prescription provided by healthcare professionals and/or veterinary professionals and dispersed or sold by professionals;
 - to initiate national campaigns to raise awareness among the public of the harmful consequences of overuse and misuse of antibiotics.

This should be supported through the introduction of national targets to raise public awareness;

- to support professional societies, civil society, and healthcare delivery systems to pilot and adopt proven behaviour change strategies to ensure appropriate use of antibiotics;
- to ensure access to appropriate and fit-for-purpose point-of-care diagnostics in hospitals and clinics to support decision making and prevent inappropriate prescribing of antibiotic;
- to mandate the collection of data on antibiotic use, prescriptions, prices, resistance patterns, and trade in both the healthcare and agricultural sectors. This data should be made publicly accessible;
- promote effective programs of antimicrobial stewardship and training on the appropriate use of antimicrobials agents, and infection control;
- actively pursue the development of a national surveillance system for the provision of antimicrobials and for antimicrobial resistance. Data from this system should be linked with or contributed to the WHO's global surveillance network;
- monitoring of antimicrobial use in food producing animals must be sufficiently granular to ensure accountability.

b. National medical associations should:

- encourage medical schools and continuing medical education programs to renew their efforts to educate physicians, who can in turn inform their patients, about the appropriate use of antimicrobial agents and appropriate infection control practices, including antibiotic use in the outpatient setting;
- support the education of their members in areas of AMR, including antimicrobial stewardship, rational use of antimicrobials, and infection control measures including hand hygiene;
- advocate for the publishing and communication of local information relating to resistance patterns, clinical guidelines and recommended treatment options for physicians;
- in collaboration with veterinary authorities, encourage their governments to introduce regulations to reduce the use of antimicrobials in agriculture, in particular food producing animals, including restrictions on the routine use of antimicrobials for both prophylaxis and growth promotion, and on the use of classes of antimicrobial that are critically important in human medicine;
- support regulation that prevents conflicts of interest among veterinarians, such as roles where veterinarians both prescribe and sell antibiotics;
- consider the use of social media to educate and promote the proper use and disposal of antibiotic medications;
- encourage parents to comply with the national recommended immunization schedules for children. Adults should also have easy access to vaccines against influenza and pneumococcal infections among others.

3. Local

a. Health professionals and health systems have a vital role in preserving antimicrobial medicines.

b. Physicians should:

- have access to high-quality and reliable, evidence-based information free of conflict of interest and actively participate in and lead antimicrobial stewardship programs in their hospitals, clinics and communities to optimise antibiotic use;
- raise awareness amongst their patients about antimicrobial therapy, its risks and benefits, the importance of adherence with the prescribed regimen, infection prevention practices, and the problem of AMR;
- promote and ensure adherence hygiene measures (especially hand hygiene) and other infection prevention practices.

WMA Statement on Augmented Intelligence in Medical Care

Adopted by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

Preamble

Artificial Intelligence (AI) is the ability of a machine to simulate intelligent behavior, a quality that enables an entity to function appropriately and with foresight in its environment. The term AI covers a range of methods, techniques and systems. Common examples of AI systems include, but are not limited to, natural language processing (NLP), computer vision and machine learning. In health care, as in other sectors, AI solutions may include a combination of these systems and methods.

(Note: A glossary of terms appears as an appendix to this statement.)

In health care, a more appropriate term is “augmented intelligence”, an alternative conceptualization that more accurately reflects the purpose of such systems because they are intended to coexist with human decision-making [1]. Therefore, in the remainder of this statement, AI refers to augmented intelligence.

An AI system utilizing machine learning employs an algorithm programmed to learn (“learner algorithm”) from data referred to as “training data.” The learner algorithm will then automatically adjust the machine learning model based on the training data. A “continuous learning system” updates the model without human oversight as new data is presented, whereas “locked learners” will not automatically update the model with new data. In health care, it is important to know whether the learner algorithm is eventually locked

or whether the learner algorithm continues to learn once deployed into clinical practice in order to assess the systems for quality, safety, and bias. Being able to trace the source of training data is critical to understanding the risk associated with applying a health care AI system to individuals whose personal characteristics are significantly different than those in the training data set.

Health care AI generally describes methods, tools and solutions whose applications are focused on health care settings and patient care. In addition to clinical applications, there are many other applications of AI systems in health care including business operations, research, health care administration, and population health.

The concepts of AI and machine learning have quickly become attractive to health care organizations, but there is often no clear definition of terminology used. Many see AI as a technological panacea; however, realizing the promise of AI may have its challenges, since it might be hampered by evolving regulatory oversight to ensure safety and clinical efficacy, lack of widely accepted standards, liability issues, need for clear laws and regulations governing data uses, and a lack of shared understanding of terminology and definitions.

Some of the most promising uses for health care AI systems include predictive analytics, precision medicine, diagnostic imaging of diseases, and clinical decision support. Development in these areas is underway, and investments in AI have grown over the past several years [2]. Currently, health care AI systems have started to provide value in the realm of pattern recognition, NLP, and deep learning. Machine learning systems are designed to identify data errors without perpetuating them. However, health care AI systems do not replace the need for the patient-physician relationship. Such systems augment physician-provided medical care and do not replace it.

Health care AI systems must be, transparent, reproducible, and be trusted by both health care providers and patients. Systems must focus on users' needs. Usability should be tested by participants who reflect similar needs and practice patterns of the end user, and systems must work effectively with people. Physicians will be more likely to accept AI systems that can be integrated into or improve their existing practice patterns, and also improve patient care.

Opportunities

Health care AI can offer a transformative set of tools to physicians and patients and has the potential to make health care safer and more efficient. By automating hospital and office processes, physician productivity would improve. The use of data mining to produce accurate useful data at the right time may improve electronic health records, and access to relevant patient information. Results of data mining may

also provide evidence for trends that may serve to inform resource allocation and utilization decisions. New insights into diagnosis and best practices for treatment may be produced because of analyzing all known data about a patient. The potential also exists to improve the patient experience, patient safety, and treatment adherence.

Applications of health care AI to medical education include continuing medical education, training simulations, learning assistance, coaching for medical students and residents, and may provide objective assessment tools to evaluate competencies. These applications would help customize the medical education experience and facilitate independent individual or group learning.

There are a number of stakeholders and policy makers involved in shaping the evolution of AI in health care besides physicians. These include medical associations, businesses, governments, and those in the technology industry. Physicians have an unprecedented opportunity to positively inform and influence the discussions and debates currently taking place around AI. Physicians should proactively engage in these conversations in order to ensure that their perspectives are heard and incorporated into this rapidly developing technology.

Challenges

Developers and regulators of health care AI systems must ensure proper disclosure and note the benefits, limitations, and scope of appropriate use of such systems. In turn, physicians will need to understand AI methods and systems in order to rely upon clinical recommendations. Instruction in the opportunities and limitations of health care AI systems must take place both with medical students and practicing physicians, as physician involvement is critical to successful evolution of the field. AI systems must always adhere to professional values and ethics of the medical profession.

Protecting confidentiality, control and ownership of patient data is a central tenet of the patient-physician relationship. Anonymization of data does not provide enough protection to a patient's information when machine-learning algorithms can identify an individual from among large complex data sets when provided with as few as three data points, which could put patient data privacy at risk. Current expectations patients have for confidentiality of their personal information must be addressed, and new models that include consent and data stewardship developed. Viable technical solutions to mitigate these risks are being explored and will be critical to widespread adoption of health care AI systems.

Data structure, and integrity are major challenges that need to be addressed when designing health care AI systems. The data sets on which machine learning systems are trained are created by humans

and may reflect bias and contain errors. Because of this, these data sets will normalize errors and the biases inherent in their data sets. Minorities may be disadvantaged because there is less data available about minority populations. Another design consideration is how a model will be evaluated for accuracy and involves very careful analysis of the training data set and its relationship to the data set used to evaluate the algorithms.

Liability concerns present significant challenges to adoption. As existing and new oversight models develop health care AI systems, the developers of such systems will typically have the most knowledge of risks and be best positioned to mitigate the risk. As a result, developers of health care AI systems and those who mandate use of such systems must be accountable and liable for adverse events resulting from malfunction(s) or inaccuracy in output. Physicians are often frustrated with the usability of electronic health records. Systems designed to support team-based care and other workflow patterns but often fall short. In addition to human factors in the design and development of health care AI systems, significant consideration must be given to appropriate system deployment. Not every system can be deployed to every setting due to data source variations.

Work is already underway to advance governance and oversight of health care AI, including standards for medical care, intellectual property rights, certification procedures or government regulation, and ethical and legal considerations.

Recommendations

1. That the WMA:

- Recognize the potential for improving patient outcomes and physicians' professional satisfaction through the use of health care AI, provided they conform to the principles of medical ethics, confidentiality of patient data, and non-discrimination.
- Support the process of setting priorities for health care AI.
- Encourage the review of medical curricula and educational opportunities for patients, physicians, medical students, health administrators and other health care professionals to promote greater understanding of the many aspects, both positive and negative, of health care AI.

2. The WMA urges its member organizations to:

- Find opportunities to bring the practicing physician's perspective to the development, design, validation and implementation of health care AI.
- Advocate for direct physician involvement in the development and management of health care AI and appropriate government and professional oversight for safe, effective, equitable, ethical, and accessible AI products and services.

- Advocate that all healthcare AI systems be transparent, reproducible, and be trusted by both health care providers and patients.
- Advocate for the primacy of the patient-physician relationship when developing and implementing health care AI systems.

Appendix

Glossary of Terms Used in Health Care Augmented Intelligence

Algorithm is a set of detailed, ordered instructions that are followed by a computer to solve a mathematical problem or to complete a computer process.

Artificial intelligence consists of a host of computational methods used to produce systems that perform tasks which exhibit intelligent behavior that is indistinguishable from human behavior.

Augmented intelligence (AI) is a conceptualization of artificial intelligence that focuses on artificial intelligence's assistive role, emphasizing that its design enhances human intelligence rather than replaces it.

Computer vision is an interdisciplinary scientific field that deals with how computers can be made to gain high-level understanding from digital images or videos and seeks to automate tasks that the human visual system can do.

Data mining is an interdisciplinary subfield of computer science and statistics whose overall goal is to extract information (with intelligent methods) from a data set and transform the information into a comprehensible structure for further use.

Machine learning (ML) is the scientific study of algorithms and statistical models that computer systems use to effectively perform specific tasks with minimal human interaction and without using explicit instructions, by learning from data and identification of patterns.

Natural language processing (NLP) is a subfield of computer science, information engineering, and artificial intelligence concerned with the interactions between computers and human (natural) languages, in particular how to program computers to process and analyze large amounts of natural language data.

Training data is used to train an algorithm; it generally consists of a certain percentage of an overall dataset along with a testing set. As a rule, the better the training data, the better the algorithm performs. Once an algorithm is trained on a training set, it's usually evaluated on a test set. The training set should be labelled or enriched to increase an algorithm's confidence and accuracy.

References:

1. For purposes of this statement, the term “health care AI” will be used to refer to systems that augment, not replace, the work of clinicians.
2. CB Insights. *The Race for AI: Google, Baidu, Intel, Apple in a Rush to Grab Artificial Intelligence Startups*. <https://www.cbinsights.com/research/top-acquirers-ai-startups-ma-timeline/>.

WMA Statement on Free Sugar Consumption and Sugar-Sweetened Beverages

Adopted by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

Preamble

Non-communicable diseases (NCDs) are the leading causes of death worldwide. Every year 40 million people die from NCDs [1]. The most common causes of these diseases are poorly balanced diet and physical inactivity. A high level of free sugar consumption has been associated with NCDs because of its association with obesity and poor dietary quality.

According to the World Health Organization (WHO), free sugar is sugar that is added to foods and beverages by the manufacturer, cook or consumer that results in excess energy intake which in turn may lead to parallel changes in body weight.

WHO defines free sugar as ‘all sugars that are added during food manufacturing and preparation as well as sugars that are naturally present in honey, syrups, fruit juices, and fruit concentrates.’

Sugar has become widely available and its global consumption has grown from about 130 to 178 million tonnes over the last decade.

Excess free sugar intake, particularly in the form of sugar-sweetened beverages, threatens the nutrient quality of the diet by contributing to the overall energy density but without adding specific nutrients. This can lead to unhealthy weight gain and increases the risk of dental disease, obesity and NCDs. Sugar-sweetened beverages are defined as all types of beverages containing free sugars (include monosaccharides and disaccharide) including soft drinks, fruit/vegetables juices and drinks, liquid and powder concentrates, flavored water, energy and sports drinks, ready-to-drink tea, ready-to-drink coffee and flavored milk drinks.

The World Health Organization recommends reducing sugar intake to a level that comprises 5% of total energy intake (that is around 6 teaspoons per day) and not to exceed 10% of total energy intake [2].

The price elasticity of sugar-sweetened beverages according to a meta-analysis published in USA, is -1.21. This means that for each 10% increase in the price of sugar-sweetened beverages, there is a -12.1% decrease in consumption. Successful examples of price elasticity were seen in Mexico as the consumption of sugar-sweetened beverages decreased after imposing the sugar tax.

Data and experience from across the world demonstrate that a tax on sugar works best as part of a comprehensive set of interventions to address obesity and related chronic diseases. Such interventions include food advertising regulations, food labelling, educational campaigns, and subsidy on healthy foods.

Recommendations

3. The World Medical Association (WMA) and its constituent members should:
 - call upon the national governments to reduce the affordability of free sugar and sugar-sweetened beverages through sugar taxation. The tax revenue collected should be used for health promotion and public health preventive programs aimed at reducing obesity and NCDs in their countries;
 - encourage food manufacturers to clearly label sugar, if present, in their products and urge governments to mandate such labeling;
 - urge governments to strictly regulate the advertising of sugar containing food and beverages targeted especially at children;
 - urge national governments to restrict availability of sugar-sweetened beverages and products that are highly concentrated with free sugar from educational and healthcare institutions and replace with healthier alternatives.
4. Constituent members of the WMA and their physician members should work with national stakeholders to:
 - advocate for healthy sustainable food with limited free sugar intake that is less than 5% of total energy intake;
 - encourage nutrition education and skills programs toward preparing healthy meals from foods without added sugar;
 - initiate and/or support campaigns focused on healthy diets to reduce sugars intake;
 - advocate for an inter-sectoral, multidisciplinary and comprehensive approach to reducing free sugar intake.

References

1. <http://www.who.int/fr/news-room/fact-sheets/detail/noncommunicable-diseases>
2. [WHO Guideline: Sugars Intake for Adults and Children 2015](#)

WMA Statement on Healthcare Information for All

Adopted by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

Preamble

The WHO constitution states that “the extension to all people of the benefits of medical, psychological and related knowledge is essential to the fullest attainment of health”. Access to relevant, reliable, unbiased, up-to-date and evidence-based healthcare information is crucial for the public, patients and health personnel for every aspect of health, including (but not limited to) health education, informed choice, professional development, safety and efficacy of health services, and public health policy.

Lack of access to healthcare information is a major contributor to morbidity and mortality, especially in low- and middle-income countries, and among vulnerable groups in all countries.

Healthcare information is only useful if it is relevant, appropriate, timely, updated, understandable and accurate. It covers a broad spectrum of issues and refers to diseases, treatments, services, as well as the promotion and preservation of health.

Health literacy is a key factor in understanding how health services work and how to use them. Health professionals need access to adequate training and support to communicate with patients with low health literacy or with those who have difficulty understanding healthcare information, for example because of a disability.

Globally, thousands of children and adults die needlessly because they do not receive basic life-saving interventions. Some interventions may be available locally but are simply not provided due to indecision, delays, misdiagnosis and incorrect treatment. Failure to provide basic life-saving interventions more commonly affects those who are socioeconomically disadvantaged.

In the case of children with acute diarrhea, for example, the widespread misconception among parents that they should withhold fluids, and among health workers that they should give antibiotics rather than oral rehydration, contributes to thousands of unnecessary deaths every day worldwide.

Governments have a moral obligation to ensure that the public, patients and health workers have access to the healthcare informa-

tion they need to protect their own health and the health of those for whom they are responsible. This obligation includes providing adequate education, in form and content, to identify and use such information effectively.

The public, patients and healthcare workers need easy, reliable access to evidence-based, relevant healthcare information as part of a learning process throughout the life-course to enhance understanding, and to make informed and conscious decisions about their health, healthcare options and the health care they receive. These groups need information in the right language, and in a format and technical level that is understandable to them, with relevant services signposted as appropriate. This should take into account the characteristics, customs and beliefs of the population to which it is directed, and a feedback process should be established. The public, patients and families need information that is appropriate to their specific context and situation, which may change over time. They need guidance on when and how to make important health decisions, which are usually best made when there is time to consider, understand and discuss the issue at hand.

Meeting the information needs of the public, patients and healthcare providers is a prerequisite for the realisation of quality universal health coverage and the UN Sustainable Development Goals (SDGs).” UN SDG Target 3.8 on universal health coverage specifically aims to deliver ‘quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all’. Achieving this requires empowerment of the public and patients, as well as health workers, with the healthcare information they need to recognize and assume their rights and responsibilities to access, use and provide appropriate services and to prevent, diagnose and manage disease.

The development and availability of evidence-based, relevant healthcare information depends on the integrity of the global healthcare information system. This system comprises researchers, publishers, systematic reviewers, producers of end-user content (including academic publishers, health education, journalists and others), information professionals, policymakers, frontline health professionals and patient representatives, among others.

Recommendations

Recognizing this, the World Medical Association and its constituent members on behalf of their physician members, will support and commit to the following actions:

1. Promote initiatives to improve access to timely, current, evidence-based healthcare information for health professionals,

patients and the public to support appropriate decision-making, lifestyle changes, care-seeking behaviour and improved quality of care – thereby upholding the right to health.

2. Promote standards of good practice and ethics to be met by information providers, guaranteeing reliable and quality information that is produced with the participation of physicians, other health professionals, and patient representatives.
3. Support research to identify enablers and barriers to the availability of healthcare information, including how to improve the production and dissemination of evidence-based information for the public, patients and health professionals, and measures to increase health literacy and the ability to find and interpret such information.
4. Ensure that health professionals have access to evidence-based information on diagnosis and treatment of diseases, including unbiased information on medicines. Particular attention should be paid to those working in primary care in low- and middle-income countries.
5. Combat myths and misinformation around healthcare through validated scientific and clinical evidence, and by urging the media to report responsibly on health issues. This includes the study of health-related beliefs stemming from cultural or sociological differences. This will improve the effectiveness of health promotion activities and allow the dissemination of healthcare information to be adequately targeted to different segments of the population.
6. Urge governments to recognize their moral obligation to take measures to improve the availability and use of evidence-based healthcare information. This includes:
 - resources to select, compile, integrate and channel scientifically validated information and knowledge. This should be adapted to target various different recipients;
 - measures to increase availability of healthcare information for healthcare workers and patients at health centres;
 - leveraging modern communication technology and social media;
 - policies that support efforts to increase the availability and use of reliable healthcare information.
7. Urge governments to provide the political and financial support needed for 'WHO's function to ensure access to authoritative and strategic information on matters that affect peoples' health', based on the WHO General Programme of Work 2019-23.

WMA Statement on Medical Age Assessment of Unaccompanied Minor Asylum Seekers

Adopted by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

Preamble

Population displacement resulting from war, violence or persecution has wide-ranging implications for the entire global community. Refugees – that is, individuals who have been forced to flee their respective countries of origin for these reasons – generally must undergo rigorous procedures for determining their legal status according to the national legislation of the country in which they are seeking asylum.

An increasing number of refugees fall under the category of unaccompanied minors, which are defined as people under the age of 18 who have been separated from or who have fled their countries of origin without their families. In light of their unique vulnerability, unaccompanied minor refugees are eligible for special protections, as outlined in the United Nations' Convention on the Rights of the Child, which states that the best interests of the child must be the primary consideration in all stages of the displacement cycle.

Given the differences in how adults and unaccompanied minors are processed and protected when seeking asylum, recipient countries have an interest in verifying the age of applicants outside the context of criminal proceedings. However, some asylum seekers either do not have access to documentation confirming their age or originate from countries in which there is no central birth registry. In cases where there is doubt as to whether an asylum seeker is a child or an adult, e.g. if the authenticity of available documentation is called into question or if there is reason to believe the applicant's physical appearance suggests a discrepancy between the reported age and the actual age, the competent authorities may resort to medical and/or non-medical methods for assessing the applicant's age.

Medical age assessments carried out by medical professionals may take the form of X-ray scans of the jaw, hand or wrist; CT scans of the collarbone; MRI scans of the knee; or the examination of secondary sex characteristics to determine the applicant's stage of puberty. However, ethical concerns have been raised about these and other forms of examination, as they can potentially endanger the health of those being examined and violate the privacy and dig-

nity of young people who may already be severely traumatized. [1] Furthermore, there is conflicting evidence about the accuracy and reliability of the available methods of medical age assessment, which may generate significant margins of error. [2] For example, some available studies do not appear to take into account potential delays in skeletal maturation caused by malnutrition, which is just one factor that could translate into a risk of age misclassification among asylum seekers. [3] Comparative assessments are further impeded by a lack of standard images from certain world regions and limited representation in age assessment reference data, much of which was compiled on the basis of European and North American populations. [4] An imprecise assessment of an individual's age can have far-reaching administrative, ethical, psychological and other significant consequences, including potential breaches of children's rights.

The following recommendations apply explicitly and exclusively to cases outside the context of the criminal justice system.

Recommendations

1. The WMA recognizes that there is sometimes a need to assess the age of asylum seekers to ensure that all unaccompanied minors receive the protections afforded them under international and national law.
2. The WMA recommends that medical age assessments only be carried out in exceptional cases and only after all non-medical methods have been exhausted. The WMA recognizes that non-medical methods, e.g. questioning children about traumatic events, may also have a negative impact and must therefore be carried out with great care. Each case must be evaluated carefully based on the totality of circumstances and the preponderance of available evidence.
3. The WMA asserts that, in cases where medical age assessment is unavoidable, the health and safety and dignity of the young asylum seeker must be the highest priority. Physical examinations must be carried out by a qualified physician with appropriate pediatric examination experience in accordance with the highest medical and ethical standards, in observance of the principles of proportionality, in adherence to the standards of prior informed consent and with consideration of cultural and religious sensitivities and potential language barriers. The asylum seeker must always be made aware that the examination is carried out as part of the age assessment procedure and not to provide healthcare.
4. The WMA underscores that any medical methods that could involve a health risk for the applicant, e.g. radiological examinations without medical indication, or that infringe upon the dignity or privacy of an already potentially traumatized asylum seeker, e.g. genital examinations, must be avoided.
5. The WMA stresses that medical certificates indicating the results of medical age assessment examinations should include information concerning the accuracy and reliability of the methods used and the relevant margins of error.
6. The WMA urges constituent members to develop or promote the development of internationally accepted interdisciplinary guidelines which outline the scientific basis, as well as ethical and legal or regulatory principles of medical age assessment of asylum seekers, including the potential health risks and psychological impact of specific procedures.
7. The WMA emphasizes that, in cases where doubts regarding the age of an asylum seeker cannot be resolved or confirmed with absolute certainty, any remaining uncertainty should be interpreted in favor of the asylum seeker.

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WMA Statement on Reducing Dietary Sodium Intake

Adopted by the 59th WMA General Assembly, Seoul, Korea, October 2008 and amended by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

Preamble

Dietary table salt is an ionic compound comprising of sodium chloride, which is 40% sodium (Na⁺) and 60% chloride (Cl⁻). There is overwhelming evidence that excessive sodium intake is a risk factor for the development, or worsening of hypertension, which is one of the main cardiovascular risk factors. Hypertension may also be an independent risk factor for cardiovascular diseases as well as all-cause mortality. The effect of dietary sodium on blood pressure is influenced by various demographic factors such as age and ethnicity.

Salt intake is also a risk factor for gastric cancer [1].

The World Health Organization (WHO) recommends that average daily sodium consumption in adults (≥ 16 years of age) should be less than 2000 mg (5 g salt). For children (2–15 years of age), the adult intake limit of 2 g/day sodium should be adjusted downward based on the energy requirements of children relative to those of adults [2].

The majority of the world's population consumes too much sodium – 3.95 (3.89–4.01) g/day, equivalent to table salt level of 10.06 (9.88–10.21) g/day. These consumption levels are far above the recommended limit [3].

The main source of sodium is dietary consumption, 90% of it in the form of salt [4], as added salt during cooking or eating, or in processed foods such as canned soups, condiments, commercial meals, baking soda, processed meats (such as ham, bacon, bologna), cheese, snacks, and instant noodles, among others. In higher-income countries sodium added during food processing can be as high as 75%–80% of total salt intake [5].

The Global Action Plan for the Prevention and Control of Non-Communicable Disease (NCDs) 2013–2020 is made up of 9 global targets, including a 30 % relative reduction in mean population intake of sodium. The WHO has created the S.H.A.K.E technical package to assist Member States with the development, implementation and monitoring of salt reduction strategies.

The WHO recognises that while salt reduction is recommended globally, there is concern that iodine deficiency disorders (IDD) may re-emerge as iodized salt is the main vehicle for dietary iodine intake through fortification. Therefore the WHO, in recognition of the importance of both sodium reduction and iodine fortification, urges that efforts of the two programs be coordinated [6].

Substantial overall benefits can result from even small reductions in the population's blood pressure. Population-wide efforts to reduce dietary sodium intake are a cost-effective way to reduce overall hypertension levels and subsequent cardiovascular disease. Evidence shows that keeping sodium consumption within the reference level could prevent an estimated premature 2.5 million deaths each year globally [7].

Recommendations

WMA and its Constituent Members should:

1. Urge governments to recognise that salt consumption is a serious public health problem and prioritise prevention as an equitable, cost effective and lifesaving population-wide approach to

address high sodium intake and the associated high burden of cardiovascular diseases.

2. Work in cooperation with national and international health organisations to educate consumers from childhood about the effects of excessive sodium intake on hypertension and cardiovascular disease, the benefits of long-term reductions in sodium intake, and about the dietary sources of salt/sodium and how these can be reduced.
3. Urge the governments and other stakeholders work together to achieve the targets set in the Global Action Plan for the Prevention and Control of NCDs 2013–2020.
4. Recognise the critical role of the food processing and food services industry in reducing dietary sodium, and support regulatory efforts involving mandatory targets in food processing, sodium content of foodstuffs, and clear labelling. Food reformulation efforts must target food products that are most commonly consumed in the population.

Constituent members of WMA should:

1. Encourage their governments strictly to enforce laws regulating the sodium content in processed foods.
2. Embrace a multi stakeholder approach in working towards reducing the consumption of excessive sodium by the population, including active promotion of physician awareness regarding the effects of excessive dietary sodium.
3. Recognise that sodium reduction and salt iodization programmes need to be compatible and support sodium reduction strategies that do not compromise dietary iodine content, or increase or worsen iodine deficiency disorders, especially in low income settings.
4. Contribute to making the public aware of the potential consequences of low iodine levels as a result of restricted iodized salt intake.
5. Encourage their members to contribute to scientific research on sodium reduction strategies.
6. Encourage the initiation of food labeling, media campaigns and population-wide policies such as mandatory reformulation to achieve larger reductions in population-wide salt consumption than individually focused interventions.

Individual physicians should:

1. Counsel patients about the major sources of sodium in their diets and how to reduce sodium intake, including reducing the amount of salt used in cooking at home, use of salt substitutes, and addressing any relevant local practices and beliefs that contribute to high sodium intake.

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WMA Statement on Solitary Confinement

Adopted by the 65th WMA General Assembly, Durban, South Africa, October 2014 and amended by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

Preamble

1. In many countries, a substantial number of prisoners are held in solitary confinement. Solitary confinement is a form of confinement used in detention settings where individuals are separated from the general detained population and held alone in a separate cell or room for upwards of 22 hours a day. Jurisdictions may use a range of different terms to refer to the process (such as segregation, separation, isolation or removal from association) and the conditions and environment can vary from place to place. However, it may be defined or implemented, solitary confinement is characterised by complete social isolation; a lack of meaningful contact; and reduced activity and environmental stimuli. Some countries have strict provisions on how long and how often prisoners can be kept in solitary confinement, but many countries lack clear rules on this.
2. Solitary confinement can be distinguished from other brief interventions when individuals must be separated as an immediate response to violent or disruptive behaviour or where a person must

be isolated to protect themselves or others. These interventions should take place in a non-solitary confinement environment.

3. The reasons for the use of solitary confinement vary in different jurisdictions and it can be used at various stages of the criminal justice process. It may be used as a disciplinary measure for the maintenance of order or security; as an administrative measure, for the purposes of investigation or questioning; as a preventive measure against future harm (either to the individual or to others); or it may be the consequence of a restrictive regime that limits contact with others. It can be imposed for hours to days or even years.

Medical impacts of solitary confinement

4. People react to isolation in different ways. For a significant number of prisoners, solitary confinement has been documented to cause serious psychological, psychiatric, and sometimes physiological effects. These include insomnia, confusion, hallucinations, psychosis, and aggravation of pre-existing health problems. Solitary confinement is also associated with a high rate of suicidal behaviour. Negative health effects can occur after only a few days and may in some cases persist when isolation ends.
5. Certain populations are particularly vulnerable to the negative health effects of solitary confinement. Persons with psychotic disorders, major depression, or post-traumatic stress disorder or people with severe personality disorders may find isolation unbearable and suffer considerable health harms. Solitary confinement may complicate treating such individuals and their associated health problems successfully later in the prison environment or when they are released back into the community. Prisoners with physical disabilities or other medical conditions often have their conditions aggravated, not only as a result of the physical conditions of isolation, but also as the particular health requirements linked to their disability or condition are often not accommodated.
6. For children and young people, who are in the crucial stages of developing socially, psychologically, and neurologically, there are serious risks of solitary confinement causing long-term mental and physical harm. A growing international consensus about the harms of solitary confinement on children and young people has resulted in some jurisdictions abolishing the practice completely.

International norms on solitary confinement

7. The increasing documentation on the harmful impact of solitary confinement on the health of prisoners led to the development of a range of international norms and recommendations seeking to mitigate the use and the harmful effect of solitary confinement.
8. The United Nations Standard Minimum Rules for the Treatment of Prisoners (SMR) were first adopted in 1957, and revised in 2015 as the [Nelson Mandela Rules](#) unanimously adopted by the United Nations Assembly. The SMR constitute the key international framework for the treatment of prisoners.

9. Other international standards and recommendations, such as the [*United Nations Rules for the Treatment of Women Prisoners and Non-Custodial Sanctions for Women Offenders \(the Bangkok Rules\)*](#), the [*United Nations Rules for the Protection of Juveniles Deprived of their Liberty*](#) and the observations of the [*Special Rapporteur on Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment*](#), support and complete the Nelson Mandela Rules.
10. The misuse of solitary confinement can include indefinite or prolonged solitary confinement (defined as a period of solitary confinement in excess of 15 days), but can also include corporal or collective punishment, the reduction of a prisoner's diet or drinking water, or the placement of a prisoner in a dark or constantly lit cell. Misuse of solitary confinement in these ways can constitute a form of torture or ill-treatment and as such must be prohibited in line with international human rights law and medical ethics.
11. The WMA and its members reiterate their firm and long-standing position condemning any forms of torture and other cruel, inhuman or degrading treatment or punishment and reaffirm the basic principle that doctors should never participate in or condone torture or other cruel, inhuman or degrading treatment.

Recommendations

12. Given the harmful impact of solitary confinement, which can on occasion result in a form of torture or ill-treatment, the WMA and its members call for the implementation of the Nelson Mandela Rules and other associated international standards and recommendations, with a view to protect the human rights and the dignity of the prisoners.
13. The WMA and its members emphasize in particular the respect of the following principles:
14. In light of the serious consequences solitary confinement can have on physical and mental health (including an increased risk of suicide or self-harm), it should be imposed only in exceptional cases as a last resort and subject to independent review, and for the shortest period of time possible. The authority imposing the solitary confinement must be acting in line with clear rules and regulations as to its use.
15. All decisions on solitary confinement must be transparent and regulated by law. The use of solitary confinement should be time-limited by law. The detainee should be informed of the duration of the isolation, and the period of duration should be determined before the measure takes place. Prisoners subject to solitary confinement should have a right of appeal.
16. Solitary confinement should not exceed a time period of 15 consecutive days. Releasing the prisoner from solitary confinement for a very limited period of time, with the intention that the individual will be placed in solitary confinement immediately again to get around the rules on length of stay must also be prohibited.

Prohibitions of the use of solitary confinement

17. The indefinite or prolonged solitary confinement should be prohibited as amounting to torture or other cruel, inhuman or degrading treatment or punishment [1].
18. Solitary confinement should be prohibited for children and young people (as defined by domestic law), pregnant women, women up to six months post-partum, women with infants and breastfeeding mothers as well as for prisoners with mental health problems given that isolation often results in severe exacerbation of pre-existing mental health conditions.
19. The use of solitary confinement should be prohibited in the case of prisoners with physical disabilities or other medical conditions where their conditions would be exacerbated by such measures.
20. Where children and young people must be separated, in order to ensure their safety or the safety of others, this should be carried out in a non-solitary confinement setting with adequate resources to meet their needs, including ensuring regular human contact and purposeful activity.

Conditions of solitary confinement

21. The human dignity of prisoners confined in isolation must always be respected.
22. Prisoners in isolation should be allowed a reasonable amount of meaningful regular human contact, activity, and environmental stimuli, including daily outside exercise. As with all prisoners, they must not be subjected to extreme physically and/or mentally taxing conditions.
23. Prisoners who have been in solitary confinement should have an adjustment period, including a medical examination, before they are released from prison. This must never extend their period of incarceration.

Role of physician

24. The physician's role is to protect, advocate for, and improve prisoners' physical and mental health, not to inflict punishment. Therefore, physicians should never participate in any part of the decision-making process resulting in solitary confinement, which includes declaring an individual as "fit" to withstand solitary confinement or participating in any way in its administration. This does not prevent physicians from carrying out regular visits to those in solitary confinement to assess health and provide care and treatment where necessary, or from raising concerns where they identify a deterioration in an individual's health.
25. The provision of medical care should take place upon medical need or the request of the prisoner. Physicians should be guaranteed daily access to prisoners in solitary confinement, upon their own initiative. More frequent access should be granted if physicians deem this to be necessary.
26. Physicians working in prisons must be able to practice with complete clinical independence from the prison administration.

In order to maintain that independence, physicians working in prisons should be employed and managed by a body separate from the prison or criminal justice system.

27. Physicians should only provide drugs or treatment that are medically necessary and should never prescribe drugs or treatment with the intention of enabling a longer period of solitary confinement.
28. Healthcare should always be provided in a setting that respects the privacy and dignity of prisoners. Physicians working in the prison setting are bound by the same codes and principles of medical ethics as they would be in any other setting.
29. Physicians should report any concerns about the impact solitary confinement is having on the health and wellbeing of an individual prisoner to those responsible for reviewing solitary confinement decisions. If necessary, they should make a clear recommendation that the person be removed from solitary confinement, and this recommendation should be respected and acted upon by the prison authorities.
30. Physicians have a duty to consider the conditions in solitary confinement and to raise concerns with the authorities if they believe that they are unacceptable or might amount to inhumane or degrading treatment. There should be clear mechanisms in place in each system to allow physicians to report such concerns.

Reference.

1. Rule 43 SMR

WMA Resolution on Legislation Against Abortion in Nicaragua

Adopted by the 60th WMA General Assembly, New Delhi, India, October 2009, and amended by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

Whereas

In 2006, Nicaragua adopted a penal code that criminalises abortion in all circumstances, including any medical treatment of a pregnant woman which results in the death of or injury to an embryo or fetus.

According to the [UN Population Fund](#) (UNFPA), despite improvement of national sexual and reproductive health indicators, Nicaragua continues to have one of the highest teenage pregnancy and maternal mortality rates in the Americas region, in particular in lower income rural population groups.

This legislation:

- Has a negative impact on the health of women in Nicaragua resulting in preventable deaths of women and the embryo or fetus they are carrying.
- Places physicians at risk of imprisonment if they carry out abortions, even to save a pregnant woman's life, unless they follow the Nicaraguan Ministry of Health's (MINSAL) 2006 Obstetric Protocols designed for high emergency care alone.
- Requires physicians to report to police, women and girls for suspected abortions, in breach of their duty of confidentiality towards patients and placing them in a conflict between the law and medical ethics.

The [WMA Statement on Medically-Indicated Termination of Pregnancy](#) (October 2018) provides that: “National laws, norms, standards, and clinical practice related to termination of pregnancy should promote and protect women's health, dignity and their human rights, voluntary informed consent, and autonomy in decision-making, confidentiality and privacy. National medical associations should advocate that national health policy upholds these principles.”

The WMA reiterates its [Resolution on Criminalisation of Medical Practice](#) (October 2013) recommending that its members “oppose government intrusions into the practice of medicine and in healthcare decision making, including the government's ability to define appropriate medical practice through imposition of criminal penalties.”

THEREFORE, the World Medical Association and its constituent members urge the Nicaraguan government to repeal its penal code criminalizing abortion and develop in its place a legislation that promotes and protects women's human rights, dignity and health, including adequate access to reproductive healthcare, and that allows physicians to perform their duties in line with medical ethics and particularly medical confidentiality.

WMA Resolution on Climate Emergency

Adopted by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

Health professionals have an important role in advocating to protect the health of citizens around the world, and therefore have a responsibility to demand greater action on climate change.

The UN summit on climate action that took place in September 2019 further demonstrated the growing recognition that climate

change action must be accelerated, with many countries making commitments to achieving net zero emissions by 2050 and others committing to boost national action plans by 2020.

There is emerging consensus within the medical profession globally that action on climate change must be accelerated.

The WMA and its constituent members and the international health community:

- declare a climate emergency and call the international health community to join their mobilisation;
- commit to advocate to protect the health of citizens across the globe in relation to climate change;
- urge national government to rapidly work to deliver carbon neutrality by 2030, so as to minimise the life-threatening impacts of climate change on health;
- must acknowledge the environmental footprint of the global healthcare sector, and act to reduce waste and prevent pollution to ensure healthcare sustainability.

WMA Resolution on the Revocation of Who Guidelines on Opioid Use

Adopted by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

The World Medical Association expresses concern about the abrupt discontinuation of WHO 2011 guidance “*Ensuring balance in national policies on controlled substances: Guidance for availability and accessibility of controlled medicines*”, as well as its 2012 “*WHO guidelines on the pharmacological treatment of persisting pain in children with medical illnesses*”.

This revocation, which took place last Summer without consulting the medical community, will deprive many physicians of support and regulation in countries without related national legislation, thus endangering their medically justified use of such substances. Ultimately, suffering patients will not have access to proper medication.

The WMA notes that the withdrawal was decided unilaterally, without providing any supporting evidence and without including any replacement or substitution. Moreover, the discontinued guidelines were fully removed from WHO online publications portal, thus impeding the ability of physicians to justify and validate retrospectively

the use of controlled substances, exposing them potentially to criminal prosecution.

Without further information, the WMA considers it necessary to reinstate the mentioned guidelines until they are replaced by new or amended ones.

The WMA demands the adherence to the principle of evidence-based development of treatment guidelines. This should apply to the definition, amendment and discontinuation of such guidance in addition to the application of a precautionary principle. Evidence supporting the revocation of the opioid-guidelines must be published and made available for scientific scrutiny.

The WMA welcomes the efforts to assemble a new team of experts and strongly recommends an open and transparent process, including a reliable mechanism to ensure the disqualification of experts with conflicts of interest.

WMA Statement on Violence and Health

Adopted by the 54th WMA General Assembly, Helsinki, Finland, September 2003 and reaffirmed by the 59th WMA General Assembly, Seoul, Korea, October 2008 and revised by the 70th WMA General Assembly, Tbilisi, Georgia, October 2019

Preamble

Violence is defined as “the intentional use of physical force or power, threatened or actual, against oneself, or against a group or community that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment or deprivation.”

Violence is multi-dimensional, has multiple driving factors, and can be physical, sexual, psychological or exerted through acts of deprivation or neglect.

The World Medical Association (WMA) has developed policies condemning different forms of violence. These include statements on Violence Against Women and Girls, Family Violence, Child Abuse and Neglect, Abuse of the Elderly, Adolescent Suicide, Violence in the Health Sector by Patients and those close to them, Protection of Health Care Workers in Situation of Violence, WMA Declaration on Alcohol and the WMA Statement on Armed-Conflicts.

Violence is a manifestation of the health, socio-economic, policy, legal, and political conditions of a country. It occurs in all social classes and is strongly associated with leadership failure and poor governance, and social determinants such as unemployment, poverty, health and gender inequality, and poor access to educational opportunities.

Despite regional and country-wide disparities in the scale and burden of violence, along with the under reporting of data, it is evident that violence results in fatal and non-fatal consequences. These include the devastation of individual, family, and community life, as well as disruption of the social, economic, and political development of nations.

Violence impacts the economy because of increased health and administrative expenditures by the criminal justice, law enforcement, and social welfare systems. It also has negative impact on a nation's productivity because of a loss in human capital and the productivity of the workforce.

Impact on Health

The effects of violence on health vary and can be life-long. Health consequences include physical disability, depression, post-traumatic stress disorder and other mental health challenges, unwanted pregnancies, miscarriages, and sexually transmitted infections.

Behavioral risk factors such as substance use, which can give rise to violent behaviour, are also risk factors for cancer, cardiovascular and cerebrovascular diseases.

Direct victims of violence are prone to traumatizing experiences such as physical, sexual and psychological abuse, and may be unwilling or unable to disclose or report their experiences to appropriate authorities due to shame, cultural taboo, fear of societal stigma or reprisal, and the justice system's undue delay in dispensing justice.

In institutions such as healthcare facilities, violence is often interpersonal in nature, and may be perpetrated against patients by healthcare workers, or against health care workers by patients and their caregivers, or among healthcare personnel in the form of bullying, intimidation, and harassment.

Additionally, healthcare professionals and healthcare facilities are increasingly subjected to violent attacks. Such violence and targeted attacks on healthcare facilities, healthcare personnel, and the sick and wounded are in direct breach of medical ethics, international humanitarian and human rights laws.

Though many countries are increasingly accepting the need to institute violence prevention programs in their respective jurisdictions, the field of violence prevention and management still faces many challenges. Challenges include inadequate or non-existent reporting of data, inadequate investment in violence prevention programs and support services for victims of violence, and failure to enforce existing laws against violence, including measures to restrict access to alcohol.

Recognizing that violence remains a significant public health challenge which is multi-dimensional and preventable in nature, and affirming the pre-eminent role of physicians as role models, and in the care and support of victims of violence, the WMA commits itself to act against this global scourge.

Recommendations

WMA encourages its constituent members to:

1. Educate and advise political and public office holders at all levels of government with appropriate and adequate knowledge and scientific evidence on the benefits of investing more resources in violence prevention.
2. Advocate for and support good governance based on the rule of law, transparency, and accountability.
3. Conduct and support effective media campaigns to inform and raise the public's awareness on the burden and consequences of violence and the need to prevent it.
4. Raise public awareness of international laws, norms, and ethical codes that mandate the protection of healthcare workers and facilities in times of peace and conflict.
5. Advocate for and promote the inclusion of courses on violence and its prevention in academic curricula, including those for undergraduate and postgraduate medical training and Continuing Medical Education (CME).
6. Consider organizing capacity building and CME programs for physicians on violence prevention, caring for victims of violence, emergency preparedness and response, and early recognition of signs of interpersonal and sexual violence.

The WMA urges governments to:

1. Work towards achieving a zero-tolerance for violence, through prevention programs, establishment of violence prevention and victim support clinics, establishment of safe domestic violence shelters, increased public and private investment in public safety, security, and strengthening of health and educational institutions.
2. Encourage collaborative action on violence prevention, with integrated violence prevention and victim support in health care institutions.

3. Promote social justice and equity by eliminating inequities and inequalities that may create the conditions for violence.
4. Focus on addressing social determinants of health through the creation and improvement of socio-economic, educational and health infrastructure and opportunities, and elimination of adverse and oppressive cultural attitudes and practices and all forms of inequality or discrimination on the basis of gender, creed, ethnic origin, nationality, political affiliation, race, sexual orientation, social standing, disease or disability.
5. Secure the enactment and enforcement of policies and laws on violence prevention, protection and support of victims of violence, and punishment of offenders.
6. Strengthen institutions concerned with public safety and security.
7. Develop policies and enforce legislations that regulate access to alcohol.
8. Develop and implement effective legal frameworks that protect individuals and entities that deliver healthcare. Such frameworks should guarantee the protection of physicians and other healthcare professionals, as well as the free and safe access of healthcare personnel and patients to health care facilities.
9. Support comprehensive research studies on the nature and character of the various forms of violence, including the effectiveness of response strategies, to assist them in the preparation and implementation of policies, laws and strategies on violence prevention, protection and support of victims, and punishment of perpetrators.
10. Initiate and foster multi-stakeholder involvement and collaboration among relevant bodies and organizations at global, national, state and local levels, in the development, implementation and promotion of violence prevention and management strategies, including engagement of traditional, religious, and political leaders.
11. Develop robust multi-sectoral partnerships at local, state and national levels with violence prevention made a priority concern in all government ministries, including health, education, labour, and defense ministries.
12. Institute a Safe Care Initiative that guarantees the safety and security of physicians and other healthcare workers, patients, healthcare facilities, and the uninterrupted delivery of healthcare services in times of peace and conflict.
13. The initiative should include the following components:
 - Routine violence risk audit.
 - Efficient and effective violence surveillance and reporting mechanisms.
 - Transparent and timely investigation of all reported cases of violence.
 - A system for protecting patients and healthcare personnel who report cases of violence.
 - Legal support for physicians and other healthcare workers subjected to violence in the workplace.
 - Establishment of security posts in healthcare facilities as deemed necessary.
 - Financial coverage for injured medical personnel and other healthcare workers.
 - Compensated time off for injured medical personnel and other healthcare workers.

United Nations Climate Action Summit

The United Nations Climate Action Summit was held in New York at UN Headquarters on 21–22 September 2019. This weekend prefaced the high-level meetings by heads of state and government officials from around the world that started on 23 September. Representatives from governmental and non-governmental organizations from around the world attended. World Medical Association was represented at the Climate Action Summit by Dr. Mike Kalmus-Elias from the Junior Doctors Network and Dr. Yoshitake Yokokura, past president of the WMA. Additionally, a few other WMA members were present representing other organizations at the coalition meetings pre-

ceding the summit. I was present as a representative of Physicians for Social Responsibility (PSR), the United States chapter of International Physicians for the Prevention of Nuclear War (IPPNW). PSR has two primary national aims – the prevention of nuclear war and climate change.

One of the tracks was on air pollution, entitled, “Climate Action for Health: Cut Emissions, Clean our Air, and Save Lives” moderated by Lucia Ruiz Ostoic, the Minister of Environment for Peru. There was also a special appearance, speech, and plea by Dr. Tedros Ghebreyesus, Director-General of the World Health Organization.



Ankush K. Bansal

An informative and sobering presentation, a call to action, was given by Dr. Arvind Kumar, a leading pulmonologist in New Delhi, India. New Delhi has one of the highest levels of air pollution globally, a fact that I can personally attest to, with PM2.5 levels consistently many times over the maximum safe limit. In 2018, the average PM2.5 level was 14.3 times over the safe limit. This was equivalent to smoking 6.5 cigarettes per day. In fact, a teenager living his/her whole life in the Delhi Metropolitan Area (DMA) had the level of pollution and particulate matter in his/her lungs as a lifelong smoker, even if this teenager never smoked a single cigarette. Furthermore, from 1988 to 2018, the rate of lung cancer among non-smokers in the DMA rose from 10% to 50%, with the average age of diagnosis dropping from 50–60 to 30–40, even factoring in earlier diagnosis during this same time period, and increase in diagnosis in women rising from almost non-existent to 40%. The sobering statistic for populations is that based on previous studies, breathing polluted air was equivalent to smoking at a rate of 22 mcg/m³ of pollutants, equal to 1 cigarette. This included newborns and children which has been found to result in neuroinflammation and reduced cognitive development. In adults, it increases the risk of stroke by at least 5 times. Additionally, air pollution results in infertility, miscarriage, preterm and low-birth-weight infants, and congenital abnormalities. Up to 7 million premature deaths per year worldwide have been attributed to air pollution according to the WHO. This is the reason that reducing air pollution and mitigating its effects is so critical and emergent.

Leaders from government and non-governmental organizations then provided exam-

ples of solutions, trials, and collaborations to tackle this. While the DMA may be one of the most extreme examples in the world, air pollution affects all of us. The mayors of Accra and Seville; the Ministers of Health, Environment/Climate, or Energy from the United Arab Emirates, Finland, and Norway; the European Union Commissioner for Environment; and the Directors of Healthcare Without Harm and the Clean Air Fund made presentations on work being done. Cities in Spain and in South America are working together to reduce air pollution by redesigning cities through decentralization of services, increasing bicycle and pedestrian lanes with improvement in access to social, occupational, and retail services through decentralization. Furthermore, some cities are utilizing pollution sensors with less expensive versions being developed so that the population can be notified accordingly. While these measures will result in some improvement in local pollution levels and future city planning/development, the causes of air pollution on a larger scale need to be addressed fully and urgently. Here, the national ministers provided examples of how their governments are committed to solutions. However, no specific examples beyond voluntary international agreements were provided. Partially because of this, the Clean Air Fund was created and was formally introduced to the world in the subsequent days at the United Nations to bring awareness and encourage pressure on governments to act.

It is of note that recent research has shown that air pollution, particularly among the wealthiest nations, is increasing, contrary to what scientific consensus strongly recommends occur as soon as possible. For example, in the United States, in 2018, there

were an additional 10,000 deaths attributed to air pollution, specifically PM2.5 pollution, compared to 2 years prior. This was after a decline to almost half from 2000 levels. Even if the increase in wildfires in the western United States during the preceding 3 years were considered, the rise in air pollution would continue.

Therefore, as physicians of the world who encounter the effects of climate change regularly, including air pollution, it is our responsibility to advocate for our patients' health to our respective governments. Decentralization, pedestrian and bicycle-friendly cities, and pollution sensors are a start but even as the mayors and ministers present at the Summit stated, it is not enough or comprehensive.

The Environmental Caucus at the World Medical Association meets during the council sessions and is open to all WMA members. The Caucus discusses measures being taken in participant's respective countries, news from recent international meetings, upcoming meeting announcements, and drafts documents for the Council to consider regarding the environment and climate change.

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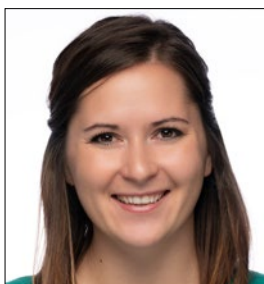
The Role of Physicians in Fighting Climate Change



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In 1958, a team of researchers installed their equipment on the top of the Mauna Loa, one of the five volcanoes on the island of Hawaii. Led by Charles David Keeling, they started monitoring the level of atmospheric CO₂ concentration. Since then, the verdict is unequivocal: the CO₂ concentration in the atmosphere is consistently increasing from year to year. This is now known as the *Keeling curve*.

At that time, only a handful of individuals were starting to worry about climate change. However, greenhouse gases (GHGs) have increased in such a way that effects of climate change have already started being felt by people around the globe, increasing as consistently as the *Keeling curve*. What was once a scientific matter is now a public health matter.

Climate change has been called the greatest threat to global health in the 21st century [1]. We could lose decades of global health advancement [2] and face about 250 000 additional deaths each year between 2030 and 2050 [3]. This article aims to explain key impacts of climate change on health and what physicians can do about it, specifically focusing on the global protest movements that have started occurring globally.

Health Impacts of Climate Change

Heat waves

"July has re-written climate history, with dozens of new temperature records at local, national and global level," recently commented Petteri Taalas, Secretary-General of the World Meteorological Organization [4]. Indeed, many cities in Europe saw their thermometers reach temperatures as high as 45 °C in July.

Each decade since the 1980s has been hotter than the previous [5]. We expect that hot days and nights will be warmer and more frequent and that periods of intense heat will occur more frequently and will be longer in parts of Europe, Asia, the Americas and Australia [6]. This will affect the health of our communities, particularly the most vulnerable (older populations, people living with chronic diseases, such as cardiovascular, respiratory or renal diseases, people dealing with psychiatric issues and people living in urban areas, particularly those in neighborhoods with lower socioeconomic status). According to the 2018 report of *The Lancet* countdown on health and climate change, there were 18 million more heat wave exposure affecting vulnerable people in 2017 than in 2016, and over 157 million more than the 2000s baseline [7]. The

healthcare system and its workers must be ready to address the challenges related to this important exposure.

Air pollution

Climate change and air pollution are closely related, both driven by fossil fuel burning, and because of the impact of the former on the latter. Indeed, climate change could worsen air quality with increased levels of tropospheric ozone, a lengthened pollen season and an increased number of forest wildfires [8].

For example, in urban areas, tropospheric ozone can increase in response to high temperatures. It is hence predicted that there would be more ozone-related mortality with a global warming of 2 °C than with warming of 1.5 °C [9].

Currently, over 90% of the urban population of the world breathes air containing levels of outdoor air pollutants that exceed WHO's guidelines [10]. This can contribute to strokes, ischaemic heart disease, chronic obstructive pulmonary disease and lung cancer. Estimates say that 7 million people die each year from outdoor and indoor air pollution; one in eight deaths annually [11]. Reducing fossil fuel burning would have an impact on both climate change and air pollution-related diseases.

Extreme weather events

In November last year, the state of California had to deal with the Camp Fire, the largest and the deadliest wildfire in its history as 153,336 acres were progressively burned [12]. 85 people died, many were injured, and the smoke from the fire caused widespread air pollution. A few weeks later, a United States report underlined that climate change would increase the quantity of wildfires and their size in the country [13]. Globally, from 1979 to 2013, fire seasons have lengthened in time by almost 19% and across 25.3% of the vegetated surface of the Earth [14]. Forest fires are expected to continue to increase in many parts of the world because of climate change [15].

This increase is also observed in other extreme weather events (EWE): droughts, heavy rains, violent tropical cyclones and floods [16]. While EWE cause direct impacts such as trauma and increases in diarrheal diseases, many people also experience stress and serious mental health consequences. For example, among a population sample affected by Hurricane Katrina, suicide and suicidal ideation more than doubled, one in six people met the diagnostic criteria for post-traumatic stress disorder (PTSD), and 49% of people living in an affected area developed an anxiety or mood disorder such as depression [17]. With a changing climate, we will have to face the added stress from increased EWE on the healthcare system.

Infectious diseases

The National Institute of Public Health of Quebec in Canada is currently working on a public education campaign on Lyme's disease. This disease, transmitted by a tick, has been in Quebec for only a few years, but it is now constantly gaining ground with the climate becoming more favorable [18]. This is the case for many vector-borne diseases around the world that will cover new areas as the climate change. *Aedes aegypti* and *Aedes albopictus* are two kinds of mosquitoes

that can transmit viruses like dengue, yellow fever, chikungunya and zika. It is expected that the geographical distribution of these mosquitoes will grow with climate change, but also that their ability to act as a vector and transmit diseases will increase [19].

The case of malaria is particularly worrisome. The WHO predicts that climate change could result in 60,000 additional malaria deaths by 2030, even with improvements in our control methods [20]. During the next century, the geographical reach of malaria and the period of transmission could both increase, exposing ever-growing numbers of people to this deadly disease [21].

It is also predicted that climate change will increase morbidity and mortality from various diarrheal illnesses such as *vibrio cholera* cases which have been linked to high temperatures and heavy rainfalls [22, 23].

These changes in the pattern of infectious diseases related to climate change will need to be dealt with globally and are in certain cases linked to global health security.

Food security

A recent analysis from the World Resources Institute, identified that nearly a quarter of the world's population, in just 17 countries, are in severe water shortage [24]. At this moment, drinking water levels are decreasing; food yields from ocean are waning; and crops yields are declining as they are impacted by rising temperatures and extreme weather events. Climate stress represents 62.5% of all stressors accelerating soil degradation in Africa [25]. All aspects of food security could be affected by climate change according to the IPCC [26]. The progress of recent decades in the fight to end hunger in developing countries and the access to food globally are at stake.

Climate change could push 3 to 16 million people into extreme poverty [27] and it could force people to flee their homes in or-

der to survive. The Red Cross believes that environmental crises are already generating more refugee flows than armed conflict [28]. In 2010, more than 42 million people worldwide were displaced due to sudden natural disasters, and it is that 90% of those were due to climate change [29].

The Role of Physicians

Climate change is already affecting the health of people around the world and its impacts are expected to grow. Even if all emissions of greenhouse gas (GHG) were reduced to zero tomorrow, we would still feel the impact, due to the effects of the cumulative GHG emissions [30]. As physicians caring for the health of our communities, we have a role to play in fighting climate change. The Canadian Association of Physicians for the Environment dedicated an entire chapter of its *Climate Change Toolkit for Health Professionals* as to what we can do [31].

Physicians hold a privileged position in society as trusted health authorities. We can be powerful messengers, informing our patients and the public about the health impacts of climate change and give ideas for action. We also have a responsibility to ensure that the health co-benefits of environmental policies are well understood by the public and by policymakers.

Engaged doctors can, for example, carry messages on a wide range of health benefits that result from "healthy transport" measures such as active transport (walking and cycling) and better urban planning based upon low-emissions public transport systems. Physical activity from walking and cycling can help prevent heart disease, type 2 diabetes, and some obesity-related risks. Increased use of non-vehicular transport also leads to lower rates of traffic injuries and less noise pollution. Active transport systems along with better urban land use can help improve healthcare access for vulnerable groups, enhancing health equity [32].

We can also help our hospitals and clinics to adapt to climate change, making sure we are prepared, and contribute to making the healthcare system greener. Indeed, GHG emissions from the health sector are growing and currently represent 5 to 8% of the total emissions in high-income countries [33]. Many solutions exist, and physicians can help implement them. According to a new report published by Healthcare Without Harm, if the global healthcare system was a country, it would be the fifth largest emitter on the planet [32]. Physicians are well placed to initiate changes in their institution and to reduce greenhouse gas emissions from the healthcare sector.

This is also true at an international level. The involvement of the health community during the previous UN Framework Convention on Climate Change Conferences of Parties (COPs) have led to the insertion of “the right to health” in the Paris Agreement. It was specified that “parties should, when taking action to address climate change, respect, promote and consider their respective obligations on the right to health” [34]. At the COP24, a call to action on climate and health was issued by organizations representing over 5 million doctors, nurses and health professionals in over 120 countries [35]. By pushing governments to meet the targets of the Paris Agreement, we could save over one million lives a year from air pollution alone by 2050 [36].

Climate Health Education

Climate change has various and serious implications for human health and as such are of fundamental relevance to future and current doctors [37]. Since July 2017, the accreditation process of the Association of Faculties of Medicine of Canada (AFMC) requires all medical schools to have a social accountability mandate. Social accountability has been defined by the World Health Organization as “the obligation to direct their education, research and service activities towards addressing the priority health

concerns of the community, region, and/or nation they have a mandate to serve” [38]. Additionally, ASPIRE, an international program that recognises excellence in medical education, has now outlined specific criteria on environmental accountability, including the obligation for medical schools to ensure they actively develop, promote, and protect environmentally sustainable solutions to address the health concerns of the community, region, and the nation they serve [39].

However, there is a worrisome gap in education of medical students and health professionals on this topic, leaving healthcare professionals with insufficient knowledge and skills to address climate change. As an example, presently, there is no climate change curriculum within any Canadian medical school programs [40]. The preliminary results from a survey done by the Canadian Federation of Medical Students (CFMS) suggest that students are concerned about the health impacts of climate change and believe their current teaching is insufficient [41]. A survey done by the Québec National Public Health Institute (INSPQ) in 2016 has also shown that 65% of family physicians in the province believed they lacked the required training on climate change and health issues [42].

The Canadian Medical Association (CMA), the Canadian Association of Physicians for the Environment (CAPE) and *The Lancet* have unanimously recommended that climate change be integrated into all medical and health science curricula [43]. They argue that a well-trained workforce is required to respond to the enormous challenges posed by climate change. The International Federation of Medical Students Associations (IFMSA), the world’s largest and oldest medical students’ group, representing over 1.3 million medical students in 123 countries, is also advocating for the inclusion of climate change in medical curricula around the world [44]. The Federation has collaborated with the World Health Organization (WHO) and the United Nations Framework Convention on

Climate Change (UNFCCC) to create a manual for future health professionals [45]. There is an urgent need to integrate climate change related issues within the medical curricula. Medical teachers can play a crucial role in supporting their respective faculties to develop such curricula.

Global Protest Movements

School strikes for the climate is a movement started by Greta Thunberg, a student, who, on 20 August 2018, stopped attending school until the Swedish elections three weeks later calling for more action on climate change from Swedish politicians [46]. The strikes then continued every Friday and were given the name *Fridays for Future* as students from all parts of the world joined in the movement [47]. Through 2018 and 2019, the global protest movements have increased in size and diversity of populations reached with more than 4500 climate strikes taking place in over 150 countries during the month of September 2019 [48] and bringing the estimated total number of people to an impressive 6 million [49]. This is estimated to have been the largest global protest movement [50].

Doctors and healthcare professionals have been joining the protest movement, lending their voices and those of their patients suffering from the consequences of climate change to support increase action on this emergency [51, 52]. Organizations such as Doctors for Extinction Rebellion have also formed and are calling for three simple things: telling the truth, acting now; and going beyond politics to create a citizens’ assembly [53, 54].

Climate change poses a threat to people’s health now and in the future. It is one of the most defining issues on which the generations that currently have the power to act will be judged by their successors. Knowing that each degree of warming will have a significant impact on the health of our patients and of people around the world, addressing

climate change might be the most powerful way we can improve health. Doctors around the world have a role to play in the political decisions that will shape our environment. As Rudolf Virchow said: "Medicine is a social science and politics is nothing else but medicine on a large scale."

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